MADISON PUBLIC LIBRARY MAINTENANCE & SUPPORT CENTER REMODEL

1301 WEST BADGER ROAD

DRAWING INDEX

COVER

CODE REVIEW

A001

C000

C100 C101

C102

C200

C201 C202

C203 C300

L100

CIVIL DRAWINGS

EXISTING SITE PLAN
DEMOLITION SITE PLAN
PROPOSED SITE PLAN
TURNING MOVEMENTS
PROPOSED GRADING & EROSION CONTROL PLAN
DETAILED GRADING PLAN
DETAILED GRADING PLAN
PROPOSED UTILITY PLAN
SITE PLAN DETAILS

LANDSCAPE DRAWINGS

SITE PLANTING PLAN

J AG002 STANDARDS AND WALL TYPES	5
	5
AG002 STANDARDS AND WALL TYPE	-
	LING PLAN
AD101 DEMOLITION FLOOR PLAN	LING PLAN
AD121 DEMOLITION REFLECTED CEIL	
AD141 DEMOLITION ROOF PLAN	
AD201 DEMOLITION EXTERIOR ELEV	ATIONS
A101 FIRST FLOOR PLAN	
H A102 MEZZANINE FLOOR PLAN	
A121 FIRST FLOOR REFLECTED CE	ILING PLAN
A122 MEZZANINE REFLECTED CEIL	ING PLAN
A131 FIRST FLOOR FINISH PLAN	
A132 FURNITURE AND EQUIPMENT	PLAN
A141 ROOF PLAN	
A151 ENLARGED FLOOR PLAN	
A152 ENLARGED RESTROOM FLOO	R PLANS
A201 EXTERIOR ELEVATIONS	
G A301 BUILDING SECTIONS	
A311 WALL SECTIONS	
A312 WALL SECTIONS	
A313 WALL SECTIONS	
A314 WALL SECTIONS	
A321 ENLARGED STAIR PLANS, SEC	CTIONS, & ELEVATIONS
A331 PLAN DETAILS	
A332 PLAN DETAILS	
F A351 SECTION DETAILS	
A352 SECTION DETAILS	
A401 INTERIOR ELEVATIONS	
A402 INTERIOR ELEVATIONS	
A403 INTERIOR ELEVATIONS	
A404 INTERIOR ELEVATIONS	
A501 CASEWORK SECTIONS	
A601 DOOR ELEVATIONS, DETAILS,	
A602 FINISH SCHEDULE, SPECIFICA	TIONS, AND DETAILS

STRUCTURAL DRAWINGS

GENERAL NOTES FOUNDATION PLAN MEZZANINE FRAMING PLAN HIGH ROOF FRAMING PLAN FOUNDATION DETAILS FRAMING DETAILS FRAMING DETAILS

MECHANICAL DRAWINGS

S000

S101

S102

S103 S201 S301

S302

M000

COVER SHEET - MECHANICAL FIRST FLOOR DEMOLITION - MECHANICAL **ROOF DEMOLITION PLAN - MECHANICAL** SITE PLAN - MECHANICAL FIRST FLOOR - PIPING **FIRST FLOOR - MECHANICAL ROOF PLAN - MECHANICAL** FLOW DIAGRAM - MECHANICAL VRF PIPING DIAGRAMS **DETAIL - MECHANICAL DETAIL - MECHANICAL GEOTHERMAL DETAILS - MECHANICAL CONTROL DIAGRAMS - MECHANICAL CONTROL DIAGRAMS - MECHANICAL CONTROL DIAGRAMS - MECHANICAL CONTROL DIAGRAMS - MECHANICAL** SCHEDULES - MECHANICAL

SCHEDULES - MECHANICAL

ARCHITECT OF RECORD: OPN ARCHITECTS

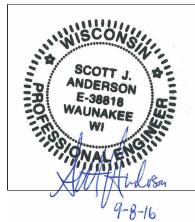


I hereby certify these plans and specifications were prepared by me or under my direct personal supervision and that I am a duly Registered Architect under the laws of the State of Wisconsin. Signature: Very 7. Reyalde Name: WESLEY REYNOLDS Dicipline: ARCHITECTURE WI Registration No: 11709-5 Expiration date: 07/31/2018

Sheets covered by this seal: LISTED ABOVE AS "ARCHITECTURAL"

CIVIL ENGINEER:

SNYDER & ASSOCIATES



I hereby certify that this engineering and land survey document and the related work was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer and Land Surveyor under the laws of the State of Iowa.

Name: Scott Anderson

Discipline: Civ

WI Registration No: E-38818-6 Expiration date: 07-31-2018 Sheets covered by this seal: _____LISTED ABOVE AS "CIVIL"

12

ELECTRICAL DRAWINGS

E000

E050

ELD101.1

EPD101.

EL101.1

EP101.1

ES101.1

E400

E500

P000

PD100.1

PD101.1

PD102.1

P100.1

P101.1

P102.1

P200

P500

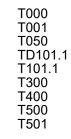
P300 P301

E501

ELECTRICAL COVER SHEET SITE PLAN - ELECTRICAL **FIRST FLOOR DEMOLITION - LIGHTING** FIRST FLOOR DEMOLITION - POWER **FIRST FLOOR - LIGHTING FIRST FLOOR - POWER FIRST FLOOR - FIRE ALARM** ONE LINE DIAGRAM ELECTRICAL SCHEDULES ELECTRICAL SCHEDULES

PLUMBING DRAWINGS

COVER SHEET - PLUMBING UNDERFLOOR DEMOLITION - PLUMBING FIRST FLOOR DEMOLITION - PLUMBING **ROOF PLAN DEMOLITION - PLUMBING** UNDERFLOOR - PLUMBING **FIRST FLOOR - PLUMBING** ROOF PLAN - PLUMBING DETAILS - PLUMBING SAN VENT RISER DIAGRAMS - PLUMBING DOMESTIC RISER DIAGRAMS - PLUMBING MATERIAL LIST - PLUMBING



F000 FD101.1 F101.1 F200

TECHNOLOGY DRAWINGS

TECHNOLOGY COVER SHEET GENERAL TECHNOLOGY EQUIPMENT SCHEDULE SITE PLAN - TECHNOLOGY FIRST FLOOR DEMOLITION - TECHNOLOGY FIRST FLOOR - TECHNOLOGY **ENLARGED PLANS - TECHNOLOGY RISER DIAGRAMS - TECHNOLOGY** DETAILS AND SCHEDULES - TECHNOLOGY **DETAILS AND SCHEDULES - TECHNOLOGY**

FIRE PROTECTION DRAWINGS

FIRE PROTECTION COVER SHEET **FIRST FLOOR DEMOLITION - FIRE PROTECTION** FIRST FLOOR - FIRE PROTECTION FIRE PROTECTION DETAILS AND SCHEDULES

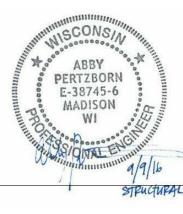
LOCATION MAP



Area Location Plan Not to scale

STRUCTURAL ENGINEER:

KJWW ENGINEERING



I hereby certify that this engineering document was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa. Name: Abby A. Pertzborn

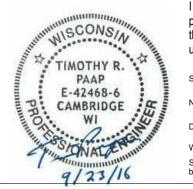
Discipline: Structural WI Registration No: E-38745-6 Expiration date: 07-31-2018 Sheets covered by this seal:_____LISTED ABOVE AS "STRUCTURAL"

MECHANICAL ENGINEER:

KJWW ENGINEERING



ELECTRICAL ENGINEER: KJWW ENGINEERING



Name: <u>Tim Paa</u>p Discipline: Electrical

MADISON, WI 53713

1301 W. BADGER ROAD -

I hereby certify that this engineering document was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

WI Registration No: E-42468-6 Expiration date: 07-31-2018 Sheets covered by this seal: _____ LISTED ABOVE AS "ELECTRICAL"

PUBLIC IMPROVEMENT PROJECT APPROVED:	PUBLIC IMPROVEMENT DESIGN
RES-16-00903	- Sur -
FILE ID: 45010	CITY ENGINEER
DATE December 6, 2016	12/14/16
BY THE COMMON COUNCIL OF MADISON, WI	DATE



OPN ARCHITECTS 301 NORTH BROOM S-TREET SUITE100 MADISON, WI 53703 608-819-0260 PHONE

608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright therete © 2016 OPN Architects, Inc.

Owner MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

General Contractor

Project Madison Public Library Maintenance & Support Center Remodel 1301 West Badger Road Madison, WI 53713

Consultants **CIVIL ENGINEER** Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

- STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date Bid Set

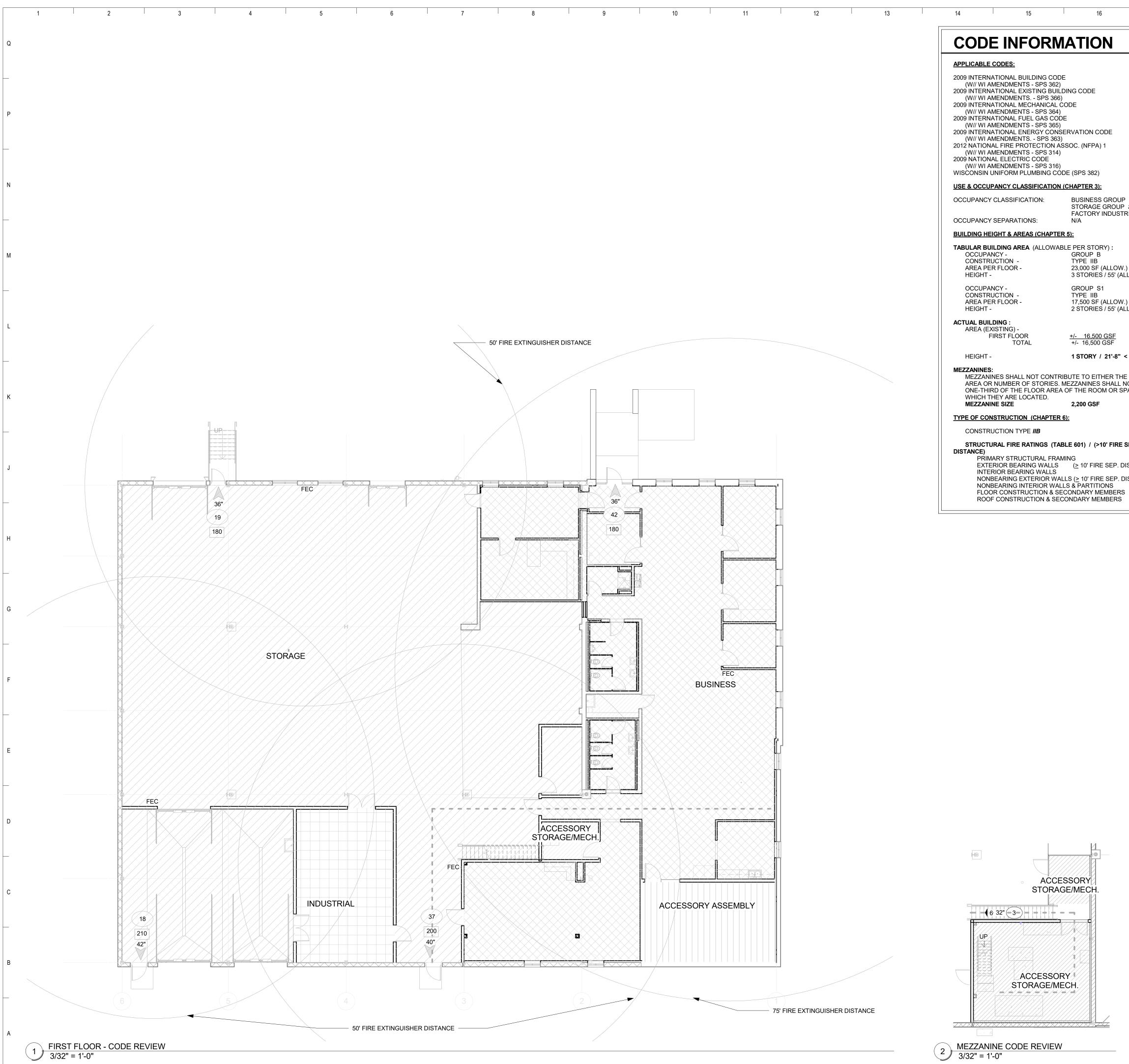
Previous Issue Dates

12/09/2016

Revision Dates

COVER SHEET





' 17	' 18 ' 19 ' 20 ' 21
Ν	
	FIRE PROTECTION (CHAPTER 9) :
	AUTOMATIC SPRINKLER SYSTEM & MONITORING SYSTEM (903) PROVIDED
	FIRE EXTINGUISHERS (906) MAX. TRAVEL DISTANCE = 75' PROVIDED
	FIRE ALARM & SMOKE DETECTION SYSTEM (907) PROVIDED
DE	MEANS OF EGRESS (CHAPTER 10) :
	1004 DESIGN OCCUPANT LOAD BUSINESS (NON-ASSEMBLY) = 4,540 SF
	100 GSF / OCCUPANT : 46 BUSINESS (UNCONCEN. ASSEMBLY / MEETING ROOMS) = 544 SF
	15 NSF / OCCUPANT : 37 MECHANICAL / ACCESSORY STORAGE = 1,098 SF 300 GSF / OCCUPANT : 4
GROUP B GROUP S1	WAREHOUSE / STORAGE = 10,970 SF 500 GSF / OCCUPANT : 22
NDUSTRIAL F1	FACTORY INDUSTRIAL / SHOP = 764 SF 100 GSF / OCCUPANT : 8
	TOTAL BUILDING OCCUPANTS (PER CODE): 116
Y):	1005 MIN. REQ'D. EGRESS WIDTH EGRESS WIDTH BUILDING (0.2" / OCCUP) - REQ'D.: 23.2" < PROV.: 196"
ALLOW.) / 55' (ALLOW.)	1014.3 COMMON PATH OF EGRESS MAXIMUM COMMON PATH =< 100 FT REQUIRED AS PER 1014.3
ALLOW.)	1016.1 TRAVEL DISTANCE MAXIMUM TRAVEL DISTANCE = < 250 FT REQUIRED AS PER 1016.1
/ 55' (ALLOW.)	1018.1 CORRIDORS(SERVING > 30 OCCUPANTS)SPRINKLERED BLDGS -0-HR
<u>GSF</u> SSF	1018.4 DEAD ENDS (CORRIDORS) MAX. LENGTH OF A DEAD END -50'-0" (SPRINKLERED BUILDING)
21'-8" < 55 FT	1021.1 MINIMUM NUMBER OF EXITS FIRST FLOOR -REQ'D.: 2PROV.: 5
IER THE BUILDING	PLUMBING CALCULATIONS (CHAPTER 29) :
SHALL NOT EXCEED 1 OR SPACE IN	DESIGN OCCUPANT LOAD 116/2 = 58
	(DESIGN LOAD) PER CODE ON PLANS
	WC: 1 / 25 (1st 50 OCCUPANTS) 1 / 50 (REMAINING OCCUPANTS) MEN: 3 WC REQ'D. 3 WC REQ'D. 3 PROV. WOMEN: 3 WC REQ'D.
0' FIRE SEP. SEP. DIST) 0 HR 0 HR SEP. DIST) 0 HR NS 0 HR MBERS 0 HR MBERS 0 HR	LAV: 1 / 40 (1st 80 OCCUPANTS) 1 / 80 (REMAINING OCCUPANTS) MEN: 2 LAV REQ'D. 2 PROV. WOMEN: 2 LAV REQ'D. 2 PROV. DF: 1 / 100 OCCUPANTS = 2 DF REQ'D. 2 PROV. SS: 1 SS REQ'D. 1 PROV. SHWR: 0 REQ'D. 1 PROV.

18

19

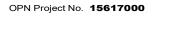
20

21

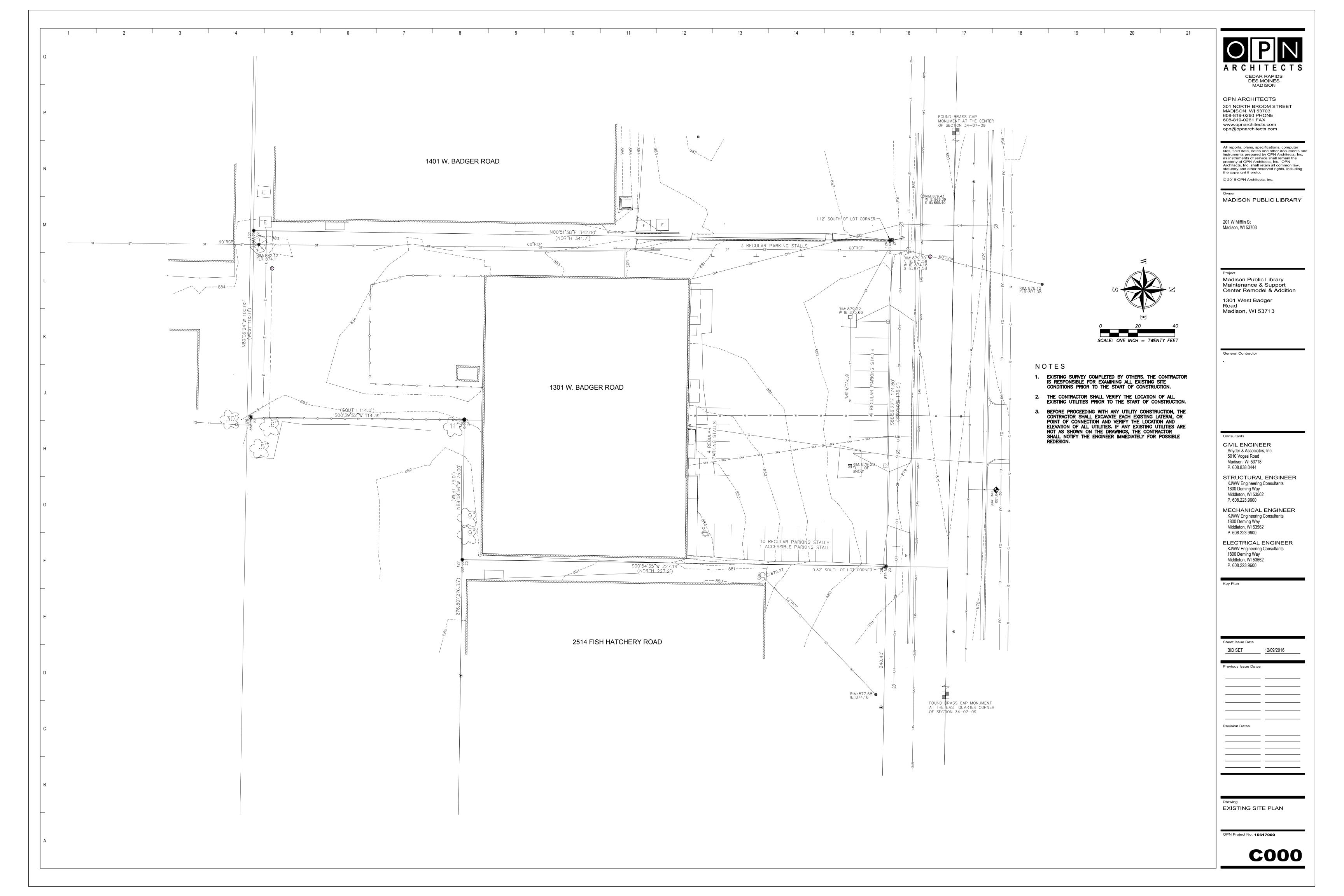
POINT OF EGRESS LEAR WIDTH PROVIDED)	34" ➤
EGRESS (OCCUPANTS SERVED)	(52)
EGRESS (CAPACITY)	170
AIR EGRESS (CAPACITY)	160
1-HR FIRE- RESISTANCE RATING	
MAX. PATH OF TRAVEL	
FIRE EXTINGUISHER	FEC
OCCUPANCY LEGEND)
OCCUPANCY LEGEND (B) - 100 SF/PI	
	ERSON
(B) - 100 SF/PI	ERSON
(B) - 100 SF/PI (S1) - 500 SF/PI	PERSON

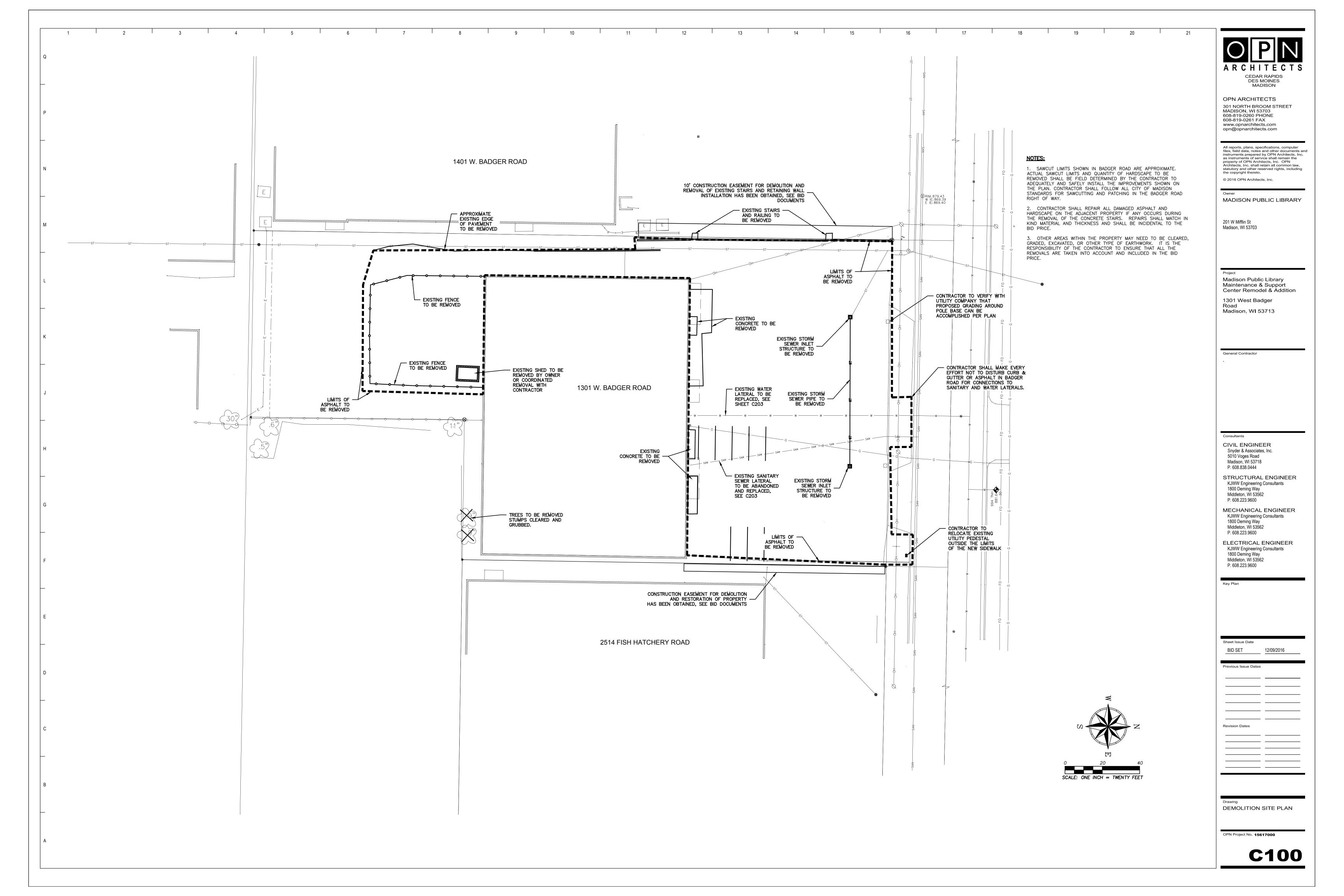
AR CEDAR RAPIDS DES MOINES MADISON OPN ARCHITECTS 301 NORTH BROOM S-TREET, SUITE100 MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc. Owner MADISON PUBLIC LIBRARY 201 W Mifflin St Madison, WI 53703 Project Madison Public Library Maintenance & Support Center Remodel 1301 West Badger Road Madison, WI 53713 General Contractor Consultants **CIVIL ENGINEER** Snyder & Associates, Inc. 10 Voges Road adison, WI 53718 608.838.0444 RUCTURAL ENGINEER IWW Engineering Consultants 800 Deming Way liddleton, WI 53562 . 608.223.9600 CHANICAL ENGINEER JWW Engineering Consultants 800 Deming Way 4iddleton, WI 53562 608.223.9600 ECTRICAL ENGINEER IWW Engineering Consultants 800 Deming Way liddleton, WI 53562 . 608.223.9600 t Issue Date 12/09/2016 ous Issue Dates on Dates _____

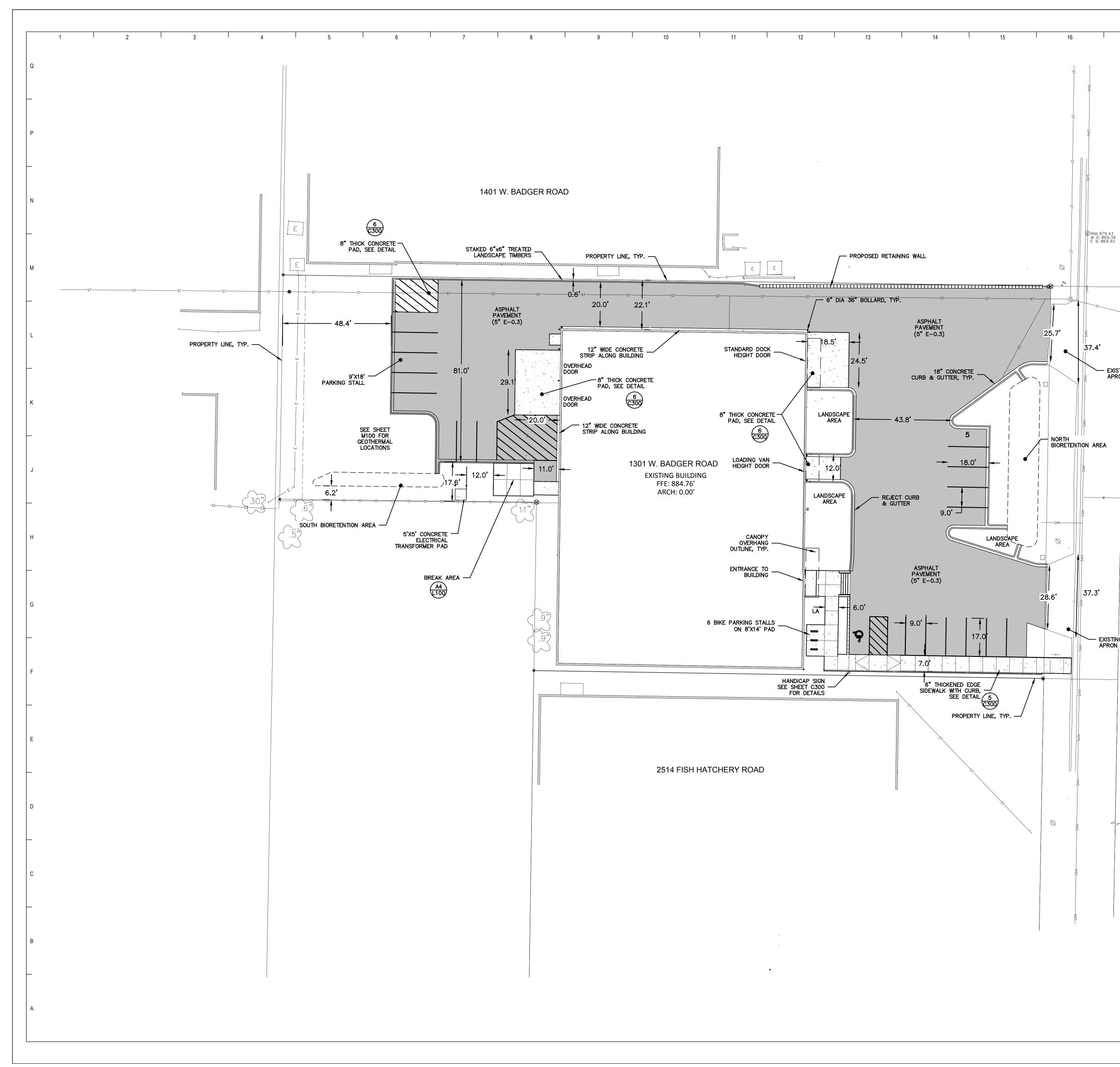
Drawing CODE REVIEW



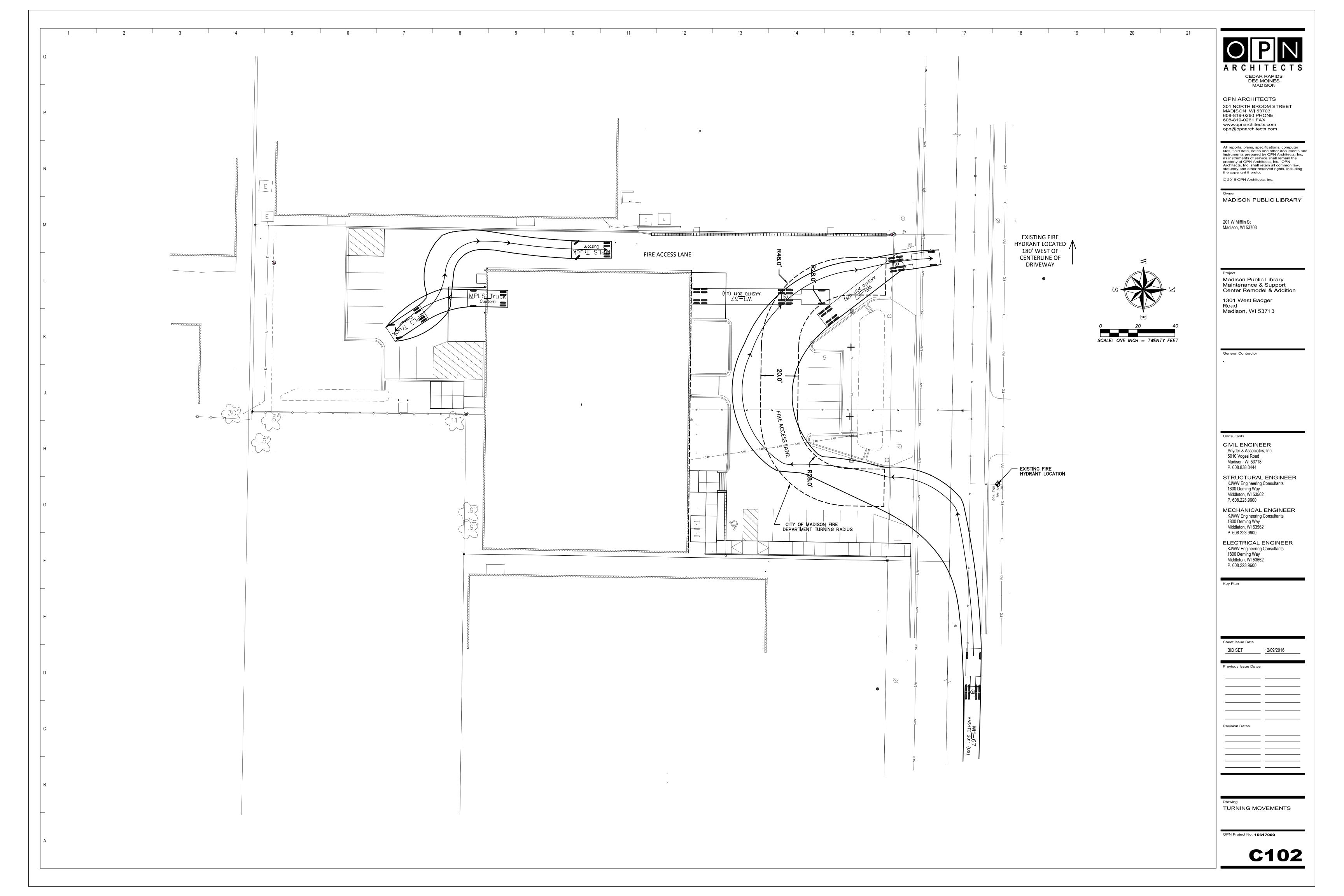


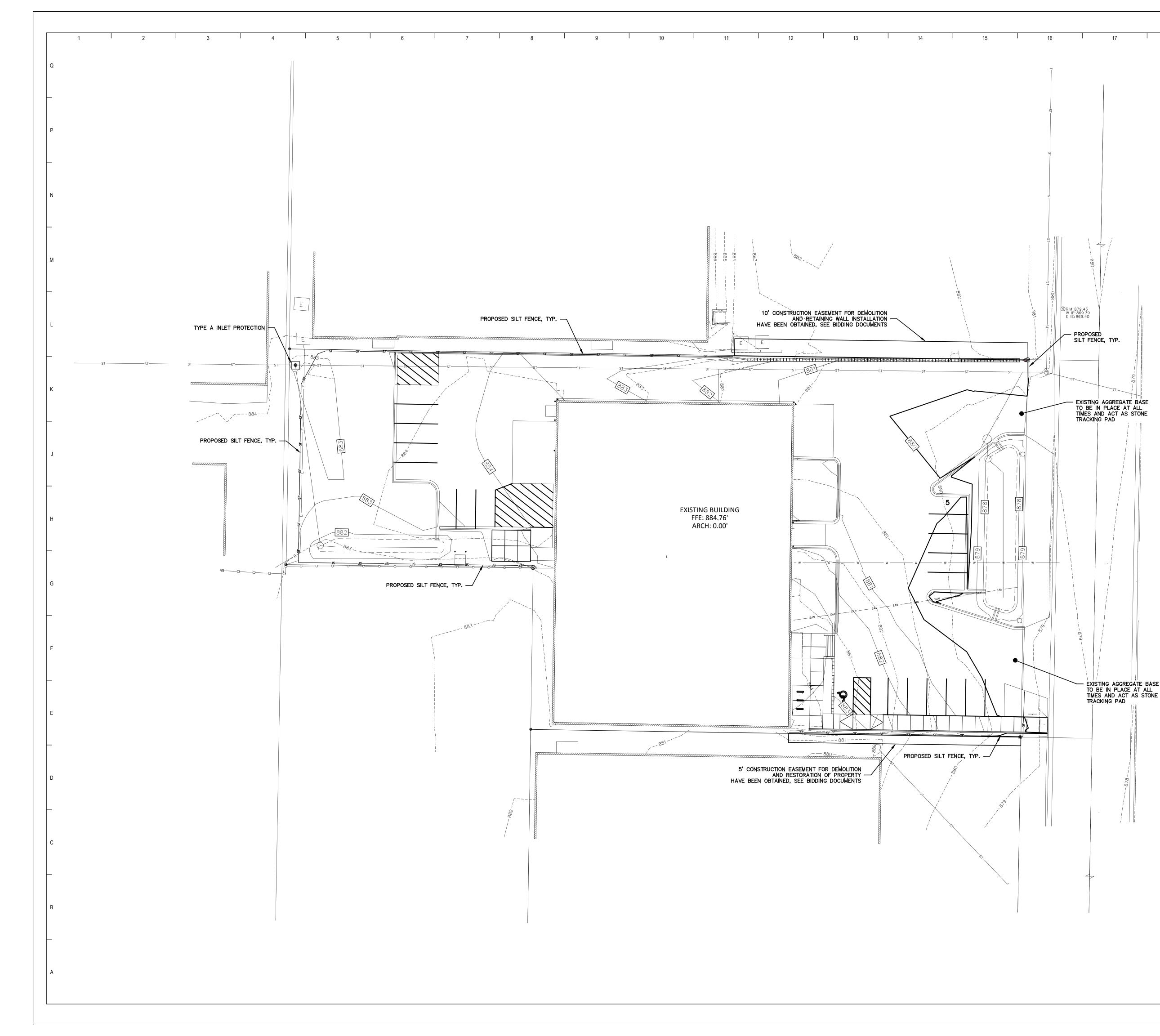




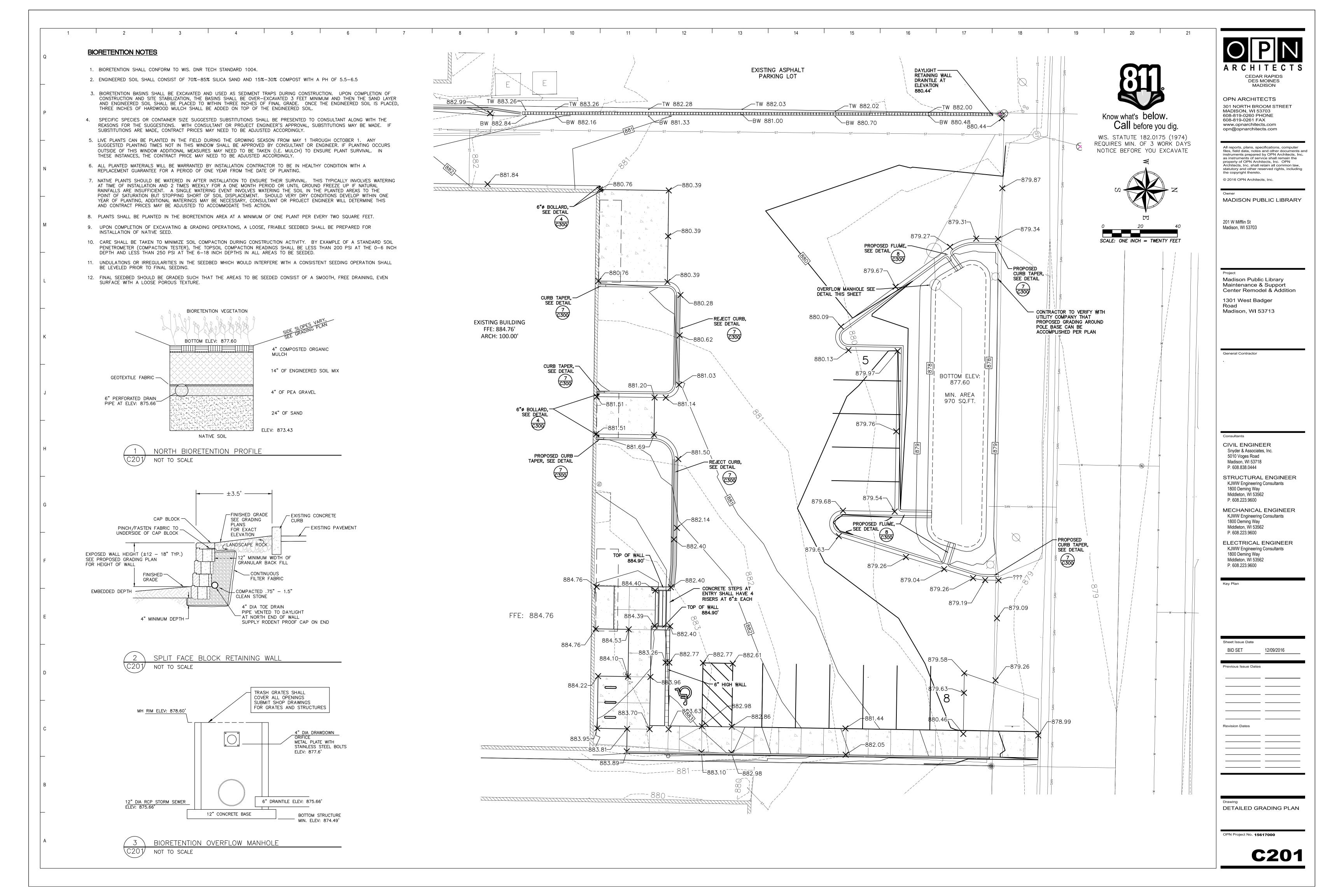


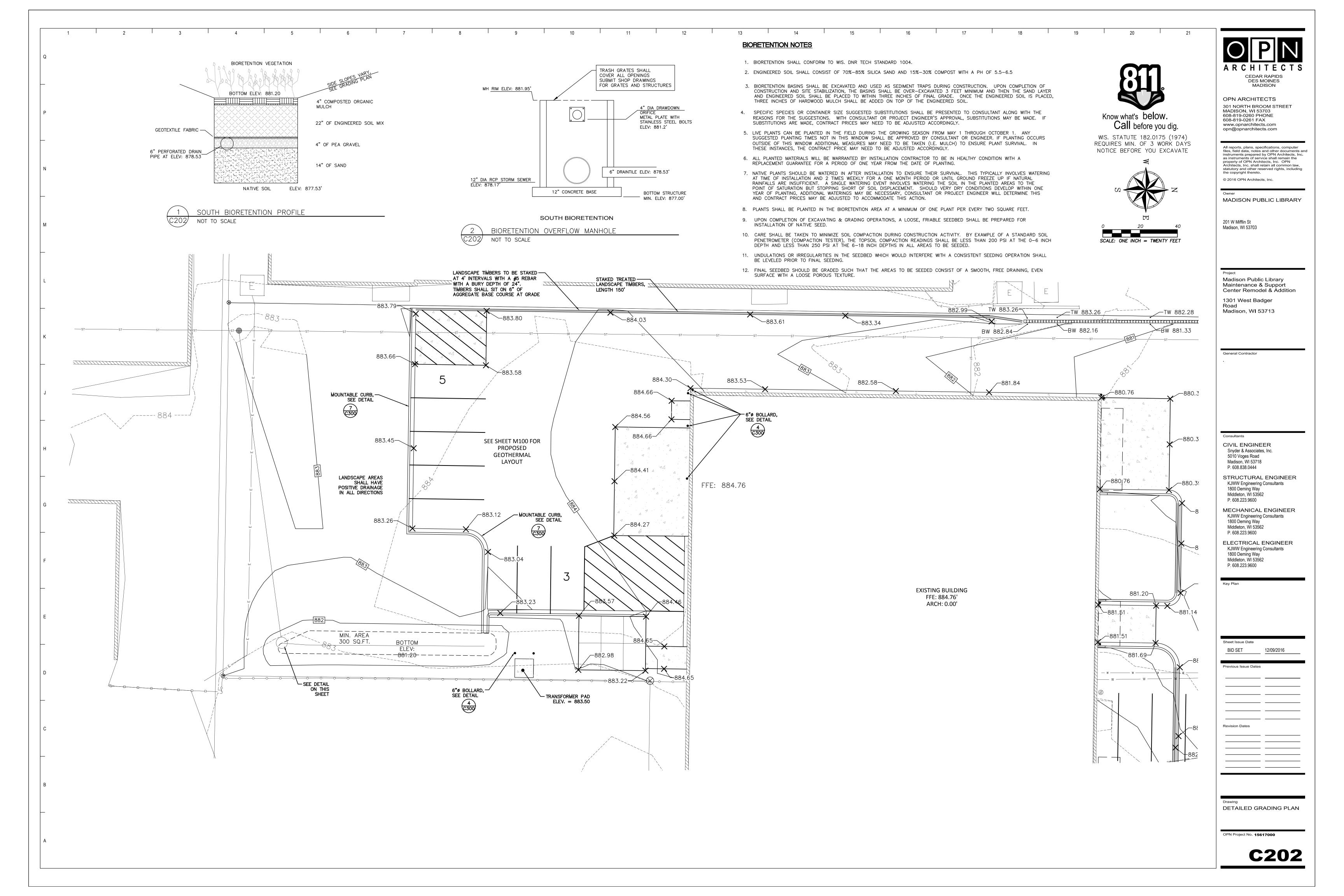
17	18 19 20 21	
	Know what's below. Call before you dig. WIS. STATUTE 182.0175 (1974) REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE	A R C H I T E C T S A R C H I T E C T S CEDAR RAPIDS DES MOINES MADISON OPN ARCHITECTS 01 NORTH BROOM STREET MADISON, WI 53703 08-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com
s⊕ ∧		instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc. Owner MADISON PUBLIC LIBRARY
∧	C C C C C C C C C C C C C C C C C C C	201 W Mifflin St Madison, WI 53703
STING DRIVEWAY RON TO REMAIN		Project Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713
		General Contractor
994 TNH 881.64	ZONING DISTRICT: IL INDUSTRIAL LIMITED TOTAL SITE AREA: 51,142 SF	Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444 STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way
NG DRIVEWAY TO REMAIN	PARKING REQUIRED PARKING PROVIDED 16 STALLS PER CODE, FOR 1-25 TOTAL PARKING STALLS	Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
Se	1 HANDICAP PARKING STALL IS SHOWN ON PLAN	Key Plan
	UTILITY COMPANY INFORMATION ELECTRICITY - ALLIANT - 608-233-2014 NATURAL GAS - MG&E - 608-252-7373 PHONE- AT&T - 800-778-9140 COMMUNICATIONS- CHARTER - 877-906-9121 SANITARY SEWER - CITY OF MADISON - 608-266-4430 WATER SERVICE- CITY OF MADISON - 608-266-4430 WATER SERVICE- CITY OF MADISON - 608-266-4651 NOTE: CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES ON AND ADJACENT TO THE SITE PRIOR TO THE START OF THE PROJECT. RADII ARE FROM BACK OF CURB DIMENSIONS ARE FROM FACE OF CURB ALL PARKING LOT STRIPING SHALL BE 4" WIDE WHITE PAINT LINES AND FOLLOW CITY OF MADISON STANDARD FOR HANDICAP STRIPING.	Sheet Issue Date BID SET Previous Issue Dates
		Drawing PROPOSED SITE PLAN OPN Project No. 15617000

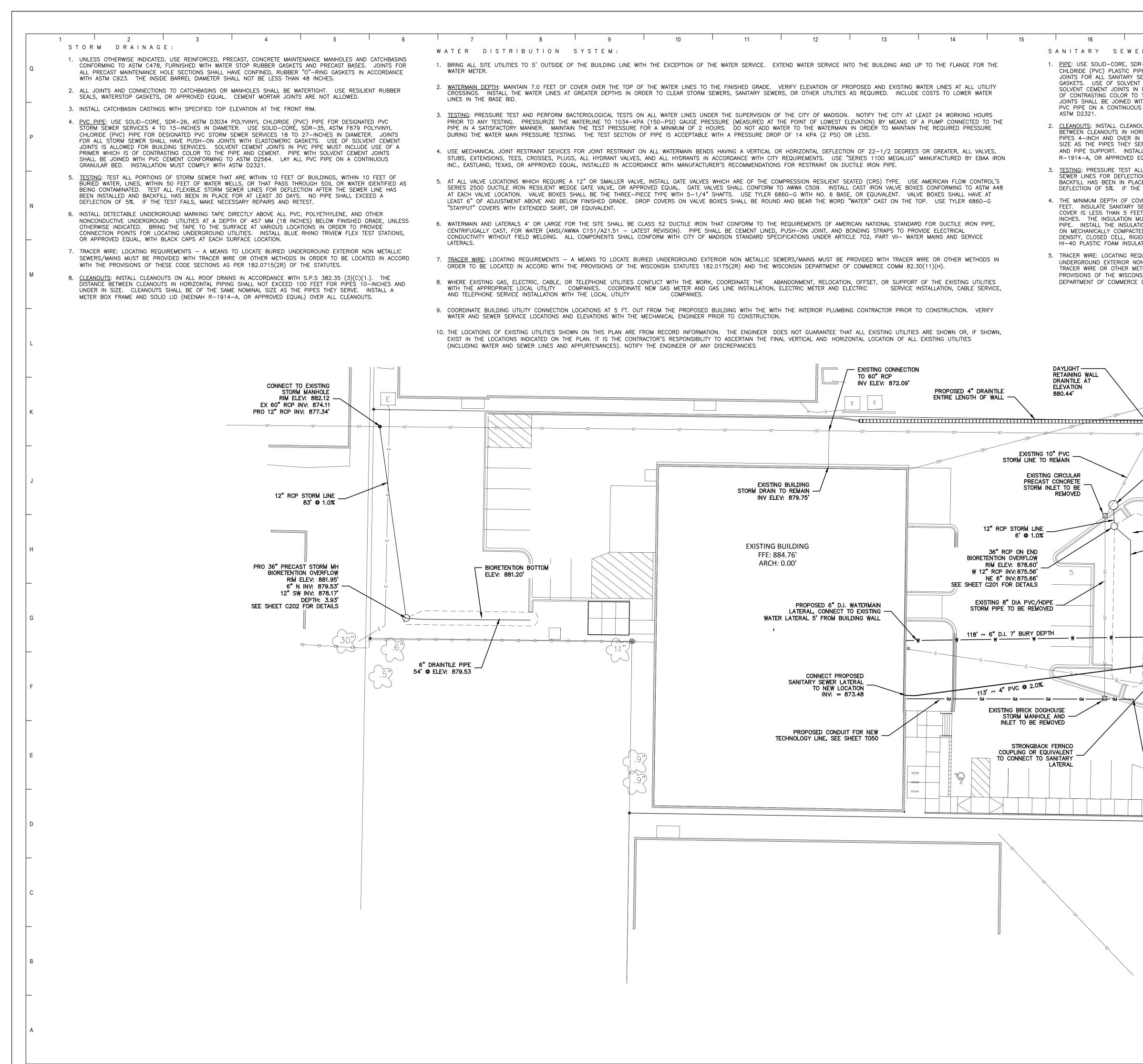




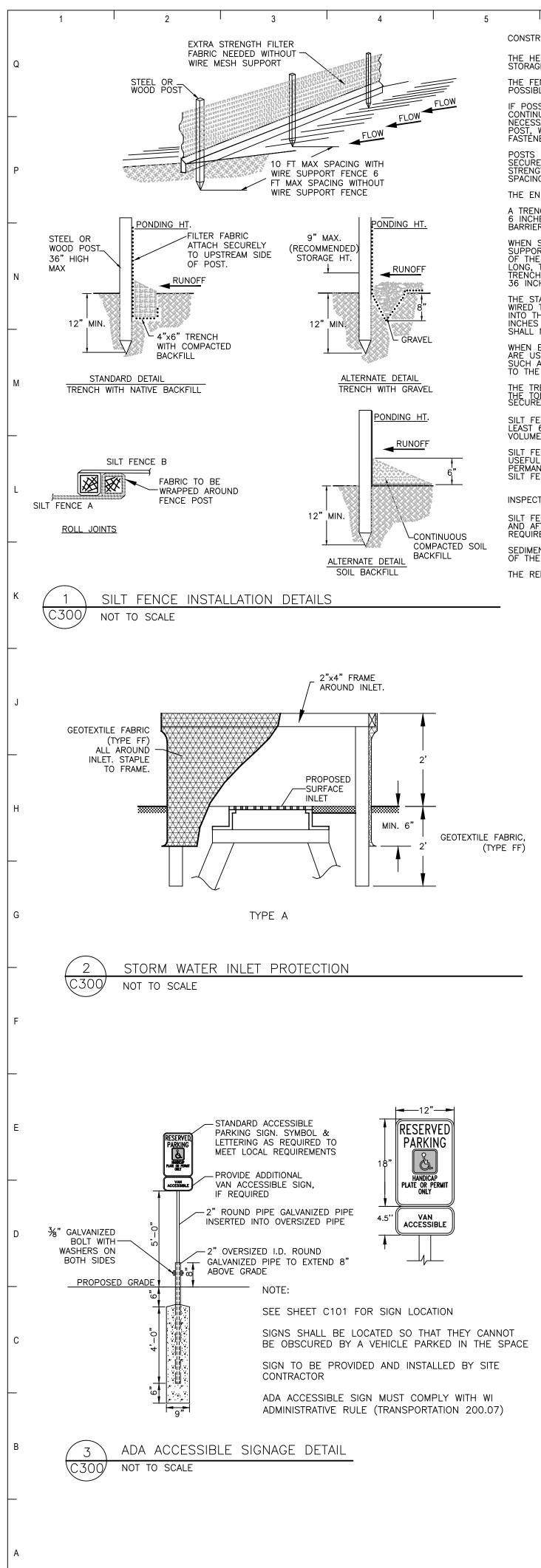
1 18	1 19 20 21 Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Constant Const	<image/> <section-header><section-header><section-header><section-header><text><text><text><text><text></text></text></text></text></text></section-header></section-header></section-header></section-header>
SE	 20 20 40 CALE: ONE INCH = TWENTY FEET SCALE: ONE INCH = TWENTY FEET NOTES: ALL SILT FENCE MUST BE INSTALLED BY THE CONTRACTOR AND INSPECTED BY THE CITY PRIOR TO ANY SITE WORK. SITE EROSION CONTROL MEASURES MUST BE IN PLACE AT ALL TIMES. SHOULD DEVICES BE REMOVED FOR WORK ACCESS, THEY SHALL BE REINSTALLED AT THE END OF EACH WORK DAY UNTIL PAVEMENTS HAVE BEEN INSTALLED AND ALL LANDSCAPE AREAS HAVE BEEN MULCHED AND SODDED. SEEDED AREAS MUST EXHIBIT MINIMUM OF 70% SOIL COVERAGE. REFER TO THE EROSION CONTROL PLAN NOTES AND DETAIL SHEETS FOR MORE INFORMATION. BIORETENTION BASINS SHALL BE OVER EXCAVATED AND USED FOR SEDIMENTATION BASINS SHALL BE OVER EXCAVATED AND USED FOR SEDIMENTATION BASINS DURING CONSTRUCTION. ALL SEDIMENT AND DEBRIS SHALL BE REMOVED PRIOR TO SAND, ROCK, AND ENGINEERED SOIL INSTALLATION. THE CONTRIBUTING WATERSHED TO THE BIORETENTION BASIN SHALL BE STABILIZED PRIOR TO BRINGING THE BASIN ONLINE. 	Madison, WI 53703 Project Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713 General Contractor
	5. TEMPORARY CONSTRUCTION EASEMENTS HAVE BEEN OBTAINED FOR WORK ALONG EAST AND WEST PROPERTY LINES. SEE BIDDING DOCUMENTS FOR MORE INFORMATION.	Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444 STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENGINEER KJWW Engineering Consultants
BASE ALL TONE		1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Key Plan Sheet Issue Date BID SET 12/09/2016 Previous Issue Dates
		Image: Drawing PROPOSED GRADING & EROSION CONTROL PLAN DOPN Project No. 15617000







17 18 19 20 21	
R : R-35, ASTM D3034 (OR APPROVED EQUAL) POLYVINYL PE FOR ALL DESIGNATED PVC SANITARY SEWER SERVICES. EWER SHALL HAVE PUSH-ON JOINTS WITH ELASTOMERIC CEMENT JOINTS IS ALLOWED FOR BUILDING SERVICES. PVC PIPE MUST INCLUDE USE OF A PRIMER WHICH IS THE PIPE AND CEMENT. PIPE WITH SOLVENT CEMENT TH PVC CEMENT CONFORMING TO ASTM D2564. LAY ALL S GRANULAR BED. INSTALLATION MUST COMPLY WITH	O P N A R C H I T E C T S CEDAR RAPIDS DES MOINES MADISON
UTS ON ALL SANITARY SEWER SERVICES. THE DISTANCE RIZONTAL PIPING SHALL NOT EXCEED 100 FEET FOR SIZE. CLEANOUTS SHALL BE OF THE SAME NOMINAL RIVE. INCLUDE FROST SLEEVES AND CONCRETE FRAME LL A METER BOX FRAME AND SOLID LID (NEENAH QUAL) OVER ALL CLEANOUTS. L SANITARY SEWER LINES. TEST ALL FLEXIBLE SANITARY WIS. STATUTE 182.0175 (1974)	OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com
L SANITARY SEWER LINES. TEST ALL FLEXIBLE SANITARY ON AFTER THE SEWER LINE HAS BEEN INSTALLED AND CE FOR AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A TEST FAILS, MAKE NECESSARY REPAIRS AND RETEST. VER FOR SANITARY SEWER WITHOUT INSULATION IS 5 SEWER SERVICES AT LOCATIONS WHERE THE DEPTH OF T. PROVIDE A MINIMUM INSULATION THICKNESS OF 2	All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto.
UST BE AT LEAST 4 FEET WIDE AND CENTERED ON THE ION BOARDS 6 INCHES ABOVE THE TOPS OF THE PIPES ED AND LEVELED PIPE BEDDING MATERIAL. USE HIGH D BOARD MATERIAL EQUIVALENT TO DOW STYROFOAM ITION.	© 2016 OPN Architects, Inc. Owner MADISON PUBLIC LIBRARY
N METALLIC SEWERS/MAINS MUST BE PROVIDED WITH THODS IN ORDER TO BE LOCATED IN ACCORD WITH THE SIN STATUTES 182.0175(2R) AND THE WISCONSIN COMM 82.30(11)(H).	201 W Mifflin St Madison, WI 53703
PIE: 869.40 EXISTING 10" PVC TIES INTO EXITING STORM LINE EXACT LOCATION OF TIE IN UNKNOWN OH	Project Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713
STORM MH #1 48" DIA PRECAST DOGHOUSE TO EXISTING 10" STORM LINE	General Contractor
RIM ELEV: 879.32 NEENAH SOLID LID CASTING EX 10" PVC INV: 875.50'± PRO 12" RCP INV: 875.50' BIORETENTION BOTTOM ELEV: 877.60'	Consultants CIVIL ENGINEER
6* DRAINTILE PIPE 66' @ ELEV: 875.66 CONTRACTOR SHALL AVOID A PATCH IN BADGER ROAD. IF NECESSARY, CONTRACTOR SHALL PATCH ROAD PER CITY OF MADISON REQUIREMENTS CONNECT TO EXISTING WATER LATERAL	Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444 STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way
CONNECT TO EXISTING SANITARY @ ELEV: 871.22' C C C C C C C C C C C C C C C C C C C	Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Key Plan
PROPOSED CONDUIT FOR NEW TECHNOLOGY LINE, SEE SHEET TO50	
E E E E E E E E E E E E E E E E E E E	BID SET 12/09/2016 Previous Issue Dates
OH OH OH OH OH OH OH OH OH OH OH OH OH O	Revision Dates
	Drawing PROPOSED UTILITY PLAN OPN Project No. 15617000
	C203



CONSTRUCTION SPECIFICATIONS

6

THE HEIGHT OF A SILT FENCE SHALL NOT EXCEED 36 INCHES. STORAGE HEIGHT SHALL NEVER EXCEED 18". THE FENCE LINE SHALL FOLLOW THE CONTOUR AS CLOSELY AS POSSIBLE.

7

8

IF POSSIBLE, THE FILTER FABRIC SHALL BE CUT FROM A CONTINUOUS ROLL TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP AND BOTH ENDS SECURELY EASTENED TO THE POST FASTENED TO THE POST

POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET APART AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 12 INCHES). WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED 6 FEET. THE ENDS OF THE FENCE SHALL BE TURNED UPHILL.

A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES WIDE AND 6 INCHES DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER.

WHEN STANDARD-STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH LONG, TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.

THE STANDARD-STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 6 INCHES OF THE FABRIC SHALL EXTEND INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.

WHEN EXTRA-STRENGTH FILTER FABRIC AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS.

THE TRENCH SHALL BE BACKFILLED AND/OR THE SOIL COMPACTED OVER THE TOE OF THE FILTER FABRIC. THE FILTER FABRIC SHALL NOT BE SECURED BY SAND BAGS.

SILT FENCES PLACED AT THE TOE OF A SLOPE SHALL BE SET AT LEAST 6 FEET FROM THE TOE IN ORDER TO INCREASE PONDING VOLUME.

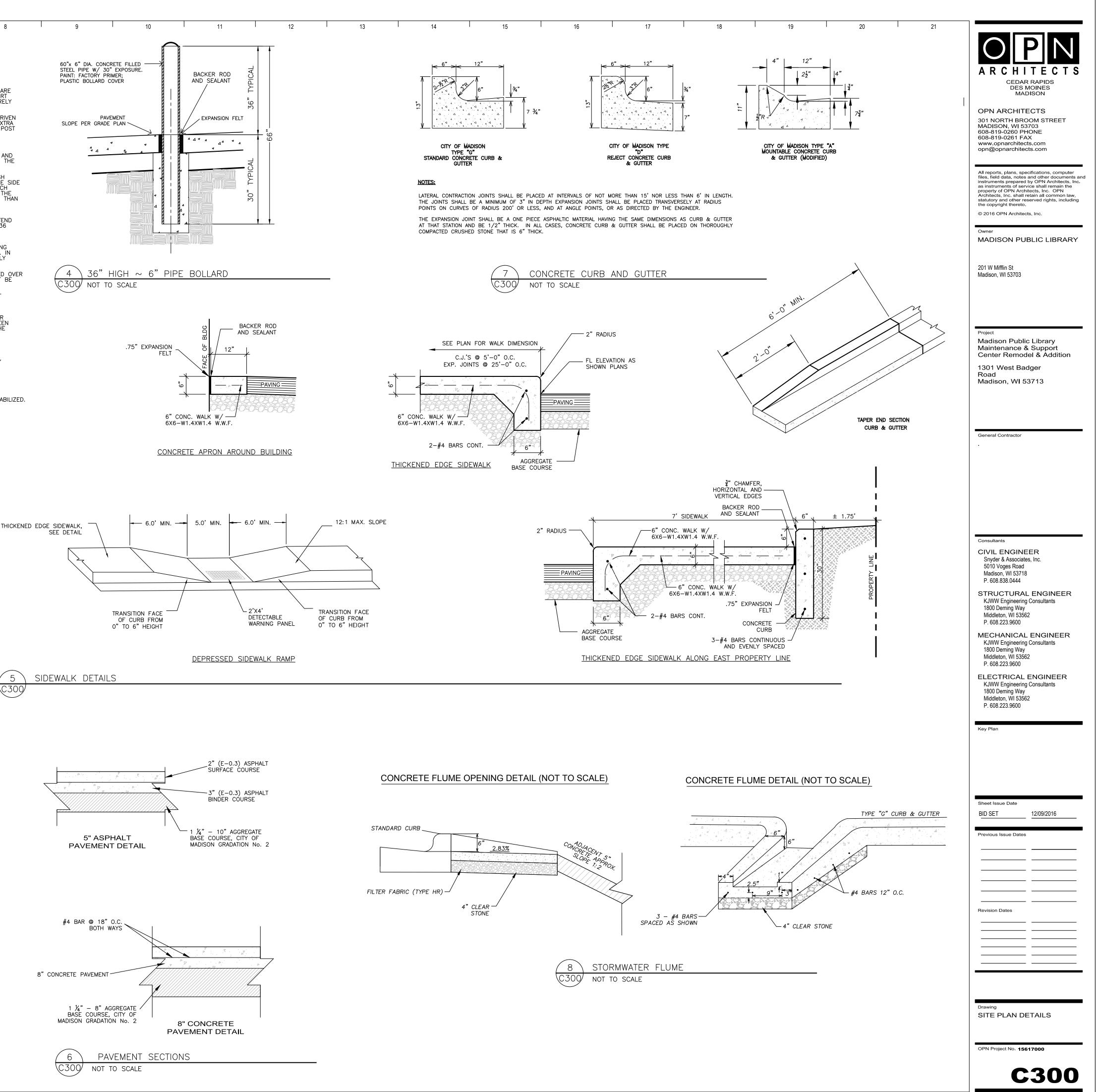
SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED, AND ANY SEDIMENT STORED BEHIND THE SILT FENCE HAS BEEN REMOVED.

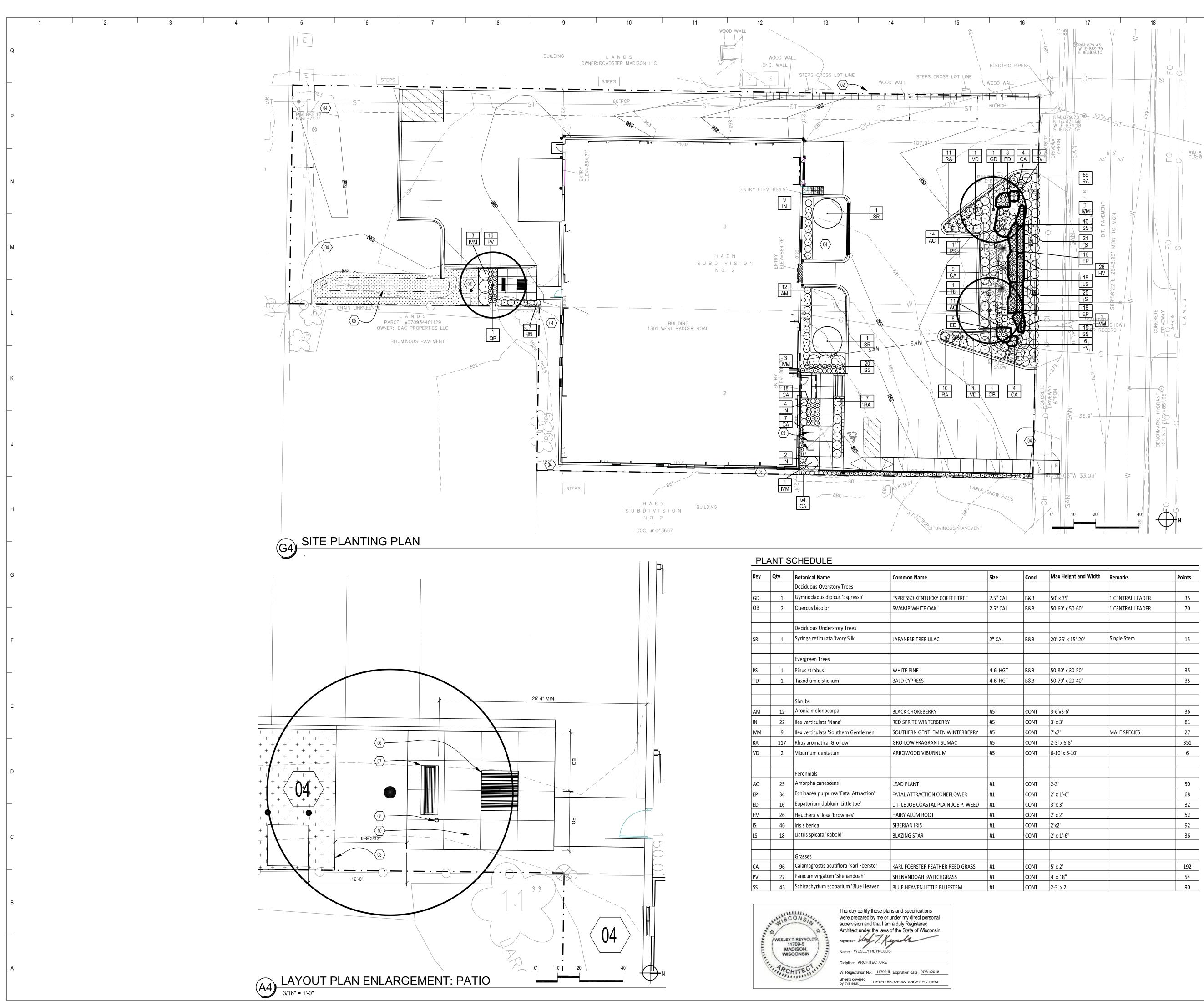
INSPECTION AND MAINTENANCE

SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED WEEKLY AND AFTER EACH SIGNIFICANT STORM (1" IN 24 HR.). ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/3 HEIGHT OF THE FENCE OR 9 INCHES MAXIMUM. THE REMOVED SEDIMENT SHALL BE VEGETATED OR OTHERWISE STABILIZED.

C300/





Key	Qty	Botanical Name	Common Name	Size	Cond	Max Height and Width	Remarks	Points
		Deciduous Overstory Trees						
GD	1	Gymnocladus dioicus 'Espresso'	ESPRESSO KENTUCKY COFFEE TREE	2.5" CAL	B&B	50' x 35'	1 CENTRAL LEADER	35
QB	2	Quercus bicolor	SWAMP WHITE OAK	2.5" CAL	B&B	50-60' x 50-60'	1 CENTRAL LEADER	70
		Deciduous Understory Trees						
SR	1	Syringa reticulata 'Ivory Silk'	JAPANESE TREE LILAC	2" CAL	B&B	20'-25' x 15'-20'	Single Stem	15
		Evergreen Trees						
PS	1	Pinus strobus	WHITE PINE	4-6' HGT	B&B	50-80' x 30-50'		35
TD	1	Taxodium distichum	BALD CYPRESS	4-6' HGT	B&B	50-70' x 20-40'		35
		Shrubs						
AM	12	Aronia melonocarpa	BLACK CHOKEBERRY	#5	CONT	3-6'x3-6'		36
IN	22	llex verticulata 'Nana'	RED SPRITE WINTERBERRY	#5	CONT	3' x 3'		81
IVM	9	llex verticulata 'Southern Gentlemen'	SOUTHERN GENTLEMEN WINTERBERRY	#5	CONT	7'x7'	MALE SPECIES	27
RA	117	Rhus aromatica 'Gro-low'	GRO-LOW FRAGRANT SUMAC	#5	CONT	2-3' x 6-8'		351
VD	2	Viburnum dentatum	ARROWOOD VIBURNUM	#5	CONT	6-10' x 6-10'		6
		Perennials						
AC	25	Amorpha canescens	LEAD PLANT	#1	CONT	2-3'		50
EP	34	Echinacea purpurea 'Fatal Attraction'	FATAL ATTRACTION CONEFLOWER	#1	CONT	2' x 1'-6"		68
ED	16	Eupatorium dublum 'Little Joe'	LITTLE JOE COASTAL PLAIN JOE P. WEED	#1	CONT	3' x 3'		32
HV	26	Heuchera villosa 'Brownies'	HAIRY ALUM ROOT	#1	CONT	2' x 2'		52
IS	46	Iris siberica	SIBERIAN IRIS	#1	CONT	2'x2'		92
LS	18	Liatris spicata 'Kabold'	BLAZING STAR	#1	CONT	2' x 1'-6"		36
		Grasses						
CA	96	Calamagrostis acutiflora 'Karl Foerster'	KARL FOERSTER FEATHER REED GRASS	#1	CONT	5' x 2'		192
PV	27	Panicum virgatum 'Shenandoah'	SHENANDOAH SWITCHGRASS	#1	CONT	4' x 18"		54
SS	45	Schizachyrium scoparium 'Blue Heaven'	BLUE HEAVEN LITTLE BLUESTEM	#1	CONT	2-3' x 2'		90

GENERAL NOTES

20

1. FIELD VERIFY ALL EXISTING SITE CONDITIONS, UNDERGROUND UTILITIES, ABOVE GRADE UTILITIES AND UTILITY STRUCTURES, EXTENT OF PAVING AND A R C H I T E C T S CURBS, AND ALL EXISTING VEGETATION PRIOR TO DEMOLITION OR NEW CONSTRUCTION. CONTACT OWNER AND WISCONSIN ONE-CALL FOR UTILITY LOCATES PRIOR TO ANY WORK ON SITE. NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES BEFORE CONTINUING DEMOLITION OR NEW CONSTRUCTION.

1

21

- 2. REFERENCE CIVIL, MECHANICAL AND ELECTRICAL SHEETS FOR UTILITIES AND DETAILS.
- 3. PRESERVE & PROTECT EXISTING PLANT MATERIALS ON AND ADJACENT TO SITE EXCLUDING THOSE MARKED FOR REMOVAL ON DEMOLITION PLANS. NOTIFY LANSCAPE ARCHITECT IMMEDIATELY IF PLANT MATERIALS ARE DAMAGED FOR ASSESSMENT OF PLANT REPLACEMENT.
- 4. CONTRACTOR MUST PROVIDE EROSION/SEDIMENTATION CONTROLS AS REQUIRED TO CONTAIN SEDIMENT WITHIN CONSTRUCTION AREA. IN THE EVENT THAT SOILS LEAVE THE SITE, CLEANUP OF ALL SURROUNDING DRIVES, PARKING LOTS, AND WALKS SHALL BE PERFORMED ON A DAILY BASIS AND UPON REQUEST OF OWNER AT NO ADDITIONAL COST. REFERENCE LANDSCAPE AND CIVIL SHEETS FOR ADDITIONAL INFORMATION.
- 5. WARNING CALL 72 HOURS BEFORE YOU DIG.
- WISCONSIN ONE-CALL: 1-800-242-8511 6. SITE LAYOUT INFORMATION TAKEN FROM CIVIL SITE
- PLAN PREPARED BY SNYDER & ASSOCIATES. 7. SOD ALL DISTURBED AREAS AFFECTED BY
- CONSTRUCTION.

LANDSCAPE NOTES

- 1. ONE WEEK PRIOR TO INSTALLATION, THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AT OPN ARCHITECTS TO REVIEW TREES AT NURSERY.
- 2. ALL PLANT MATERIAL SHALL AT LEAST MEET MINIMUM REQUIREMENTS IN THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMAN. 3. ALL SITEWORK, SODDING AND LANDSCAPING SHALL
- BE IN ACCORDANCE WITH LOCAL JURISDICTION'S STANDARD SPECIFICATIONS UNLESS NOTED OTHERWISE.
- 4. NO PLANTING WILL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
- 5. PLANT QUANTITIES ARE FOR CONTRACTORS CONVENIENCE, DRAWING SHALL PREVAIL WHERE
- CONFLICT OCCURS. 6. NO PLANT MATERIAL SHALL BE SUBSTITUTED IN SIZE OR SPECIES WITHOUT AUTHORIZATION OF
- LANDSCAPE ARCHITECT. 7. ALL PROPOSED PLANTS SHALL BE LOCATED AS SHOWN ON PLANS, AND THEIR LAYOUT SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT BEFORE INSTALLATION.
- 8. LANDSCAPE PLAN TO BE REVIEWED BY CITY ARBORIST.
- 9. TOPSOIL SHALL BE SPREAD TO MINIMUM DEPTH OF 6-INCHES ON ALL DISTURBED AREAS. SEE DETAILS FOR DEPTH OF TOPSOIL IN PLANTING BEDS. TOPSOIL SHALL BE DRY, LOOSE AND FREE OF DEBRIS.
- 10. ALL PLANTS SHALL BE WATERED DURING THE LANDSCAPE MAINTENACE PERIOD AS SPECIFIED.
- 12. AN ON SITE MEETING WILL BE REQUIRED WITH THE GENERAL CONTRACTOR, GRADING CONTRACTOR, LANDSCAPE CONTRACTOR AND LANDSCAPE ARCHITECT PRIOR TO ANY LANDSCAPING WORK ON SITE.

KEYED NOTES

- MULCH TYPE "A". SHREDDED HARDWOOD BARK
- MULCH AS SPECIFIED. (02) MULCH TYPE "B". WASHED RIVER ROCK AS
- SPECIFIED. $\langle 03 \rangle$ SPADE CUT PLANT BED EDGER.
- $\langle 04 \rangle$ RHIZOMATOUS TALL FESCUE SOD.
- (05) RAIN GARDEN/BIO INFILTRATION BED PLUG PLANT MIX
- $\left< 06 \right>$ PICNIC TABLE, SEE G1/L102.
- (07) BENCH, SEE C15/L102.
- $\langle 08 \rangle$ SMOKER ASH URN, SEE C12/L102.
- $\langle 09 \rangle$ BIKE RACK, SEE C8/L102.
- (10) COLOR CONCRETE W/EXPOSED AGGREGATE

LANDSCAPE SUMMARY DEVELOPED AREA: 23,019 POINTS

NEW LANDSCAPING POINTS REQUIRED: 385 POINTS

APPROXIMATE POINTS PROVIDED: 1,368 3 OVERSTORY TREES X 35 = 2 EVERGREEM TREES X 35 = 2 UNDERSTORY TREES X 15 = 162 SHRUBS X 3 POINTS = 333 PERENNIALS/GRASSES X 2 PTS = 666 POINTS FURN. 1 BENCH, 1 P. TABLE X 5PTS=10 POINTSTOTAL1,367 POINTS

105 POINTS 70 POINTS 30 POINTS 486 POINTS



OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

General Contractor

Project

Madison Public Library Maintenance & Support Center Remodel 1301 West Badger Road Madison, WI 53713

Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

- STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date 12/09/2016 Bid Set

Previous Issue Dates

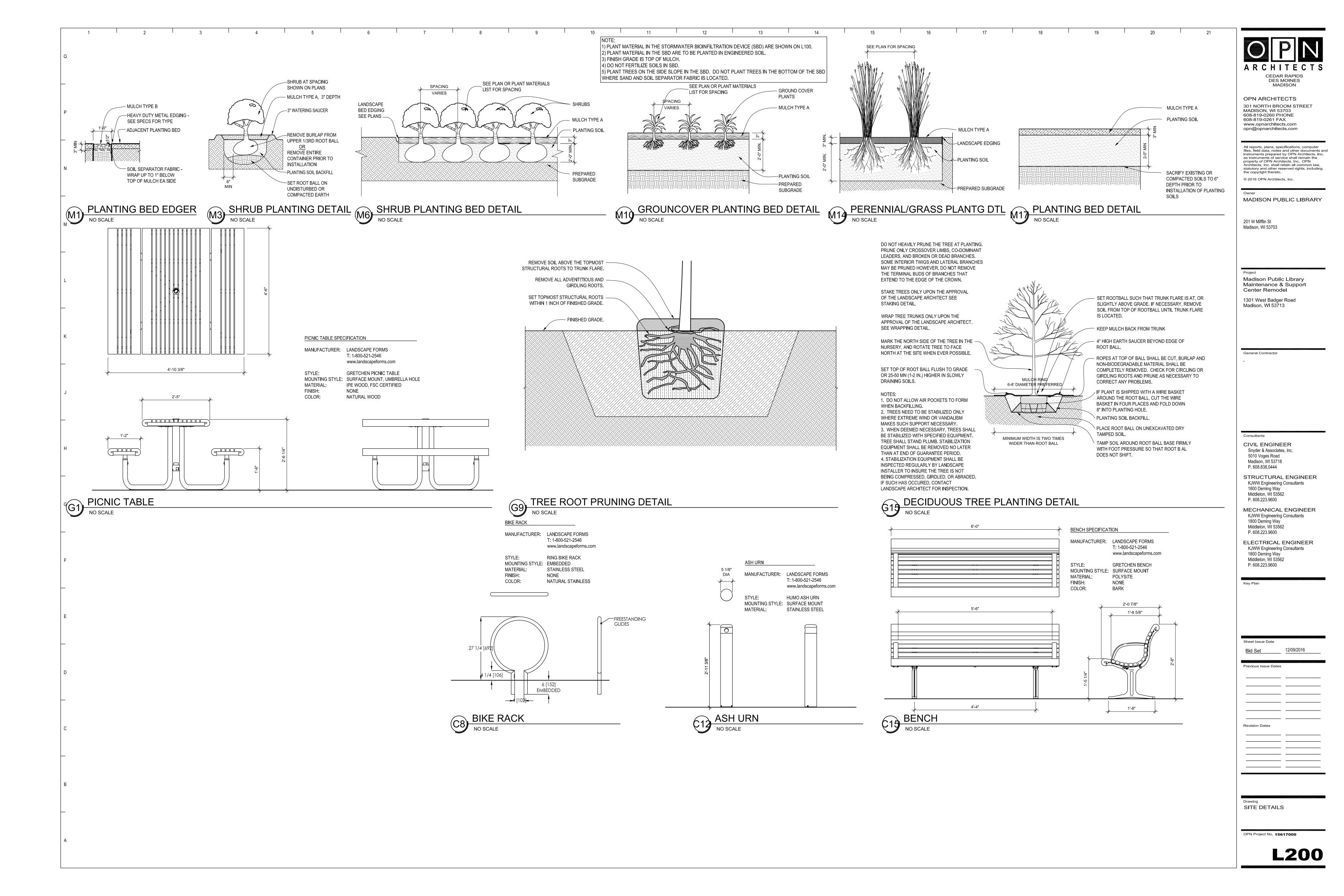
Revision Dates	

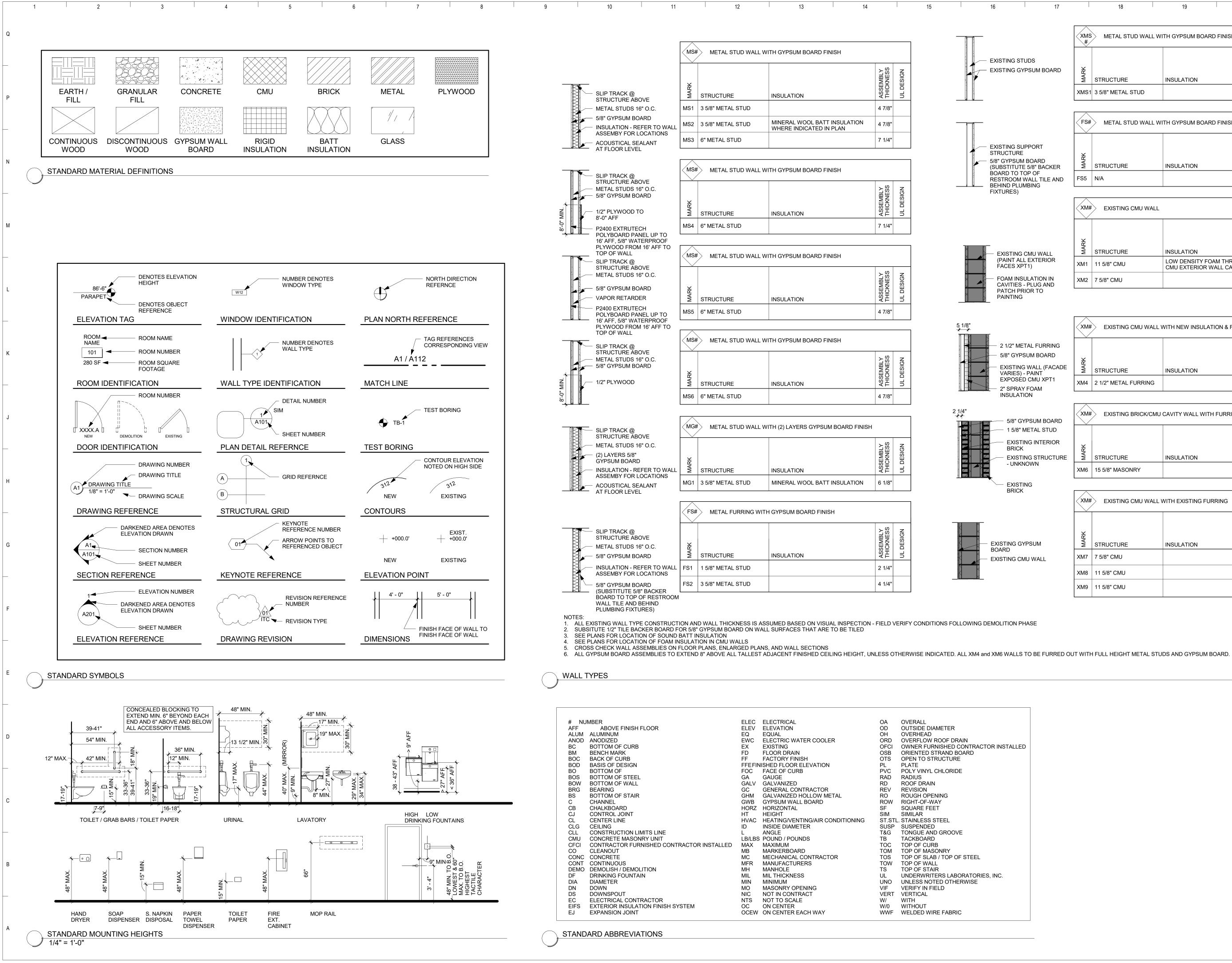
SITE PLANTING PLAN

Drawing

OPN Project No. 15617000

L100





STING STUDS
STING GYPSUM BOARD

- EXISTING SUPPORT STRUCTURE - 5/8" GYPSUM BOARD (SUBSTITUTE 5/8" BACKER BOARD TO TOP OF RESTROOM WALL TILE AND BEHIND PLUMBING

> EXISTING CMU WALL (PAINT ALL EXTERIOR FACES XPT1)

FOAM INSULATION IN **CAVITIES - PLUG AND** PATCH PRIOR TO PAINTING

- 2 1/2" METAL FURRING 5/8" GYPSUM BOARD EXISTING WALL (FACADE VARIES) - PAINT EXPOSED CMU XPT1 2" SPRAY FOAM INSULATION

5/8" GYPSUM BOARD 1 5/8" METAL STUD EXISTING INTERIOR BRICK

EXISTING STRUCTURE - UNKNOWN

XM6

EXISTING BRICK

EXISTING GYPSUM BOARD EXISTING CMU WALL

XMS METAL STUD WALL WITH GYPSUM BOARD FINISH					
MARK	STRUCTURE	INSULATION	ASSEMBLY THICKNESS	UL DESIGN	
XMS1	3 5/8" METAL STUD		4 7/8"		

FS# METAL STUD WALL WITH GYPSUM BOARD FINISH

MARK	STRUCTURE	INSULATION	ASSEMBLY THICKNESS	
FS5	N/A		5/8"	

XM# EXISTING CMU WALL							
MARK	STRUCTURE	INSULATION	ASSEMBLY THICKNESS	UL DESIGN			
XM1	11 5/8" CMU	LOW DENSITY FOAM THROUGH CMU EXTERIOR WALL CAVITIES	11 5/8"				
XM2	7 5/8" CMU		7 5/8"				

	XM# EXISTING CMU WALL WITH NEW INSULATION & FURRING						
E	MARK	STRUCTURE	INSULATION	ASSEMBLY THICKNESS	UL DESIGN		
	XM4	2 1/2" METAL FURRING		5 1/8"			

XM# EXISTING BRICK/CMU CAVITY WALL WITH FURRING

STRUCTURE	INSULATION	ASSEMBLY THICKNESS	UL DESIGN
15 5/8" MASONRY		15 5/8"	

XM# EXISTING CMU WALL WITH EXISTING FURRING						
MARK	STRUCTURE	INSULATION	ASSEMBLY THICKNESS	UL DESIGN		
XM7	7 5/8" CMU		8 1/4"			
XM8	11 5/8" CMU		12 1/4"			
XM9	11 5/8" CMU		1'- 1 7/8"			

Sheet Issue Date
Bid Set
Previous Issue Date
Revision Dates
Drawing
STANDARDS TYPES
OPN Project No. 1
AC



OPN ARCHITECTS 301 NORTH BROOM S-TREET, SUITE100 MADISON, WI 53703

608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

Proiect

Madison Public Library

Maintenance & Support

Center Remodel

Madison, WI 53713

General Contractor

1301 West Badger Road

Consultants **CIVIL ENGINEER** Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

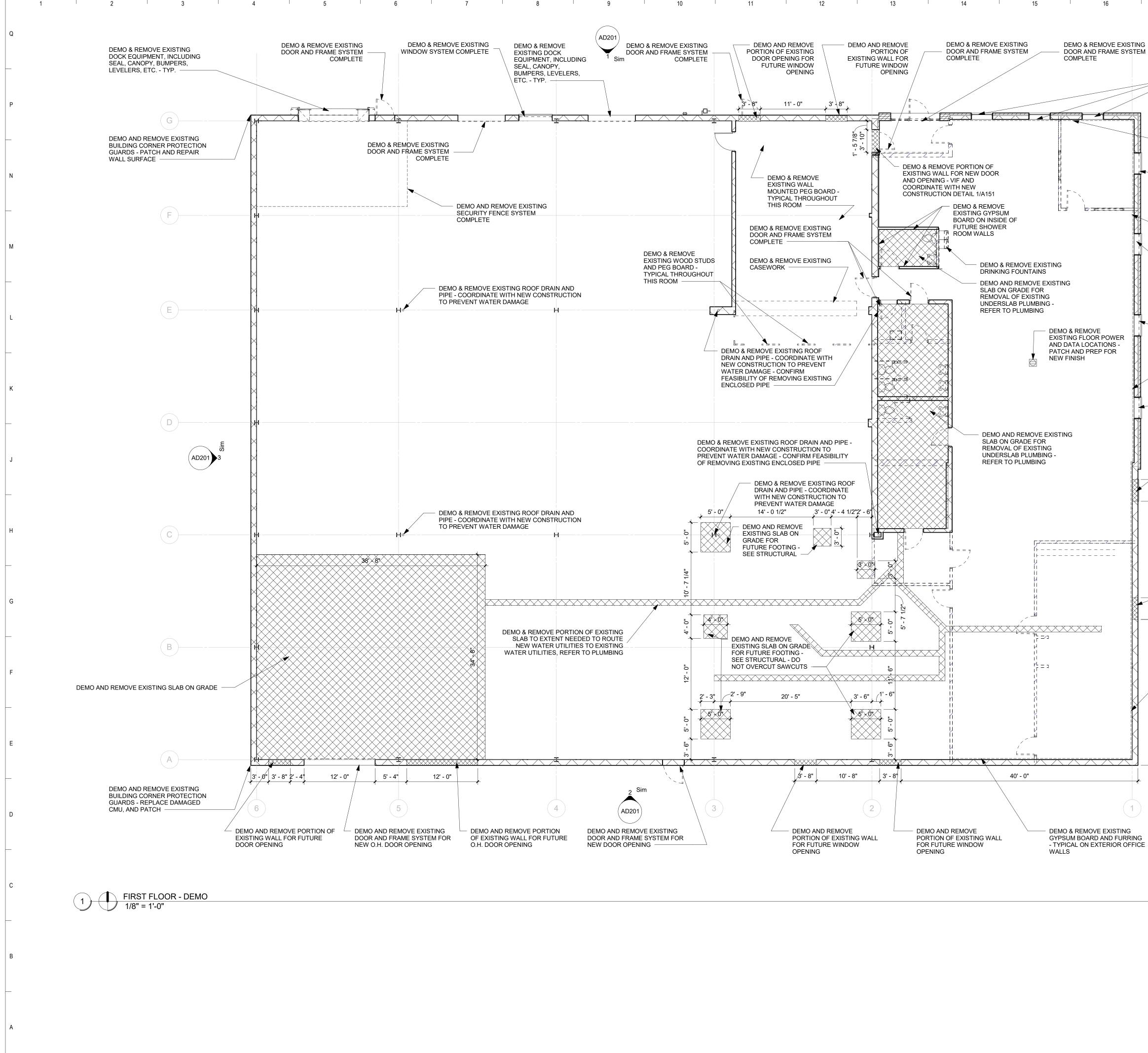
ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

12/09/2016

S AND WALL





6	17		18		19			20		21
					_			GENERAL NO	DTES	
VE EXISTING AME SYSTEM			MOVE EXISTI YSTEM COMF			1.	OF HAZAF PART OF ASBESTC MATERIA CONTRAC OWNER II REMOVAL OWNER COORDIN	ATE SCHED	ERIALS IS NO OF WORK. HAZARDOU DUNTERED, NOTIFY THE ANY ASBE BATED BY ATE CONTR JLE OF WOF	DT IF JS THE E STOS RACT.
		GYPSUM BO	/OVE EXISTIN ARD AND FUR	RRING			CONSTRU REFER TO RECYCLIN MANAGEN REQUIRE	D SPECIFICA NG, CONSTR MENT AND D MENTS.	TION FOR UCTION WAS	
		- TYPICAL ON WALLS	N EXTERIOR (OFFICE		3.		FLOOR FINIS BEDS, ETC.	SHES, ADHES	SIVE,
			MOVE EXISTI YSTEM COMP			4.	MISCELLA FROM WA	LOOSE PAIN ANEOUS HAN ALLS AND CE ITHIN THE S	IGING OBJE ILINGS AT A	LL
===	~					5.	STRUCTU ANY DIRE	IN THE EXIS IRE SMALLEI CTION ARE I E DRAWINGS	R THAN 12" I NOT IDENTIF	
		GYPSUM BO FURRING - T				-	STRUCTU WITHOUT STRUCTU CONTRAC	S IN THE EX IRE SHALL N PRIOR APPI IRAL ENGINE CTOR SHALL	ot be made Roval of t Er. Not at any	HE 1
			MOVE EXISTI YSTEM COMP			8.	CAPACITI PATCH AI FLOOR SI	ND REPAIR A LABS AND W D FROM DEM	LL EXISTING	e Ses
						-	AND MEC WILL NOT	L AREAS OF HANICAL DE BE REUSED CTOR TO FIE	MOLITION T	HAT
OWER NS - OR			MOVE EXISTI YSTEM COMP				CONDITIC DISCREP DRAWING	DIMENSION DNS. IN THE I ANCY BETWI DNS, NOTIFY	EVENT OF A EEN THE EXISTING	
		GYPSUM BO	NOVE EXISTIN ARD AND FUR N EXTERIOR (RRING		11.	DO NOT F JEOPARD INTEGRIT	PROCEEDING REMOVE ANY IZE THE STR Y OF THE BL S OR DETER	ITEMS WHI RUCTURAL JILDING. IFH	
			MOVE EXISTI YSTEM COMP	-		12.	ELEMENT NOTIFY T PATCH AI NOT BEIN	S ARE ENCO HE ARCHITE L EXISTING IG REUSED T	OUNTERED, CT IMMEDIA SLAB OPEN O MATCH	
						13.	EXISTING WEATHER	T SURFACES BUILDING IS R-TIGHT DUR ION ACTIVITI	TO REMAIN	1
K						14.		D CONSULTA		
	- 8		REMOVE POR ALL FOR FUT PENING			15.	PROTECT ITEMS "TO DEMOLIT	ISCIPLINES. ALL ADJACI REMAIN" D ION/CONSTR EPLACE ALL	URING UCTION.	AND
×–						16.	EXISTING SHOWN (DERIVED	D DURING CO BUILDING C N THESE DF FROM LIMIT	ONDITIONS RAWINGS AF ED FIELD	RE
	16' - 4"						REPRESE CONSTRU LOCAL CO THIS PLA OCCUPAT	ONS ARE ASS ENTATIVE OF JCTION OF T ONDITIONS M N SHALL NO FIONAL SAFE TRATION PAR	THE ACTUA HE BUILDING MAY VARY. I SUPERSED TY & HEALT	lL G. DE H

DEMO AND REMOVE PORTION OF

DEMO & REMOVE EXISTING

GYPSUM BOARD AND FURRING

- TYPICAL ON EXTERIOR OFFICE

OPENING

WALLS

EXISTING WALL FOR FUTURE WINDOW

ADMINISTRATION PART 1926 SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION GUIDELINES FOR CONSTRUCTION MEANS OF EGRESS.

18. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ADDITIONAL MEANS OF EGRESS AS NEEDED AS A RESULT OF CONSTRUCTION SEQUENCING AND/OR REGULATORY REQUIREMENTS.

19. DIMENSIONS ARE MEASURED FACE-OF- FINISH TO FACE-OF-FINISH OR ROUGH MASONRY OPENING, UNLESS NOTED OTHERWISE - TYPICAL FOR ALL DRAWINGS.

20. DASHED ITEMS INDICATE DEMOLITION WORK TO BE COMPLETED. REFER TO SPECIFIC NOTES FOR ADDITIONAL INFORMATION.

21. USE CARE DURING CONCRETE FLOOR DEMOLITION TO PROTECT THE SLAB EDGES AS THE FLOOR SLAB WILL REMAIN EXPOSED - DO NOT OVERCUT SAWCUTS.

GENERAL NOTES



OPN ARCHITECTS 301 NORTH BROOM S-TREET, SUITE100 MADISON, WI 53703 608-819-0260 PHONE

608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

General Contractor

Project Madison Public Library Maintenance & Support Center Remodel 1301 West Badger Road Madison, WI 53713

Consultants **CIVIL ENGINEER** Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

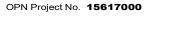
ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

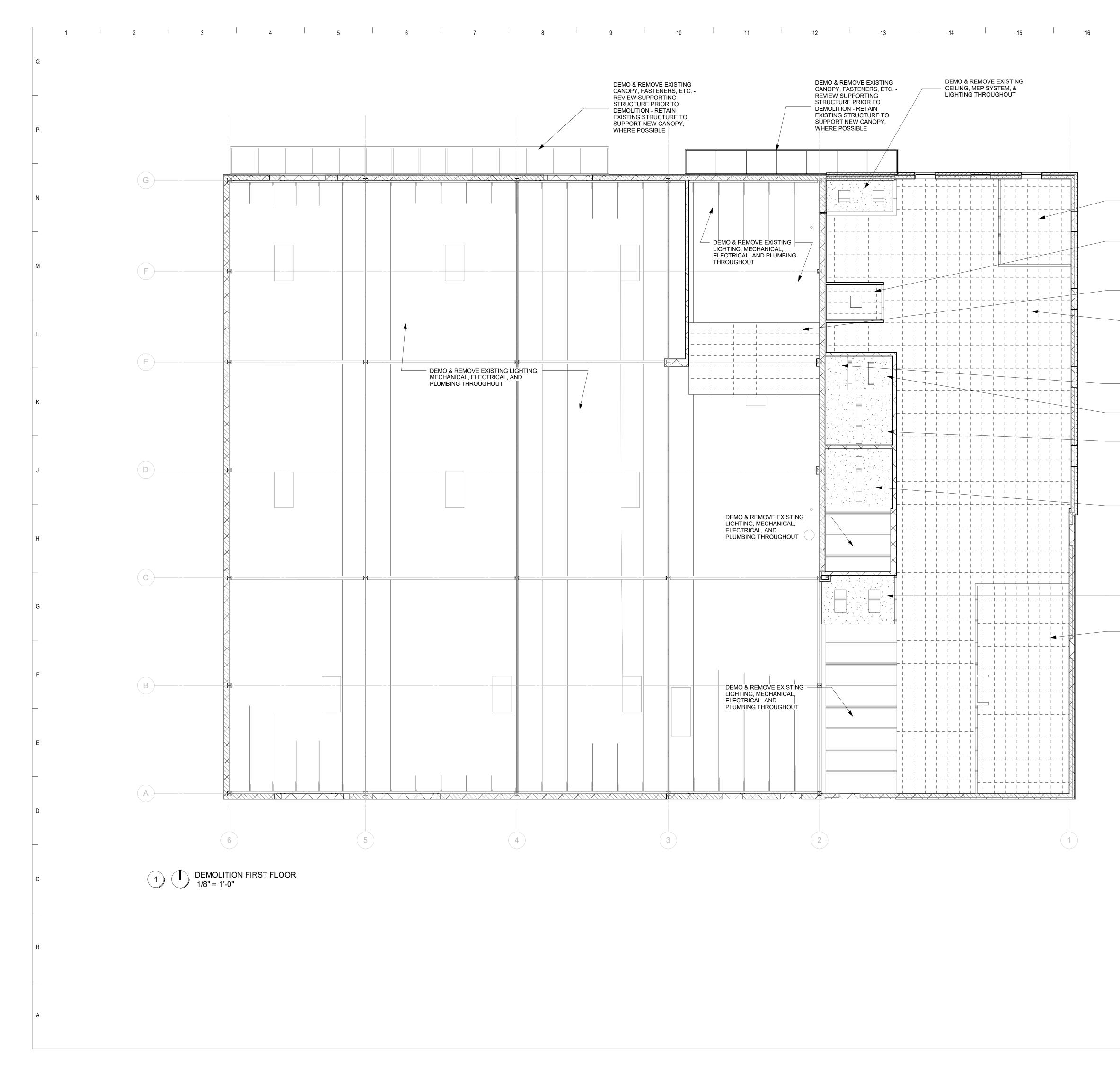
Sheet Issue Date	
Bid Set	12/09
Previous Issue Dates	

Previous Issue Dates	
Revision Dates	
Drawing	

DEMOLITION FLOOR PLAN



AD101



17	18	19	20	21

ARCHITECTS CEDAR RAPIDS DES MOINES MADISON

OPN ARCHITECTS 301 NORTH BROOM S-TREET, SUITE100 MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX

www.opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other

reserved rights, including the copyright thereto.

MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

General Contractor

Owner

Project Madison Public Library Maintenance & Support Center Remodel 1301 West Badger Road Madison, WI 53713

Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date
Bid Set 12/09/2016
Previous Issue Dates
Unders
U



DEMO & REMOVE EXISTING CEILING, MEP SYSTEM, & LIGHTING THROUGHOUT

DEMO & REMOVE EXISTING CEILING, MEP SYSTEM, & LIGHTING THROUGHOUT

DEMO & REMOVE EXISTING CEILING, MEP SYSTEM, & LIGHTING THROUGHOUT

DEMO & REMOVE EXISTING CEILING, MEP SYSTEM, & LIGHTING THROUGHOUT

DEMO & REMOVE EXISTING CEILING, MEP SYSTEM, & LIGHTING THROUGHOUT

DEMO & REMOVE EXISTING CEILING, MEP SYSTEM, & LIGHTING THROUGHOUT

DEMO & REMOVE EXISTING CEILING, MEP SYSTEM, & LIGHTING THROUGHOUT

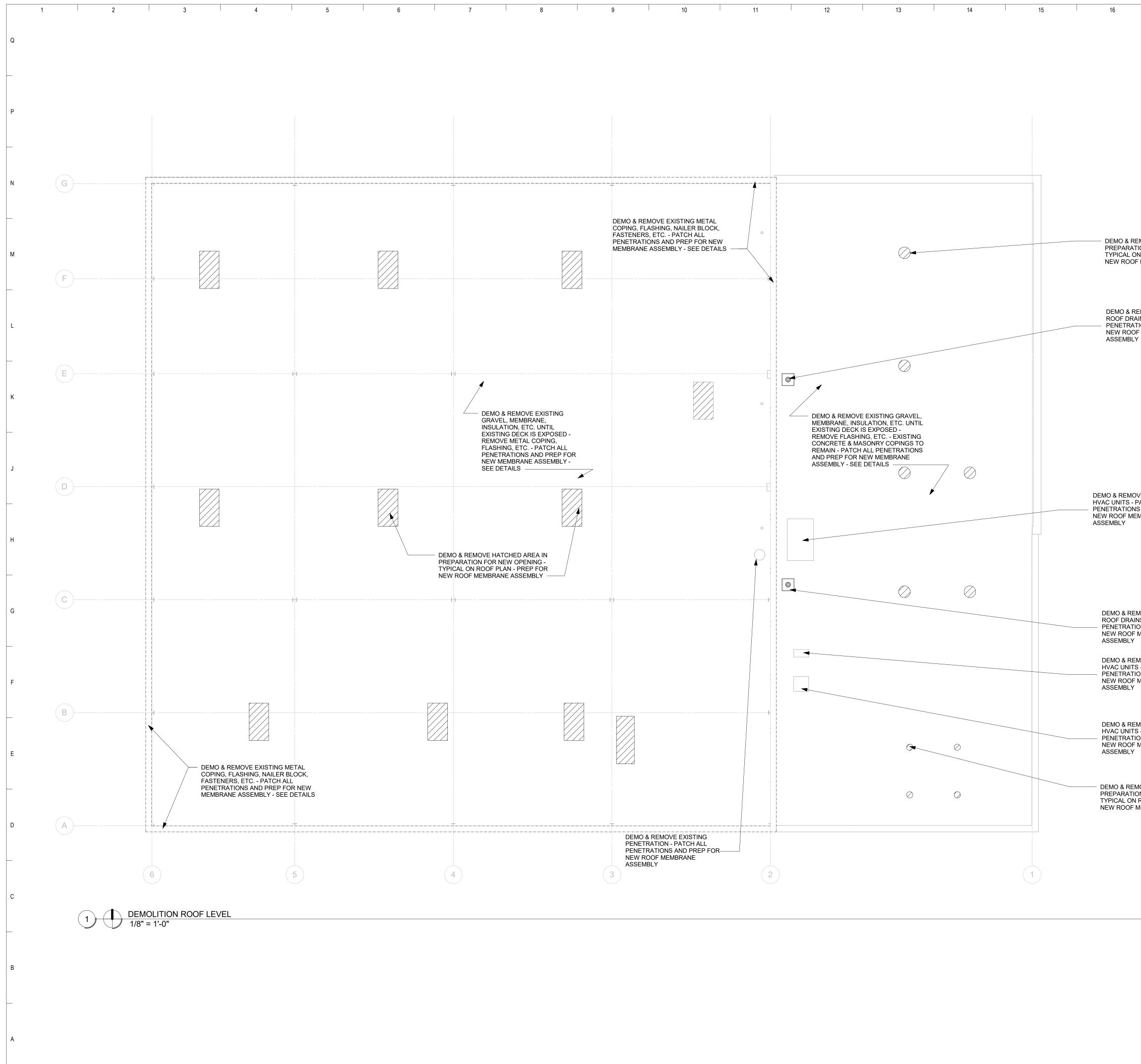
DEMO & REMOVE EXISTING CEILING, MEP SYSTEM, & LIGHTING THROUGHOUT

DEMO & REMOVE EXISTING CEILING, MEP SYSTEM, & LIGHTING THROUGHOUT

DEMO & REMOVE EXISTING CEILING, MEP SYSTEM, & LIGHTING THROUGHOUT GENERAL NOTES

- 1. CONTRACTOR TO FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS. IN THE EVENT OF A DISCREPANCY BETWEEN THE DRAWINGS AND THE EXISTING CONDITIONS, NOTIFY THE ARCHITECT BEFORE PROCEEDING.
- 2. PROTECT ALL ADJACENT AREAS AND ITEMS "TO REMAIN" DURING DEMOLITION/CONSTRUCTION. REPAIR/REPLACE ALL ITEMS DAMAGED DURING CONSTRUCTION.
- 3. DO NOT REMOVE ANY ITEMS WHICH JEOPARDIZE THE STRUCTURAL INTEGRITY OF THE BUILDING. IF HIDDEN ELEMENTS OR DETERIORATED ELEMENTS ARE ENCOUNTEREDNOTIFY THE ARCHITECT IMMEDIATELY.
- 4. PATCH ALL AREAS OF ELECTRICAL AND MECHANICAL DEMOLITION THAT WILL NOT BE REUSED.
- 6. IDENTIFICATION AND/OR ABATEMENOF HAZARDOUS MATERIALS IS NOT PART OF THIS SCOPE OF WORK. IF ASBESTOS OR OTHER HAZARDOUSMATERIALS ARE ENCOUNTERED, THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY.
- 7. REFER TO SPECIFICATION FOR RECYCLING, CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL REQUIREMENTS.
- 8. REMOVE LOOSE PAINT AND MISCELLANEOUS HANGING OBJECTS FROM WALLS AND CEILINGS AT ALL AREAS WITHIN THE SCOPE OF WORK.
- 9. PATCH AND REPAIR ALL EXISTING WALL SURFACES DAMAGED FROM DEMOLITION OR PRIOR USE.
- 10. CONTRACTOR TO FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS. IN THE EVENT OF A DISCREPANCY BETWEEN THE DRAWINGS AND THE EXISTING CONDITIONS, NOTIFY THE ARCHITECT BEFORE PROCEEDING.
- 11. REFER TO CONSULTANT DRAWINGS FOR ADDITIONAL DEMOLITION OF OTHER DISCIPLINES.
- 12. PROTECT ALL ADJACENT AREAS AND ITEMS "TO REMAIN" DURING DEMOLITION/CONSTRUCTION. REPAIR/REPLACE ALL ITEM:DAMAGED DURING CONSTRUCTION.
- 13. EXISTING BUILDING CONDITION/SHOWN ON THESE DRAWINGS ARE DERIVED FROM LIMITED FIELD OBSERVATION.
- 14. INDICATED EXISTING BUILDING CONDITIONS ARE ASSUMED TO BE REPRESENTATIVE OF THE ACTUAL CONSTRUCTION OF THE BUILDING. LOCAL CONDITIONS MAY VARY.
- 15. THIS PLAN SHALL NOT SUPERSEDE OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION PART 1926 SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION GUIDELINES FOR CONSTRUCTION MEANS OF EGRESS.
- 16. DIMENSIONS ARE MEASURED FACE-OF-FINISH TO FACE-OF-FINISH OR ROUGH MASONRY OPENING, UNLESS NOTED OTHERWISE - TYPICAL FOR ALL DRAWINGS.

GENERAL NOTES



16	17	10	19	20	01	
16	' 17	18	19	GENERAL NO	DTES	
			2 F 3	MANAGEMENT AND EQUIREMENTS. . REMOVE ADHESIVE, S ETC. AT ALL AREAS OF WORK. . OPENING IN THE EXIS SMALLER THAN 12" IN	ALS IS NOT PART OF K. IF ASBESTOS OR MATERIALS ARE CONTRACTOR SHALL MMEDIATELY. TION FOR ICTION WASTE DISPOSAL SETTING BEDS, WITHIN THE SCOPE TING STRUCTURE ANY DIRECTION ARE	A R C H I T E C CEDAR RAPIDS DES MOINES MADISON OPN ARCHITECTS 301 NORTH BROOM S-TR SUITE100 MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com
			6	. PATCH AND REPAIR A DECKS, PARAPETS, E	STING STRUCTURE WITHOUT PRIOR TRUCTURAL NOT AT ANY TIME VE LOAD CAPACITIES. ILL EXISTING ROOF TC. DAMAGED FROM	All reports, plans, specifications, co field data, notes and other docume instruments prepared by OPN Arch instruments of service shall remain OPN Architects, Inc. OPN Architect retain all common law, statutory an reserved rights, including the copyr © 2016 OPN Architects, Inc.
	OVE HATCHED AREA IN			DEMOLITION OR PRIO PATCH ALL AREAS OF MECHANICAL DEMOLI BE REUSED. CONTRACTOR TO FIE	ELECTRICAL AND TION THAT WILL NOT	Owner MADISON PUBLIC LIB
PREPARATION TYPICAL ON R NEW ROOF ME	N FOR NEW OPENING - OOF PLAN - PREP FOR EMBRANE ASSEMBLY			EXISTING DIMENSION INDICATED EXISTING CONDITIONS ARE ASS REPRESENTATIVE OF CONSTRUCTION OF T CONDITIONS MAY VAR A DISCREPANCY BET DRAWINGS AND THE I CONDITIONS, NOTIFY BEFORE PROCEEDING	S AND CONDITIONS. BUILDING SUMED TO BE THE ACTUAL HE BUILDING. LOCAL RY. IN THE EVENT OF WEEN THE EXISTING THE ARCHITECT	201 W Mifflin St Madison, WI 53703
DEMO & REMO ROOF DRAINS PENETRATION NEW ROOF MI ASSEMBLY	S - PATCH ALL NS AND PREP FOR		1	0. DO NOT REMOVE ANY JEOPARDIZE THE STR OF THE BUILDING. IF I OR DETERIORATED E ENCOUNTERED, NOTI	Y ITEMS WHICH RUCTURAL INTEGRITY HIDDEN ELEMENTS LEMENTS ARE	Project Madison Public Library Maintenance & Suppor Center Remodel
			1	 ARCHITECT/ENGINEEI EXISTING BUILDING IS WEATHER- TIGHT DU DEMOLITION ACTIVITI REFER TO CONSULTA FOR ADDITIONAL DEM DISCIPLINES. PROTECT ALL ADJACE ITEMS "TO REMAIN" D 	R IMMEDIATELY. S TO REMAIN RING ALL ES. NT DRAWINGS IOLITION OF OTHER ENT AREAS AND URING	1301 West Badger Road Madison, WI 53713
				DEMOLITION/CONSTR REPAIR/REPLACE ALL DURING CONSTRUCTI 4. EXISTING BUILDING C ON THESE DRAWINGS DRAWINGS OF THE OI AND FROM LIMITED FI 5. THIS PLAN SHALL NOT OCCUPATIONAL SAFE ADMINISTRATION PAR AND HEALTH REGULA CONSTRUCTION GUID	ITEMS DAMAGED ION. ONDITIONS SHOWN S ARE DERIVED FROM RIGINAL BUILDING ELD OBSERVATION. T SUPERSEDE ITY & HEALTH RT 1926 SAFETY ITIONS FOR DELINES FOR	General Contractor
IO & REMOVE I C UNITS - PAT ETRATIONS AI / ROOF MEMBI EMBLY	CH ALL ND PREP FOR		1	CONSTRUCTION MEAI 7. DIMENSIONS ARE ME/ FINISH TO FACE-OF-FI MASONRY OPENING L OTHERWISE - TYPICA DRAWINGS.	ASURED FACE-OF- INISH OR ROUGH INLESS NOTED	Consultants
				GENERAL NOTE	S	CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

DEMO & REMOVE EXISTING ROOF DRAINS - PATCH ALL – PENETRATIONS AND PREP FOR NEW ROOF MEMBRANE

DEMO & REMOVE EXISTING HVAC UNITS - PATCH ALL – PENETRATIONS AND PREP FOR NEW ROOF MEMBRANE

DEMO & REMOVE EXISTING HVAC UNITS - PATCH ALL – PENETRATIONS AND PREP FOR NEW ROOF MEMBRANE

DEMO & REMOVE HATCHED AREA IN PREPARATION FOR NEW OPENING -TYPICAL ON ROOF PLAN - PREP FOR NEW ROOF MEMBRANE ASSEMBLY

CEDAR RAPIDS DES MOINES MADISON

ARCHITECTS NORTH BROOM S-TREET, ITE100 DISON, WI 53703 3-819-0260 PHONE 3-819-0261 FAX

reports, plans, specifications, computer files, d data, notes and other documents and truments prepared by OPN Architects, Inc. as truments of service shall remain the property of N Architects, Inc. OPN Architects, Inc. shall ain all common law, statutory and other erved rights, including the copyright thereto.

DISON PUBLIC LIBRARY

adison Public Library aintenance & Support enter Remodel 1 West Badger Road lison, WI 53713

STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date Bid Set

Previous Issue Dates

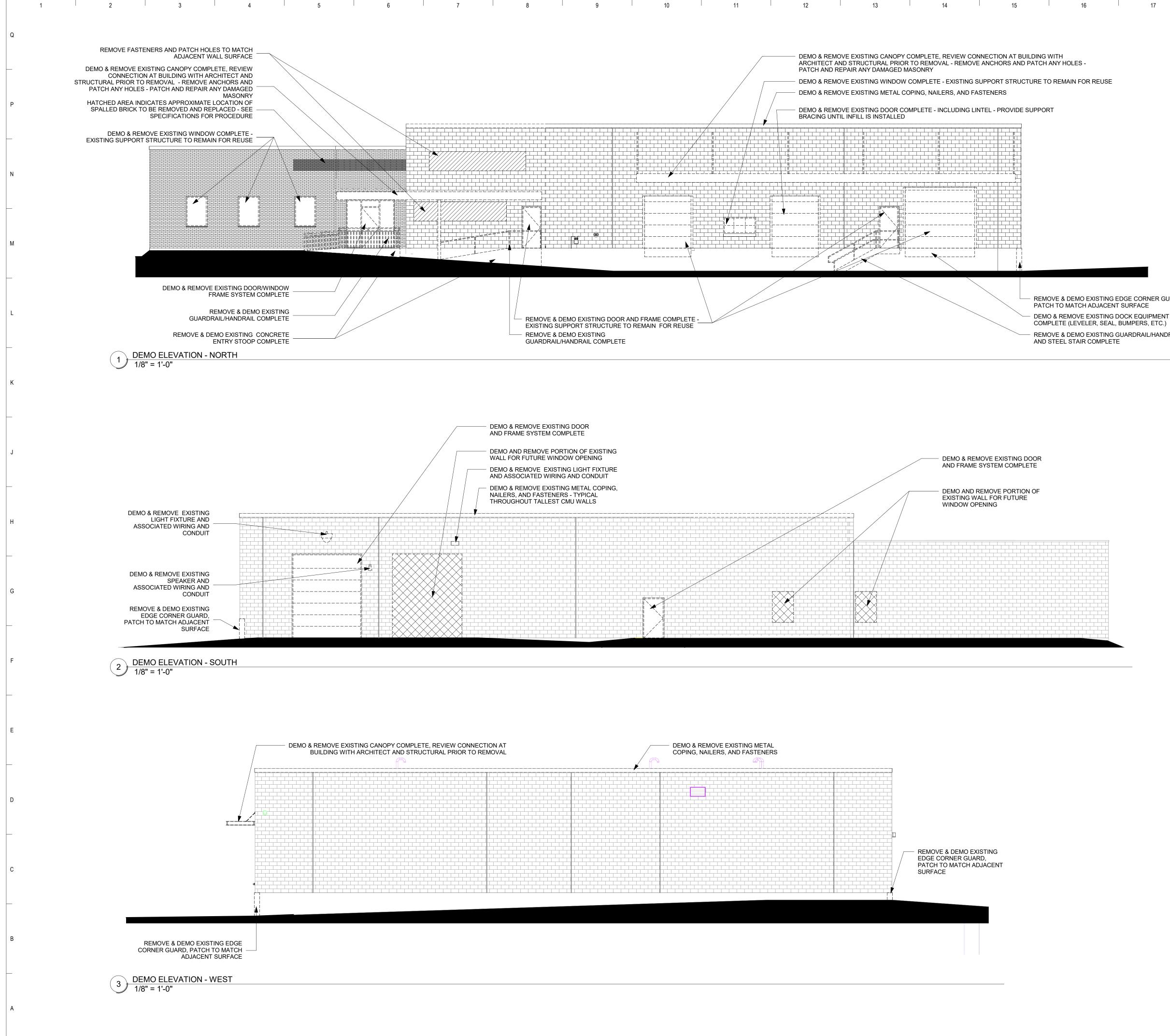
12/09/2016

_____ **Revision Dates**

_____ _____

Drawing DEMOLITION ROOF PLAN





6	17	18	19	20	21
-					

REMOVE & DEMO EXISTING EDGE CORNER GUARD, DEMO & REMOVE EXISTING DOCK EQUIPMENT

REMOVE & DEMO EXISTING GUARDRAIL/HANDRAIL

AR CEDAR RAPIDS DES MOINES MADISON OPN ARCHITECTS 301 NORTH BROOM S-TREET, SUITE100 MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX

www.opnarchitects.com

opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

Owner MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

General Contractor

Project Madison Public Library Maintenance & Support Center Remodel 1301 West Badger Road Madison, WI 53713

Consultants **CIVIL ENGINEER** Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date Bid Set 12/09/2016

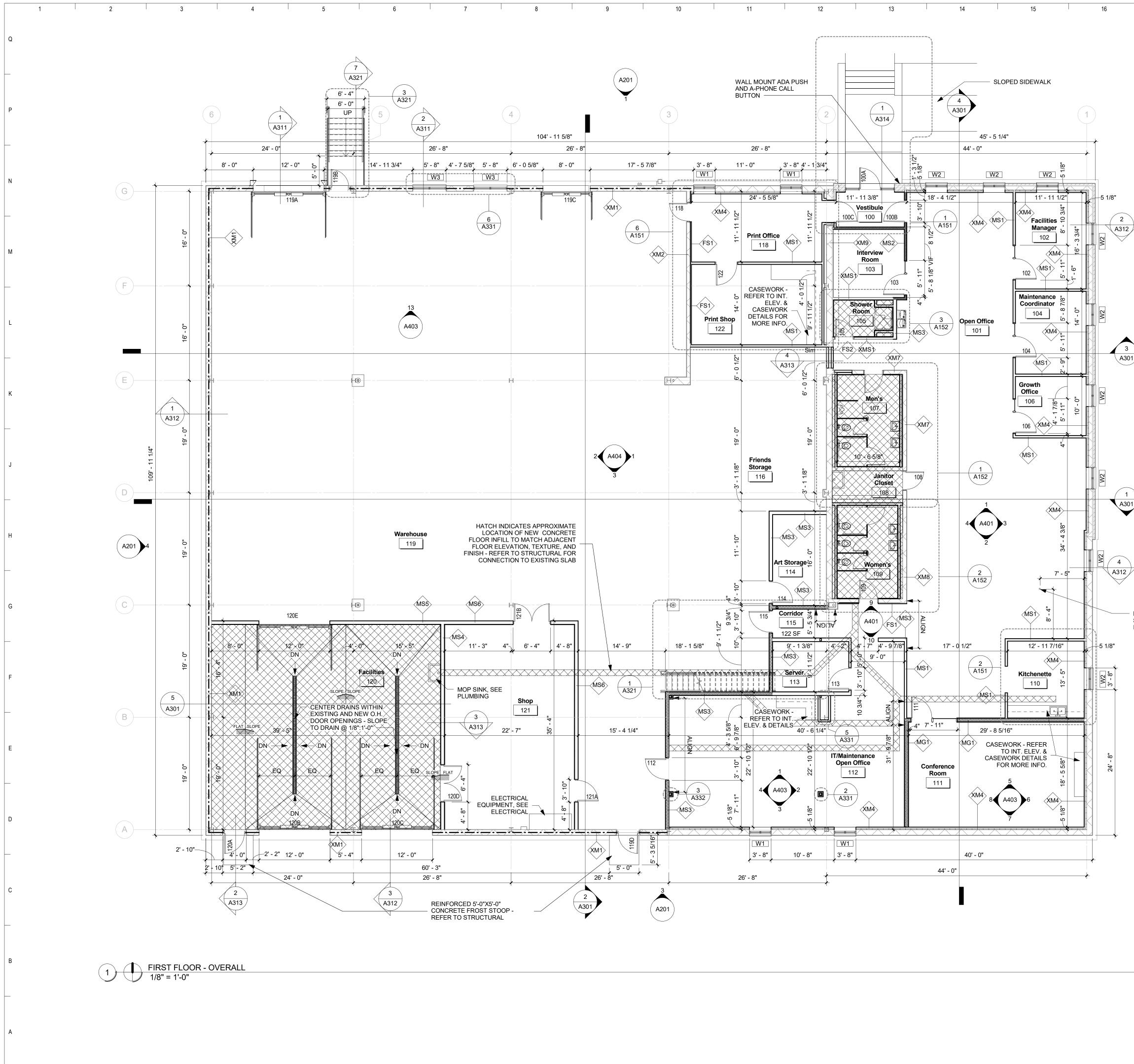
Previous Issue Dates

_____ Revision Dates

Drawing

DEMOLITION EXTERIOR ELEVATIONS

AD201

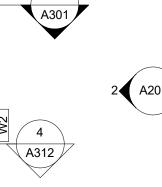


17	18	19	20	21
			GENERAL NOTES	

- 1. DIMENSIONS ARE MEASURED FACE-OF-FINISH TO FACE-OF-FINISH OR ROUGH MASONRY OPENING UNLESS NOTED OTHERWISE - TYPICAL FOR ALL DRAWINGS.
- 2. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND CONDITIONS. IN THE EVENT OF A DISCREPANCY BETWEEN THE DRAWINGS AND THE EXISTING CONDITIONS, NOTIFY THE ARCHITECT BEFORE PROCEEDING. 3. INDICATED EXISTING BUILDING
- CONDITIONS ARE ASSUMED TO BE REPRESENTATIVE OF THE ACTUAL CONSTRUCTION OF THE BUILDING. LOCAL CONDITIONS MAY VARY. IN THE EVENT OF A DISCREPANCY BETWEEN ARCHITECTURAL AND CONSULTANT DRAWINGS, NOTIFY ARCHITECT IMMEDIATELY PRIOR TO COMMENCING
- WORK TYPICAL FOR ALL DRAWINGS. 4. REFER TO ENLARGED PLANS FOR ADDITIONAL WALL TYPE LOCATIONS,
- DIMENSIONS AND KEYNOTES. 5. PROVIDE CONCEALED, FIRE TREATED BLOCKING AT ALL ACCESSORIES AND CASEWORK LOCATIONS. EXTEND BLOCKING A MINIMUM OF 6" BEYOND EACH END AND 6" ABOVE AND BELOW ALL ACCESSORY ITEMS. 6. REFER TO WALL TYPES SHEET FOR
- PARTITION WALL TYPES. 7. ALL WALLS WITH SOUND ATTENUATION BLANKETS ARE TO HAVE ACOUSTICAL SEALANT AT TOP AND BOTTOM AND AT
- ALL WALL PENETRATIONS. 8. ALL PENETRATIONS IN FIRE RATED WALLS MUST BE SEALED WITH
- APPROPRIATE FIRESTOPPING SYSTEM. 9. REFER TO WALL SECTIONS AND SECTION DETAIL DRAWINGS FOR SPECIFIC ROOF DETAILS.
- 10. REFER TO CONSULTANT DRAWINGS FOR OTHER DISCIPLINES.
- 11. EXISTING BUILDING CONDITIONS SHOWN ON THESE DRAWINGS ARE DERIVED FROM DRAWINGS OF THE ORIGINAL BUILDING AND FROM LIMITED FIELD OBSERVATION.
- 12. DASHED CIRCLES AND RECTANGLES INDICATE LOCATIONS OF ROOF OPENINGS ABOVE.
- 13. SEE SPECIFICATIONS FOR EXPANSION JOINT REQUIREMENTS ALL EXTERIOR VERTICAL JOINTS, INCLUDING OPENINGS, TO RECEIVE FOAM BACKER SEAL, BACKER ROD, AND SEALANT.

----- INDICATES LOCATION OF FOAM INSULATION TO BE INSTALLED IN CAVITY OF EXISTING CMU WALL

GENERAL NOTES



A301

POWER/DATA POLE -SEE ELECTRICAL FOR INFORMATION



OPN ARCHITECTS 301 NORTH BROOM S-TREET, SUITE100 MADISON, WI 53703

608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

Owner MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

General Contractor

Project Madison Public Library Maintenance & Support Center Remodel 1301 West Badger Road Madison, WI 53713

Consultants **CIVIL ENGINEER** Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date Bid Set

Previous Issue Dates

12/09/2016

Revision Dates

Drawing FIRST FLOOR PLAN



	1	2	 3	1	4		5	6	 7
	1	2	5		4		5	0	,
Q									
Р									
P									
N									
Μ									
L									
L									
к									
J									
Н									
G									
F									
E									
L									
D									
С									
_									
В									
A									



6 A352 **C**) 16' - 11 1/8" Sim 1 A321 В UP MS3 A321

1 MEZZANINE FLOOR PLAN 1/8" = 1'-0"

MS3

 \smallsetminus /

3

(A)

17	18	19	20	21
			GENERAL NOTES	

- 1. DIMENSIONS ARE MEASURED FACE-OF-FINISH TO FACE-OF-FINISH OR ROUGH MASONRY OPENING UNLESS NOTED OTHERWISE - TYPICAL FOR ALL DRAWINGS.
- 2. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND CONDITIONS. IN THE EVENT OF A DISCREPANCY BETWEEN THE DRAWINGS AND THE EXISTING CONDITIONS, NOTIFY THE ARCHITECT BEFORE PROCEEDING. 3. INDICATED EXISTING BUILDING
- CONDITIONS ARE ASSUMED TO BE REPRESENTATIVE OF THE ACTUAL CONSTRUCTION OF THE BUILDING. LOCAL CONDITIONS MAY VARY. IN THE EVENT OF A DISCREPANCY BETWEEN ARCHITECTURAL AND CONSULTANT DRAWINGS, NOTIFY ARCHITECT IMMEDIATELY PRIOR TO COMMENCING WORK - TYPICAL FOR ALL DRAWINGS.
- 4. REFER TO ENLARGED PLANS FOR ADDITIONAL WALL TYPE LOCATIONS, DIMENSIONS AND KEYNOTES.
- 5. PROVIDE CONCEALED, FIRE TREATED BLOCKING AT ALL ACCESSORIES AND CASEWORK LOCATIONS. EXTEND BLOCKING A MINIMUM OF 6" BEYOND EACH END AND 6" ABOVE AND BELOW ALL ACCESSORY ITEMS.
- 6. REFER TO WALL TYPES SHEET FOR PARTITION WALL TYPES.
- 7. ALL WALLS WITH SOUND ATTENUATION BLANKETS ARE TO HAVE ACOUSTICAL SEALANT AT TOP AND BOTTOM AND AT ALL WALL PENETRATIONS.
- 8. ALL PENETRATIONS IN FIRE RATED WALLS MUST BE SEALED WITH
- APPROPRIATE FIRESTOPPING SYSTEM. 9. REFER TO WALL SECTIONS AND SECTION DETAIL DRAWINGS FOR SPECIFIC ROOF DETAILS.
- 10. REFER TO CONSULTANT DRAWINGS FOR OTHER DISCIPLINES.
- 11. EXISTING BUILDING CONDITIONS SHOWN ON THESE DRAWINGS ARE
- DERIVED FROM DRAWINGS OF THE ORIGINAL BUILDING AND FROM LIMITED FIELD OBSERVATION. 12. DASHED CIRCLES AND RECTANGLES INDICATE LOCATIONS OF ROOF OPENINGS ABOVE.

----- INDICATES LOCATION OF FOAM INSULATION TO BE INSTALLED IN CAVITY OF EXISTING CMU WALL





OPN ARCHITECTS 301 NORTH BROOM S-TREET, SUITE100 MADISON, WI 53703

608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

Owner MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

General Contractor

Project Madison Public Library Maintenance & Support Center Remodel 1301 West Badger Road Madison, WI 53713

Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

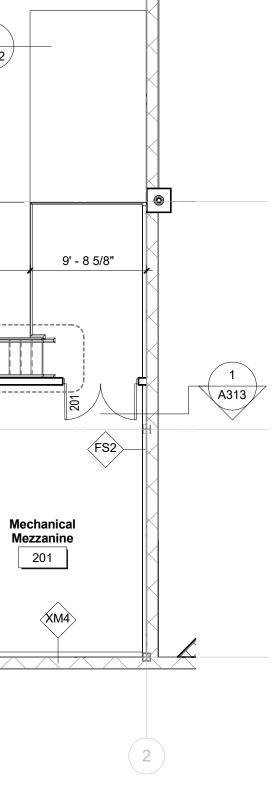
STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

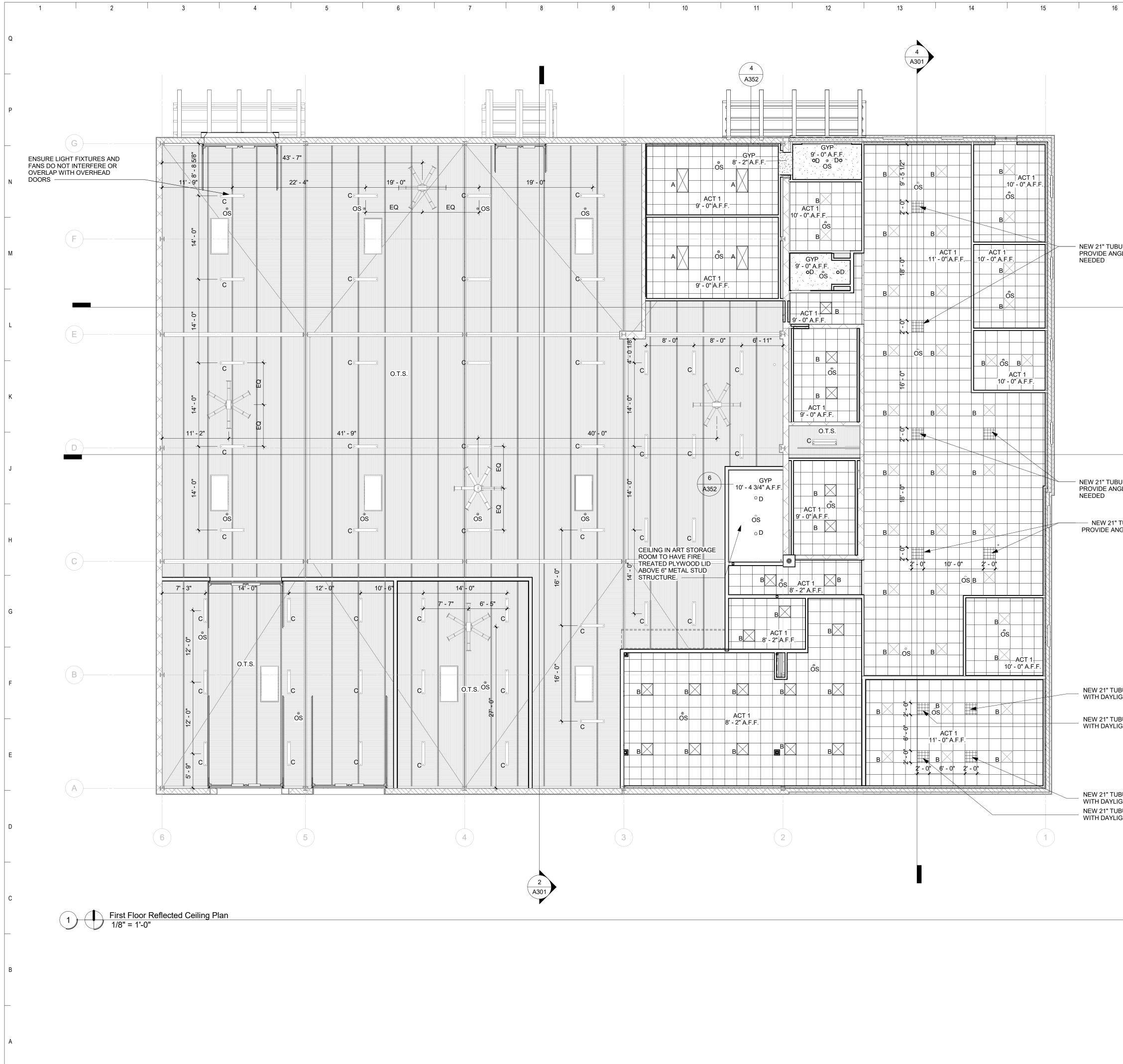
ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date	
Bid Set	12/09/2016
Previous Issue Dates	
Revision Dates	
Drawing MEZZANINE F	LOOR PLAN
OPN Project No. 156	17000



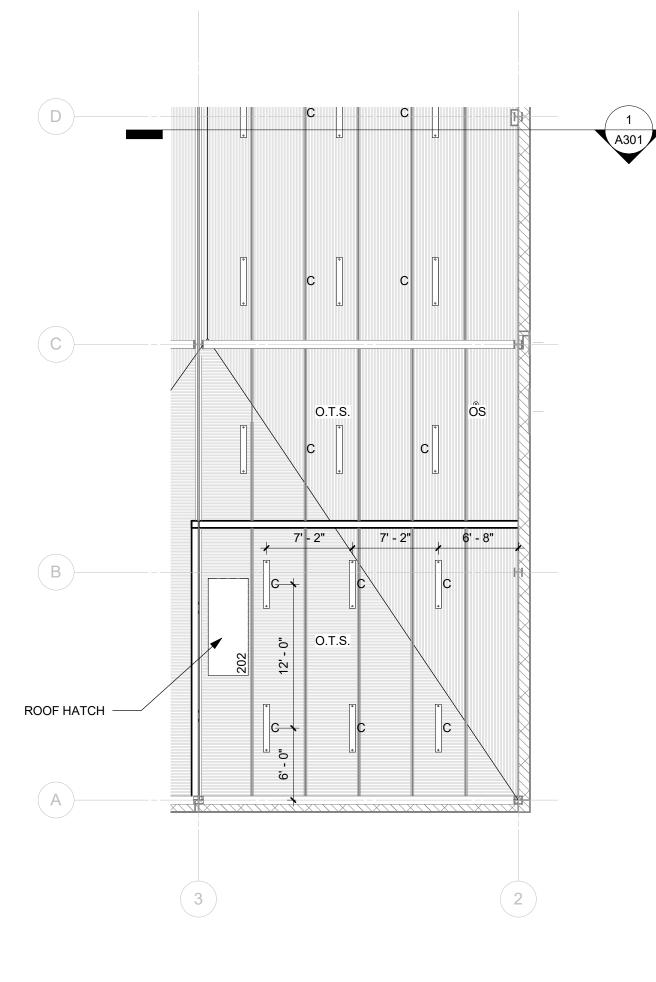
A102



17	18	19	20	21	
		GENERAL NOTES	3		OPN
					A R C H I T E C T S CEDAR RAPIDS
	HE 2. CE	ILING HEIGHTS ARE LIS GHT IS GIVEN ABOVE F ILING-MOUNTED FIXTUI D EQUIPMENT SHALL B	FINISHED FLOOR. RES, SPRINKLERS		DES MOINES MADISON
	SO NC	ILING PANELS OR GYPS FFITS AND EQUALLY SF TED OTHERWISE.	PACED UNLESS		OPN ARCHITECTS 301 NORTH BROOM S-TREET, SUITE100 MADISON, WI 53703
	NC 4. ALI	INTER CEILING GRID IN DTED OTHERWISE. L MECHANICAL DIFFUSE INTED BY MANUFACTUF	ERS SHALL BE		608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com
	AD OT 5. CC	JACENT SOFFIT/ACP UN HERWISE. NCEALED SPRINKLER H	NLESS NOTED		All reports, plans, specifications, computer file field data, notes and other documents and
	MA NC	IALL BE PAINTED BY MA ATCH ADJACENT SOFFIT DTED OTHERWISE. DORDINATE LOCATIONS	ACP UNLESS		instruments prepared by OPN Architects, Inc. instruments of service shall remain the prope OPN Architects, Inc. OPN Architects, Inc. sh retain all common law, statutory and other reserved rights, including the copyright theret
	AR OF	D EMERGENCY LIGHTS CHITECTURAL DRAWIN A DISCREPANCY, VERI	GS. IN THE EVENT FY WITH		© 2016 OPN Architects, Inc.
	7. CE FR	CHITECT PRIOR TO INS ILING FIXTURE DIMENS OM CENTERLINE OF FIX DTED OTHERWISE.	IONS ARE TAKEN		Owner MADISON PUBLIC LIBRARY
ILAR SKYLIGHT - LE EXTENSIONS AS	8. RE RE ME	FER TO DRAWINGS (EL FLECTED CEILING PLAN CHANICAL AND ELECT	NS) FOR ALL RICAL DEVICE		201 W Mifflin St Madison, WI 53703
	HE CC	ID FIXTURE LOCATIONS GHTS. IF NOT CLEARLY NTACT ARCHITECT FOR ARIFICATION.	Y SPECIFIED,		
3	9. PA DU NC	INT ALL EXPOSED STRU ICTWORK, CONDUIT, ET DTED TO BE OPEN TO ST	C. IN AREAS		
A301	ST UT	DTED OTHERWISE. PAIN RUCTURE TO BE DONE ILITIES ARE INSTALLED /ER LIGHT FIXTURES, DI	AFTER ALL . DO NOT PAINT		Project Madison Public Library
	AL/ 10. RE DE	ARMS, FANS, OR OCCUI FER TO WALL SECTION TAIL DRAWINGS FOR S	PANCY SENSORS. IS AND SECTION		Maintenance & Support Center Remodel 1301 West Badger Road
	11. CC DIN	TAILS. ONTRACTOR TO FIELD V MENSIONS AND CONDIT DICATED EXISTING BUIL	IONS.		Madison, WI 53713
	CC RE CC	NDITIONS ARE ASSUME PRESENTATIVE OF THE INSTRUCTION OF THE E	ED TO BE E ACTUAL BUILDING.		
	EV TH	CAL CONDITIONS MAY ENT OF A DISCREPANC E DRAWINGS AND THE DIDITIONS, NOTIFY THE	Y BETWEEN EXISTING		General Contractor
	BE 12. RE FO	FORE PROCEEDING. FER TO CONSULTANT E R OTHER DISCIPLINES.	DRAWINGS		
A301	SH DE	ISTING BUILDING COND IOWN ON THESE DRAWI RIVED FROM DRAWING RIGINAL BUILDING AND F	INGS ARE IS OF THE		
ILAR SKYLIGHT - LE EXTENSIONS AS		ELD OBSERVATION.			
TUBULAR SKYLIGHT -					Consultants
GLE EXTENSIONS AS NEEDED					CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road
	GEN	ERAL NOTES			Madison, WI 53718 P. 608.838.0444 STRUCTURAL ENGINEER
					KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562
	LEGEND				P. 608.223.9600 MECHANICAL ENGINEER KJWW Engineering Consultants
		A: 2'X4' LED FI B: 2'X2' LED FI			1800 Deming Way Middleton, WI 53562 P. 608.223.9600
			L LED PENDANT	FIXTURE	ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way
ULAR SKYLIGHT HT DIMMER	0	D: RECESSED	LED CAN FIXTU	RE	Middleton, WI 53562 P. 608.223.9600
ULAR SKYLIGHT HT DIMMER	\odot	OS: OCCUPAN	ICY SENSOR		Key Plan
		: REFER TO MEP [NCLUDED IN LEGE		TEMS	
		END			
BULAR SKYLIGHT					Sheet Issue Date Bid Set 12/09/2016
HT DIMMER ULAR SKYLIGHT HT DIMMER					Previous Issue Dates
					Revision Dates
					Drawing

A1	21
-----------	----

	1	2	 3	1	4		5	6	 7
	1	2	5		4		5	0	,
Q									
Р									
P									
N									
Μ									
L									
L									
к									
J									
Н									
G									
F									
E									
L									
D									
С									
_									
В									
A									

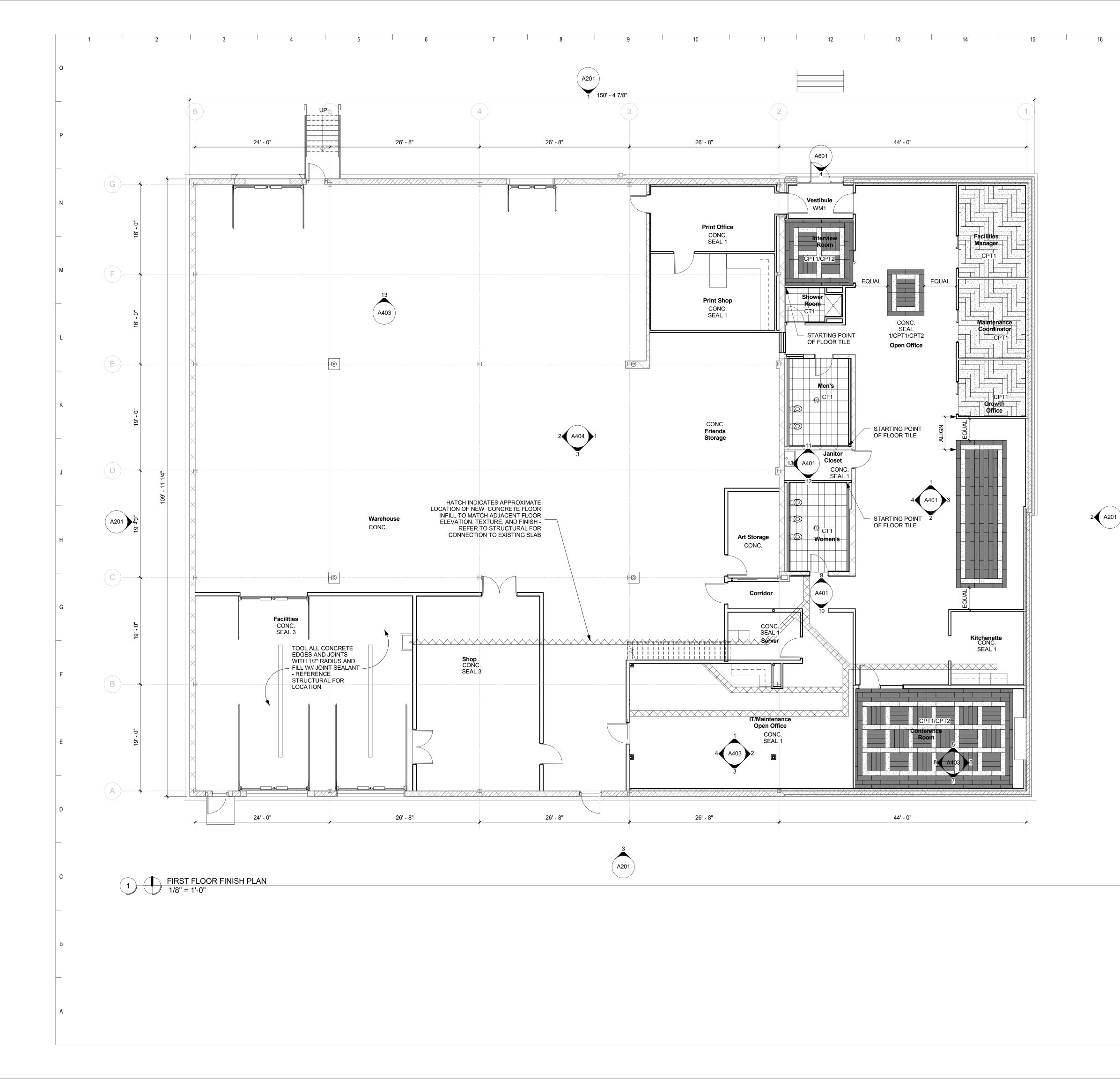


 MEZZANINE REFLECTED CEILING PLAN

 1
 1/8" = 1'-0"

8 9 10 11 12 13 14 15 16

6		17	18	19		20		21	
				GENERAL NOT	TES	_			A R C H I T E C T S
				CEILING HEIGHTS ARE HEIGHT IS GIVEN ABOV CEILING-MOUNTED FIX AND EQUIPMENT SHALI	/E FINISHED FLC TURES, SPRINKI)or. Lers			CEDAR RAPIDS DES MOINES MADISON
				CEILING PANELS OR GY SOFFITS AND EQUALLY NOTED OTHERWISE.	YPSUM BOARD	SS			OPN ARCHITECTS 301 NORTH BROOM S-TREET, SUITE100
				CENTER CEILING GRID NOTED OTHERWISE. ALL MECHANICAL DIFFU PAINTED BY MANUFACT	USERS SHALL B	E			MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com
			5.	ADJACENT SOFFIT/ACP OTHERWISE. CONCEALED SPRINKLE	PUNLESS NOTE	C			opn@opnarchitects.com All reports, plans, specifications, computer files, field data, notes and other documents and
			0	SHALL BE PAINTED BY I MATCH ADJACENT SOF NOTED OTHERWISE.	FIT/ACP UNLES	S			instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto.
			6.	COORDINATE LOCATIO AND EMERGENCY LIGH ARCHITECTURAL DRAW OF A DISCREPANCY, VE	ITS SHOWN ON VINGS. IN THE E				© 2016 OPN Architects, Inc.
			7.	ARCHITECT PRIOR TO I CEILING FIXTURE DIME FROM CENTERLINE OF	INSTALLATION. INSIONS ARE TA				^{Owner} MADISON PUBLIC LIBRARY
			8.	NOTED OTHERWISE. REFER TO DRAWINGS (REFLECTED CEILING PI MECHANICAL AND ELE	LANS) FOR ALL	E			201 W Mifflin St
				AND FIXTURE LOCATIO HEIGHTS. IF NOT CLEAF CONTACT ARCHITECT F	NS & MOUNTING RLY SPECIFIED,				Madison, WI 53703
			9.	CLARIFICATION. PAINT ALL EXPOSED ST DUCTWORK, CONDUIT, NOTED TO BE OPEN TC	ETC. IN AREAS				
				NOTED OTHERWISE. PA STRUCTURE TO BE DOI UTILITIES ARE INSTALL	NE AFTER ALL .ED. DO NOT PAI				Project Madison Public Library
			10.	OVER LIGHT FIXTURES, ALARMS, FANS, OR OCO REFER TO WALL SECTION DETAIL DRAWINGS FOR	CUPANCY SENS	ON			Maintenance & Support Center Remodel 1301 West Badger Road
			11.	DETAILS. CONTRACTOR TO FIELD DIMENSIONS AND CONI INDICATED EXISTING B	DITIONS.				Madison, WI 53713
				CONDITIONS ARE ASSU REPRESENTATIVE OF T CONSTRUCTION OF TH	JMED TO BE THE ACTUAL IE BUILDING.				
				LOCAL CONDITIONS MA EVENT OF A DISCREPA THE DRAWINGS AND TH CONDITIONS, NOTIFY T	NCY BETWEEN HE EXISTING				General Contractor
				BEFORE PROCEEDING. REFER TO CONSULTAN FOR OTHER DISCIPLINE	IT DRAWINGS ES.				
			13.	EXISTING BUILDING CO SHOWN ON THESE DRA DERIVED FROM DRAWI ORIGINAL BUILDING AN	AWINGS ARE INGS OF THE	D			
				FIELD OBSERVATION.					
									Consultants
									CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road
	1 A301		G	ENERAL NOTES					Madison, WI 53718 P. 608.838.0444 STRUCTURAL ENGINEER
									KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562
				<u>EGEND</u> Δ· 2'Χ4' Ι	LED FIXTUR	F			P. 608.223.9600 MECHANICAL ENGINEER KJWW Engineering Consultants
					LED FIXTUR				1800 Deming Way Middleton, WI 53562 P. 608.223.9600
					STRIAL LED	PENDANT F	IXTURE		ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way
				O D: RECE	ESSED LED (CAN FIXTUF	RE		Middleton, WI 53562 P. 608.223.9600
					CUPANCY SE				Key Plan
				NOTE: REFER TO NOT INCLUDED IN		INGS FOR I	TEMS		
) L	EGEND				_	
									Sheet Issue Date Bid Set 12/09/2016
									Previous Issue Dates
									Revision Dates
									Drawing MEZZANINE REFLECTED CEILING PLAN
									OPN Project No. 15617000
									A122



17	7	18	19	20	21

GENERAL NOTES

- 1. DIMENSIONS ARE MEASURED FACE-OF-FINISH TO FACE-OF-FINISH OR ROUGH MASONRY OPENING UNLESS NOTED OTHERWISE - TYPICAL FOR ALL DRAWINGS.
- 2. REFER TO INTERIOR ELEVATIONS, FINISH SPECIFICATIONS AND ROOM FINISH SCHEDULE FOR ADDITIONAL WALL FINISH
- INFORMATION AND REMARKS.
 3. ALL FLOOR MATERIAL TRANSITIONS, TERMINATION AND SEAM LOCATIONS ARE TO BE CENTERED UNDER DOOR LEAFS IN CLOSED POSITION UNLESS NOTED OTHERWISE.
- GRILLES, METAL FIXTURE TRIM AND MISCELLANEOUS METALS TO BE PAINTED BY MANUFACTURER TO MATCH ADJACENT WALL OR CEILING SURFACES UNLESS NOTED OTHERWISE.
- EXTEND FLOORING INTO TOE SPACES, DOOR REVEALS, CLOSETS AND SIMILAR OPENINGS UNLESS NOTED OTHERWISE.
 PROVIDE FLOORING TRANSITION STRIPS AT FLOOR MATERIAL CHANGES. COORDINATE FLOORING TRANSITION
- MATERIAL, PROFILE AND COLOR WITH ARCHITECT PRIOR TO INSTALLATION -REFER TO DETAIL DRAWINGS FOR DESIGN INTENT. 7. ALL HOLLOW METAL DOORS AND FRAME TO DE DAINTED TO MATCH AD INCENT
- 7. ALL HOLLOW METAL DOORS AND FRAMES TO BE PAINTED TO MATCH ADJACENT WALL SURFACES WITH SEMI-GLOSS PAINT FINISH UNLESS NOTED OTHERWISE.
- 8. ALL ANODIZED ALUMINUM FRAMES NOT TO BE PAINTED UNLESS NOTED OTHERWISE.
- 9. ALL INTERIOR CEMENT BOARD LOCATIONS NOT TO BE PAINTED UNLESS NOTED OTHERWISE.
- CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND CONDITIONS. IN THE EVENT OF A DISCREPANCY BETWEEN THE DRAWINGS AND THE EXISTING CONDITIONS, NOTIFY THE ARCHITECT BEFORE PROCEEDING.
 REFER TO CONSULTANT DRAWINGS
- FOR OTHER DISCIPLINES. 12. EXISTING BUILDING CONDITIONS SHOWN ON THESE DRAWINGS ARE DERIVED FROM DRAWINGS OF THE
- ORIGINAL BUILDING AND FROM LIMITED FIELD OBSERVATION. INDICATED EXISTING BUILDING CONDITIONS ARE ASSUMED TO BE REPRESENTATIVE OF THE ACTUAL CONSTRUCTION OF THE BUILDING.
- LOCAL CONDITIONS MAY VARY. 13. OFFICE AREA - REMOVE CARPET AND ALL RESIDUE COMPLETE TO PREP FOR POLISH AND SEAL CONCRETE FLOOR. SEAL CONCRETE FLOOR THROUGHOUT OFFICE SPACES, INCLUDING AREAS TO RECEIVE CARPET IN THE FUTURE. REFER TO SPECIFICATIONS FOR EXECUTION. 14. WAREHOUSE AREA - EXISTING
- CONCRETE FLOOR TO REMAIN AS IS

CPT-2:

GENERAL NOTES



OPN ARCHITECTS 301 NORTH BROOM S-TREET, SUITE100 MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX

608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

General Contractor

Owner

Project Madison Public Library Maintenance & Support Center Remodel 1301 West Badger Road Madison, WI 53713

Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date Bid Set

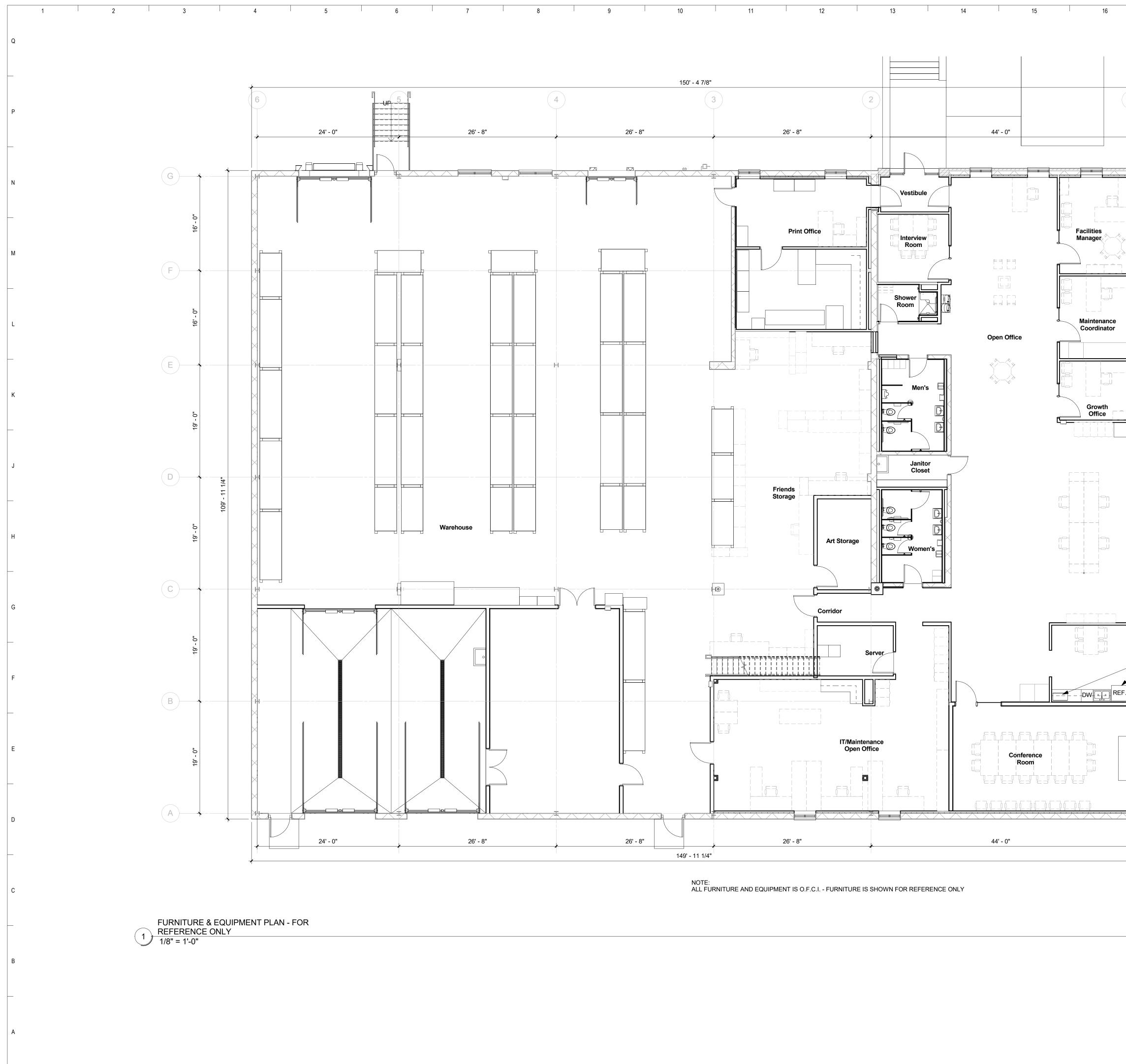
12/09/2016

Previous Issue Dates

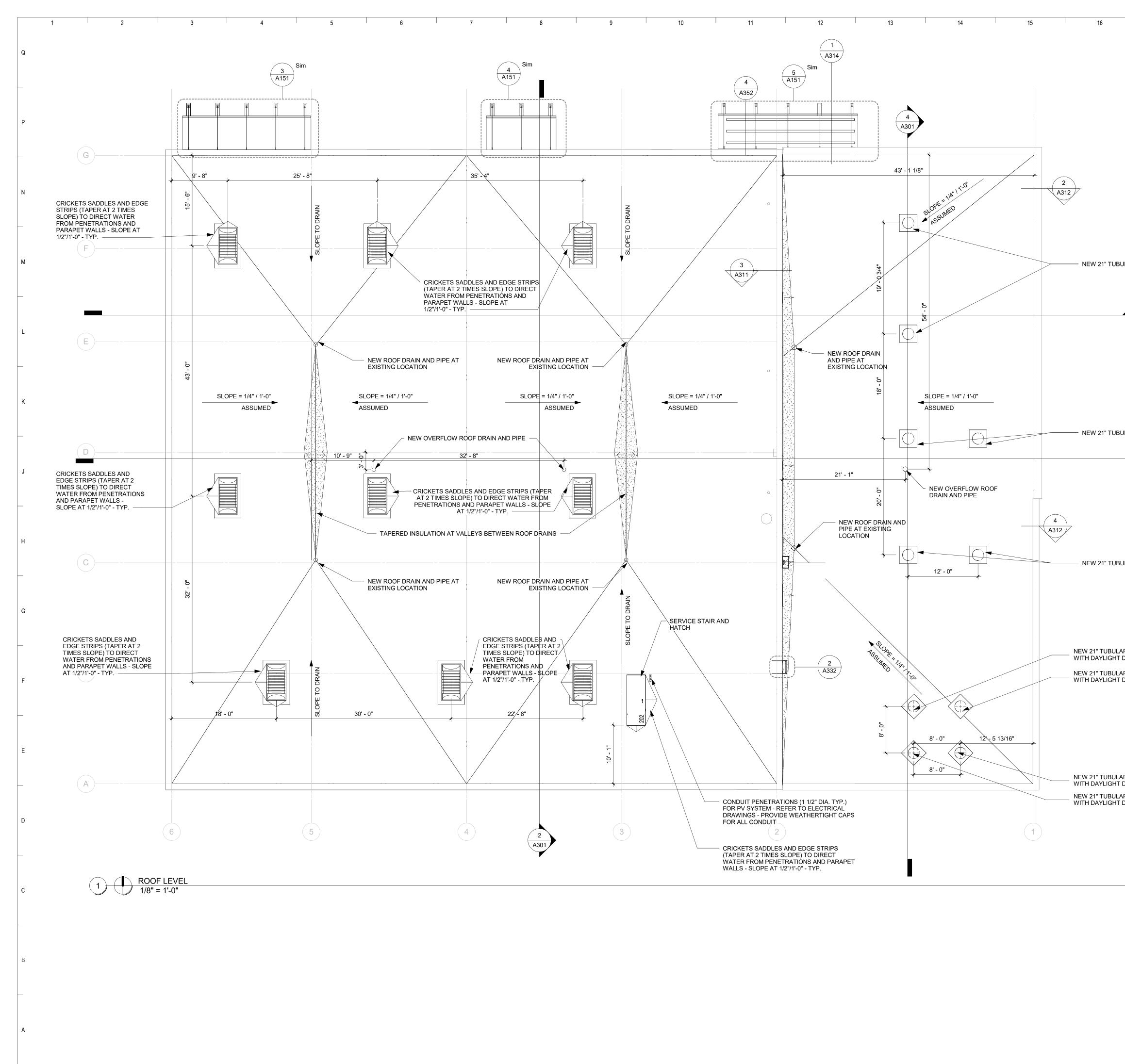
Revision Dates

Drawing FIRST FLOOR FINISH PLAN





		17		18	19	20	21	
								ARCHITECTS CEDAR RAPIDS
1	-							DES MOINES MADISON OPN ARCHITECTS 301 NORTH BROOM S-TREET, SUITE100 MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com
								All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.
·								Owner MADISON PUBLIC LIBRARY
								201 W Mifflin St Madison, WI 53703
								Project Madison Public Library Maintenance & Support Center Remodel 1301 West Badger Road Madison, WI 53713
								General Contractor
								Consultants CIVIL ENGINEER
								Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444 STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
								MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
EF.	, c	D.F.C.I. EQUIP	MENT					ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
								Key Plan
								Bid Set 12/09/2016 Previous Issue Dates
/	-							
								Revision Dates
								Drawing FURNITURE AND EQUIPMENT PLAN
								OPN Project No. 15617000



		ARCHITECTS
	1. NOT ALL ROOF PENETRATIONS ARE SHOWN. VERIFY LOCATIONS OF ALL ROOF PENETRATIONS. PROVIDE BOOTS, FLASHING AND OTHER ACCESSORIES	CEDAR RAPIDS DES MOINES MADISON
	REQUIRED TO PROVIDE A COMPLETE, WATERTIGHT WARRANTED SYSTEM REFER TO INDIVIDUAL DISCIPLINES.	OPN ARCHITECTS 301 NORTH BROOM S-TREET, SUITE100
	 COORDINATE SLOPED STRUCTURE AND TAPERED INSULATION WITH STRUCTURAL DRAWINGS. SLOPE ALL TAPERED INSULATION AT 1/4" : 	MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com
	 3. SECTE ALL TALETED INSOLATION AT 1/4 . 1'-0" UNLESS NOTED OTHERWISE. 4. PROTECT SECTIONS OF THE ROOF THAT HAVE ALREADY BEEN INSTALLED FROM 	opn@opnarchitects.com
	DAMAGE. DO NOT USE THE ROOF FOR A STAGING AREA UNLESS ADEQUATE FACTORY, MUTUALLY APPROVED	All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other
	PROTECTION MEASURES ARE USED TO PROTECT THE ROOF. 5. COORDINATE LOCATION OF MECHANICAL	© 2016 OPN Architects, Inc.
	EQUIPMENT WITH MECHANICAL DRAWINGS. 6. ALL OVERFLOW DRAINS TO BE 2" ABOVE	Owner MADISON PUBLIC LIBRARY
	MAIN ROOF DRAIN INTAKE ELEVATION. 7. REFER TO WALL SECTIONS AND SECTION DETAIL DRAWINGS FOR SPECIFIC ROOF DETAILS.	MADISON PUBLIC LIBRARY
IBULAR SKYLIGHT	8. OPENING IN THE EXISTING STRUCTURE SMALLER THAN 12" IN ANY DIRECTION ARE NOT IDENTIFIED ON THESE DRAWINGS. SUB- CONTRACTORS SHALL BE RESPONSIBLE FOR PROVIDING	201 W Mifflin St Madison, WI 53703
3	OPENINGS SMALLER THAN 12" AS REQUIRED FOR INSTALLATION OF THEIR WORK.	
A301	9. CONTRACTOR SHALL NOT AT ANY TIME EXCEED ANY ROOF LIVE LOAD CAPACITIES.	Project Madison Public Library Maintenance & Support
	10. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND CONDITIONS. IN THE EVENT OF A DISCREPANCY	Center Remodel 1301 West Badger Road
	BETWEEN THE DRAWINGS AND THE EXISTING CONDITIONS, NOTIFY THE ARCHITECT BEFORE PROCEEDING.	Madison, WI 53713
	 REFER TO CONSULTANT DRAWINGS FOR OTHER DISCIPLINES. EXISTING BUILDING CONDITIONS SHOWN ON THESE DRAWINGS ARE DERIVED FROM DRAWINGS OF THE ORIGINAL BUILDING AND FROM 	
IBULAR SKYLIGHT	LIMITED FIELD OBSERVATION. 13. INDICATED EXISTING BUILDING CONDITIONS ARE ASSUMED TO BE	General Contractor
	REPRESENTATIVE OF THE ACTUAL CONSTRUCTION OF THE BUILDING. LOCAL CONDITIONS MAY VARY.	
A301	14. DIMENSIONS ARE MEASURED FACE- OF- FINISH TO FACE-OF-FINISH OR ROUGH MASONRY OPENING UNLESS	
	NOTED OTHERWISE - TYPICAL FOR ALL DRAWINGS.	
		Consultants CIVIL ENGINEER
IBULAR SKYLIGHT	SLOPE = 1/4" / 1'-0" ASSUMED EXISTING SLOPED ROOF STRUCTURE TO REMAIN, POSITIVE DRAINAGE TO ALL DRAINS = 1/4" : 1"-0" ASSUMED	Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444
	GENERAL NOTES	STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
		MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
ILAR SKYLIGHT IT DIMMER		ELECTRICAL ENGINEER KJWW Engineering Consultants
LAR SKYLIGHT IT DIMMER		1800 Deming Way Middleton, WI 53562 P. 608.223.9600
		Key Plan
LAR SKYLIGHT		
LAR SKYLIGHT		Sheet Issue Date Bid Set 12/09/2016
IT DIMMER		Previous Issue Dates
		Revision Dates
		Drawing

18

19

20

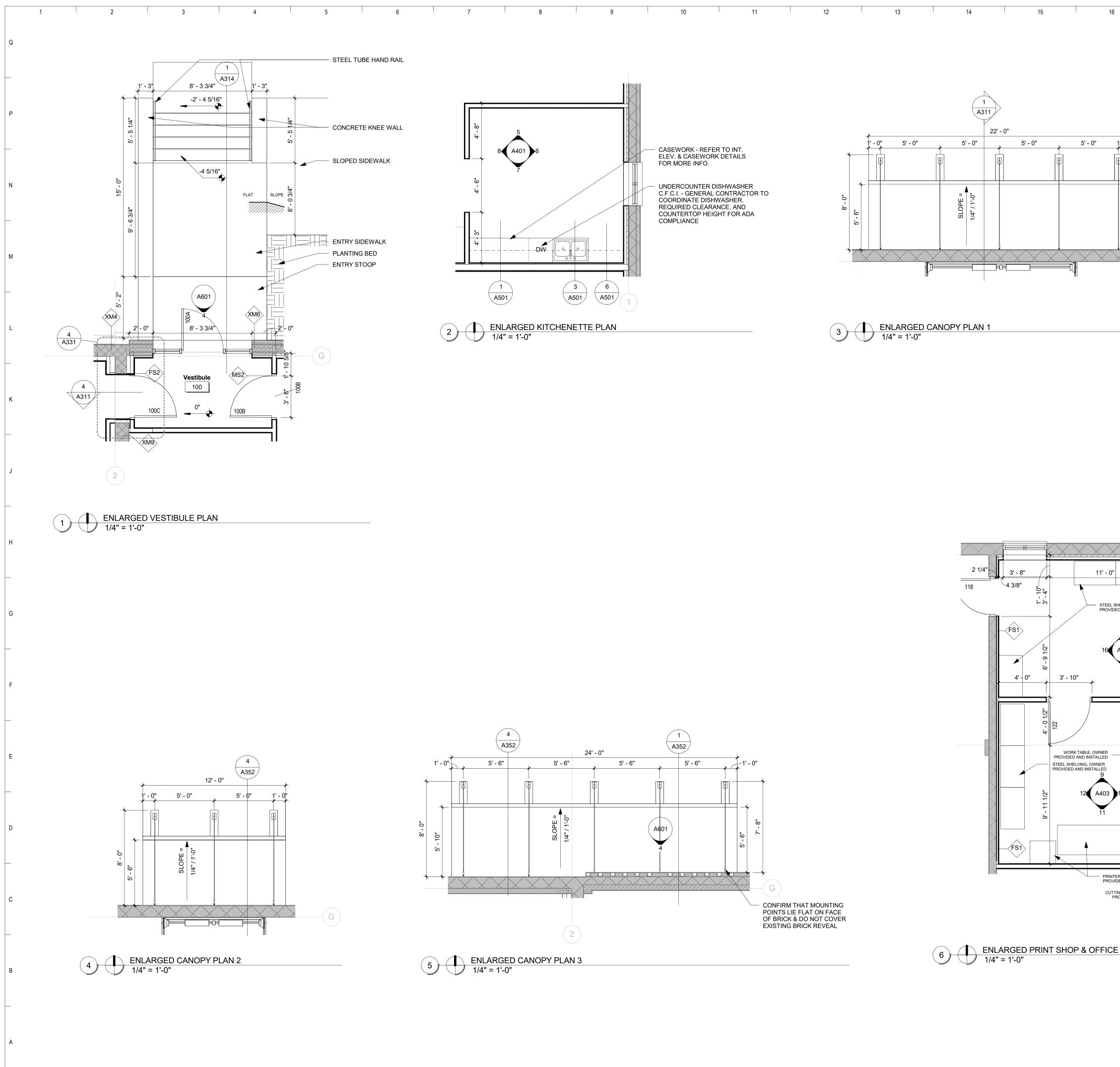
GENERAL NOTES

21

Drawing ROOF PLAN

OPN Project No. 15617000





10	10	19	20 21	
		1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13.	Deversion of the second	<image/> <image/> <text><text><text><text><text><text><text><text><text><text><text><text></text></text></text></text></text></text></text></text></text></text></text></text>
- 0" 3' - 8" - 0" 3' - 8" CEL SHELVING, OWNER OVIDED AND INSTALLED Print Office 118 4402 15 CASEWORK, SEE DETALS ON A 501 Print Shop 122 CASEWORK, SEE DETALS ON A 501 Print Shop 122 CUTTING EQUIPMENT, OWNER PROVIDED AND INSTALLED ICE PLAN	3' - 4 3/8" 9 3/8"			<form></form>

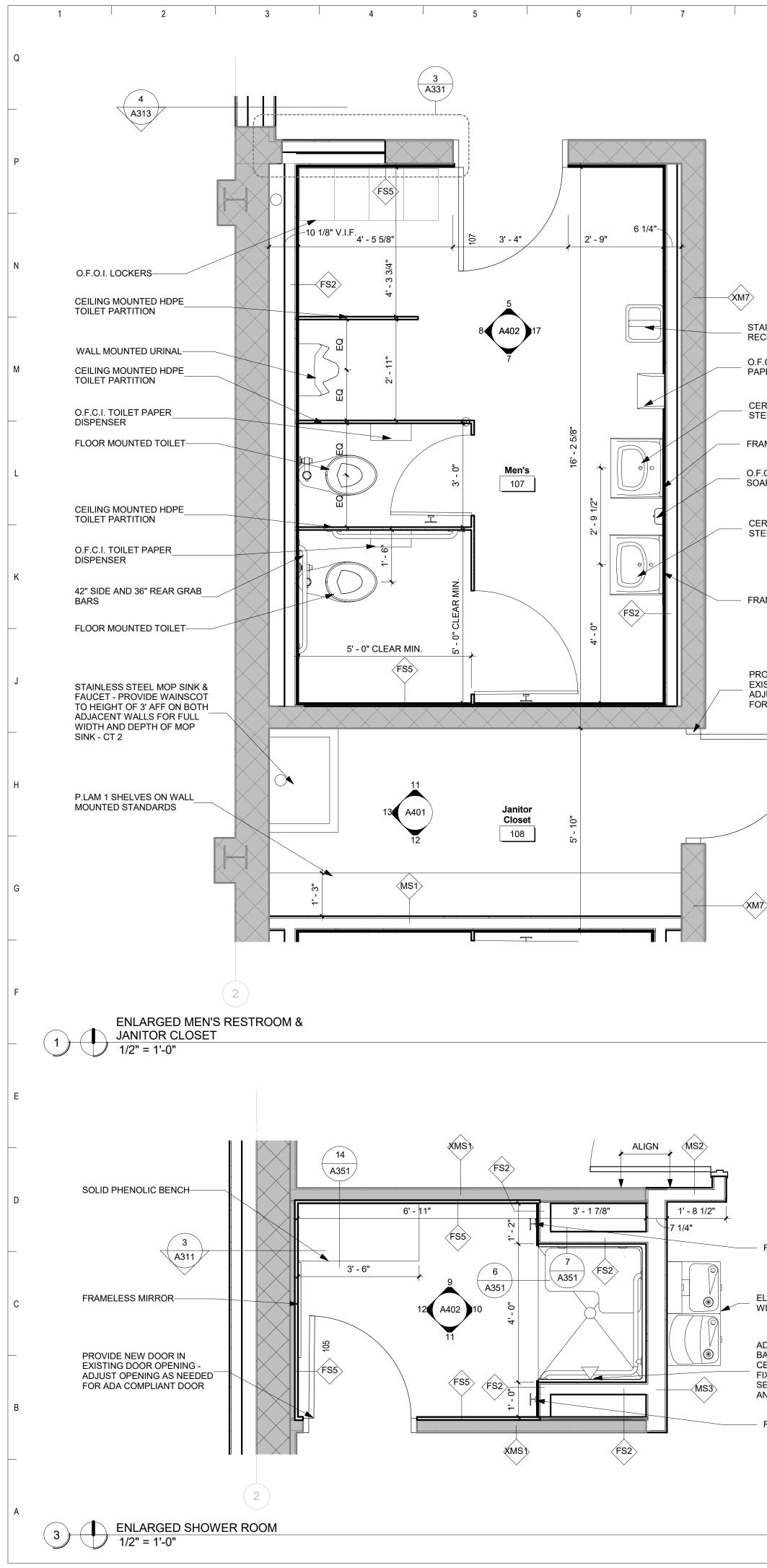
18

19

20

21

OPN Project No. **15617000** A151



ROBE HOOKS

ADA SHOWER UNIT WITH GRAB BARS, 1/2" THRESHOLD, CENTER DRAIN, RIGHTHAND FIXTURE WALL, & FOLD-UP SEAT - PROVIDE CURTAIN ROD AND SHOWER CURTAIN

ELKAY EZH20 BOTTLE FILLER WITH HI-LO COOLER

ROBE HOOKS

108

PROVIDE NEW DOOR IN **EXISTING DOOR OPENING -**ADJUST OPENING AS NEEDED FOR ADA COMPLIANT DOOR

FRAMELESS MIRROR

CERAMIC SINK W/ STAINLESS STEEL TOUCHLESS FAUCET

SOAP DISPENSER

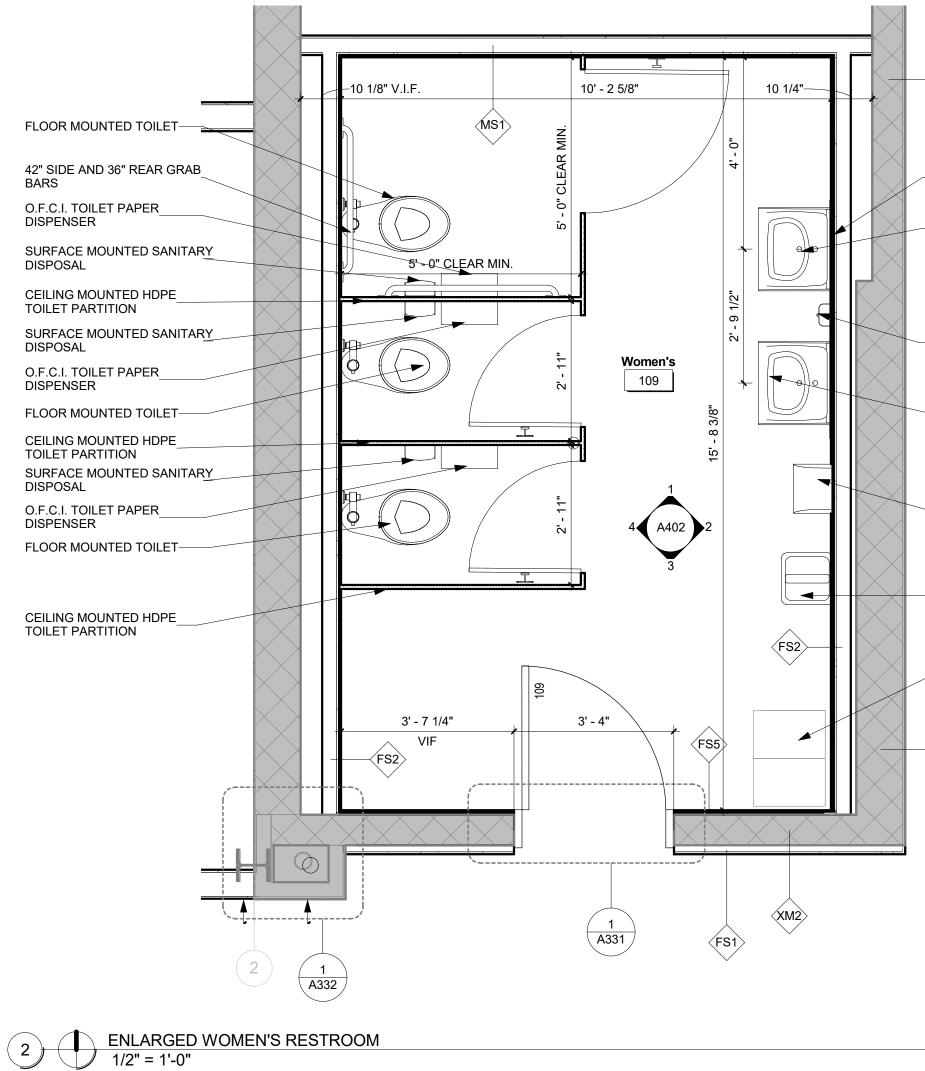
O.F.C.I. SURFACE MOUNTED

FRAMELESS MIRROR

CERAMIC SINK W/ STAINLESS STEEL TOUCHLESS FAUCET

O.F.C.I. SURFACE MOUNTED PAPER TOWEL DISPENSER

STAINLESS STEEL WASTE RECEPTACLE WITH LID



17	18	19	20	21

GENERAL NOTES

- 1. DIMENSIONS ARE MEASURED FACE-OF-FINISH TO FACE-OF-FINISH OR ROUGH MASONRY OPENING UNLESS NOTED OTHERWISE - TYPICAL FOR ALL DRAWINGS.
- 2. REFER TO INTERIOR ELEVATIONS, FINISH PLANS, FINISH SPECIFICATIONS AND ROOM FINISH SCHEDULE FOR ADDITIONAL WALL FINISH INFORMATION AND REMARKS.
- 3. PROVIDE CONCEALED, FIRE TREATED BLOCKING AT ALL ACCESSORIES AND CASEWORK LOCATIONS. EXTEND BLOCKING A MINIMUM OF 6" BEYOND EACH END AND 6" ABOVE AND BELOW ALL ACCESSORY ITEMS.
- 4. MOUNT REQUIRED ACCESSIBLE TOILET ACCESSORIES PER ADA GUIDELINES -SEE GENERAL ARCHITECTURAL INFORMATION SHEET FOR MORE INFORMATION.
- 5. REFER TO INTERIOR ELEVATIONS FOR SPECIFIC MATERIAL AND FINISH CLARIFICATION, MOUNTING HEIGHTS AND FIXTURE LOCATIONS. 6. ALL PENETRATIONS IN FIRE RATED
- WALLS MUST BE SEALED WITH APPROPRIATE FIRESTOPPING SYSTEM.
- 7. REFER TO GENERAL ARCHITECTURAL INFORMATION SHEET FOR ALL TYPICAL ADA MOUNTING HEIGHTS.
- 8. REFER TO CODE REVIEW DRAWINGS FOR FIRE RATED WALL LOCATIONS. 9. ALL WALLS WITH SOUND ATTENUATION BLANKETS ARE TO HAVE ACOUSTICAL SEALANT AT TOP AND BOTTOM AND AT
- ALL WALL PENETRATIONS. 10. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND CONDITIONS. IN THE EVENT OF A DISCREPANCY BETWEEN THE DRAWINGS AND THE EXISTING CONDITIONS, NOTIFY THE ARCHITECT BEFORE PROCEEDING.
- 11. REFER TO CONSULTANT DRAWINGS FOR OTHER DISCIPLINES. 12. EXISTING BUILDING CONDITIONS
- SHOWN ON THESE DRAWINGS ARE DERIVED FROM DRAWINGS OF THE ORIGINAL BUILDING AND FROM LIMITED FIELD OBSERVATION.
- 13. INDICATED EXISTING BUILDING CONDITIONS ARE ASSUMED TO BE REPRESENTATIVE OF THE ACTUAL CONSTRUCTION OF THE BUILDING. LOCAL CONDITIONS MAY VARY.

GENERAL NOTES



OPN ARCHITECTS 301 NORTH BROOM S-TREET, SUITE100 MADISON, WI 53703 608-819-0260 PHONE

608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

Owner MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

General Contractor

Project Madison Public Library Maintenance & Support Center Remodel 1301 West Badger Road Madison, WI 53713

CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

Consultants

STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date

Bid Set	12/09/2016						
Previous Issue Dates							
Revision Dates							
Drawing ENLARGED RESTROOM							
	FLOOR PLANS						
OPN Project No. 156	17000						
OPN Project No. 156	17000						



∕xm7`

16

FRAMELESS MIRROR

CERAMIC SINK W/ STAINLESS STEEL TOUCHLESS FAUCET

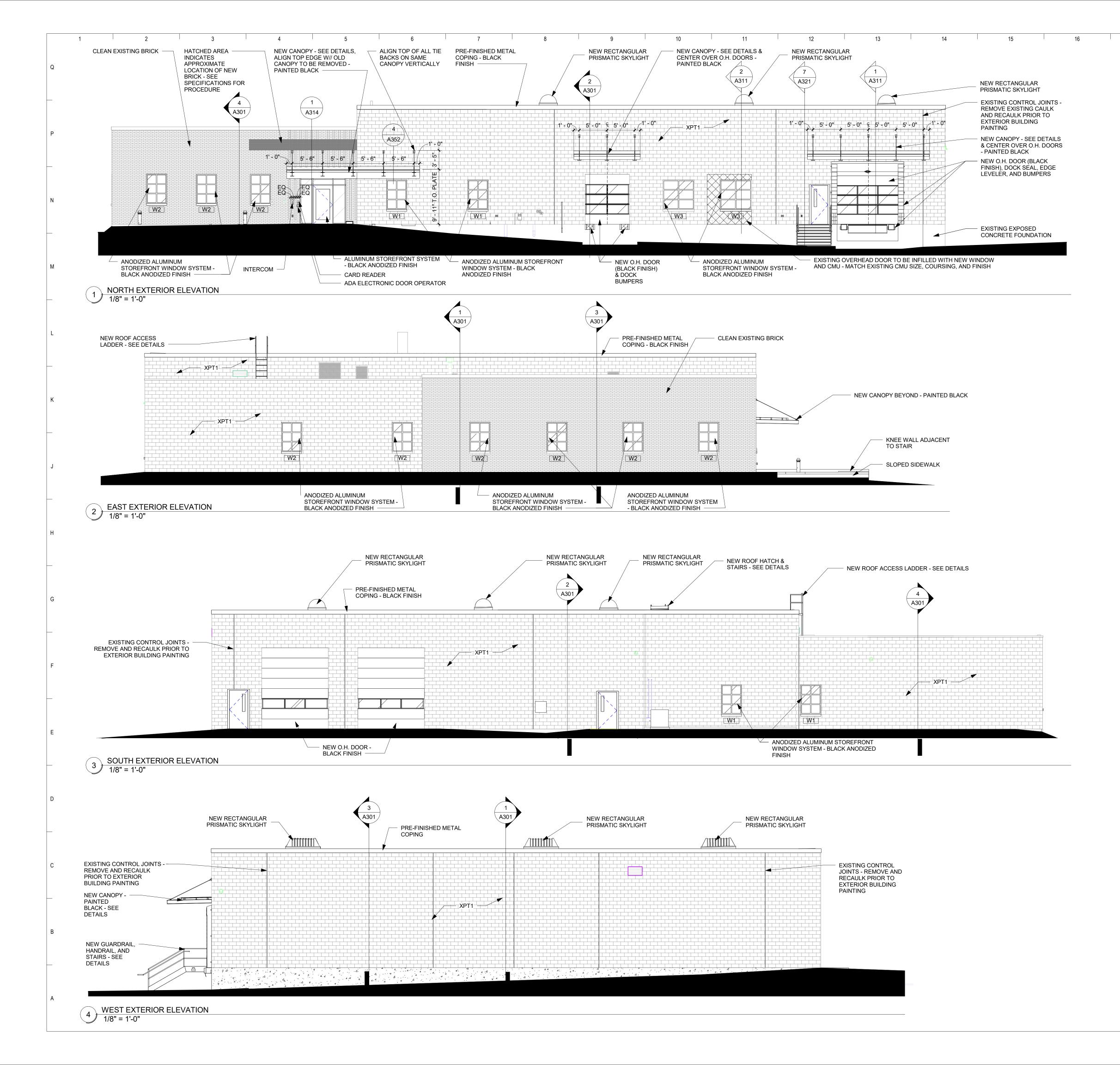
O.F.C.I. SURFACE MOUNTED SOAP DISPENSER

CERAMIC SINK W/ STAINLESS STEEL TOUCHLESS FAUCET

O.F.C.I. SURFACE MOUNTED PAPER TOWEL DISPENSER

STAINLESS STEEL WASTE RECEPTACLE WITH LID

O.F.O.I. LOCKERS



GENERAL NOTES	A R C H I T E C T S
 DIMENSIONS ARE MEASURED FACE-OF- FINISH TO FACE-OF-FINISH OR ROUGH MASONRY OPENING UNLESS NOTED OTHERWISE - TYPICAL FOR ALL DRAWINGS. WALL FIXTURE DIMENSIONS ARE TAKEN FROM CENTERLINE OF FIXTURE UNLESS NOTED OTHERWISE. SEE WINDOW SCHEDULE FOR ADDITIONAL OPENING INFORMATION. SEE SPECIFICATIONS FOR EXPANSION JOINT REQUIREMENTS - ALL EXTERIOR VERTICAL JOINTS, INCLUDING OPENINGS, TO RECEIVE FOAM BACKER SEAL, BACKER ROD, AND SEALANT. 	CEDAR RAPIDS DES MOINES MADISON OPN ARCHITECTS 301 NORTH BROOM S-TREET, SUITE100 MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com opn@opnarchitects.com

201 W Mifflin St Madison, WI 53703

General Contractor

Project Madison Public Library Maintenance & Support Center Remodel 1301 West Badger Road Madison, WI 53713

Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562

ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

P. 608.223.9600

12/09/2016

Sheet Issue Date

Previous Issue Dates

Evidus Issue Dales

Revision Dates

Drawing

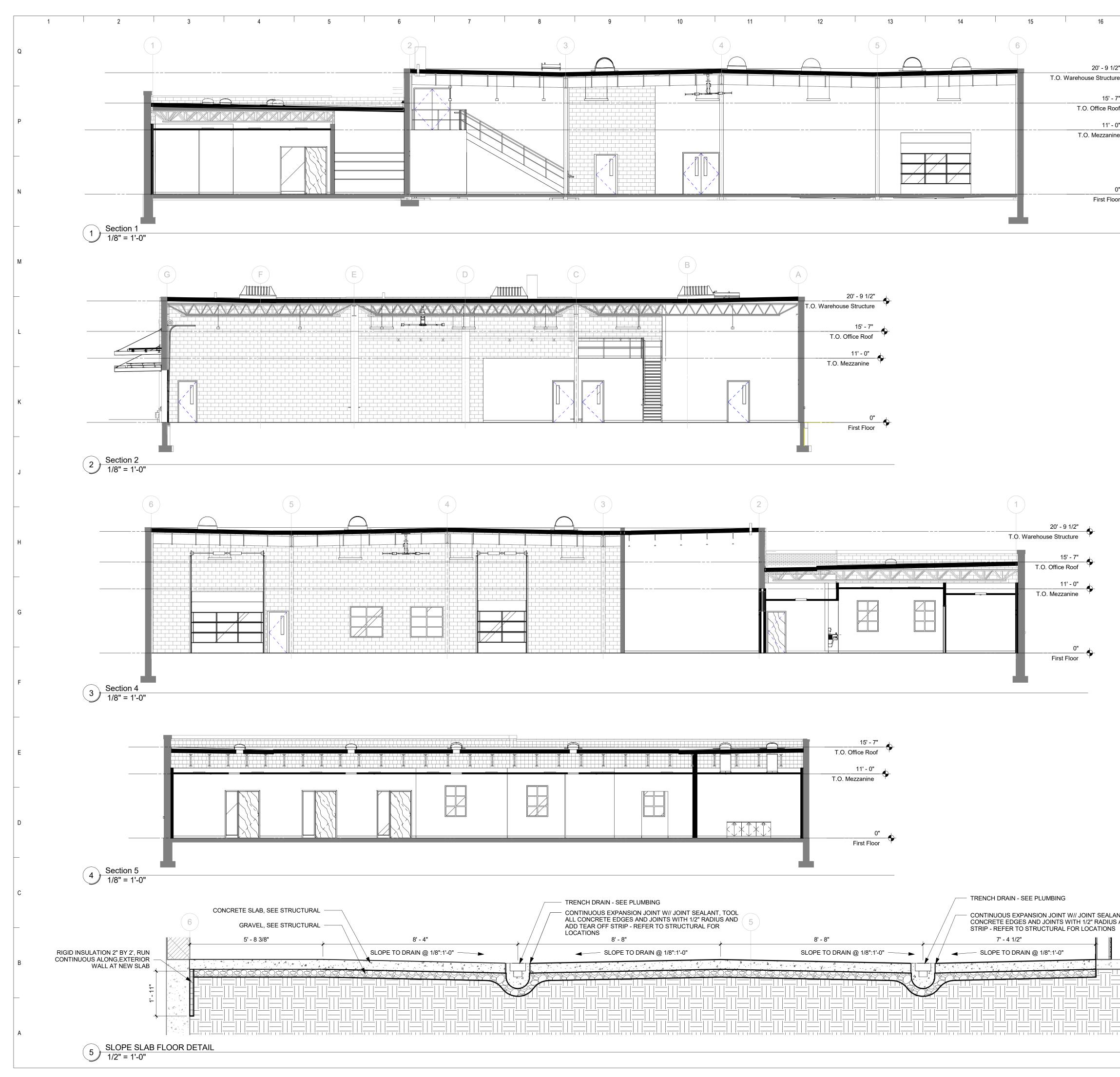
_____ _

EXTERIOR ELEVATIONS

OPN Project No. 15617000



17 18 19 20 21



10	19	20	21	
				OF
				ARCHI CEDARF DES MO MADIS
				OPN ARCHITEC 301 NORTH BROC SUITE100 MADISON, WI 5370 608-819-0260 PHO 608-819-0261 FAX
				All reports, plans, specifi field data, notes and oth instruments prepared by instruments of service st OPN Architects, Inc. OF
				instruments of service sh OPN Architects, Inc. OF retain all common law, s reserved rights, including © 2016 OPN Architects,
				Owner MADISON PUBI
				201 W Mifflin St Madison, WI 53703
				Project Madison Public
				Maintenance & S Center Remodel 1301 West Badger F Madison, WI 53713
				General Contractor
				Consultants CIVIL ENGINEE Snyder & Associates, 5010 Voges Road Madison, WI 53718 P. 608.838.0444 STRUCTURAL I KJWW Engineering C 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
				MECHANICAL E KJWW Engineering C 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
				ELECTRICAL E KJWW Engineering C 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
				Key Plan
				Sheet Issue Date
				Bid Set
				·
				Revision Dates
				Drawing BUILDING SEC
				OPN Project No. 1561
				Λ '

D ECTS НІТ CEDAR RAPIDS DES MOINES MADISON

20

17

18

19

| 21

CHITECTS H BROOM S-TREET,

l, WI 53703 260 PHONE 261 FAX rchitects.com architects.com

olans, specifications, computer files, otes and other documents and prepared by OPN Architects, Inc. as of service shall remain the property of octs, Inc. OPN Architects, Inc. shall nmon law, statutory and other hts, including the copyright thereto. rchitects, Inc.

N PUBLIC LIBRARY

n Public Library ance & Support Remodel t Badger Road VI 53713

GINEER Associates, Inc. s Road VI 53718 444

URAL ENGINEER gineering Consultants ing Way WI 53562 3.9600

NICAL ENGINEER gineering Consultants ing Way WI 53562

RICAL ENGINEER gineering Consultants ing Way WI 53562 .9600

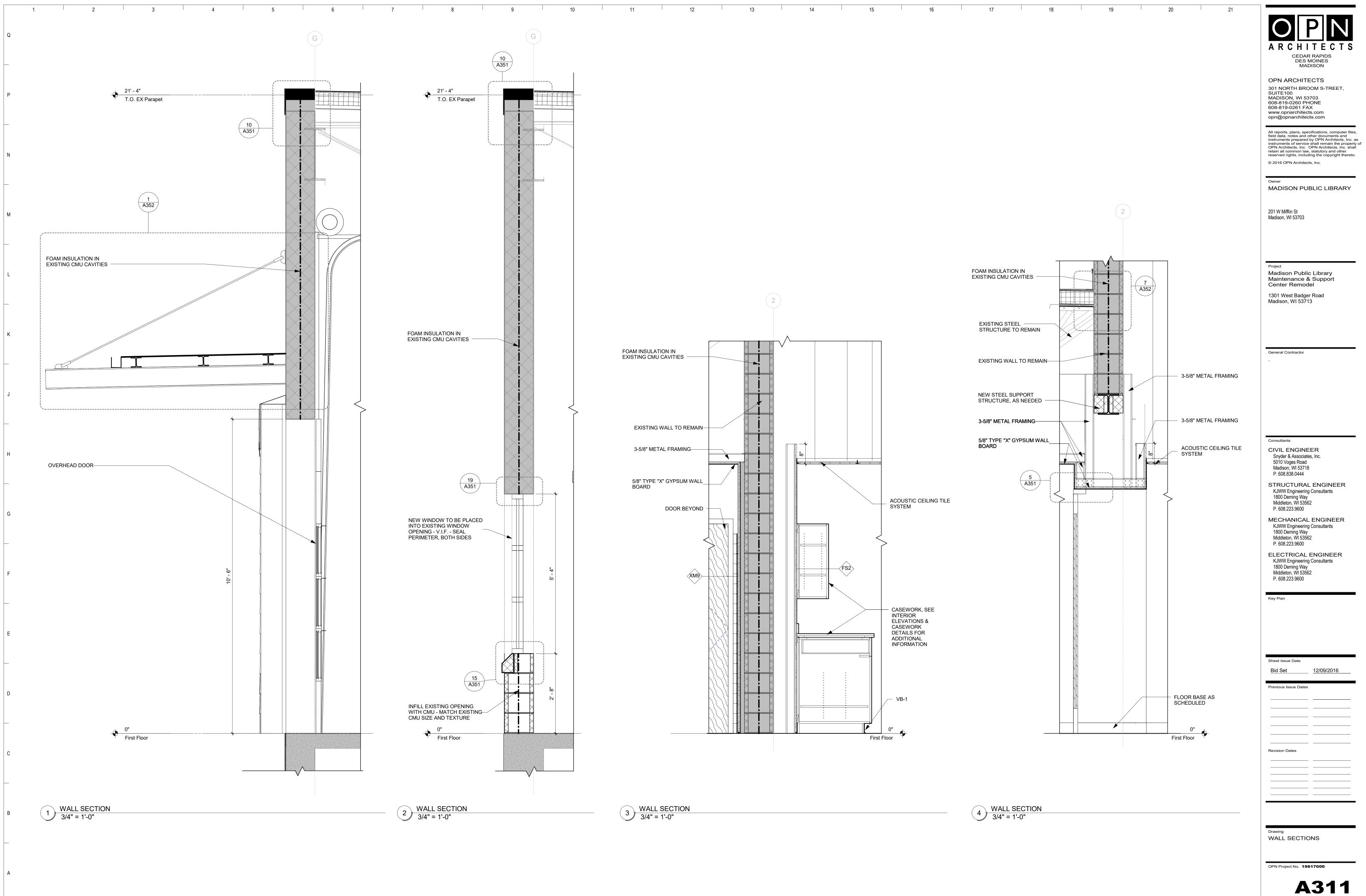
12/09/2016

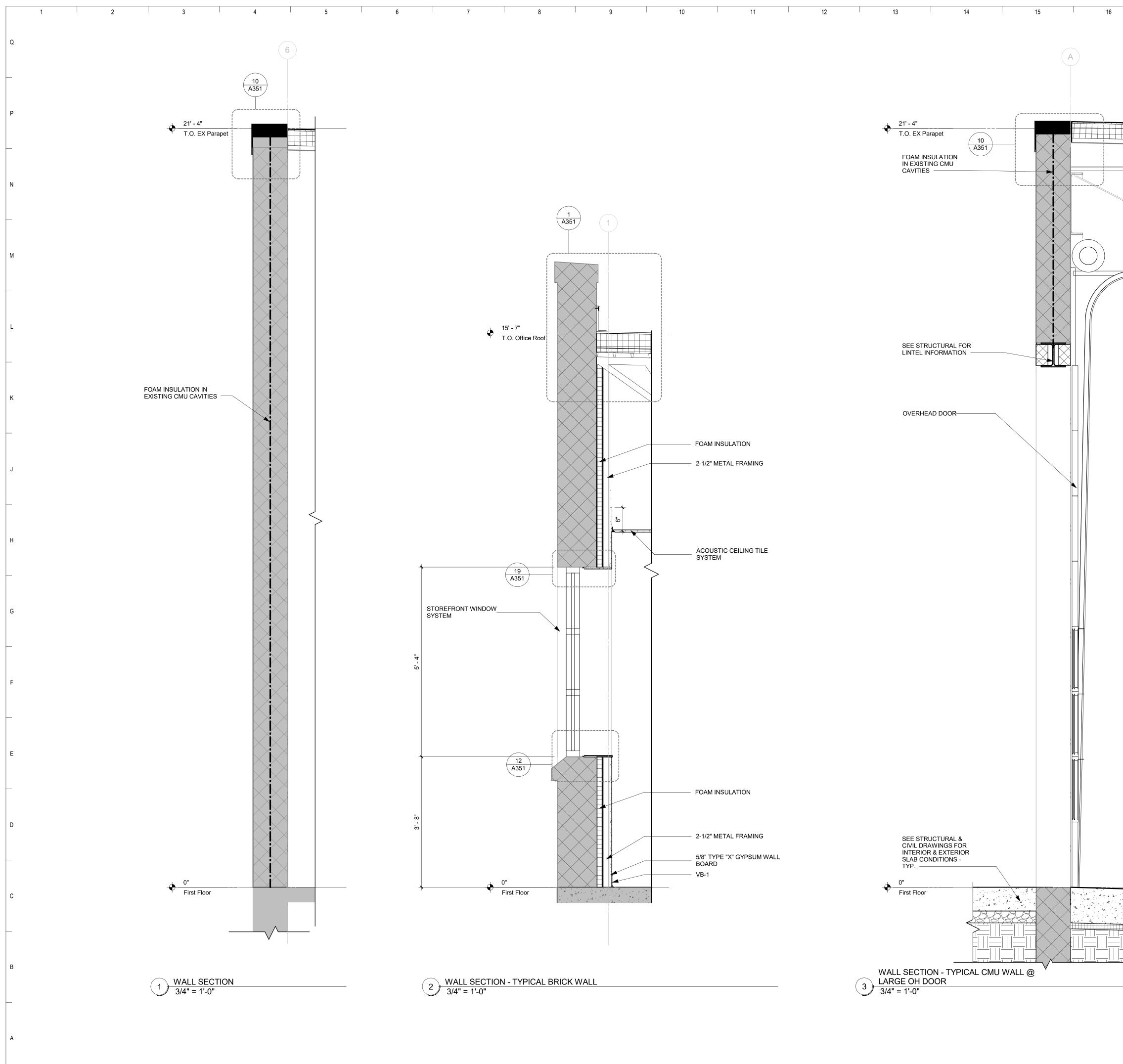
_____ ____ _____

IG SECTIONS

No. 15617000





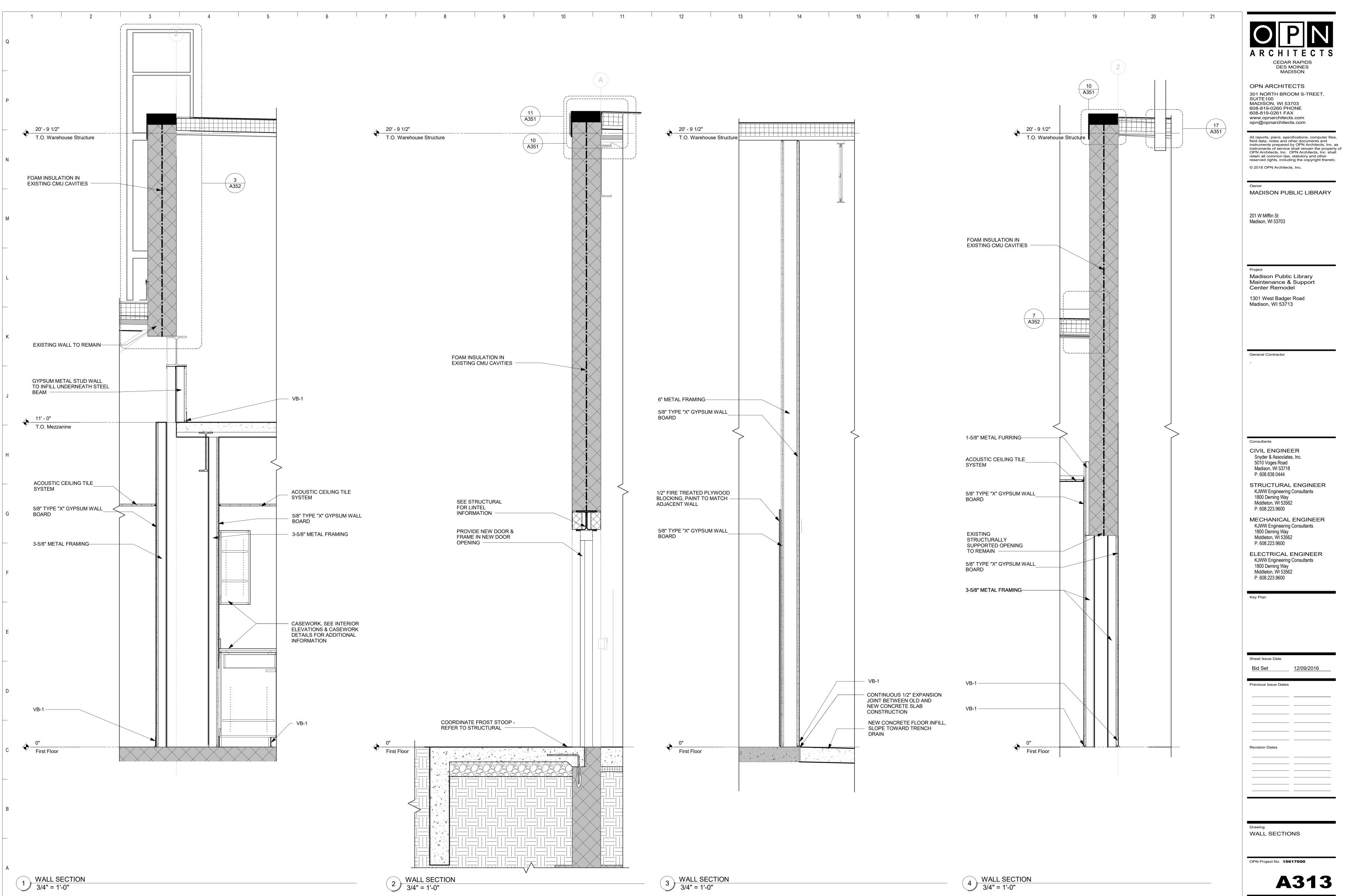


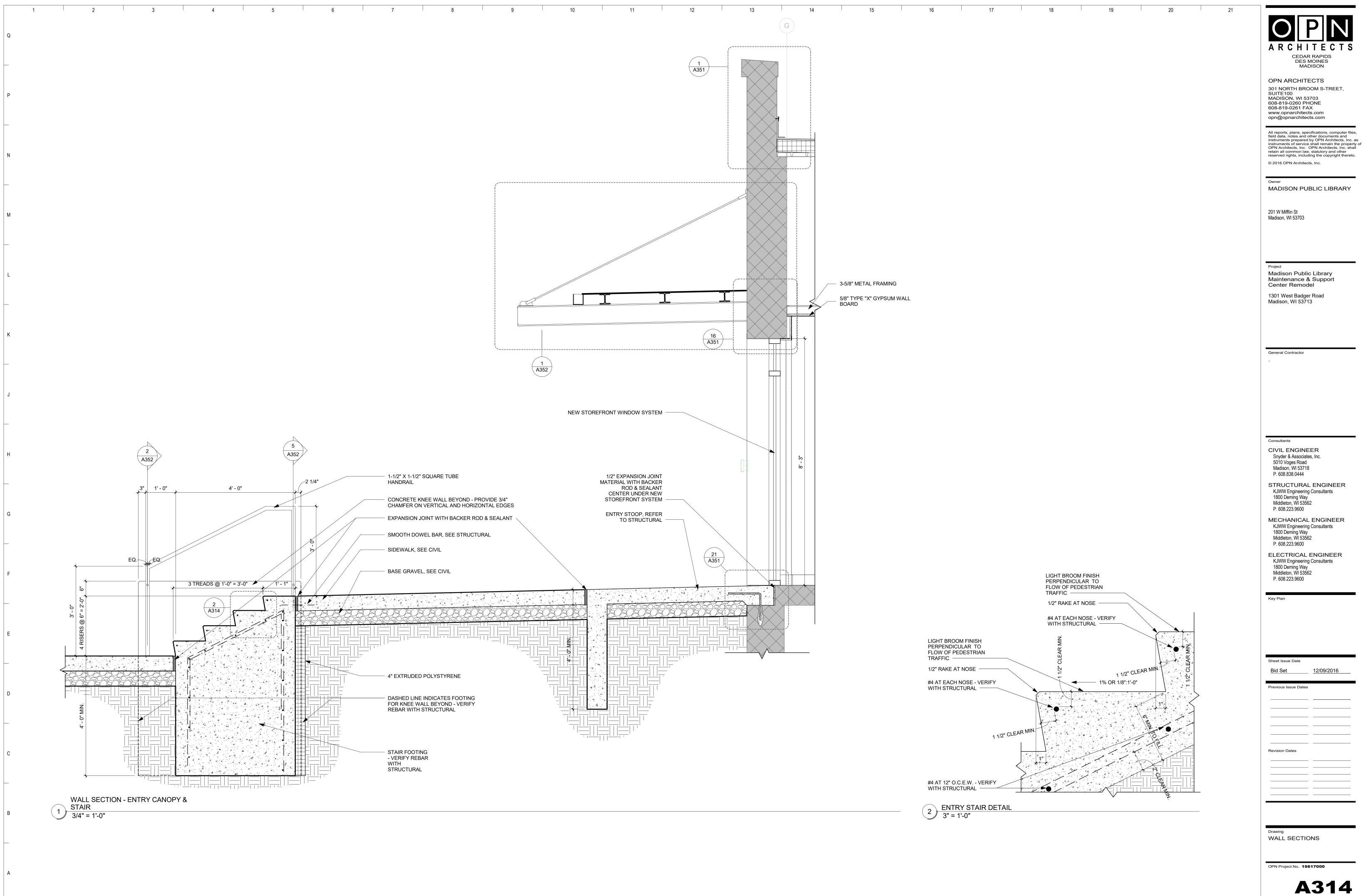
		MADISON OPN ARCHITECTS 301 NORTH BROOM S-TREET, SUITE100 MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com
		All reports, plans, specifications, computer filet field data, notes and other documents and instruments prepared by OPN Architects, Inc. instruments of service shall remain the propert OPN Architects, Inc. OPN Architects, Inc. sha retain all common law, statutory and other reserved rights, including the copyright thereto © 2016 OPN Architects, Inc.
	1 (A351) 1	Owner MADISON PUBLIC LIBRARY
		201 W Mifflin St Madison, WI 53703
T.O. Office Roof		Project Madison Public Library Maintenance & Support Center Remodel 1301 West Badger Road Madison, WI 53713
XISTING WALL TO REMAIN		General Contractor
-1/2" METAL FRAMING		
COUSTIC CEILING TILE		
/8" TYPE "X" GYPSUM WALL 3OARD		Consultants
		CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444
A351		STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
STOREFRONT WINDOW		MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
	Ω	ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
		Key Plan
13 A351		
/8" TYPE "X" GYPSUM WALL OARD		Sheet Issue Date Bid Set 12/09/2016
-1/2" METAL FRAMING		Previous Issue Dates
/B-1 OAM INSULATION		
0" First Floor		Revision Dates

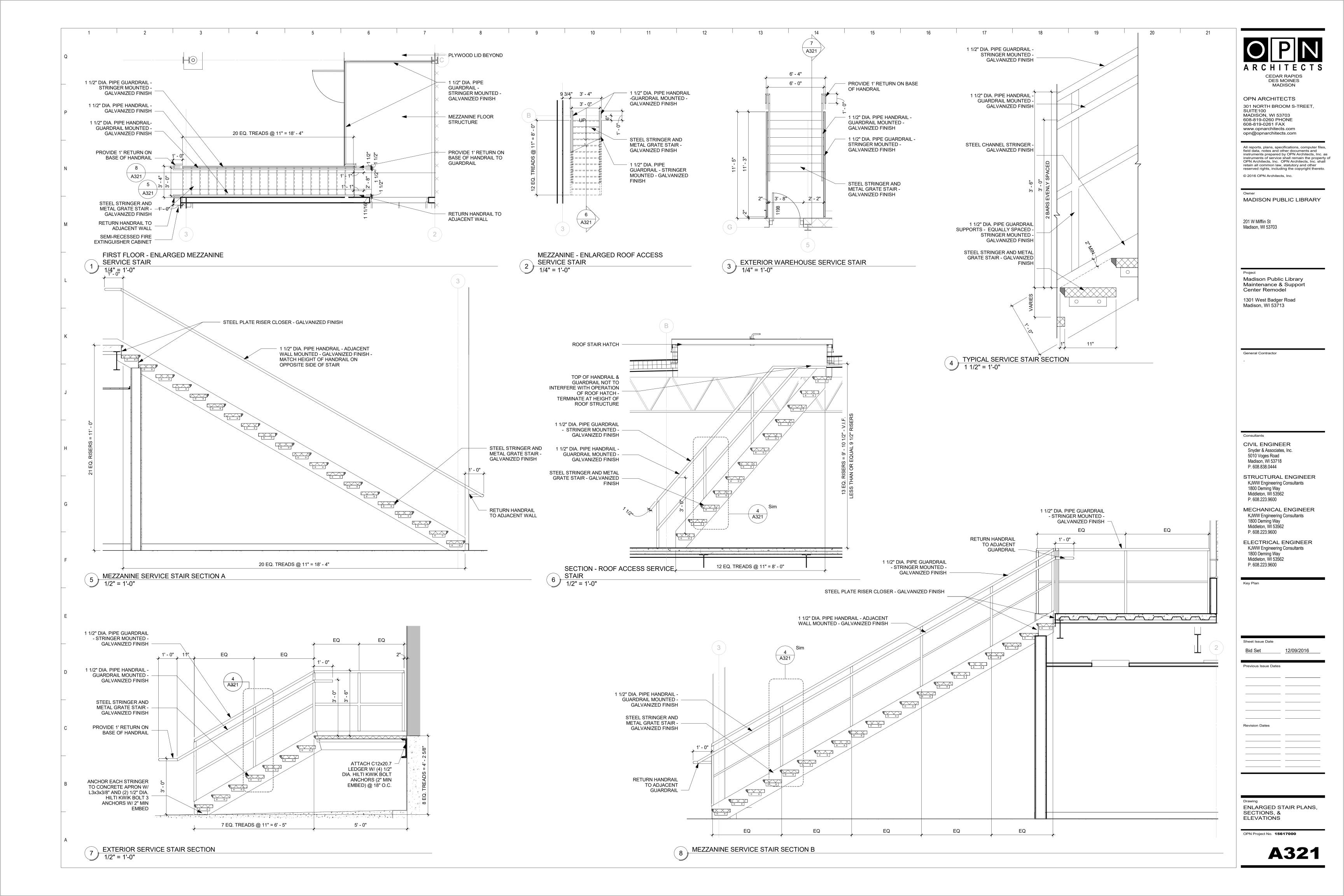
	1 A351 1
15' - 7" T.O. Office Roof	
EXISTING WALL TO REMAIN	
FOAW INSULATION	
2-1/2" METAL FRAMING	
ACOUSTIC CEILING TILE SYSTEM	
5/8" TYPE "X" GYPSUM WALL BOARD	
18 A351	
STOREFRONT WINDOW SYSTEM	5 4"
5/8" TYPE "X" GYPSUM WALL BOARD	
2-1/2" METAL FRAMING	3 8.
FOAM INSULATION	
• 0" First Floor	

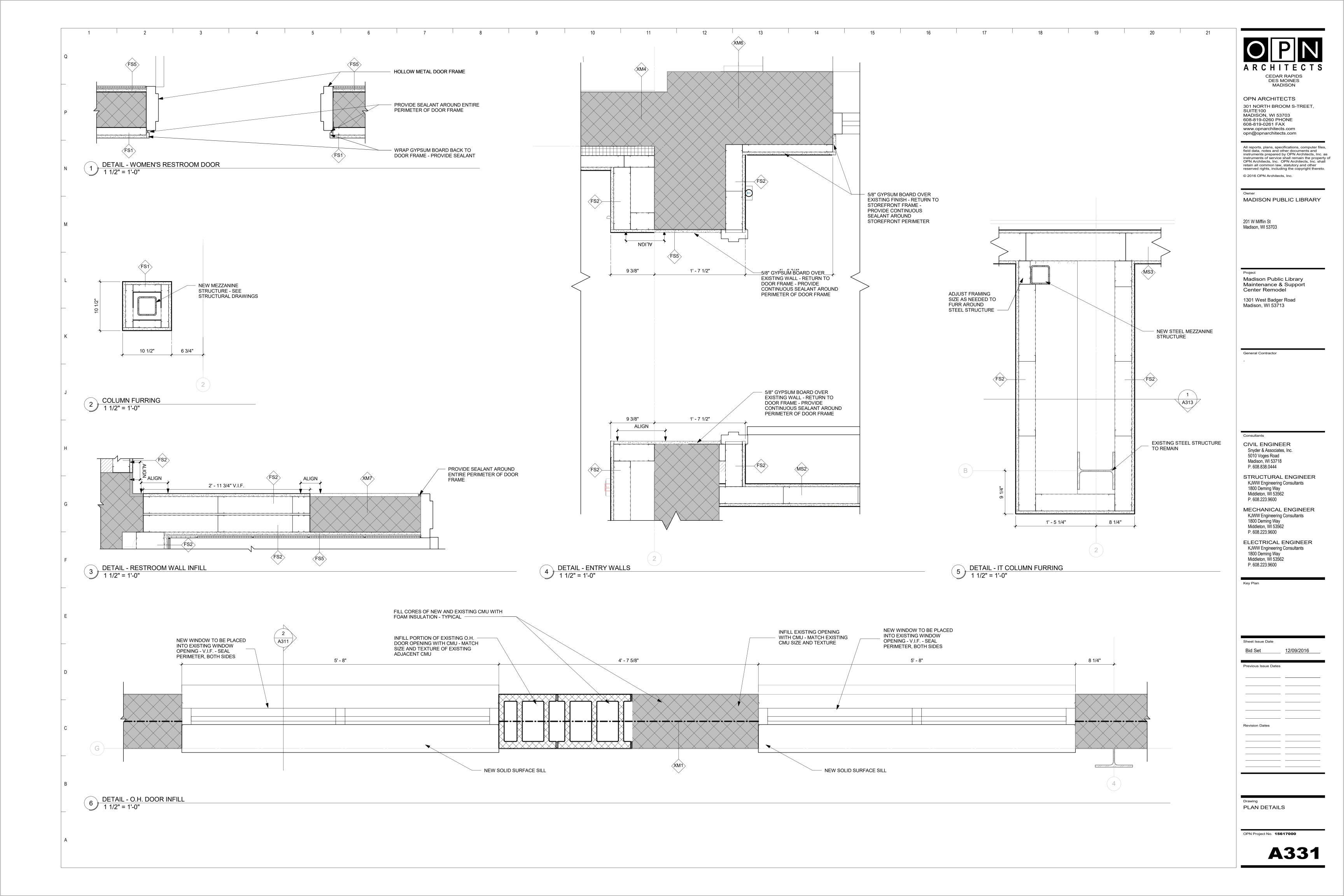
OPN Project No. **15617000**

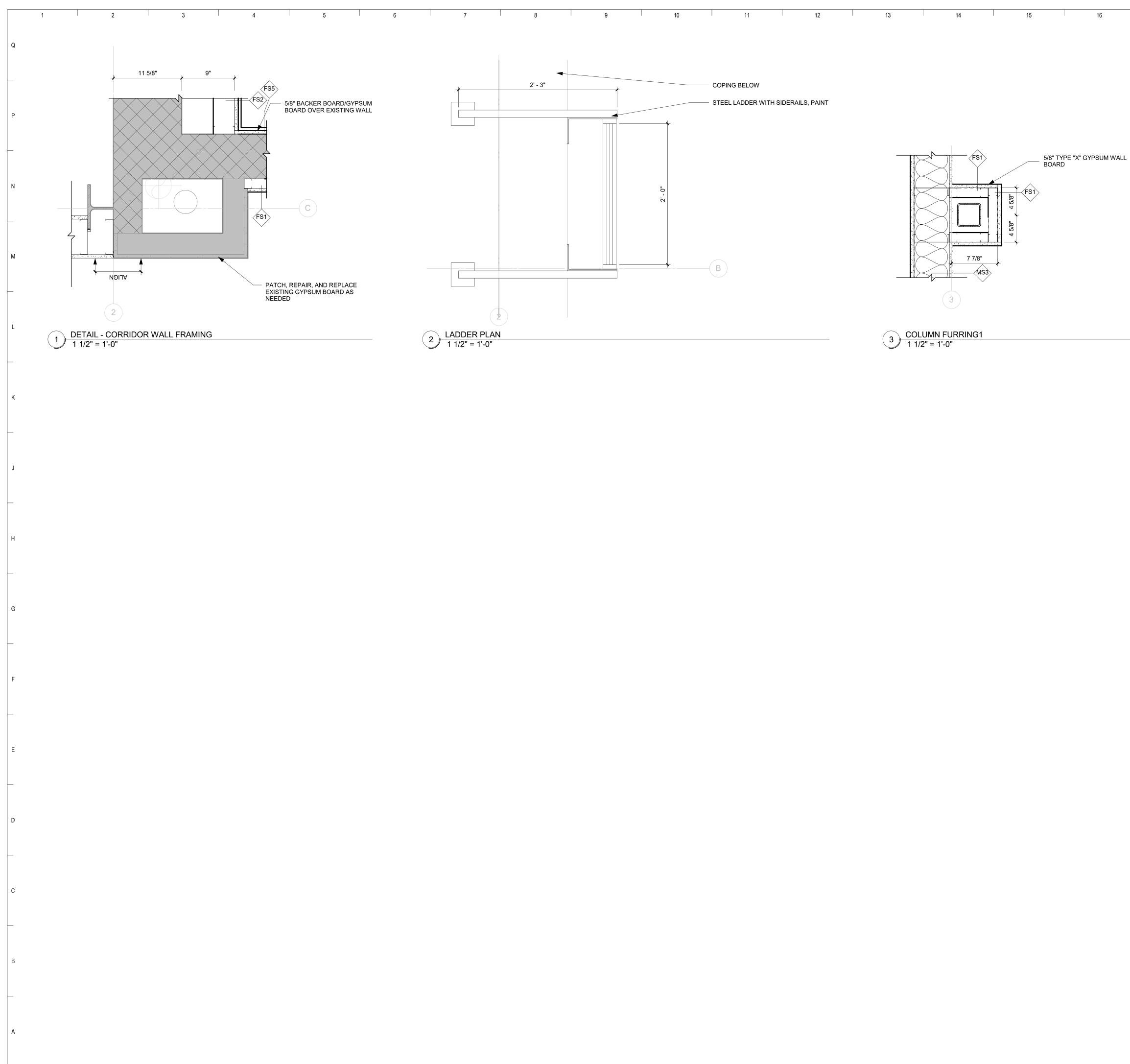
A312











6	17	18	19	20	21

OPN ARCHITECTS 301 NORTH BROOM S-TREET, SUITE100 MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

CEDAR RAPIDS DES MOINES MADISON

ARCHIT

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

ECTS

Owner MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

General Contractor

Project Madison Public Library Maintenance & Support Center Remodel 1301 West Badger Road Madison, WI 53713

Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date Bid Set <u>12/09/2016</u>

Previous Issue Dates

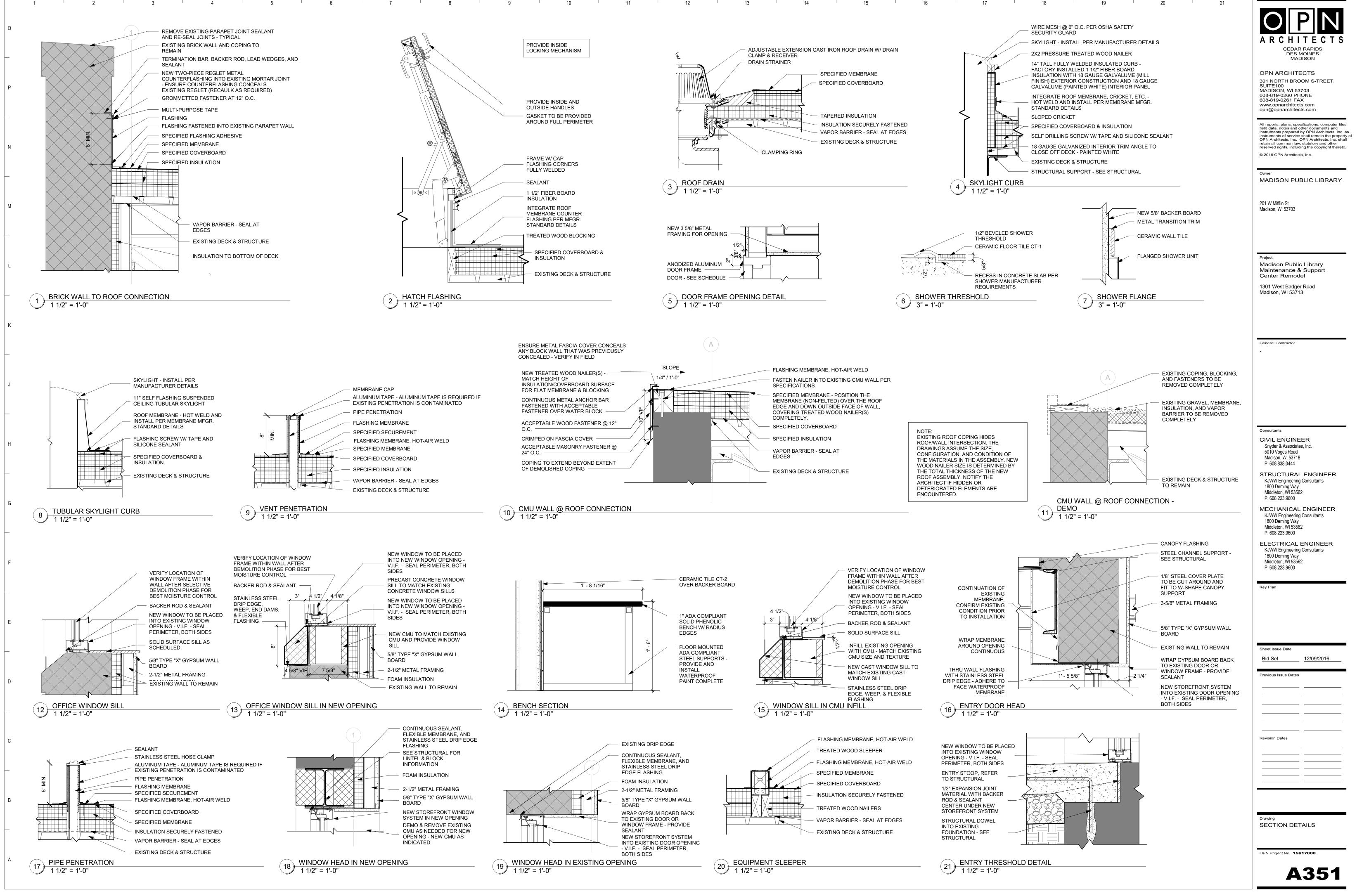
_____ _____ _____ ___ ___ _____ **Revision Dates**

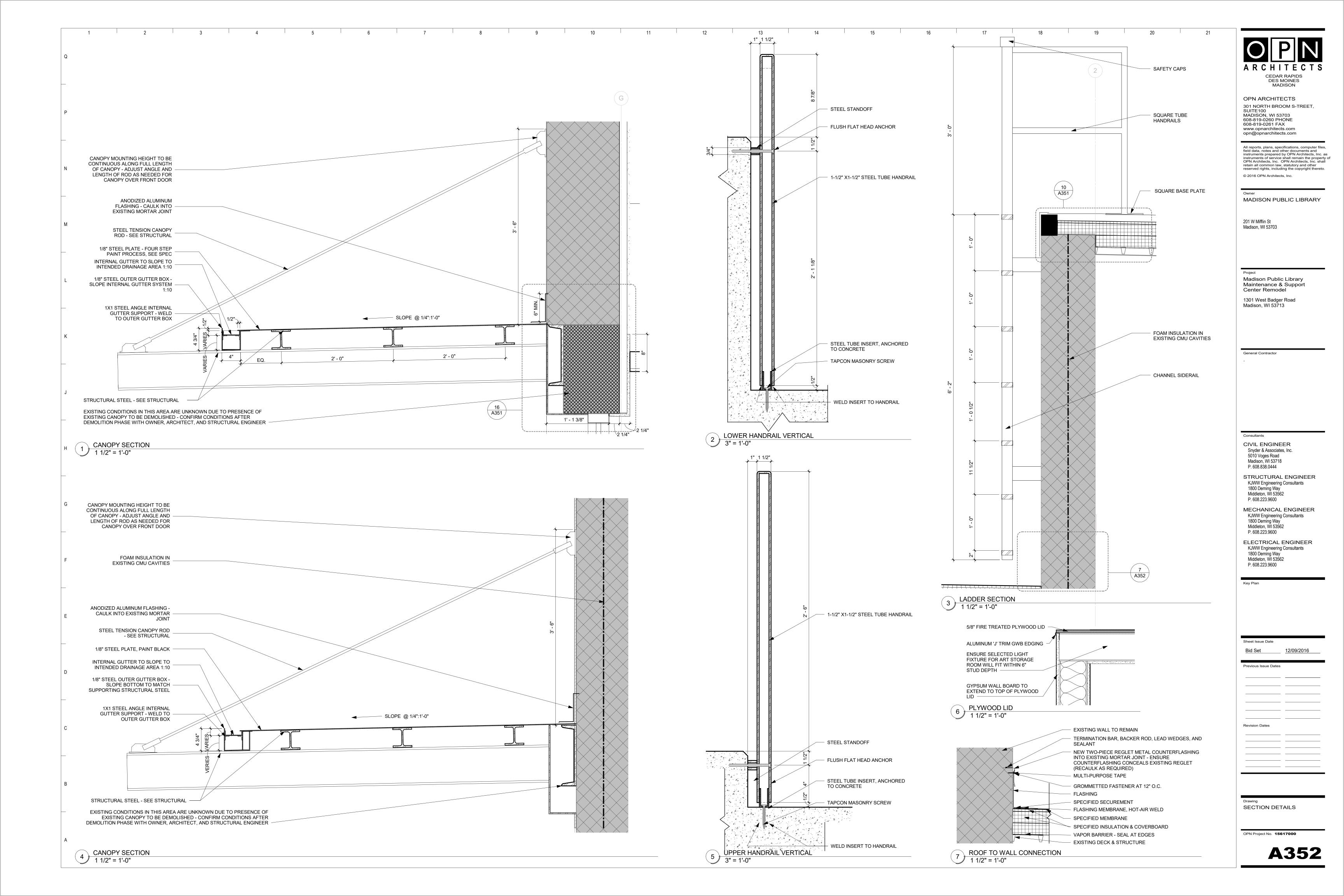
_____ ____

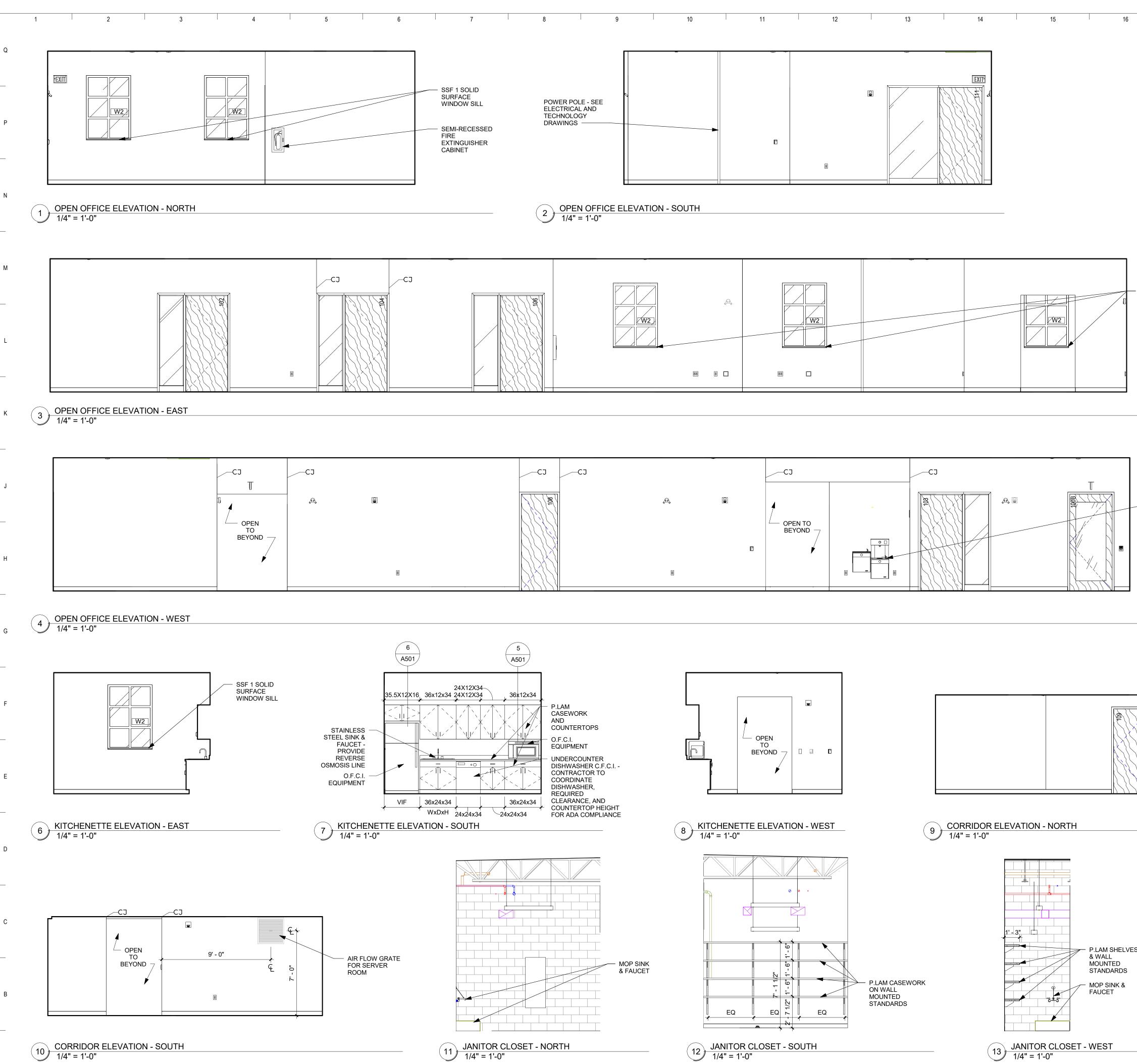
_____ _____ _____ _____

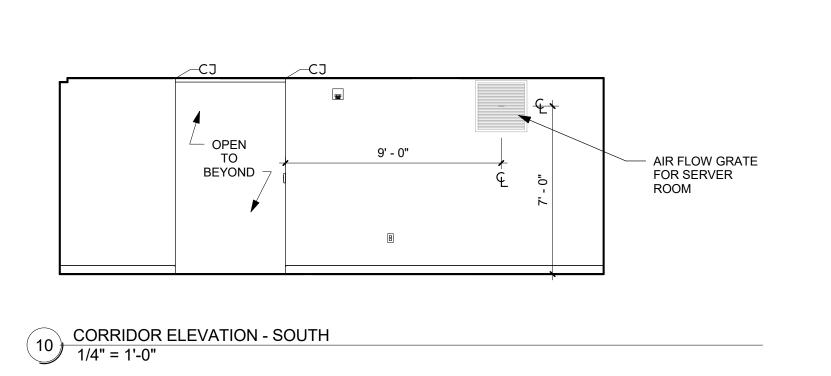
Drawing PLAN DETAILS



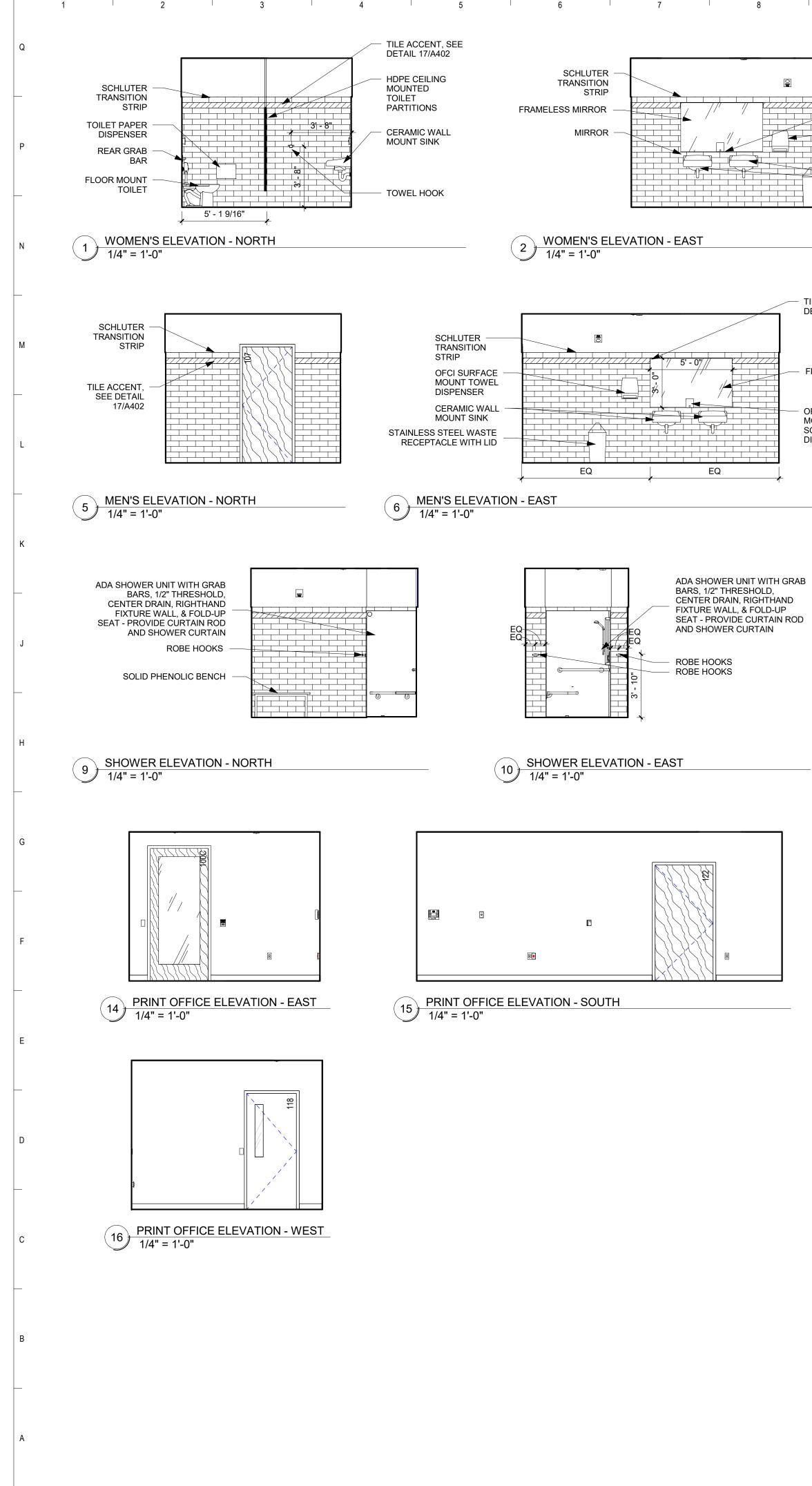


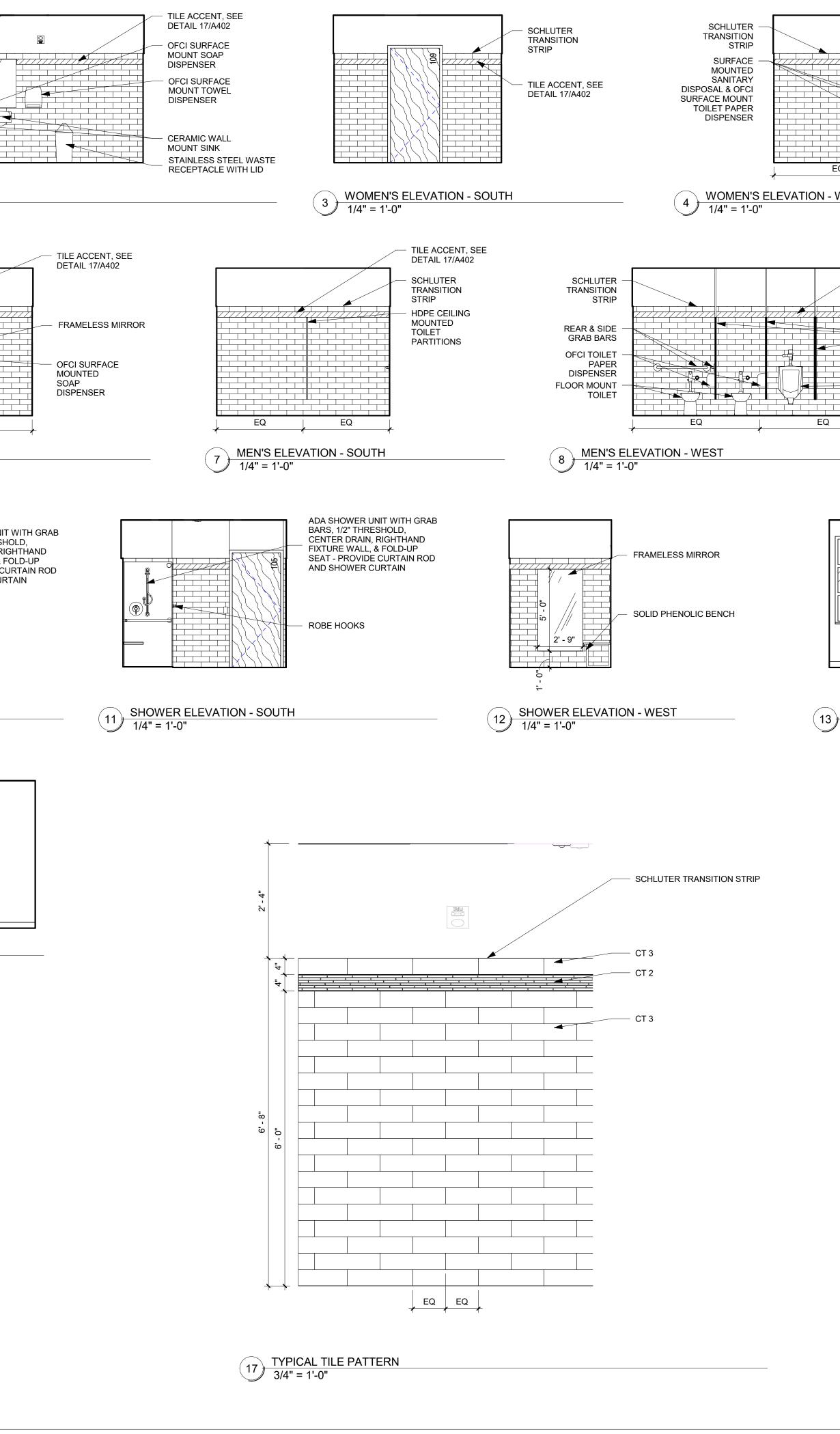






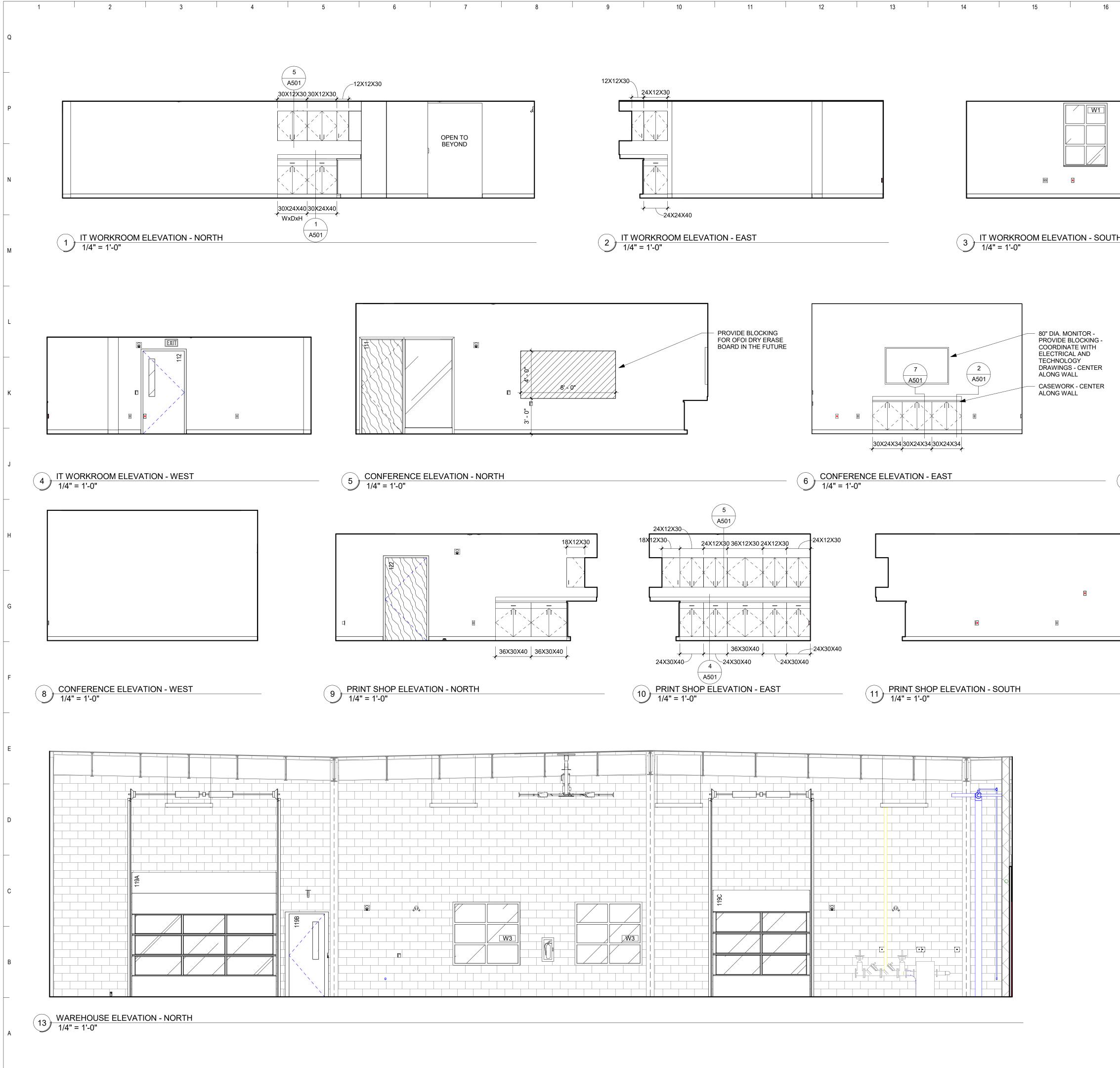
17	18		19		20		21	DEPIN A R C H I T E C T S CEDAR RAPIDS DES MOINES MADISON
								OPN ARCHITECTS 301 NORTH BROOM S-TREET, SUITE100 MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com
								All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.
								Owner MADISON PUBLIC LIBRARY
 SSF 1 SOLID SURFACE WINDOW SILL 								201 W Mifflin St Madison, WI 53703
								Project Madison Public Library Maintenance & Support Center Remodel 1301 West Badger Road Madison, WI 53713
								General Contractor
NEW WATER BOTTLE FILLING STATION & DRINKING FOUNTAIN								
								Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444
	5	KITCHENET 1/4" = 1'-0"	TE ELEV	ATION - I	NORTH	_		STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 MECHANICAL ENGINEER
								KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way
OPEN TO BEYOND	7							Middleton, WI 53562 P. 608.223.9600 Key Plan
								Sheet Issue Date Bid Set 12/09/2016 Previous Issue Dates
					GENERAL N	IOTES		
ΞS			2 3 4	ALARMS, EMERGE PRIOR TO ALL WAL ALIGN, W FOR ALL DRAWING WALL FIX FROM CE NOTED C NOTED C SCHEDU INFORMA	THERMOST NCY LIGHTS D INSTALLA L AND FLOC (HEREVER F RESTROOM SS. (TURE DIME (TURE DIME SNTERLINE (D FINISH PL LE FOR ADD (TION AND F	WITH ARCH FION. PR GROUT LI POSSIBLE - T I ELEVATION NSIONS ARE OF FIXTURE ANS, FINISH DITIONAL WA	HITECT NES TO TYPICAL I E TAKEN UNLESS	
				GENERAI	<u>_ NOTES</u>			Drawing INTERIOR ELEVATIONS
								OPN Project No. 15617000



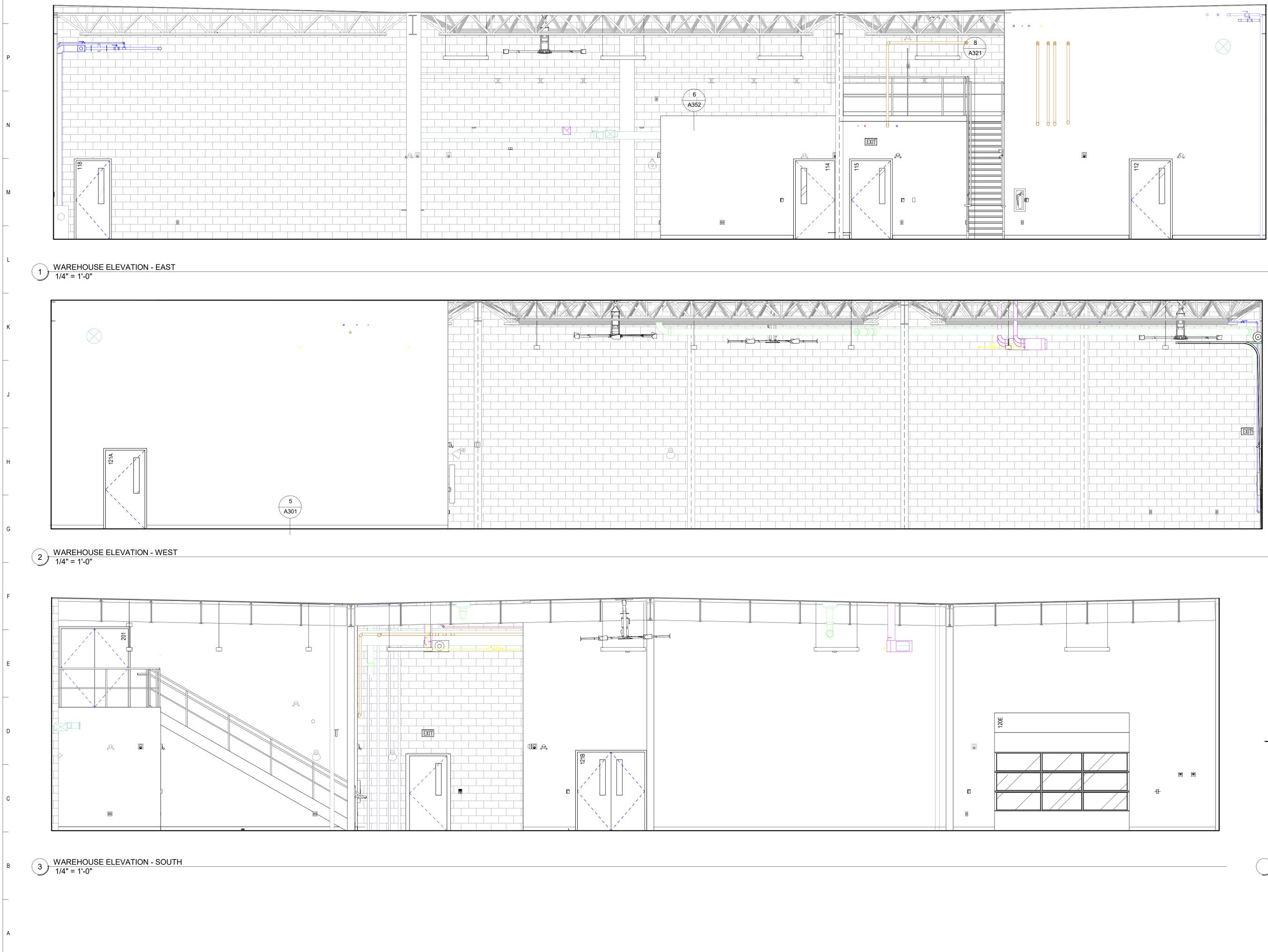


8 9 10 11 12 13 14 15

· 17 · 18 ·	19 20 21	
	TILE ACCENT, SEE DETAIL 17/A402	OPN
	- HDPE CEILING MOUNTED TOILET	ARCHITECTS CEDAR RAPIDS DES MOINES
	PARTITIONS - SIDE & REAR GRAB BARS	MADISON OPN ARCHITECTS
		301 NORTH BROOM S-TREET, SUITE100 MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX
		www.opnarchitects.com opn@opnarchitects.com
	- FLOOR MOUNT TOILET	All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other
		retain all common law, statutory and other reserved rights, including the copyright thereto.
TILE ACCENT, SEE DETAIL 17/A402		^{Owner} MADISON PUBLIC LIBRARY
		201 W Mifflin St Madison, WI 53703
HDPE CEILING MOUNTED		
		Project
		Madison Public Library Maintenance & Support Center Remodel 1301 West Badger Road Madison, WI 53713
	4 A352	
		General Contractor
PRINT OFFICE ELEVATION - NORTH		Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718
1/4" = 1'-0"		P. 608.838.0444 STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562
		P. 608.223.9600 MECHANICAL ENGINEER KJWW Engineering Consultants
		1800 Deming Way Middleton, WI 53562 P. 608.223.9600
		ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
		Key Plan
		Sheet Issue Date Bid Set 12/09/2016
	GENERAL NOTES	Previous Issue Dates
	1. COORDINATE FINAL LOCATION OF FIRE	
	ALARMS, THERMOSTATS AND EMERGENCY LIGHTS WITH ARCHITECT PRIOR TO INSTALLATION. 2. ALL WALL AND FLOOR GROUT LINES TO	
	ALIGN, WHEREVER POSSIBLE - TYPICAL FOR ALL RESTROOM ELEVATION DRAWINGS. 3. WALL FIXTURE DIMENSIONS ARE TAKEN	Revision Dates
	 FROM CENTERLINE OF FIXTURE UNLESS NOTED OTHERWISE. 4. REFER TO FINISH PLANS, FINISH SCHEDULE FOR ADDITIONAL WALL FINISH INFORMATION AND REMARKS. 5. USE 1/8" GROUT JOINTS ON CT3 	
	GENERAL NOTES	
		Drawing INTERIOR ELEVATIONS
		OPN Project No. 15617000
		A402



18	19	20	21		
				CED	PIP ITECT DAR RAPIDS IS MOINES MADISON
W1				OPN ARCHI 301 NORTH BI SUITE100 MADISON, WI 608-819-0260 608-819-0261 www.opnarchit opn@opnarchi	ROOM S-TREET, 53703 PHONE FAX tects.com
88	88		0	instruments prepar instruments of serv OPN Architects, In retain all common	specifications, compute nd other documents and red by OPN Architects, vice shall remain the pro- nc. OPN Architects, Inc. law, statutory and other cluding the copyright the itects, Inc.
				Owner MADISON P	PUBLIC LIBRAR
				201 W Mifflin St Madison, WI 53703	3
				Project Madison Puk Maintenance Center Rem 1301 West Bad Madison, WI 53	e & Support odel lger Road
 9 8		8	P	General Contracto	ır
NT SHOP ELEVATION	N - WEST			KJWW Enginee 1800 Deming W Middleton, WI 5 P. 608.223.9600 MECHANICA KJWW Enginee 1800 Deming W Middleton, WI 5 P. 608.223.9600 ELECTRICA	ad 718 4 CAL ENGINEER vring Consultants /ay 3562 0 AL ENGINEER vring Consultants /ay 3562 0 AL ENGINEER vring Consultants /ay 3562
	/ E F	GENERAL N COORDINATE FINAL ALARMS, THERMOST EMERGENCY LIGHTS PRIOR TO INSTALLA ALL WALL AND FLOC	LOCATION OF FIRE TATS AND S WITH ARCHITECT TION.		tes
	/	ALL WALL AND FLOC ALIGN, WHEREVER F FOR ALL RESTROOM	POSSIBLE - TYPICAL		



8

9

10

11

1

	0.00

12

13

14

15

16

	P		
			, 13
	EDAR RA DES MOIN MADISC	IES	

OPN ARCHITECTS 301 NORTH BROOM S-TREET, SUITE100 MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX

www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

Owner MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

General Contractor

Project Madison Public Library Maintenance & Support Center Remodel 1301 West Badger Road Madison, WI 53713

Consultants **CIVIL ENGINEER** Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date Bid Set 12/09/2016 Previous Issue Dates Revision Dates _____ Drawing

INTERIOR ELEVATIONS

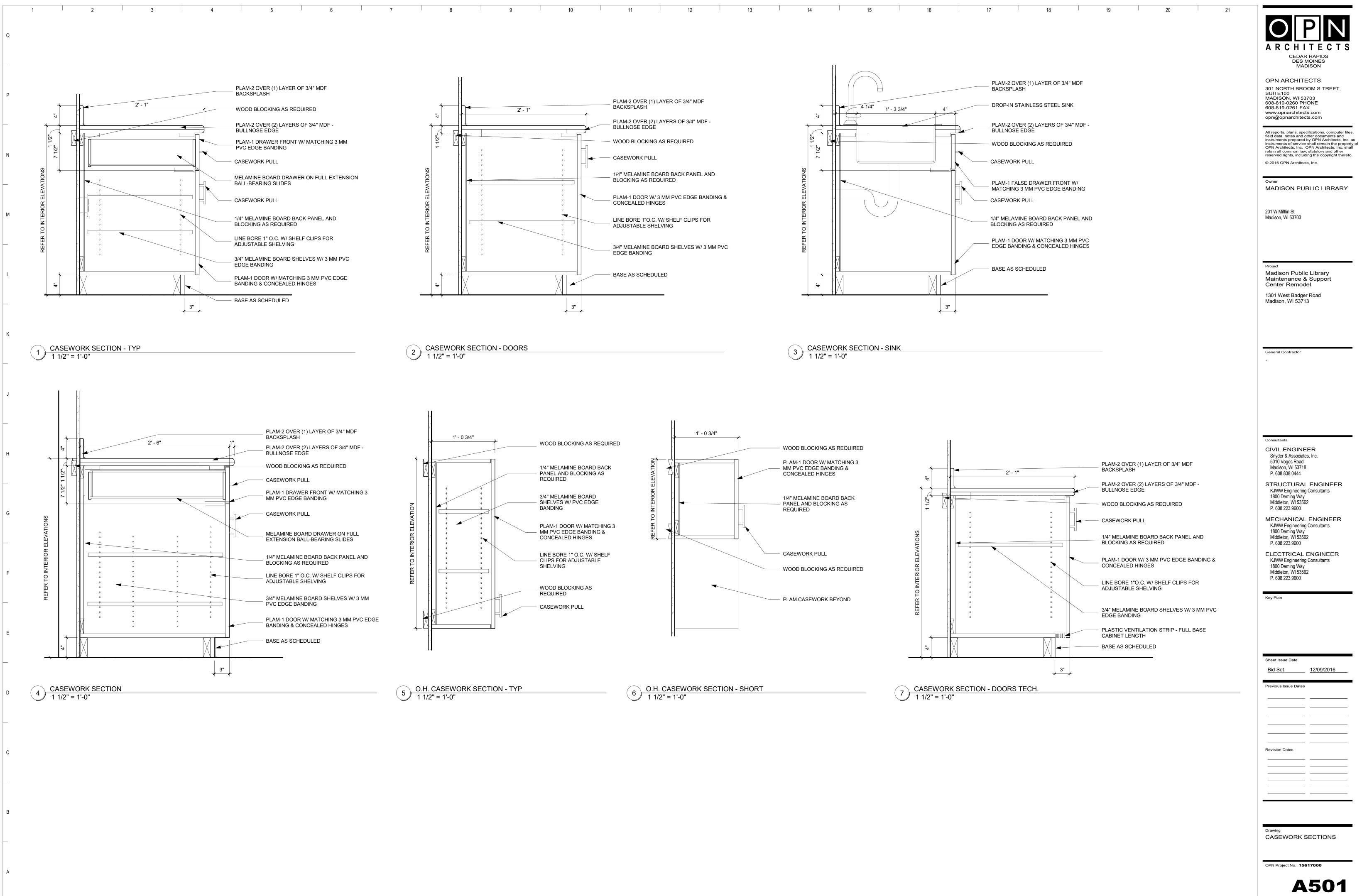
OPN Project No. 15617000

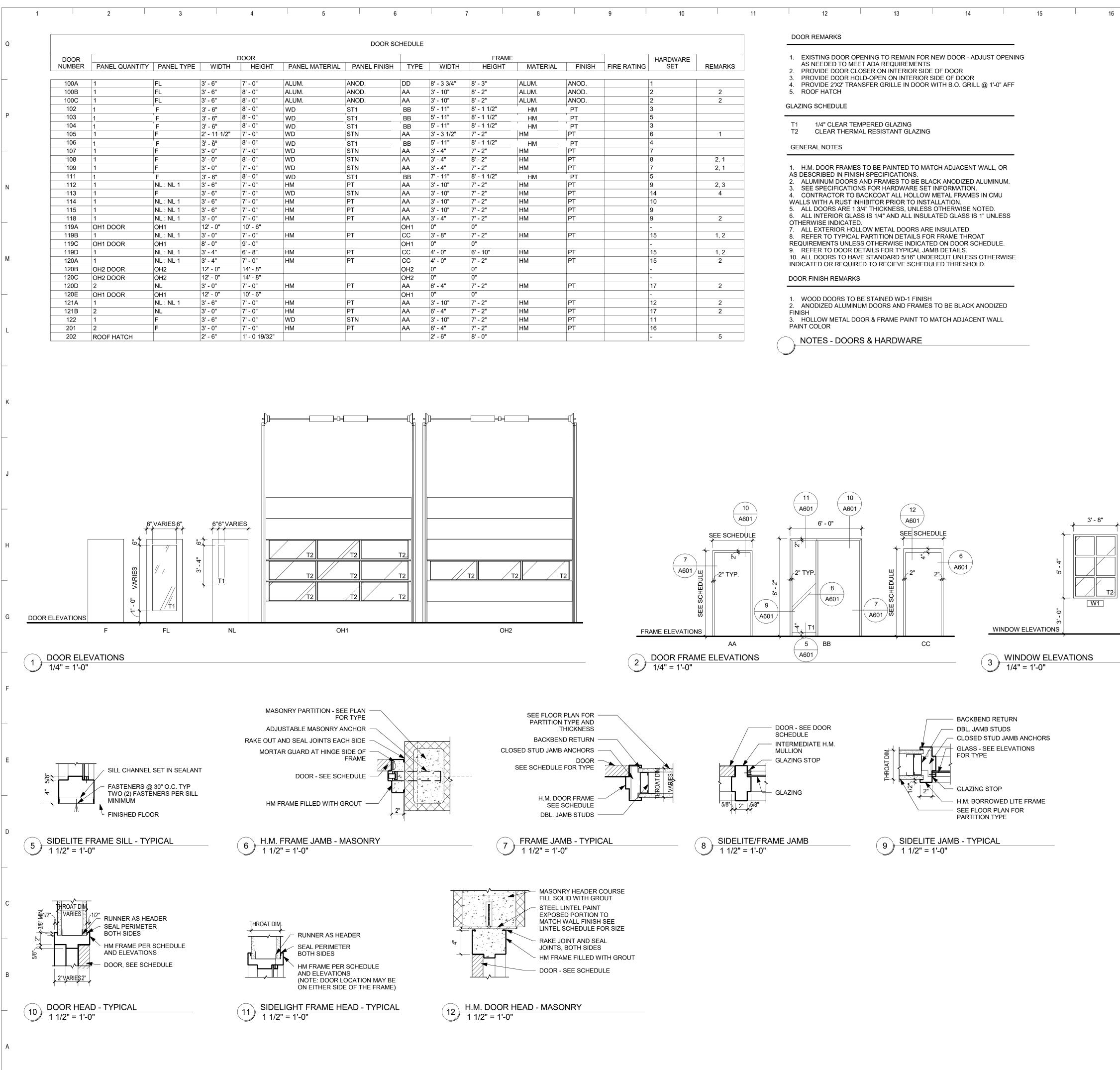


GENERAL NOTES

- 1. COORDINATE FINAL LOCATION OF FIRE ALARMS, THERMOSTATS AND EMERGENCY LIGHTS WITH ARCHITECT PRIOR TO INSTALLATION.
- 2. ALL WALL AND FLOOR GROUT LINES TO ALIGN, WHEREVER POSSIBLE - TYPICAL FOR ALL RESTROOM ELEVATION DRAWINGS.
- 3. WALL FIXTURE DIMENSIONS ARE TAKEN FROM CENTERLINE OF FIXTURE UNLESS NOTED OTHERWISE.
- 4. REFER TO FINISH PLANS, FINISH SCHEDULE FOR ADDITIONAL WALL FINISH INFORMATION AND REMARKS. 5. USE 1/8" GROUT JOINTS ON CT3

GENERAL NOTES





A B <th><image/><section-header><section-header><section-header><section-header><section-header><text><text><text><text><text><text><text><text><text><text></text></text></text></text></text></text></text></text></text></text></section-header></section-header></section-header></section-header></section-header></th>	<image/> <section-header><section-header><section-header><section-header><section-header><text><text><text><text><text><text><text><text><text><text></text></text></text></text></text></text></text></text></text></text></section-header></section-header></section-header></section-header></section-header>
Image: second	General Contractor . Second Consultants Consultants COnsultants CONCLENCINEER Snyder & Associates, Inc. S010 Voges Road Madison, WI 53718 P. 608.838.0444 CONCLENCINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 CHECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 CHECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
HIGHNERS Image: State State Control State State June Image: State State State Control Image: State State State State Control Image: State	Sheet Issue Date Bid Set 12/09/2016 Previous Issue Dates



			ROOM	FINISH SCH	EDULE					
NO.	ROOM NAME	FLOOR	BASE	E NORTH	WAL EAST	L FINISH SOUTH	WEST	C MATERI	EILING AL FINISH	REMARKS
First F	loor									
100 101	Vestibule Open Office	WM1 CONC. SEAL 1/CPT1/CPT2	VB1 VB1	EXIST. PT1	EXIST. PT1	EXIST. PT1	EXIST. PT1	EXIST. ACT2	ACT1 ACT2	1
102 103	Facilities Manager Interview Room	CPT1 CPT1/CPT2	VB1 VB1	PT1 PT1	PT1 PT1	PT4 PT3	PT1 PT1	ACT1 ACT1	ACT1 ACT1	2
104	Maintenance Coordinator	CPT1	VB1	PT1	PT1	PT4	PT1	ACT1	ACT1	2 2
105 106	Shower Room Growth Office	CT1 CPT1	CT1 VB1	CT/PT3 PT1	CT/PT3 PT1	CT/PT3 PT4	CT/PT3 PT1	ACT1 ACT1	ACT1 ACT1	3
107 108	Men's Janitor Closet	CT1 CONC. SEAL 1	CT1 VB1	CT/PT3 PT1	CT/PT3 PT1	CT/PT3 PT1	CT/PT3 PT1	ACT1 ACT1	ACT1 ACT1	3
109	Women's	CT1	CT1	CT/PT3	CT/PT3	CT/PT3	CT/PT3	ACT1	ACT1	3
110 111	Kitchenette Conference Room	CONC. SEAL 1 CPT1/CPT2	VB1 VB1	PT1 PT1	PT1 PT1	PT4 PT1	PT1 PT3	ACT1 ACT1	ACT1 ACT1	2
112 113	IT/Maintenance Open Office	CONC. SEAL 1 CONC. SEAL 1	VB1 VB1	PT1 PT1	PT1 PT1	PT1 PT1	PT1 PT1	ACT2 ACT1	ACT2 ACT1	
114	Server Art Storage	CONC.	VB1	PT1	PT1	PT1	PT1	ACT1	ACT1	
115 116	Corridor Friends Storage	CONC. SEAL 1 CONC.	VB1 VB-1	PT1 PT2	PT1 PT2	PT1 PT2	PT1 PT2	ACT1 GWB	ACT1 PT2	
118 119	Print Office Warehouse	CONC. SEAL 1 CONC.	VB1 NA	PT1	PT1	PT1	PT1	ACT1 EXP.	ACT1 PT2	
120	Facilities	CONC. SEAL 3	NA	PT1	PT1			EXP	PT2	
121 122	Shop Print Shop	CONC. SEAL 3 CONC. SEAL 1	NA VB1	PT1 PT1	PT1 PT1	PT1 PT1	 PT1	EXP ACT1	PT2 ACT1	
T.O. N	Mezzanine Mechanical Mezzanine	CONC. SEAL 2	NA	PT1			PT1	EXP.	PT2	
1. SE		AINT COLOR DESIGNATIONS.								
3. AL 4. SE <u>REM</u> 1. FL	(POSED STRUCTURE/ROOF I L GYPSUM CEILINGS TO BE E FINISH PLAN FOR ALL CAF ARKS: OATING CARPET OVER SEAL E FINISH PLAN FOR CARPET	PAINTED PT-1. RPET AND TILE PATTERNS. LED CONCRETE. SEE FINISH PL	AN FOR C	CARPET PATT	TERN.					
	E TYPICAL TILE ELEVATION									
		DOR					— DOOR			
	TI TI	LE HINSET GROUT					- CONCRET		SLAB . ADAPTER -	
		LE HINSET GROUT ETAL ADA- DMPLIANT SLOPED RIM					 CONCRET ARMSTROM MATCH VI CARPET 	DNG VINYL B-1	ADAPTER -	
		LE HINSET GROUT ETAL ADA- DMPLIANT SLOPED					 CONCRET ARMSTROMATCH VI CARPET CONCRET SLAB 	DNG VINYL B-1 TE FLOOR	ADAPTER -	
		LE HINSET GROUT ETAL ADA- DMPLIANT SLOPED RIM	(<u>IC. TO CF</u> 1'-0"	PT (CLOSE	 CONCRET ARMSTROMATCH VI CARPET CONCRET SLAB 	DNG VINYL B-1 TE FLOOR	ADAPTER -	
	CT TO CONC.	LE HINSET GROUT ETAL ADA- DMPLIANT SLOPED RIM	(CONCRET ARMSTROMATCH VI CARPET CONCRET SLAB 	DNG VINYL B-1 TE FLOOR	ADAPTER -	
	CT TO CONC.	LE HINSET GROUT ETAL ADA- DMPLIANT SLOPED RIM	(CONCRET ARMSTROMATCH VI CARPET CONCRET SLAB 	DNG VINYL B-1 TE FLOOR	ADAPTER -	
	CT TO CONC. 6" = 1'-0"	LE HINSET GROUT ETAL ADA- DMPLIANT SLOPED RIM					 CONCRET ARMSTROMATCH VI CARPET CONCRET SLAB 	DNG VINYL B-1 TE FLOOR	ADAPTER -	
	CT TO CONC. 6" = 1'-0" METAL L-ANGLE THINSET GROUT	LE HINSET GROUT ETAL ADA- DMPLIANT SLOPED RIM DNCRETE SLAB	(CONCRET ARMSTROMATCH VI CARPET CONCRET SLAB 	DNG VINYL B-1 TE FLOOR	ADAPTER -	
	CT TO CONC. $6" = 1'-0"$ $MICCORC.$ $6" = 1'-0"$ $METAL L-ANGLE$ $THINSET GROUT$ $WALL TILE$	LE HINSET GROUT ETAL ADA- DMPLIANT SLOPED RIM DNCRETE SLAB					 CONCRET ARMSTROMATCH VI CARPET CONCRET SLAB 	DNG VINYL B-1 TE FLOOR	ADAPTER -	
	CT TO CONC. 6" = 1'-0" METAL L-ANGLE THINSET GROUT WALL TILE THINSET ADHESIV	LE HINSET GROUT ETAL ADA- DMPLIANT SLOPED RIM DNCRETE SLAB					 CONCRET ARMSTROMATCH VI CARPET CONCRET SLAB 	DNG VINYL B-1 TE FLOOR	ADAPTER -	
	CT TO CONC. $6" = 1'-0"$ $METAL L-ANGLE$ $THINSET GROUT$ $WALL TILE$ $THINSET ADHESIV$ $TILE BACKER BOA$	LE HINSET GROUT ETAL ADA- DMPLIANT SLOPED IM DNCRETE SLAB					 CONCRET ARMSTROMATCH VI CARPET CONCRET SLAB 	DNG VINYL B-1 TE FLOOR	ADAPTER -	
	CT TO CONC. 6" = 1'-0" METAL L-ANGLE THINSET GROUT WALL TILE THINSET ADHESIV TILE BACKER BOA	LE HINSET GROUT ETAL ADA- DMPLIANT SLOPED IM DNCRETE SLAB					 CONCRET ARMSTROMATCH VI CARPET CONCRET SLAB 	DNG VINYL B-1 TE FLOOR	ADAPTER -	
	CT TO CONC. $6" = 1'-0"$ $METAL L-ANGLE$ $THINSET GROUT$ $WALL TILE$ $THINSET ADHESIV$ $TILE BACKER BOA$	LE HINSET GROUT ETAL ADA- DMPLIANT SLOPED IM DNCRETE SLAB					 CONCRET ARMSTROMATCH VI CARPET CONCRET SLAB 	DNG VINYL B-1 TE FLOOR	ADAPTER -	
	CT TO CONC. 6" = 1'-0" METAL L-ANGLE THINSET GROUT WALL TILE THINSET ADHESIV TILE BACKER BOA	LE HINSET GROUT ETAL ADA- DMPLIANT SLOPED IM DNCRETE SLAB					 CONCRET ARMSTROMATCH VI CARPET CONCRET SLAB 	DNG VINYL B-1 TE FLOOR	ADAPTER -	
	CT TO CONC. 6" = 1'-0" METAL L-ANGLE THINSET GROUT WALL TILE THINSET ADHESIV TILE BACKER BOA	LE HINSET GROUT ETAL ADA- DMPLIANT SLOPED IM DNCRETE SLAB					 CONCRET ARMSTROMATCH VI CARPET CONCRET SLAB 	DNG VINYL B-1 TE FLOOR	ADAPTER -	
	CT TO CONC. 6" = 1'-0" METAL L-ANGLE THINSET GROUT WALL TILE THINSET ADHESIV TILE BACKER BOA	LE HINSET GROUT ETAL ADA- DMPLIANT SLOPED IM DNCRETE SLAB					 CONCRET ARMSTROMATCH VI CARPET CONCRET SLAB 	DNG VINYL B-1 TE FLOOR	ADAPTER -	
	CT TO CONC. 6" = 1'-0" METAL L-ANGLE THINSET GROUT WALL TILE THINSET ADHESIV TILE BACKER BOA	LE HINSET GROUT ETAL ADA- DMPLIANT SLOPED IM DNCRETE SLAB					 CONCRET ARMSTROMATCH VI CARPET CONCRET SLAB 	DNG VINYL B-1 TE FLOOR	ADAPTER -	
	CT TO CONC. 6" = 1'-0" METAL L-ANGLE THINSET GROUT WALL TILE THINSET ADHESIV TILE BACKER BOA	LE HINSET GROUT ETAL ADA- DMPLIANT SLOPED IM DNCRETE SLAB					 CONCRET ARMSTROMATCH VI CARPET CONCRET SLAB 	DNG VINYL B-1 TE FLOOR	ADAPTER -	
	CT TO CONC. 6" = 1'-0" METAL L-ANGLE THINSET GROUT WALL TILE THINSET ADHESIV TILE BACKER BOA	LE HINSET GROUT ETAL ADA- DMPLIANT SLOPED IM DNCRETE SLAB					 CONCRET ARMSTROMATCH VI CARPET CONCRET SLAB 	DNG VINYL B-1 TE FLOOR	ADAPTER -	
	CT TO CONC. 6" = 1'-0" METAL L-ANGLE THINSET GROUT WALL TILE THINSET ADHESIV TILE BACKER BOA	LE HINSET GROUT ETAL ADA- DMPLIANT SLOPED IM DNCRETE SLAB					 CONCRET ARMSTROMATCH VI CARPET CONCRET SLAB 	DNG VINYL B-1 TE FLOOR	ADAPTER -	
	CT TO CONC. 6" = 1'-0" METAL L-ANGLE THINSET GROUT WALL TILE THINSET ADHESIV TILE BACKER BOA	LE HINSET GROUT ETAL ADA- DMPLIANT SLOPED IM DNCRETE SLAB					 CONCRET ARMSTROMATCH VI CARPET CONCRET SLAB 	DNG VINYL B-1 TE FLOOR	ADAPTER -	
	CT TO CONC. 6" = 1'-0" METAL L-ANGLE THINSET GROUT WALL TILE THINSET ADHESIV TILE BACKER BOA	LE HINSET GROUT ETAL ADA- DMPLIANT SLOPED IM DNCRETE SLAB					 CONCRET ARMSTROMATCH VI CARPET CONCRET SLAB 	DNG VINYL B-1 TE FLOOR	ADAPTER -	
	CT TO CONC. 6" = 1'-0" METAL L-ANGLE THINSET GROUT WALL TILE THINSET ADHESIV TILE BACKER BOA	LE HINSET GROUT ETAL ADA- DMPLIANT SLOPED IM DNCRETE SLAB					 CONCRET ARMSTROMATCH VI CARPET CONCRET SLAB 	DNG VINYL B-1 TE FLOOR	ADAPTER -	
	CT TO CONC. 6" = 1'-0" METAL L-ANGLE THINSET GROUT WALL TILE THINSET ADHESIV TILE BACKER BOA	LE HINSET GROUT ETAL ADA- DMPLIANT SLOPED IM DNCRETE SLAB					 CONCRET ARMSTROMATCH VI CARPET CONCRET SLAB 	DNG VINYL B-1 TE FLOOR	ADAPTER -	
	CT TO CONC. 6" = 1'-0" METAL L-ANGLE THINSET GROUT WALL TILE THINSET ADHESIV TILE BACKER BOA	LE HINSET GROUT ETAL ADA- DMPLIANT SLOPED IM DNCRETE SLAB					 CONCRET ARMSTROMATCH VI CARPET CONCRET SLAB 	DNG VINYL B-1 TE FLOOR	ADAPTER -	
	CT TO CONC. 6" = 1'-0" METAL L-ANGLE THINSET GROUT WALL TILE THINSET ADHESIV TILE BACKER BOA	LE HINSET GROUT ETAL ADA- DMPLIANT SLOPED IM DNCRETE SLAB					 CONCRET ARMSTROMATCH VI CARPET CONCRET SLAB 	DNG VINYL B-1 TE FLOOR	ADAPTER -	
	CT TO CONC. 6" = 1'-0" METAL L-ANGLE THINSET GROUT WALL TILE THINSET ADHESIV TILE BACKER BOA	LE HINSET GROUT ETAL ADA- DMPLIANT SLOPED IM DNCRETE SLAB					 CONCRET ARMSTROMATCH VI CARPET CONCRET SLAB 	DNG VINYL B-1 TE FLOOR	ADAPTER -	

FINISH SPECIFICATIONS

8

<u>CARPET</u>		<u>PLAST</u>	IC LAMINATE
5	MANUFACTURER: INTERFACE STYLE: HUMAN NATURE HN810 COLOR: NICKEL	PLAM-	1:MANUFACTURER: WILSONART COLOR: DESIGNER WHITE FINISH: MATTE APPLICATION: CASEWORK VERTICALS
S	MANUFACTURER: INTERFACE STYLE: HUMAN NATURE HN820 COLOR: NICKEL	PLAM-2	2:MANUFACTURER: FORMICA COLOR: GEO CITADEL FINISH: MATTE
TILE			APPLICATION: CASEWORK HORIZONTALS
5 (5 F	MANUFACTURER: DALTILE STYLE: SANTINO COLOR: GRIGIO SN08 SIZE: 12" X 24" FINISH: MATTE APPLICATION: RESTROOM FLOOR TILE		SURFACE MANUFACTURER: CORIAN COLOR: DESIGNER WHITE THICKNESS: 1 CM APPLICATION: SILLS @ EXTERIOR WINDOWS
5 (5 F	MANUFACTURER: DALTILE STYLE: ELEVARE COLOR: MATTE LUNAR SIZE: 4" X 16" FINISH: MATTE APPLICATION: WALL TILE		STICAL CEILING TILE MANUFACTURER: USG STYLE: MARS HIGH-NRC PANELS 87100 SIZE: 2' X 2' X 7/8" GRID PROFILE: FINELINE BEVEL
((MANUFACTURER: DALTILE STYLE: ENDEAVORS COLOR: MYSTIC F161 APPLICATION: RESTROOM ACCENT WALL TILE		EDGE: FINELINE DXFF COLOR: WHITE NRC: 0.80 CAC: 35 LR: 0.90 APPLICATION: CLOSED ROOMS
PAINT		A O T O	
(MANUFACTURER: SHERWIN WILLIAMS COLOR: RHINESTONE SW7656 SHEEN: EGGSHELL APPLICATION: FIELD COLOR	ACT-2:	MANUFACTURER: USG STYLE: HALCYON ACOUSTICAL PANELS 98225 SIZE: 2' X 2' X 1" GRID PROFILE: FINELINE EDGE: FINELINE DXFF COLOR: WHITE
F	COLOR: BRIGHT WHITE FINISH: LATEX DRY FALL APPLICATION: EXPOSED STRUCTURE/ROOF DECK		NRC: 0.95 CAC: 20 LR: 0.90 APPLICATION: OPEN OFFICE SPACES
(MANUFACTURER: SHERWIN WILLIAMS COLOR: SLATE TILE SW 7624 SHEEN: EGGSHELL		<u>I PARTITIONS</u>
PT-4: M	APPLICATION: ACCENT COLOR MANUFACTURER: SHERWIN WILLIAMS COLOR: MAJOLICA GREEN SW 0013 SHEEN: EGGSHELL	TP-1: <u>VINYL</u>	MANUFACTURER: HINY HIDERS STYLE: SHALE TEXTURE: ORANGE PEEL BASE
	APPLICATION: ACCENT COLOR		
		VB-1:	STYLE: 4" STRAIGHT ROLL GOODS COLOR: IRON

FINISH SPECIFICATIONS

PAINT - EXTERIOR XPT-1: MANUFACTURER: PPG © @ EXTERIOR WINDOWS NRC PANELS 87100 SOLID WOOD DOORS ELINE BEVEL FINISH: 01 CLEAR SED ROOMS

APPLICATION: MAIN WALL BASE @ CPT

17	18	19	20	21

GENERAL NOTES

- 1. GRILLES, METAL FIXTURE TRIM AND MISCELLANEOUS METALS TO BE PAINTED BY MANUFACTURER TO MATCH ADJACENT WALL OR CEILING SURFACES UNLESS NOTED
- OTHERWISE. 2. PAINT ALL EXPOSED STRUCTURE & DECK, TO BE OPEN TO STRUCTURE, UNLESS NOTED OTHERWISE -PAINTING OF EXPOSED STRUCTURE TO BE DONE AFTER ALL UTILITIES (NOT INCLUDING LIGHTING, SENSORS, ETC.) ARE INSTALLED.
- 3. PROVIDE FLOORING TRANSITION STRIPS AT FLOOR MATERIAL CHANGES IN CENTER OF DOOR WIDTH. COORDINATE FLOORING TRANSITION MATERIAL, PROFILE AND COLOR WITH ARCHITECT PRIOR TO INSTALLATION - REFER TO DETAIL
- DRAWINGS FOR DESIGN INTENT. 4. REFER TO FINISH PLANS FOR SPECIFIC INSTALLATION PATTERN AND ORIENTATION OF FLOOR MATERIALS AND FINISHES.
- 5. REFER TO INTERIOR ELEVATIONS FOR FURTHER CLARIFICATION OF MATERIALS, LOCATIONS AND FINISHES.
- 7. ALL HOLLOW METAL DOORS AND FRAMES TO BE PAINTED TO MATCH ADJACENT WALL SURFACE WITH SEMI-GLOSS PAINT FINISH, UNLESS NOTED OTHERWISE.
- 8. ALL ANODIZED ALUMINUM FRAMES NOT TO BE PAINTED. 9. ALL INTERIOR TILE BACKER BOARD
- LOCATIONS NOT TO BE PAINTED UNLESS NOTED OTHERWISE. GENERAL NOTES

ARCHITECTS CEDAR RAPIDS DES MOINES MADISON

OPN ARCHITECTS 301 NORTH BROOM S-TREET, SUITE100 MADISON, WI 53703

608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

Owner

Project Madison Public Library Maintenance & Support Center Remodel 1301 West Badger Road

Madison, WI 53713

General Contractor

Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

- STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date

Bid Set	12/09/2016
Previous Issue Dates	
Revision Dates	
Revision Dates	
Drawing	

FINISH SCHEDULE, SPECIFICATIONS, AND DETAILS

OPN Project No. **15617000**



CONCRETE SEALANTS

CONC. SEAL 1: MANUFACTURER: W.R. MEADOWS SEALTIGHT PRODUCT: LIQUI-HARD ULTRA No. 378-A APPLICATION: POLISHED CONCRETE FLOOR

CONC. SEAL 2: MANUFACTURER: SIKA PRODUCT: SIKAFLOOR 216

APPLICATION: MEZZANINE CONCRETE FLOOR CONC. SEAL 3: MANUFACTURER: W.R. MEADOWS SEALTIGHT PRODUCT: LIQUI-HARD ULTRA No. 378-A APPLICATION: RAW CONCRETE FLOOR

COLOR: DOVER GRAY PPG1001-5

SHEEN: FLAT PRIMER: PPG PRIMER SEALER 6001 APPLICATION: EXTERIOR CMU WALLS

WD-1: MANUFACTURER: EGGERS INDUSTRIES SPECIES: WHITE BIRCH CUT: PLAIN SLICED

		1 2 3 DESIGN CR	4 5 TERIA	6	
Q	1.	CODES:		9.	REFER TO MECHAN
		INTERNATIONAL BUILDING CODE (IBC) 2009 AMERICAN CONCRETE INSTITUTE BUILDING CODE REQU	IREMENTS FOR STRUCTURAL		A. PIPE RUNS, SB. ELECTRICAL (
		CONCRETE (ACI 318-08) AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)	SPECIFICATION FOR STRUCTURAL		C. CONCRETE IN
		STEEL BUILDINGS AMERICAN IRON AND STEEL INSTITUTE (AISI) SPECIFICA	TION FOR DESIGN OF COLD FORMED		D. SIZE AND LOC MOTOR MOUN
		STEEL STRUCTURAL MEMBERS ALLOWABLE STRENGTH DESIGN (ASD)(AISC 360-05) THIR		10.	BEFORE SUBMITTI
	_	AMERICAN WELDING SOCIETY D1.1			FULLY ACQUAINTE AND TYPES OF EQ
P	2.	DESIGN LOADS: OCCUPANCY CATEGORY	И		EXISTING CONDITI MINIMUM.
		BACKFILL		11.	SHOP DRAWINGS I
			70 PCF		COORDINATED PR STAMPED, INITIALE
		SEISMIC (IBC) SOIL CLASSIFICATION	С	12	CONTRACTOR. SHOP DRAWINGS I
		SPECTRAL RESPONSE ACCELERATION, Ss SPECTRAL RESPONSE ACCELERATION, S1	0.106 g 0.044 g		THE ARCHITECT O
N		SHORT PERIOD DESIGN ACCELERATION, Sds LONG PERIOD DESIGN ACCELERATION, Sd1	0.085 g 0.050 g		CONTRACTOR. WC
		IMPORTANCE FACTOR SEISMIC DESIGN CATEGORY	1.0 A		REQUIREMENTS O
		SEISMIC FORCE RESISTING SYSTEM ANALYSIS PROCEDURE	ORDINARY MASONRY SHEAR WALLS ASCE 7-05, SECTION 11.7	13.	OPTIONS ARE FOR NECESSARY CHAN
-		DESIGN BASE SHEAR, V = Cs x W WIND - PARAMETERS	0.1 x W		THE COST OF ADD BY THE CONTRACT
		BASIC WIND SPEED IMPORTANCE FACTOR	90 MPH 1.0	14.	THE COST OF ADD CONSTRUCTION S
		EXPOSURE CLASS WIND - MAIN WIND FORCE RESISTING SYSTEM PRESSUR	C	15.	ANY ENGINEERING
M		DESIGN PRESSURE	15 PSF		THE STAMP AND S WISCONSIN.
		ROOF UPLIFT PRESSURE ROOF UPLIFT PRESSURE	15 PSF (GROSS) [LC: 1.0WL] 5 PSF (NET) [LC: 0.6DL + 1.0 WL]	16.	ELEVATIONS ARE EXISTING SLAB ON
		WIND - ELEMENTS AND COMPONENTS PER APPLICABLE BUILDING CODE			
		LIVE LOADS			
		STORAGE MECHANICAL	125 PSF UNREDUCIBLE 125 PSF UNREDUCIBLE	1.	CROSS REFERENC
L		STAIRS SNOW LOADS	100 PSF UNREDUCIBLE	-	WALLS AND PIERS
		GROUND SNOW LOAD SNOW EXPOSURE FACTOR	30 PSF 1.0	2.	FOUNDATION DES
		THERMAL FACTOR IMPORTANCE FACTOR	1.0 1.0 1.0	3.	ALL EXCAVATIONS RETAINING WALLS
-		FLAT-ROOF SNOW LOAD	21 PSF		SHALL BRACE OR I
		DESIGN LOAD DRIFTING LOAD	25 PSF ADDITIONAL 65 PSF TAPERING TO 0 PSF OVER 161 2"		DESIGN, PERMITS,
к	3.	NET ALLOWABLE SOIL BEARING PRESSURES	OVER 16'-2"		FOR FOUNDATION BRACED TO RESIS
		SPREAD FOOTINGS CONTINUOUS FOOTINGS	2000 PSF 2000 PSF	4. 5.	UNLESS NOTED O
	4.	MINIMUM FROST PROTECTION DEPTH FROM ADJACENT (EXTERIOR FOOTING ADJACENT TO HEATED AREA	GRADE: -4'-0"	0.	INTERMEDIATE JO SHALL BE CONTIN
<u> </u>	5.	EXTERIOR FOOTINGS IN UNHEATED AREA SPECIFIED 28-DAY CONCRETE COMPRESSIVE STRENGT	-4'-0"		WIDTH RATIO OF 1
	5.	ELEVATED SLABS FOOTINGS	4000 PSI 3000 PSI		SLAB ON GRADE.
		SLABS ON GRADE TYPICAL - UNLESS NOTED OTHERWISE	4000 PSI 4000 PSI		
J	6.	CONCRETE REINFORCING STEEL SHALL BE HIGH STREN			
			615, GRADE 60 Fy = 60 KSI		
	7.	WELDED WIRE REINFORCING ASTM A STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWI	5		
		WIDE FLANGE SECTIONSASTM AOTHER ROLLED SECTIONSASTM A	992 Fy = 50 KSI		
		SQUARE AND RECTANGULAR HSS ASTM A	500, GR B Fy = 46 KSI 53, GR B Fy = 35 KSI		
н		CAP AND BASE PLATES ASTM A CONNECTION MATERIAL ASTM A	36 Fy = 36 KSI	1.	FOR CAST-IN-PLAC
		STIFFENER PLATES ASTM A			REINFORCEMENT
		HIGH STRENGTH BOLTS (AISC 360-05 ASD) A325 (3/	4" DIAMETER UNO) Fv = 24 KSI		CONCRETE PERMANEN
		TWIST-OFF BOLT/NUT/WASHER ASSEMBLIES ASTM F HEAVY HEX NUTS ASTM A	563		CONCRETE NO. 6 BARS
			108, TYPE B	2.	NO. 5 BARS
	8.	ELECTRODES FOR ARC WELDING AWS 5.1 COLD-FORMED STRUCTURAL STUDS SHALL CONFORM TO		Ζ.	REINFORCING BAF
G	0.	ROLLED SECTIONS, CONNECTION MATERIAL, STIFFENER		3.	STIRRUPS OR TIES
			653, GR 50 Fy = 50 KSI		'B' AS DEFINED IN A INCHES) AS FOLLO
			1554, GR 36 Fy = 36 KSI		[] []
		COATING - HOT DIPPED ASTMA ELECTRO - PLATE ASTMA	924, G60		-
		ALUMINUM - ZINC ASTM A	792, GR 40		_
F		ELECTRODES FOR ARC WELDING AWS 5.1			-
	9.	STEEL DECK AND ALL ACCESSORIES SHALL BE FORMED FOLLOWING STANDARDS:	FROM STEEL SHEETS CONFORMING TO THE		-
		GALVANIZED COMPOSITE FLOOR DECK ASTM A6	653, GR 50 Fy = 50 KSI 1008, GR C Fy = 33 KSI		-
		PAINTED STEEL ROOF DECK ASTM A	1008, GR C Fy = 33 KSI		-
			OTEO		
F	1.	GENERAL N NEITHER THE PROFESSIONAL ACTIVITIES OF THE ENGINI			LAP LENGT
L	1.	OR HER EMPLOYEES AND SUBCONSULTANTS AT THE CO CONTRACTOR AND ANY OTHER ENTITY OF THEIR OBLIGA	NSTRUCTION SITE, SHALL RELIEVE THE		COVER OF AS HORIZON
		BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS	S, SEQUENCE, TECHNIQUES, OR PROCEDURES	4.	EMBEDMENT LENG
		NECESSARY FOR PERFORMING, SUPERINTENDING, OR C CONSTRUCTION IN ACCORDANCE WITH THE CONTRACT	DOCUMENTS AND ANY HEALTH OR SAFETY		INSTALLATION INS
		PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCI HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER	ANY CONSTRUCTION CONTRACTOR OR OTHER		
		ENTITY OR THEIR EMPLOYEES IN CONNECTION WITH THE PRECAUTIONS. THE CONTRACTOR IS SOLELY RESPONSI	BLE FOR THE JOBSITE SAFETY. THE ENGINEER AND	1.	POST INSTALLED E ACCEPTABLE ALTE
D		THE ENGINEER'S CONSULTANTS SHALL BE MADE ADDITIG GENERAL LIABILITY INSURANCE POLICY.			MATCHES THE CAR ALTERNATES ARE
	2.	STRUCTURAL DRAWINGS INCLUDE DESIGN REQUIREMEN BUT DO NOT SHOW ALL DETAIL DIMENSIONS TO FIT INTR			WITH MANUFACTU ANCHORS USED O
		CONTRACTOR SHALL SO CONSTRUCT THE WORK SO TH	AT IT WILL CONFORM TO THE CLEARANCES	Г	•
	3.	REQUIRED BY ARCHITECTURAL, MECHANICAL AND ELEC THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFIC			ANCHORED IN
		UNLESS NOTED OTHERWISE, THEY DO NOT INDICATE TH	E MEANS OR METHODS OF CONSTRUCTION.	F	HOLLOW CMU
	4.	DETAILS AND NOTES ON THE STRUCTURAL DRAWINGS A SITUATIONS ELSEWHERE.	RE INTENDED TO BE TYPICAL FOR SIMILAR	F	GROUTED CML
с		ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FO WITH APPROPRIATE TRADE CONTRACTORS. OPENING SI			UNCRACKED CONC
С	5.	INSERTS AND OTHER PENETRATIONS WHEN SHOWN ARE BE VERIFIED PRIOR TO FORMING.		F	CRACKED CONCR
С	5.	SE VERNIED I MONTO I ONWING.	L TAKE PRECEDENCE OVER GENERAL NOTES AND	2.	ADHESIVE ANCHO
C	5. 6.	DIMENSIONS, NOTES, AND DETAILS ON DRAWINGS SHALL	- · · · · -	۲.	RODS, HEAVY DUT
C	6.	TYPICAL DETAILS.			
		TYPICAL DETAILS. WHERE NEW CONSTRUCTION INTERFACES WITH EXISTIN MEMBER SIZES AND ELEVATIONS SHOWN ON THE DRAW	INGS PRIOR TO STARTING CONSTRUCTION. ALL		ALTERNATE ANCH
C B	6.	TYPICAL DETAILS. WHERE NEW CONSTRUCTION INTERFACES WITH EXISTIN	INGS PRIOR TO STARTING CONSTRUCTION. ALL HE ATTENTION OF THE ARCHITECT.		ALTERNATE ANCH CAPACITY OF THE BE SUBMITTED TO
	6. 7.	TYPICAL DETAILS. WHERE NEW CONSTRUCTION INTERFACES WITH EXISTIN MEMBER SIZES AND ELEVATIONS SHOWN ON THE DRAW DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO T	INGS PRIOR TO STARTING CONSTRUCTION. ALL HE ATTENTION OF THE ARCHITECT. VING:		ALTERNATE ANCH CAPACITY OF THE BE SUBMITTED TO WRITTEN INSTRUC
	6. 7.	TYPICAL DETAILS. WHERE NEW CONSTRUCTION INTERFACES WITH EXISTIN MEMBER SIZES AND ELEVATIONS SHOWN ON THE DRAW DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO T REFER TO ARCHITECTURAL DRAWINGS FOR THE FOLLOW A. SIZE AND LOCATION OF ALL DOOR AND WINDOW OF B. SIZE AND LOCATIONS OF ALL INTERIOR AND EXTER	INGS PRIOR TO STARTING CONSTRUCTION. ALL HE ATTENTION OF THE ARCHITECT. VING: PENINGS, UNLESS NOTED OTHERWISE. IOR MASONRY WALLS.	Г	ALTERNATE ANCHO CAPACITY OF THE BE SUBMITTED TO WRITTEN INSTRUC FOLLOWING TABLE
	6. 7.	 TYPICAL DETAILS. WHERE NEW CONSTRUCTION INTERFACES WITH EXISTINMEMBER SIZES AND ELEVATIONS SHOWN ON THE DRAWNDISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO TREFER TO ARCHITECTURAL DRAWINGS FOR THE FOLLOWA. SIZE AND LOCATION OF ALL DOOR AND WINDOW OF B. SIZE AND LOCATIONS OF ALL INTERIOR AND EXTER C. SIZE AND LOCATION OF ALL CONCRETE CURBS, FLOCHANGES IN LEVEL, CHAMFERS, GROOVES, INSERT 	INGS PRIOR TO STARTING CONSTRUCTION. ALL HE ATTENTION OF THE ARCHITECT. VING: PENINGS, UNLESS NOTED OTHERWISE. IOR MASONRY WALLS. DOR DRAINS, SLOPES, DEPRESSED AREAS, S, ETC.	ſ	ALTERNATE ANCHO CAPACITY OF THE BE SUBMITTED TO WRITTEN INSTRUC
	6. 7.	 TYPICAL DETAILS. WHERE NEW CONSTRUCTION INTERFACES WITH EXISTIN MEMBER SIZES AND ELEVATIONS SHOWN ON THE DRAW DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO T REFER TO ARCHITECTURAL DRAWINGS FOR THE FOLLOW A. SIZE AND LOCATION OF ALL DOOR AND WINDOW OF B. SIZE AND LOCATIONS OF ALL INTERIOR AND EXTER C. SIZE AND LOCATION OF ALL CONCRETE CURBS, FLO CHANGES IN LEVEL, CHAMFERS, GROOVES, INSERT D. SIZE AND LOCATION OF ALL FLOOR AND ROOF OPEN 	INGS PRIOR TO STARTING CONSTRUCTION. ALL HE ATTENTION OF THE ARCHITECT. VING: PENINGS, UNLESS NOTED OTHERWISE. IOR MASONRY WALLS. DOR DRAINS, SLOPES, DEPRESSED AREAS, S, ETC.		ALTERNATE ANCHO CAPACITY OF THE BE SUBMITTED TO WRITTEN INSTRUC FOLLOWING TABLE ANCHORED IN HOLLOW CMU
	6. 7.	 TYPICAL DETAILS. WHERE NEW CONSTRUCTION INTERFACES WITH EXISTINMEMBER SIZES AND ELEVATIONS SHOWN ON THE DRAWNDISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO TREFER TO ARCHITECTURAL DRAWINGS FOR THE FOLLOWA. SIZE AND LOCATION OF ALL DOOR AND WINDOW OF B. SIZE AND LOCATIONS OF ALL INTERIOR AND EXTER C. SIZE AND LOCATION OF ALL CONCRETE CURBS, FLOCHANGES IN LEVEL, CHAMFERS, GROOVES, INSERT 	INGS PRIOR TO STARTING CONSTRUCTION. ALL HE ATTENTION OF THE ARCHITECT. VING: PENINGS, UNLESS NOTED OTHERWISE. IOR MASONRY WALLS. DOR DRAINS, SLOPES, DEPRESSED AREAS, S, ETC. NINGS UNLESS NOTED OTHERWISE.	-	ALTERNATE ANCHO CAPACITY OF THE BE SUBMITTED TO WRITTEN INSTRUC FOLLOWING TABLE ANCHORED IN HOLLOW CMU GROUTED CMU
B	6. 7.	 TYPICAL DETAILS. WHERE NEW CONSTRUCTION INTERFACES WITH EXISTIN MEMBER SIZES AND ELEVATIONS SHOWN ON THE DRAW DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO T REFER TO ARCHITECTURAL DRAWINGS FOR THE FOLLOW A. SIZE AND LOCATION OF ALL DOOR AND WINDOW OF B. SIZE AND LOCATIONS OF ALL INTERIOR AND EXTER C. SIZE AND LOCATION OF ALL CONCRETE CURBS, FLO CHANGES IN LEVEL, CHAMFERS, GROOVES, INSERT D. SIZE AND LOCATION OF ALL FLOOR AND ROOF OPEN E. FLOOR, WALL AND ROOF FINISHES. 	INGS PRIOR TO STARTING CONSTRUCTION. ALL HE ATTENTION OF THE ARCHITECT. VING: PENINGS, UNLESS NOTED OTHERWISE. IOR MASONRY WALLS. OOR DRAINS, SLOPES, DEPRESSED AREAS, S, ETC. NINGS UNLESS NOTED OTHERWISE. IR MANUFACTURER'S APPROVED SHOP DRAWINGS	-	ALTERNATE ANCHO CAPACITY OF THE BE SUBMITTED TO WRITTEN INSTRUC FOLLOWING TABLE ANCHORED IN HOLLOW CMU

- B. ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS.

8

- MOTOR MOUNTS. MINIMUM
- CONTRACTOR.
- REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS.
- BY THE CONTRACTOR.
- CONSTRUCTION SHALL BE BORNE BY THE CONTRACTOR.
- WISCONSIN.
- EXISTING SLAB ON GRADE ELEVATION.

- WALLS AND PIERS.
- INC. REPORT IS ON FILE WITH THE ARCHITECT.
- BRACED TO RESIST LATERAL LOADS.

••

- REINFORCEMENT UNLESS NOTED OTHERWISE: CONCRETE CAST AGAINST AND
 - PERMANENTLY EXPOSED TO EARTH CONCRETE EXPOSED TO EARTH OR WEATHER
- NO. 6 BARS OR LARGER NO. 5 BARS OR SMALLER
- STIRRUPS OR TIES.
- INCHES) AS FOLLOWS:

	3000 PSI C	ONCRETE	4000 PSI CONCRETE	
BAR SIZE	OTHER	TOP	OTHER	TOP
#3	22	28	19	25
#4	29	38	25	33
#5	36	47	31	41
#6	43	56	37	49
#7	63	81	54	71
#8	72	93	62	81
#9	81	105	70	91
#10	91	118	79	102
#11	101	131	87	114

LAP LENGTHS ASSUME CLEAR SPACING BETWEEN BARS OF 2 BAR DIAMETERS, AND A MINIMUM COVER OF 1 BAR DIAMETER. FOR DEVELOPMENT LENGTHS, DIVIDE BY 1.3. TOP BARS ARE DEFINED AS HORIZONTAL BARS WITH MORE THAN 1'-0" OF FRESH CONCRETE BELOW.

ADHESIVE FOR DOWELING SHALL BE HILTI RE 500 SD, POWERS PE 1000+, OR SIMPSON SET XP. INSTALLATION INSTRUCTIONS.

POST INSTALLED STEEL ANCHORS

ANCHORS USED ON THE PROJECT:

ANCHORED INTO:	BASIS OF DESIGN	ACCEPTABLE ALTERNATES AT CONTRACTOR'S OPTION			
HOLLOW CMU	HILTI HLC SLEEVE	POWERS LOK/BOLT, ITW/RED HEAD DYNABOLT SLEE			
GROUTED CMU	HILTI KWIK BOLT 3	POWER STUD+ SD1, SIMPSON WEDGE-ALL			
UNCRACKED CONCRETE	HILTI KWIK BOLT 3	POWER STUD+ SD2, ITW/RED HEAD TRUBOLT+, SIMPSON STRONG BOLT			
CRACKED CONCRETE HILTI KWIK BOLT TZ POWER STUD+ SD2, ITW/RED HEAD TRUBOLT- SIMPSON STRONG BOLT					

ADHESIVE ANCHOR SYSTEMS FOR ATTACHMENT INTO CONCRETE SHALL CONSIST OF ASTM A193 GRADE B7 RODS, HEAVY DUTY NUTS AND WASHERS, AND A TWO COMPONENT STRUCTURAL ADHESIVE. ADHESIVE ANCHORING SYSTEMS SERVING AS THE BASIS OF DESIGN ARE SHOWN ON THE DRAWINGS. ACCEPTABLE ALTERNATE ANCHORS MAY BE SUPPLIED PROVIDED THAT THE QUANTITY AND CONFIGURATION MATCHES THE CAPACITY OF THE DESIGN ANCHOR QUANTITY AND CONFIGURATION. ANY ACCEPTABLE ALTERNATES ARE TO BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW. INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. ANCHORING SYSTEMS INTO HOLLOW CMU SHALL INCLUDE A SCREEN TUBE. THE FOLLOWING TABLE SUMMARIZES THE ADHESIVE ANCHORS USED ON THE PROJECT:

ANCHORED INTO: BASIS OF DESIGN

HOLLOW CMU GROUTED CMU CRACKED/UNCRACKED CONCRETE

HILTI HIT HY 70 HILTI HIT HY 70 HILTI HIT HY 200

REFER TO MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR THE FOLLOWING: A. PIPE RUNS, SLEEVES, HANGERS, TRENCHES, WALL AND SLAB OPENINGS, ETC., EXCEPT AS SHOWN.

10

11

C. CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL OR PLUMBING FIXTURES.

D. SIZE AND LOCATION OF MACHINE OR EQUIPMENT BASES OR CURBS AND ANCHOR BOLTS FOR

9

BEFORE SUBMITTING A PROPOSAL FOR THIS WORK, EACH BIDDER SHALL VISIT THE PREMISES AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS, TEMPORARY CONSTRUCTION REQUIRED, QUANTITIES AND TYPES OF EQUIPMENT, ETC. THE BID SHALL INCLUDE ALL SUMS REQUIRED TO DO THE WORK WITHIN THE EXISTING CONDITIONS. DISRUPTION OF NORMAL ACTIVITIES IN THE WORK AREA SHALL BE KEPT TO A

SHOP DRAWINGS PREPARED BY SUPPLIERS, SUBCONTRACTORS, AND OTHERS SHALL BE REVIEWED AND COORDINATED PRIOR TO SUBMITTING TO THE ARCHITECT. EACH SHOP DRAWING SUBMITTED SHALL BE STAMPED, INITIALED AND DATED INDICATING REVIEW BY THE CONSTRUCTION MANAGER/GENERAL

SHOP DRAWINGS PREPARED BY THE SUBCONTRACTORS, SUPPLIERS, AND OTHERS SHALL BE REVIEWED BY THE ARCHITECT ONLY FOR GENERAL CONFORMANCE WITH DESIGN CONCEPT ONLY. REVIEW BY THE ARCHITECT SHALL NOT BEGIN WITHOUT THE PRIOR COORDINATION AND REVIEW BY THE GENERAL CONTRACTOR. WORK SHALL NOT BEGIN WITHOUT REVIEW BY THE ARCHITECT. NOTATIONS MADE BY THE ARCHITECT ON THE SHOP DRAWINGS DO NOT RELIEVE THE CONTRACTOR FROM COMPLYING WITH THE

OPTIONS ARE FOR THE CONTRACTOR'S CONVENIENCE. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY CHANGES RESULTING FROM CHOOSING AN OPTION AND SHALL COORDINATE ALL DETAILS. THE COST OF ADDITIONAL DESIGN WORK NECESSITATED BY SELECTION OF AN OPTION SHALL BE BORNE

THE COST OF ADDITIONAL DESIGN WORK DUE TO ERRORS OR OMISSIONS BY THE CONTRACTOR IN

ANY ENGINEERING DESIGN PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW OR RECORD SHALL BEAR THE STAMP AND SIGNATURE OF A PROFESSIONAL STRUCTURAL ENGINEER REGISTERED IN THE STATE OF

ELEVATIONS ARE BASED ON THE FIRST FLOOR ELEVATION OF (+0'-0") WHICH IS EQUAL TO THE TOP OF

FOUNDATIONS/SLAB-ON-GRADE

CROSS REFERENCE ARCHITECTURAL AND STRUCTURAL DRAWINGS TO ASSURE PROPER DIMENSIONS AND PLACEMENT OF ALL ANCHOR BOLTS, INSERTS, NOTCHES, EDGES IN GRADE BEAMS, FOUNDATION

FOUNDATION DESIGN BASED ON GEOTECHNICAL ENGINEERING REPORT DATED MARCH 30, 2016 BY CGC,

ALL EXCAVATIONS SHALL BE PROPERLY AND SAFELY BACKFILLED. DO NOT PLACE BACKFILL BEHIND RETAINING WALLS BEFORE CONCRETE HAS ATTAINED SPECIFIED COMPRESSIVE STRENGTH. CONTRACTOR SHALL BRACE OR PROTECT ALL WALLS BELOW GRADE FROM LATERAL LOADS UNTIL SUPPORTING FLOOR IS COMPLETELY IN PLACE AND HAS ATTAINED FULL STRENGTH. CONTRACTOR SHALL PROVIDE FOR DESIGN. PERMITS, AND INSTALLATION OF SHORING AND/OR SHEETING. BACKFILLING IS NOT PERMITTED FOR FOUNDATION WALLS UNTIL SUPPORTED SLAB ABOVE IS IN PLACE OR THE WALL IS ADEQUATELY

UNLESS NOTED OTHERWISE, ALL FOOTINGS SHALL BE CENTERED UNDER WALLS, PIERS OR COLUMNS. PROVIDE SAW CUT CONTROL JOINTS IN ALL SLABS-ON-GRADE. LOCATE JOINTS ALONG COLUMN LINES WITH INTERMEDIATE JOINTS SPACED PER THE TABLE BELOW, UNLESS NOTED OTHERWISE. CONTROL JOINTS SHALL BE CONTINUOUS, NOT STAGGERED OR OFFSET. SLAB PANELS SHALL HAVE A MAXIMUM LENGTH TO WIDTH RATIO OF 1.5 TO 1. PROVIDE ADDITIONAL CONTROL JOINTS AT ALL RE-ENTRANT CORNERS FORMED IN

SLAB ON GRADE THICKNESS	MAX JOINT SPACING
4"	12'-0"
5"	15'-0"
6"	18'-0"
8"	24'-0"
10"	30'-0"
12"	36'-0"

REINFORCING STEEL

FOR CAST-IN-PLACE CONCRETE THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR

D	
	~

3 INCHES 2 INCHES

1 1/2 INCHES DIMENSIONS OF CONCRETE COVER FOR REINFORCEMENT INDICATED ON DRAWINGS ARE TO OUTERMOST REINFORCING BARS. FOR BEAMS OR COLUMNS WITH STIRRUPS OR TIES, CLEAR COVER INDICATED IS TO

BAR SPLICES: SPLICE REINFORCING WHERE INDICATED ON THE DRAWINGS. ALL SPLICES SHALL BE CLASS 'B' AS DEFINED IN ACI 318. IF SPLICE LENGTH IS NOT GIVEN ON THE DRAWINGS, PROVIDE LAP LENGTHS (IN

EMBEDMENT LENGTH SHALL BE AS INDICATED ON THE DRAWINGS. INSTALL PER MANUFACTURER'S

POST INSTALLED EXPANSION ANCHORS SERVING AS THE BASIS OF DESIGN ARE SHOWN ON THE DRAWINGS. ACCEPTABLE ALTERNATE ANCHORS MAY BE SUPPLIED PROVIDED THAT THE QUANTITY AND CONFIGURATION MATCHES THE CAPACITY OF THE DESIGN ANCHOR QUANTITY AND CONFIGURATION. ANY ACCEPTABLE ALTERNATES ARE TO BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW. INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. THE FOLLOWING TABLE SUMMARIZES THE EXPANSION

> ACCEPTABLE ALTERNATES AT CONTRACTOR'S OPTION POWERS AC 100+ GOLD, ITW A7 ACRYLIC

POWERS AC 100+ GOLD, ITW A7 ACRYLIC, SIMPSON SET POWERS PE 1000+, SIMPSON SET XP

12 13 14 15 STRUCTURAL STEEL

- 1. REFER TO DRAWINGS FOR DETAIL OF DECK OPENINGS. REFER TO ARCHITECTURAL MECHANICAL, ELECTRICAL DRAWINGS, ETC., FOR EXACT SIZE, LOCATION, AND COUNT OF REQUIRED OPENINGS.
- 2. UNLESS NOTED OTHERWISE ALL WELDS SHALL BE CONTINUOUS 1/4" FILLET WELDS.
- 3. HIGH STRENGTH BOLTS SHALL BE INSTALLED IN ACCORDANCE WITH AISC "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS." SEE DESIGN CRITERIA FOR BOLT SIZE AND
- MATERIAL ASTM DESIGNATION. 4. BOLTS IN SLOTTED HOLES SHALL BE LOCATED IN THE CENTER OF THE HOLE AFTER FIELD ASSEMBLY IS COMPLETE, UNLESS DETAILED OTHERWISE.

STEEL DECK

- 1. DECK SIZE AND GAGE INDICATED IN THE DRAWINGS ARE BASED ON THE FOLLOWING:
- A. VULCRAFT 2008 CATALOG FOR GRAVITY DESIGN LOADS. B. STEEL DECK INSTITUTE (SDI) DIAPHRAGM DESIGN MANUAL 3RD EDITION FOR DIAPHRAGM LOADS. C. VULCRAFT 2008 CATALOG FOR UNSHORED CONSTRUCTION SPANS.
- 2. COMPOSITE STEEL FLOOR DECK GALVANIZING SHALL CONFORM TO ASTM A653 WITH A MINIMUM
- COATING OF G60. 3. UNLESS NOTED OTHERWISE, DECK SHALL BE FASTENED WITH 5/8" DIAMETER PUDDLE WELDS AT 12" OC A ALL SUPPORTS AND EDGES. PROVIDE 16 GAGE WELDING WASHERS WHEN RECOMMENDED BY THE DECK MANUFACTURER FOR THE GAGE OF STEEL DECK SPECIFIED BELOW. SIDE LAPS SHALL BE FASTENED WITH #10 TEK SCREWS, MINIMUM ONE AT EACH MIDSPAN. OPENING EDGES SHALL RECEIVE THE SAME WELDING REQUIRED AT DECK ENDS. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS EXPERIENCED IN
- COLD-FORMED STEEL DECK WORK. 4. DO NOT EXCEED 25 LBS PER HANGER AND A MINIMUM SPACING OF 2'-0" ON CENTER WHEN ATTACHING TO STEEL ROOF DECKING (LIMITATION NOT REQUIRED WITH CONCRETE ON STEEL DECK). THIS 25 LBS LOAD A 2'-0" SPACING INCLUDES ADJACENT MECHANICAL, ELECTRICAL, AND ARCHITECTURAL ITEMS HANGING FRO DECK. IF THE HANGER RESTRICTIONS CANNOT BE ACHIEVED, SUPPLEMENTAL FRAMING SUPPORTED OFF STEEL FRAMING WILL NEED TO BE ADDED. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINAT LOCATION AND WEIGHT OF ALL THE ELEMENTS BEING HUNG.

LINTELS

- 1. PROVIDE LINTELS OVER ALL OPENINGS AND RECESSES IN MASONRY CONSTRUCTION. PENETRATIONS NOT IDENTIFIED ON THE DOCUMENTS ARE TO BE TREATED IN A MANNER SIMILAR TO THE
- IDENTIFIED LOCATIONS. LINTELS IN NON-BEARING MASONRY WALL OPENINGS CAN BE SIZED IN ACCORDAI WITH THE NOTE BELOW. LINTELS THAT OCCUR IN EXISTING BEARING WALLS ARE TO BE SIZED ACCORDING TO SIMILAR CONDITIONS AND SPANS IN THE NEW CONSTRUCTION AND LINTEL SCHEDULE. BOTTOM PLATE SIZE SHALL BE A MINIMUM OF 3/8" THICK. THE WIDTH OF THE PLATE SHALL BE 3/4" LESS THAN THE FIELD VERIFIED WALL THICKNESS. THE PLATE SHALL BE THE FULL LENGTH OF THE LINTEL MEMBER. LINTELS AR NOT REQUIRED OVER OPENINGS THAT ARE 12" WIDE OR LESS AND AT LEAST 1 COURSE BELOW THE TOP (THE WALL.
- 3. ALL LINTELS SHALL HAVE A MINIMUM OF 8" END BEARING.
- 4. ALL LINTELS IN EXTERIOR WALL CONSTRUCTION SHALL BE HOT-DIP GALVANIZED, UNO.
- 5. FOR ALL OPENINGS NOT OTHERWISE DETAILED OR SCHEDULED, MINIMUM LINTELS SHALL BE FOR EACH 4 INCH OF MASONRY WIDTH: 5/16" PLATE (3/4" LESS THAN WALL WIDTH)
 - 0 TO 2'-0" SPAN 2'-0" TO 4'-0" SPAN L 3 1/2x3 1/2x1/4 4'-0" TO 6'-0" SPAN 6'-0" TO 8'-0" SPAN
 - L4x3 1/2x5/16 (LLV) L5x3 1/2x5/16 (LLV)
- ALL ANGLES THAT ARE BACK TO BACK SHALL BE WELDED TOP AND BOTTOM 3" AT 12" MINIMUM. 6. BEARING PLATES NOT REQUIRED FOR LINTELS UNLESS NOTED OTHERWISE.

EXISTING STRUCTURAL INFORMATION

1. EXISTING STRUCTURAL INFORMATION SHOWN WAS OBTAINED FROM FIELD TAKE-OFF BY KJWW. CONTRACTOR TO VERIFY EXISTING INFORMATION DIMENSIONS AND SIZES AS REQUIRED TO COMPLETE THEIR WORK.

	STRUCTURA	L DRAWING SYMBOLS
	MASONRY HATCHING	##x##
	STEEL HATCHING	(+ X' - X")
	MISCELLANEOUS HATCH	
	CONCRETE HATCHING	
	EARTH HATCHING	
CENTERLINE OR GRID	HIDDEN	I
1 1/8" = 1'-0"	PLAN OR DETAIL NUMBER PLAN OR DETAIL NAME Name SCALE OF PLAN OR DETAIL DETAIL REFERRED TO BY SECTION CUT SHEET DETAIL IS	
	REVISION TRIANGLE - NUMBER INDICATES REVISION NUMBER ELEVATION MARK	OPEN FLOO
	INDICATES CHANGE OF SLAB ELEVATION	
SF#(+ X' - X'')	COLUMN DESIGNATION BASE PLATE MARK FOOTING MARK (TOP ELEVATION) PIER MARK (TOP ELEVATION)	FLOO ORIEN INDIC/ EXTEN THE E DRAW
SF#(+ X' - X") P# (+ X' - X")	FIER WARK (TUP ELEVATION)	

17	18	19	20	21

Т		
H G AS		

16

) AND OM
TING
NCE G E
RE OF
BEAM SIZE
TOP OF STEEL ELEVATION
BEAM TO COLUMN KICKER (BELOW) - REFER TO DETAIL
BEAM TO SLAB KICKER (BELOW) - REFER TO DETAIL
INDICATES COLUMN BEARING ON CONCRETE FOUNDATION WALL, GRADE BEAM, OR PIER

INDICATES COLUMN FRAMING ATOP BEAM - REFER TO DETAIL

INDICATES COLUMN FRAMING TO UNDERSIDE OF BEAM - REFER TO DETAIL

OR SLAB OR ROOF DECK OPENING

R AND/OR ROOF DECK NTATION (DIRECTION OF SPAN)

ATES DIRECTION OF DECK NTS. DECK SHALL TERMINATE AT EDGE OF SLAB SHOWN ON THE INGS UNLESS NOTED OTHERWISE

	AT DEGREES
	DIAMETER AIR-HANDLING UNIT
	APPROXIMATE, -LY ARCHITECT, -URE, -URAL
/	BOTTOM OF BEAM FLANGE WIDTH
М	BEAM BASE PLATE
RG	BEARING COLD FORM STEEL FRAMING
;J	CONTROL JOINT CLEAR
MU	CONCRETE MASONRY UNIT CONCRETE
ONST	CONSTRUCTION CONTINUOUS
)	DEPTH DOUBLE
EG	DEGREE DIMENSION
)L	DEAD LOAD DETAIL
WG	DRAWING EACH
F	EACH FACE EXPANSION JOINT
Ľ	ELEVATION ELECTRICAL
MBED	EMBEDDED EDGE OF DECK
ŌS	EDGE OF SLAB EQUAL
QUIP	EQUIPMENT EACH WAY
XIST, (E)	EXISTING EXPANSION
XT	EXTERIOR CONCRETE COMPRESSIVE STRENGTH
-	FOUNDATION
Ľ	FLOOR FOOT
TG	FOOTING YIELD STRESS
ŚΑ	GAGE OR GAUGE GALVANIZED
BB	GRADE BEAM GENERAL CONTRACTOR
SYP	GYPSUM HOT-DIPPED GALVANIZED
IORIZ	HORIZONTAL HEATING, VENTILATION, AIR CONDITIONING
IWS	HEADED, WELDED STUD
NT	INTERIOR JOIST
	JOINT KILOPOUND (1,000 POUNDS)
0	KNOCK-OUT KIPS PER SQUARE FOOT
	LENGTH POUND
L	LINEAR FOOT LIVE LOAD
117	LONG LEG HORIZONTAL LONG LEG VERTICAL
SH SV	LONG SIDE HORIZONTAL LONG SIDE VERTICAL
ONG	LONGITUDINAL MECHANICAL/ELECTRICAL
1ECH	MAXIMUM MECHANICAL
1IN	MEZZANINE MINIMUM
	MISCELLANEOUS MARK
1	NORTH LENGTH (AS PLATES)
	NOT IN CONTRACT NUMBER
	NOT TO SCALE ON CENTER
	OPENING OPPOSITE
°C	POWER ACTUATED FASTENER PRECAST
Ľ	POUNDS PER CUBIC FOOT PLATE
	POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH
	POLYVINYL CHLORIDE RADIUS
REINF	ROOF DRAIN REINFORCING, -MENT, -ED
REF	REQUIRED REFERENCE, REFER TO
SC 3	ROOF-TOP UNIT TC WITH CLASS A FAYING SURFACE
SIM	SCHEDULE SIMILAR
SL SP	SNOW LOAD SPACE(S)
PEC'D	SPECIFICATION(S) SPECIFIED
TD	SQUARE STANDARD
	STIFFENER TOP OF
EMP	PRE-TENSIONED BOLT TEMPERATURE
RANS	BEAM FLANGE THICKNESS TRANSVERSE
INO	TYPICAL UNLESS NOTED OTHERWISE
/IF	VERTICAL VERIFY IN FIELD
VP	VERIFY WITH ARCHITECTURAL DRAWINGS WORKING POINT
VWR	WEIGHT WELDED WIRE REINFORCING
۲D	YARD

JWW ENGINEERING RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, O THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DAT/ ARE THE EXCLUSIVE PROPERTY OF KIWW ENGINEERING AND SHALL NOT BE USED. OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN PROVAL AND PARTICIPATION OF KJWW ENGINEERING. © 2016 KJWW CORP REFERENCE SCALE IN INCHES

CEDAR RAPIDS DES MOINES MADISON

OPN ARCHITECTS 301 NORTH BROOM STREET, SUITE100 MADISON, WI 53703 608-819-0260 PHONE

608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

General Contractor

Madison Public Library Maintenance & Support Center Remodel 1301 West Badger Road Madison, WI 53713

Consultants **CIVIL ENGINEER** Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

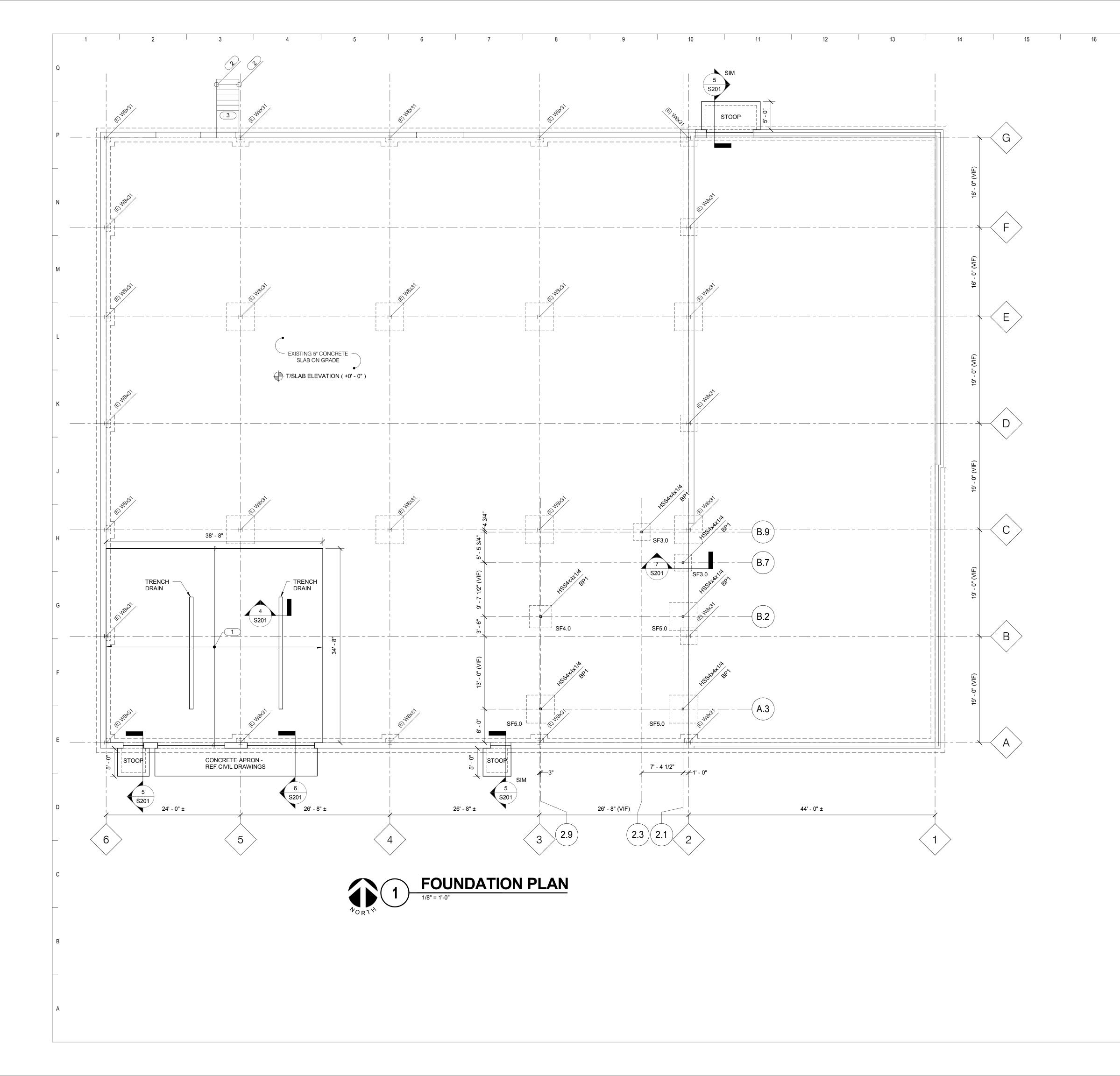
Key Plan

Sheet Issue Date Bid Set 12/09/2016 Previous Issue Dates Revision Dates _____

GENERAL NOTES

OPN Project No. 15617000





17	18	19	20	21



1. TOP OF FOOTING ELEVATION (-1' - 0"), UNO.

- BP# INDICATES BASE PLATE. REFER TO S301 FOR ANCHOR ROD AND BASE PLATE DETAILS. 3. SF# INDICATES SPREAD FOOTING. REFER TO THIS SHEET
- FOR SCHEDULE.
- 4. REFER TO 1, 2 AND 3/S201 FOR TYPICAL SLAB ON GRADE CONSTRUCTION DETAILS.

KEYNOTES:

NOTES:

- 1 5" CONCRETE SLAB ON GRADE WITH 6x6 W2.1xW2.1 WWR. TOP OF SLAB ELEVATION (+0'-0"), MATCH EXISTING AND SLOPE TO DRAIN.
- 2 10"Ø SONOTUBE FOUNDATION. COORDINATE LOCATION AND T/PIER ELEVATION WITH STAIR SUPPLIER. B/PIER ELEVATION TO BE MINIMUM 4'-0" BELOW GRADE.
- 3 EXTERIOR STAIR BY STAIR SUPPLIER. DESIGN FOR 100 PSF LIVE LOAD. ANCHOR STAIR LANDING TO EXTERIOR FACE OF EXISTING CONCRETE FOUNDATION WALL.

SPREAD FOOTING SCHEDULE						
				REINFORCING		
MARK	LENGTH	WIDTH	THICKNESS	LONG DIRECTION	SHORT DIRECTION	
SF3.0	3' - 0"	3' - 0"	1' - 0"	(3) #5	(3) #5	
SF4.0	4' - 0"	4' - 0"	1' - 0"	(3) #5	(3) #5	
SF5.0	5' - 0"	5' - 0"	1' - 0"	(4) #5	(4) #5	

OPN ARCHITECTS 301 NORTH BROOM STREET, SUITE100 MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX

www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

Owner MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

Project Madison Public Library Maintenance & Support Center Remodel

1301 West Badger Road Madison, WI 53713

General Contractor

Consultants **CIVIL ENGINEER** Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

- STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date Bid Set 12/09/2016

Previous Issue Dates

Revision Dates	

Drawing FOUNDATION PLAN



0

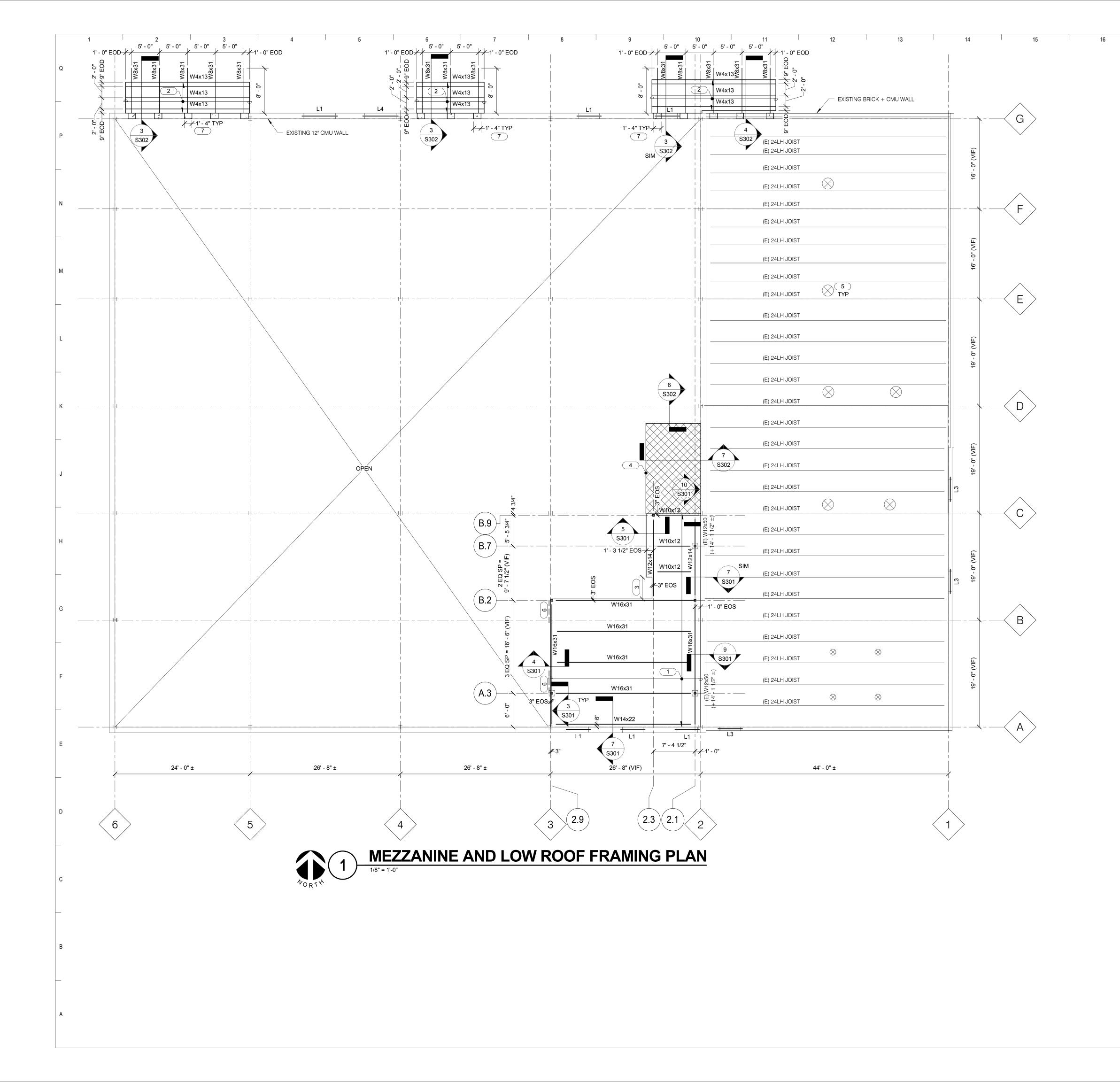
REFERENCE SCALE IN INCHES

2

PROJECT # 16.0141.00 OPN Project No. 15617000

3

S101



17	18		19	20	21	
		NOTES:				
		1. TOF	OF STEEL ELEVATION	(+10' - 8").		
		2. REF	ER TO 8/S301 FOR TYPI	CAL SHEAR CONNECTION	ON.	
			NDICATES LINTEL IN ST S SHEET FOR SCHEDUL		VALL, REFER TO	
		4. MODIFY EXISTING ROOF JOISTS PER 1/S302 AS REQUIRED FOR HANGING LOADS. GC TO COORDINATE WITH TRADE CONTRACTORS.				
		KEYNOT	<u>=S</u> :			
	1 2 1/2" NORMAL WEIGHT CONCRETE ON 1 1/2" (20 GA) COMPOSITE STEEL DECK, 2-SPAN MINIMUM, WITH 6x6 - W1.4xW1.4 WWR. TOTA THICKNESS = 4". TOP OF SLAB EL +11' - 0".					
		2 1	/8" STEEL PLATE.			
		3 0	OORDINATE DECK EDG	E WITH STAIR SUPPLIE	R.	
		E E S	9/4" TONGUE AND GROO " DEEP COLD FORM JOI BE DESIGNED FOR SUPE IVE LOAD OF 50 PSF. FA CREWS @ 6" OC AT SUB PANEL AND @ 12" OC AT	STS @ 16" OC. COLD FC ERIMPOSED DEAD LOAD ASTEN SHEATHING TO J PPORTING ENDS OF EA	ORM FRAMING TO OF 15 PSF AND OISTS WITH #10 TEK	

OPENINGS PER 2/S302.

IN EACH CELL.

6 L4x4x1/4 KNEE BRACE, REFER TO 11/S301.

LINTEL SCHEDULE

W8x24 + 3/8" PLATE,

TOP AND BOTTOM

W8x31 + 3/8" PLATE,

TOP AND BOTTOM

W8x24 + 3/8"

BOTTOM PLATE

W8x24 + 3/8" PLATE,

TOP AND BOTTOM

5 NEW ROOF OPENING: PROVIDE ANGLE FRAMING AROUND ROOF

(7) GROUT EXISTING MASONRY SOLID, FULL HEIGHT, WITH (1) #6 BAR

MEMBER SIZE

DETAIL

6/S301

6/S301

6/S301 SIM

6/S301

NOTES:

MAR

Κ

L1

L2

L3

L4

1. GROUT EXISTING MASONRY SOLID AT LINTEL BEARING.

MEMBER BEARING,

EACH END

0' - 4"

0' - 4"

0' - 4"

0' - 4"



OPN ARCHITECTS 301 NORTH BROOM STREET, SUITE100 MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX

www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

General Contractor

Owner

Project

NOTES

-

REINFORCE JAME

PER 5/S302

-

REINFORCE JAMB PER 5/S302 SIM

Madison Public Library Maintenance & Support Center Remodel 1301 West Badger Road Madison, WI 53713

Consultants **CIVIL ENGINEER** Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

- STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

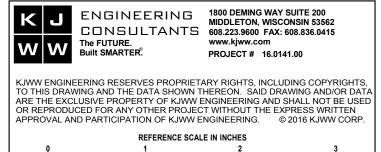
Key Plan

Sheet Issue Date Bid Set

Previous Issue Dates

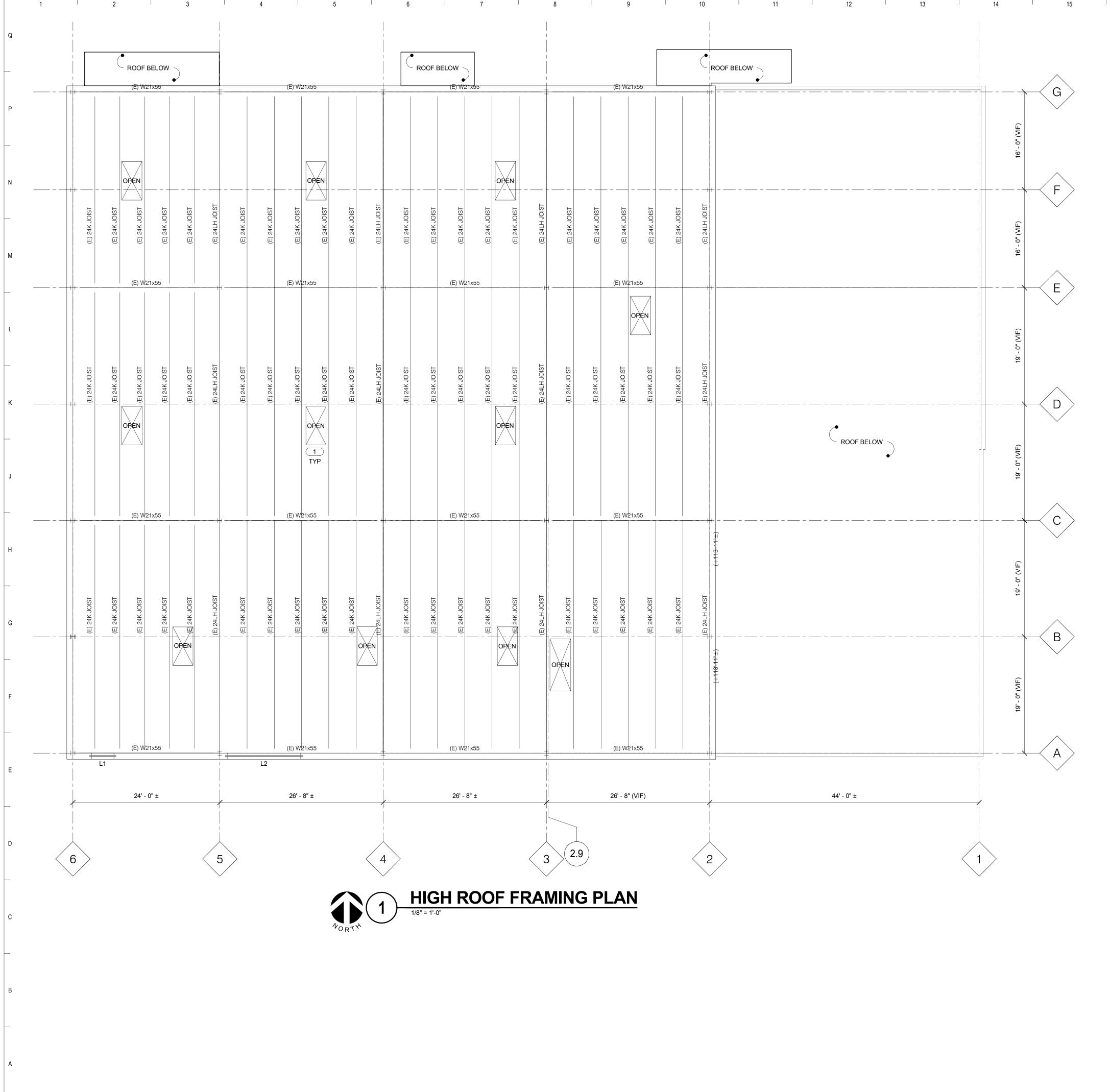
12/09/2016

Revision Dates Drawing MEZZANINE FRAMING PLAN OPN Project No. 15617000



ENGINEERING1800 DEMING WAY SUITE 200
MIDDLETON, WISCONSIN 53562CONSULTANTS608.223.9600FAX: 608.836.0415







NOTES:

16

 MODIFY EXISTING ROOF JOISTS PER 1/S302 AS REQUIRED FOR HANGING LOADS. GC TO COORDINATE WITH TRADE CONTRACTORS.

L# INDICATES LINTEL IN STRUCTURAL MASONRY WALL, REFER TO S102 FOR SCHEDULE.

KEYNOTES:

1 NEW ROOF OPENING: PROVIDE ANGLE FRAMING AROUND ROOF OPENINGS PER 2/S302.

301 NORTH BROOM STREET, SUITE100 MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

OPN ARCHITECTS

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

Owner

Project

General Contractor

Madison Public Library Maintenance & Support Center Remodel 1301 West Badger Road Madison, WI 53713

CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

Consultants

- STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date Bid Set 12/09/2016

Previous Issue Dates

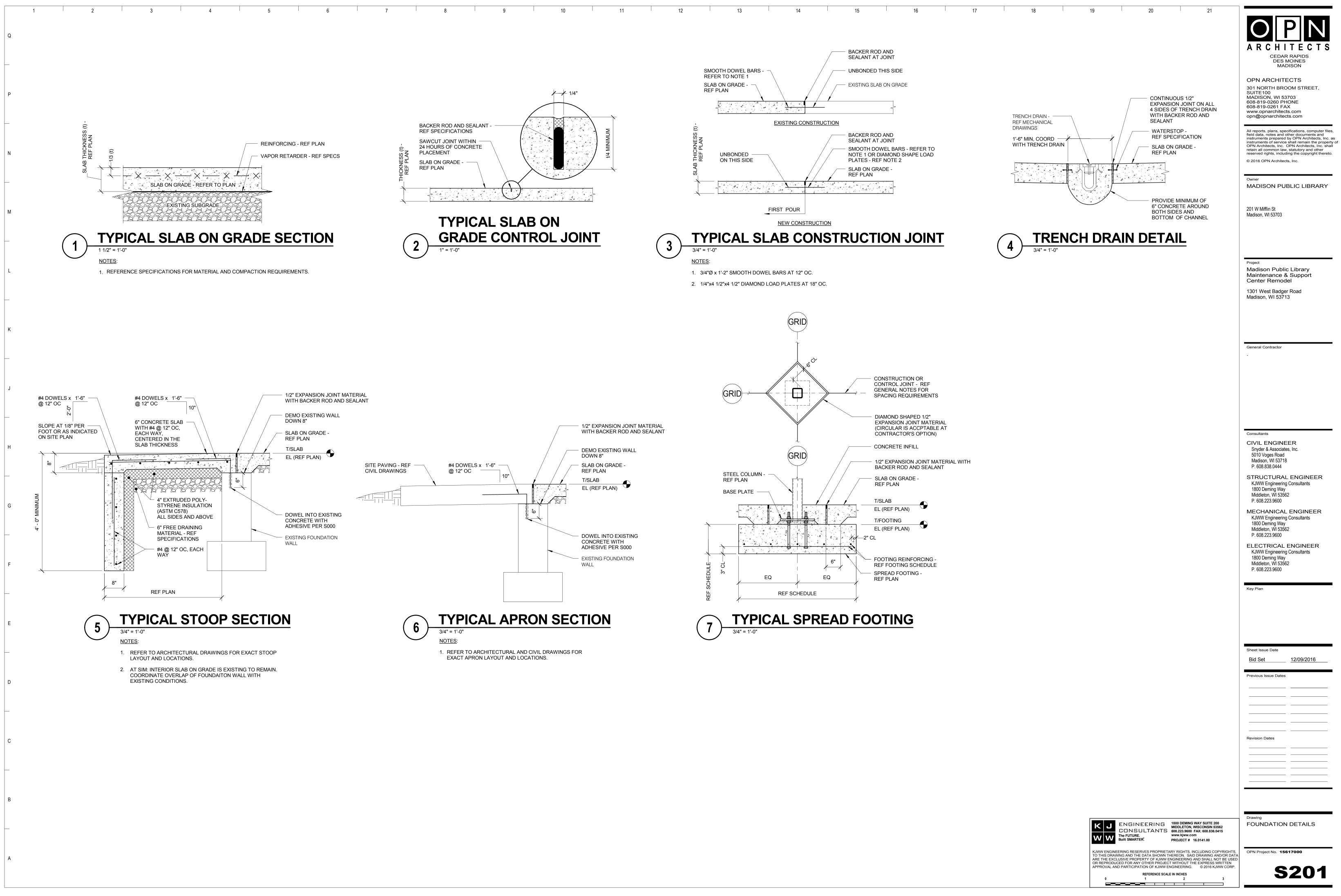
_____ Revision Dates _____ _____

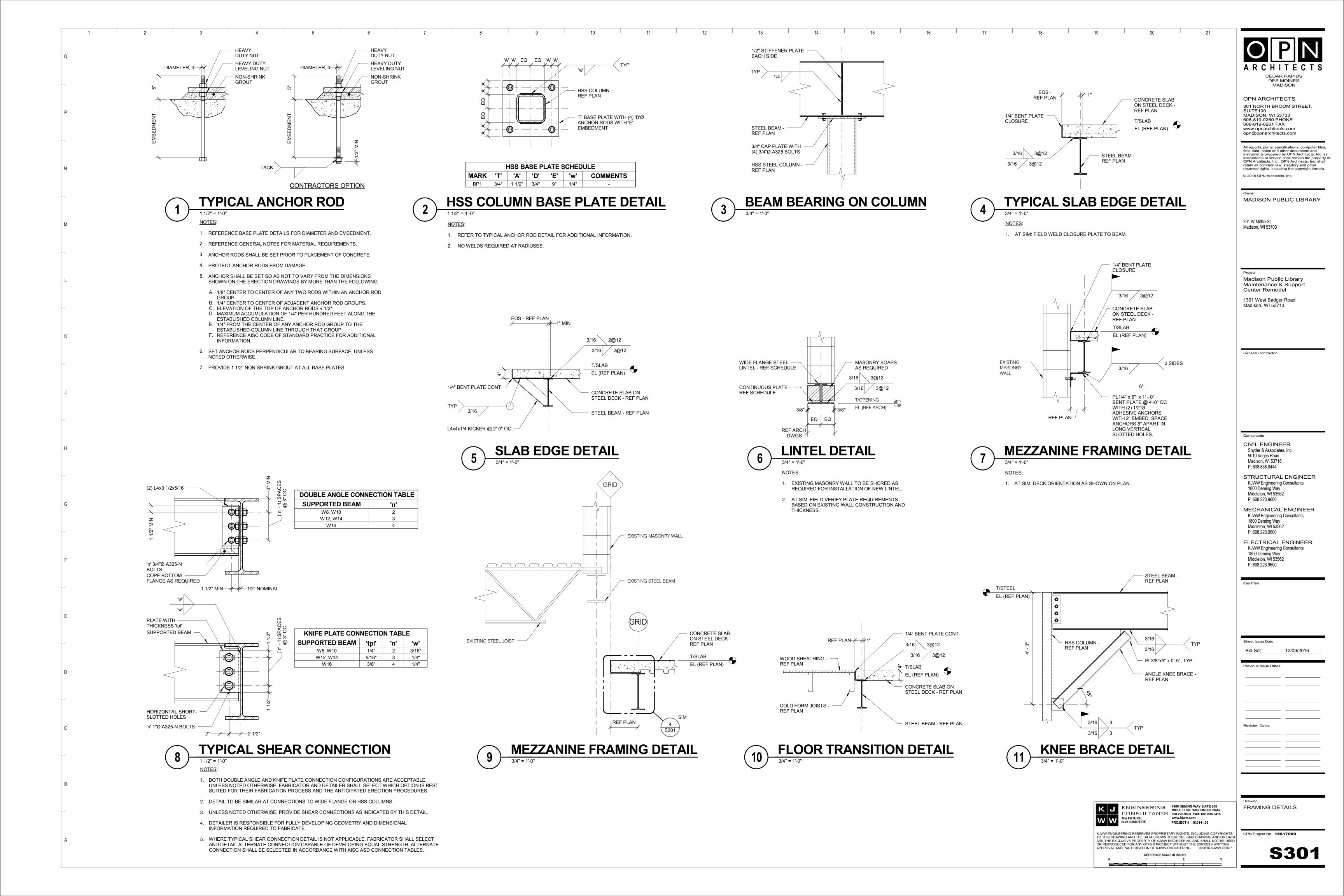
rawing	
IIGH ROOF FRAMING PLAN	

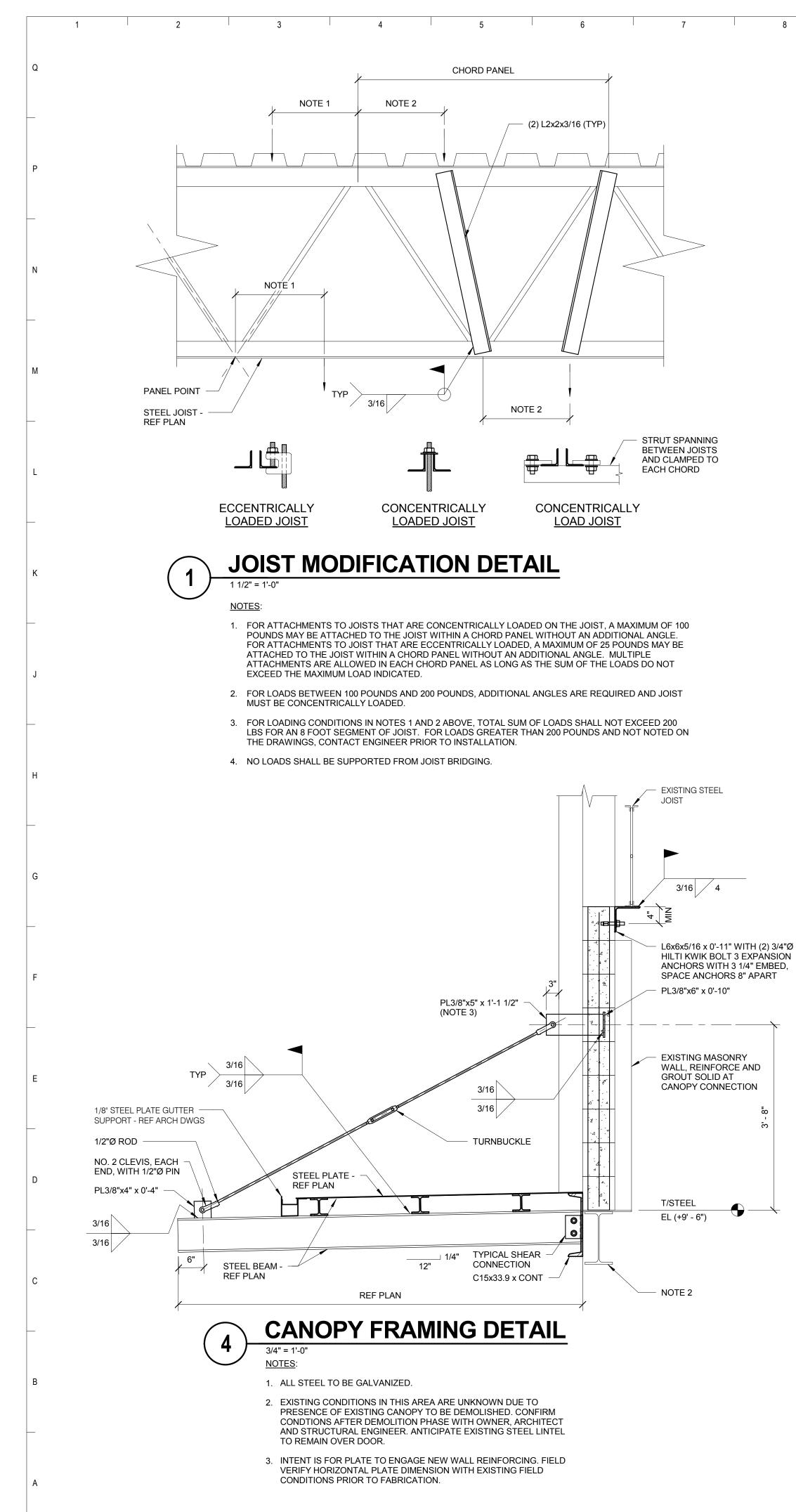
OPN Project No. 15617000

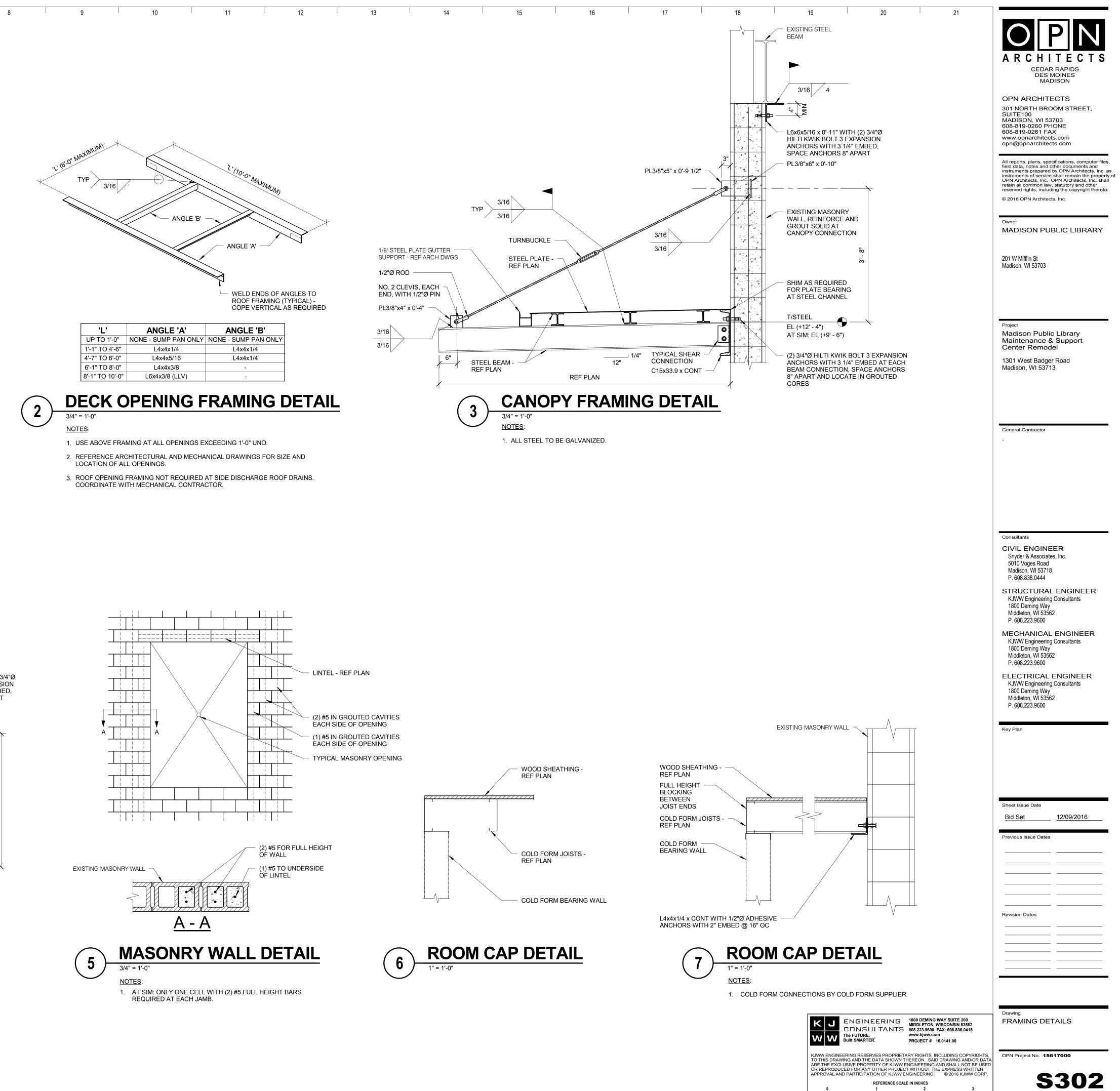


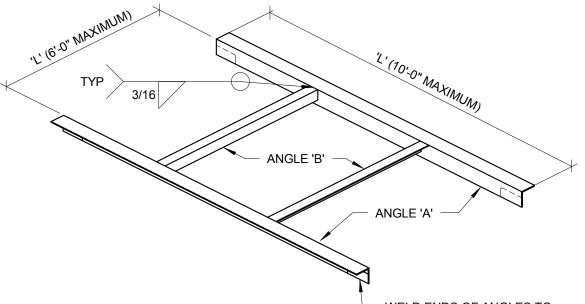
REFERENCE SCALE IN INCHES 0 2 3



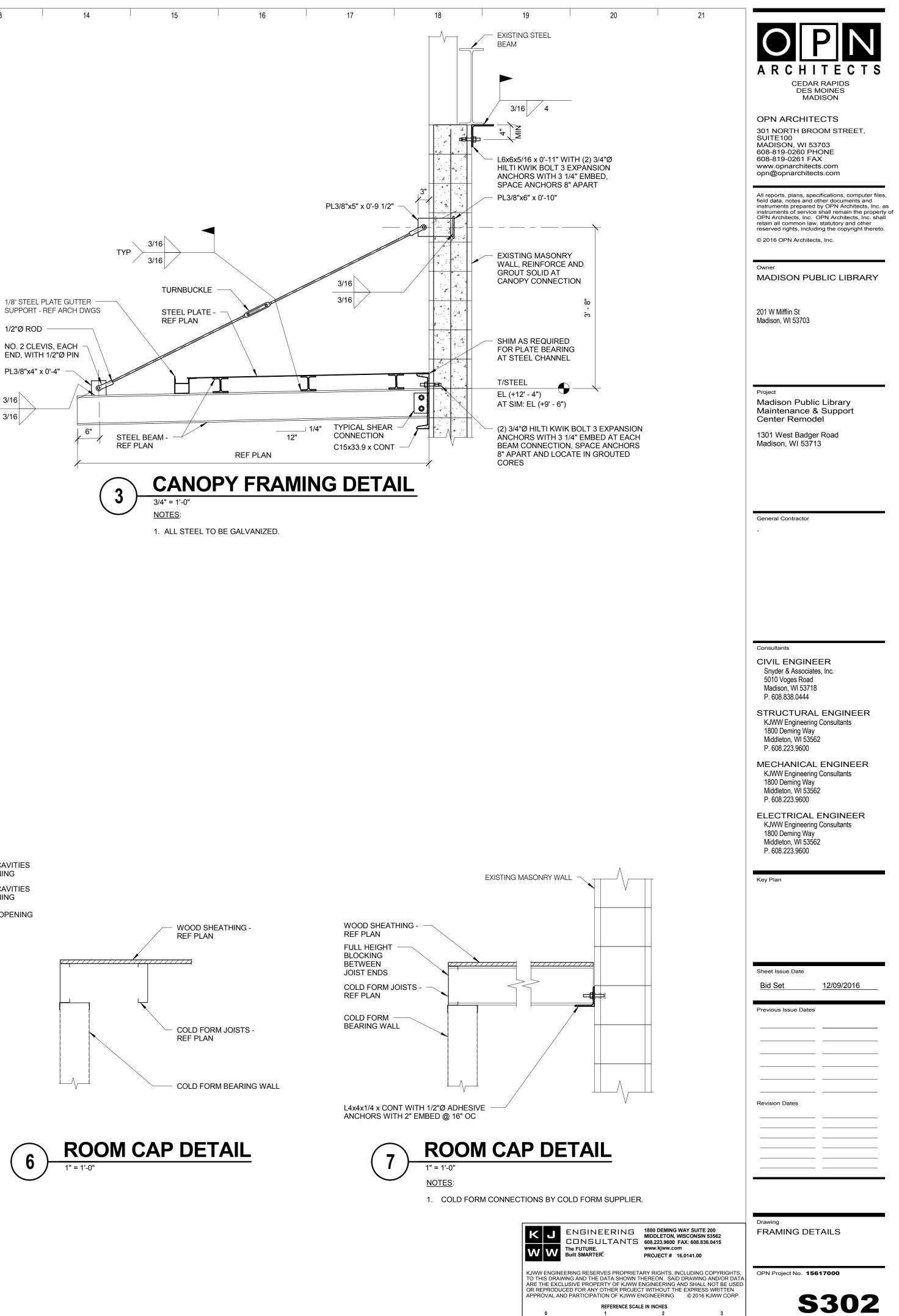


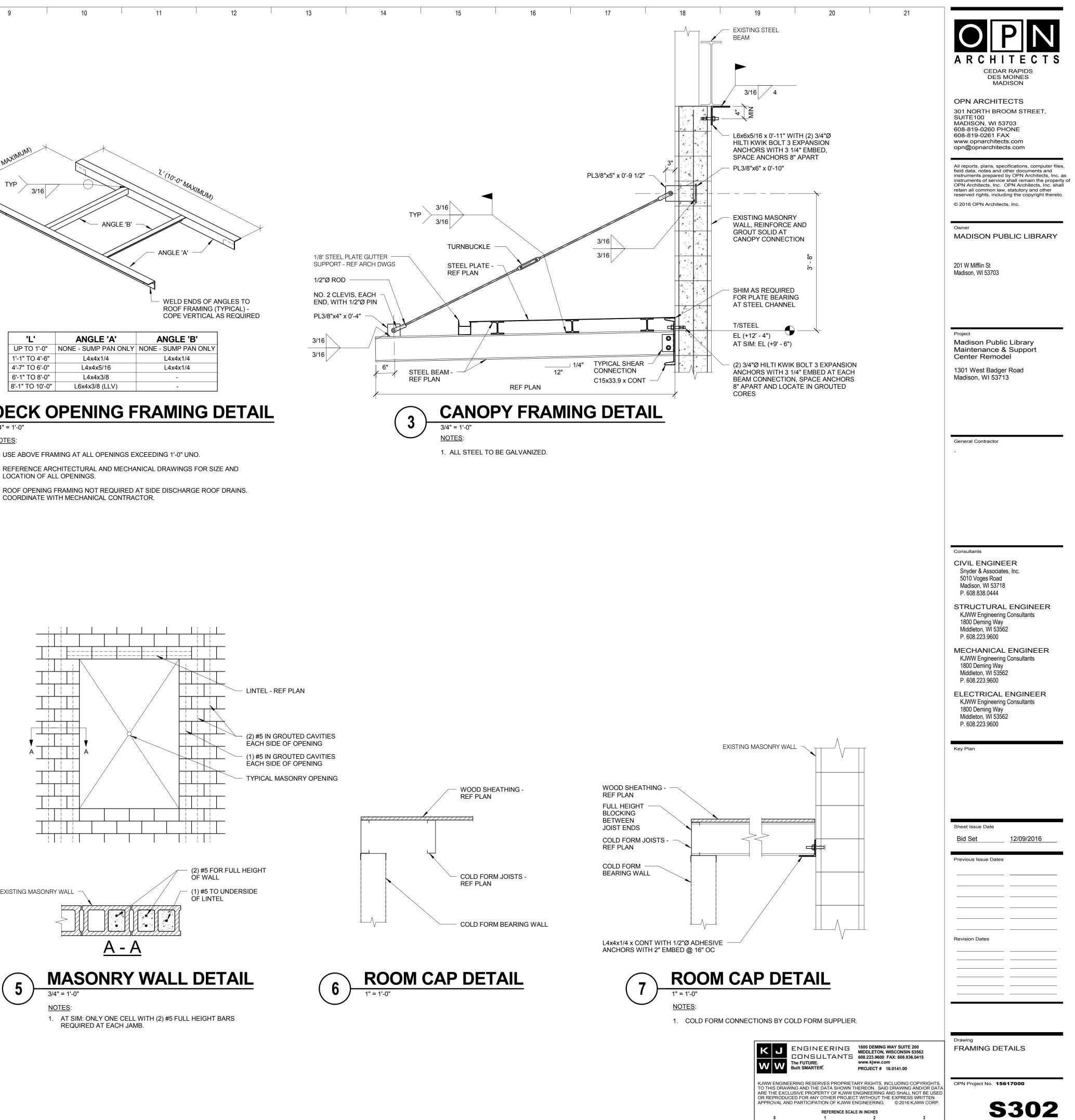


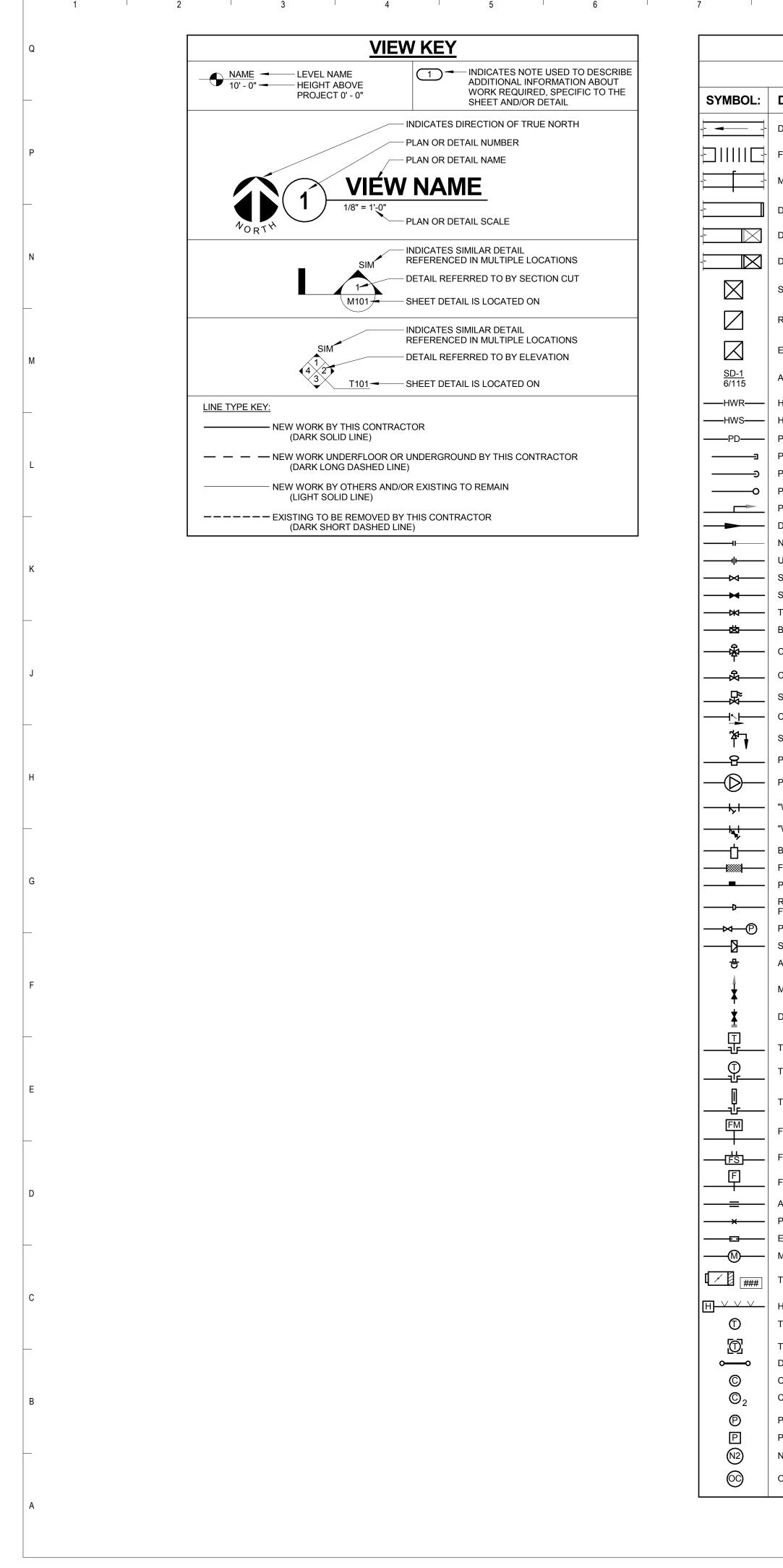




'L'	ANGLE 'A'	ANGLE 'B'
UP TO 1'-0"	NONE - SUMP PAN ONLY	NONE - SUMP PAN ONLY
1'-1" TO 4'-6"	L4x4x1/4	L4x4x1/4
4'-7" TO 6'-0"	L4x4x5/16	L4x4x1/4
6'-1" TO 8'-0"	L4x4x3/8	-
8'-1" TO 10'-0"	L6x4x3/8 (LLV)	-







8 9 10 11	12	13 14 15 16
MECHANICAL SYMBOL LIST		MECHANICAL RENOVATION NOTES:
NOT ALL SYMBOLS MAY APPLY.		S APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TECTION, PLUMBING, VENTILATION, PIPING AND TEMPERATURE CONTROL.
DESCRIPTION:	1. EXISTING	CONDITIONS ARE SHOWN BASED ON INFORMATION OBTAINED FROM FIELD CONDITIONS ARE SHOWN BASED ON INFORMATION OBTAINED FROM FIELD CONDITIONS AND STAFF. VERIFY EXISTING CONDITIONS AND
DIRECTION OF AIR FLOW	REPORT / 2. NOT ALL E	ANY CONFLICTS BEFORE PROCEEDING. EXISTING DUCTWORK AND PIPING IS SHOWN. VERIFY EXISTING CONDITIONS BEFORE
	3. FIELD VER	G WORK. NOTIFY ENGINEER OF ANY CONFLICTS WITH NEW WORK. RIFY THE AVAILABLE CLEARANCES FOR DUCTWORK AND PIPING BEFORE
- FLEXIBLE DUCT	CONDITIC	FION. RISES AND DROPS MAY BE NECESSARY BECAUSE OF EXISTING FIELD DNS. NTRACTOR SHALL FIELD VERIFY ACCESSIBILITY TO THE AREA OF HIS WORK AND
- MANUAL VOLUME DAMPER	SHALL NO REQUIRE	TIFY THE GENERAL CONTRACTOR PRIOR TO BIDDING IF OTHER UTILITIES ARE D TO BE REMOVED OR RELOCATED TO ALLOW ACCESS TO HIS AREA OF WORK.
DUCT CAP	ROOFS, W	ERAL CONTRACTOR IS RESPONSIBLE FOR CUTTING, REMOVAL AND PATCHING OF VALLS, AND FLOORS ASSOCIATED WITH WORK BY ALL CONTRACTORS.
DUCT DOWN	6. THE GENE	CTORS SHALL NOTIFY THE GC OF AFFECTED AREAS PRIOR TO BIDDING. ERAL CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF , CEILING TILES, AND CEILING GRIDS ASSOCIATED WITH AREAS OF WORK BY ALL
DUCT UP	CONTRAC	CTORS. NOTIFY THE GENERAL CONTRACTOR OF AFFECTED AREAS PRIOR TO BIDDING. XISTING MECHANICAL SYSTEMS ARE LOCATED IN AREAS THAT CONFLICT WITH NEW
SUPPLY/OUTSIDE AIR DUCT SECTION	ARRANGE	NT, PIPING, OR DUCTWORK TO BE INSTALLED, EACH CONTRACTOR SHALL EITHER E NEW EQUIPMENT, PIPING, OR DUCTWORK IN SUCH A FASHION THAT IT DOES NOT
	FOR INST.	FWITH EXISTING SYSTEMS, OR REWORK EXISTING MECHANICAL SYSTEMS TO ALLOW ALLATION OF NEW EQUIPMENT, PIPING, OR DUCTWORK. ECT AND REMOVE MECHANICAL DEVICES AND EQUIPMENT SERVING EQUIPMENT
RETURN AIR DUCT SECTION		BEEN REMOVED.
EXHAUST/RELIEF AIR DUCT SECTION		
AIR TERMINAL PROPERTIES SYMBOL NECK SIZE/CFM		MECHANICAL ABBREVIATION KEY
HEATING WATER RETURN		
HEATING WATER SUPPLY		NOT ALL SYMBOLS MAY APPLY
PUMPED DISCHARGE	ABBR:	DESCRIPTION:
PIPE CAP PIPE DOWN	AD	
PIPE UP OR UP/DOWN	AFF C	ABOVE FINISHED FLOOR COMMON
PITCH PIPE IN DIRECTION	CD-E	CEILING DIFFUSER - EXISTING
DIRECTION OF FLOW IN PIPE NEW CONNECTION	CFSD CO	CONTROL/FIRE/SMOKE DAMPER
UNION/FLANGE	cs	CLEANOUT CONDENSER SUPPLY
SHUTOFF VALVE NORMALLY OPEN	CR	CONDENSER RETURN
SHUTOFF VALVE NORMALLY CLOSED THROTTLING VALVE	D	DRAIN PIPE
BALANCING VALVE (NUMBER INDICATES GPM)	DPG (0-2") DPS	DIFFERENTIAL PRESSURE GAUGE (RANGE) DIFFERENTIAL PRESSURE SWITCH
CONTROL VALVE (THREE-WAY)	EA	EXHAUST/RELIEF AIR
CONTROL VALVE (TWO-WAY)	ECFSD	EXISTING CONTROL FIRE SMOKE DAMPER
SOLENOID VALVE	EFD EFSD	EXISTING FIRE DAMPER EXISTING FIRE SMOKE DAMPER
CHECK VALVE	ESD	EXISTING SMOKE DAMPER
SAFETY/RELIEF VALVE	FD	FIRE DAMPER
PRESSURE REDUCING VALVE (LIQUID/GAS)	FOB FOT	FLAT ON BOTTOM FLAT ON TOP
PUMP	FSD	FIRE/SMOKE DAMPER
"WYE" - STRAINER	GS	GEOTHERMAL SUPPLY
"WYE" - STRAINER W/SHUTOFF VALVE AND HOSE CONNECTION WITH CAP	GR HWS	GEOTHERMAL RETURN HEATING WATER SUPPLY
BASKET STRAINER FLEXIBLE CONNECTION	HWR	HEATING WATER RETURN
PRESSURE/TEMPERATURE TEST PLUG	IU MA	INDOOR UNIT MIXED AIR
REDUCER - REFERENCE SPECIFICATION FOR CONCENTRIC/ECCENTRIC AND FOT/FOB	MX	MIXED AIR MIXING VALVE
PRESSURE GAUGE (FURNISHED WITH BALL VALVE)	NC	NEW CONNECTION
AUTOMATIC AIR VENT	N.C.	NORMALLY CLOSED
	NIC N.O.	NOT IN CONTRACT NORMALLY OPEN
MANUAL AIR VENT	OA	OUTSIDE AIR
DRAIN VALVE WITH HOSE CONNECTION AND CAP	PS RA	PRESSURE SWITCH RETURN AIR
TEMPERATURE SENSOR WITH WELL	RA SA	SUPPLY AIR
THERMOMETER WITH WELL (DIAL TYPE)	SD	SMOKE DAMPER
THERMOMETER WITH WELL (FILLED TYPE)	TAB TD	TERMINAL AIR BOX TRANSFER DUCT
	TYP	TYPICAL
FLOW METER	UC-1	DOOR UNDERCUT BY OTHERS (1" TYPICAL)
FLOW SENSOR	UNO	UNLESS NOTED OTHERWISE
FLOW SWITCH		
PIPE ANCHOR EXPANSION JOINT		
METER		
TERMINAL AIR BOX W/REHEAT COIL (REFER TO SCHEDULE)		
HUMIDIFIER		
THERMOSTAT/SENSOR		
THERMOSTAT/SENSOR W/HEAVY DUTY ENCLOSURE		
DIFFERENTIAL PRESSURE SENSOR CARBON MONOXIDE SENSOR		
CARBON DIOXIDE SENSOR		
PRESSURE SENSOR/MONITOR		
PRESSURE SENSOR (DUCT MOUNTED)		
NITROGEN DIOXIDE SENSOR		
OCCUPANCY SENSOR		

17 18 19 20 21



OPN ARCHITECTS

MADISON, WI 53703

608-819-0261 FAX

© 2016 OPN Architects, Inc.

201 W Mifflin St

Proiect

Madison, WI 53703

608-819-0260 PHONE

www.opnarchitects.com

opn@opnarchitects.com

301 NORTH BROOM STREET

All reports, plans, specifications, computer files,

field data, notes and other documents and instruments prepared by OPN Architects, Inc. as

instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other

reserved rights, including the copyright thereto.

MADISON PUBLIC LIBRARY

PIPING GENERAL NOTES: PIPE DRAIN LINES FROM EQUIPMENT TO NEAREST FLOOR DRAIN.

INSTALL ALL REFRIGERANT LIQUID AND SUCTION PIPING PER EQUIPMENT MANUFACTURER RECOMMENDATIONS. FINAL SIZING BY MANUFACTURER.

MECHANICAL GENERAL NOTES:

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED

- TO, FIRE PROTECTION, PLUMBING, VENTILATION, PIPING AND TEMPERATURE CONTROL. 1. DRAWINGS SHOWING LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING, ETC. ARE DIAGRAMMATIC AND MAY NOT ALWAYS REFLECT EXACT INSTALLATION CONDITIONS. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF DUCTWORK, PIPING, EQUIPMENT, ETC., AND MAY NOT INCLUDE ALL OFFSETS AND FITTINGS REQUIRED FOR COMPLETE INSTALLATION. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION AND THE WORK OF OTHERS WILL
- PERMIT. 2. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS AND CLEARANCES FROM ARCHITECTURAL, STRUCTURAL, SUBMITTALS, AND OTHER APPROPRIATE DRAWINGS OR PHYSICALLY AT SITE. REVIEW ALL DRAWINGS, INCLUDING THOSE OF OTHER TRADES.
- 3. COORDINATE ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION TO PROVIDE CLEARANCES REQUIRED FOR OPERATION, MAINTENANCE, CODE COMPLIANCE, AND TO VERIFY NON-INTERFERENCE WITH OTHER WORK. DO NOT FABRICATE PRIOR TO VERIFICATION OF NECESSARY CLEARANCES FOR ALL TRADES. BRING ANY INTERFERENCES OR CONFLICTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH FABRICATION OR EQUIPMENT ORDERS.
- 4. REVIEW SPACE REQUIREMENTS OF EQUIPMENT SPECIFIED OR SUBSTITUTED AND MAKE REASONABLE ACCOMMODATIONS IN LAYOUT AND POSITIONING TO PROVIDE PROPER ACCESS. 5. ANY CHANGES REQUIRED TO ELIMINATE CONFLICTS OR THAT RESULT FROM A FAILURE TO COORDINATE SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COST OR EXPENSE
- TO OTHERS. EACH CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ELECTRICAL CHANGES REQUIRED FOR EQUIPMENT PROPOSED THAT DIFFERS FROM THE BASIS OF DESIGN. 7. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN, ELECTRICAL, TECHNOLOGY
- AUDIO/VISUAL, AND OTHER MECHANICAL PLANS FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES, OTHER THAN SPRINKLERS. 8. EACH CONTRACTOR IS RESPONSIBLE FOR DAMAGE CAUSED BY THEIR ACTIONS TO WALLS,
- FLOORS, CEILINGS, AND ROOFS. THE CONTRACTOR WHOSE WORK CAUSES DAMAGE IS RESPONSIBLE FOR PATCHING TO MATCH ORIGINAL CONSTRUCTION, FIRE RATING, AND FINISH. 9. IN AREAS WITH DRYWALL CEILINGS COORDINATE LOCATIONS OF ACCESS PANELS WITH THE GC FOR ACCESS TO VALVES, DUCTWORK ACCESSORIES, DAMPERS, ETC. COORDINATE PANEL TYPE AND COLOR WITH ARCHITECT. NOTIFY THE GC OF THE REQUIRED ACCESS PANELS PRIOR TO
- BIDDING. 10. SEAL ALL FLOOR, WALL, AND ROOF PENETRATIONS AIRTIGHT WHERE CONDUITS, PIPING, AND DUCTS PENETRATE. PENETRATIONS THROUGH EXTERIOR WALLS AND ROOF SHALL BE SEALED AIRTIGHT WITH WATERPROOFING MATERIALS RECOMMENDED BY MANUFACTURER FOR OUTDOOR USE.
- 11. CAULK ALL PIPE AND DUCT PENETRATIONS OF FULL HEIGHT NON-FIRE RATED WALL, PARTITION, FLOOR, AND ROOF ASSEMBLIES. THIS IS ESSENTIAL TO PREVENT NOISE TRANSMISSION FROM ONE ROOM TO ANOTHER AND TO PROVIDE THE DESIRED NC LEVELS WITHIN ROOMS. 12. WHERE PIPES AND DUCTS ARE SHOWN TO PENETRATE FLOORS, PROVIDE SLEEVED OPENINGS
- WITH THE TOP EDGE RAISED ABOVE FLOOR SURFACE IN ACCORDANCE WITH ALL RELEVANT SPEC SECTIONS. SEAL SLEEVE PERIMETER TO BE WATERTIGHT. 13. EQUIPMENT SIZES AND SERVICE CLEARANCE REQUIREMENTS VARY BETWEEN DIFFERENT MANUFACTURERS. CONSULT APPROVED SHOP DRAWINGS FOR EQUIPMENT SIZES AND
- REQUIRED SERVICE CLEARANCES. COORDINATE WITH LAYOUT OF EQUIPMENT PADS, PIPING, DUCTWORK, ETC. 14. DO NOT BLOCK TUBE PULL OR EQUIPMENT SERVICE CLEARANCES. 15. MAINTAIN MINIMUM 3'-6" CLEARANCE IN FRONT OF ALL ELECTRICAL PANELS, MOTOR STARTERS,
- SWITCHES, AND DISCONNECTS. 16. PROVIDE CONCRETE EQUIPMENT PAD FOR ALL FLOOR MOUNTED EQUIPMENT. PAD SHALL
- EXTEND MINIMUM 6" BEYOND ALL SIDES OF EQUIPMENT. 17. DO NOT SUPPORT EQUIPMENT, PIPING, OR DUCTWORK FROM METAL DECKING OR OTHER NON-STRUCTURAL BUILDING ELEMENTS. ANCHORS EMBEDDED IN CONCRETE SHALL BE CRACKED CONCRETE APPROVED IN ACCORDANCE WITH SPECIFICATIONS.

	CONTRACTOR ABBREVIATION KEY				
ABBR:	DESCRIPTION:				
C.C.	CIVIL CONTRACTOR				
C.M.	CONSTRUCTION MANAGER				
E.C.	ELECTRICAL CONTRACTOR				
F.P.C.	FIRE PROTECTION CONTRACTOR				
G.C.	GENERAL CONTRACTOR				
M.C.	MECHANICAL CONTRACTOR				
P.C.	PLUMBING CONTRACTOR				
T.C.	TECHNOLOGY CONTRACTOR				

MECHANICAL SHEET INDEX

Sheet Number	Sheet Name
M000	COVER SHEET - MECHANICAL
MD101.1	FIRST FLOOR DEMOLITION - MECHANICAL
MD102.1	ROOF DEMOLITION PLAN - MECHANICAL
M100	SITE PLAN - MECHANICAL
MP101.1	FIRST FLOOR - PIPING
MV101.1	FIRST FLOOR - MECHANICAL
MV102.1	ROOF PLAN - MECHANICAL
M200	FLOW DIAGRAM - MECHANICAL
M201	VRF PIPING DIAGRAMS
M300	DETAIL - MECHANICAL
M301	DETAIL - MECHANICAL
M302	GEOTHERMAL DETAILS - MECHANICAL
M400	CONTROL DIAGRAMS - MECHANCIAL
M401	CONTROL DIAGRAMS - MECHANCIAL
M402	CONTROL DIAGRAMS - MECHANCIAL
M403	CONTROL DIAGRAMS - MECHANCIAL
M500	SCHEDULES - MECHANICAL
M501	SCHEDULES - MECHANICAL

Madison, WI 53713

Madison Public Library

Maintenance & Support

1301 West Badger Road

General Contractor

Center Remodel & Addition

Consultants **CIVIL ENGINEER** Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date	
Bid Set	12/09/2016
Previous Issue Dates	
Revision Dates	



www.kjww.com

KJWW ENGINEERING RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF KIWW ENGINEERING AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN PPROVAL AND PARTICIPATION OF KJWW ENGINEERING. © 2016 KJWW CORP. REFERENCE SCALE IN INCHES

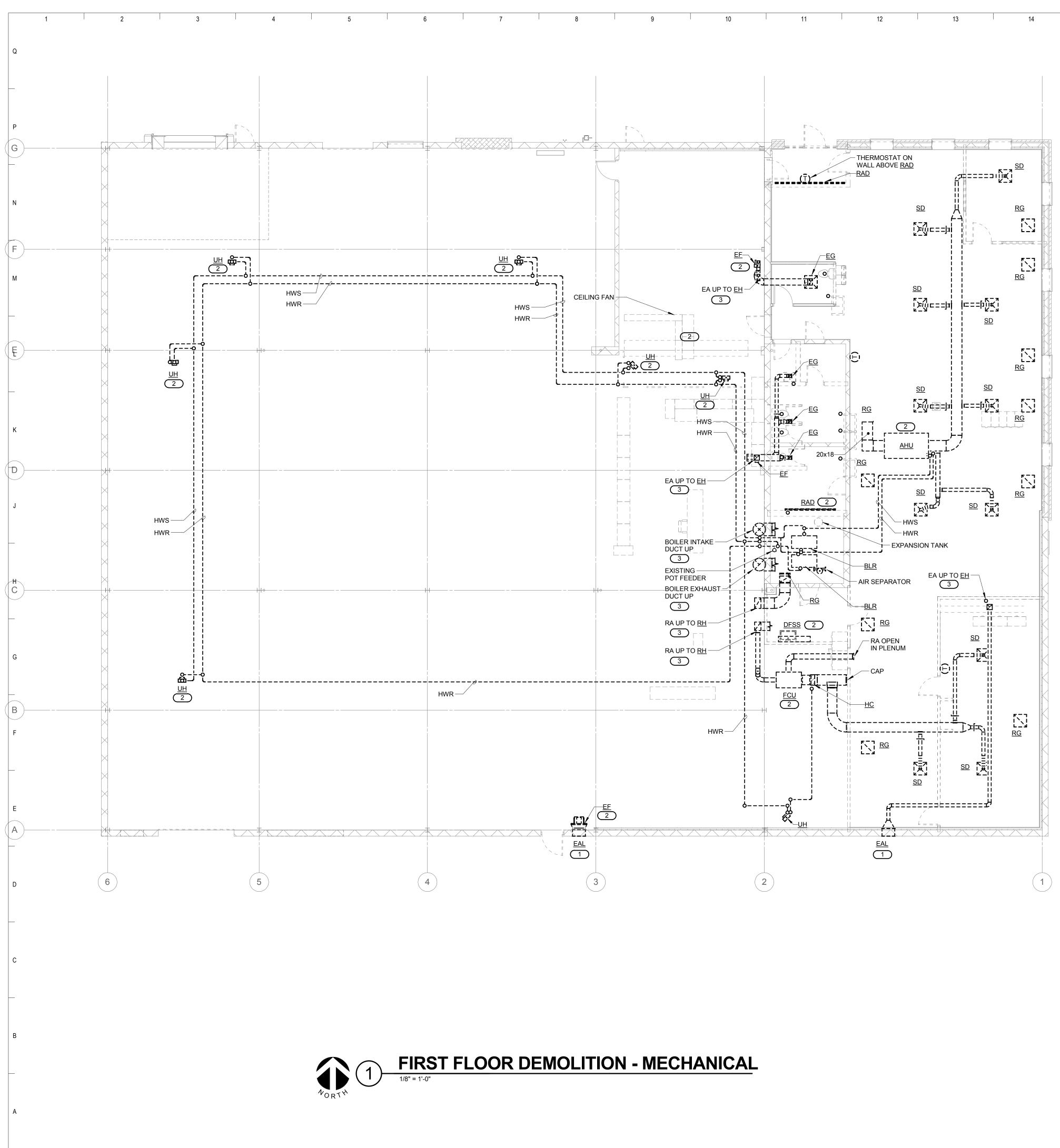
OPN Project No. 15617000

M000

Drawing

COVER SHEET

MECHANICAL



17	18	19	20	21

GENERAL NOTES:

REMOVE ALL EXISTING MECHANICAL EQUIPMENT, PIPING, DUCTWORK, CONTROLS AND ASSOCIATED ACCESSORIES.

KEYNOTES:

- REMOVE EXISTING EQUIPMENT AND PATCH WALL TO MATCH EXISTING.
- REMOVE EXISTING CONTROLS AND THERMOSTATS ASSOCIATED WITH EXISTING EQUIPMENT TO BE
- REMOVED.
- REMOVE EXISTING EQUIPMENT AND PATCH ROOF TO MATCH EXISTING.



OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

Project

General Contractor

Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713

CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

Consultants

- STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date Bid Set 12/09/2016 Previous Issue Dates

Revision Dates

Drawing

FIRST FLOOR DEMOLITION -MECHANICAL

OPN Project No. 15617000

KJWW ENGINEERING RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF KJWW ENGINEERING AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF KJWW ENGINEERING. © 2016 KJWW CORP. REFERENCE SCALE IN INCHES

КЈ

ww

0

The FUTURE. Built SMARTER.

ENGINEERING1800 DEMING WAY SUITE 200
MIDDLETON, WISCONSIN 53562CONSULTANTS608.223.9600FAX: 608.836.0415

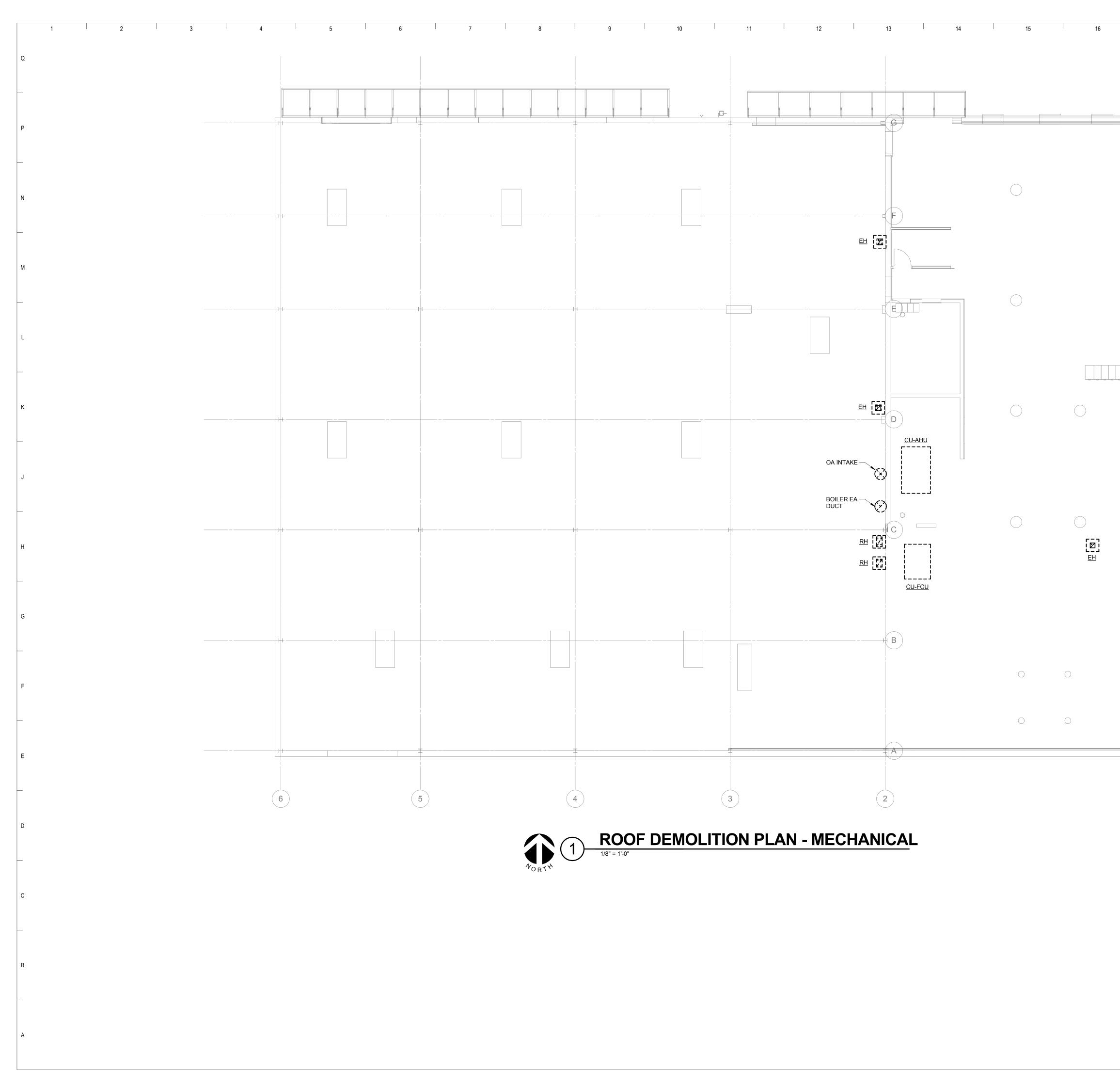
www.kjww.com

2

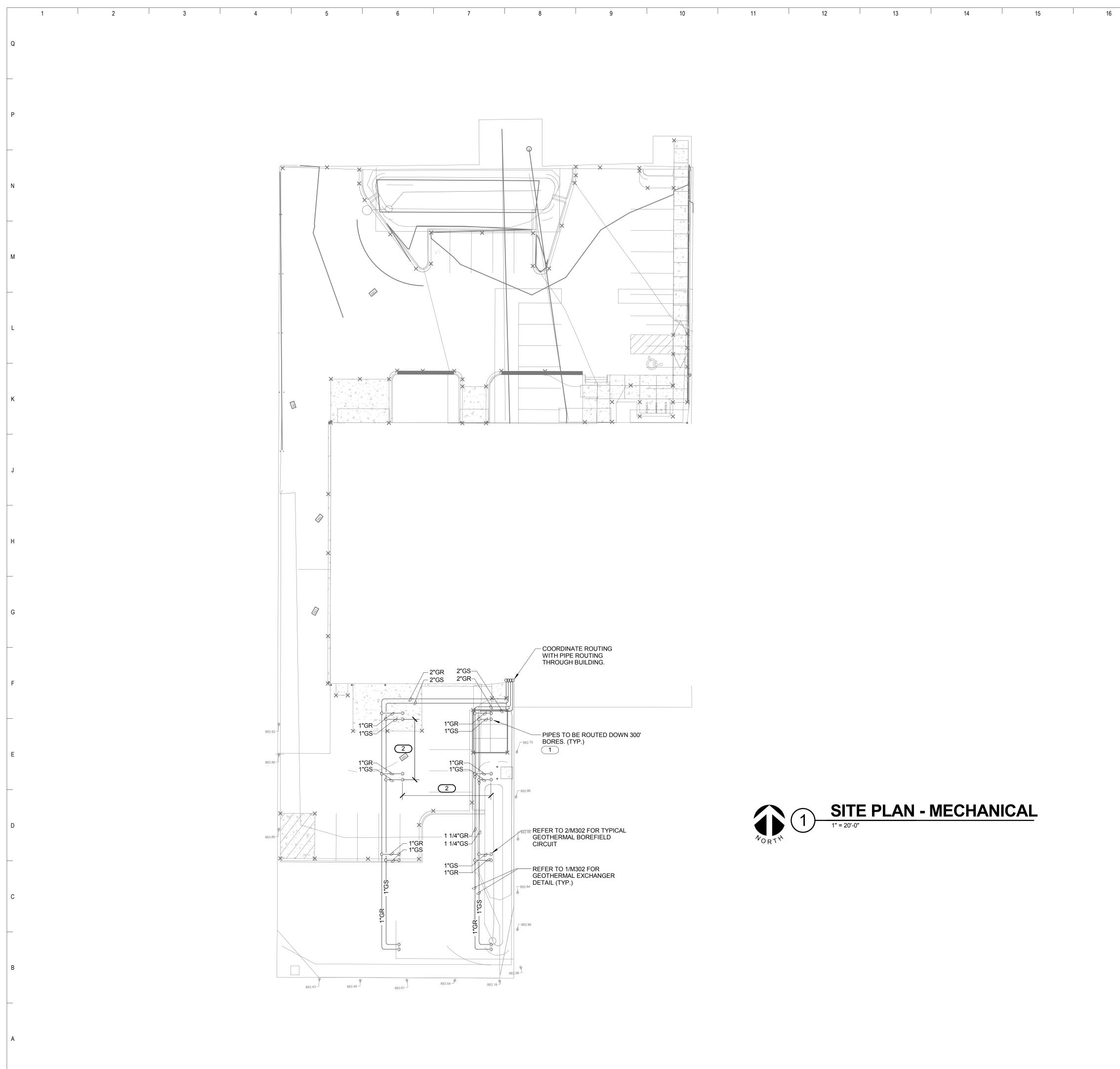
PROJECT # 16.0141.00

3

MD101.1



17 18	19 20 21	
	 <u>GENERAL NOTES:</u> 1. REMOVE ALL EXISTING MECHANICAL EQUIPMENT, PIPING, DUCTWORK, CONTROLS AND ASSOCIATED ACCESSORIES. 2. THIS CONTRACTOR TO PATCH ROOF AFTER REMOVING EXISTING EQUIPMENT TO MATCH EXISTING ROOF. 	OPN ARCHITECTS
		301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com
		All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.
		MADISON PUBLIC LIBRARY
		201 W Mifflin St Madison, WI 53703
		Project Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713
		General Contractor
		Consultants CIVIL ENGINEER
		Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444 STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 52562
		Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
		Key Plan
1		Sheet Issue Date Bid Set 12/09/2016 Previous Issue Dates
		Revision Dates
	KJ ENGINEERING 1800 DEMING WAY SUITE 200 MIDDLETON, WISCONSIN 53562 08.223,9600 FAX: 608.836.0415 WW FUTURE. 9ROJECT # 16.0141.00	Drawing ROOF DEMOLITION PLAN - MECHANICAL
	KJWW ENGINEERING RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF KJWW ENGINEERING AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF KJWW ENGINEERING. © 2016 KJWW CORP. REFERENCE SCALE IN INCHES	OPN Project No. 15617000 MD102.1



KE	EYNOTES: (#)
1.	SHOWN. TEST BORE HAS NOT BEEN COMPLETED. CONTRACTOR TO TEST BOREFILED FOR CONDUCTIVITY FOLLOWING DRILLING THE BOREFIELD AS SHOWN AND PROVIDE INFORMATION TO OWNER AND ENGINEER FOR DESIGN VERIFICATION PURPOSES. PROVIDE UNIT PRICING (\$/LF) FOR DRILLING ADDITIONAL BORES IF REQUIRED BASED ON CONDUCTIVITY RESULTS. REFER TO 3/M302 FOR BOREFIELD SIZING ASSUMPTIONS.



N ARCHITECTS NORTH BROOM STREET DISON, WI 53703 3-819-0260 PHONE 3-819-0261 FAX ww.opnarchitects.com on@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

Owner MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

General Contractor

Project Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713

CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

Consultants

- STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

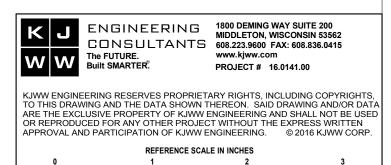
Sheet Issue Date Bid Set 12/09/2016

Previous Issue Dates

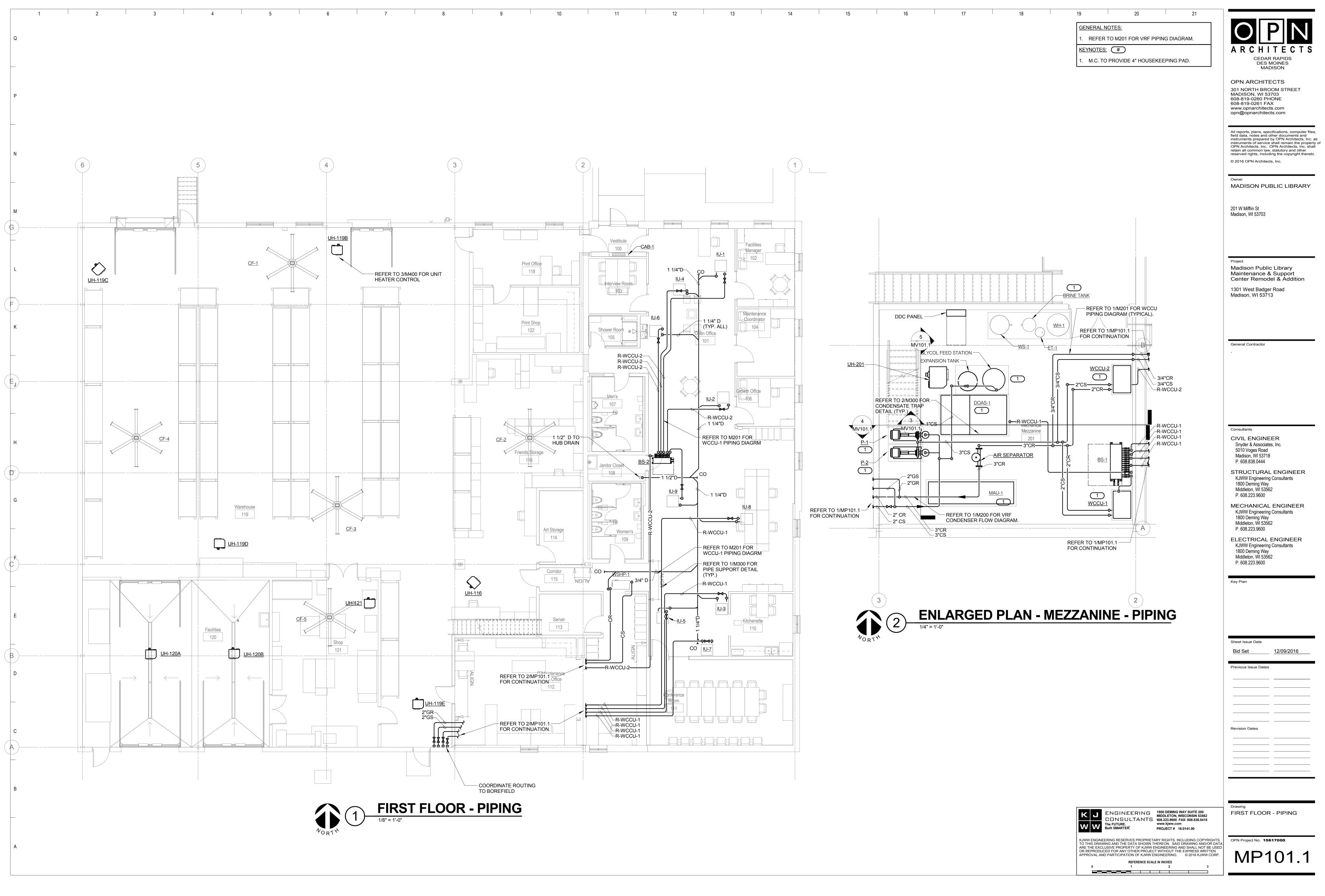
Drawing

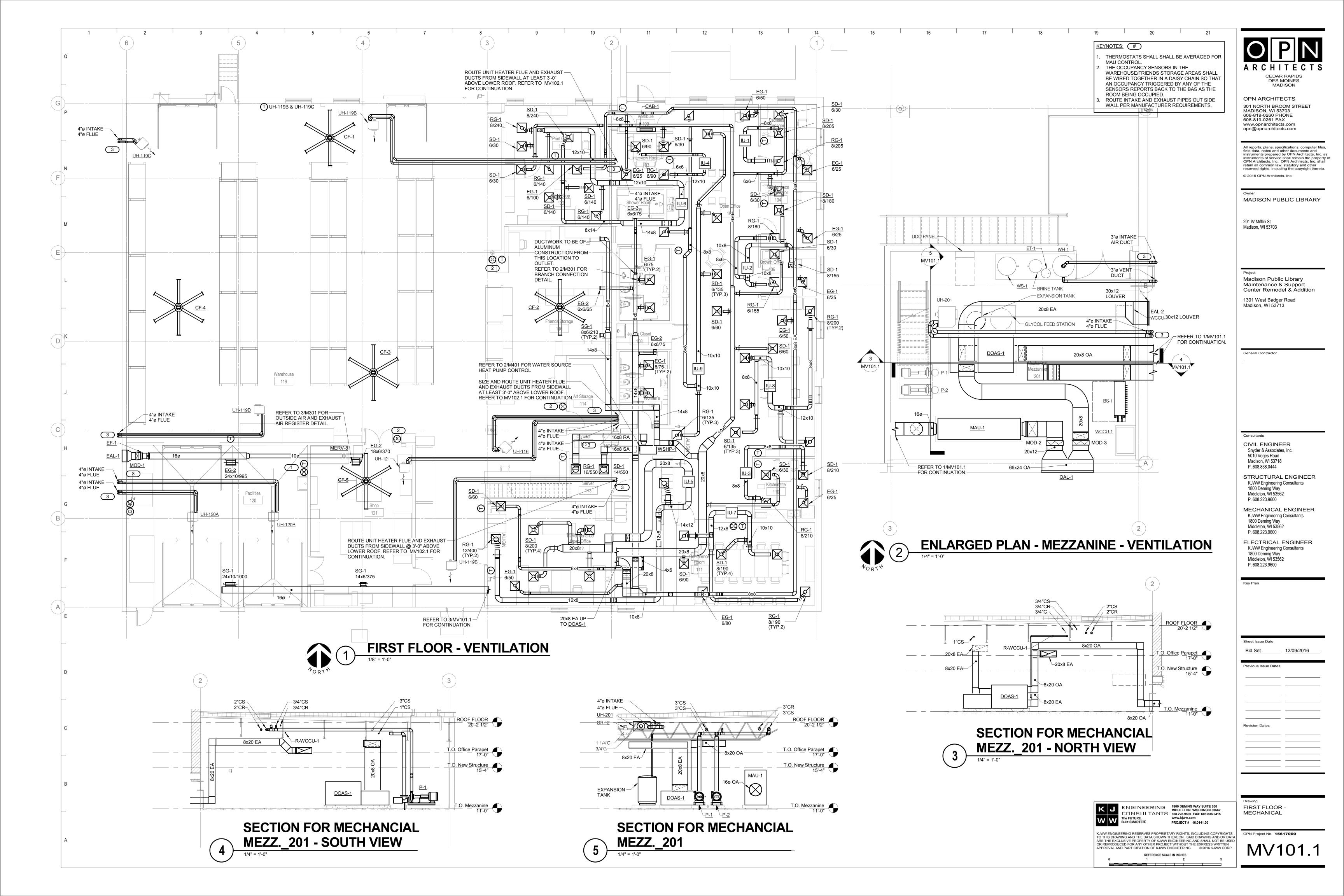
_____ Revision Dates _____

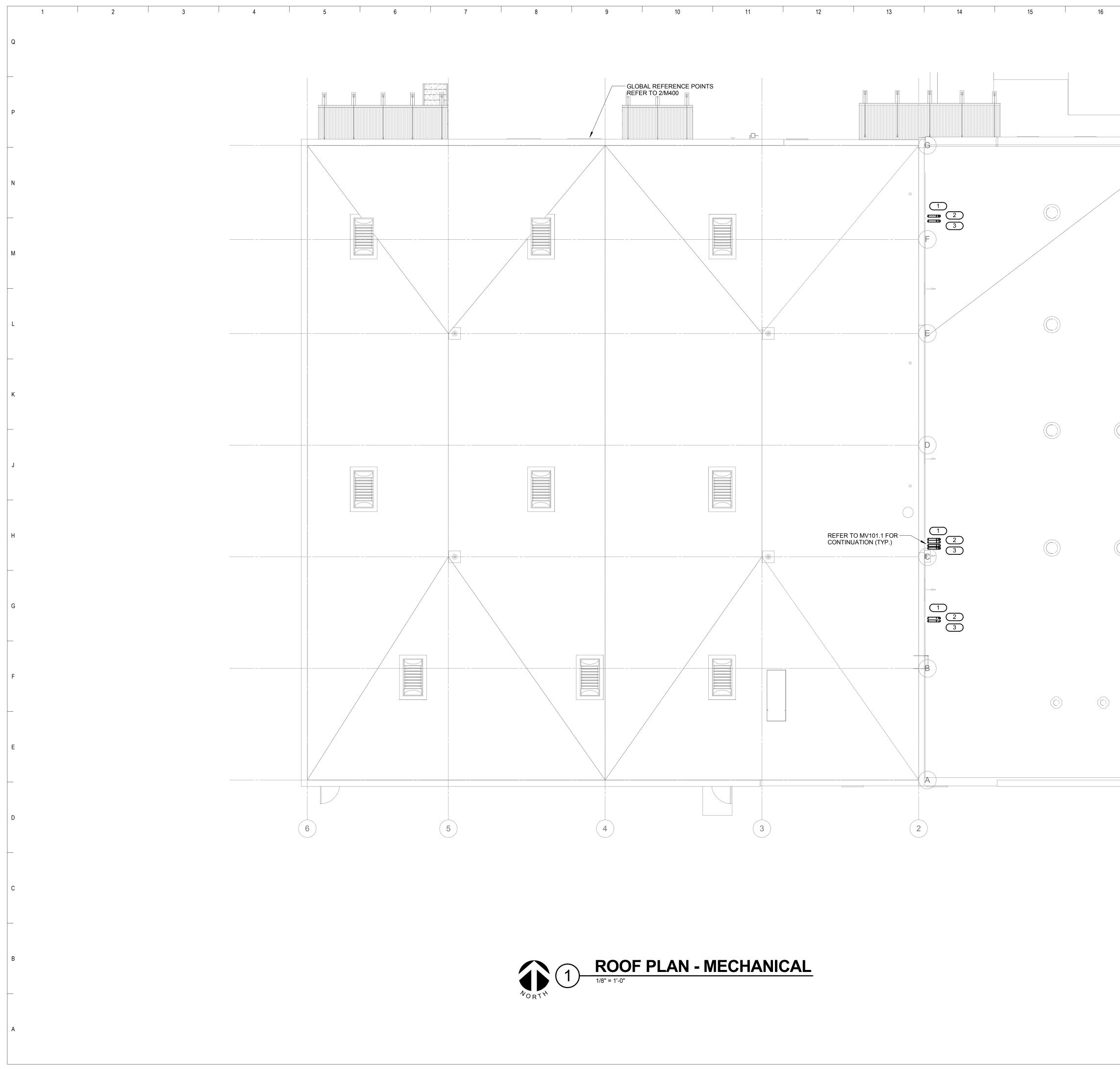
SITE PLAN - MECHANICAL



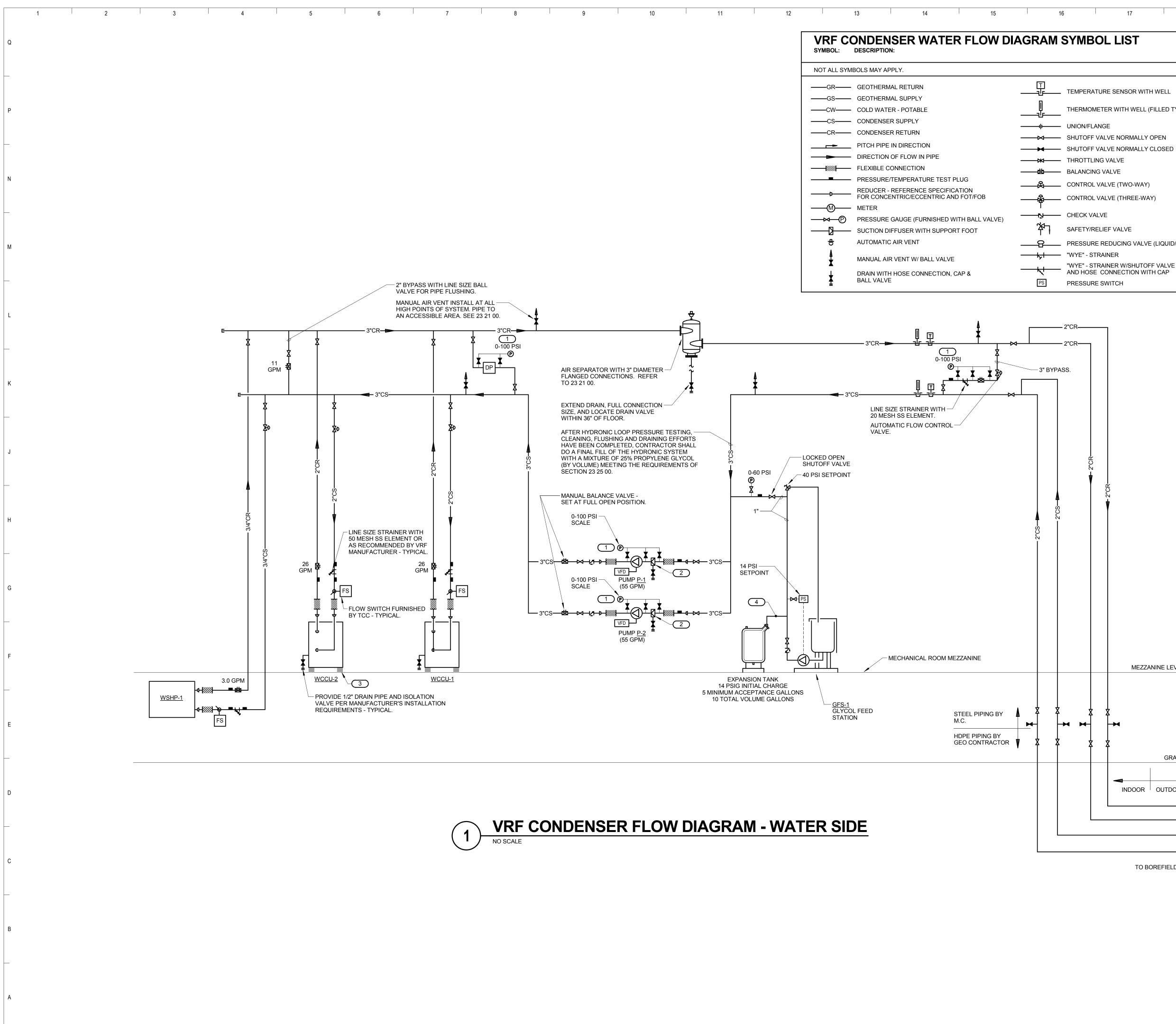
OPN Project No. 15617000 M100







17	18	19	20	21	
		COME WITH 2. M.C. 1 REQU	ES: # RDINATE EXACT LOCATIO BUSTION AIR AND EXHAU PV PANELS. FO PROVIDE ROOF PENE IIRED AND TO COORDIN RAL CONTRACTOR.	UST DUCTS ETRATION AS	ARCHITECTS CEDAR RAPIDS DES MOINES MADISON
					OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com
					All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.
					Owner MADISON PUBLIC LIBRARY
					201 W Mifflin St Madison, WI 53703
					Project Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713
					General Contractor
					Consultants CIVIL ENGINEER
					Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444 STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562
					P. 608.223.9600 ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
					Key Plan
					Sheet Issue Date Bid Set 12/09/2016 Previous Issue Dates
		KJ	ENGINEERING CONSULTANTS The FUTURE. Built SMARTER.	1800 DEMING WAY SUITE 200 MIDDLETON, WISCONSIN 53562 608.223.9600 FAX: 608.836.0415 www.kjww.com	Drawing ROOF PLAN - MECHANICAL
		ARE THE E	NINEERING RESERVES PROPRIETA RAWING AND THE DATA SHOWN TI XCI LISIVE PROPERTY OF KIWW F		



VRF CONDENSER WATER FLOW DIAGRAM SYMBOL LIST

17 18 19 20 21

KEYNOTES

_______ TEMPERATURE SENSOR WITH WELL

THERMOMETER WITH WELL (FILLED TYPE)

→ SHUTOFF VALVE NORMALLY OPEN

CONTROL VALVE (TWO-WAY)

CONTROL VALVE (THREE-WAY)

SAFETY/RELIEF VALVE

PRESSURE REDUCING VALVE (LIQUID/GAS)

MEZZANINE LEVEL

GRADE

REFER TO 2/M302 FOR CONTINUATION.

INDOOR | OUTDOOR

TO BOREFIELD -

- 14-

"WYE" - STRAINER W/SHUTOFF VALVE

AND HOSE CONNECTION WITH CAP PRESSURE SWITCH

PRESSURE GAUGE WITH SNUBBER PER SECTION 23 09 13. INSTALL WITH MOUNTING ON WALL, STAND, OR VIBRATION-FREE PIPE ABOVE BRACKET PUMP FLEXIBLE CONNECTOR. INSTALL FLEXIBLE COPPER TUBING TO PIPING CONNECTIONS TO AVOID VIBRATION DAMAGE TO THE GAUGE. PREFERRED CONNECTION LOCATIONS ARE: (a) JUST UPSTREAM OF STRAINER, (b) GAUGE PORT ON SUCTION DIFFUSER OR BETWEEN STRAINER AND PUMP INLET (c) GAUGE TAPPING ON PUMP INLET FLANGE. (d) GAUGE TAPPING ON PUMP OUTLET FLANGE.

REMOVE & RETAIN TEMPORARY STRAINER FROM SUCTION DIFFUSER AT END OF CONSTRUCTION. PROVIDE SUPPORT LEG AS REQUIRED BY MANUFACTURER. INSTALL VIBRATION ISOLATORS PROVIDED BY VRF

CONDENSING UNIT MANUFACTURER (IF RECOMMENDED BY MANUFACTURER). SIZE PER BLADDER TANK MANUFACTURER'S

RECOMMENDATIONS BUT NOT SMALLER THAN CONNECTION TO TANK. PROVIDE 4" THICK CONCRETE HOUSEKEEPING PADS

UNDERNEATH ALL FLOOR MOUNTED MECHANICAL EQUIPMENT. CONCRETE PADS SHALL EXTEND MINIMUM 3" BEYOND ALL SIDES OF EQUIPMENT. EQUIPMENT ITEMS SHALL INCLUDE. BUT IS NOT LIMITED TO THE FOLLOWING: CHEMICAL FEEDER, BUFFER TANK, EXPANSION TANK, BASE MOUNTED PUMPS, BOILER, CONDENSING UNITS, GLYCOL FEED STATION, AIR HANDLER AND THE LIKE.

CEDAR RAPIDS DES MOINES MADISON

OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

General Contractor

Project Madison Public Library Maintenance & Support Center Remodel & Addition

1301 West Badger Road Madison, WI 53713

CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

Consultants

STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

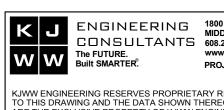
ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date 12/09/2016 Bid Set Previous Issue Dates Revision Dates

Drawing

FLOW DIAGRAM -MECHANICAL

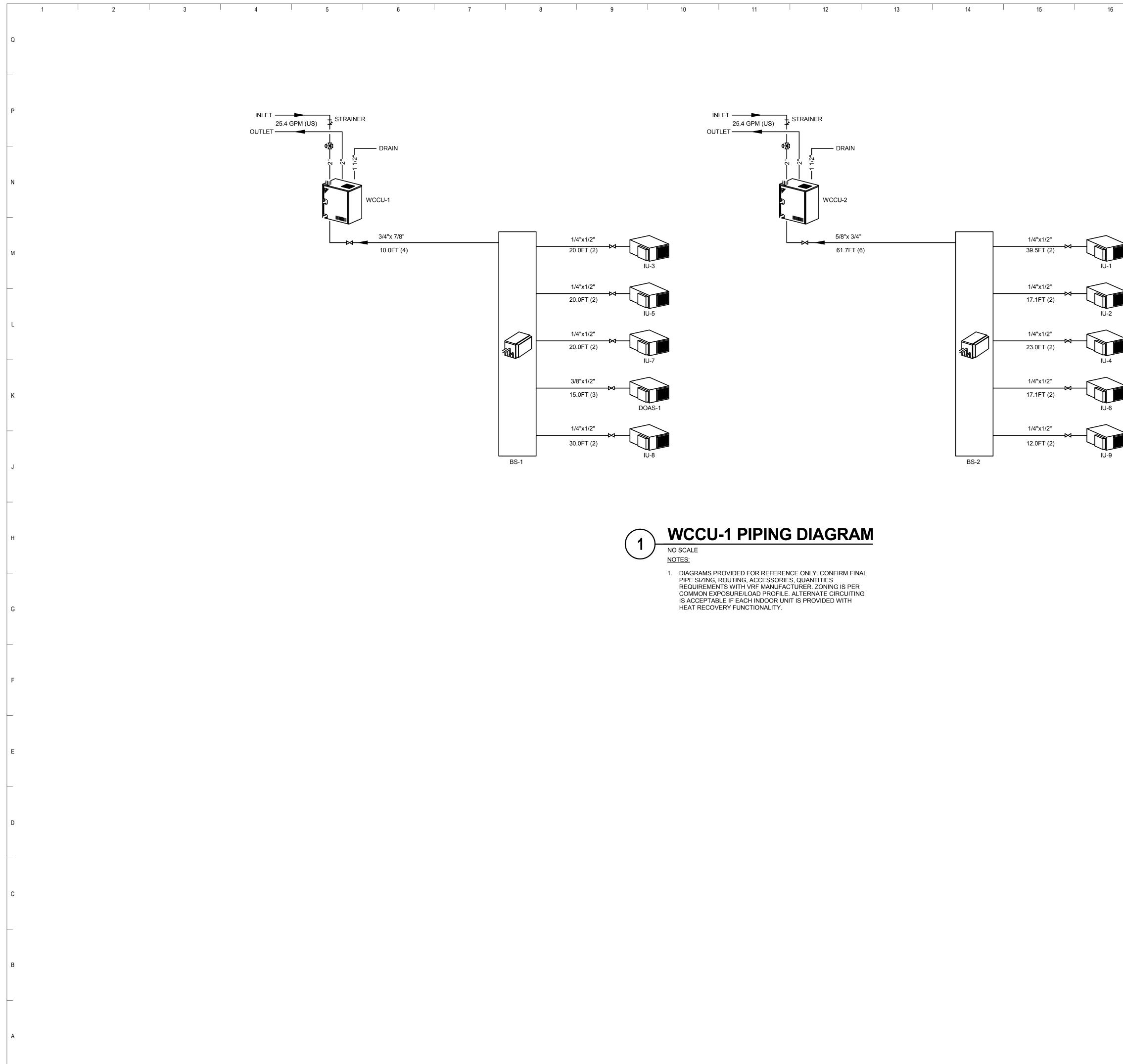


ENGINEERING1800 DEMING WAY SUITE 200
MIDDLETON, WISCONSIN 53562CONSULTANTS608.223.9600FAX: 608.836.0415 www.kjww.com PROJECT # 16.0141.00

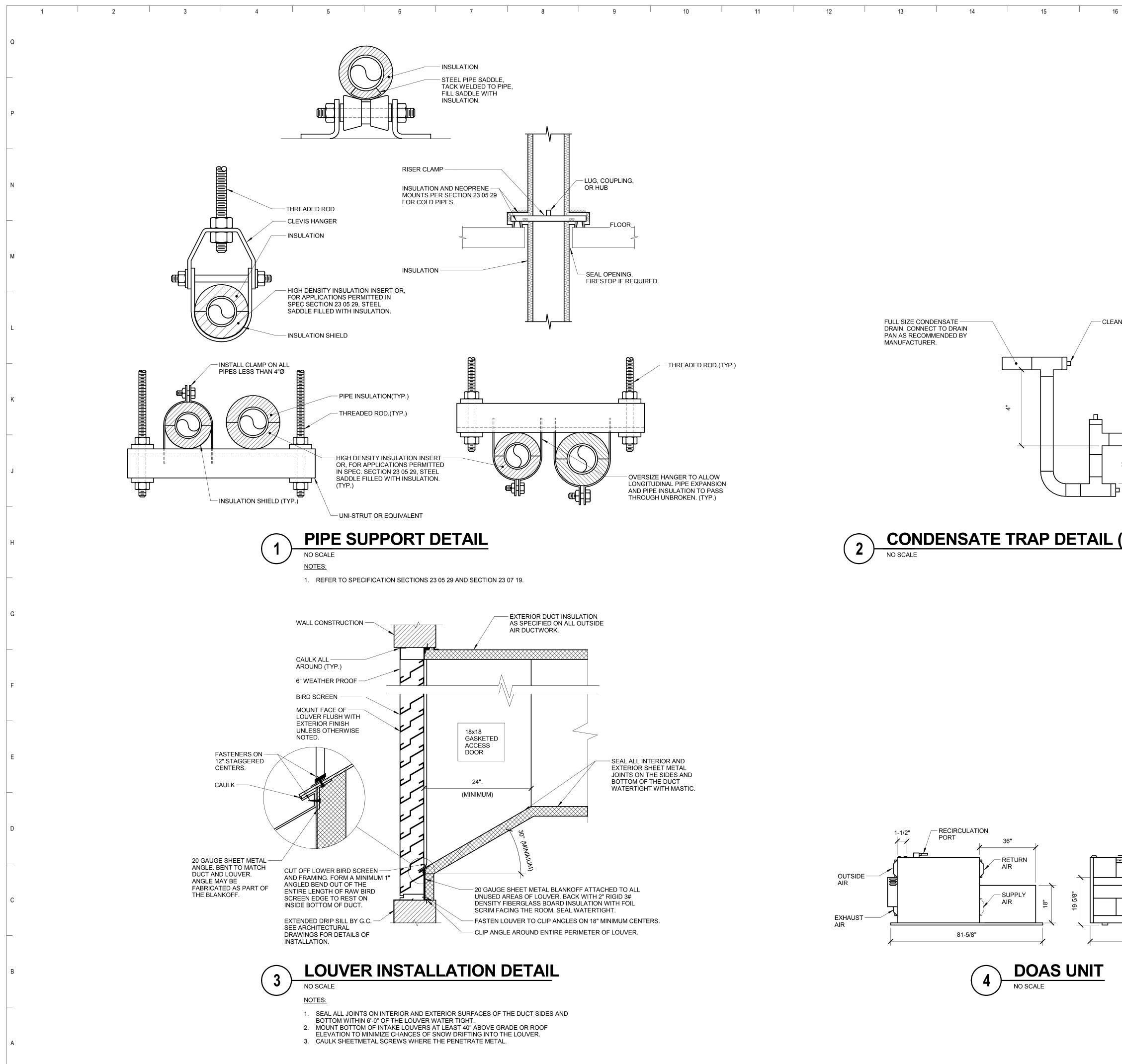
KJWW ENGINEERING RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF KJWW ENGINEERING AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF KJWW ENGINEERING. © 2016 KJWW CORP. REFERENCE SCALE IN INCHES

OPN Project No. 15617000

M200

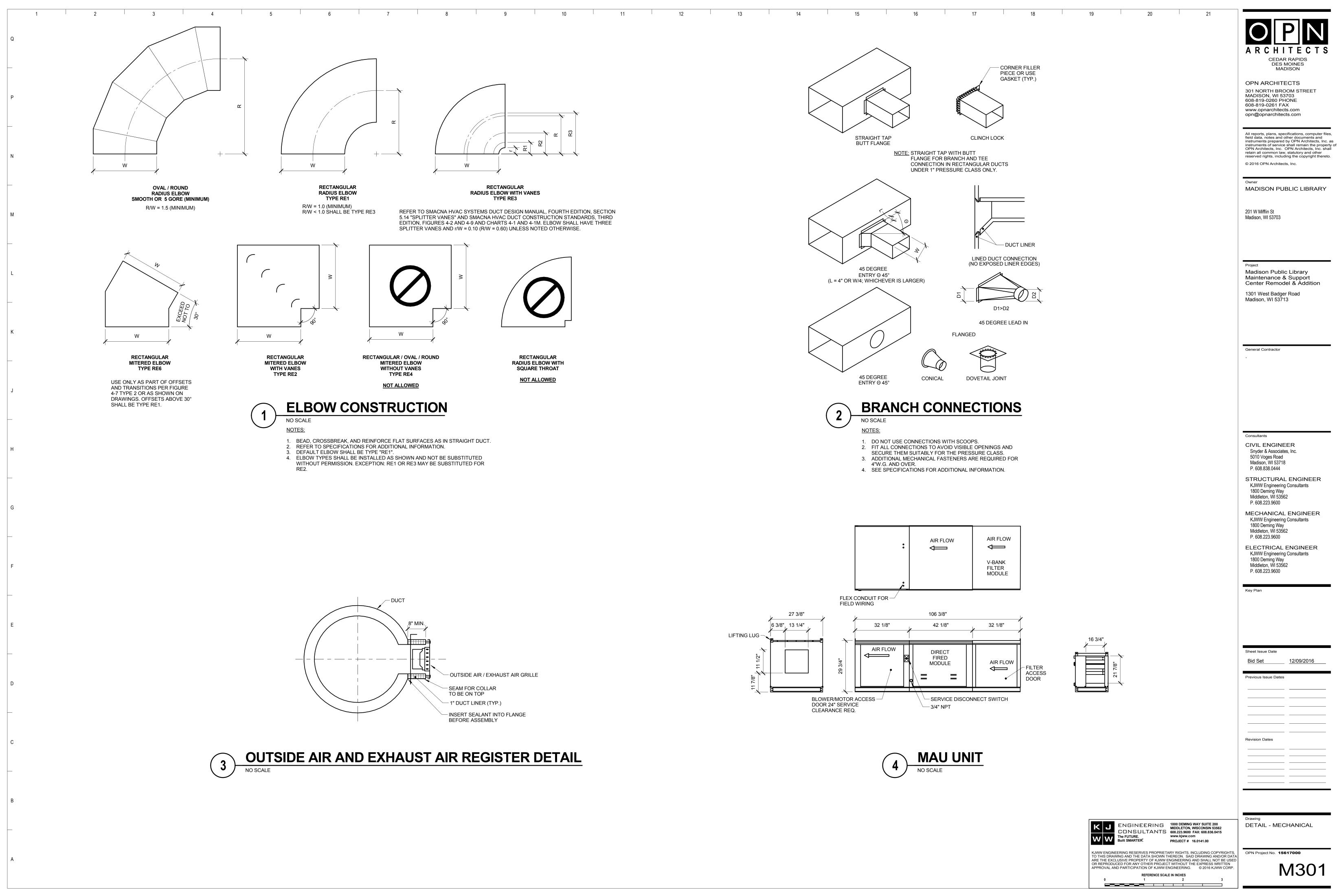


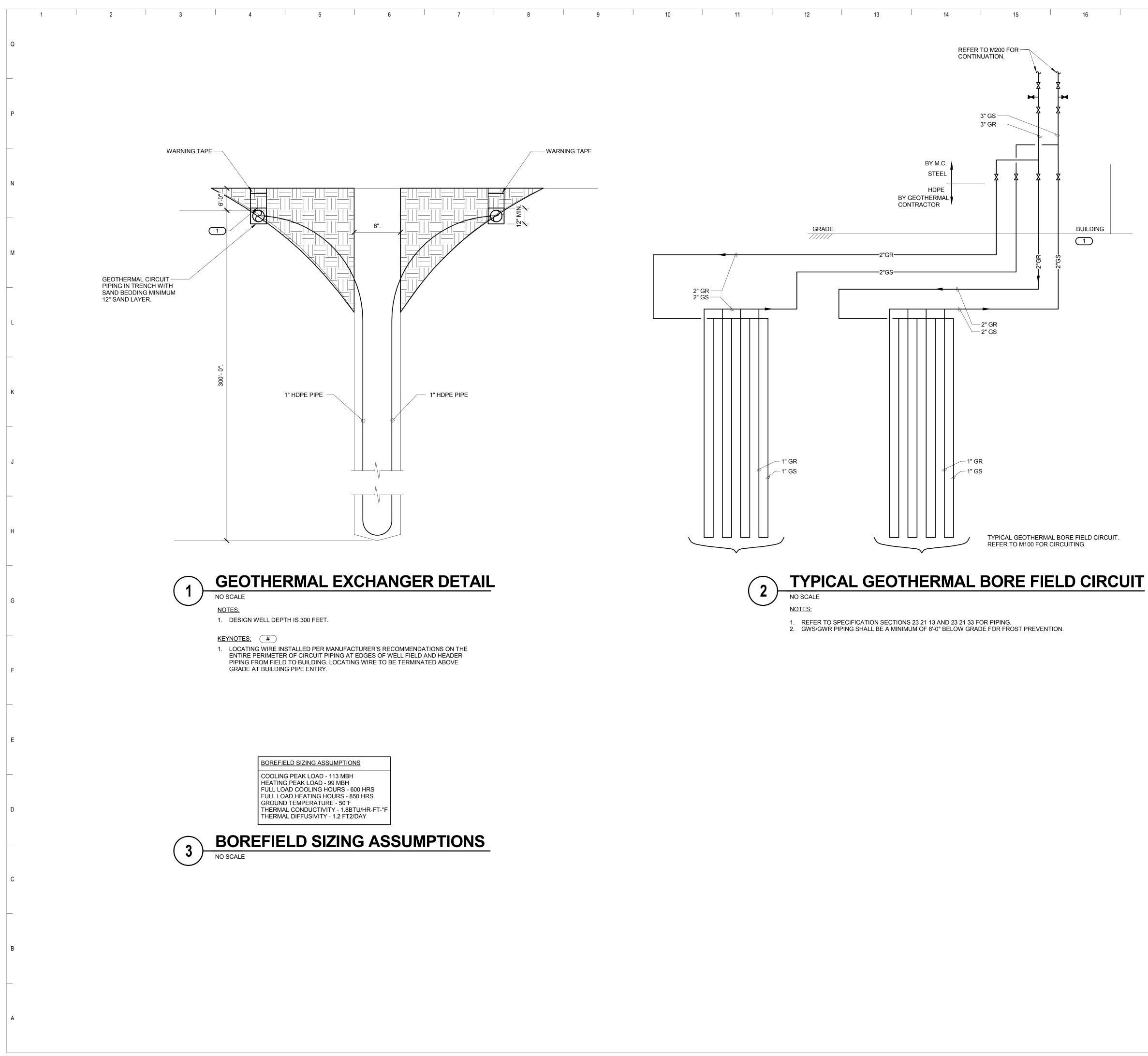
T	17	18	19	20	21	
						A R C H I T E C T S CEDAR RAPIDS
						DES MOINES MADISON
						OPN ARCHITECTS 301 NORTH BROOM STREET
						MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com
						opn@opnarchitects.com
						All reports, plans, specifications, computer file field data, notes and other documents and instruments prepared by OPN Architects, Inc. instruments of service shall remain the proper OPN Architects, Inc. OPN Architects, Inc. sha
						instruments of service shall remain the proper OPN Architects, Inc. OPN Architects, Inc. sha retain all common law, statutory and other reserved rights, including the copyright thereto
						© 2016 OPN Architects, Inc.
						Owner MADISON PUBLIC LIBRARY
						201 W Mifflin St Madison, WI 53703
						Project Madison Public Library
						Maintenance & Support Center Remodel & Addition
						1301 West Badger Road Madison, WI 53713
						General Contractor
						Consultants
						CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road
						Madison, WI 53718 P. 608.838.0444
						STRUCTURAL ENGINEER KJWW Engineering Consultants
						1800 Deming Way Middleton, WI 53562 P. 608.223.9600
						MECHANICAL ENGINEER KJWW Engineering Consultants
						1800 Deming Way Middleton, WI 53562 P. 608.223.9600
						ELECTRICAL ENGINEER KJWW Engineering Consultants
						1800 Deming Way Middleton, WI 53562 P. 608.223.9600
						Key Plan
						Sheet Issue Date
						Bid Set <u>12/09/2016</u>
						Previous Issue Dates
						Revision Dates
						Drawing
				CONSULTANTS 60	00 DEMING WAY SUITE 200 DDLETON, WISCONSIN 53562 8.223.9600 FAX: 608.836.0415 wv.kjww.com	VRF PIPING DIAGRAMS
			KJWW ENGINEE	Built SMARTER. PR	ROJECT # 16.0141.00	OPN Project No. 15617000
			TO THIS DRAWI ARE THE EXCLU OR REPRODUC	NG AND THE DATA SHOWN THEF JSIVE PROPERTY OF KJWW ENG	REON. SAID DRAWING AND/OR DATA INEERING AND SHALL NOT BE USED /ITHOUT THE EXPRESS WRITTEN	
				REFERENCE SCALE IN		M201



										1
6		17	1	18	19	I	20	I	21	DEPIN ARCHITECTS CEDAR RAPIDS DES MOINES MADISON
										OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com
										All reports, plans, specifications, computer files field data, notes and other documents and instruments prepared by OPN Architects, Inc. a instruments of service shall remain the propert OPN Architects, Inc. OPN Architects, Inc. sha retain all common law, statutory and other reserved rights, including the copyright thereto © 2016 OPN Architects, Inc.
										Owner MADISON PUBLIC LIBRARY 201 W Mifflin St Madison, WI 53703
ANOUT PLU	JG (TYP.)									Project Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713
		ROUT	E TO FLOOR	R DRAIN.						General Contractor
<u>(DR</u>	AW-	THR	oug	<u>H)</u>						Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444 STRUCTURAL ENGINEER KJWW Engineering Consultants
										1800 Deming Way Middleton, WI 53562 P. 608.223.9600 MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562
										Middleton, WI 53562 P. 608.223.9600 Key Plan
										Bid Set 12/09/2016 Previous Issue Dates
		29-5/8"	-							
48-7/	<u>.</u>					ENGINE CONSUL The FUTURE.	TANTS	300 DEMING WAY 10DLETON, WISC 08.223.9600 FAX: (ww.kjww.com	DNSIN 53562 608.836.0415	Drawing DETAIL - MECHANICAL
					KJWW ENGINEI TO THIS DRAW ARE THE EXCL OR REPRODUC	NG AND THE DA JSIVE PROPERT ED FOR ANY OT PARTICIPATIO	S PROPRIETAR TA SHOWN THE Y OF KJWW ENG HER PROJECT V N OF KJWW ENG FERENCE SCALE II	REON. SAID DRA BINEERING AND S VITHOUT THE EXI INEERING. ©	1.00 DING COPYRIGHTS, WING AND/OR DATA HALL NOT BE USED PRESS WRITTEN 2016 KJWW CORP. 3	OPN Project No. 15617000

ns, specifications, computer files, s and other documents and epared by OPN Architects, Inc. as service shall remain the property of , Inc. OPN Architects, Inc. shall on law, statutory and other including the copyright thereto. chitects, Inc.





KEYNOTE: #

PROVIDE LINKSEAL AT FOUNDATION WALL PENETRATION FOR EACH PIPE PENETRATION.



OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

Owner MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

Project Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road

Madison, WI 53713

General Contractor

Consultants **CIVIL ENGINEER** Snyder & Associates, Inc. 5010 Voges Road

- Madison, WI 53718 P. 608.838.0444 STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562
- P. 608.223.9600 MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way
- Middleton, WI 53562 P. 608.223.9600
- ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date Bid Set 12/09/2016

Previous Issue Dates

_____ Revision Dates

Drawing

_____ ___ _____

ENGINEERING1800 DEMING WAY SUITE 200MIDDLETON, WISCONSIN 53562MIDDLETON, WISCONSIN 53562CONSULTANTS608.223.9600FAX: 608.836.0415 GEOTHERMAL DETAILS -MECHANICAL www.kjww.com PROJECT # 16.0141.00

KJWW ENGINEERING RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF KJWW ENGINEERING AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF KJWW ENGINEERING. © 2016 KJWW CORP. REFERENCE SCALE IN INCHES 3

2

 K
 J

 ENGINEL

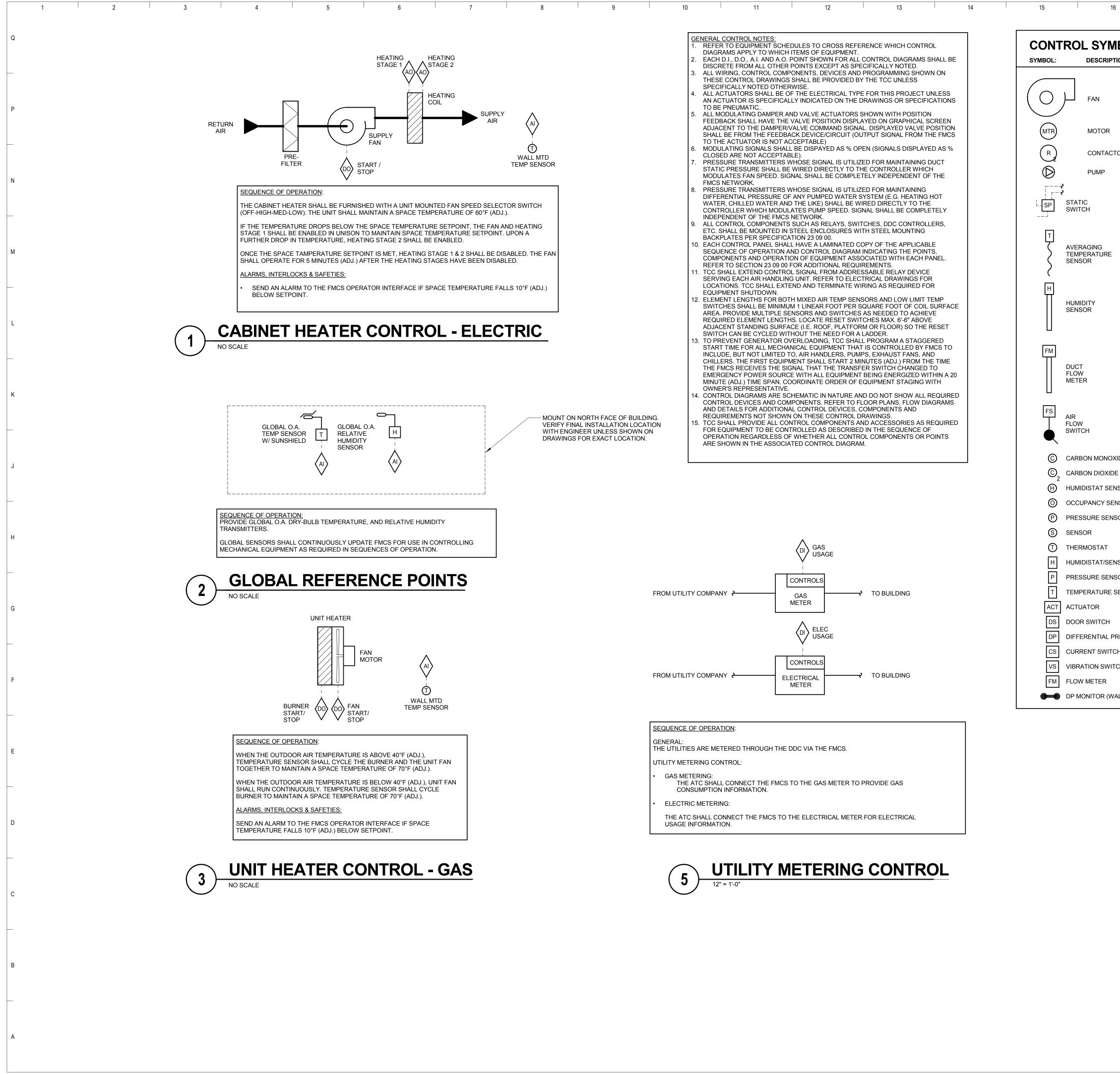
 CONSULT

 The FUTURE.

 Built SMARTER.

0

OPN Project No. 15617000 M302



17	18	19	20	21

MBOLS LIST	NOTE : NOT ALL SYMBOLS MAY APPLY	ARCHITECTS CEDAR RAPIDS DES MOINES MADISON
	AI ANALOG INPUT DIGITAL INPUT	OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE
	AO ANALOG OUTPUT OD DIGITAL OUTPUT	608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com
TOR	HEATING/ COOLING COIL FILTER	All reports, plans, specifications, computer f field data, notes and other documents and instruments prepared by OPN Architects, In instruments of service shall remain the prop OPN Architects, Inc. OPN Architects, Inc. s retain all common law, statutory and other reserved rights, including the copyright there © 2016 OPN Architects, Inc.
T PROBE TEMPERATURE SENSOR	AIR BLENDER	201 W Mifflin St Madison, WI 53703
H HUMIDIFIER	TERMINAL AIR BOX W/REHEAT	Project Madison Public Library Maintenance & Support Center Remodel & Addition
DSD DUCT SMOKE DETECTOR	NORMALL CLOSED CONTACT NORMALLY OPEN CONTACT MANUAL MOTOR STARTER W/THERMAL OVERLOAD	1301 West Badger Road Madison, WI 53713 General Contractor
IDE SENSOR E SENSOR SOR NSOR	CWR— CHILLED WATER RETURN CWS— CHILLED WATER SUPPLY HEATING WATER RETURN HEATING WATER RETURN HEATING WATER SUPPLY CONTROL VALVE (THREE-WAY)	
OR / MONITOR SOR (DUCT MOUNTED)	CONTROL VALVE (TWO-WAY) CHECK VALVE T T T T T T T T T T T T T T T T T T	Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444
OR (DUCT MOUNTED) ENSOR (DUCT MOUNTED)	EA EXHAUST/RELIEF AIR MA MIXED AIR	STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
ESSURE SWITCH	N.C.NORMALLY CLOSEDN.O.NORMALLY OPENOAOUTSIDE AIRRARETURN AIR	MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
CH ALL MOUNTED)	SASUPPLY AIRTCCTEMPERATURE CONTROL CONTRACTOR	ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Sheet Issue Date Bid Set

12/09/2016

Previous Issue Dates

Revision Dates

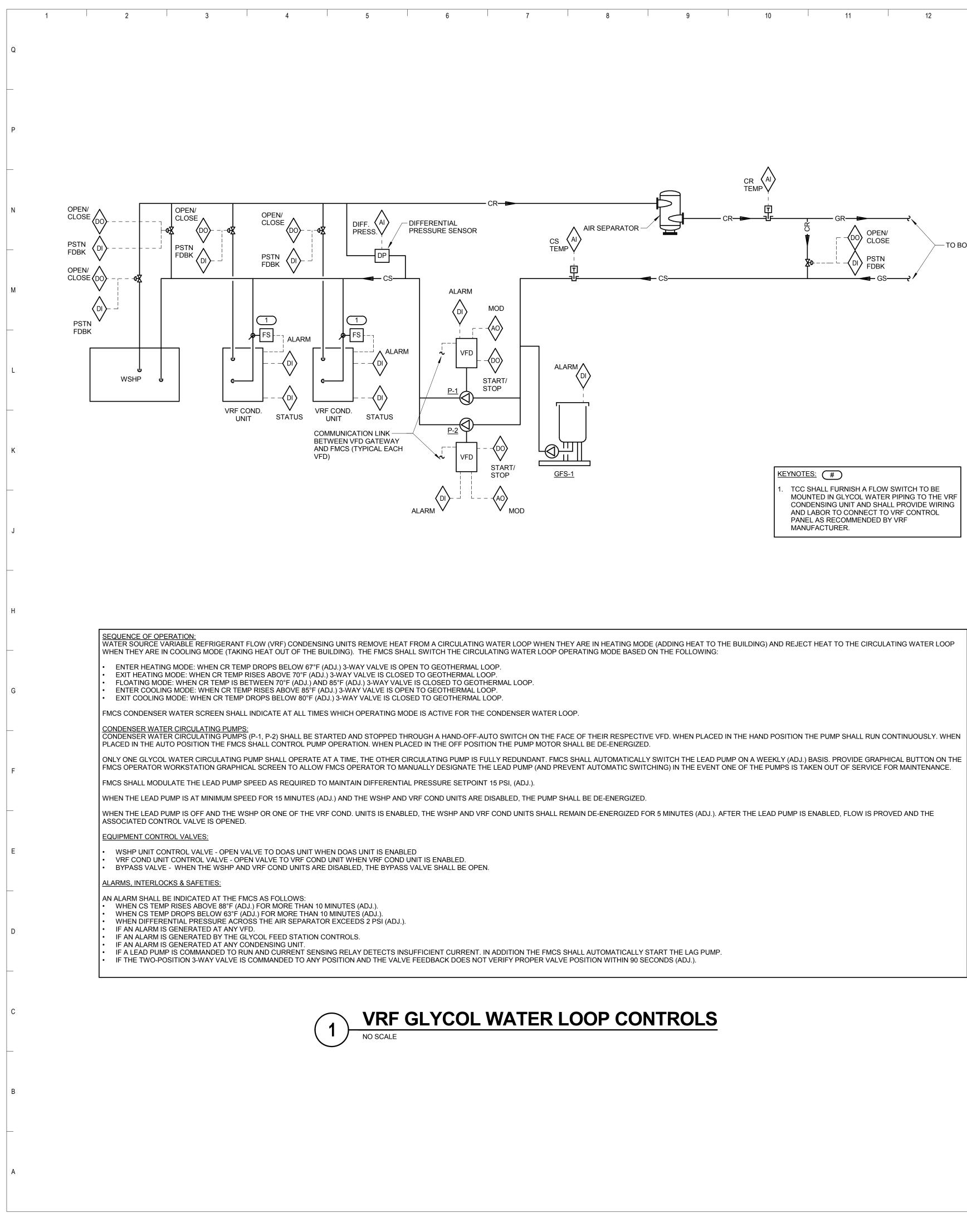
КЈ ww The FUTURE. Built SMARTER.

ENGINEERING CONSULTANTS 1800 DEMING WAY SUITE 200 MIDDLETON, WISCONSIN 53562 608.223.9600 FAX: 608.836.0415 www.kjww.com PROJECT # 16.0141.00

XJWW ENGINEERING RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, IO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF KJWW ENGINEERING AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN PPROVAL AND PARTICIPATION OF KJWW ENGINEERING. © 2016 KJWW CORP. REFERENCE SCALE IN INCHES

Drawing
CONTROL DIAGRAMS -
MECHANCIAL





TCC SHALL FURNISH A FLOW SWITCH TO BE MOUNTED IN GLYCOL WATER PIPING TO THE VRF CONDENSING UNIT AND SHALL PROVIDE WIRING AND LABOR TO CONNECT TO VRF CONTROL PANEL AS RECOMMENDED BY VRF MANUFACTURER.

KEYNOTES: #

CR TFMF AIR SEPARATOR -OPEN/ -(DO) CLOSE - TO BOREFIELD PSTN JUY FOBK

RETURN AIR

RETURN WATER TEMP

17

18

19

20

21

PROVIDE A PRESSURE INDEPE PIPING SERVING EACH HEAT P CONTROLLER. PROVIDE A TEMPERATURE SE

SEQUENCE OF OPERATION: THE FMCS SYSTEM SHALL COM HEAT PUMP IS CONTROLLED BY PUMP. THE TCC SHALL COMMU WORKSTATION. PROVIDE GRA

WATER SC

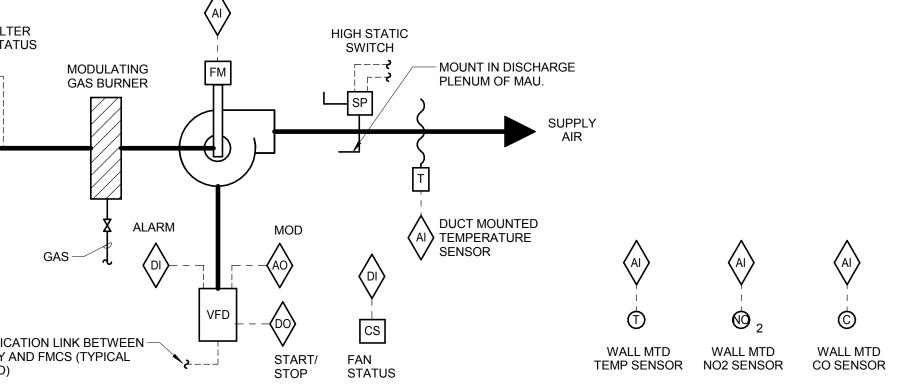




		ARCHITECTS CEDAR RAPIDS DES MOINES MADISON
		OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com
		All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.
		Owner MADISON PUBLIC LIBRARY
		201 W Mifflin St Madison, WI 53703
OPEN/ CLOSE AI	DISCHARGE AIR TEMP OCCUPIED/ UNOCCUPIED/ UNOCCUPIED AI SUPPLY AIR	Project Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713
	WALL MTD TEMP SENSOR SUPPLY AIR TEMP	General Contractor
SEQUENCE OF OPERATION: THE FMCS SYSTEM SHALL COMMUNICATE ENABLE/DISABLE MODE TO THE HEAT PU HEAT PUMP IS CONTROLLED BY A MICROPROCESSOR CONTROLLER PROVIDED WI PUMP. THE TCC SHALL COMMUNICATE ALL AVAILABLE POINTS BACK TO THE OPER WORKSTATION. PROVIDE GRAPHICS FOR HEAT PUMPS BASED ON COMMUNICATED PROVIDE A PRESSURE INDEPENDENT CHARACTERIZED THREE WAY CONTROL VAL PIPING SERVING EACH HEAT PUMP. PROVIDE WIRING BETWEEN VALVE ACTUATOR CONTROLLER. PROVIDE A TEMPERATURE SENSOR WITH EACH HEAT PUMP. TEMPERATURE SENS INPUT TO THE HEAT PUMP MICROPROCESSOR CONTROLLER. CONTROLLER SHALL SPEED AND HEATING/COOLING STAGES AS REQUIRED TO MAINTAIN SPACE TEMPE SETPOINT. FAN SHALL RUN CONTINUOUSLY DURING ENABLED MODE. HEATING AND COOLING NEEDED TO MAINTAIN SPACE TEMPERATURE SETPOINT. DURING DISABLED MODE, FAN AND HEATING/COOLING STAGES SHALL CYCLE AS R MAINTAIN SPACE TEMPERATURE SETPOINT. THE FMCS SYSTEM SHALL COMMUNICATE THE FOLLOWING TEMPERATURE SETPOINT. THE FMCS SYSTEM SHALL COMMUNICATE THE FOLLOWING TEMPERATURE SETPOINT. MAINTAIN SPACE TEMPERATURE SETPOINT. THE FMCS SETPOINT: 78°F(ADJ.) B. HEATING SETPOINT: 60°F(ADJ.) DO SCALE	TH THE HEAT ATOR D POINTS. VE IN THE SUPPLY AND HEAT PUMP OR SHALL BE AN CYCLE FAN RATURE SHALL CYCLE AS REQUIRED TO INTS TO THE HEAT	<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><text><text><text></text></text></text></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>
		Sheet Issue Date Bid Set 12/09/2016 Previous Issue Dates
	KJ ENGINEERING MODELTON, WISCONSIN 53562 GONSULTANTS The FUTURE. Built SMARTER. 1800 DEMING WAY SUITE 200 MIDDLETON, WISCONSIN 53562 608.223.9600 FAX: 608.836.0415 WW Note: State of the s	Drawing CONTROL DIAGRAMS - MECHANCIAL
	KJWW ENGINEERING RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF KJWW ENGINEERING AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF KJWW ENGINEERING. © 2016 KJWW CORP. REFERENCE SCALE IN INCHES 0 1 2 3	OPN Project No. 15617000 M401

Q	
P	
	DIFF. PRESS. SWITCH
N	$DMPR \land DMPR \land DM$
-	
М	OUTSIDE AIR DAMPER
	COMMUNICAT
	GATEWAY ANI EACH VFD)
-	
к	
	SEQUENCE OF OPERATION:
	 WHEN MAU IS INDEXED TO RUN, THE FOLLOWING SHALL OCCUR: WHEN THE SUPPLY FAN HAS STARTED THE INTERLOCKED EXHAUST FANS SHALL START AS SHOWN IN THE FAN INTERLOCK SCHEDULE.
J	MINIMUM SUPPLY AND EXHAUST FAN CONTROL: • SUPPLY AND EXHAUST FANS SHALL OPERATE AT A MINIMUM OF 150 CFM WHEN IN OPERATION.
	THE SUPPLY AND EXHAUST FANS SHALL OPERATE AT THE DESIGN CFM FOR A MINIMUM OF 5 HOURS PER 24 HOUR PERIOD. THIS SHALL BE SET UP SO THE SYS MINIMUM OF 12.5 MINUTES EVERY HOUR.
	WHEN THE OCCUPANCY SENSOR DETECTS OCCUPANCY IN THE SPACE, THE SUPPLY AND EXHAUST FANS SHALL OPERATE AT THE DESIGN CFM UNTIL THE OCCUPANCE IS NO LONGER OCCUPIED.
	 WHEN THE CARBON MONOXIDE SENSOR READING EXCEEDS 35 PPM, THE SUPPLY AND EXHAUST FANS SHALL MODULATE TO OPERATE AT THE DESIGN CFM FO THE CARBON MONOXIDE SENSOR READING HAS DROPPED BELOW 35 PPM. WHEN THE NITROGEN DIOXIDE SENSOR READING EXCEEDS 1 PPM, THE SUPPLY AND EXHAUST FANS SHALL MODULATE TO OPERATE AT THE DESIGN CFM FOR
	 NITROGEN DIOXIDE SENSOR READING HAS DROPPED BELOW 1 PPM. THE FAN RUN TIME REQUIRED BY OCCUPANCY, CARBON MONOXIDE OR NITROGEN DIOXIDE READINGS SHALL COUNT TOWARDS THE MINIMUM RUN TIME OF 5
Н	PROGRAMMING SHALL AUTOMATICALLY ADJUST THE SET MINIMUM RUN TIMES WHEN THE OCCUPANCY, CARBON MONOXIDE OR NITROGEN DIOXIDE READINGS
	SUPPLY FAN AND CONTROL VALVE OPERATION: THE FMCS WILL MODULATE THE SUPPLY FAN, AND HEATING CONTROL VALVE TO ACHIEVE THE ROOM TEMPERATURE OF 72°F (ADJ.) WITH 2°F (ADJ.) DEAD BAND BA MOUNTED TEMPERATURE SENSOR. SEE DRAWINGS FOR TEMPERATURE SENSOR REQUIREMENTS. SPACES WITH ADJUSTABLE THERMOSTATS WILL ALLOW A +/- 3°
-	 AT A FULL COOLING, THE SUPPLY FAN IS AT MAXIMUM COOLING CFM SPEED. AS THE ROOM AIR TEMPERATURE FALLS, THE SUPPLY FAN SHALL RAMP DOWN TO MAINTAIN ROOM TEMPERATURE SET POINT.
	 ON A FURTHER FALL IN ROOM TEMPERATURE, THE SUPPLY FAN WILL REMAIN AT MINIMUM SPEED. ON A FURTHER REDUCTION IN ROOM TEMPERATURE, THE GAS BURNER SHALL BE ENABLED TO MAINTAIN ROOM AIR TEMPERATURE SET POINT. THE DISCHARG ABOVE 95°F. THE SUPPLY FAN SHALL REMAIN AT MINIMUM HEATING CFM.
G	ONCE THE GAS BURNER IS MAINTAINING 95°F DISCHARGE AIR, THE SUPPLY FAN SPEED SHALL RAMP UP TO MAXIMUM HEATING SPEED TO MAINTAIN ROOM AIF
	DISCHARGE AIR TEMPERATURE: THE DISCHARGE SHALL BE BETWEEN 50°F (ADJ.) AND 95°F (ADJ.) TO MAINTAIN ROOM TEMPERATURE SETPOINT.
-	HEATING COIL OPERATION: GAS BURNER CONTROLS SHALL BE ENABLED WHEN OUTSIDE AIR TEMPERATURE DROPS BELOW 50°F (ADJ.).
F	2-POSITION EXHAUST AIR DAMPER SHALL FULLY OPEN WHEN FAN IS ENERGIZED. WHEN FAN IS DE-ENERGIZED, 2-POSITION EXHAUST AIR DAMPER SHALL FULLY C EXHAUST FAN SHALL BE ENERGIZED WHEN MAU IS ENERGIZED. EXHAUST FAN VFD SHALL TRACK MAU VFD.
	ALARMS, INTERLOCKS, AND SAFETIES: WHEN FIRE ALARM CONTROL PANEL INDICATES AN ALARM CONDITION, MAU SHALL BE SHUTDOWN.
	THE FOLLOWING CONDITIONS SHALL SHUTDOWN THE AHU AND SHALL INDICATE AN ALARM CONDITION AT THE FMCS WORKSTATION: • LOW STATIC PRESSURE SWITCH INDICATES RETURN DUCT PRESSURE LESS THAN THE SPECIFIED DUCT PRESSURE CLASS.
	HIGH STATIC PRESSURE SWITCH INDICATES SUPPLY DUCT STATIC PRESSURE GREATER THAN THE SPECIFIED DUCT PRESSURE CLASS.
E	 THE FOLLOWING CONDITIONS SHALL INDICATE AN ALARM AT THE FMCS, HOWEVER MAU SHALL CONTINUE TO OPERATE: AN ALARM IS INDICATED AT THE SUPPLY FAN VFD. DIFFERENTIAL PRESSURE SWITCH ACROSS FILTER BANK EXCEEDS 0.8 INCHES W.G. (ADJ.)
	 DIFFERENTIAL PRESSURE SWITCH ACROSS FILTER BARK EXCEEDS 0.8 INCHES W.G. (ADJ.) SEND AN ALARM TO THE FMCS OPERATOR INTERFACE IF THE SPACE TEMPERATURE IS MORE THAN 10°F (ADJ.) ABOVE OR BELOW SETPOINT FOR MORE THAN SEND AN ALARM TO THE FMCS OPERATOR IN THE EVENT THAT THE FAN IS COMMANDED TO RUN AND THE FAN STATUS INDICATES THE FAN IS NOT RUNNING.
	WHENEVER MAU IS SHUTDOWN THE FOLLOWING SHALL OCCUR:
	 THE OUTSIDE AIR DAMPER SHALL FULLY CLOSE. THE GAS BURNER SHALL BE DISABLED. SUPPLY FAN VFD SHALL BE DE-ENERGIZED.
	INTERLOCKED EXHAUST FAN SHALL BE DE-ENERGIZED.
D	GRAPHICAL DISPLAY: DISPLAY THE GLOBAL OUTSIDE AIR TEMPERATURE ON AHU GRAPHIC PAGE.
_	
	MAU WITH E
С	NO SCALE
B	
В	
В	
В	
В	
В 	





SYSTEM RUNS AT THE DESIGN CFM FOR A OCCUPANCY SENSOR DETERMINES THE M FOR AT LEAST 30 MINUTES (ADJ.) AFTER FOR AT LEAST 30 MINUTES (ADJ.) AFTER THE F 5 HOURS PER 24 HOUR PERIOD. SYSTEM NGS REQUIRE FAN RUN TIME.

D BASED ON A SIGNAL FROM A WALL +/- 3°F (ADJ.) OFFSET FROM THE SETPOINT.

ARGE AIR TEMPERATURE SHALL NOT RISE

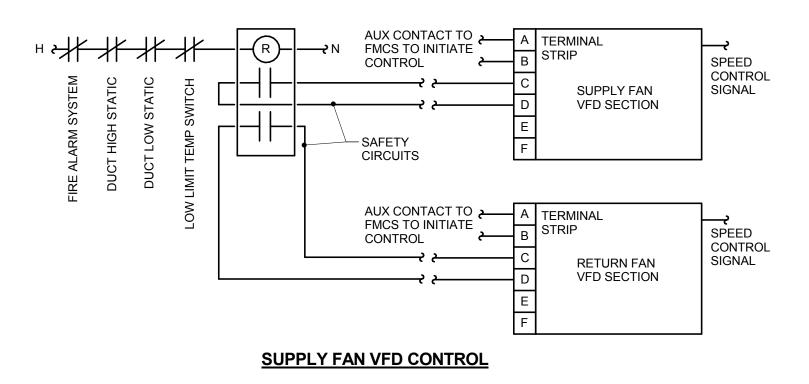
Y CLOSE.

IAN 10 MINUTES (ADJ.).

EF CONTROL

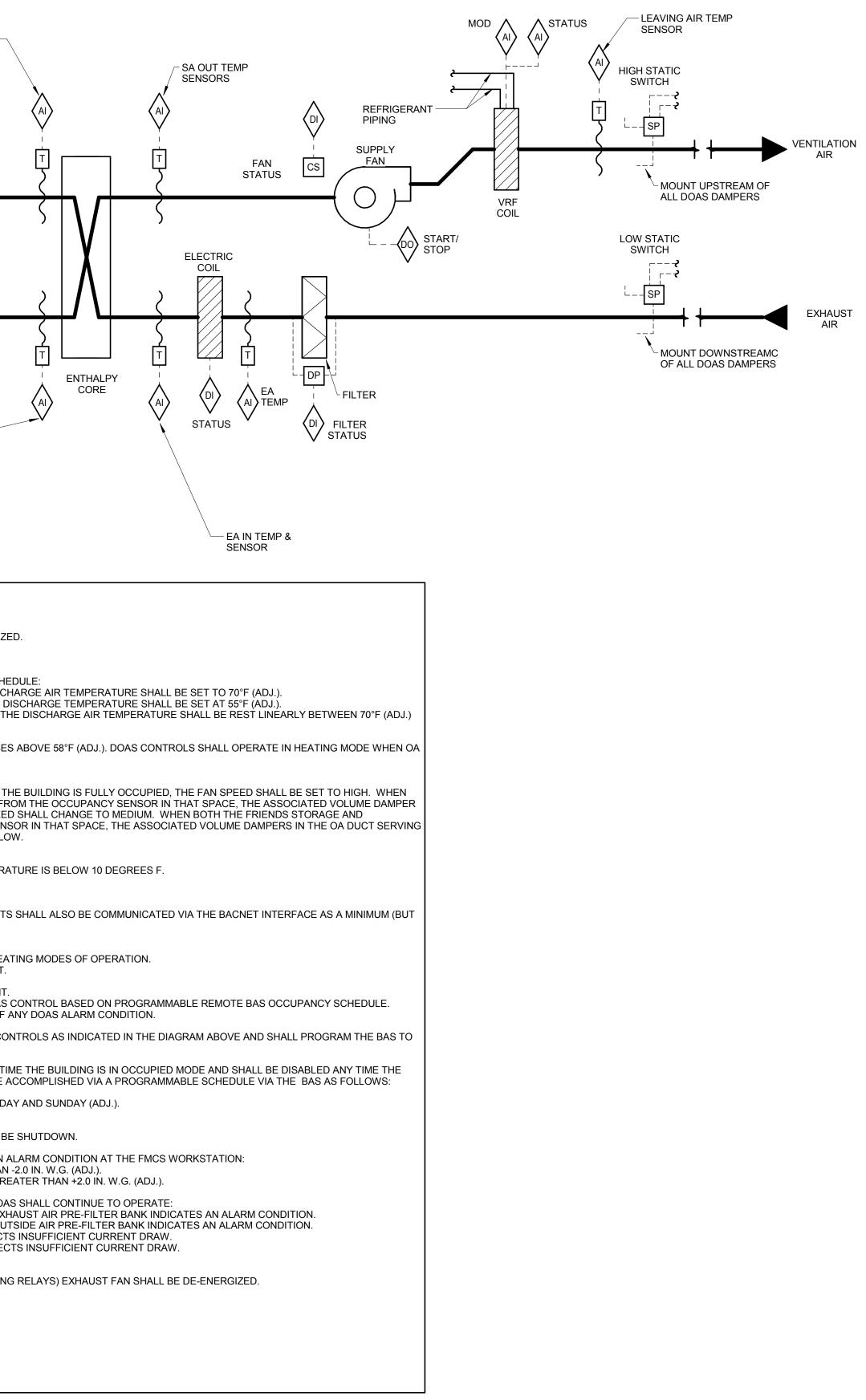
FAN INTERLOCK SCHEDULE								
SYSTEM	SYSTEM INTERLOCKED EXHAUST FANS							
MAU-1	EF-1	NOTE 1						

NOTES: 1. INTERLOCK EXHAUST FAN OPERATION THROUGH THE FMCS WITH RESPECTIVE MAU IN ACCORDANCE WITH MAU SEQUENCE OF OPERATION.



17	18	19	20	21	
			20	21	ARCHITECTS CEDAR RAPIDS DES MOINES MADISON
					OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com
					All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.
					MADISON PUBLIC LIBRARY 201 W Mifflin St Madison, WI 53703
					Project Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713
					General Contractor
					Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444 STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562
ACT	IOV SPEED CONTROL	N TATUS <u>M</u> EXH	MOD FDBK ACT REFER TO 1/MV LOCATION OF M OD-1		P. 608.223.9600 MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
ENERGIZED. V DAMPER SHAL EXHAUST FAN	<u>OPERATION::</u> HAUST AIR DAMPER SH VHEN FAN IS DE-ENERGI L FULLY CLOSE. SHALL BE ENERGIZED V SPEED SHALL TRACK M	ALL FULLY OPEN WHEN ZED, 2-POSITION EXHAU /HEN MAU IS ENERGIZEI	IST AIR		Sheet Issue Date Bid Set 12/09/2016
2 EXI	HAUST FA	AN CONTE	ROL		Previous Issue Dates
					Revision Dates
			CONSULTANTS 608.2	DEMING WAY SUITE 200 ILETON, WISCONSIN 53562 223.9600 FAX: 608.836.0415	Drawing CONTROL DIAGRAMS - MECHANCIAL
		KJWW ENGINEEF TO THIS DRAWIN ARE THE EXCLUS OR REPRODUCE	UNG RESERVES PROPRIETARY RI G AND THE DATA SHOWN THERE	ON. SAID DRAWING AND/OR DATA EERING AND SHALL NOT BE USED HOUT THE EXPRESS WRITTEN ERING. © 2016 KJWW CORP.	OPN Project No. 15617000 M402

1		2	3	4		5		6	7	
Q										
									EA OUT TEMP	
						OPEN/ CLOSE				
						N.C.	/			
P							T	EXHAUST FAN		
				EXHA Al		ES + 2			CS FAN STATUS	
					PER END		J A PER			
N				0,000	011(111.)			FILTER	DO START/ STOP	
							R			
				OUTS Alf			s			
							-5			
M						$\wedge $		L DP	 	
						EN/ DSE DO I	DMPR STATUS	FILTER	oa in temp	
								STATUS V	SENSOR	
L										
					DOAS MANUE			ROLS/SEQUENC	E OF OPERATION:	
К					WHEN DOAS	IS INDEXED TO F	RUN (BY RE	MOTE BAS), THE	FOLLOWING SHALL OC PERS SHALL FULLY OP	
					AFTER D		DPENED, SU	PPLY AND EXHAU	JST FANS SHALL BE EN	
					DISCHARGE	AIR TEMPERATU	IRE SETPOII	NT SHALL BE BAS	SED ON THE FOLLOWIN N 50°F (ADJ.), THEN TH	
J					 WHEN TH 	IE OUTSIDE AIR	TEMPERAT	URE IS GREATER	than 75°F (ADJ.) THEN 1 50°F (ADJ.) AND 75°F (1 50°F (ADJ.) AND 75°F (N THE DIS
					DOAS CONTR				HEN OA DRY-BULB TEM	1P RISES /
					FAN SPEED		·		M AND HIGH MODES. V	
					THE FRIE	NDS STORAGE (A DUCT SERVIN(OR CONFER G THAT VRF	ENCE ROOM ARE UNIT SHALL CLC	E UNOCCUPIED VIA SIC DSE AND THE DOAS FAI . FROM THE OCCUPAN	SNAL FRO
H						RF UNITS SHALL			SPEED SHALL CHANG	
							LL BE ENER	GIZED WHENEVE	ER THE OUTSIDE AIR TE	EMPERAT
							SHOWN IN ⁻	THE ABOVE DIAG	RAM, THE FOLLOWING	POINTS
G					SUPPLY IEXHAUST	FAN STATUS, [ON F FAN STATUS, [(ON/OFF]			
					COOLINGDEFROST	SPAN [°F], DIFFI I SETPOINT [°F],	ERENTIAL T OA TEMP T	EMP ABOVE AND	CHES BETWEEN COOLI BELOW COOLING SET S DEFROST MODE.	POINT.
					 REMOTE 	UNIT CONTROL	[ENABLE/DI	SABLE], INTERFA	D BELOW DEFROST SE CE TO ALLOW REMOTE WS REMOTE MONITOR	E DOAS C
					TCC PROVIDA	<u>ED CONTROLS/F</u> FOLLOWS:	MCS SEQUE	ENCE OF OPERAT	TION: TCC SHALL PROV	/IDE CON ⁻
F					BUILDING IS I	IN UNOCCUPIED	MODE. OCC	CUPIED/UNOCCUI	IT SHALL BE ENABLED	
					UNOCCU	PIED MODE: MON	NDAY - FRID	΄ 6 ΑΜ ΤΟ 9 ΡΜ. (Α ΟΑΥ 9 ΡΜ ΤΟ 6 ΑΜ	ADJ.) 1 (ADJ.) AND ALL DAY S	ATURDAY
					WHEN FIRE A		_ PANEL IND		M CONDITION, DOAS S	
E					 LOW STA 	TIC PRESSURE	SWITCH IND	ICATES RETURN	DAS AND SHALL INDICA I DUCT PRESSURE LES I DUCT STATIC PRESSU	S THAN -2
					 DOAS MA 	NUFACTURER P	ROVIDED D	IFFERENTIAL PRI	M AT THE BAS, HOWEV ESSURE SWITCH ACRO	DSS EXHA
					THE SUPTHE EXH.	PLY FAN IS COM AUST FAN IS COI	MANDED TO MMANDED) RUN AND CURR FO RUN AND CUR	ESSURE SWITCH ACRO RENT SENSING RELAY I RRENT SENSING RELAY	DETECTS
						M IS INDICATED I T SUPPLY FAN IS			ED BY THE CURRENT S	SENSING
D								DLLOWING SHALL BE DE-ENERGIZE		
					 VRF COIL 	PER AND EA DAM SHALL BE DISA C COIL SHALL BE	BLED.			
					• ALL ALAF	RMS SHALL BE DI	ISABLED.			
с										
В										





			CEDA	I T E C T S R RAPIDS
				OOM STREET 3703 HONE AX cts.com
			All reports, plans, sp field data, notes and instruments prepare instruments of servic OPN Architects, Inc. retain all common la reserved rights, inclu © 2016 OPN Archite	ecifications, computer files other documents and d by OPN Architects, Inc se shall remain the propert OPN Architects, Inc. sha w, statutory and other uding the copyright thereto ects, Inc.
			^{Owner} MADISON PU	JBLIC LIBRARY
			201 W Mifflin St Madison, WI 53703	
			Project Madison Publ Maintenance Center Remo 1301 West Badg Madison, WI 537	& Support del & Addition er Road
			General Contractor	
				ites, Inc. 1 18 NL ENGINEER
			KJWW Engineerii 1800 Deming Wa Middleton, WI 535	y 562 L ENGINEER ng Consultants y
			P. 608.223.9600 ELECTRICAL KJWW Engineerin 1800 Deming Wa Middleton, WI 535 P. 608.223.9600	- ENGINEER ng Consultants y
			Key Plan	
			Sheet Issue Date <u>Bid Set</u> Previous Issue Date	<u>12/09/2016</u> s
			Revision Dates	
	FRING 1800 DEMING V		Drawing CONTROL D	
	LTANTS 608.223.9600 F www.kjww.com PROJECT # 16	ISCONSIN 53562 AX: 608.836.0415 .0141.00 CLUDING COPYRIGHTS.	OPN Project No. 1	L
TO THIS DRAWING AND THE D ARE THE EXCLUSIVE PROPER OR REPRODUCED FOR ANY O APPROVAL AND PARTICIPATIC	ATA SHOWN THEREON. SAID TY OF KJWW ENGINEERING AI THER PROJECT WITHOUT THE IN OF KJWW ENGINEERING. EFERENCE SCALE IN INCHES	DRAWING AND/OR DATA	-	M403

18

19

20

21

HITECTS EDAR RAPIDS DES MOINES MADISON

lans, specifications, computer files, tes and other documents and orepared by OPN Architects, Inc. as of service shall remain the property of cts, Inc. OPN Architects, Inc. shall monn law, statutory and other tts, including the copyright thereto. rchitects, Inc.

12/09/2016

		HEDULE																	
	FOR EACH UNIT	FILTER MAY BE INTEGRA	OR SUITABLE FOR F	IELD INSTAL	LATION IN FAB	BRICATED FILT	ER ANGLES. F	ILTER ANGLES PRC	VIDED BY M.C										
5.INDOOR UNIT CFM SI	FION 23 81 45 FOR LECTED AT HIGH (DESCRIPTION OF CONTI FM. INDOOR UNIT SHALL	HAVE CAPABILITY TO		/I FOR FINAL A	IR BALANCING		I THROUGH FIELD A	ADJUSTMENT.										
6.DUCTED CONCEALEI 7. REFRIGERANT CHAR	E IN LBS. IS FOR	PROVIDED WITH SUPPLY	ND RETURN DUCT FI G BOTH BRANCH SEL	LANGES. ECTORS AN	D ALL INDOOR									ELECTRICAL					
TAG	MAX. DIME	ASSOCIAT VRF HEA				EXT. S.P. IN.	REFRIGERANT MAX. CHARG		HEATING CA	OOLING HEATIN				DISC	ONNECT CON TYPE B				
NAME AREA SERVE IU-1 104, 106 IU-2 102	LENGTH WID 107" 28' 107" 28'	HEIGHT PUPM 30" VHP-1 30" VHP-1	CONFIGURATION DUCTED DUCTED	1	CFM OA CFN 335 60 205 30	0.6 R	YPE (LBS) 410A 32 410A 32	TOTAL BTUH 6500 4250	7020	BTUH BTUH 8000 9000 8000 9000) 208	1 (FLAMCA0.841.500.841.50	MOCP (NOTE # 15 A EC 15 A EC	N) (NOTE B) (NOT - MI - MI	R FV	MITSUBIS	SHI PEFY-P08NMAU	
IU-2 IU2 IU-3 110 IU-4 103	107 28 107" 28' 107" 28'	30 VHP-1 30" VHP-1 30" VHP-1	DUCTED DUCTED DUCTED	0.5	203 30 210 30 90 30	0.6 R	410A 32 410A 32 410A 32	4230 4550 2420	4100	6000 9000 6000 6700 6000 6700) 208	1 (0.84 1.50	15 A EC 15 A EC 15 A EC	- Mi - Mi	R FV	MITSUBIS	SHI PEFY-P06NMAU SHI PEFY-P06NMAU	-E3 NOTES -E3 NOTES
IU-5 112 IU-6 118, 117 IU-7 111	107" 28' 107" 28' 107" 28' 107" 28'	30" VHP-1 30" VHP-1 30" VHP-1	DUCTED DUCTED DUCTED	1.25	800 60 520 60 380 90	0.6 R	410A 32 410A 32 410A 32 410A 32	15000 10520 9650	15730	18000 20000 15000 17000 12000 13500	0 208	1 1	1.16 1.45	15 A EC 15 A EC 15 A EC	- MI - MI	R FV	MITSUBIS	SHI PEFY-P15NMAU	-E3 NOTES
IU-7 III IU-8 101 IU-9 101	107 28 107" 28' 107" 28'	30 VHP-1 30" VHP-1 30" VHP-1	DUCTED DUCTED DUCTED	1	380 90 405 60 405 60	0.6 R	410A 32 410A 32 410A 32	8590 8590	11540	12000 13500 12000 13500 12000 13500	0 208	1 (0.96 1.20	15 A EC 15 A EC 15 A EC	- MI		MITSUBIS MITSUBIS MITSUBIS	SHI PEFY-P12NMAU	-E3 NOTES
																			
HEAT PUMF	SCHEDL	LE - WATER	SOURCE (2	25% PR	OPYLE	NE GL	YCOL)												
1.BELT DRIVE INDOOR 2. PROVIDE UNIT SELECT 3. REFER TO 3/M401 FC	TION WITH 25% PI	OPYLENE GLYCOL.																	
						COOLING MB	H BASED ON 7	7°F BASED	ATING HEATING ME ON 32°F ENTERING	G									
		ENSIONS					ER TEMPERAT	URE. WATE	R TEMPERATURE.			AX. NC ER ARI			ELECTRICAL	DISCONNECT	CONTROLLER STARTER		
AREA TAG NAME SERVED	LENGTH WI			E CFM I	XT. S.P. N. W.C. DB °	°F WB °F TO	TAL SEN.	EER EAT DB °F	MBH MII TOTAL CO	OP GPM H	P.D. FT. STA IEAD 21	ANDARD 10/240)		IASES FLA N	CA MOCP (NOT	Y TYPE E A) (NOTE I	B) BY (NOTE A)		MODEL (NOTE 1)
WSHP-1 SERVER	43.1 20	.1 17 HOR	ZONTAL 1	550	0.50 81.3	3 67.4 1	5.7 11.2	16.6 68.0	11.1 3.6	.6 3.0	7.1	40	208	1 8.7 1	0.2 16 E	C -	MFR	CLIMATEMASTER	C015-ECM
MAKE-UP A		CHEDULE																	
NOTES:																			
1. PROVIDE WITH MOD 2. REFER TO 1/M402 FC	LATING GAS BURN MAU CONTROLS	ER WITH 12:1 TURNDOWN																	
	MAX. DIMEN	SIONS						ELECT		CONTROLER/ STA									
TAG AREA NAME SERVED	LENGTH WIDT	HEIGHT CFM RPI	EXT. MIN S.P. EFFICIE I IN. W.C. AFU	NCY MIN. I		AT BHP F (NOTE E)	MHP (NOTE E)	VOLT PHASES (N	BY TYPE	BY TY	'PE	ACTURER	MODEL	FUEL TYPE	FUEL PRESSURE PSI NO	TES			
MAU-1 119, 120	107" 28"	30" 1375 125				、 ,		208 3	EC -	MFR VF				NATURAL GAS		ES 1,2			
CABINET H	ATER SC	HEDULE - EL	ECTRIC																
NOTES:			ECTRIC																
	SELECTION WITH	ARCHITECT.																	
NOTES: 1.COORDINATE COLOF	SELECTION WITH	ARCHITECT.		ET (NOTE 1)				ELECTRIC			ONTROLLER/								
NOTES: 1.COORDINATE COLOF 2. REFER TO 1/M400 FC	SELECTION WITH CABINET HEATE	ARCHITECT. CONTROLS.			EPTH FAN		MENT NUMBI	ER OF	DISC	CONNECT S	STARTER			NOTES					
NOTES: 1.COORDINATE COLOF 2. REFER TO 1/M400 FC	SELECTION WITH CABINET HEATE	ARCHITECT. CONTROLS. NOMINAL CO		WIDTH D	EPTH FAN HP 10" 0.07	RPM K	MENT NUMBI STAC 7.9 2	ER OF	DISC	CONNECT S TYPE A) (NOTE B) B	STARTER	MANUFACTUR TRANE		NOTES NOTES 1,2					
NOTES: 1.COORDINATE COLOF 2. REFER TO 1/M400 FC TAG NAME AREA SERVI CAB-1 VESTIBULE 1	SELECTION WITH CABINET HEATE CONFIGUE OVERTICAL SL	ARCHITECT. CONTROLS. ATION CFM DPE TOP 550.0 1	NTROL YPE M400 29"	WIDTH D	HP	RPM K	W STAC	ER OF SES VOLTAGE	DISC BY PHASES (NOTE A	CONNECT S TYPE A) (NOTE B) B	STARTER								
NOTES: 1.COORDINATE COLOF 2. REFER TO 1/M400 FC TAG NAME AREA SERVI CAB-1 VESTIBULE 1 UNIT HEATI	SELECTION WITH CABINET HEATE CONFIGUE OVERTICAL SL	ARCHITECT. CONTROLS. NOMINAL CO	NTROL YPE M400 29"	WIDTH D	HP	RPM K	W STAC	ER OF SES VOLTAGE	DISC BY PHASES (NOTE A	CONNECT S TYPE A) (NOTE B) B	STARTER								
NOTES: 1.COORDINATE COLOF 2. REFER TO 1/M400 FC TAG NAME AREA SERVI CAB-1 VESTIBULE 1	SELECTION WITH CABINET HEATE CONFIGUE VERTICAL SL	ARCHITECT. CONTROLS. ATION NOMINAL CFM DPE TOP 550.0 1 OULE - GAS F	NTROL YPE M400 29"	WIDTH D	HP	RPM K	W STAC	ER OF SES VOLTAGE	DISC BY PHASES (NOTE A	CONNECT S TYPE A) (NOTE B) B	STARTER								
NOTES: 1.COORDINATE COLOF 2. REFER TO 1/M400 FC TAG NAME AREA SERVI CAB-1 VESTIBULE 1 UNIT HEATI NOTES:	SELECTION WITH CABINET HEATE CONFIGUE VERTICAL SL	ARCHITECT. CONTROLS. NOMINAL CFM DPE TOP 550.0 1 OULE - GAS F NTROLS.	NTROL YPE M400 29"	WIDTH D	CTRICAL	RPM K 800 7	W STAC	ER OF SES VOLTAGE	DISC BY PHASES (NOTE A	CONNECT S TYPE A) (NOTE B) B	STARTER								
NOTES: 1.COORDINATE COLOF 2. REFER TO 1/M400 FC TAG NAME AREA SERVI CAB-1 VESTIBULE 1 UNIT HEATI NOTES: 1. REFER TO 3/M400 FC TAG NAME AREA SEF	SELECTION WITH CABINET HEATE CONFIGUE VERTICAL SL R SCHEE	ARCHITECT. CONTROLS. NOMINAL CFM DPE TOP 550.0 1 OULE - GAS F NTROLS. HEATING (MBH) INPUT OUTPUT H	NTROL YPE M400 29" RED	WIDTH D	CTRICAL DISCO	RPM K 800 7 ONNECT 0 TYPE 0	XW STAC X.9 2 CONTROLLER / STARTER	GAS PRESSURE (IN W.C.)	PHASES DISC BY (NOTE A 1 MFR	CONNECT S TYPE A) (NOTE B) B' NF ACTURER MO	STARTER	TRANE							
NOTES: 1.COORDINATE COLOF 2. REFER TO 1/M400 FC TAG NAME AREA SERVI CAB-1 VESTIBULE 1 NOTES: 1. REFER TO 3/M400 FC TAG	SELECTION WITH CABINET HEATE CONFIGUE VERTICAL SL R SCHEE UNIT HEATER CO	ARCHITECT. CONTROLS. NOMINAL CFM DPE TOP 550.0 1 OULE - GAS F NTROLS. HEATING (MBH)	CABIN NTROL HEIGHT N M400 29" 1 M400 29" 2 RED VOLTA 25 1440 115	WIDTH D 48"	CTRICAL DISCO	RPM K 800 7 ONNECT C TYPE C	XW STAC X.9 2 CONTROLLER / STARTER	GAS PRESSURE (IN W.C.) 3.5 3/h	PHASES DISC BY (NOTE A 1 MFR	CONNECT S TYPE A) (NOTE B) B' NF ACTURER MO DINE EFFINIT	STARTER	TRANE							
NOTES: 1.COORDINATE COLOF 2. REFER TO 1/M400 FC TAG NAME AREA SERVI CAB-1 VESTIBULE 1 NOTES: 1. REFER TO 3/M400 FC TAG NAME AREA SEF UH-116 FRIENDS ST	SELECTION WITH CABINET HEATE CONFIGUE VERTICAL SL R SCHEE UNIT HEATER CO UNIT HEATER CO RAGE 1097 SE 1097 SE 1097	ARCHITECT. CONTROLS. ATION CFM DPE TOP 550.0 1 OULE - GAS F NTROLS. HEATING (MBH) INPUT OUTPUT H 55 51.2 0.1	CABIN NTROL HEIGHT N M400 29" 1 RED VOLTA 25 1440 115 25 1440 115 25 1440 115	WIDTH D 48" 1 48" 1 48" 1	CTRICAL DISCO ES MFR PAN HP 0.07 0.07 DISCO BY MFR	RPM K 800 7 ONNECT 0 TYPE 0 (NOTE B) 0 NF 0	XW STAC 7.9 2 CONTROLLER 2 / STARTER BY (NOTE A) TCC	GAS PRESSURE (IN W.C.) CON TY 3.5 3.5 3/h 3.5 3/h 3.5 3/h	DISC BY ONTE A 1 MFR ITROL MANUFA M400 MOE M400 MOE M400 MOE	CONNECT S TYPE B (NOTE B) B ¹ NF B ¹	STARTER Y (NOTE A) M MFR DEL NO TY (PTC) NOTE	TRANE OTES 1 1 1 1							
NOTES: 1.COORDINATE COLOF 2. REFER TO 1/M400 FC TAG NAME AREA SERVI CAB-1 VESTIBULE 1 UNIT HEATI NOTES: 1. REFER TO 3/M400 FC TAG NAME AREA SEF UH-116 FRIENDS ST UH-119B WAREHO UH-119C WAREHO	SELECTION WITH CABINET HEATE CONFIGUE 0 VERTICAL SL R SCHEE R UNIT HEATER CO RAGE 1097 SE 1097 SE 1097 SE 1097 SE 1097	ARCHITECT. CONTROLS. ATION NOMINAL CFM DPE TOP 550.0 OULE - GAS NTROLS. INPUT OUTPUT 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55	CABIN NTROL HEIGHT N M400 29" 1 M400 29" 2 RED 1 1 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115	WIDTH D 48"	CTRICAL DISCO BY (NOTE A) MFR MFR MFR	RPM K 800 7 800 7 ONNECT 0 TYPE 0 (NOTE B) 0 NF 0 NF 0 NF 0	XW STAC 7.9 2 CONTROLLER 2 / STARTER 3 BY (NOTE A) TCC TCC TCC TCC TCC	GAS VOLTAGE 208 208 Image: Serie state states	DISC BY I BY 1 MFR 1 MFR MANUFA MANUFA M400 MOE	CONNECT S TYPE (NOTE B) B° NF B° NF B° NF B° NF B° NF B° DINE EFFINIT DINE EFFINIT DINE EFFINIT DINE EFFINIT DINE EFFINIT DINE EFFINIT	STARTER Y (NOTE A) N MFR DDEL NO TY (PTC) NOTE TY (PTC) NOTE TY (PTC) NOTE TY (PTC) NOTE	TRANE							
NOTES: 1.COORDINATE COLOF 2. REFER TO 1/M400 FC TAG NAME AREA SERVI CAB-1 VESTIBULE 1 UNIT HEATI NOTES: 1. REFER TO 3/M400 FC TAG NAME AREA SEF UH-116 FRIENDS ST UH-119B WAREHO UH-119C WAREHO UH-119C WAREHO UH-119E WAREHO	CONFIGUE CABINET HEATE CABINET HEATE CONFIGUE VERTICAL SL CONFIGUE CONFIGUE VERTICAL SL CONFIGUE CED CEM RAGE 1097 SE 1097 SE 1097 SE 1097 SE 1097 SE 1097 SE 1097 SE 1097	ARCHITECT. CONTROLS. NOMINAL CFM CC DPE TOP 550.0 1 OULE - GAS F NTROLS. 1 INPUT OUTPUT H 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 65 60.5 0.1 65 60.5 0.1	CABIN NTROL HEIGHT N M400 29" 1 M400 29" 2 RED 1 1 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115	WIDTH D 48" - 48" - 48" - 48" - 48" - 48" - 48" - 48" - 48" - 48" - 48" - 48" - 48" - 48" - 48" - 48" - 11 - 11 - 11 - 11 - 11 -	CTRICAL DISCO BY (NOTE A) MFR MFR MFR MFR MFR MFR MFR	RPM K 800 7 800 7 Image: Second state st	STAC 2.9 2 2 CONTROLLER / STARTER BY (NOTE A) TCC	GAS VOLTAGE 208 208 BRESSURE (IN W.C.) TN 3.5 3/N	DISC BY ITROL 1 MFR 1 MFR MANUFA M400 MOE	CONNECT S TYPE (NOTE B) B NF B B B NF B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B	STARTER Y (NOTE A) N MFR N M	TRANE							
NOTES: 1.COORDINATE COLOF 2. REFER TO 1/M400 FC 2. REFER TO 1/M400 FC CAB-1 VESTIBULE 1 VESTIBULE 1 VESTIBULE 1 NOTES: 1. REFER TO 3/M400 FC TAG NAME AREA SEF UH-116 FRIENDS ST UH-119B WAREHO UH-119C WAREHO UH-119C WAREHO UH-119D WAREHO UH-119E WAREHO UH-120A FACILIT UH-120B FACILIT	SELECTION WITH CABINET HEATE CABINET HEATE CONFIGUE O VERTICAL SL CONFIGUE R SCHEE CFM RAGE 1097 SE 1097	ARCHITECT. CONTROLS. NOMINAL CFM CC DPE TOP 550.0 1 OULE - GAS F NTROLS. 1 INPUT OUTPUT H 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 65 60.5 0.1 65 60.5 0.1	CABIN NTROL HEIGHT N M400 29" 1 M400 29" 1 RED VOLTA 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115	WIDTH D 48" 1 48" 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	CTRICAL TO" 0.07 10" 0.07 O.07 DISCO BY MFR MF	RPM K 800 7 800 7 NF 0	XW STAC 7.9 2 7.9 2 CONTROLLER / STARTER BY (NOTE A) TCC	GAS PRESSURE (IN W.C.) CON TY 3.5 3.5 3/N	DISC BY ONTE A 1 MFR ITROL MANUFA M400 MOE	CONNECT S TYPE (NOTE B) B NF B B B NF B NF B B B NF B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B <	STARTER Y (NOTE A) N MFR N MFR N NT NT NT NOTE TY (PTC) NOTE TY (PTC) NOTE	TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							
NOTES: 1.COORDINATE COLOF 2. REFER TO 1/M400 FC 2. REFER TO 1/M400 FC TAG NAME AREA SERVI CAB-1 VESTIBULE 1 VESTIBULE 1 NOTES: 1. REFER TO 3/M400 FC 1. REFER TO 3/M400 FC UH-116 FRIENDS ST UH-119 WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D WAREHO UH-119E WAREHO UH-110A FACILIT UH-120B FACILIT UH-121 SHOF	SELECTION WITH CABINET HEATE CONFIGUE 0 VERTICAL SL CONFIGUE R SCHEE R UNIT HEATER CO Z UNIT HEATER CO Z CFM RAGE 1097 SE 1097	ARCHITECT. CONTROLS. NOMINAL CFM CC ATION CFM C DPE TOP 550.0 1 OULE GASS F NTROLS. MARCHITECT. INPUT OUTPUT H 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 65 60.5 0.1 65 60.5 0.1 65 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 65 60.5 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 65 60.5 0.1 65 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55<	CABIN NTROL HEIGHT N M400 29" 1 M400 29" 1 RED VOLTA 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115	WIDTH D 48" 1 48" 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	CTRICAL 10" 0.07 10" 0.07 0.07 0.07 DISCO BY (NOTE A) MFR MFR MFR MFR MFR MFR MFR MFR MFR MFR	RPM K 800 7 NFECT 7 NFECT 1 NF 1	STAC 29 29 29 20 </td <td>GAS VOLTAGE 208 208 BRESSURE (IN W.C.) CON TY 3.5 3/N 3.5 3/N</td> <td>DISC BY ONTE A 1 MFR ITROL MANUFA M400 MOE M400 MOE</td> <td>CONNECT S TYPE (NOTE B) B NF B B B NF B NF B B B NF B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B <</td> <td>STARTER Y (NOTE A) N MFR N NFR N NFR N NTE NOTE TY (PTC) NOTE TY (PTC) NOTE</td> <td>TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	GAS VOLTAGE 208 208 BRESSURE (IN W.C.) CON TY 3.5 3/N	DISC BY ONTE A 1 MFR ITROL MANUFA M400 MOE	CONNECT S TYPE (NOTE B) B NF B B B NF B NF B B B NF B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B <	STARTER Y (NOTE A) N MFR N NFR N NFR N NTE NOTE TY (PTC) NOTE TY (PTC) NOTE	TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							
NOTES: 1.COORDINATE COLOF 2. REFER TO 1/M400 FC TAG NAME AREA SERVI CAB-1 VESTIBULE 1 UNIT HEATI NOTES: 1. REFER TO 3/M400 FC TAG NAME AREA SEF UH-116 FRIENDS ST UH-119B WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D FACILITI UH-120A FACILITI UH-120B FACILITI UH-121 SHOF UH-201 MEZZAN CEILING FA	SELECTION WITH CABINET HEATE CABINET HEATE CONFIGUE VERTICAL SL R SCHEE RUNIT HEATER CO RAGE 1097 SE 1	ARCHITECT. CONTROLS. NOMINAL CFM CC DPE TOP 550.0 1 OULE - GAS F NTROLS. HEATING (MBH) H 55 51.2 0.1 S55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55	CABIN NTROL HEIGHT N M400 29" 1 RED VOLTA 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115	WIDTH D 48" 1 48" 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	CTRICAL 10" 0.07 10" 0.07 0.07 0.07 DISCO BY (NOTE A) MFR MFR MFR MFR MFR MFR MFR MFR MFR MFR	RPM K 800 7 NFECT 7 NFECT 1 NF 1	STAC 29 29 29 20 </td <td>GAS VOLTAGE 208 208 BRESSURE (IN W.C.) CON TY 3.5 3/N 3.5 3/N</td> <td>DISC BY ONTE A 1 MFR ITROL MANUFA M400 MOE M400 MOE</td> <td>CONNECT S TYPE (NOTE B) B NF B B B NF B NF B B B <t< td=""><td>STARTER Y (NOTE A) N MFR N NFR N NFR N NTE NOTE TY (PTC) NOTE TY (PTC) NOTE</td><td>TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<></td>	GAS VOLTAGE 208 208 BRESSURE (IN W.C.) CON TY 3.5 3/N	DISC BY ONTE A 1 MFR ITROL MANUFA M400 MOE	CONNECT S TYPE (NOTE B) B NF B B B NF B NF B B B <t< td=""><td>STARTER Y (NOTE A) N MFR N NFR N NFR N NTE NOTE TY (PTC) NOTE TY (PTC) NOTE</td><td>TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	STARTER Y (NOTE A) N MFR N NFR N NFR N NTE NOTE TY (PTC) NOTE TY (PTC) NOTE	TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							
NOTES: 1.COORDINATE COLOF 2. REFER TO 1/M400 FC 2. REFER TO 1/M400 FC TAG NAME AREA SERVI CAB-1 VESTIBULE 1 UNIT HEATI NOTES: 1. REFER TO 3/M400 FC TAG NAME AREA SEF UH-116 FRIENDS ST UH-119B WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D WAREHO UH-120A FACILITI UH-120B FACILITI UH-121 SHOF UH-201 MEZZAN CEILING FA NOTES: 1. PROVIDE SHAFT GR 2.FAN BLADE COLOR S 3.CONTROLLER PROVE	SELECTION WITH CABINET HEATE CONFIGUE 0 VERTICAL SL RAGE 1097 SE 1097 JUNDING AS REQUE SCHED UNDING AS REQUE SCHED	ARCHITECT. CONTROLS. NOMINAL CFM CC CFM DPE TOP 550.0 1 OULE - GAS F NTROLS. HEATING (MBH) INPUT OUTPUT H 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 <td>CABIN NTROL HEIGHT N M400 29" 1 RED 29" 1 RED VOLTA 1 25 1440 115 25</td> <td>WIDTH D 48" 1 48" 1 6 PHAS 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td> <td>CTRICAL CTRICAL CTRICAL CTRICAL DISCO BY CNOTE A) MFR MFR MFR MFR MFR MFR MFR MFR MFR MF</td> <td>RPM K 800 7 800 7 NF 1 NF 1</td> <td>XW STAC 7.9 2 CONTROLLER 2 / STARTER 3 BY (NOTE A) TCC TCC TCC</td> <td>GAS VOLTAGE 208 208 BRESSURE (IN W.C.) CON TY 3.5 3/N 3.5 3/N</td> <td>DISC BY ONTE A 1 MFR ITROL MANUFA M400 MOE M400 MOE</td> <td>CONNECT S TYPE (NOTE B) B NF B B B NF B NF B B B <t< td=""><td>STARTER Y (NOTE A) N MFR N NFR N NFR N NTE NOTE TY (PTC) NOTE TY (PTC) NOTE</td><td>TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<></td>	CABIN NTROL HEIGHT N M400 29" 1 RED 29" 1 RED VOLTA 1 25 1440 115 25	WIDTH D 48" 1 48" 1 6 PHAS 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	CTRICAL CTRICAL CTRICAL CTRICAL DISCO BY CNOTE A) MFR MFR MFR MFR MFR MFR MFR MFR MFR MF	RPM K 800 7 800 7 NF 1	XW STAC 7.9 2 CONTROLLER 2 / STARTER 3 BY (NOTE A) TCC TCC TCC	GAS VOLTAGE 208 208 BRESSURE (IN W.C.) CON TY 3.5 3/N	DISC BY ONTE A 1 MFR ITROL MANUFA M400 MOE	CONNECT S TYPE (NOTE B) B NF B B B NF B NF B B B <t< td=""><td>STARTER Y (NOTE A) N MFR N NFR N NFR N NTE NOTE TY (PTC) NOTE TY (PTC) NOTE</td><td>TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	STARTER Y (NOTE A) N MFR N NFR N NFR N NTE NOTE TY (PTC) NOTE TY (PTC) NOTE	TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							
NOTES: 1.COORDINATE COLOF 2. REFER TO 1/M400 FC 2. REFER TO 1/M400 FC TAG NAME AREA SERVI CAB-1 VESTIBULE 1 UNIT HEATI NOTES: 1. REFER TO 3/M400 FC TAG NAME AREA SEF UH-116 FRIENDS ST UH-119B WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D FACILIT UH-120A FACILIT UH-120B FACILIT UH-121 SHOF UH-201 MEZZAN CEILING FA NOTES : 1. PROVIDE SHAFT GR 2.FAN BLADE COLOR S 3.CONTROLLER PROVI 4.VERIFY EXTENSION T 5.SUPPLY POWERFOIL	SELECTION WITH CABINET HEATE CONFIGUE 0 VERTICAL SL RAGE 1097 SE 1097 <	ARCHITECT. CONTROLS. NOMINAL CFM CC DPE TOP 550.0 1 OULE - GAS F NTROLS. HEATING (MBH) INPUT OUTPUT H 55 51.2 0.1	CABIN NTROL HEIGHT N M400 29" 1 RED VOLTA 25 1440 115 25 1440	WIDTH D 48" 1 48" 1 6 PHAS 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	CTRICAL CTRICAL CTRICAL CTRICAL DISCO BY CNOTE A) MFR MFR MFR MFR MFR MFR MFR MFR MFR MF	RPM K 800 7 800 7 NF 1	XW STAC 7.9 2 CONTROLLER 2 / STARTER 3 BY (NOTE A) TCC TCC TCC	GAS VOLTAGE 208 208 BRESSURE (IN W.C.) CON TY 3.5 3/N	DISC BY ONTE A 1 MFR ITROL MANUFA M400 MOE	CONNECT S TYPE (NOTE B) B NF B B B NF B NF B B B <t< td=""><td>STARTER Y (NOTE A) N MFR N NFR N NFR N NTE NOTE TY (PTC) NOTE TY (PTC) NOTE</td><td>TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	STARTER Y (NOTE A) N MFR N NFR N NFR N NTE NOTE TY (PTC) NOTE TY (PTC) NOTE	TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							
NOTES: 1.COORDINATE COLOF 2. REFER TO 1/M400 FC 2. REFER TO 1/M400 FC TAG NAME AREA SERVI CAB-1 VESTIBULE 1 NOTES: 1. REFER TO 3/M400 FC TAG NAME AREA SEF UH-116 FRIENDS ST UH-119B WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D FACILIT UH-120A FACILIT UH-120A FACILIT UH-120B FACILIT UH-121 SHOF UH-201 MEZZAN CEILING FA NOTES: 1. PROVIDE SHAFT GR 2.FAN BLADE COLOR S 3.CONTROLLER PROVI 4.VERIFY EXTENSION T 5.SUPPLY POWERFOIL 6.SUPPLY WITH WALL	SELECTION WITH CABINET HEATE CABINET HEATE CONFIGUE O VERTICAL SL CONFIGUE R SCHEE CED CFM RAGE 1097 SE 1097 S	ARCHITECT. CONTROLS. NOMINAL CFM CC CFM DPE TOP 550.0 1 OULE - GAS F NTROLS. HEATING (MBH) INPUT OUTPUT H 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 <td>CABIN NTROL HEIGHT N M400 29" 1 RED 29" 1 RED VOLTA 1 25 1440 115 25</td> <td>WIDTH D 48" - 48" - GE PHAS 1 1</td> <td>CTRICAL 10" 0.07 10" 0.07 10" 0.07 DISCO BY (NOTE A) MFR MFR MFR MFR MFR MFR MFR MFR MFR MFR</td> <td>RPM K 800 7 800 7 NF 1 NF 1</td> <td>XW STAC 7.9 2 CONTROLLER 2 / STARTER 3 BY (NOTE A) TCC TCC TCC Y A.T.C. Y</td> <td>GAS VOLTAGE 208 208 GAS CON 3.5 3/N 3.5 3/N</td> <td>DISC BY ONTE A 1 MFR ITROL MANUFA M400 MOE M400 MOE</td> <td>CONNECT S TYPE (NOTE B) B NF B B B NF B NF B B B <t< td=""><td>STARTER Y (NOTE A) N MFR N NFR N NFR N NTE NOTE TY (PTC) NOTE TY (PTC) NOTE</td><td>TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<></td>	CABIN NTROL HEIGHT N M400 29" 1 RED 29" 1 RED VOLTA 1 25 1440 115 25	WIDTH D 48" - 48" - GE PHAS 1 1	CTRICAL 10" 0.07 10" 0.07 10" 0.07 DISCO BY (NOTE A) MFR	RPM K 800 7 800 7 NF 1	XW STAC 7.9 2 CONTROLLER 2 / STARTER 3 BY (NOTE A) TCC TCC TCC Y A.T.C. Y	GAS VOLTAGE 208 208 GAS CON 3.5 3/N	DISC BY ONTE A 1 MFR ITROL MANUFA M400 MOE	CONNECT S TYPE (NOTE B) B NF B B B NF B NF B B B <t< td=""><td>STARTER Y (NOTE A) N MFR N NFR N NFR N NTE NOTE TY (PTC) NOTE TY (PTC) NOTE</td><td>TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	STARTER Y (NOTE A) N MFR N NFR N NFR N NTE NOTE TY (PTC) NOTE TY (PTC) NOTE	TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							
NOTES: 1.COORDINATE COLOF 2. REFER TO 1/M400 FC 2. REFER TO 1/M400 FC TAG NAME AREA SERVI CAB-1 VESTIBULE 1 NOTES: 1. REFER TO 3/M400 FC TAG NAME AREA SEF UH-116 FRIENDS ST UH-119B WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D WAREHO UH-120A FACILIT UH-120B FACILIT UH-120B FACILIT UH-121 SHOF UH-201 MEZZAN CEILING FA NOTES: 1. PROVIDE SHAFT GR 2.FAN BLADE COLOR S 3.CONTROLLER PROVI 4.VERIFY EXTENSION T 5.SUPPLY POWERFOIL 6.SUPPLY WITH WALL 7.INSTALL FAN 16' A.F.F	SELECTION WITH CABINET HEATE CABINET HEATE CONFIGUE 0 VERTICAL SL R SCHEE R UNIT HEATER CO RAGE 1097 SE 1097 S	ARCHITECT. CONTROLS. ATION NOMINAL CFM CO DPE TOP 550.0 1 OULE - GAS F NTROLS. HEATING (MBH) H 155 51.2 0.1 S55 51.2 0.1 55 51.2	CABIN NTROL HEIGHT N M400 29" 1 RED 29" 1 RED VOLTA 1 25 1440 115 25	WIDTH D 48" 1 48" 1 48" 1 1 1	CTRICAL 10" 0.07 10" 0.07 10" 0.07 0	RPM K 800 7 800 7 NF 1	XW STAC 7.9 2 CONTROLLER 2 / STARTER 3 BY (NOTE A) TCC TCC TCC	GAS VOLTAGE 208 208 GAS CON 3.5 3/N	DISC BY ONTE A 1 MFR ITROL MANUFA M400 MOE	CONNECT S TYPE (NOTE B) B NF B B B NF B NF B B B <t< td=""><td>STARTER Y (NOTE A) N MFR N NFR N NFR N NTE NOTE TY (PTC) NOTE TY (PTC) NOTE</td><td>TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	STARTER Y (NOTE A) N MFR N NFR N NFR N NTE NOTE TY (PTC) NOTE TY (PTC) NOTE	TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							
NOTES: 1.COORDINATE COLOF 2. REFER TO 1/M400 FC TAG NAME AREA SERVI CAB-1 VESTIBULE 1 NOTES: 1. REFER TO 3/M400 FC TAG NAME AREA SEF UH-116 FRIENDS ST UH-119B WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D WAREHO UH-120A FACILITI UH-120A FACILITI UH-121 SHOF UH-201 MEZZAN CEEILING FA NOTES: 1. PROVIDE SHAFT GR 2.FAN BLADE COLOR S 3.CONTROLLER PROVI 4. VERIFY EXTENSION T 5. SUPPLY POWERFOIL 6. SUPPLY WITH WALL 7. INSTALL FAN 16' A.F.F	SELECTION WITH CABINET HEATE CABINET HEATE CONFIGUE VERTICAL SL CONFIGUE RAGE 1097 SE	ARCHITECT. CONTROLS. NOMINAL CFM CO DPE TOP 550.0 1 OULE - GAS F NTROLS. HEATING (MBH) H 55 51.2 0.1 INPUT OUTPUT H 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 65 60.5 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55	CABIN NTROL HEIGHT N M400 29" 1 RED VOLTA 25 1440 115 26 1440	WIDTH D 48" 1 48" 1 48" 1 1 <td< td=""><td>IO" 0.07 10" 0.07 10" 0.07 IO" MFR MFR MFR MFR</td></td<> <td>RPM K 800 7 800 7 ONNECT 0 TYPE 1 NF 1 OTURER'S REC 1 CONTROLLE 1</td> <td>W STAC 7.9 2 CONTROLLER / STARTER 2 BY (NOTE A) TCC TCC TCC</td> <td>GAS VOLTAGE 208 208 PRESSURE (IN W.C.) CON TY 3.5 3.5 3/N 3.5 3.5 3/N 3.5 3/N</td> <td>DISC BY 1 MFR 1 MFR 1 MFR MANUFA MANUFA M400 MOE MA00 MOE M400 MOE</td> <td>CONNECT S TYPE (NOTE B) B NF B B B NF B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B</td> <td>STARTER MFR NHFR NDEL NU TY (PTC) NOTE TY (PTC) NOTE</td> <td>TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	IO" 0.07 10" 0.07 10" 0.07 IO" MFR MFR	RPM K 800 7 800 7 ONNECT 0 TYPE 1 NF 1 OTURER'S REC 1 CONTROLLE 1	W STAC 7.9 2 CONTROLLER / STARTER 2 BY (NOTE A) TCC TCC TCC	GAS VOLTAGE 208 208 PRESSURE (IN W.C.) CON TY 3.5 3.5 3/N 3.5 3.5 3/N	DISC BY 1 MFR 1 MFR 1 MFR MANUFA MANUFA M400 MOE MA00 MOE M400 MOE	CONNECT S TYPE (NOTE B) B NF B B B NF B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B	STARTER MFR NHFR NDEL NU TY (PTC) NOTE TY (PTC) NOTE	TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							
NOTES: 1.COORDINATE COLOF 2. REFER TO 1/M400 FC TAG NAME AREA SERVI CAB-1 VESTIBULE 1 NOTES: 1. REFER TO 3/M400 FC TAG NAME AREA SEF UH-116 FRIENDS ST UH-119B WAREHO UH-119C WAREHO UH-119C WAREHO UH-119D WAREHO UH-119D FACILIT UH-120A FACILIT UH-120B FACILIT UH-120B FACILIT UH-121 SHOF UH-201 MEZZAN CEILING FA NOTES: 1. PROVIDE SHAFT GR 2.FAN BLADE COLOR S 3.CONTROLLER PROVI 4.VERIFY EXTENSION T 5.SUPPLY POWERFOIL 6.SUPPLY WITH WALL I 7.INSTALL FAN 16' A.F.F TAG NAME AREA SERVE CF-1 WAREHOUSI CF-2 WAREHOUSI	SELECTION WITH CABINET HEATE CABINET HEATE CONFIGUE VERTICAL SL R SCHEE R SCHEE R UNIT HEATER CO CFM RAGE 1097 SE 1097	ARCHITECT. NOMINAL CC ATION CFM CC DPE TOP 550.0 1 OULE - GAS F NTROLS. Input OUTPUT INPUT OUTPUT H 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 65 60.5 0.1 65 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 65 60.5 0.1 65 51.2 0.1 165 51.2 0	CABIN NTROL HEIGHT N M400 29" 1 RED VOLTA 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 26 1440 115 27 1440 115 28 1440 115 29 WITH THE ONBOARI AND EXISTING STRUC AND	WIDTH D 48" 48" 48" 1 48" 1 1 1 1	IO" 0.07 10" 0.07 IO" INFR MFR MFR MFR <td>RPM K 800 7 800 7 ONNECT 0 TYPE 0 NF 0 <</td> <td>XW STAC 7.9 2 2 2 CONTROLLER / STARTER 2 BY (NOTE A) TCC TCC TCC</td> <td>GAS VOLTAGE 208 208 PRESSURE CON 3.5 3/N 3.5</td> <td>DISC BY 1 1 MFR 1 MFR MANUFA M400 MODEL ESSENCE SERIES ESSENCE SERIES</td> <td>CONNECT S TYPE (NOTE B) B NF B ACTURER MO DINE EFFINIT DINE</td> <td>STARTER N MFR MFR DDEL NC TY (PTC) NOTE TY (PTC) NOTE</td> <td>TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	RPM K 800 7 800 7 ONNECT 0 TYPE 0 NF 0 <	XW STAC 7.9 2 2 2 CONTROLLER / STARTER 2 BY (NOTE A) TCC TCC TCC	GAS VOLTAGE 208 208 PRESSURE CON 3.5 3/N 3.5	DISC BY 1 1 MFR 1 MFR MANUFA M400 MODEL ESSENCE SERIES ESSENCE SERIES	CONNECT S TYPE (NOTE B) B NF B ACTURER MO DINE EFFINIT DINE	STARTER N MFR MFR DDEL NC TY (PTC) NOTE	TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							
NOTES: 1.COORDINATE COLOF 2. REFER TO 1/M400 FC 2. REFER TO 1/M400 FC TAG NAME AREA SERVI CAB-1 VESTIBULE 1 NOTES: 1. REFER TO 3/M400 FC TAG NAME AREA SEF UH-116 FRIENDS ST UH-119B WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D FACILIT UH-120A FACILIT UH-120B FACILIT UH-121 SHOF UH-201 MEZZAN CEEILING FA NOTES: 1. PROVIDE SHAFT GR 2.FAN BLADE COLOR S 3.CONTROLLER PROVI 4.VERIFY EXTENSION T 5.SUPPLY POWERFOIL 6.SUPPLY WITH WALL 7.INSTALL FAN 16' A.F.F TAG NAME AREA SERVE CF-1 WAREHOUSI CF-2 WAREHOUSI CF-3 WAREHOUSI CF-4 WAREHOUSI	SELECTION WITH CABINET HEATE CABINET HEATE CONFIGUE 0 VERTICAL SL R SCHEE R UNIT HEATER CO RAGE 1097 SE 1097 S	ARCHITECT. CONTROLS. NOMINAL CFM CO DPE TOP 550.0 1 OULE - GAS F NTROLS. HEATING (MBH) H 55 51.2 0.1 INPUT OUTPUT H 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 IRED IN THE MOTOR SPE HITECT.	CABIN NTROL HEIGHT N M400 29" 1 RED VOLTA 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 26 1440 115 27 1440 115 28 1440 115 29 141	WIDTH D 48" 48" 48" 1 48" 1 1 1 1	PAN HP 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 00" 0.07 <t< td=""><td>RPM K 800 7 800 7 NF 1 MFR 1 MFR 1 MFR 1 MFR 1 MFR 1 <t< td=""><td>XW STAC 7.9 2 2 2 CONTROLLER / STARTER 2 BY (NOTE A) TCC TCC TCC</td><td>GAS VOLTAGE 208 208 PRESSURE (IN W.C.) CON TY 3.5 3/N <t< td=""><td>DISC BY 1 MFR 1 MFR 1 MFR 1 MFR MANUFA MANUFA M400 MOE MA00 MOE M400 MOE MA00 MOE MOE SESENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES</td><td>CONNECT S TYPE (NOTE B) BY NF BY S BY NF BY S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S</td><td>STARTER N MFR MFR DDEL NG TY (PTC) NOTE TY (PTC) NOTE</td><td>TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<></td></t<></td></t<>	RPM K 800 7 800 7 NF 1 MFR 1 MFR 1 MFR 1 MFR 1 MFR 1 <t< td=""><td>XW STAC 7.9 2 2 2 CONTROLLER / STARTER 2 BY (NOTE A) TCC TCC TCC</td><td>GAS VOLTAGE 208 208 PRESSURE (IN W.C.) CON TY 3.5 3/N <t< td=""><td>DISC BY 1 MFR 1 MFR 1 MFR 1 MFR MANUFA MANUFA M400 MOE MA00 MOE M400 MOE MA00 MOE MOE SESENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES</td><td>CONNECT S TYPE (NOTE B) BY NF BY S BY NF BY S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S</td><td>STARTER N MFR MFR DDEL NG TY (PTC) NOTE TY (PTC) NOTE</td><td>TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<></td></t<>	XW STAC 7.9 2 2 2 CONTROLLER / STARTER 2 BY (NOTE A) TCC TCC TCC	GAS VOLTAGE 208 208 PRESSURE (IN W.C.) CON TY 3.5 3/N 3.5 3/N <t< td=""><td>DISC BY 1 MFR 1 MFR 1 MFR 1 MFR MANUFA MANUFA M400 MOE MA00 MOE M400 MOE MA00 MOE MOE SESENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES</td><td>CONNECT S TYPE (NOTE B) BY NF BY S BY NF BY S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S</td><td>STARTER N MFR MFR DDEL NG TY (PTC) NOTE TY (PTC) NOTE</td><td>TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	DISC BY 1 MFR 1 MFR 1 MFR 1 MFR MANUFA MANUFA M400 MOE MA00 MOE M400 MOE MA00 MOE MOE SESENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES	CONNECT S TYPE (NOTE B) BY NF BY S BY NF BY S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S	STARTER N MFR MFR DDEL NG TY (PTC) NOTE	TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							
NOTES: 1.COORDINATE COLOF 2. REFER TO 1/M400 FC TAG NAME AREA SERVI CAB-1 VESTIBULE 1 UNIT HEATI NOTES: 1. REFER TO 3/M400 FC TAG NAME AREA SEF UH-116 FRIENDS ST UH-119B WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D FACILIT UH-120A FACILIT UH-120B FACILIT UH-120B FACILIT UH-121 SHOF UH-201 MEZZAN CEELING FA S S.CONTROLLER PROVI 4.VERIFY EXTENSION T 5.SUPPLY POWERFOIL 6.SUPPLY WITH WALL 7.INSTALL FAN 16' A.F.F TAG NAME AREA SERVE CF-1 WAREHOUS CF-2 WAREHOUS	SELECTION WITH CABINET HEATE CABINET HEATE CONFIGUE 0 VERTICAL SL R SCHEE R UNIT HEATER CO RAGE 1097 SE 1097 S	ARCHITECT. CONTROLS. ATION NOMINAL CFM CO DPE TOP 550.0 1 OULE - GAS F NTROLS. HEATING (MBH) H 55 51.2 0.1 INPUT OUTPUT H 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 ULEE IRED IN THE MOTOR SPE MOUNTING BRACKET WIT INGLETS. L PAD FULLY INTEGRATE VOLTA IS8 DIRE	CABIN NTROL HEIGHT N M400 29" 1 RED VOLTA 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 26 1440 115 27 1440 115 28 1440 115 29 141	WIDTH D 48" 48" 48" 1 48" 1 1 1	PAN HP 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 00" 0.07 <t< td=""><td>RPM K 800 7 800 7 Image: Second secon</td><td>XW STAC 7.9 2 7.9 2 CONTROLLER 2 / STARTER 3 BY (NOTE A) 1 TCC 1</td><td>GAS VOLTAGE 208 208 PRESSURE (IN W.C.) CON TY 3.5 3/N <t< td=""><td>DISC BY 1 MFR 1 MFR 1 MFR 1 MFR MANUFA MANUFA M400 MOE MA00 MOE MA00 MOE MA00 MOE MA00 MOE M400 MOE M400 MOE MA00 MOE M400 MOE MOE SESENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES</td><td>CONNECT S TYPE (NOTE B) BY NF BY S BY NF BY S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S</br></td><td>STARTER N MFR MFR DDEL NG TY (PTC) NOTE TY (PTC) NOTE</td><td>TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<></td></t<>	RPM K 800 7 800 7 Image: Second secon	XW STAC 7.9 2 7.9 2 CONTROLLER 2 / STARTER 3 BY (NOTE A) 1 TCC 1	GAS VOLTAGE 208 208 PRESSURE (IN W.C.) CON TY 3.5 3/N 3.5 3/N <t< td=""><td>DISC BY 1 MFR 1 MFR 1 MFR 1 MFR MANUFA MANUFA M400 MOE MA00 MOE MA00 MOE MA00 MOE MA00 MOE M400 MOE M400 MOE MA00 MOE M400 MOE MOE SESENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES</td><td>CONNECT S TYPE (NOTE B) BY NF BY S BY NF BY S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S</br></td><td>STARTER N MFR MFR DDEL NG TY (PTC) NOTE TY (PTC) NOTE</td><td>TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	DISC BY 1 MFR 1 MFR 1 MFR 1 MFR MANUFA MANUFA M400 MOE MA00 MOE MA00 MOE MA00 MOE MA00 MOE M400 MOE M400 MOE MA00 MOE M400 MOE MOE SESENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES	CONNECT S TYPE (NOTE B) BY NF BY S BY NF BY S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, 	STARTER N MFR MFR DDEL NG TY (PTC) NOTE	TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							
NOTES: 1.COORDINATE COLOF 2. REFER TO 1/M400 FC 2. REFER TO 1/M400 FC TAG NAME AREA SERVI CAB-1 VESTIBULE 1 NOTES: 1. REFER TO 3/M400 FC TAG NAME AREA SEF UH-116 FRIENDS ST UH-119B WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D FACILIT UH-120A FACILIT UH-120B FACILIT UH-121 SHOF UH-201 MEZZAN CEEILING FA NOTES: 1. PROVIDE SHAFT GR 2.FAN BLADE COLOR S 3.CONTROLLER PROVI 4.VERIFY EXTENSION T 5.SUPPLY POWERFOIL 6.SUPPLY WITH WALL 7.INSTALL FAN 16' A.F.F TAG NAME AREA SERVE CF-1 WAREHOUSI CF-2 WAREHOUSI CF-3 WAREHOUSI CF-4 WAREHOUSI	SELECTION WITH CABINET HEATE CABINET HEATE CONFIGUE 0 VERTICAL SL R SCHEE R UNIT HEATER CO RAGE 1097 SE 1097 S	ARCHITECT. CONTROLS. NOMINAL CFM CO DPE TOP 550.0 1 OULE - GAS F NTROLS. HEATING (MBH) H 55 51.2 0.1 INPUT OUTPUT H 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 IRED IN THE MOTOR SPE HITECT.	CABIN NTROL HEIGHT N M400 29" 1 RED VOLTA 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 26 1440 115 27 1440 115 28 1440 115 29 141	WIDTH D 48" 48" 48" 1 48" 1 1 1 1	PAN HP 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 00" 0.07 <t< td=""><td>RPM K 800 7 800 7 NF 1 MFR 1 MFR 1 MFR 1 MFR 1 MFR 1 <t< td=""><td>XW STAC 7.9 2 2 2 CONTROLLER / STARTER 2 BY (NOTE A) TCC TCC TCC</td><td>GAS VOLTAGE 208 208 PRESSURE (IN W.C.) CON TY 3.5 3/N <t< td=""><td>DISC BY 1 MFR 1 MFR 1 MFR 1 MFR MANUFA MANUFA M400 MOE MA00 MOE M400 MOE MA00 MOE MOE SESENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES</td><td>CONNECT S TYPE (NOTE B) BY NF BY S BY NF BY S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S</td><td>STARTER N MFR MFR DDEL NG TY (PTC) NOTE TY (PTC) NOTE</td><td>TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<></td></t<></td></t<>	RPM K 800 7 800 7 NF 1 MFR 1 MFR 1 MFR 1 MFR 1 MFR 1 <t< td=""><td>XW STAC 7.9 2 2 2 CONTROLLER / STARTER 2 BY (NOTE A) TCC TCC TCC</td><td>GAS VOLTAGE 208 208 PRESSURE (IN W.C.) CON TY 3.5 3/N <t< td=""><td>DISC BY 1 MFR 1 MFR 1 MFR 1 MFR MANUFA MANUFA M400 MOE MA00 MOE M400 MOE MA00 MOE MOE SESENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES</td><td>CONNECT S TYPE (NOTE B) BY NF BY S BY NF BY S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S</td><td>STARTER N MFR MFR DDEL NG TY (PTC) NOTE TY (PTC) NOTE</td><td>TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<></td></t<>	XW STAC 7.9 2 2 2 CONTROLLER / STARTER 2 BY (NOTE A) TCC TCC TCC	GAS VOLTAGE 208 208 PRESSURE (IN W.C.) CON TY 3.5 3/N 3.5 3/N <t< td=""><td>DISC BY 1 MFR 1 MFR 1 MFR 1 MFR MANUFA MANUFA M400 MOE MA00 MOE M400 MOE MA00 MOE MOE SESENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES</td><td>CONNECT S TYPE (NOTE B) BY NF BY S BY NF BY S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S</td><td>STARTER N MFR MFR DDEL NG TY (PTC) NOTE TY (PTC) NOTE</td><td>TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	DISC BY 1 MFR 1 MFR 1 MFR 1 MFR MANUFA MANUFA M400 MOE MA00 MOE M400 MOE MA00 MOE MOE SESENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES	CONNECT S TYPE (NOTE B) BY NF BY S BY NF BY S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S	STARTER N MFR MFR DDEL NG TY (PTC) NOTE	TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							
NOTES: 1.COORDINATE COLOF 2. REFER TO 1/M400 FC 2. REFER TO 1/M400 FC TAG NAME AREA SERVI CAB-1 VESTIBULE 1 NOTES: 1. REFER TO 3/M400 FC TAG NAME AREA SEF UH-116 FRIENDS ST UH-119B WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D WAREHO UH-119D FACILIT UH-120A FACILIT UH-120B FACILIT UH-121 SHOF UH-201 MEZZAN CEEILING FA NOTES: 1. PROVIDE SHAFT GR 2.FAN BLADE COLOR S 3.CONTROLLER PROVI 4.VERIFY EXTENSION T 5.SUPPLY POWERFOIL 6.SUPPLY WITH WALL 7.INSTALL FAN 16' A.F.F TAG NAME AREA SERVE CF-1 WAREHOUSI CF-2 WAREHOUSI CF-3 WAREHOUSI CF-4 WAREHOUSI	SELECTION WITH CABINET HEATE CABINET HEATE CONFIGUE 0 VERTICAL SL R SCHEE R UNIT HEATER CO RAGE 1097 SE 1097 S	ARCHITECT. CONTROLS. NOMINAL CFM CO DPE TOP 550.0 1 OULE - GAS F NTROLS. HEATING (MBH) H 55 51.2 0.1 INPUT OUTPUT H 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 55 51.2 0.1 IRED IN THE MOTOR SPE HITECT.	CABIN NTROL HEIGHT N M400 29" 1 RED VOLTA 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 25 1440 115 26 1440 115 27 1440 115 28 1440 115 29 141	WIDTH D 48" 48" 48" 1 48" 1 1 1 1	PAN HP 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 10" 0.07 00" 0.07 <t< td=""><td>RPM K 800 7 800 7 NF 1 MFR 1 MFR 1 MFR 1 MFR 1 MFR 1 <t< td=""><td>XW STAC 7.9 2 2 2 CONTROLLER / STARTER 2 BY (NOTE A) TCC TCC TCC</td><td>GAS VOLTAGE 208 208 PRESSURE (IN W.C.) CON TY 3.5 3/N <t< td=""><td>DISC BY 1 MFR 1 MFR 1 MFR 1 MFR MANUFA MANUFA M400 MOE MA00 MOE M400 MOE MA00 MOE MOE SESENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES</td><td>CONNECT S TYPE (NOTE B) BY NF BY S BY NF BY S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S</td><td>STARTER N MFR MFR DDEL NG TY (PTC) NOTE TY (PTC) NOTE</td><td>TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<></td></t<></td></t<>	RPM K 800 7 800 7 NF 1 MFR 1 MFR 1 MFR 1 MFR 1 MFR 1 <t< td=""><td>XW STAC 7.9 2 2 2 CONTROLLER / STARTER 2 BY (NOTE A) TCC TCC TCC</td><td>GAS VOLTAGE 208 208 PRESSURE (IN W.C.) CON TY 3.5 3/N <t< td=""><td>DISC BY 1 MFR 1 MFR 1 MFR 1 MFR MANUFA MANUFA M400 MOE MA00 MOE M400 MOE MA00 MOE MOE SESENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES</td><td>CONNECT S TYPE (NOTE B) BY NF BY S BY NF BY S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S</td><td>STARTER N MFR MFR DDEL NG TY (PTC) NOTE TY (PTC) NOTE</td><td>TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<></td></t<>	XW STAC 7.9 2 2 2 CONTROLLER / STARTER 2 BY (NOTE A) TCC TCC TCC	GAS VOLTAGE 208 208 PRESSURE (IN W.C.) CON TY 3.5 3/N 3.5 3/N <t< td=""><td>DISC BY 1 MFR 1 MFR 1 MFR 1 MFR MANUFA MANUFA M400 MOE MA00 MOE M400 MOE MA00 MOE MOE SESENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES</td><td>CONNECT S TYPE (NOTE B) BY NF BY S BY NF BY S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S</td><td>STARTER N MFR MFR DDEL NG TY (PTC) NOTE TY (PTC) NOTE</td><td>TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	DISC BY 1 MFR 1 MFR 1 MFR 1 MFR MANUFA MANUFA M400 MOE MA00 MOE M400 MOE MA00 MOE MOE SESENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES ESSENCE SERIES	CONNECT S TYPE (NOTE B) BY NF BY S BY NF BY S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S S NOTES 2,3,4,5,6, S	STARTER N MFR MFR DDEL NG TY (PTC) NOTE	TRANE OTES 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							

	8	9	10	11	12	13	14	15	16	

17	18	19	20	21

<u>SCHEDUI</u>	<u>LE GENERAL NOTES:</u>
INSTALLED BY: MFR = MANUFACTURER EC = ELECTRICAL CONT MC = FURNISHED BY ME ELECTRICAL CONTRACT	RACTOR. ECHANICAL CONTRACTOR, INSTALLED BY TOR. OOSE BY MANUFACTURER INSTALLED BY
B. DISCONNECT TYPE: F = FUSED NF = NON-FUSED	
C. CONTROLLER START FV = FULL VOLTAGE WYE = WYE-DELTA SS = SOLID STATE (SOF MS = MANUAL STARTER VFD = VARIABLE FREQU VFD/B = VARIABLE FREQ	T START)
THE SCHEDULED WHEE	EXCEED 110% OF SCHEDULED VALUE, WITH L TYPE. SUBSTITUTION OF BI OR BIA FANS TABLE IF EFFICIENCY IS NOT LOWER.
E. NO EQUIPMENT SHAL PLATE RATING.	L BE SELECTED ABOVE 90% OF MOTOR NAME
F. MUST BE WITHIN +/- 1	0% OF SCHEDULED RPM.
G. CURB TYPE: MFR = STANDARD CURE GC = BY GENERAL CON SAC = SOUND ATTENUA	TRACTOR



OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

Owner MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

General Contractor

Project Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713

Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

- STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date Bid Set 12/09/2016

Previous Issue Dates

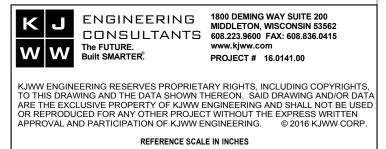
Revision Dates

_____ _____ _____

______ ____

Drawing SCHEDULES -

OPN Project No. 15617000



1

2

0

MECHANICAL

3

M500

	10 1/10/403	FOR DO	DAS UN	IT CON				-			/M403							
							MAX	. DIMENS	BIONS			OUTSIDI SUMME	R		WIN	TER		
AIR HANI UNIT TAG	NAME S	AREA ERVED	со		CORE QUANTIT		CY LENGT		I HEIGHT		EAT DB °F	WB D °F ำ	F °F	DB °F	EAT WB °F	DB °F	WB °F	APD
DOAS	5-1 BL	ILDING	ENTH	ALPIC	3	63 %	46"	49"	30"	860	87	75 76	.8 70.6	-15	-15	42.7	42.5	0.6
WAT		DOL	ED		NDEN	ISING	UNIT S	CHE	DULE	Ξ(2	25%		OPY	′LE	NE	GL	_Y(COL
NOTES: 1. REFER	TO SPECII			ION 23 (62 13.					•								
2. PROVID 3. REFER						GLYCOL.												
						-	MAX. REFRIGERAN	T CAP	OLING ACITY	CAP								
TAG NA WCCU WCCU	-1	90 90 90		ATING E 32 32	EWT DES	-	CHARGE 410A - 11 LB 410A - 11 LB	S 120	TUH 0,000 ,000	135	UH ,000 000	MO	DULES P96 P96		GP 25. 25.	4		8 FT 8 FT
	-2	90		52		<u> </u>		5 12	,000	00,	000		F 90		23.	+		011
DIIM				: (25	% DE	ROPYL		vco										
NOTES:				-					-									
1.PROVID 2.PROVID						HE MOTOR S GLYCOL.	PECIFICATIC	N 23 05 ⁻	13									
TAG					PUMP FT. HEAD AT		I	IMPELL		RAKE		НР					ECTR	
P-1		Server _Ding		GPM 55.0	DESIGN 91.00	EFFICIENC 48		SIZE 8.8"	HORS		ER (N	IOTE E) 5	RPM 1750		TAGE 208	-	ASES 3	(NO
P-2	BUI	DING		55.0	91.00	48	2"	8.8"		2.62		5	1750	2	208		3	N
TAG NAME GFS-1	AREA SER VRF SYST	ΈM	55.0		PRESSUR 60	E HEAD F 30	10.0	3600	BHP 0.5	1		115		HASE:	5	(1	MFR	
NAME GFS-1	VRF SYST SCHE	EM EDUI	55.0 _E	Γ FAN C	60 ONTROL.	30	10.0	3600		1						(1		
NAME GFS-1 FAN NOTES: 1.REFER	VRF SYST SCHE	EM EDUI	55.0 _E	Γ FAN C	60 ONTROL. O CONTRO)L.				1							MFR	RICAL
NAME GFS-1 FAN NOTES: 1.REFER 2.PROVID TAG NAME	VRF SYST SCHE TO 2/M402 E WITH 0- AREA SEE		55.0 LE (HAUST JT FOR CFM	FAN C SPEED S.P. IN. W.C.	ONTROL. CONTRO WHEEL DIA. INCHES	DL. FAN RPM S (NOTE F)	DRIVE A TYPE SC	IAX. MCA E DNES DA	0.5 BACKDRAF	-T CL PE (I	IRB T	115 YPE G) BH	P MHF	1 v VO	LTAGE	E		
NAME GFS-1 FAN NOTES: 1.REFER 2.PROVID	VRF SYST SCHE TO 2/M402 E WITH 0-	EDUI FOR EX IOV INPI	55.0 LE	FAN C SPEED	60 ONTROL. O CONTRO WHEEL DIA.	DL. FAN RPM	DRIVE A TYPE SC	IAX. MCA E DNES DA	0.5	-T CL PE (I	IRB T	115 YPE	P MHF	1 v VO		EPH		
NAME GFS-1 FAN NOTES: 1.REFER 2.PROVID TAG NAME EF-1	VRF SYST SCHE TO 2/M402 E WITH 0- AREA SEI GARAG SHOP		55.0 LE (HAUST JT FOR CFM 1365	S.P. IN. W.C. 0.50	0NTROL. CONTRO WHEEL DIA. INCHES 13.1	2012. - FAN RPM 5 (NOTE F) 1480	DRIVE A TYPE SC DIRECT	IAX. MCA E DNES D/ 12	0.5 BACKDRAF	-T CL PE (I	IRB T	115 YPE G) BH	P MHF	1 v VO	LTAGE	EPH		RICAL DI B' (NOT
NAME GFS-1 FAN NOTES: 1.REFER 2.PROVID TAG NAME EF-1 EF-1	VRF SYST SCHE TO 2/M402 E WITH 0- AREA SEF GARAG SHOF	EDUI	55.0 LE KHAUST UT FOR CFM 1365 ATE	S.P. IN. W.C. 0.50	ONTROL. CONTROL CONTRO UHEEL DIA. INCHES 13.1	DL. FAN RPM S (NOTE F)	DRIVE TYPE DIRECT	IAX. MCA E DNES D/ 12	0.5 BACKDRAI	FT CL PE (I	IRB T NOTE NA	115 YPE G) BH 0.2	P MHF 8 0.5	1 > VOI	LTAGE 115	EPH		RICAL D B (NOT
NAME GFS-1 FAN NOTES: 1.REFER 2.PROVID TAG NAME EF-1 NOTES: 1.COORD TAG NAME	VRF SYST SCHE TO 2/M402 E WITH 0- AREA SEF GARAG SHOF OR O NATE DAM AREA SERVED		55.0 ALUST JT FOR CFM 1365 ATE TUATO SIZE TH HE	S.P. IN. S.P. IN. W.C. 0.50	ONTROL. CONTROL CONTRO UHEEL DIA. INCHES 13.1	30 5 FAN RPM (NOTE F) 1480 PER SC 0 MOUNTING MOUNTING MIN.	DRIVE TYPE DIRECT DIRECT HEDUI REQUIREME BLADE IGURATION	IAX. MCA E DNES D/ 12	0.5 AMPER TY ELECTRIC H TEMPE ADE FATION	FT CL PE (I C RATUR		115 YPE G) BH 0.2 VTROL C ACTUA (N	P MHF 8 0.5 ONTRA ATOR TY OTE 1)	VOI	LTAGE 115		MFR ASES 1 DR	RICAL DI B (NOT MF
NAME GFS-1 FAN NOTES: 1.REFER 2.PROVID TAG NAME EF-1 NOTES: 1.COORD TAG NAME MOD-1 MOD-2	VRF SYST SCHE TO 2/M402 E WITH 0- AREA SEI GARAG SHOP OR O NATE DAM AREA SERVED EF-1 MAU-1	EM FOR EX IOV INPI RVED & PER IPER AC 18 20	55.0 LE (HAUST UT FOR CFM 1365 ATE TUATO SIZE H HE	S.P. IN. S.P. IN. W.C. 0.50 ED C R LOCA IGHT 12	ONTROL. OCONTROL OCONTRO UNHEEL DIA. INCHES 13.1	30 DL. FAN RPM (NOTE F) 1480 PER SC 0 MOUNTING MIN. CONF 0 0 0 0 0 0 0	DRIVE TYPE DIRECT DIRECT HEDU REQUIREME BLADE IGURATION POSED POSED	IAX. MCA E DNES D/ 12 LE NTS WIT BL/ ORIEN HORIZ HORIZ	0.5 ACKDRAF AMPER TY ELECTRIC TH TEMPE ADE FATION ONTAL ONTAL ONTAL	FT CL PE (I PE (I RATUR INSUL Ye Ye		115 YPE G) BH 0.2 VTROL C ACTUA (N EL EL	P MHF 8 0.5 ONTRA ATOR T OTE 1) ECTRIC ECTRIC	P VO	LTAGE 115		MFR ASES 1 DR TION TION	RICAL DI B' (NOT MF
NAME GFS-1 FAN NOTES: 1.REFER 2.PROVID TAG NAME EF-1 NOTES: 1.COORD TAG NAME MOD-1 MOD-2 MOD-3	VRF SYST SCHE TO 2/M402 E WITH 0- AREA SEI GARAG SHOF OR O NATE DAN AREA SERVED EF-1 MAU-1 DOAS-1	EM FOR E> 10V INPI RVED & PER IPER AC UIPER AC 18 20 20	55.0 LE CFM 1365 ATE TUATO SIZE H HE	S.P. IN. S.P. IN. W.C. 0.50 ED C R LOCA IGHT 12 12 8	60 ONTROL. CONTROL OCONTRO WHEEL DIA. INCHES 13.1 DAMP ATION ANE CFM MAX. I 1365 1375 860	30 DL. FAN RPM NOTE F) 1480 PER SC 0 MOUNTING MIN. CONF 0 0 0 0 0 0 0 0 0 0	DRIVE TYPE DIRECT DIRECT CHEDUI REQUIREME BLADE IGURATION PPOSED PPOSED PPOSED	AX. MCA E DNES D/ 12 LE NTS WIT BL/ ORIEN HORIZ HORIZ HORIZ	0.5 ACKDRAF AMPER TY ELECTRIC ELECTRIC ONTAL ONTAL ONTAL ONTAL	T CL PE (I RATUR		115 YPE G) BH 0.2 VTROL C ACTUA (N EL EL	P MHF 8 0.5 ONTRA ATOR TY OTE 1) ECTRIC	P VO	LTAGE 115		MFR ASES 1 DR TION TION	RICAL DI B` (NOT
NAME GFS-1 FAN NOTES: 1.REFER 2.PROVID TAG NAME EF-1 NOTES: 1.COORD TAG NAME MOD-1 MOD-2 MOD-3	VRF SYST SCHE TO 2/M402 E WITH 0- AREA SEI GARAG SHOF OR O NATE DAN AREA SERVED EF-1 MAU-1 DOAS-1	EM FOR E> 10V INPI RVED & PER IPER AC UIPER AC 18 20 20	55.0 LE CFM 1365 ATE TUATO SIZE H HE	S.P. IN. S.P. IN. W.C. 0.50 ED C R LOCA IGHT 12 12 8	60 ONTROL. CONTROL OCONTRO WHEEL DIA. INCHES 13.1 DAMP ATION ANE CFM MAX. I 1365 1375 860	30 DL. FAN RPM (NOTE F) 1480 PER SC 0 MOUNTING MIN. CONF 0 0 0 0 0 0 0	DRIVE TYPE DIRECT DIRECT CHEDUI REQUIREME BLADE IGURATION PPOSED PPOSED PPOSED	AX. MCA E DNES D/ 12 LE NTS WIT BL/ ORIEN HORIZ HORIZ HORIZ	0.5 ACKDRAF AMPER TY ELECTRIC ELECTRIC ONTAL ONTAL ONTAL ONTAL	FT CL PE (I PE (I RATUR INSUL Ye Ye		115 YPE G) BH 0.2 VTROL C ACTUA (N EL EL	P MHF 8 0.5 ONTRA ATOR T OTE 1) ECTRIC ECTRIC	P VO	LTAGE 115		MFR ASES 1 DR TION TION	RICAL DI B' (NOT MF
RAME GFS-1 FAN NOTES: 1.REFER 2.PROVID TAG NAME EF-1 NOTES: 1.COORD TAG NAME MOD-1 MOD-2 MOD-3 MOD-3	VRF SYST SCHE TO 2/M402 E WITH 0- AREA SEF GARAG SHOP OR O NATE DAM AREA SERVED EF-1 MAU-1 DOAS-1 LES I	EM FOR EX 10V INPI RVED E & PER IPER AC IPER AC INPI 18 20 20 REG ALL DET	55.0 -E (HAUST JT FOR 1365 ATE TUATO SIZE H HE ISTI	S.P. IN. S.P. IN. W.C. 0.50 ED C PR LOCA IGHT 12 12 12 8 ERS ERS	60 ONTROL. OCONTROL. OCONTROL. OCONTROL. DIA. DIA. INCHES 13.1 OAMP ATION ANE CFM MAX. I 1365 1375 860 OAMP CFM MAX. I 1365 1375 860 OAMP CFM MAX. I 1365 1375 860	30 DL. FAN RPM NOTE F) 1480 PER SC 0 MOUNTING MIN. CONF 0 0 0 0 0 0 0 0 0 0	DRIVE TYPE DIRECT DIRECT CHEDUI REQUIREME BLADE IGURATION POSED POSED POSED POSED POSED POSED POSED POSED POSED	AX. MCA E DNES D/ 12 12 LE NTS WIT BL/ ORIEN HORIZ HORIZ HORIZ HORIZ	0.5 ACKDRAF AMPER TY ELECTRIC TH TEMPE ADE TATION ONTAL ONTAL ONTAL ONTAL ONTAL ONTAL ONTAL ONTAL ONTAL ONTAL ONTAL ONTAL ONTAL ONTAL ONTAL	T CL PE (I PE (I P		115 YPE G) BH 0.2 VTROL C ACTUA (N EL EL	P MHF 8 0.5 ONTRA ATOR T OTE 1) ECTRIC ECTRIC	P VO	LTAGE 115		MFR ASES 1 DR TION TION	RICAL DI B' (NOT MF
NAME GFS-1 FAN NOTES: 1.REFER 2.PROVID TAG NAME EF-1 NOTES: 1.COORD TAG NAME MOD-1 MOD-2 MOD-3 MOD-3 MOD-3	VRF SYST SCHE TO 2/M402 E WITH 0- AREA SEF GARAG SHOP OR O NATE DAM AREA SERVED EF-1 MAU-1 DOAS-1 LES I	EM FOR EX IOV INPI RVED ALL DET TWORK	55.0 LE (HAUST UT FOR 1365 CFM 1365 ATE TUATO SIZE H HE ISTI ERMIN CTO DIF	S.P. IN. S.P. IN. W.C. 0.50 ED C PR LOCA IGHT 12 12 12 8 ERS ERS	60 ONTROL. ONTROL. OCONTROL. OCONTROL. DIA. INCHES 13.1 OAMP ATION ANE CFM MAX. I 1365 1375 860 CFM MAX. I 1365 1375 860 CFM MAX. I 1365 1375 860 CFM MAX. I 1365 1375 860 CFM MAX. I 1365 1375 860 CFM MAX. I 1365 1375 860 CFM MAX. I 1365 1375 860 CFM MAX. I 1365 1375 860 CFM MAX. I 1375 860 CFM MAX. I 1375 860 CFM MAX. I 1375 860 CFM MAX. I 1375 860 CFM MAX. I 1375 860 CFM MAX. I 1375 860 CFM MAX. I 1375 13	30 DL. FAN RPM (NOTE F) 1480 PER SC 0	DRIVE M TYPE SC DIRECT SC DIRECT SC HEDUIREME BLADE IGURATION POSED	AX. MCA E DNES D/ 12 LE NTS WIT BL/ ORIEN HORIZ HORIZ HORIZ HORIZ HORIZ	0.5 ACKDRAF AMPER TY ELECTRIC TATION ONTAL ONTAL ONTAL ONTAL ONTAL ONTAL ONTAL ONTAL ONTAL	FT CL PE (I PE (I C) RATUR INSUL Ye Ye Ye	IRB T NOTE NA E COM	115 YPE G) BH 0.2 VTROL C ACTUA (N EL EL	P MHF B 0.5 ONTRA ATOR TY OTE 1) ECTRIC ECTRIC ECTRIC		LTAGE 115		MFR ASES 1 DR TION TION	RICAL DI B' (NOT MF
RAME GFS-1 FAN NOTES: 1.REFER 2.PROVID TAG NAME EF-1 NOTES: 1.COORD TAG NAME MOD-1 MOD-2 MOD-3 MOD-3 GRIL NOTES: 1.CONTR/ 2.ALL RUN TAG NAME I.CONTR/ 2.ALL RUN	VRF SYST SCHE TO 2/M402 E WITH 0- AREA SEI GARAG SHOP OR O NATE DAM AREA SERVED EF-1 MAU-1 DOAS-1 ILES I ACTOR SH OUT DUC MATERIAL STEEL LUMINIUW	EM FOR EX IOV INPI EVED ALL DET TWORK PER ALL DET TWORK CO 20 CO CO 20 CO CO 20 CO CO CO CO CO CO CO CO CO CO	55.0 -E (HAUST JT FOR 1365 CFM 1365 ATE TUATO SIZE H HE ISTI CREMIN CREATE CREATE CREATE	S.P. IN. S.P. IN. W.C. 0.50 ED C PR LOCA IGHT 12 12 12 12 8 ERSS ERSS E PROP FUSER	60 ONTROL. CONTROL CONTROL DIA. INCHES 13.1 DAMP TION ANE CFM MAX. 1365 1375 860 ER MARG S SHALL VER MARG CE L/ TION TION	30 DL. FAN RPM (NOTE F) 1480 PER SC 0	DRIVE TYPE M A SC DIRECT Image: Sc DIRECT Image: Sc HEDUIR Image: Sc BLADE IGURATION Image: Sc POSED Image: Sc Image: Sc Image: Sc Image: Sc <t< td=""><td>AX. MCA DNES D/ 12 LE NTS WIT BL/ ORIEN HORIZ</br></br></br></br></td><td>0.5 ACKDRAF AMPER TY ELECTRIC ELECTRIC ONTAL ON</td><td>The second secon</td><td>IRB T' NOTE NA E COM S S S S S S S S S S S S S S S S S S S</td><td>115 YPE G) BH 0.2 VTROL C ACTUA (N EL EL EL EL MANUFA TIT TIT</td><td>P MHF B 0.5 ONTRA ATOR T OTE 1) ECTRIC ECTRIC ECTRIC ECTRIC ECTRIC ECTRIC ECTRIC ECTRIC ECTRIC</td><td>1 VOI CTOR YPE R MC F 3</td><td>LTAGE 115 TWO TWO TWO TWO TWO TWO TWO TWO TWO TWO</td><td></td><td>MFR ASES 1 DR TION TION</td><td>RICAL DI B' (NOT MF</td></t<>	AX. MCA DNES D/ 12 LE NTS WIT BL/ ORIEN 	0.5 ACKDRAF AMPER TY ELECTRIC ELECTRIC ONTAL ON	The second secon	IRB T' NOTE NA E COM S S S S S S S S S S S S S S S S S S S	115 YPE G) BH 0.2 VTROL C ACTUA (N EL EL EL EL MANUFA TIT TIT	P MHF B 0.5 ONTRA ATOR T OTE 1) ECTRIC ECTRIC ECTRIC ECTRIC ECTRIC ECTRIC ECTRIC ECTRIC ECTRIC	1 VOI CTOR YPE R MC F 3	LTAGE 115 TWO TWO TWO TWO TWO TWO TWO TWO TWO TWO		MFR ASES 1 DR TION TION	RICAL DI B' (NOT MF
NAME GFS-1 FAN NOTES: 1.REFER 2.PROVID TAG NAME EF-1 NOTES: 1.COORD TAG NAME MOD-1 MOD-2 MOD-3 GRIL NOTES: 1.CONTR/ 2.ALL RUN TAG NAME I EG-1 EG-2 EG-3 RG-1	VRF SYST SCHE TO 2/M402 E WITH 0- AREA SEF GARAG SHOF OR O NATE DAN AREA SERVED EF-1 MAU-1 DOAS-1 EF-1 MAU-1 DOAS-1 EF-1 MAU-1 DOAS-1	EM FOR EX IOV INPI RVED & PER IPER AC IPER AC IPER AC INDI 18 20 20 REG ALL DET TWORK ALL DET TWORK ALL DET TWORK ALL DET TWORK	55.0 LE (HAUST JT FOR CFM 1365 ATE TUATO SIZE H HE DISTI ERMIN TO DIF ERMIN TO DIF CFM ISTI CFM ISTI	S.P. IN. S.P. IN. W.C. 0.50 ED C BR LOCA IGHT 12 12 12 8 ERS ERS ERS ERS ERS	60 ONTROL. OCONTROL.	30 DL. FAN RPM NOTE F) 1480 PER SC OMOUNTING MIN. CONF 0 <td>DRIVE TYPE M A SC DIRECT I HEDUI I REQUIREME I BLADE IGURATION I POSED I POSED I POSED I POSED I POSED I POSED I I I<td>AX. MCA E DNES D/ 12 12 LE NTS WIT BL/ ORIEN HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ</br></br></br></br></td><td>0.5 ACKDRAF</td><td>FT CL PE (I PE (I C) RATUR INSUL Ye Ye Ye Ye Ye Ye Ye Ye Ye Ye Ye Ye Ye</td><td>IRB T NOTE NA E CON S S S S</td><td>115 YPE G) BH 0.2 NTROL C ACTUA EL EL EL EL EL EL TIT TIT TIT TIT TIT TIT TIT</td><td>P MHF 3 0.5 ONTRA ATOR TY OTE 1) ECTRIC ECTRIC ECTRIC ECTRIC US US US</td><td>1 VOI CTOR YPE R MC F 3 3 F</td><td>LTAGE 115 - - - - - - - - - - - - - - - - - -</td><td></td><td>MFR LECT ASES 1 DR TION TION TION TION TION TION</td><td>RICAL DI B' (NOT MF NORI NORI NORI</td></td>	DRIVE TYPE M A SC DIRECT I HEDUI I REQUIREME I BLADE IGURATION I POSED I POSED I POSED I POSED I POSED I POSED I I I <td>AX. MCA E DNES D/ 12 12 LE NTS WIT BL/ ORIEN HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ</br></br></br></br></td> <td>0.5 ACKDRAF</td> <td>FT CL PE (I PE (I C) RATUR INSUL Ye Ye Ye Ye Ye Ye Ye Ye Ye Ye Ye Ye Ye</td> <td>IRB T NOTE NA E CON S S S S</td> <td>115 YPE G) BH 0.2 NTROL C ACTUA EL EL EL EL EL EL TIT TIT TIT TIT TIT TIT TIT</td> <td>P MHF 3 0.5 ONTRA ATOR TY OTE 1) ECTRIC ECTRIC ECTRIC ECTRIC US US US</td> <td>1 VOI CTOR YPE R MC F 3 3 F</td> <td>LTAGE 115 - - - - - - - - - - - - - - - - - -</td> <td></td> <td>MFR LECT ASES 1 DR TION TION TION TION TION TION</td> <td>RICAL DI B' (NOT MF NORI NORI NORI</td>	AX. MCA E DNES D/ 12 12 LE NTS WIT BL/ ORIEN 	0.5 ACKDRAF	FT CL PE (I PE (I C) RATUR INSUL Ye Ye Ye Ye Ye Ye Ye Ye Ye Ye Ye Ye Ye	IRB T NOTE NA E CON S S S S	115 YPE G) BH 0.2 NTROL C ACTUA EL EL EL EL EL EL TIT TIT TIT TIT TIT TIT TIT	P MHF 3 0.5 ONTRA ATOR TY OTE 1) ECTRIC ECTRIC ECTRIC ECTRIC US US US	1 VOI CTOR YPE R MC F 3 3 F	LTAGE 115 - - - - - - - - - - - - - - - - - -		MFR LECT ASES 1 DR TION TION TION TION TION TION	RICAL DI B' (NOT MF NORI NORI NORI
NAME GFS-1 FAN NOTES: 1.REFER 2.PROVID TAG NAME EF-1 MOD-1 MOD-2 MOD-3 TAG NAME MOD-1 MOD-2 MOD-3 TAG NAME MOD-1 MOD-2 MOD-3	VRF SYST SCHE TO 2/M402 E WITH 0- AREA SEF GARAG SHOP OR O NATE DAN AREA SERVED EF-1 MAU-1 DOAS-1 EF-1 MAU-1 DOAS-1 LES I	EM FOR EX IOV INPI EVED E & PER IPER AC IPER AC IPER AC INDI I	55.0 JE (HAUST JT FOR CFM 1365 ATE ATE TUATO SIZE H HE ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI ISTI CFM ISTI CFM ISTI CFM ISTI ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM	S.P. IN. S.P. IN. W.C. 0.50 ED C BR LOCA IGHT 12 12 8 ERSS EPROP FUSER JRATION TED FAC DEFLEC DEFLEC	60 ONTROL. OCONTROL. OCONTROL. OCONTROL. DIA. INCHES 13.1 OAMP ATION ANE CFM MAX. I 1365 1375 860 OAMP ATION ANE CFM MAX. I 1365 1375 860 OAMP ANE CFM MAX. I 1365 1375 860 OAMP CFM MAX. I 1365 1375 860 OAMP CFM CFM CFM CFM CFM CFM CFM CFM	30 DL. FAN RPM (NOTE F) 1480 PER SC 0	DRIVE TYPE M A SC DIRECT I HEDUIREME I BLADE IGURATION I POSED POSED POSED POSED POSED I POSED I POSED I IGURATION I POSED I POSED I POSED I IDWG. I INIL I DWG. I INIL I INIL I	AX. MCA PNES D/ 12 LE NTS WIT BL/ ORIEN HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ ET +2 ET +2 ET +2 ET +2	0.5 ACKDRAF AMPER TY ELECTRIC ELECTRIC ONTAL ON	T CL PE (I PE (I C) RATUR INSUL Ye Ye Ye Ye Ye Ye Ye Ye Ye Ye Ye Ye Ye	IRB TY NOTE NA E CON S S S S S S S S S S S S S S S S S S S	115 YPE G) BH 0.2 NTROL C ACTUA EL EL EL EL EL EL TIT TIT TIT TIT TIT TIT	P MHF B 0.5 ONTRA ATOR T' OTE 1) ECTRIC ECTRIC ECTRIC ECTRIC US US US US US	1 VOI CTOR YPE R MC F 3 3 F T	LTAGE 115		MFR ASES 1 DR TION TION TION TION TION TION TION TION TION TION TION	RICAL DI B' (NOT MF NORI NORI NORI NORI
NAME GFS-1 FAN NOTES: 1.REFER 2.PROVID TAG NAME EF-1 NOTES: 1.COORD TAG NAME MOD-1 MOD-2 MOD-3 TAG NAME MOD-1 MOD-3 TAG NAME EG-1 EG-1 EG-1 EG-2 A EG-3 RG-1 SD-1	VRF SYST SCHE TO 2/M402 E WITH 0- AREA SEF GARAG SHOP OR O NATE DAM AREA SERVED EF-1 MAU-1 DOAS-1 EF-1 MAU-1 DOAS-1 ILES I ACTOR SH JOUT DUC MATERIAL STEEL LUMINIUW LUMINIUW STEEL LUMINIUW	EM FOR EX IOV INPI EVED E & PER IPER AC IPER AC IPER AC INDI I	55.0 JE (HAUST JT FOR CFM 1365 ATE ATE TUATO SIZE H HE ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI ISTI CFM ISTI CFM ISTI CFM ISTI ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM ISTI CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM CFM	S.P. IN. S.P. IN. W.C. 0.50 ED C PR LOCA IGHT 12 12 12 12 12 12 12 12 12 12 12 12 12	60 ONTROL. OCONTROL. OCONTROL. OCONTROL. DIA. INCHES 13.1 OAMP ATION ANE CFM MAX. I 1365 1375 860 OAMP ATION ANE CFM MAX. I 1365 1375 860 OAMP ANE CFM MAX. I 1365 1375 860 OAMP CFM MAX. I 1365 1375 860 OAMP CFM CFM CFM CFM CFM CFM CFM CFM	30 DL. FAN RPM (NOTE F) 1480 PER SC 0	DRIVE TYPE M A SC DIRECT I HEDUIREME I BLADE IGURATION I POSED POSED POSED POSED POSED I POSED I POSED I IGURATION I POSED I POSED I POSED I IDWG. I INIL I DWG. I INIL I INIL I	AX. MCA E DNES D/ 12 LE NTS WIT HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ ET +2 ET +2 ET +2 ET +2 ET +2 ET +2	0.5	T CL PE (I PE (I C) RATUR INSUL Ye Ye Ye Ye Ye Ye Ye Ye WH WH	IRB TY NOTE NA E CON S S S S S S S S S S S S S S S S S S S	115 YPE G) BH 0.2 NTROL C ACTUA (N EL EL EL EL EL TIT TIT TIT TIT TIT	P MHF B 0.5 ONTRA ATOR T' OTE 1) ECTRIC ECTRIC ECTRIC ECTRIC US US US US US	1 VOI CTOR YPE R MC F 3 3 F T	LTAGE 115		MFR ASES 1 DR TION TION TION TION TION TION TION TION TION TION TION	RICAL DI B' (NOT MF NORI NORI NORI NORI
RAME GFS-1 FAN NOTES: 1.REFER 2.PROVID TAG NAME EF-1 NOTES: 1.COORD TAG NAME MOD-1 MOD-2 MOD-3 TAG NAME MOD-1 MOD-2 MOD-3 TAG NAME EG-1 EG-2 A EG-1 EG-2 A EG-1 SD-1 SG-1	VRF SYST SCHE TO 2/M402 E WITH 0- AREA SEF GARAG SHOP OR O NATE DAN AREA SERVED EF-1 MAU-1 DOAS-1 EF-1 MAU-1 DOAS-1 ILES I ACTOR SH OUT DUC MATERIAL STEEL LUMINIUW STEEL STEEL STEEL	EM FOR EX IOV INPI EVED ALL DET TWORK ALL DET TWORK ALL DET TWORK ALL DET TWORK ALL DET TOU	55.0 LE (HAUST UT FOR 1365 ATE TUATO SIZE H HE DISTI ERMIN CREATE GREE I GREE I	S.P. IN. S.P. IN. W.C. 0.50 ED C BR LOCA IGHT 12 12 8 ERSS ERSS E PROP FUSER JRATION TED FAC DEFLEC DEFLEC TED FAC E FLECTI	60 ONTROL. ONTROL. OCONTROL. OCONTROL. OCONTROL. INCHES 13.1 OAMP ATION ANE CFM MAX. I 1365 1375 860 CFM MAX. I 1365 1375 1375 1365 CFM CFM MAX. I 1365 1375 1375 1365 CFM CFM CFM CFM CFM CFM CFM CFM	30 DL. FAN RPM (NOTE F) 1480 PER SC 0	DRIVE TYPE N A SC DIRECT I HEDUIR I REQUIREME I BLADE IGURATION I POSED POSED POSED POSED POSED I DWG. I	AX. MCA E DNES D/ 12 LE NTS WIT HORIZ HORIZ HORIZ HORIZ HORIZ HORIZ ET +2 ET +2 ET +2 ET +2 ET +2 ET +2	0.5	T CL PE (I PE (I C) RATUR INSUL Ye Ye Ye Ye Ye Ye Ye Ye WH WH	IRB TY NOTE NA E CON S S S S S S S S S S S S S S S S S S S	115 YPE G) BH 0.2 NTROL C ACTUA (N EL EL EL EL EL TIT TIT TIT TIT TIT	P MHF B 0.5 ONTRA ATOR T' OTE 1) ECTRIC ECTRIC ECTRIC ECTRIC US US US US US	1 VOI CTOR YPE R MC F 3 3 F T	LTAGE 115		MFR ASES 1 DR TION TION TION TION TION TION TION TION TION TION TION	RICAL DI B' (NOT MF NORI NORI NORI NORI
RAME GFS-1 FAN NOTES: 1.REFER 2.PROVID TAG NAME EF-1 NOTES: 1.COORD TAG NAME MOD-1 MOD-2 MOD-3 TAG NAME MOD-1 MOD-2 MOD-3 TAG NAME MOD-1 MOD-2 MOD-3 TAG NAME EG-1 EG-1 EG-1 EG-1 EG-1 EG-1 EG-1 EG-	VRF SYST SCHE TO 2/M402 E WITH 0- AREA SEF GARAG SHOP OR O NATE DAM AREA SERVED EF-1 MAU-1 DOAS-1 EF-1 MAU-1 DOAS-1 EF-1 MAU-1 DOAS-1 ILES I ACTOR SH OCTOR	EM FOR EX IOV INPI EVED ALL DET TWORK ALL DET TWORK ALL DET TWORK CO PER 35 DE 35 DE 10 10 10 10 10 10 10 10 10 10	55.0 -E HAUST JT FOR CFM 1365 ATE TUATO SIZE H HE SIZE H HE CFM 1365 CFM CFM CFM CFM CFM CFM CFM CFM	S.P. IN. S.P. IN. W.C. 0.50 ED C PR LOCA IGHT 12 12 12 12 8 ERSS EPROP FUSER JRATION TED FAC DEFLEC DEFLEC DEFLEC TED FAC ED C	60 ONTROL. OCONTROL DIA. DIA. INCHES 13.1 DAMP TION ANE CFM MAX. 1365 1375 860 DER MARG SCHE D SCHE D D PRIME F	30 DL. FAN RPM (NOTE F) 1480 PER SC 0	DRIVE TYPE M A SC DIRECT I HEDUIR I REQUIREME I BLADE IGURATION I POSED I POSED I POSED I POSED I POSED I POSED I I I <td>IAX. E MCA E DNES D/ 12 I I2 I I2 I I2 I HORIZ HORIZ HORIZ I I I I I I I I I I I</td> <td>0.5</td> <td>Terminal CL PE (I PE (I PE (I PE (I PE (I PE (I PE (I PE (I PE (I PE (I PE (I PE (I PE (I</br></br></br></br></td> <td>IRB TY NA E CON S S S S ISH I ITE ITE ITE ITE ITE</td> <td>115 YPE G) BH 0.2 NTROL C ACTUA (N EL EL EL EL EL TIT TIT TIT TIT TIT</td> <td>P MHF B 0.5 ONTRA ATOR T' OTE 1) ECTRIC ECTRIC ECTRIC ECTRIC US US US US US</td> <td>1 VOI CTOR YPE R MC F 3 3 F T</td> <td>LTAGE 115</td> <td></td> <td>MFR ASES 1 DR TION TION TION TION TION TION TION TION TION TION TION</td> <td>RICAL DI B' (NOT MF NORI NORI NORI NORI</td>	IAX. E MCA E DNES D/ 12 I I2 I I2 I I2 I HORIZ HORIZ HORIZ I I I I I I I I I I I	0.5	Terminal CL PE (I PE (I PE (I PE (I PE (I PE (I PE (I PE (I 	IRB TY NA E CON S S S S ISH I ITE ITE ITE ITE ITE	115 YPE G) BH 0.2 NTROL C ACTUA (N EL EL EL EL EL TIT TIT TIT TIT TIT	P MHF B 0.5 ONTRA ATOR T' OTE 1) ECTRIC ECTRIC ECTRIC ECTRIC US US US US US	1 VOI CTOR YPE R MC F 3 3 F T	LTAGE 115		MFR ASES 1 DR TION TION TION TION TION TION TION TION TION TION TION	RICAL DI B' (NOT MF NORI NORI NORI NORI
RAME GFS-1 FAN NOTES: 1.REFER 2.PROVID TAG NAME EF-1 NOTES: 1.COORD TAG NAME MOD-1 MOD-2 MOD-3 TAG NAME MOD-1 MOD-2 MOD-3 TAG NAME MOD-1 MOD-2 MOD-3 TAG NAME EG-1 EG-1 EG-1 EG-1 EG-1 EG-1 EG-1 EG-	VRF SYST SCHE TO 2/M402 E WITH 0- AREA SEF GARAG SHOP OR O NATE DAM AREA SERVED EF-1 MAU-1 DOAS-1 EF-1 MAU-1 DOAS-1 EF-1 MAU-1 DOAS-1 ILES I ACTOR SH OCTOR	EM FOR EX IV INPI FOR EX IV INPI EVED E A PER IPER AC IPER AC IP	55.0 -E HAUST JT FOR CFM 1365 CFM 16 C	S.P. IN. S.P. IN. W.C. 0.50 ED C PR LOCA IGHT 12 12 12 12 8 ERSS EPROP FUSER JRATION TED FAC DEFLEC DEFLEC DEFLEC TED FAC ED C	60 ONTROL. OCONTROL OCONTROL DIA. INCHES 13.1 OAMP ATION ANE CFM MAX. I 1365 1375 860 CFM MAX. I 1365 1375 860 CFM CFM MAX. I 1365 1375 860 CFM CFM CFM CFM CFM CFM CFM CFM	30 DL. FAN RPM (NOTE F) 1480 PER SC 0	DRIVE TYPE M A SC DIRECT Image: Constraint of the	AX. MCA PNES D/ 12 LE NTS WIT BL/ ORIEN HORIZ HORIZ HORIZ HORIZ HORIZ ET +2 ET +2 ET +2 ET +2 4x24 ET +2 ET +2 E	0.5 ACKDRAF AMPER TY ELECTRIC ELECTRIC ONTAL ON	Terminal CL PE (I PE (I	IRB T' NOTE NA E COM S S S S S S S S S S S S S S S S S S S	115 YPE G) BH 0.2 NTROL C ACTUA EL EL EL EL EL TIT TIT TIT TIT TIT TIT TIT TIT TIT TIT	P MHF B 0.5 ONTRA ATOR T' OTE 1) ECTRIC ECTRIC ECTRIC ECTRIC US US US US US	1 VOI CTOR YPE R MC F 3 3 F 1 3 3 1 1	LTAGE 115 115 TWO TWO TWO TWO TWO TWO TWO TWO TWO TWO	E PH/ FUATC TYLE POSIT POSIT POSIT POSIT BLAD	MFR ASES 1 DR TION TION TION TION TION TION TION TION TION TION TION	RICAL DI B' (NOT MF NORI NORI NORI NORI NORI NORI NORI
RAME GFS-1 FAN NOTES: 1.REFER 2.PROVID TAG NAME EF-1 NOTES: 1.COORD TAG NAME MOD-1 MOD-2 MOD-3 TAG NAME MOD-1 MOD-2 MOD-3 TAG NAME EG-1 EG-1 EG-2 ALL RUN TAG NAME EG-1 EG-3 A RG-1 SD-1 SG-1 SG-1 SG-1 SG-1	VRF SYST SCHE TO 2/M402 E WITH 0- AREA SEF GARAG SHOP OR O NATE DAM AREA SERVED EF-1 MAU-1 DOAS-1 EF-1 MAU-1 DOAS-1 ILES I ACTOR SH JOAS-1 ILES I ACTOR SH JOAS-1 ILES I ACTOR SH JOAS-1 ILES I STEEL LUMINIUW STEEL STEEL STEEL STEEL STEEL STEEL STEEL STEEL STEEL	EM FOR EX IOV INPI FOR EX IOV INPI EVED E E E E E E E E E E E E E	55.0 -E HAUST JT FOR CFM 1365 CFM 1365 ATE TUATO SIZE H HE CTUATO SIZE H HE CTUATO SIZE CTUATO SIZE H HE CTUATO SIZE SIZE S	FAN C SPEED S.P. IN. W.C. 0.50 ED C PR LOCA IGHT 12 12 12 12 12 12 12 12 12 12 12 12 12	60 ONTROL. OCONTROL OCONTROL DIA. INCHES 13.1 OAMP ATION ANE CFM MAX. I 1365 1375 860 CFM MAX. I 1365 1375 860 CFM CFM MAX. I 1365 1375 860 CFM CFM CFM CFM CFM CFM CFM CFM	30 30 5 FAN RPM (NOTE F) 1480 2 2 1480 2 0 <	DRIVE TYPE M A SC DIRECT Image: Constraint of the	IAX. E MCA E DNES D/ 12 I I I	0.5	FT CL PE (I PE (I PE (I RATUR Ye INSUL Ye Ye	IRB T VOTE NA E COM S S S S S S S S S S S S S S S S S S S	115 YPE G) BH 0.2 NTROL C ACTUA EL EL EL EL EL TIT TIT TIT TIT TIT TIT TIT TIT TIT TIT	P MHF B 0.5 ONTRA ONTRA ATOR T OTE 1) ECTRIC ECTRIC ECTRIC ECTRIC ECTRIC ECTRIC US US US US US US US ELF375	1 VOI CTOR YPE R MC F 3 3 F 3 5 5 5 5 5 5 5 5 5 5 5 5 5	LTAGE 115	E PH/ E PH/ POSIT POSIT POSIT POSIT POSIT POSIT BLAD	MFR ASES 1 DR TION	RICAL DI B' (NOT MF NORI NORI NORI NORI NORI NORI NORI
NAME GFS-1 FAN NOTES: 1.REFER 2.PROVID TAG NAME EF-1 NOTES: 1.COORD TAG NAME MOD-1 MOD-2 MOD-3 TAG NAME MOD-1 MOD-2 MOD-3 TAG NAME EG-1 EG-1 EG-1 EG-1 EG-1 EG-1 EG-1 EG-	VRF SYST SCHE TO 2/M402 E WITH 0- AREA SEF GARAG SHOP OR O NATE DAM AREA SERVED EF-1 MAU-1 DOAS-1 EF-1 MAU-1 DOAS-1 EF-1 MAU-1 DOAS-1 ILES I ACTOR SH OCTOR SH COUT DUC STEEL STEEL STEEL STEEL STEEL STEEL STEEL STEEL	EM FOR EX IOV INPI FOR EX IOV INPI EVED E E E E E E E E E E E E E	55.0 -E HAUST JT FOR CFM 1365 CFM 1365 ATE TUATO SIZE H HE CTUATO SIZE H HE CTUATO SIZE CTUATO SIZE H HE CTUATO SIZE SIZE S	ERS FAN C SPEED S.P. IN. W.C. 0.50 ED C R LOCA IGHT 12 12 8 ERS ERS JRATION TED FAC DEFLEC DEFLEC TED FAC EFLECTI ED FAC ELECTI ELECTI ELECTI ELECTI ELECTI ELECTI	60 ONTROL. OCONTROL OCONTROL DIA. INCHES 13.1 OAMP ATION ANE CFM MAX. I 1365 1375 860 CFM MAX. I 1365 1375 860 CFM CFM MAX. I 1365 1375 860 CFM CFM CFM CFM CFM CFM CFM CFM	30 30 DL. FAN RPM NOTE F) 1480 PER SC 0 1/4" 0 1/4" 0 1/4"<	DRIVE TYPE N DIRECT N DIRECT SC DIRECT SC DIRECT SC DIRECT SC DIRECT SC DIRECT SC HEDUIREME SC SLADE IGURATION POSED POSED POSED POSED POSED SC DMATCH CEIL INL DWG. INL DWG.<	IAX. E MCA E DNES D/ 12 I I2 I INTS WIT I HORIZ I ING COI I I I I I I I I I I <td>0.5</td> <td>FT CL PE (I PE (I PE (I RATUR Ye INSUL Ye Ye Ye Ye</td> <td>IRB T NOTE NA E COM S S S S S S S S S S S S S S S S S S S</td> <td>115 YPE G) BH 0.2 NTROL C ACTUA EL EL EL EL EL TIT TIT TIT TIT TIT TIT TIT TIT TIT TIT</td> <td>P MHF 3 0.5 ONTRA ATOR T OTE 1) ECTRIC ECTRIC ECTRIC ECTRIC US US US US US US US US US US</td> <td>1 VOI CTOR YPE R MC F 3 3 F 3 5 5 5 5 5 5 5 5 5 5 5 5 5</td> <td>LTAGE 115</td> <td>E PH/ FUATO TYLE POSIT POSIT POSIT POSIT POSIT BLAD</td> <td>MFR ASES 1 DR TION</td> <td>RICAL DI B' (NOT MF NORI NORI NORI NORI NORI ERTIC</td>	0.5	FT CL PE (I PE (I PE (I RATUR Ye INSUL Ye Ye	IRB T NOTE NA E COM S S S S S S S S S S S S S S S S S S S	115 YPE G) BH 0.2 NTROL C ACTUA EL EL EL EL EL TIT TIT TIT TIT TIT TIT TIT TIT TIT TIT	P MHF 3 0.5 ONTRA ATOR T OTE 1) ECTRIC ECTRIC ECTRIC ECTRIC US US US US US US US US US US	1 VOI CTOR YPE R MC F 3 3 F 3 5 5 5 5 5 5 5 5 5 5 5 5 5	LTAGE 115	E PH/ FUATO TYLE POSIT POSIT POSIT POSIT POSIT BLAD	MFR ASES 1 DR TION	RICAL DI B' (NOT MF NORI NORI NORI NORI NORI ERTIC

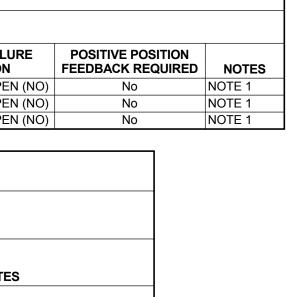
		SU	PPLY	FAN C	HAR	ACTERISTI	ICS				FILT	ERS		EXHA		R STREA	M							EXHAUST	FAN CH	IARACTE	RISTICS								
							ONNECT	ГС	CONTROLLE	ER/STARTER				SUM	MER	WINTER	2																		
ESP IN.						BY	ТҮР	E	BY	TYPE				EAT DB	EAT WB	EAT EA DB W			ES IN	SP N.					DISC	ONNECT	DISCONN			CONTROLLE STARTED					
W.C.		ГҮРЕ				NOTE A		E B)	(NOTE A)	(NOTE C)	TYPE			I °F	°F	°F °I	= A	PD CF	M W.	C.	TYPE			M BHP MH	IP	BY	TYPE	START	ED BY	TYPE					
1.8	ED PLE	ARD-INCLIN NUM (TWIN)	3050	0.8	1.06	6 MFR	NF		MFR	FV	MERV 8	3 3	845	72	67	70 6	3 (0.6 84	5 1.	2 B/ El	ACKWARD D PLENUM	I (TWIN)	305	0 0.8 1.0	06 1	MFR	NF	MF	·R	FV					
]				ТС							-D)													
														UNI	1 3	СПЕ	DU			JNI	ΓΙΝUΕ	-							-1						
												FILT	TERS								SUM		TEM							ELE		AL MAXIMUM	_		
																OOLING									HEATIN			RECOVERED				OVERCURRENT			
												TYPE		Y CA		(MBH)	C/	APACITY	-	1)	DB °F	WB °F		LAT °F									MANUFACTURER		
											l	MERV	8 3		48			54			80	67		70	70		56.2	105.5	12	20 1	14 A	20 A	ALDES	E1800-F	I NOTES 1,2
																					ן														
]														
						ELECTRI															-														

										4
					DISCONNECT CONTROLLER/		MANUFACTUR			
VOLTAGE	PHASES	FLA	MCA	MOCP	BY (NOTE A)	BY (NOTE A)	ER	MODEL	REMARKS	
208	3	33.9	29.0	50	EC	MFR	MITSUBISHI	PQRY-P120TLMU-A	NOTES 1,2,3	
208	3	15	13.0	20	EC	MFR	MITSUBISHI	PQRY-P72TLMU-A	NOTES 1,2,3	

IECT	CONTROLL	ER/ STARTER			
TYPE NOTE B)	BY (NOTE A)	TYPE (NOTE C)	MANUFACTURER	MODEL	NOTES
VFD	M.C.	VFD	B & G	1510 SERIES	NOTES 1, 2
VFD	M.C.	VFD	B & G	1510 SERIES	NOTES 1, 2

NTROLLER/ TARTER		MODEL	
(NOTE A)	MANUFACTURER	(NOTE 1)	NOTES
MFR	B & G	GMU-30	NOTE 1

)					
ст		OLLER/ RTER			
YPE TE B)	BY (NOTE A)	TYPE (NOTE C)	MANUFACTURER	MODEL	REMARKS
NF	MFR	ECM	GREENHECK	SQI	NOTE 1, 2



ACE. MINIMUM OF TWO

NES NOTED OTHERWISE

STARTER 1						REMA					
-	SE WIDTH M					SA - S	TANDARD AC	CESSORIE	8	TA - TWO C	ONVERTIBLE AUXILIARY CONTACTS
12PWM - 12	PULSE PWN	Л				(NCLUDES * IT	FEMS)		ISO - ISOLA	TION TRANSFORMER
	PULSE PWN	Л					MANUAL SPE				P FREQUENCY CAPABILITY
LINE DISCO							LECTRONIC				DTE START-STOP
	NNECT SWIT	-							R, FUSED, 120V	RDR - REMO	OTE DRIVE RUN
		ECT SWITCH					IAND-OFF-AL				DTE FAULT TRIP
CB - CIRCU	IT BREAKER					TO - M	ELTING THE	RMAL OVER	LOADS	LR - INPUT	LINE REACTOR
CONTROL:						MOL -	MULTIPLE M	OTOR OVEF	RLOADS	HAR - PASS	SIVE HARMONIC FILTER
PN - 3-15 P	SI TRANSDU	CER									
420 - 4-20m	A FOLLOWE	R									
					VOLTAGE			IVE	_		
ITEM	LINE DISC.	DRIVE BYPASS	CONTROL	INPUT	OUTPUT	PH.	H.P. RATING	TYPE	NEMA ENCLOSURE	REMARKS	APPROVED MANUFACTURERS
/FD-MAU1	DS	3 CONTACT	420 PN	208 V	208 V	3	1	PWM	1	SA, VARIABLE TORQUE	TOSHIBA Q9 SERIES ABB ACH 550 SERIES ALLEN BRADLEY POWERFLEX 40 SERIES DANFOSS VLT6000 SERIES G.E. AF300 P11 SERIES SQUARE D [E-FLEX] [M-FLEX]
VFD-P1	DS	3 CONTACT	420 PN	208 V	208 V	3	5	PWM	1	SA, VARIABLE TORQUE	TOSHIBA Q9 SERIES ABB ACH 550 SERIES ALLEN BRADLEY POWERFLEX 40 SERIES DANFOSS VLT6000 SERIES G.E. AF300 P11 SERIES SQUARE D [E-FLEX] [M-FLEX]
VFD-P2	DS	3 CONTACT	420 PN	208 V	208 V	3	5	PWM	1	SA, VARIABLE TORQUE	TOSHIBA Q9 SERIES ABB ACH 550 SERIES ALLEN BRADLEY POWERFLEX 40 SERIES DANFOSS VLT6000 SERIES G.E. AF300 P11 SERIES SQUARE D [E-FLEX] [M-FLEX]

17	18	19	20	21

К	J	ENGINEERING CONSULTANTS	MIDDLETON	G WAY SUITE 200 , WISCONSIN 53562) FAX: 608.836.0415
w	W	The FUTURE. Built SMARTER.	www.kjww.c PROJECT #	om
		EERING RESERVES PROPRIET	ARY RIGHTS,	
TO TH ARE TH OR RE	IS DRAN HE EXC PRODU	WING AND THE DATA SHOWN T LUSIVE PROPERTY OF KJWW E ICED FOR ANY OTHER PROJEC	ARY RIGHTS, HEREON. SA INGINEERING T WITHOUT T	ID DRAWING AND/OR DATA AND SHALL NOT BE USED THE EXPRESS WRITTEN
TO TH ARE TH OR RE	IS DRAN HE EXC PRODU	WING AND THE DATA SHOWN T LUSIVE PROPERTY OF KJWW E	ARY RIGHTS, HEREON. SA INGINEERING T WITHOUT T NGINEERING	ID DRAWING AND/OR DATA AND SHALL NOT BE USED THE EXPRESS WRITTEN

0			Ρ			N			
A	R	С	H	I	Τ	Ε	С	Т	S
		C	ED DES M	SΝ		NES	_		

OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

Owner MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

Project Madison Public Library Maintenance & Support Center Remodel & Addition

1301 West Badger Road Madison, WI 53713

General Contractor

- Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444
- STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date

Bid Set 12/09/2016 Previous Issue Dates

_____ _____ _____ _____

Revision Dates _____

Drawing SCHEDULES -MECHANICAL

OPN Project No. 15617000 M501

	ELEC	CTRICAL	SYMBOL LIST		ELECTRICAL EQUIPMENT TAGS	
SYMBO	DL: TAG:	SPEC SECTION:	DESCRIPTION:	TAG:	DESCRIPTION:	REL SPECIF
	PANEL '###'	26 24 16	PANELBOARD - RECESS MOUNT	<u>DP-#</u>	DISTRIBUTION PANEL	26 26
				<u>F#</u> FAP-#	FIRE ALARM - CONTROL PANEL	20
	PANEL '###'	26 24 16		SPD-#	SURGE PROTECTION DEVICE	26
S	<u>SW-1P</u>	26 27 26	SWITCH - SINGLE POLE	<u>LC-#</u>	LIGHTING CONTACTOR, REFER TO CONTACTOR SCHEDULE	2
S ₃	<u>SW-3W</u> <u>SW-OC-P-0</u>	26 27 26 26 27 26	SWITCH - THREE WAY SWITCH - OCCUPANCY SENSOR WALL SWITCH	<u>PP-1</u>	POWER POLE	2
S ₀		26 27 26	SWITCH - DIMMER	<u>MC-1</u>	METER CABINET	2
D E	<u>SW-D-LED</u>					
Ē	<u>ECONN</u>	26 05 33	ELECTRICAL CONNECTION			
	<u>DS-#</u>	26 28 16	DISCONNECT			
=	REC-DUP	26 27 26	DUPLEX RECEPTACLE, 125V			
*	REC-DUP-GFI	26 27 26	DUPLEX GFI RECEPTACLE, 125V			
≠	REC-QUAD	26 27 26	QUAD RECEPTACLE, 125V			
₩₩	REC-DUP-WP	26 27 26	DUPLEX GFI WEATHERPROOF RECEPTACLE 125V			
LS	<u>SW-LS</u>	26 27 26	DAYLIGHT LEVEL SENSOR			
	SW-OC-D	26 27 26	OCCUPANCY SENSOR - DUAL TECHNOLOGY			
	HB <u>SW-OC-P-HB</u>	26 27 26	OCCUPANCY SENSOR - HIGH BAY			
	<u>SW-OC-P-P</u>	26 27 26	OCCUPANCY SENSOR - PASSIVE INFRARED			
PC	SW-LS-PC	26 27 26	360 DEGREE COVERAGE PHOTOCELL			
	<u>LC-1</u>	26 09 33	LIGHTING CONTACTOR			
ТС	<u>TC</u>	26 09 33	LIGHTING TIME CLOCK			
	<u>F#</u>	26 51 00	LINEAR LUMINAIRES			
	⊐ <u>F#</u>	26 51 00	LINEAR LUMINAIRES			
	<u>F#</u>	26 51 00	TROFFER			
	<u>F#</u>	26 51 00	DOWNLIGHT LUMINAIRE			
		26 51 00	INDUSTRIAL LUMINAIRE			
		26 51 00	POLE MOUNTED LUMINARE			
	<u>×#</u>	26 51 00	SINGLE FACE EXIT SIGN			
	<u>X#</u>	26 51 00	DOUBLE FACE EXIT SIGN			
	<u>EM#</u>	26 51 00	EMERGENCY UNIT			
	<u>FAP-100</u>	28 31 00	FIRE ALARM CONTROL PANEL			
MM	<u>FA-160</u>	28 31 00	FIRE ALARM ADDRESSABLE MONITOR MODULE			
A	<u>FA-230</u>	28 31 00	FIRE ALARM AUDIO NOTIFICATION DEVICE - CEILING MOUNTED			
(A1) (A3) (A7) (A+	AS <u>FA-231</u>	28 31 00	FIRE ALARM AUDIO/VISUAL NOTIFICATION DEVICE - CEILING MOUNTED			
A1 A A7 A AS	ΕΔ-211	28 31 00	FIRE ALARM AUDIO/VISUAL NOTIFICATION DEVICE - WALL MOUNTED			
(FS)	<u>FA-260</u>	28 31 00	FIRE ALARM FLOW SWITCH TO MONITOR FIRE PROTECTION SYSTEM			
MS	<u>FA-261</u>	28 31 00	FIRE ALARM MONITOR SWITCH TO MONITOR FIRE PROTECTION SYSTEM			
EB	<u>FA-263</u>	28 31 00	FIRE ALARM ELECTRONIC BELL FOR SPRINKLER SYSTEM			
V1 V V7 V		28 31 00	FIRE ALARM VISUAL NOTIFICATION DEVICE - WALL MOUNTED			
ГІВТ		26 05 26	INTERSYSTEM BONDING TERMINATION			
D	SW-D-LED	26 05 26	DIMMER - LED			
		26 27 26	DIMMER - LED DIMMER - LED - 3-WAY			
D ₃						
AF	-	28 31 00	FIRE ALARM ADDRESSABLE RELAY			
F	<u>FA-130</u>	28 31 00	FIRE ALARM MANUAL PULL STATION			

SUGGESTED MATRIX OF RESPONSIBILITY

14

15

16

12

13

<u>SUGGESTED IVIA</u>			NJIDILII	I
ITEM:	SHOWN ON:	FURNISHED BY:	INSTALLED BY:	NOTES:
TECHNOLOGY ROUGH-IN, REFER TO GENERAL TECHNOLOGY EQUIPMENT SCHEDULE AND SPECIFICATIONS FOR DEFINITION	T-SERIES	E.C.	E.C.	3. 4.
INFORMATION OUTLET FACEPLATES, JACKS, AND TERMINATIONS	T-SERIES	T.C.	T.C.	
CONDUIT SLEEVES (WHEN SHOWN ON DRAWINGS)	T-SERIES	E.C.	E.C.	
CONDUIT SLEEVES (NOT SHOWN BUT REQUIRED FOR PROPER INSTALLATION OF SYSTEM)	N/A	T.C.	T.C.	2. 4.
TELECOMMUNICATION SYSTEMS ROUGH-IN	T-SERIES	E.C.	E.C.	1.
TELECOMMUNICATION EQUIPMENT, CABLING, AND TERMINATIONS	T-SERIES	T.C.	T.C.	
GROUNDING LUGS ON TECHNOLOGY EQUIPMENT	T-SERIES	T.C.	E.C.	6.
BONDING SYSTEM FOR TECHNOLOGY SYSTEM, REFER TO SPECIFICATION SECTION 27 05 26 FOR DEFINITION	T-SERIES	E.C.	E.C.	7. 8.
CONNECTION OF TECHNOLOGY BONDING SYSTEM TO THE ELECTRICAL GROUND SYSTEM	T-SERIES	E.C.	E.C.	
LINE VOLTAGE POWER (+120V OR GREATER)	E-SERIES	E.C.	E.C.	
LINE VOLTAGE POWER (NOT SHOWN BUT REQUIRED FOR PROPER INSTALLATION OF SYSTEM)	N/A	T.C.	E.C.	2. 4.
LINE VOLTAGE POWER FOR DOOR HARDWARE POWER SUPPLIES	ARCH SPEC	E.C.	E.C.	
LOW VOLTAGE CABLING FOR TECHNOLOGY SYSTEMS	T-SERIES	T.C.	T.C.	
CABLE HANGERS AND SUPPORTS OR OTHER CABLE ROUTING METHODS (OTHER THAN CONDUIT AND CABLE TRAY)	T-SERIES	T.C.	T.C.	5.
TECHNOLOGY SERVICE ENTRANCE CONDUITS, HANDHOLES.	T-SERIES	E.C.	E.C.	

SUGGESTED MATRIX OF RESPONSIBILITY NOTES

- LOCATIONS OF COMMUNICATIONS ROUGH-INS SHALL BE INDICATED BY THE INFORMATION OUTLET SYMBOLS ON THE DRAWINGS. REFER TO THE TECHNOLOGY SYMBOL LIST FOR ADDITIONAL INFORMATION.
- BASED ON THE INHERENT DIFFERENCES IN PRODUCTS FROM VARIOUS MANUFACTURERS, ALL REQUIRED EQUIPMENT MAY NOT BE SHOWN ON THE DRAWINGS FOR ALL ACCEPTABLE MANUFACTURERS.
- INCLUDES BACKBOXES AND CONDUIT REQUIRED FOR THE TECHNOLOGY SYSTEMS INSTALLATION. THE E.C. SHALL BASE THE BID ON THE BASIS OF DESIGN SHOWN ON THE
- CONTRACT DOCUMENTS. ALL CHANGES TO THE SLEEVES, BACKBOXES, CONDUITS, AND POWER REQUIRED BECAUSE OF THE T.C.'S SELECTION OF AN ALTERNATE ACCEPTABLE MANUFACTURER OR FROM SYSTEM CONFIGURATIONS THAT ARE LEFT TO THE CHOICE OF THE CONTRACTOR SHALL BE INCLUDED IN THE T.C.'S BID.
- UNLESS TRADE RULES DICTATE OTHERWISE. FURNISHED AS PART OF THE EQUIPMENT WHEN POSSIBLE, OR FURNISHED TO THE E.C. FOR INSTALLATION IN THE FIELD.
- INCLUDES ALL CONDUCTORS, GROUND BARS, AND TERMINATIONS FOR THE COMPLETE BONDING SYSTEM REQUIRED BY THE SPECIFICATIONS.
- REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS OF PANELS AND SWITCHBOARDS SHOWN IN THE TECHNOLOGY BONDING RISER DIAGRAM AND TYPICAL TELECOM ROOM BONDING FLOW DIAGRAM.

ELECTRICAL SHEET INDEX

E000	ELECTRICAL COVER SHEET
E050	SITE PLAN - ELECTRICAL
ELD101.1	FIRST FLOOR DEMOLITION - LIGHTING
EPD101.1	FIRST FLOOR DEMOLITION - POWER
EL101.1	FIRST FLOOR - LIGHTING
EP101.1	FIRST FLOOR - POWER
ES101.1	FIRST FLOOR - FIRE ALARM
E400	ONE LINE DIAGRAM
E500	ELECTRICAL SCHEDULES
E501	ELECTRICAL SCHEDULES

17	18	19	20	I	21

ELECTRICAL GENERAL NOTES:

##-### INDICATES ELECTRICAL EQUIPMENT DEFINED IN ELECTRICAL SCHEDULES OR SPECIFICATION.



OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

Proiect

General Contractor

Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713

REFER TO DRAWINGS CONTAINING ELECTRICAL SCHEDULES. PERMANENT NAMEPLATE SHALL MATCH FINAL EQUIPMENT NOMENCLATURE, NOT ELECTRICAL EQUIPMENT TAG NAME, REFER TO SPECIFICATIONS. 2. "NL" INDICATES LUMINAIRE IS UNSWITCHED FOR NIGHT LIGHT.

LUMINAIRE KEY: F1 = FIXTURE TAG 1 = CIRCUIT NUMBER a = SWITCH DESIGNATION LUMINAIRE NL = SUBSCRIPT (IF APPLICABLE) *IF LABEL IS ORIENTED HORIZONTALLY A SLASH WILL SEPARATE THIS INFORMATION. EX: F1 / 1 / a / NL DEVICE KEY: A = MOUNTING (IF APPLICABLE) DEVICE **P** 1 = CIRCUIT NUMBER

*IF LABEL IS ORIENTED HORIZONTALLY A SLASH WILL SEPARATE THIS INFORMATION. EX: A / 1

ELECTRICAL MOUNTING SUBSCRIPT KEY: MOUNT AT +6" TO CENTERLINE ABOVE COUNTER OR BACKSPLASH

ELECTRICAL INSTALLATION NOTES:

- 1. THE COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE ADA STANDARDS FOR ACCESSIBLE DESIGN. REFER TO THE ADA GUIDELINES FOR ALL CONFIGURATIONS DETAIL ON THIS PAGE FOR ADDITIONAL INFORMATION.
- 2. CIRCUIT NUMBERS ARE SHOWN FOR CIRCUIT IDENTIFICATION. CIRCUITING SHALL AGREE WITH NUMBERING ON THE PANEL PROVIDED. COMMON NEUTRALS MAY NOT BE USED FOR BRANCH CIRCUITS. BALANCE THE LOAD ON PANEL AS EVENLY AS POSSIBLE BETWEEN EACH PHASE.
- CIRCUITS SERVING EMERGENCY AND EXIT LUMINAIRES WILL BE RUN IN A SEPARATE RACEWAY FROM ALL OTHER CIRCUITS. 4. FLUSH MOUNT ALL LIGHTING CONTROL DEVICES AT +42" FROM FLOOR (CENTERLINE DIMENSION),
- EXCEPT WHERE OTHERWISE NOTED. DEVICES MAY BE SURFACE MOUNTED WHEN CONDUIT IS SPECIFIED EXPOSED. 5. FLUSH MOUNT ALL DUPLEX RECEPTACLES AND TECHNOLOGY OUTLETS AT +18" FROM FLOOR
- (CENTERLINE DIMENSION), EXCEPT WHERE OTHERWISE NOTED. RECEPTACLES AND OUTLETS MAY BE SURFACE MOUNTED WHEN CONDUIT IS SPECIFIED EXPOSED. ALL MATERIALS USED TO SEAL PENETRATIONS OF FIRE RATED WALLS AND FLOORS SHALL BE
- TESTED AND CERTIFIED AS A SYSTEM PER ASTM E814 STANDARDS FOR FIRE TESTS OF THROUGH-PENETRATION FIRESTOPS. REFER TO ARCHITECTURAL SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS SPECIFIC TO FIRESTOPPING. CONNECTION FOR ELECTRIC WATER COOLERS (EWC) SHALL BE A JUNCTION BOX CONCEALED
- BEHIND WATER COOLER ACCESS PLATE OR BE A GFI RECEPTACLE LOCATED DIRECTLY BELOW AND CENTERED ON EWC. CONTRACTOR SHALL VERIFY TYPE OF EWC TO BE INSTALLED. 8. MOUNT ALL FIRE ALARM PULL STATIONS AT +42" FROM FLOOR (CENTERLINE DIMENSION) EXCEPT WHERE OTHERWISE NOTED.
- INSTALL ALL WALL MOUNTED FIRE ALARM NOTIFICATION DEVICES AT 90" ABOVE FINISHED FLOOR OR 6" BELOW THE CEILING, WHICHEVER IS LOWER, EXCEPT WHERE OTHERWISE NOTED. HEIGHT SHALL BE MEASURED TO THE TOP OF THE DEVICE.
- 10. CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL CEILING MOUNTED DEVICES AND EQUIPMENT WITH LUMINAIRES, SPRINKLER, AND CEILING DIFFUSERS. CENTER ALL DEVICES IN CEILING TILE PATTERN. SMOKE DETECTORS AND OCCUPANCY/VACANCY SENSORS SHALL BE LOCATED NO CLOSER THAN 3 FEET TO AN AIR SUPPLY DIFFUSER OR RETURN GRILLE.
- 11. CONTRACTOR SHALL VERIFY ALL FURNITURE, MODULAR FURNITURE, AND EQUIPMENT LOCATIONS WITH ARCHITECTURAL PLANS, ELEVATIONS, AND REVIEWED SHOP DRAWINGS. PRIOR TO MAKING THE ACTUAL ELECTRICAL INSTALLATION, THIS CONTRACTOR SHALL ADJUST RECEPTACLES, OUTLETS, OR CONNECTION LOCATIONS TO ACCOMMODATE FURNITURE AND/OR EQUIPMENT. 12. ELECTRICAL AND TECHNOLOGY EQUIPMENT SHALL BE MOUNTED TO AVOID IMPEDANCE OF,
- OPERATION OF, AND/OR ACCESS TO ELECTRICAL AND MECHANICAL EQUIPMENT. ALL MOUNTING OF ELECTRICAL AND COMMUNICATIONSEQUIPMENT, ON EQUIPMENT SUPPLIED BY ANOTHER CONTRACTOR. SHALL BE APPROVED IN ADVANCE BY THE OTHER CONTRACTOR.
- 13. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OPENINGS REQUIRED IN WALLS. ALL OPENINGS SHALL BE REPAIRED TO MATCH EXISTING BY A QUALIFIED CONTRACTOR AT THE EXPENSE OF THIS CONTRACTOR. ALL CONDUITS THROUGH WALLS SHALL BE GROUTED OR SEALED INTO OPENINGS. 14. CONTRACTOR SHALL REMOVE AND REINSTALL ALL CEILING TILES AS REQUIRED FOR THE EXECUTION OF ELECTRICAL WORK. CONTRACTOR SHALL REPLACE CEILING TILES WITH IDENTICAL MATERIAL WHERE DAMAGED BY THIS CONTRACTOR.
- 15. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN, ELECTRICAL, TECHNOLOGY AUDIO/VISUAL, AND OTHER ELECTRICAL PLANS FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES, UTHER THAN SPRINKLERS.

ELECTRICAL RENOVATION NOTES:

THESE NOTES APPLY TO ALL ELECTRICAL SHEETS AND TRADES. INCLUDING BUT NOT LIMITED TO, LIGHTING, POWER, AND SYSTEMS.

- 1. EXISTING CONDITIONS ARE SHOWN BASED ON INFORMATION OBTAINED FROM FIELD SURVEYS. EXISTING BUILDING DOCUMENTS, AND STAFF. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS BEFORE PROCEEDING.
- NOT ALL EXISTING EQUIPMENT, LUMINAIRES, AND CONDUIT ARE SHOWN. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS WITH NEW WORK BEFORE STARTING WORK. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CUTTING, REMOVAL AND PATCHING OF ROOFS, WALLS, AND FLOORS ASSOCIATED WITH WORK BY ALL CONTRACTORS. CONTRACTORS SHALL
- NOTIFY THE GC OF AFFECTED AREAS PRIOR TO BIDDING. 4. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF CEILINGS, CEILING TILES, AND CEILING GRIDS ASSOCIATED WITH AREAS OF WORK BY ALL CONTRACTORS. NOTIFY THE GENERAL CONTRACTOR OF AFFECTED AREAS PRIOR TO BIDDING.
- WHERE EXISTING ELECTRICAL SYSTEMS ARE LOCATED IN AREAS THAT CONFLICT WITH NEW EQUIPMENT, PIPING, OR DUCTWORK TO BE INSTALLED, EACH CONTRACTOR SHALL EITHER ARRANGE NEW EQUIPMENT, CONDUIT, OR DUCTWORK IN SUCH A FASHION THAT IT DOES NOT CONFLICT WITH EXISTING SYSTEMS, OR REWORK EXISTING ELECTRICAL SYSTEMS TO ALLOW FOR INSTALLATION OF NEW EQUIPMENT, PIPING, OR DUCTWORK.

КЈ

Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

- STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562
- ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

P. 608.223.9600

Key Plan

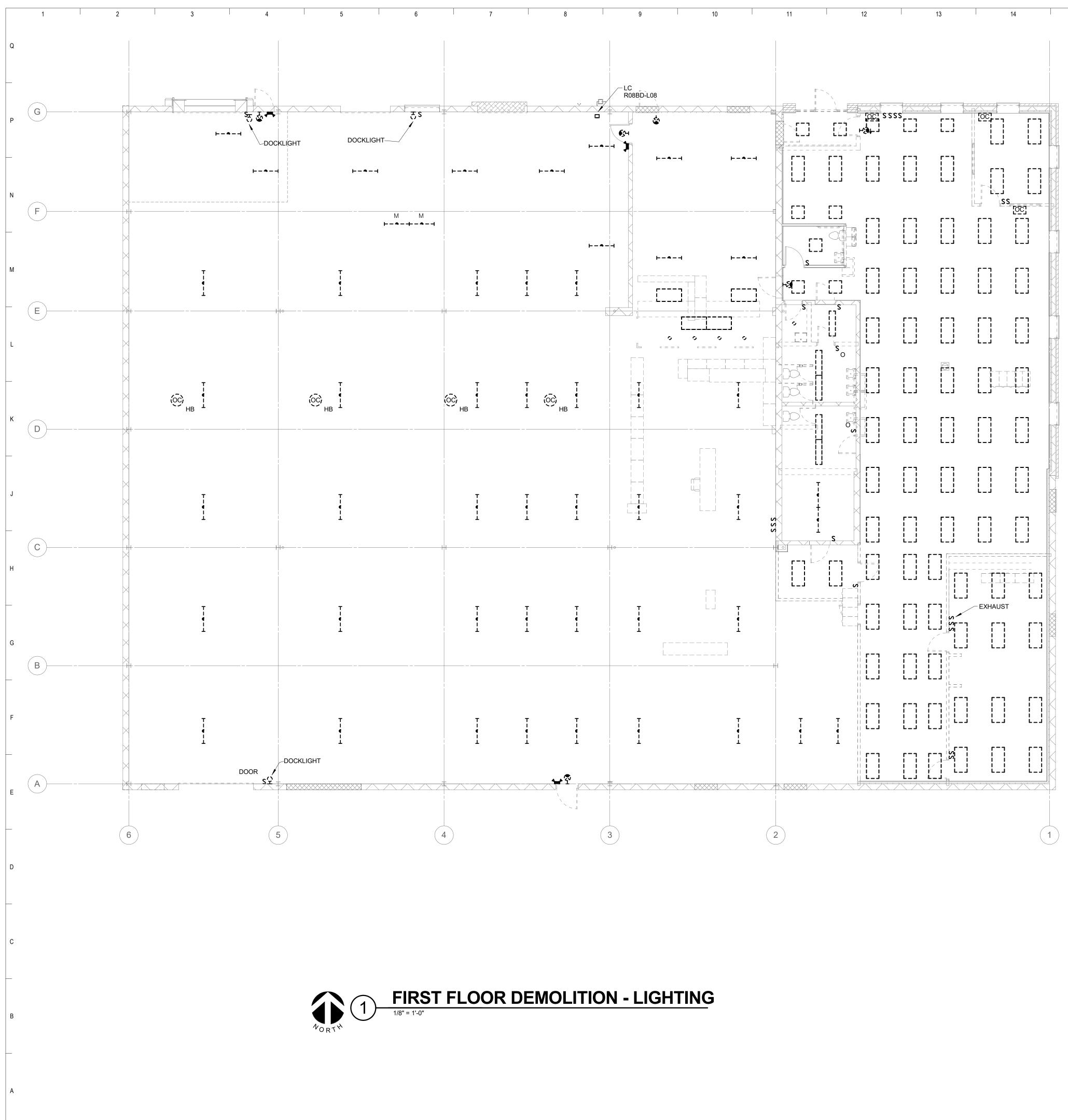
Sheet Issue Date Bid Set 12/09/2016 Previous Issue Dates _____ Revision Dates _____ Drawing ELECTRICAL COVER SHEET OPN Project No. 15617000

E000



ENGINEERING CONSULTANTS 1800 DEMING WAY SUITE 200 MIDDLETON, WISCONSIN 53562 608.223.9600 FAX: 608.836.0415

www.kjww.com



	A R C H I T E C T S CEDAR RAPIDS
	DES MOINES MADISON OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com
	All reports, plans, specifications, computer file field data, notes and other documents and instruments prepared by OPN Architects, Inc. instruments of service shall remain the proper OPN Architects, Inc. OPN Architects, Inc. sha retain all common law, statutory and other reserved rights, including the copyright thereto © 2016 OPN Architects, Inc.
	Owner MADISON PUBLIC LIBRARY
	201 W Mifflin St Madison, WI 53703
	Project Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713
	General Contractor
	Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444
	STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 MECHANICAL ENGINEER K WWW Engineering Consultants
	KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
	Key Plan
	Sheet Issue Date <u>Bid Set 12/09/2016</u>
	Previous Issue Dates
	Revision Dates
KJENGINEERING CONSULTANTS The FUTURE. Built SMARTER.1800 DEMING WAY SUITE 200 MIDDLETON, WISCONSIN 53562 608.223.9600 FAX: 608.836.0415 www.kjww.com PROJECT # 16.0141.00	Drawing FIRST FLOOR DEMOLITION - LIGHTING
KJWW ENGINEERING RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGH TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR D ARE THE EXCLUSIVE PROPERTY OF KJWW ENGINEERING AND SHALL NOT BE US OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF KJWW ENGINEERING. © 2016 KJWW COR REFERENCE SCALE IN INCHES 0 1 2 3	

I

21

19

15

16

17

18

ITECTS EDAR RAPIDS DES MOINES MADISON

ns, specifications, computer files, s and other documents and pared by OPN Architects, Inc. as service shall remain the property of , Inc. OPN Architects, Inc. shall on law, statutory and other including the copyright thereto. nitects, Inc.



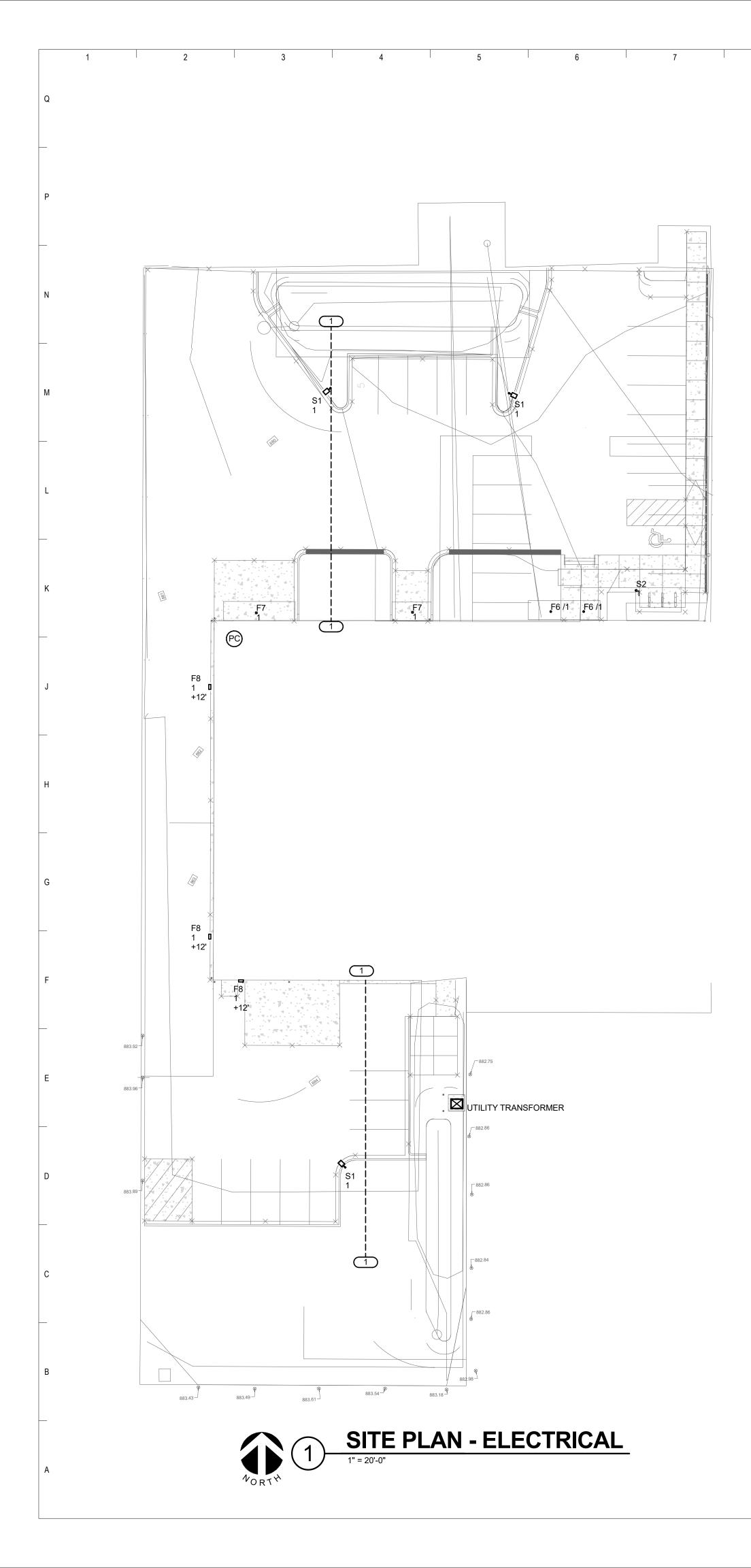
	ARCHITECTS CEDAR RAPIDS
	OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0260 FAX www.opnarchitects.com opn@opnarchitects.com
	All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.
	Owner MADISON PUBLIC LIBRARY
	201 W Mifflin St Madison, WI 53703
	Project Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713
	General Contractor
	Consultants CIVIL ENGINEER
	Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444 STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
	MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
	Key Plan
	Bid Set 12/09/2016 Previous Issue Dates
K J ENGINEERING 1800 DEMING WAY SUITE 200 MIDDLETON, WISCONSIN 53562 608.223.9600 FAX: 608.836.0415 W W The FUTURE. www.kjww.com Built SMARTER [®] PROJECT # 16.0141.00	Drawing FIRST FLOOR DEMOLITION - POWER
KJWW ENGINEERING RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF KJWW ENGINEERING AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF KJWW ENGINEERING. © 2016 KJWW CORP. REFERENCE SCALE IN INCHES 0 1 2 3	OPN Project No. 15617000 EPD101.1

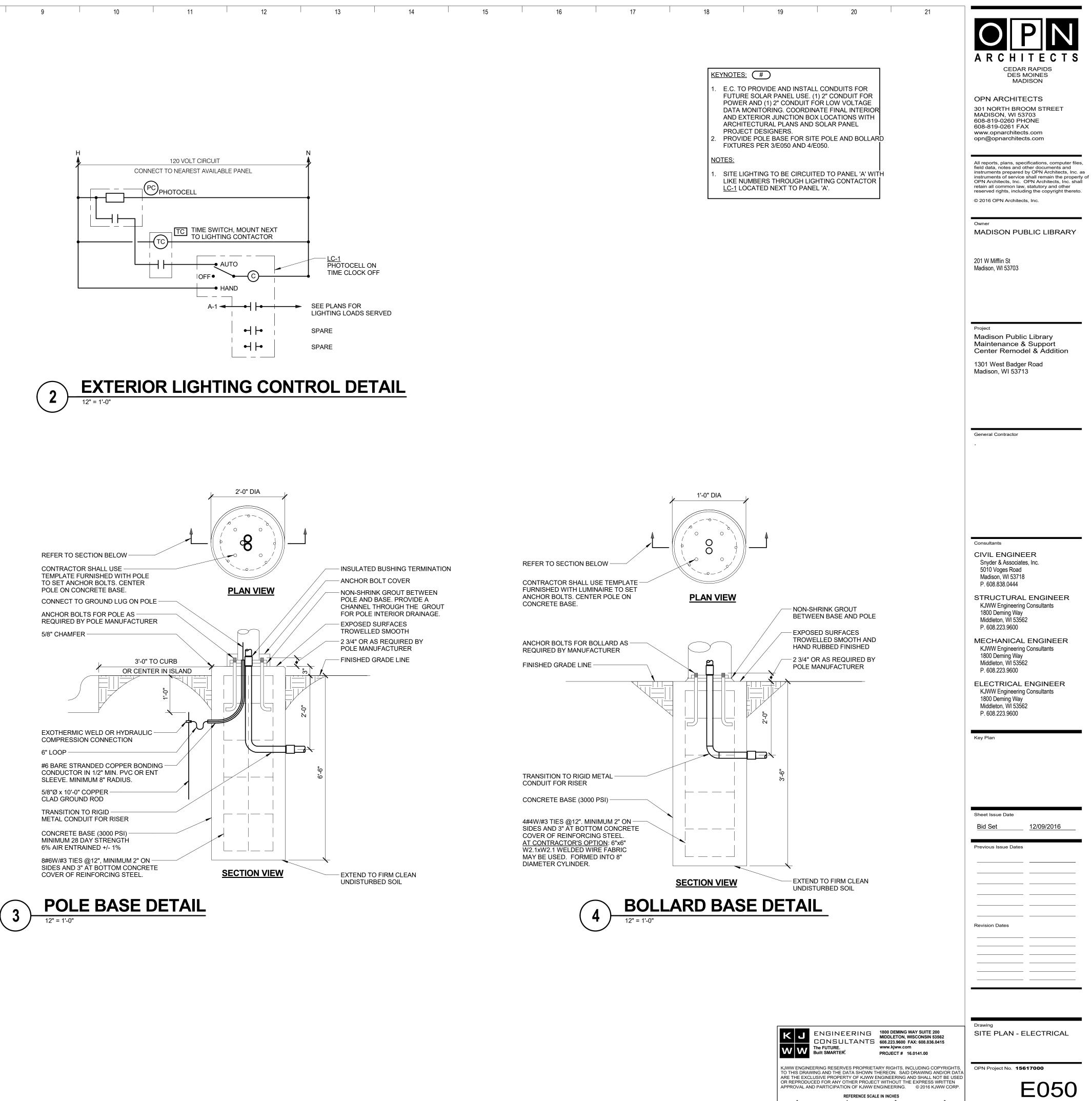
21

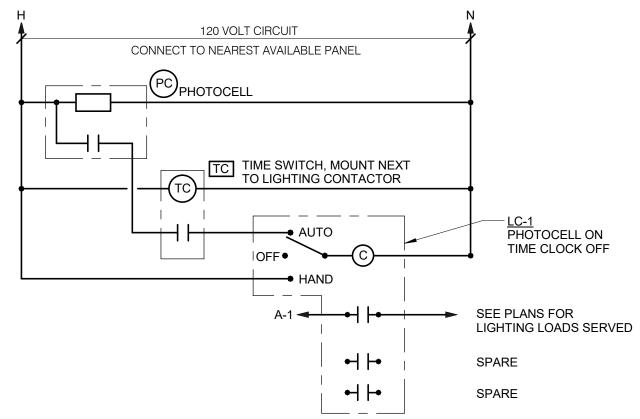
19

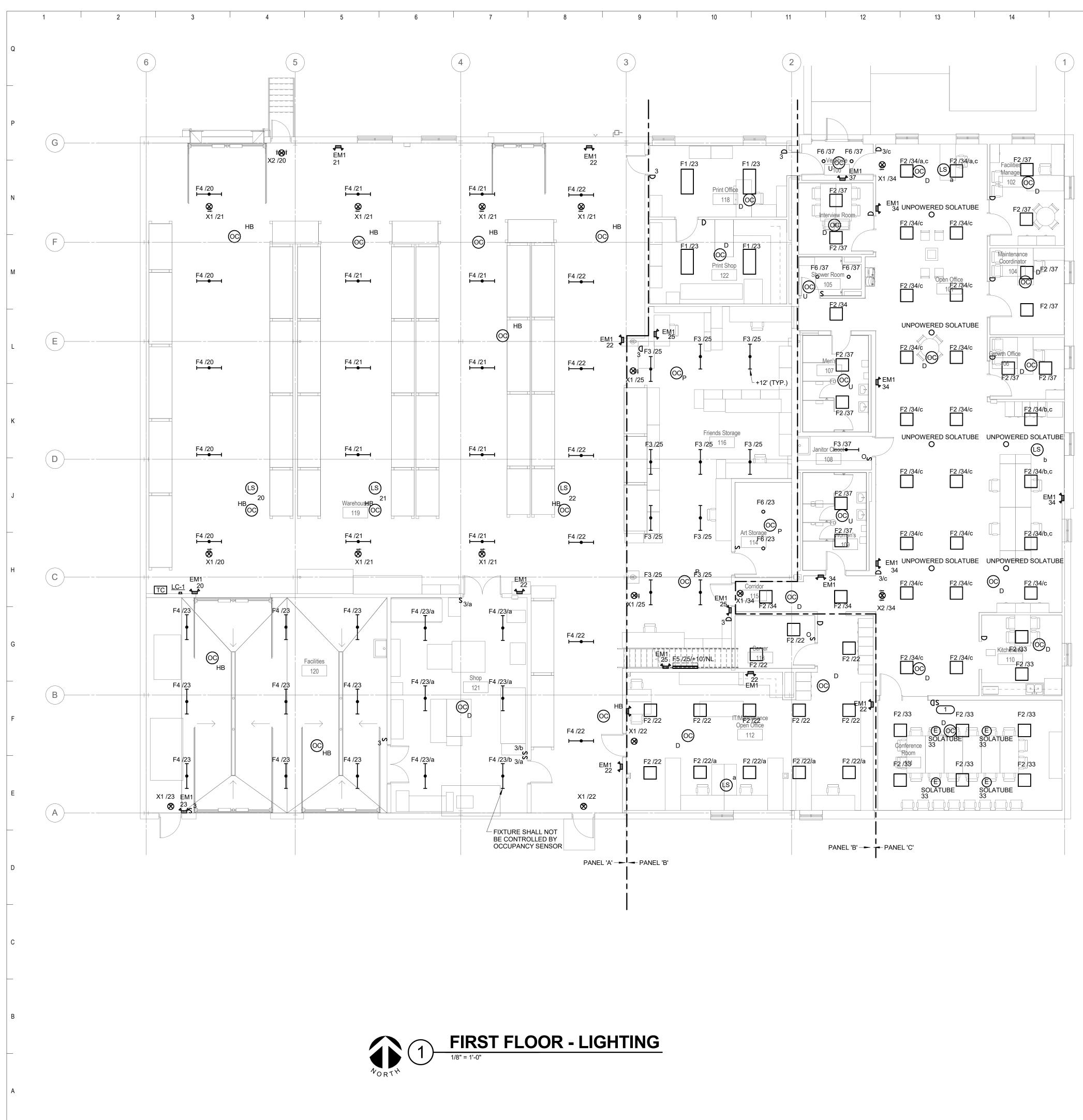
18

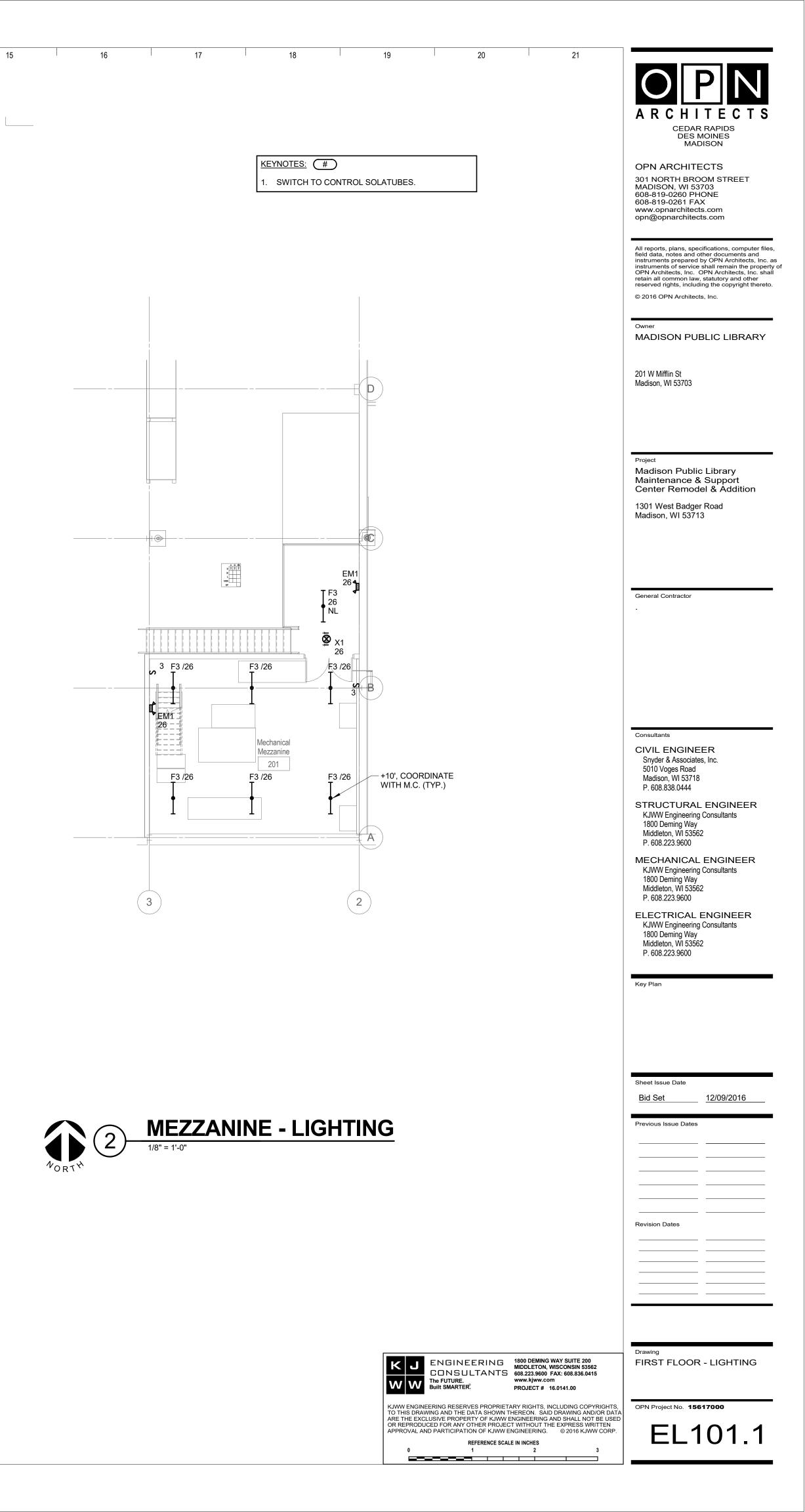
17

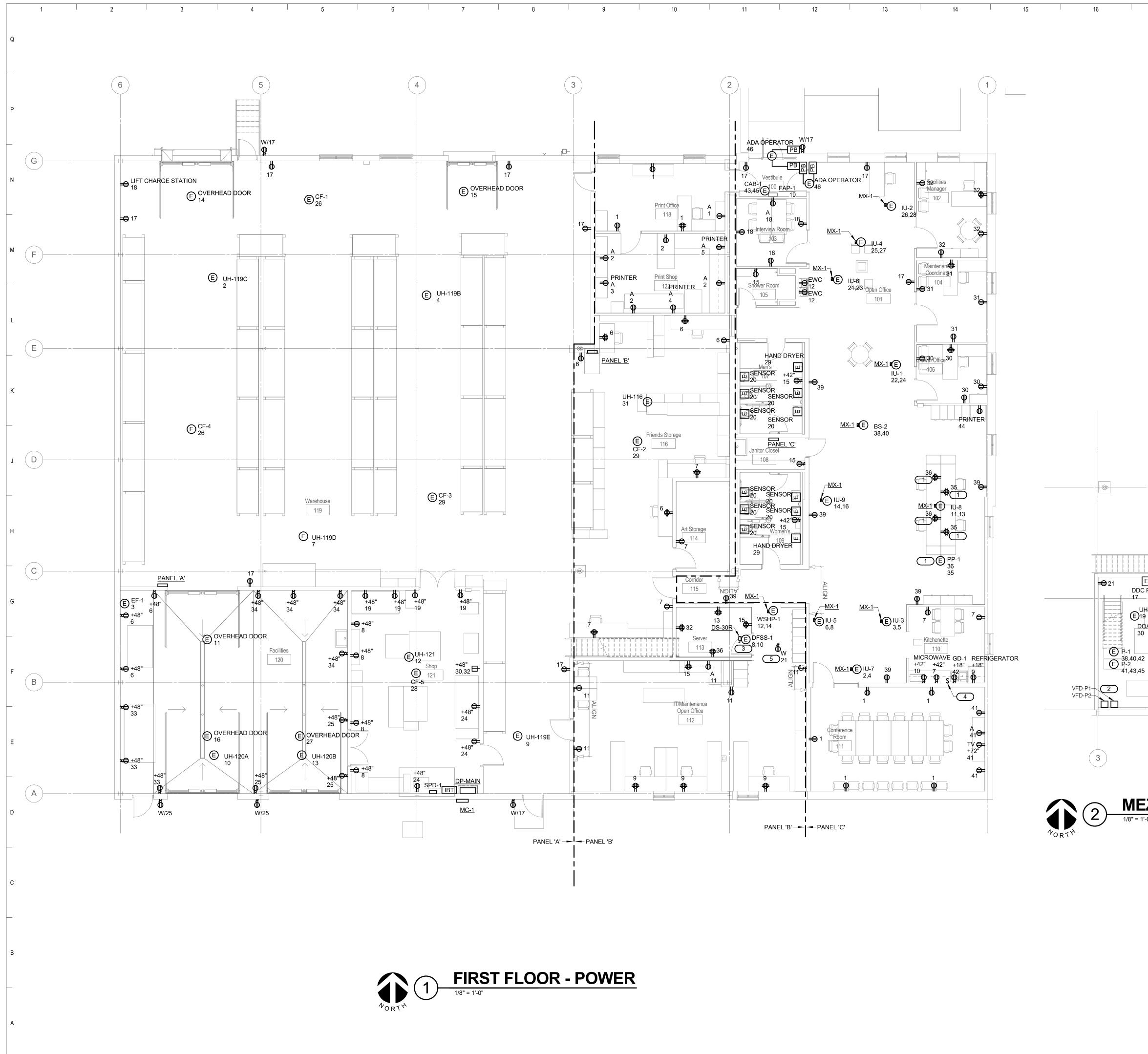












	KEYNOTES: (#)	DES MOINES MADISON
	1. POWER POLE TO CONTAIN CONNECTIONS FOR 4 QUAD RECEPTACLES AND 2 DUPLEX RECEPTACLES	OPN ARCHITECTS
	FOR DESK POWER. 2 QUADS AND 1 DUPLEX TO EACH OF THE TWO CIRCUITS ON THE POWER POLE.	OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703
	DUPLEX OUTLETS TO BE MOUNTED ON POWER POLE. QUAD RECEPTACLES TO BE CONNECTED VIA FLEXIBLE METAL CONDUIT TO ADJACENT DESKS, TO	608-819-0260 PHONE 608-819-0261 FAX
	BE SECURED BY OWNER TO THE UNDERSIDE OF OWNER PROVIDED DESKS. SEE TECHNOLOGY	www.opnarchitects.com opn@opnarchitects.com
	DRAWINGS FOR DATA OUTLETS TO BE INCLUDED IN POWER POLE.	All reports, plans, specifications, computer files.
	2. E.C. TO PROVIDE AND INSTALL CONDUIT SLEEVES FOR FUTURE SOLAR PANEL USE. (4) 1-3/4" CONDUIT	All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall
	FOR POWER AND (1) 1" CONDUIT FOR LOW VOLTAGE DATA MONITORING. COORDINATE LOCATIONS WITH ARCHITECTURAL PLANS AND	OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto.
	SOLAR PANEL PROJECT DESIGNERS. 3. PROVIDE DISCONNECT FOR DFSS-1 OUTDOOR UNIT.	© 2016 OPN Architects, Inc.
	MOUNT DISCONNECT TO UNIT. PROVIDE CONDUIT AND WIRING FROM OUTDOOR UNIT TO INDOOR	Owner
	UNIT PER MANUFACTURER'S REQUIREMENTS. COORDINATE WITH M.C. 4. SWITCH SHALL CONTROL GD-1 RECEPTACLE.	MADISON PUBLIC LIBRARY
	 SWITCH STALL CONTROL OD TRECE TACLE. MOUNT RECEPTACLE TO DFSS-1 OUTDOOR UNIT. COORDINATE WITH M.C. 	201 W Mifflin St
	NOTES:	Madison, WI 53703
	1. VFD BY M.C. INSTALLED BY E.C.	
	2. PROVIDE ROUGH-IN AND WIRING FOR OVERHEAD DOOR CONTROLS AND FAN CONTROLS PER MANUFACTURER REQUIREMENTS AND	
	ARCHITECTURAL SPECS.	
		Project Madison Public Library
		Maintenance & Support Center Remodel & Addition
		1301 West Badger Road Madison, WI 53713
		General Contractor
+@		
		Consultants
	²¹ ⊖	CIVIL ENGINEER Snyder & Associates, Inc.
		5010 Voges Road Madison, WI 53718
	<u>Р</u>	P. 608.838.0444 STRUCTURAL ENGINEER
₽21 Ē ĒWS-1 Ф ĒWH-1		KJWW Engineering Consultants 1800 Deming Way
		Middleton, WI 53562 P. 608.223.9600
UH-201 34 E CP-1		MECHANICAL ENGINEER
E19 WCCL 35,37,		KJWW Engineering Consultants 1800 Deming Way
	<u>DS-30</u> P	Middleton, WI 53562 P. 608.223.9600
Image: Weak of the second s		ELECTRICAL ENGINEER KJWW Engineering Consultants
E P-2 41,43,45	BS-1 44,46	1800 Deming Way Middleton, WI 53562
$\begin{bmatrix} 2 \end{bmatrix} = \begin{bmatrix} 1 \\ 16 \\ 18 \\ 20 \end{bmatrix} = \begin{bmatrix} 29 \\ 29 \\ 29 \end{bmatrix}$	CCU-1 9,31,33	P. 608.223.9600
VFD-MAU1		Key Plan
PANEL 'B'		
3	2	
		Sheet Issue Date
		Bid Set <u>12/09/2016</u>
MEZZANINE - I	POWER	Previous Issue Dates
1/8" = 1'-0"		
		Revision Dates
	KJ ENGINEERING 1800 DEMING WAY SUITE 200 MIDDLETON, WISCONSIN 53562	Drawing FIRST FLOOR - POWER
	Image: Construction of the state of the	
	KJWW ENGINEERING RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS,	OPN Project No. 15617000
	TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF KJWW ENGINEERING AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN	-
	APPROVAL AND PARTICIPATION OF KJWW ENGINEERING. © 2016 KJWW CORP. REFERENCE SCALE IN INCHES 0 1 2 3	EP101.1

21

ARCHITECTS

CEDAR RAPIDS DES MOINES MADISON

I

19

16

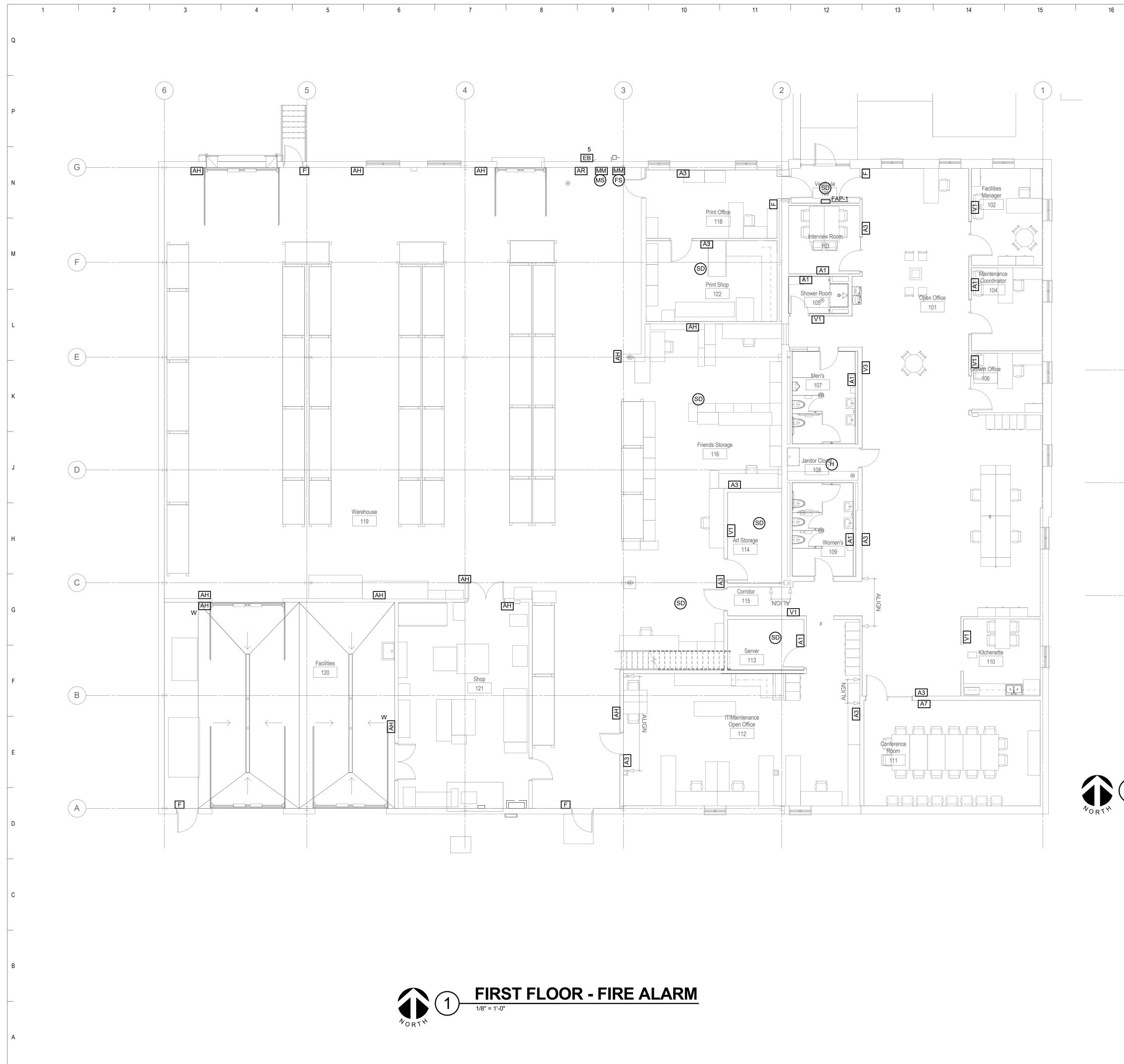
Ð21

3

17

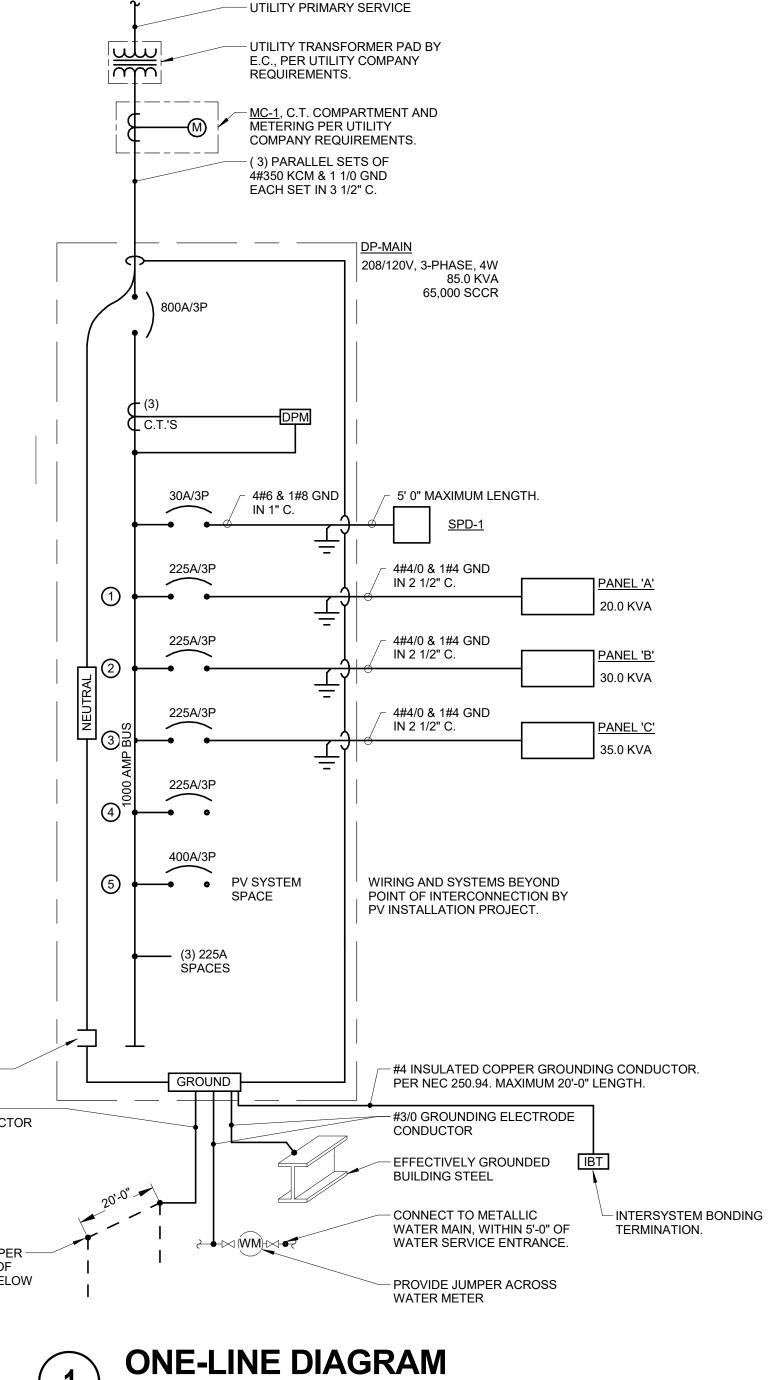
18

KEYNOTES: #



5 17 18 17 18	19	20	21	<section-header><section-header><section-header><section-header><section-header><section-header><section-header><text></text></section-header></section-header></section-header></section-header></section-header></section-header></section-header>
				OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc. Owner MADISON PUBLIC LIBRARY
				201 W Mifflin St Madison, WI 53703
				Project Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713
				General Contractor
Mechanical Mezzanine 201 201 201 201	G A			Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444 STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 MECHANICAL ENGINEER
3	2			KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
MEZZANINE - FI				Key Plan
2 1/8" = 1'-0"				Bid Set 12/09/2016 Previous Issue Dates
		SINEERING MDD NSULTANTS 608.2	DEMING WAY SUITE 200 DLETON, WISCONSIN 53562 223,9600 FAX: 608.836.0415	Drawing FIRST FLOOR - FIRE ALARM
	KJWW ENGINEERING I TO THIS DRAWING AN ARE THE EXCLUSIVE I OR REPRODUCED FOI	TURE. WWW MARTER [®] PRO. RESERVES PROPRIETARY R D THE DATA SHOWN THERE PROPERTY OF KJWW ENGIN	.kjww.com JECT # 16.0141.00 IGHTS, INCLUDING COPYRIGHTS, ON. SAID DRAWING AND/OR DATA EERING AND SHALL NOT BE USED HOUT THE EXPRESS WRITTEN EERING. © 2016 KJWW CORP.	OPN Project No. 15617000

	1	2	3	4	5	6	7	
Q								
Р								
Ν								
М								
L								
К								
J								
Н								
G								
							REMOVABLE L	INK ———
							#3/0 GROUNDII ELECTRODE C	NG ONDUCT(
F								
							3/4" DIA. x 10'-0 GROUND ROD. ROD SHALL BE GRADE. (TYP.)	" COPPEF TOP OF 12" BELC
E							GRADE. (TYP.)	
D								
С								
В								
A								



12" = 1'-0"

17	18	19	20	21



OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

Owner MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

General Contractor

Project Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713

ONE LINE DIAGRAM NOTES

- 1. AIC RATINGS LISTED FOR EQUIPMENT ARE MINIMUM REQUIREMENTS FOR BUS BRACING AND DEVICE RATING. ALL EQUIPMENT SHALL BE FULLY RATED UNLESS SPECIFICALLY NOTED AS SERIES RATED.
- 2. ____ INDICATES DIRECT CONNECTION OF GROUND CONDUCTOR TO GROUND BUS. SUBSCRIPT "I" INDICATES DIRECT CONNECTION OF ISOLATED GROUND CONDUCTOR TO ISOLATED CROUND
- INDICATES DIRECT CONNECTION OF ISOLATED GROUND CONDUCTOR TO ISOLATED GROUND BUS.
- INDICATES O.Z. GEDNEY OR EQUAL GROUND BUSHING BONDED TO GROUND BUS WITH 3. CONDUCTOR SIZED TO MAXIMUM FEEDER GROUND CAPACITY.
- 4. Y INDICATES OVERLOADS SIZED PER MOTOR NAMEPLATE FULL LOAD AMPERES.
- 5. INDICATES STARTER NEMA SIZE.
- 6. AF INDICATES MOLDED/INSULATED CASE BREAKER FRAME SIZE, FOR ADJUSTABLE TRIP BREAKERS.
- 7. AT INDICATES MOLDED/INSULATED CASE BREAKER TRIP UNIT RATING, FOR ADJUSTABLE TRIP BREAKERS.
- 8. [LSIG] INDICATES FEATURES PROVIDED WITH SOLID STATE CIRCUIT BREAKER. [LONG TIME (W/DELAY), SHORT TIME (W/DELAY), INSTANTANEOUS, GROUND FAULT].
- 9. GF INDICATES GROUND FAULT RELAY.

10. CONDUCTOR AND CONDUIT SIZES ON THE LINE AND LOAD SIDES OF ALL NON-FUSIBLE DISCONNECT SWITCHES SHALL BE IDENTICAL UNLESS NOTED OTHERWISE.

Consultants **CIVIL ENGINEER** Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

- STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date Bid Set 12/09/2016

Previous Issue Dates

_____ **Revision Dates**

_____ _____

_____ ___

Drawing ONE LINE DIAGRAM



0

REFERENCE SCALE IN INCHES

2

OPN Project No. 15617000

3

E400

					IINAIRE SCHED	DULE						
	MTG) MOUNTING: E - RECESSED	(TYPE) LAN FL - FLUOF		LOGY:				L/L) LENS / LOUV	<u>'ER:</u>			
	P - SUSPENDED L - CEILING SURFACE	CF - COMP		ESCENT				3 - BLACK BAFFLE C - CLEAR ALZAK	-			
W	/L - WALL	IN - INCAN	DESCENT				C) - PARABOLIC				
	C - UNDER CABINET V - COVE	LED - LIGH HS - HIGH						- FRESNEL	ASS			
PL	L - POLE R - FLANGED RECESSED	MH - META SMH - SUP	L HALIDE				F	H - WALL WASHEF P - POLYCARBON	२			
	R - FLANGED RECESSED - OTHER (SEE DESCRIPTION)	PSMH - PU	LSE START	METAL H			ĸ	(- KSH12 .125" A(CRYLIC			
	OOR:	CMH - CER O - OTHER						(19 - KSH19 .156" LOW IRIDESCE		LAR ALUN	И.	
FA	A - FLAT ALUMINUM	XL - EXTEN	IDED LIFE		г		N	I - NONE				
R/	S - FLAT STEEL A - REGRESSED ALUMINUM		NUEU LIFE					R - HIGH IMPACT () - OTHER (SEE D				
R	S - REGRESSED STEEL	(TYPE) BA	LAST:				(TYPE) BALLAST:				
	INISH: AF - PAINT AFTER FABRICATION	DIM07 - LIN					E	B - ELECTRONIC	BALLAST		:т	
	SA - FINISH SELECTION BY ARCHITECT	HL - HIGH /	LOW LEVE	L BALLAS			C	DALI - DIGITAL DIN	MMING BAL	LAST		
		ML - MULT HP - HIGH						/V - MULTI-VOLT/ PRS - ELECTRONI				
	ALOG NUMBER SHALL NOT BE CONSIDERED (
THE S	SPECIFICATION SHALL BE COORDINATED WI BASIS FOR DESIGN.											
REFE	ER TO SPECIFICATION SECTIONS LIGHTING 26	51 00 AND EM	ERGENCY	IGHTING	26 52 00 FOR ADDIT	IONAL INF	ORMAT	ION AND REQUIR	REMENTS.			
	AMPS FOR THIS PROJECT SHALL BE FURNIS LAMP COLOR RENDERING INDEX (CRI) AT OR)°, UNLESS) DTEHR	VISE.
				••			,					
ITEM	1 DESCRIPTION	L	DIMEN W	SIONS H	DIA. MTG	TYPE	LAM QTY	IPS MODEL	BALL VOLTS	AST TYPE	L/L	APPROVED MANUFACTURER
	EMERGENCY UNIT, TWO ADJUSTABLE HEA WHITE THERMOPLASTIC HOUSING, SELF	DS, 1'-6"	4"	4"	WL	LED		INCLUDED	120 V	EM		LITHONIA ELM2 SURE-LITES CC3
F1	DIAGNOSTICS OF INVERTER AND LAMPS STATIC GRID TROFFER. WAVESTREAM LIG	IT 4'-0"	2'-0"	4 1/2"	RE	LED	1	4500 LUMENS	120 V	DIM10	K	McPHILBEN CAX6 COOPER
	DIFFUSER.							47 WATTS		-		24EN-LD1-45-UNV-L840- CD1-U
F2	STATIC GRID TROFFER. WAVESTREAM LIG	IT 2'-0"	2'-0"	4 1/2"	RE	LED	1	3400 LUMENS	120 V	DIM10	K	
	DIFFUSER.							35 WATTS				22EN-LD1-34-UNV-L840 CD1-U LITHONIA
F3	4' INDUSTRIAL WITH NO UPLIGHT, BAKED ENAMEL FINISH.	4'-0"	1'-0"	4 1/4"	SP@10'	LED	1	5000 LUMENS 35 WATTS	120 V	DIM10	N	COOPER 4ILED-LD4-5-W-UNV-L84
								00 100110				0-CD1 LITHONIA
F4	4' HIGH BAY INDUSTRIAL WITH NO UPLIGHT BAKED ENAMEL FINISH.	, 4'-0"	1'-0"	4 1/4"	SP@16'	LED	1	12500 LUMENS 104 WATTS	120 V	EB	N	COOPER HBLED-LD4-12-W-UNV-I
												840-CD1 LITHONIA
F5	WALL MOUNTED LINEAR LED IN DIE-CAST ALUMINUM HOUSING WITH MATTE WHITE F	4'-0"	3 1/2"	4 1/2"	WL	LED	1	4700 LUMENS 50 WATTS	120 V	EB	К	KENALL MLHA12 48 R MW CP 1
												45L40K METALUX
F6	OPEN RECESSED DOWNLIGHT, CLEAR			9 1/2"	6" RE	LED	1	1500 LUMENS	120 V	EB	N	LITHONIA SPECTRUM LIGHTING
	SPECULAR PARABOLIC SELF TRIMMING REFLECTOR, DAMP LABEL.							11 WATTS				SPC1203LEDGV-15L-40 -E1-8200GV-SG-SO
F7	NATURAL ALUMINUM PAINT, LISTED WET	, 4 1/2"	4 1/2"	0"	CL	LED	1	3200 LUMENS 25 WATTS	120 V	EB	N	LITHONIA DSXSC LED 20C 350 4
		41.0"	9"	7 1/0"	14/1		1	4300 LUMENS	120.14	ED	NI.	T5M MVOLT COOPER LITHONIA
	WALL MOUNTED ARCHITECTURAL SCONCE TYPE II DISTRIBUTION, DARK BRONZE FINIS	H.	9	7 1/2"	WL	LED	I	4300 LUMENS 47 WATTS	120 V	EB	N	MRW LED 2 10A700/40 SR2 MVOLT DDBXD
S1	SITE LUMINAIRE, ALUMINIUM EXTRUDED	1'-8"	1'-3"	5 1/2"	PL@16'	LED	1	14200 LUMENS	120 V	EB	K	COOPER LITHONIA
	HOUSING GASKETED, TEMPERED GLASS L BACK LIGHT CONTROLLED DISTRIBUTION,							138 WATTS				DSX0 LED 40C 1000 40 T4M MVOLT SPA
	COLOR SELECTION BY ARCHITECT FROM STANDARD COLORS, LISTED WET LOCATIC											COOPER
	LAMP SUPPORT. SQUARE STRAIGHT ALUM POLE WITH INTERNAL VIBRATION DAMPER ANCHOR BASE.											
S2	EXTRUDED ALUMINUM SQUARE LED LIT BOLLARD. POWDER COAT FINISH.			2'-6"	7" PL	LED	1	700 LUMENS 15 WATTS	120 V	EB	К	BEGA 88657 W/ 79817
												ANCHORAGE LITHONIA
X1	SINGLE-FACE EXIT SIGN, WHITE	1'-1"	2"	9"	CL	LED	1	LED	120 V	EM	0	METALUX DUAL-LITE LXU
	THERMOPLASTIC BODY, RED LETTERS, EMERGENCY NI-CAD BATTERY INSIDE OF S	IGN,		-		-						LITHONIA LQMS 1 EL MCPHILBEN CXXL
	UNIVERSAL ARROWS/MOUNTING. SELF TES DIAGNOSTICS OF INVERTER AND LAMPS.											
X2	DOUBLE-FACE EXIT SIGN, WHITE THERMOPLASTIC BODY, RED LETTERS, EMERGENCY NI-CAD BATTERY INSIDE OF S	1'-1"	2"	9"	CL	LED	1	LED	120 V	EM	0	DUAL-LITE LXU LITHONIA LQMS 1 EL MCPHILBEN CXXL
	UNIVERSAL ARROWS/MOUNTING. SELF TES DIAGNOSTICS OF INVERTER AND LAMPS.											
ANY	'S' FIXTURES OTHER THAN THE BASIS OF DE		LUDE A CO	MPLETE F				SITE TO VERIFY	FOOTCAN	DLE REQ	UIREMI	NTS.

SY	STE	

18

19

20

21

SPRINKLER SYSTEM FLOW SWITCH SPRINKLER SYSTEM MONITOR SWITCH SPRINKLER SYSTEM CABINET MONITOR



							AR
	QUENCE OF PERATION	R	PANEL/ANNUNCIATOR SUPERVISORY INDICATION	КZ			
		NCIATC	NCIATO	NCIATO	RMS	SMI	PINKLE NCE
SYSTEM INPUTS		PANEL/ANNUNCIATOR ALARM INDICATION	L/ANNU RVISOF	PANEL/ANNUNCIATOR TROUBLE INDICATION	AUDIBLE ALARMS SEQUENCE	VISUAL ALARMS SEQUENCE	ELECTRIC SPRINKLER BELL SEQUENCE
		PANE	PANE SUPE	PANE TROL	AUDIE SEQU	VISU/ SEQU	ELEC
FIRE ALARM PANEL, TRANSPONDEF LOW BATTERY	R, NAC PANEL		x				
FIRE ALARM PANEL, TRANSPONDER BATTERY OR CHARGER FAILURE	R, NAC PANEL			X			
FIRE ALARM PANEL, TRANSPONDEF ABNORMAL SWITCH OR CONTROL F			X				
				X			
FIRE ALARM PANEL, TRANSPONDER GROUND FAULT, OPEN CIRCUIT, SH	IORT CIRCUIT			^			
GROUND FAULT, OPEN CIRCUIT, SH FIRE ALARM PANEL, TRANSPONDEF AC POWER LOSS OR IRREGULARIT	IORT CIRCUIT R, NAC PANEL Y			x			
GROUND FAULT, OPEN CIRCUIT, SH FIRE ALARM PANEL, TRANSPONDEF AC POWER LOSS OR IRREGULARIT NOTIFICATION APPLIANCE CIRCUIT GROUND FAULT, OPEN CIRCUIT, SH	ORT CIRCUIT R, NAC PANEL Y OR SLC LOOP						
GROUND FAULT, OPEN CIRCUIT, SH FIRE ALARM PANEL, TRANSPONDER AC POWER LOSS OR IRREGULARIT NOTIFICATION APPLIANCE CIRCUIT GROUND FAULT, OPEN CIRCUIT, SH NITIATING DEVICE FAILURE OR COMMUNICATION ERR	ORT CIRCUIT R, NAC PANEL Y OR SLC LOOP ORT CIRCUIT			X			
GROUND FAULT, OPEN CIRCUIT, SH FIRE ALARM PANEL, TRANSPONDER AC POWER LOSS OR IRREGULARIT NOTIFICATION APPLIANCE CIRCUIT GROUND FAULT, OPEN CIRCUIT, SH INITIATING DEVICE FAILURE OR COMMUNICATION ERR FIRE ALARM PANEL	ORT CIRCUIT R, NAC PANEL Y OR SLC LOOP ORT CIRCUIT		x	x x	x	x	
GROUND FAULT, OPEN CIRCUIT, SH FIRE ALARM PANEL, TRANSPONDER AC POWER LOSS OR IRREGULARIT NOTIFICATION APPLIANCE CIRCUIT GROUND FAULT, OPEN CIRCUIT, SH INITIATING DEVICE FAILURE OR COMMUNICATION ERR FIRE ALARM PANEL MANUAL FIRE DRILL MANUAL PULL STATION	ORT CIRCUIT R, NAC PANEL Y OR SLC LOOP ORT CIRCUIT	X	X	x x	X X	x x	
GROUND FAULT, OPEN CIRCUIT, SH FIRE ALARM PANEL, TRANSPONDER AC POWER LOSS OR IRREGULARIT NOTIFICATION APPLIANCE CIRCUIT GROUND FAULT, OPEN CIRCUIT, SH INITIATING DEVICE FAILURE OR COMMUNICATION ERR FIRE ALARM PANEL MANUAL FIRE DRILL MANUAL PULL STATION SMOKE DETECTOR	IORT CIRCUIT R, NAC PANEL Y OR SLC LOOP IORT CIRCUIT OR	x	x	x x			
GROUND FAULT, OPEN CIRCUIT, SH FIRE ALARM PANEL, TRANSPONDER AC POWER LOSS OR IRREGULARIT NOTIFICATION APPLIANCE CIRCUIT GROUND FAULT, OPEN CIRCUIT, SH INITIATING DEVICE FAILURE OR COMMUNICATION ERR FIRE ALARM PANEL MANUAL FIRE DRILL MANUAL FIRE DRILL MANUAL PULL STATION SMOKE DETECTOR	IORT CIRCUIT R, NAC PANEL OR SLC LOOP IORT CIRCUIT OR		X	x x	X	X	
GROUND FAULT, OPEN CIRCUIT, SH FIRE ALARM PANEL, TRANSPONDER AC POWER LOSS OR IRREGULARIT' NOTIFICATION APPLIANCE CIRCUIT GROUND FAULT, OPEN CIRCUIT, SH INITIATING DEVICE FAILURE OR COMMUNICATION ERR FIRE ALARM PANEL MANUAL FIRE DRILL MANUAL PULL STATION	IORT CIRCUIT R, NAC PANEL OR SLC LOOP IORT CIRCUIT OR F SD	x	X	x x	x x	x x	×

FIRE ALARM OPERATION MATRIX

Χ

Χ

MS MM

MS MM

K W	U W	ENGINEERING CONSULTANTS The FUTURE. Built SMARTER.	180 MIE 608 WW PR
		EERING RESERVES PROPRIETA WING AND THE DATA SHOWN T	

0

1800 DEMING WAY SUITE 200 MIDDLETON, WISCONSIN 53562 608.223.9600 FAX: 608.836.0415 www.kjww.com PROJECT # 16.0141.00

KJWW ENGINEERING RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF KJWW ENGINEERING AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF KJWW ENGINEERING. © 2016 KJWW CORP.

2

3

REFERENCE SCALE IN INCHES

1



OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

Owner MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

Project

General Contractor

Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713

Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

- STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date

Bid Set 12/09/2016 Previous Issue Dates

_____ _____

____ _____ _____ _____ _____

Revision Dates

Drawing ELECTRICAL SCHEDULES

OPN Project No. 15617000

E500

	PA
DLT-ON	
JRFACE	Γ
P-MAIN	Γ

			PAN	EL	NA	ME:	Α					CONNECTED 25.2 kVA	
TYPE: BOLT-ON MOUNTING: SURFACE FED FROM: DP-MAIN SCCR: 22,000 A LOCATION: Warehouse 119			SOLID NEUTRAL GROUND BUS								MAIN: 225 A/MLO VOLTS: 120/208 Wye PHASE: 3 WIRE: 4 DEMAND: 25.15 kVA		
Panel No	otes:												
CKT NO	LOAD DESCRIPTION	OVERCU PROTE AMPS			A	I	В		С		URRENT ECTION AMPS	LOAD DESCRIPTION	CKT NO
1	Exterior Lighting *6	20 A	1	0.5	0.5					1	20 A	UH-119C	2
3	EF-1	20 A	1			1.5	0.5			1	20 A	UH-119B	4
5	ELECTRONIC BELL	20 A	1					0	0.54	1	20 A	Receptacles	6
7	UH-119D	20 A	1	0.5	0.72					1	20 A	Receptacles	8
9	UH-119E	20 A	1			0.5	0.5			1	20 A	UH-120A	10
11	OVERHEAD DOOR	20 A	1					1	0.5	1	20 A	UH-121	12
13	UH-120B	20 A	1	0.5	1					1	20 A	OVERHEAD DOOR	14
15	OVERHEAD DOOR *10	20 A	1			1	1			1	20 A	OVERHEAD DOOR	16
17	Receptacles *10	20 A	1					1.44	0.18	1	20 A	LIFT CHARGE STATION	18
19	Receptacles	20 A	1	0.72	0.52					1	20 A	Lighting *10	20
21	Lighting *10	20 A	1			1.04	0.73			1	20 A	Lighting *10	22
23	Lighting	20 A	1					1.56	0.54	1	20 A	Receptacles	24
25	Receptacles	20 A	1	0.9	1.4					1	20 A	WAREHOUSE FANS *10	26
27	OVERHEAD DOOR	20 A	1			1	0.7			1	20 A	SHOP FAN	28
29	WAREHOUSE AND FRIENDS FAN	20 A	1					1.4	0.25	2	20 A	Power	30
31	UH-116	20 A	1	0.5	0.25								32
33	Receptacles	20 A	1			0.54	0.72			1	20 A	Receptacles	34
35	SPARE	20 A	1					0	0	1	20 A	SPARE	36
37	SPARE	20 A	1	0	0					1	20 A	SPARE	38
39	SPARE	20 A	1			0	0			1	20 A	SPARE	40
41	SPARE	20 A	1					0	0	1	20 A	SPARE	42
			al Load: I Amps:		kVA .55		kVA .84		kVA .75			1	I

				[DISCONNECT	AND STA	RTER SCHED	ULE						
			NOTE:	ALL DISCO	NNECTS (EXCEP	T MANUAL ST	ARTERS) SHALL E	BE HEAVY DU	ITY TYPE.					
DISCONNEC					REMARKS:									
FU - FUSED							ES (INCLUDES * IT	EMS)		ILURE RELAY (5 HP OR GREATER)				
NF - NON-FL							ER, FUSED 120V			THERMAL OVERLOADS				
CB - CIRCUI	T BREAKER				*EO - ELECTRO					SELECTOR SWITCH IN DOOR				
					*HA - HAND-OFF				```	P - GREEN (OFF) PILOT LIGHT IN DOOR				
STARTER T					*RP - RED PILO					RTIBLE AUXILIARY CONTACTS				
FV - FULL V	OLTAGE				*TA - TWO CON	VERTIBLE AUX	KILIARY CONTACT	rs	EI - ELECTRIC	AL INTERLOCK (2)-N.O. & (2)-N.C.				
YD - WYE - [DELTA				S/N - INSULATE	D NEUTRAL A	SSEMBLY		SS - START-ST	OP PUSHBUTTON IN DOOR				
RE - REVER	SING				EL - COORDINA	TE FUSE SIZE	WITH ELEVATOR	R MANUF.	HL - HANDLE F	PADLOCK HASP				
TW - 2 SPEE	ED, 2 WINDIN	IG												
SW - 2 SPEE	ED, 1 WINDIN	IG												
RV - REDUC	ED VOLTAG	E AUTOXFMR												
SS - SOLID S	STATE													
MS - MANUA	L STARTER													
MX - MANUA	AL SWITCH													
FS - FUSED	SWITCH													
		ECT TYPE & TING	CIRCUIT		STAR	TER	NEMA							
ITEM	TYPE	RATING	VOLTAGE	POLES	NEMA SIZE			F	REMARKS	APPROVED MANUFACTURERS				
DS-30	NF	30 A	600 V	1			1			SQUARE D 3110 HU361 CUTLER-HAMMER TYPE DH GENERAL ELECTRIC TYPE TH SIEMENS TYPE HNF				
DS-30R	NF	30 A	600 V	3			3R			SQUARE D 3110 HU361RB CUTLER-HAMMER TYPE DH GENERAL ELECTRIC TYPE TH SIEMENS TYPE HNF				
DS-60	NF	60 A	600 V	1			1			SQUARE D 3110 HU362 CUTLER-HAMMER TYPE DH GENERAL ELECTRIC TYPE TH SIEMENS TYPE HNF				
MX-1	NF	30 A	208 V	2	0	МХ	1	HL		SQUARE D 2510 KS1A CUTLER-HAMMER TYPE MS GENERAL ELECTRIC TYPE TC SIEMENS TYPE MMS				

PANEL NAME: B TYPE: BOLT-ON MOUNTING: RECESSED SOLID NEUTRAL FED FROM: DP-MAIN GROUND BUS SCCR: 22,000 A GROUND BUS LOCATION: Space 21 Panel Notes:									
CKT NO.	LOAD DESCRIPTION	OVERCU PROTE AMPS		ļ	A		3		с
1	Receptacles	20 A	1	0.72	0.72				
3	PRINTER	20 A	1			1	1		
5	Receptacles	20 A	1	0.70	4			1	0.9
7 9	Receptacles Receptacles *10	20 A 20 A	1	0.72	1	0.54	4		
9	•	20 A 20 A	1 1			0.54	1	0.9	0.8
13	Receptacles Receptacles	20 A 20 A	1	0.36	0.8			0.9	0.0
15	Receptacles	20 A	1	0.30	0.0	0.72	0.67		
17	DDC PANEL *10	20 A	1			0.72	0.07	0.2	0.67
19	UH-201	20 A	1	0.5	0.67			0.2	0.07
21	Receptacles *10	20 A	1	0.5	0.07	1.26	0.34		
23	Lighting *10	20 A	1			1.20	0.01	0.21	1
25	Lighting	20 A	1	0.4	0.25			•	
27	WH-1 *8	20 A	1	-		1	1		
29	WCCU-1 *6	50 A	3					3.67	1.8
31				3.67	0.36				
33						3.67	1		
35	WCCU-2 *10	20 A	3					1.67	0.36
37				1.67	1.27				
39						1.67	1.27		
41	P-2	20 A	3					1.27	1.27
43				1.27	0.5				
45						1.27	0.5		
47									
49									
51									
53									
			al Load: I Amps:		6.78) kVA).19		1 kVA 1.97

MOUNTING: SURFACE FED FROM: DP-MAIN SCCR: 22,000 A LOCATION: Janitor Closet 108							ID NEU ROUND I				
Panel No	otes:										
CKT NO.	LOAD DESCRIPTION		OVERCURRENT PROTECTION AMPS P		Α		В		с	OVI PF P	
1	Receptacles	20 A	1	0.9	0.5						
3	IU-3	15 A	2			0.5	0.5				
5								0.5	0.5		
7	Receptacles	20 A	1	0.54	0.5						
9	REFRIGERATOR, *G	20 A	1			1.2	2				
11	IU-8	15 A	2					0.5	1		
13				0.5	0.5						
15	Receptacles	20 A	1			0.72	0.5				
17	Receptacles	20 A	1					0.72	0.9		
19	FAP-1	20 A	1	0.3	0.05						
21	IU-6	15 A	2			0.5	0.5				
23								0.5	0.5		
25	IU-4	15 A	2	0.25	0.5				ļ	_	
27						0.25	0.5	_		· ·	
29	Power	20 A	1					1	0.9		
31	Receptacles	20 A	1	0.9	0.9					_	
33	SOLATUBE CONTROLS	20 A	1			0.21	0.65	4.00			
35	PP-1	20 A	1	0.4	0.5			1.36	1.36	-	
37	Lighting	20 A	1	0.4	0.5	4.00	0.5			-	
39	Receptacles	20 A	1			1.08	0.5	0 ===		· · ·	
41	Receptacles	20 A	1					0.72	1.2	_	
43	CAB-1 *6	50 A	2	3	1						
45						3	1				
47	SPARE	20 A	1					0	0		
49	SPARE	20 A	1	0	0						
51	SPARE	20 A	1			0	0				
53	SPARE	20 A	1					0	0		
L			al Load:	11.24	kVA	13.6	l kVA	11.66	6 kVA		
			I Amps:	93.			3.94		.71	1	

PANEL NAME: C

[Key*:] *6 #6 WIRE, *G GFCI BREAKER

					MADISON	J
					OPN ARCHITECTS 301 NORTH BROOM S	S STREET
		CONNECTED 48.5 kVA MAIN: 225 A/			608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com	n
		VOLTS: 120/208 Wye PHASE: 3 WIRE: 4			All reports, plans, specificatior	ons, computer file:
		DEMAND: 48.17 kVA		7	All reports, plans, specification field data, notes and other doc instruments prepared by OPN instruments of service shall rer OPN Architects, Inc. OPN Arc retain all common law, statutor reserved rights, including the c	N Architects, Inc. a emain the propert rchitects, Inc. shal
					© 2016 OPN Architects, Inc.	copyright thereto
ROTE	RRENT CTION AMPS	LOAD DESCRIPTION	CKT NO.		Owner MADISON PUBLIC	LIBRARY
1 1	20 A 20 A	Receptacles Receptacles	2 4			
1 2	20 A 30 A	Receptacles DFSS-1 *10	6 8		201 W Mifflin St Madison, WI 53703	
 2	 15 A	 WSHP-1	10 12			
 3	 20 A	 MAU-1 *8	14 16			
			18 20		Project	
1 1	20 A	Lighting *10 CP-1	22 24		Madison Public Libra Maintenance & Supp Center Remodel & A	rary oport
1	20 A 20 A	Lighting *10 WS-1 *8	26 28		Center Remodel & A 1301 West Badger Road	
1	20 A 20 A	DOAS-1 Receptacles	30 32		Madison, WI 53713	
		GFS-1 Receptacles	34 36			
-	20 A 	P-1 	38 40			
- 2	 15 A		42			
	A CT	BS-1	44		General Contractor	
	15 A 		44 46 48		General Contractor	
			46 48 50	- - - -	General Contractor	
			46 48		Consultants CIVIL ENGINEER Snyder & Associates, Inc.	
			46 48 50 52		Consultants CIVIL ENGINEER	
		 CONNECTED 36.2 kVA MAIN: 225 A/MLO VOLTS: 120/208 Wye	46 48 50 52		Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444 STRUCTURAL ENG KJWW Engineering Consult	
			46 48 50 52		Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444 STRUCTURAL ENG	
		CONNECTED 36.2 kVA MAIN: 225 A/MLO VOLTS: 120/208 Wye PHASE: 3 WIRE: 4	46 48 50 52		Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444 STRUCTURAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 MECHANICAL ENG KJWW Engineering Consult 1800 Deming Way	ultants GINEER
	15 A 	CONNECTED 36.2 kVA MAIN: 225 A/MLO VOLTS: 120/208 Wye PHASE: 3 WIRE: 4 DEMAND: 33.5 kVA	46 48 50 52		Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444 STRUCTURAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 MECHANICAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600	ultants GINEER ultants
		CONNECTED 36.2 kVA MAIN: 225 A/MLO VOLTS: 120/208 Wye PHASE: 3 WIRE: 4 DEMAND: 33.5 kVA	46 48 50 52		Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444 STRUCTURAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 MECHANICAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600	ultants GINEER ultants GINEER
		 CONNECTED 36.2 kVA MAIN: 225 A/MLO VOLTS: 120/208 Wye PHASE: 3 WIRE: 4 DEMAND: 33.5 kVA LOAD DESCRIPTION	46 48 50 52 54 54		Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444 STRUCTURAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 MECHANICAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENGI	ultants GINEER ultants GINEER
	 	 CONNECTED 36.2 kVA MAIN: 225 A/MLO VOLTS: 120/208 Wye PHASE: 3 WIRE: 4 DEMAND: 33.5 kVA LOAD DESCRIPTION IU-7 IU-5 MICROWAVE	46 48 50 52 54 54		Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444 STRUCTURAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 MECHANICAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENGI KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562	Ultants GINEER Ultants GINEER
	 RRENT CTION AMPS 15 A 15 A 20 A 20 A 15 A	 CONNECTED 36.2 kVA MAIN: 225 A/MLO VOLTS: 120/208 Wye PHASE: 3 WIRE: 4 DEMAND: 33.5 kVA LOAD DESCRIPTION IU-7 IU-5 	46 48 50 52 54 54 CKT NO 2 4 6 8 10 12 14		Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, VII 53718 P. 608.838.0444 STRUCTURAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, VI 53562 P. 608.223.9600 MECHANICAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, VI 53562 P. 608.223.9600 ELECTRICAL ENGI KJWW Engineering Consult 1800 Deming Way Middleton, VI 53562 P. 608.223.9600	Ultants GINEER Ultants GINEER
	 RRENT CTION AMPS 15 A 15 A 20 A 20 A 15 A 20 A	 CONNECTED 36.2 kVA MAIN: 225 A/MLO VOLTS: 120/208 Wye PHASE: 3 WIRE: 4 DEMAND: 33.5 kVA LOAD DESCRIPTION IU-7 IU-5 MICROWAVE EWC *G IU-9 Receptacles	46 48 50 52 54 54 CKT NO 2 4 6 8 10 12 14 6 8 10 12 14 16 18		Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, VII 53718 P. 608.838.0444 STRUCTURAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, VI 53562 P. 608.223.9600 MECHANICAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, VI 53562 P. 608.223.9600 ELECTRICAL ENGI KJWW Engineering Consult 1800 Deming Way Middleton, VI 53562 P. 608.223.9600	Ultants GINEER Ultants GINEER
	 	 CONNECTED 36.2 kVA MAIN: 225 A/MLO VOLTS: 120/208 Wye PHASE: 3 WIRE: 4 DEMAND: 33.5 kVA LOAD DESCRIPTION IU-7 IU-5 MICROWAVE EWC *G IU-9 Receptacles RESTROOM SINK/TOILET SENSORS IU-1	46 48 50 52 54		Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, VII 53718 P. 608.838.0444 STRUCTURAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, VI 53562 P. 608.223.9600 MECHANICAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, VI 53562 P. 608.223.9600 ELECTRICAL ENGI KJWW Engineering Consult 1800 Deming Way Middleton, VI 53562 P. 608.223.9600	Ultants GINEER Ultants GINEER
	 		46 48 50 52 54 54		Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, VII 53718 P. 608.838.0444 STRUCTURAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, VI 53562 P. 608.223.9600 MECHANICAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, VI 53562 P. 608.223.9600 ELECTRICAL ENGI KJWW Engineering Consult 1800 Deming Way Middleton, VI 53562 P. 608.223.9600	ultants GINEER ultants GINEER
	 	 CONNECTED 36.2 kVA MAIN: 225 A/MLO VOLTS: 120/208 Wye PHASE: 3 WIRE: 4 DEMAND: 33.5 kVA LOAD DESCRIPTION IU-7 IU-5 MICROWAVE EWC *G IU-9 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles	46 48 50 52 54 54 6 6 6 7 </td <td></td> <td>Consultants CVIL ENCINEER Snyder & Associates, Inc. Still Voges Road Madison, WI 53718 P. 608.383.0444 STRUCTURAL ENC KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 CLECTRICAL ENCE KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 CLECTRICAL ENCE KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600</td> <td>Ultants GINEER Ultants GINEER</td>		Consultants CVIL ENCINEER Snyder & Associates, Inc. Still Voges Road Madison, WI 53718 P. 608.383.0444 STRUCTURAL ENC KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 CLECTRICAL ENCE KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 CLECTRICAL ENCE KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600	Ultants GINEER Ultants GINEER
	 	 CONNECTED 36.2 kVA MAIN: 225 A/MLO VOLTS: 120/208 Wye PHASE: 3 WIRE: 4 DEMAND: 33.5 kVA LOAD DESCRIPTION IU-7 IU-5 MICROWAVE EWC *G IU-9 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles	46 48 50 52 54 CKT NO. 2 4 6 8 10 12 14 16 18 20 22 24 30 32 34		Consultants CVIL ENCINEER Snyder & Associates, Inc. Still Voges Road Madison, WI 53718 P. 608.383.0444 STRUCTURAL ENC KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 CLECTRICAL ENCE KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 CLECTRICAL ENCE KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600	GINEER ultants GINEER ultants
	 	 CONNECTED 36.2 kVA MAIN: 225 A/MLO VOLTS: 120/208 Wye PHASE: 3 WIRE: 4 DEMAND: 33.5 kVA LOAD DESCRIPTION IU-7 IU-5 MICROWAVE EWC *G IU-9 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 	46 48 50 52 54 54 74<		Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608 333.044 STRUCTURAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 MECHANICAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENG Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 Middleton, WI 53562 Middlet	GINEER ultants GINEER ultants
	 	 CONNECTED 36.2 kVA MAIN: 225 A/MLO VOLTS: 120/208 Wye PHASE: 3 WIRE: 4 DEMAND: 33.5 kVA LOAD DESCRIPTION IU-7 IU-5 MICROWAVE EWC *G IU-9 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles	46 48 50 52 54 54 6 6 7 </td <td></td> <td>Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608 333.044 STRUCTURAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 MECHANICAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENG Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 Middleton, WI 53562 Middlet</td> <td>GINEER ultants GINEER ultants</td>		Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608 333.044 STRUCTURAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 MECHANICAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENG Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 Middleton, WI 53562 Middlet	GINEER ultants GINEER ultants
	 	CONNECTED 36.2 kVA MAIN: 225 A/MLO VOLTS: 120/208 Wye PHASE: 3 WIRE: 4 DEMAND: 33.5 kVA LOAD DESCRIPTION IU-7 IU-5 MICROWAVE EWC *G IU-9 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles	46 48 50 52 54 55 54 55 55 56 57 58 50 52 54 55 56 58 50 50 52 54 55 56 58 50 56		Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608 333.044 STRUCTURAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 MECHANICAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENG Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 Middleton, WI 53562 Middlet	GINEER ultants GINEER ultants
	 	 CONNECTED 36.2 kVA MAIN: 225 A/MLO VOLTS: 120/208 Wye PHASE: 3 WIRE: 4 DEMAND: 33.5 kVA LOAD DESCRIPTION IU-7 IU-5 MICROWAVE EWC *G IU-9 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles Receptacles Receptacles Receptacles Receptacles Receptacles Receptacles Receptacles Receptacles Receptacles Receptacles Receptacles Receptacles	46 48 50 52 54 54 6 6 7 </td <td></td> <td>Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608 333.044 STRUCTURAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 MECHANICAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENG Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 Middleton, WI 53562 Middlet</td> <td>GINEER ultants GINEER ultants</td>		Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608 333.044 STRUCTURAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 MECHANICAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENG KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 KJWW Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENG Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Kurw Engineering Consult 1800 Deming Way Middleton, WI 53562 Middleton, WI 53562 Middlet	GINEER ultants GINEER ultants
	 	CONNECTED 36.2 kVA MAIN: 225 A/MLO VOLTS: 120/208 Wye PHASE: 3 WIRE: 4 DEMAND: 33.5 kVA LOAD DESCRIPTION IU-7 IU-5 MICROWAVE EWC *G IU-9 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles	46 48 50 52 54 55 54 55 55 56 57 57 58 10 12 14 16 18 20 22 24 26 28 30 32 34		Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, W153718 P. 608.338.0444 STRUCTURAL ENG K.WW Engineering Consult 1800 Deming Way Middleton, W153562 P. 608.223.9600 ELECTRICAL ENGI K.WW Engineering Consult 1800 Deming Way Middleton, W153562 P. 608.223.9600 ELECTRICAL ENGI K.WW Engineering Consult 1800 Deming Way Middleton, W153562 P. 608.223.9600 Key Plan	GINEER ultants GINEER ultants
	 	 CONNECTED 36.2 kVA MAIN: 225 A/MLO VOLTS: 120/208 Wye PHASE: 3 WIRE: 4 DEMAND: 33.5 kVA LOAD DESCRIPTION IU-7 IU-5 MICROWAVE EWC *G IU-9 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles	46 48 50 52 54 54 54 70<		Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, W153718 P. 608.338.0444 STRUCTURAL ENG K.WW Engineering Consult 1800 Deming Way Middleton, W153562 P. 608.223.9600 ELECTRICAL ENGI K.WW Engineering Consult 1800 Deming Way Middleton, W153562 P. 608.223.9600 ELECTRICAL ENGI K.WW Engineering Consult 1800 Deming Way Middleton, W153562 P. 608.223.9600 Key Plan	GINEER ultants GINEER ultants
	 	 CONNECTED 36.2 kVA MAIN: 225 A/MLO VOLTS: 120/208 Wye PHASE: 3 WIRE: 4 DEMAND: 33.5 kVA LOAD DESCRIPTION IU-7 IU-5 MICROWAVE EWC *G IU-9 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles RESTROOM SINK/TOILET SENSORS IU-1 Receptacles	46 48 50 52 54 54 54 70<		Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, W153718 P. 608.338.0444 STRUCTURAL ENG K.WW Engineering Consult 1800 Deming Way Middleton, W153562 P. 608.223.9600 ELECTRICAL ENGI K.WW Engineering Consult 1800 Deming Way Middleton, W153562 P. 608.223.9600 ELECTRICAL ENGI K.WW Engineering Consult 1800 Deming Way Middleton, W153562 P. 608.223.9600 Key Plan	GINEER ultants GINEER ultants

KJWW ENGINEERING RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF KJWW ENGINEERING AND SHALL NOT BE USED DR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF KJWW ENGINEERING. © 2016 KJWW CORP.
TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF KJWW ENGINEERING AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN
OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN
APPROVAL AND PARTICIPATION OF KJWW ENGINEERING. © 2016 KJWW CORP.
REFERENCE SCALE IN INCHES
0 1 2 3

OPN Project No. 15617000

E501

							VORKSHE	ET (CW)	
1.	IFORMATION REQUIE DEMAND OF BUILD A. DEMAND OF BUILD	ING IN WATEF	R SUPPLY FIXT	TURE UNITS (\	WSFU):	ION (CW):			(WSF (GPI
2.	ELEVATION DIFFER	RENCE FROM			-	BUILDING CONT	ROL VALVE:		(FEE (INCEH
4.	DEVELOPED LENG LOW PRESSURE A	TH FROM MAI				JILDING CONTROL	_ VALVE:		(FEE (PS
C	ALCULATE WATER P	RESSURE LOS	SS						
	LOW PRESSURE A DETERMINE PRESS WATER SERVICE F PRESSURE LOSS F	SURE LOSS DU PIPING MATER	JE TO FRICTIO IAL IS: <u>DUCTII</u>	ON IN <u>6</u> INCH	•		E):		
	DETERMINE PRES					HE VALUE OF #2	ABOVE BY 0.434):		SUBTOT#
C	ALCULATE THE PRES	SURE AVAIL	ABLE FOR UN	IFORM LOSS	(VALUE OF "A	")			
	PRESSURE AVAILA				•	ABOVE):		VAI	LUE OF "I
D.	PRESSURE AT CO	NTROLLING FI	XTURE: (<u>WA</u>	TER CLOSET	- FLUSHOMET	ER)			SUBTOTA
					VALVE AND 1	HE CONTROLLIN	G FIXTURE IN FEET:		SUBTOTA (FEE
Eź	2. CONVERT FEET IN	ETTOPSI. (M	ULTIPLY ET B	Y 0.434)				\$	SUBTOTA
F.	PRESSURE LOSS I CONTROLLING FIX					W PREVENTERS \	WHICH SERVE THE	S	SUBTOTA
G.	. PRESSURE LOSS ⁻ EXCHANGERS WH					N BOILER/WATER	HEATERS, HEAT		SUBTOTA
H,	1. DEVELOPED LENG					IG FIXTURE IN FE	ET:	· · · · · · · · · · · · · · · · · · ·	(FEE
	2. MULTIPLY PIPE LE							DIVIDE "G" BY "H2" S	,
A.	PRESSURE AVAIL WATER DISTRIBU							MUL	TIPLY B
				IPE L					
C	ALCULATE THE PRES		VATE	R CAL			VORKSHE	ET (HW)	
B.	PRESSURE AVAIL	SSURE AVAILA ABLE AFTER T	NATE	R CAL	(VALUE OF "A	")	VORKSHE		LUE OF "
	PRESSURE AVAIL PRESSURE LOSS	SSURE AVAILA ABLE AFTER T OF WATER ME	NATE ABLE FOR UNI THE BUILDING ETER (WHEN M	R CAL	(VALUE OF "A	")	VORKSHE	VAI	_UE OF "I SUBTOT#
B. C. D.	 PRESSURE AVAIL PRESSURE LOSS PRESSURE AT CC 1. DIFFERENCE IN E 	SSURE AVAILA ABLE AFTER T OF WATER ME ONTROLLING F LEVATION BET	NATE BLE FOR UNI THE BUILDING ETER (WHEN M IXTURE: (<u>SHC</u> TWEEN BUILD	R CAL	(VALUE OF "A ALVE (FROM #9 QUIRED)	") 9 ABOVE):		VAI	
B. C. D.	PRESSURE AVAIL PRESSURE LOSS PRESSURE AT CC	SSURE AVAILA ABLE AFTER T OF WATER ME ONTROLLING F LEVATION BET	NATE BLE FOR UNI THE BUILDING ETER (WHEN M IXTURE: (<u>SHC</u> TWEEN BUILD	R CAL	(VALUE OF "A ALVE (FROM #9 QUIRED)	") 9 ABOVE):		VAI	SUBTOTA
B. C. D. E ²	 PRESSURE AVAIL PRESSURE LOSS PRESSURE AT CC DIFFERENCE IN E CONVERT FEET IN PRESSURE LOSS E 	SSURE AVAILA ABLE AFTER T OF WATER ME ONTROLLING F LEVATION BET N E1 TO PSI.(M	NATE ABLE FOR UNI THE BUILDING ETER (WHEN M IXTURE: (<u>SHO</u> IVEEN BUILD IULTIPLLY E1 F	R CAL	(VALUE OF "A ALVE (FROM #4 QUIRED) L VALVE AND	") 9 ABOVE): THE CONTROLLIN	IG FIXTURE IN FEET:	VA	SUBTOTA SUBTOTA (FEE SUBTOTA
B. C. D. E ²	 PRESSURE AVAIL PRESSURE LOSS PRESSURE AT CC DIFFERENCE IN E CONVERT FEET IN PRESSURE LOSS E CONTROLLING FIX 	SSURE AVAILA ABLE AFTER T OF WATER ME ONTROLLING F LEVATION BET N E1 TO PSI.(M DUE TO WATEL TURE (<u>WATER</u>	NATE BLE FOR UNI THE BUILDING ETER (WHEN M IXTURE: (<u>SHO</u> IXTURE: (<u>SHO</u> IVEEN BUILD IULTIPLLY E1 B IULTIPLLY E1 B	R CAL	(VALUE OF "A ALVE (FROM #4 QUIRED) L VALVE AND ND BACKFLO ^N C.)	(") 9 ABOVE): THE CONTROLLIN	IG FIXTURE IN FEET: WHICH SERVE THE	VA	SUBTOTA SUBTOTA (FEE SUBTOTA
B. C. D. E ² F.	 PRESSURE AVAIL PRESSURE LOSS PRESSURE AT CC DIFFERENCE IN E CONVERT FEET IN PRESSURE LOSS E CONTROLLING FIX PRESSURE LOSS * 	SSURE AVAILA ABLE AFTER T OF WATER ME ONTROLLING F LEVATION BET N E1 TO PSI.(M DUE TO WATER TURE (<u>WATER</u> THROUGH <u>WA</u>	NATE ABLE FOR UNIT THE BUILDING ETER (WHEN M IXTURE: (<u>SHO</u> IXTURE: (<u>SHO</u> IWEEN BUILD IULTIPLLY E1 F R TREATEMEN SOFTENERS TER HEATER,	R CAL	(VALUE OF "A ALVE (FROM # QUIRED) L VALVE AND ND BACKFLO C.) VE THE CONT	THE CONTROLLIN	IG FIXTURE IN FEET: WHICH SERVE THE	VA	SUBTOTA SUBTOTA (FEE SUBTOTA SUBTOTA
B. C. D. E ² F. G.	 PRESSURE AVAIL PRESSURE LOSS PRESSURE AT CC DIFFERENCE IN E CONVERT FEET IN PRESSURE LOSS E CONTROLLING FIX 	SSURE AVAILA ABLE AFTER T OF WATER ME ONTROLLING F LEVATION BET N E1 TO PSI.(M DUE TO WATEL TURE (<u>WATER</u> THROUGH <u>WA</u>	NATE ABLE FOR UNI THE BUILDING ETER (WHEN M IXTURE: (<u>SHC</u> IXTURE: (<u></u>	R CAL	(VALUE OF "A ALVE (FROM # QUIRED) L VALVE AND C.) VE THE CONT	"") P ABOVE): THE CONTROLLIN W PREVENTERS \ ROLLING FIXTURE IG FIXTURE IN FE	IG FIXTURE IN FEET: WHICH SERVE THE	VA	SUBTOTA SUBTOTA (FEE SUBTOTA SUBTOTA SUBTOTA (FEE
B. C. D. E ² F. G.	 PRESSURE AVAIL PRESSURE LOSS PRESSURE AT CC DIFFERENCE IN E CONVERT FEET IN PRESSURE LOSS E CONTROLLING FIX PRESSURE LOSS T DEVELOPED LENG MULTIPLY PIPE LE PRESSURE AVAIL PIPE PRESSURE E 	SSURE AVAILA ABLE AFTER T OF WATER ME ONTROLLING F LEVATION BET N E1 TO PSI.(M DUE TO WATER TURE (<u>WATER</u> THROUGH <u>WA</u> STH FROM BUIL NGTH BY 1.5 T ABLE FOR UNID DROP AVAILAB	NATE ABLE FOR UNI THE BUILDING ETER (WHEN M IXTURE: (SHO WEEN BUILD IULTIPLLY E1 B R TREATEMEN SOFTENERS TER HEATER, LDING CONTR TO ACCOUNT I IFORM LOSS (BLE PER 100 F	R CAL IFORM LOSS CONTROL VA METER IS REC DWER) OING CONTROL BY 0.434) NT DEVICES A , FILTERS, ETC , WHICH SERV ROL VALVE TO FOR FITTING (MULTIPLY BY T)	(VALUE OF "A ALVE (FROM # QUIRED) L VALVE AND C.) VE THE CONT CONTROLLIN LOSS (H1 X 1.	"") P ABOVE): THE CONTROLLIN W PREVENTERS \ ROLLING FIXTURE IG FIXTURE IN FE	IG FIXTURE IN FEET: WHICH SERVE THE	VAI	SUBTOTA SUBTOTA (FEE SUBTOTA SUBTOTA SUBTOTA (FEE
В. С. D. E ² F. G. H ¹ Н ²	 PRESSURE AVAIL PRESSURE LOSS PRESSURE AT CC DIFFERENCE IN E CONVERT FEET IN PRESSURE LOSS E CONTROLLING FIX PRESSURE LOSS T DEVELOPED LENG MULTIPLY PIPE LE PRESSURE AVAIL 	SSURE AVAILA ABLE AFTER T OF WATER ME ONTROLLING F LEVATION BET N E1 TO PSI.(M DUE TO WATER TURE (<u>WATER</u> THROUGH <u>WA</u> STH FROM BUIL NGTH BY 1.5 T ABLE FOR UNID DROP AVAILAB	NATE ABLE FOR UNI THE BUILDING ETER (WHEN M IXTURE: (SHO WEEN BUILD IULTIPLLY E1 B R TREATEMEN SOFTENERS TER HEATER, LDING CONTR TO ACCOUNT I IFORM LOSS (BLE PER 100 F	R CAL IFORM LOSS CONTROL VA METER IS REC DWER) OING CONTROL BY 0.434) NT DEVICES A , FILTERS, ETC , WHICH SERV ROL VALVE TO FOR FITTING (MULTIPLY BY T)	(VALUE OF "A ALVE (FROM # QUIRED) L VALVE AND C.) VE THE CONT CONTROLLIN LOSS (H1 X 1.	"") P ABOVE): THE CONTROLLIN W PREVENTERS \ ROLLING FIXTURE IG FIXTURE IN FE	IG FIXTURE IN FEET: WHICH SERVE THE	VAI	SUBTOTA SUBTOTA (FEE SUBTOTA SUBTOTA SUBTOTA (FEE SUBTOTA
В. С. D. E ² F. G. H ¹ Н ²	 PRESSURE AVAIL PRESSURE LOSS PRESSURE AT CC DIFFERENCE IN E CONVERT FEET IN PRESSURE LOSS E CONTROLLING FIX PRESSURE LOSS T DEVELOPED LENG MULTIPLY PIPE LE PRESSURE AVAIL PIPE PRESSURE E 	SSURE AVAILA ABLE AFTER T OF WATER ME ONTROLLING F LEVATION BET N E1 TO PSI.(M DUE TO WATER TURE (<u>WATER</u> THROUGH <u>WA</u> STH FROM BUIL NGTH BY 1.5 T ABLE FOR UNID DROP AVAILAB	NATE ABLE FOR UNI THE BUILDING ETER (WHEN M IXTURE: (SHO WEEN BUILD IULTIPLLY E1 B R TREATEMEN SOFTENERS TER HEATER, LDING CONTR TO ACCOUNT I IFORM LOSS (BLE PER 100 F	R CAL IFORM LOSS CONTROL VA METER IS REC DWER) OING CONTROL BY 0.434) NT DEVICES A , FILTERS, ETC , WHICH SERV ROL VALVE TO FOR FITTING (MULTIPLY BY T)	(VALUE OF "A ALVE (FROM # QUIRED) L VALVE AND C.) VE THE CONT CONTROLLIN LOSS (H1 X 1.	"") P ABOVE): THE CONTROLLIN W PREVENTERS \ ROLLING FIXTURE IG FIXTURE IN FE	IG FIXTURE IN FEET: WHICH SERVE THE	VAI	SUBTOTA SUBTOTA SUBTOTA SUBTOTA SUBTOTA (FEE SUBTOTA
В. С. D. E ² F. G. H ¹ Н ²	 PRESSURE AVAIL PRESSURE LOSS PRESSURE AT CC DIFFERENCE IN E CONVERT FEET IN PRESSURE LOSS E CONTROLLING FIX PRESSURE LOSS T DEVELOPED LENG MULTIPLY PIPE LE PRESSURE AVAIL PIPE PRESSURE E 	SSURE AVAILA ABLE AFTER T OF WATER ME ONTROLLING F LEVATION BET N E1 TO PSI.(M DUE TO WATER TURE (<u>WATER</u> THROUGH <u>WA</u> STH FROM BUIL NGTH BY 1.5 T ABLE FOR UNID DROP AVAILAB	NATE ABLE FOR UNI THE BUILDING ETER (WHEN M IXTURE: (SHO WEEN BUILD IULTIPLLY E1 B R TREATEMEN SOFTENERS TER HEATER, LDING CONTR TO ACCOUNT I IFORM LOSS (BLE PER 100 F	R CAL IFORM LOSS CONTROL VA METER IS REC DWER) OING CONTROL BY 0.434) NT DEVICES A , FILTERS, ETC , WHICH SERV ROL VALVE TO FOR FITTING (MULTIPLY BY T)	(VALUE OF "A ALVE (FROM # QUIRED) L VALVE AND C.) VE THE CONT CONTROLLIN LOSS (H1 X 1.	"") P ABOVE): THE CONTROLLIN W PREVENTERS \ ROLLING FIXTURE IG FIXTURE IN FE	IG FIXTURE IN FEET: WHICH SERVE THE	VAI	SUBTOTA SUBTOTA (FEE SUBTOTA SUBTOTA SUBTOTA (FEE SUBTOTA
В. С. D. E ² F. G. H ¹ Н ²	 PRESSURE AVAIL PRESSURE LOSS PRESSURE AT CC DIFFERENCE IN E CONVERT FEET IN PRESSURE LOSS E CONTROLLING FIX PRESSURE LOSS T DEVELOPED LENG MULTIPLY PIPE LE PRESSURE AVAIL PIPE PRESSURE E 	SSURE AVAILA ABLE AFTER T OF WATER ME ONTROLLING F LEVATION BET N E1 TO PSI.(M DUE TO WATER TURE (<u>WATER</u> THROUGH <u>WA</u> STH FROM BUIL NGTH BY 1.5 T ABLE FOR UNID DROP AVAILAB	NATE ABLE FOR UNI THE BUILDING ETER (WHEN M IXTURE: (SHO WEEN BUILD IULTIPLLY E1 B R TREATEMEN SOFTENERS TER HEATER, LDING CONTR TO ACCOUNT I IFORM LOSS (BLE PER 100 F	R CAL IFORM LOSS CONTROL VA METER IS REC DWER) OING CONTROL BY 0.434) NT DEVICES A , FILTERS, ETC , WHICH SERV ROL VALVE TO FOR FITTING (MULTIPLY BY T)	(VALUE OF "A ALVE (FROM # QUIRED) L VALVE AND C.) VE THE CONT CONTROLLIN LOSS (H1 X 1.	"") P ABOVE): THE CONTROLLIN W PREVENTERS \ ROLLING FIXTURE IG FIXTURE IN FE	IG FIXTURE IN FEET: WHICH SERVE THE	VAI	SUBTOTA SUBTOTA SUBTOTA SUBTOTA SUBTOTA (FEE SUBTOTA
В. С. D. E ² F. G. H ¹ Н ²	 PRESSURE AVAIL PRESSURE LOSS PRESSURE AT CC DIFFERENCE IN E CONVERT FEET IN PRESSURE LOSS E CONTROLLING FIX PRESSURE LOSS T DEVELOPED LENG MULTIPLY PIPE LE PRESSURE AVAIL PIPE PRESSURE E 	SSURE AVAILA ABLE AFTER T OF WATER ME ONTROLLING F LEVATION BET N E1 TO PSI.(M DUE TO WATER TURE (<u>WATER</u> THROUGH <u>WA</u> STH FROM BUIL NGTH BY 1.5 T ABLE FOR UNID DROP AVAILAB	NATE ABLE FOR UNI THE BUILDING ETER (WHEN M IXTURE: (SHO WEEN BUILD IULTIPLLY E1 B R TREATEMEN SOFTENERS TER HEATER, LDING CONTR TO ACCOUNT I IFORM LOSS (BLE PER 100 F	R CAL IFORM LOSS CONTROL VA METER IS REC DWER) OING CONTROL BY 0.434) NT DEVICES A , FILTERS, ETC , WHICH SERV ROL VALVE TO FOR FITTING (MULTIPLY BY T)	(VALUE OF "A ALVE (FROM # QUIRED) L VALVE AND C.) VE THE CONT CONTROLLIN LOSS (H1 X 1.	"") P ABOVE): THE CONTROLLIN W PREVENTERS \ ROLLING FIXTURE IG FIXTURE IN FE	IG FIXTURE IN FEET: WHICH SERVE THE	VAI	SUBTOTA SUBTOTA SUBTOTA SUBTOTA SUBTOTA (FEE SUBTOTA
В. С. D. E ² F. G. H ¹ Н ²	 PRESSURE AVAIL PRESSURE LOSS PRESSURE AT CC DIFFERENCE IN E CONVERT FEET IN PRESSURE LOSS E CONTROLLING FIX PRESSURE LOSS T DEVELOPED LENG MULTIPLY PIPE LE PRESSURE AVAIL PIPE PRESSURE E 	ABLE AFTER T OF WATER ME ONTROLLING F LEVATION BET N E1 TO PSI.(M DUE TO WATER TURE (WATER THROUGH WA STH FROM BUIL NGTH BY 1.5 T ABLE FOR UNI DROP AVAILAB TION PIPING IS	ABLE FOR UNI THE BUILDING THE BUILDING THE BUILDING THE BUILDING IXTURE: (SHO IWEEN BUILD IULTIPLLY E1 B R TREATEMEN SOFTENERS TER HEATER, LDING CONTR TO ACCOUNT IN SECOPPER, TY	R CAL	(VALUE OF "A ALVE (FROM #4 QUIRED) L VALVE AND AND BACKFLON C.) VE THE CONT CONTROLLIN LOSS (H1 X 1. 100 TO GET	"") P ABOVE): THE CONTROLLIN W PREVENTERS N ROLLING FIXTURE IG FIXTURE IN FE 5):	IG FIXTURE IN FEET: WHICH SERVE THE	VAI	SUBTOTA SUBTOTA SUBTOTA SUBTOTA SUBTOTA (FEE SUBTOTA
B. C. D. E ² F. G. H ¹ H ² A.	 PRESSURE AVAIL PRESSURE LOSS PRESSURE AT CC DIFFERENCE IN E CONVERT FEET IN PRESSURE LOSS I CONTROLLING FIX PRESSURE LOSS I PRESSURE LOSS I PRESSURE LOSS I PRESSURE AVAIL PIPE PRESSURE I PRESSURE AVAIL PIPE PRESSURE I WATER DISTRIBUT 	SSURE AVAILA ABLE AFTER T OF WATER ME ONTROLLING F LEVATION BET N E1 TO PSI.(M DUE TO WATEL TURE (WATER THROUGH WA OTH FROM BUIL NGTH BY 1.5 T ABLE FOR UNI DROP AVAILAB TION PIPING IS	NATE ABLE FOR UNI THE BUILDING THE BUILDING THE BUILDING TREATEMENT INTURE: (SHO INTURE: SHO INTURE: SHO INTO INTURE: SHO INTURE: SH	R CAL IFORM LOSS CONTROL VA METER IS REC DWER) OING CONTROL BY 0.434) NT DEVICES A , FILTERS, ETC , WHICH SERV ROL VALVE TO FOR FITTING (MULTIPLY BY T) YPE L L L BE A MINUMU CH FIXTURE, BF	(VALUE OF "A ALVE (FROM #4 QUIRED) L VALVE AND ND BACKFLOY C.) VE THE CONT CONTROLLIN LOSS (H1 X 1. 100 TO GET 100 TO GET	THE CONTROLLIN W PREVENTERS A ROLLING FIXTURE IG FIXTURE IN FE 5): JLE	IG FIXTURE IN FEET: WHICH SERVE THE	VA DIVIDE "G" BY "H2" S MUL	SUBTOTA SUBTOTA SUBTOTA SUBTOTA SUBTOTA SUBTOTA TIPLY B
B. C. D. E ² F. G. H ¹ H ² A.	 PRESSURE AVAIL PRESSURE LOSS PRESSURE AT CC DIFFERENCE IN E CONVERT FEET IN PRESSURE LOSS I CONTROLLING FIX PRESSURE LOSS I PRESSURE LOSS I PRESSURE LOSS I PRESSURE AVAIL PIPE PRESSURE I PRESSURE AVAIL PIPE PRESSURE I WATER DISTRIBUT 	SSURE AVAILA ABLE AFTER T OF WATER ME ONTROLLING F LEVATION BET N E1 TO PSI.(M DUE TO WATEL TURE (WATER THROUGH WA GTH FROM BUIL NGTH BY 1.5 T ABLE FOR UNI DROP AVAILAB TION PIPING IS ABLE FOR UNI DROP AVAILAB TION PIPING IS	ABLE FOR UNI THE BUILDING THE BUILDING THE BUILDING TER (WHEN M IXTURE: (SHO IWEEN BUILD IULTIPLLY E1 B R TREATEMEN SOFTENERS TER HEATER, LDING CONTR TO ACCOUNT IN IFORM LOSS (BLE PER 100 FT S: COPPER, TY IFORM LOSS (BLE PER 100 FT S: COPPER, TY	R CAL IFORM LOSS CONTROL VA METER IS REC DWER) OING CONTROL BY 0.434) NT DEVICES A , FILTERS, ETC , WHICH SERV ROL VALVE TO FOR FITTING (MULTIPLY BY T) YPE L L L BE A MINUME CH FIXTURE, BE D'HERWISE. 3	(VALUE OF "A ALVE (FROM #4 QUIRED) L VALVE AND ND BACKFLOM C.) VE THE CONT CONTROLLIN LOSS (H1 X 1. 100 TO GET	ABOVE): THE CONTROLLIN W PREVENTERS A ROLLING FIXTURE IG FIXTURE IN FE 5): JLE	IG FIXTURE IN FEET: WHICH SERVE THE ET: ET:	VAI S DIVIDE "G" BY "H2" S MUL	
B. C. D. E ² F. G. H ¹ H ² A.	 PRESSURE AVAIL PRESSURE LOSS PRESSURE AT CC DIFFERENCE IN E CONVERT FEET IN PRESSURE LOSS I CONTROLLING FIX PRESSURE LOSS I PRESSURE LOSS I PRESSURE LOSS I PRESSURE LOSS I PRESSURE AVAIL PIPE PRESSURE I MULTIPLY PIPE LE PRESSURE AVAIL PIPE PRESSURE I WATER DISTRIBUT SI SANITARY RISER SHOWN ON THE FINAL DROP SHALL BE A MINI S SHOWN ON THE DRAV ATE THE ROUGH-IN SIZE 	SSURE AVAILA ABLE AFTER T OF WATER ME ONTROLLING F LEVATION BET N E1 TO PSI.(M DUE TO WATEL TURE (WATER THROUGH WA OTH FROM BUIL NGTH BY 1.5 T ABLE FOR UNI DROP AVAILAB TION PIPING IS ABLE FOR UNI DROP AVAILAB TION PIPING IS UP IN WALL TO VERTICAL RISI MUM OF 3/4" UN VING THAT ARE E. DOMESTIC CW	ABLE FOR UNI THE BUILDING THE BUILDING THE BUILDING TER (WHEN M IXTURE: (SHO IWEEN BUILD IULTIPLLY E1 B R TREATEMEN SOFTENERS TER HEATER, LDING CONTR TO ACCOUNT IN IFORM LOSS (BLE PER 100 FT S: COPPER, TY IFORM LOSS (BLE PER 100 FT S: COPPER, TY	R CAL IFORM LOSS CONTROL VA METER IS REC DWER) OING CONTROL BY 0.434) NT DEVICES A FILTERS, ETC WHICH SERV ROL VALVE TO FOR FITTING (MULTIPLY BY T) YPE L JGH-IN SANITARY	(VALUE OF "A ALVE (FROM # QUIRED) L VALVE AND ND BACKFLOY C.) VE THE CONT O CONTROLLIN LOSS (H1 X 1. 100 TO GET JM OF 2". 2) 1/2 RANCH PIPING) SIZES SHOWN TED IN THE SCI	THE CONTROLLIN W PREVENTERS N ROLLING FIXTURE IG FIXTURE IN FE 5): JLE 2" CW AND HW TO VERTICAL I ARE MINIMUMS. HEDULE SHALL	IG FIXTURE IN FEET: WHICH SERVE THE ET:		
B. C. D. E ² F. G. H ¹ H ² A. PPLI	PRESSURE AVAIL PRESSURE LOSS PRESSURE AT CC DIFFERENCE IN E CONVERT FEET IN PRESSURE LOSS I CONTROLLING FIX PRESSURE LOSS I OPRESSURE LOSS I DEVELOPED LENG MULTIPLY PIPE LE PRESSURE AVAIL PIPE PRESSURE I WATER DISTRIBUT	SSURE AVAILA ABLE AFTER T OF WATER ME ONTROLLING F LEVATION BET N E1 TO PSI.(M DUE TO WATEL TURE (WATER THROUGH WA GTH FROM BUIL NGTH BY 1.5 T ABLE FOR UNI DROP AVAILAB TION PIPING IS ABLE FOR UNI DROP AVAILAB TION PIPING IS UP IN WALL TO VERTICAL RISI MUM OF 3/4" UN VING THAT ARE E.	ABLE FOR UNI THE BUILDING THE BUILDING THE BUILDING TER (WHEN M IXTURE: (SHO IWEEN BUILD IULTIPLLY E1 B R TREATEMEN SOFTENERS TER HEATER, LDING CONTR TO ACCOUNT IN IFORM LOSS (BLE PER 100 FT S: COPPER, TY IFORM LOSS (BLE PER 100 FT S: COPPER, TY IFORM LOSS (BLE PER 100 FT S: COPPER, TY IFORM LOSS (BLE PER 100 FT S: COPPER, TY	R CAL FORM LOSS CONTROL VA METER IS REC DWER) OING CONTROL BY 0.434) NT DEVICES A FILTERS, ETA WHICH SERV ROL VALVE TO FOR FITTING (MULTIPLY BY T) YPE L U JGH-IN SERV CH FIXTURE, BY T) YPE L	(VALUE OF "A ALVE (FROM # QUIRED) L VALVE AND AND BACKFLOM C.) VE THE CONT CONTROLLIN LOSS (H1 X 1. 100 TO GET JM OF 2". 2) 1/2 RANCH PIPING TO SECHEDI JM OF 2". 2) 1/2 RANCH PIPING TO SIZE SHOWN TED IN THE SCI	ABOVE): THE CONTROLLIN W PREVENTERS A ROLLING FIXTURE IG FIXTURE IN FE 5): JLE	IG FIXTURE IN FEET: WHICH SERVE THE E: ET: Sheet Number P000 PD100.1 PD101.1 P100.1	VAI VAI DIVIDE "G" BY "H2" S MUL MUL COVER SHEET - PLUMBIN UNDERFLOOR DEMOLITI	SUBTOTA SUBTOTA SUBTOTA SUBTOTA SUBTOTA (FEE SUBTOTA TIPLY B
B. C. D. E ² F. G. H ¹ H ² A. PPLI	PRESSURE AVAIL PRESSURE LOSS PRESSURE AT CC DIFFERENCE IN E CONVERT FEET IN PRESSURE LOSS I CONTROLLING FIX PRESSURE LOSS I OPRESSURE LOSS I NULTIPLY PIPE LE PRESSURE AVAIL PIPE PRESSURE I WATER DISTRIBUT	SSURE AVAILA ABLE AFTER T OF WATER ME DNTROLLING F LEVATION BET N E1 TO PSI.(M DUE TO WATER TO PSI.(M DUE TO WATER TURE (<u>WATER</u> THROUGH <u>WA</u> STH FROM BUIL ORDF AVAILAB TION PIPING IS ABLE FOR UNID DROP AVAILAB TION PIPING IS ABLE FOR UNID DROP AVAILAB TION PIPING IS UP IN WALL TO VERTICAL RISI MUM OF 3/4" UN UN OF 3/4" UN UN OF 3/4" UN UN OF 3/4" UN	ABLE FOR UNI THE BUILDING THE BUILDING THE BUILDING TER (WHEN M IXTURE: (SHO IWEEN BUILD IULTIPLLY E1 B R TREATEMEN SOFTENERS TER HEATER, LDING CONTR TO ACCOUNT IFORM LOSS (BLE PER 100 F S: COPPER, TY IFORM LOSS (BLE PER 100 F S: COPPER, TY	R CAL FORM LOSS CONTROL VA METER IS REC DWER) MING CONTROL BY 0.434) NT DEVICES A FILTERS, ETA WHICH SERV ROL VALVE TO FOR FITTING (MULTIPLY BY T) YPE L JGH-IN LL BE A MINUMU CH FIXTURE, BF THE SIZES LIST SANITARY (NOTE 3)	(VALUE OF "A ALVE (FROM # QUIRED) L VALVE AND ND BACKFLOM C.) VE THE CONT CONTROLLIN LOSS (H1 X 1. 100 TO GET JM OF 2". 2) 1/2 RANCH PIPING TO SECHEDU JM OF 2". 2) 1/2 RANCH PIPING TO SIZES SHOWN TED IN THE SCI	THE CONTROLLIN W PREVENTERS N ROLLING FIXTURE IG FIXTURE IN FE 5): JLE 2" CW AND HW TO VERTICAL HEDULE SHALL REMARKS	NG FIXTURE IN FEET: WHICH SERVE THE E: ET: Sheet Number P000 PD100.1 PD100.1 PD101.1 PD102.1 P101.1 P102.1	VAI	
B. C. D. E ² F. G. H ¹ H ² A. PPLI	PRESSURE AVAIL PRESSURE LOSS PRESSURE AT CC DIFFERENCE IN E CONVERT FEET IN PRESSURE LOSS I CONTROLLING FIX PRESSURE LOSS I OPRESSURE LOSS I NULTIPLY PIPE LE PRESSURE AVAIL PIPE PRESSURE I WATER DISTRIBUT PRESSURE AVAIL PIPE PRESSURE I WATER DISTRIBUT S: 1) SANITARY RISER IES ONLY TO THE FINAL DROP SHALL BE A MINI S HOWN ON THE DRAW ATE THE ROUGH-IN SIZE TURE DESCRIPTION TRIC WATER COOLER FLOOR DRAIN HOSE BIBB LAVATORY MOP BASIN	SURE AVAILA ABLE AFTER T OF WATER ME DNTROLLING F LEVATION BET N E1 TO PSI.(M DUE TO WATER THROUGH WA THROUGH WA STH FROM BUI NGTH BY 1.5 T ABLE FOR UNI DROP AVAILAB TION PIPING IS ABLE FOR UNI DROP AVAILAB TION PIPING IS DOMESTIC CW (NOTE 3) 1/2" - - - 3/4" 1/2" 3/4"	ABLE FOR UNI ABLE FOR UNI THE BUILDING THE BUILDING TER (WHEN IN IXTURE: (SHO IWEEN BUILD ULTIPLLY E1 IN R TREATEMEN SOFTENERS TER HEATER, LDING CONTR TO ACCOUNT IFORM LOSS (BLE PER 100 F S: COPPER, TY IFORM LOSS (BLE PER 100 F S: COPPER, TY IFORM LOSS (BLE PER 100 F COPPER, TY IFORM LOSS (IFORM	R CAL FORM LOSS CONTROL VA METER IS REC DWER) OING CONTROL BY 0.434) NT DEVICES A FILTERS, ETA WHICH SERV ROL VALVE TO FOR FITTING (MULTIPLY BY T) YPE L JGH-IN (SANITARY (NOT 1/2" 2" 4" - 1 1/4" 3"	VALUE OF "A ALVE (FROM # QUIRED) L VALVE AND ND BACKFLOY C.) VE THE CONT CONTROLLIN LOSS (H1 X 1. 100 TO GET JM OF 2". 2) 1// ANCH PIPING) SIZES SHOWN TED IN THE SCI VENT (NOTE 3) 1 1/4" 1 1/2" 2" - 1 1/4" 1 1/2"	THE CONTROLLIN W PREVENTERS N ROLLING FIXTURE IG FIXTURE IN FE 5): JLE 2" CW AND HW TO VERTICAL HEDULE SHALL REMARKS	IG FIXTURE IN FEET: WHICH SERVE THE E: ET: Sheet Number P000 PD100.1 PD102.1 P100.1 P100.1 P102.1 P100.1 P102.1 P100.1 P102.1 P100.1 P	VAI VAI VAI VAI VAI VAI VAI VAI	SUBTOTA SUBTOTA SUBTOTA SUBTOTA SUBTOTA SUBTOTA SUBTOTA SUBTOTA SUBTOTA SUBTOTA SUBTOTA SUBTOTA SUBTOTA SUBTOTA SUBTOTA
B. C. D. E ² F. G. H ¹ H ² A. PPLI	PRESSURE AVAIL PRESSURE LOSS PRESSURE AT CC DIFFERENCE IN E CONVERT FEET IN PRESSURE LOSS I CONTROLLING FIX PRESSURE LOSS I ONTROLLING FIX PRESSURE LOSS I MULTIPLY PIPE LE PRESSURE AVAIL PIPE PRESSURE I WATER DISTRIBUT	SURE AVAILA ABLE AFTER T OF WATER ME DNTROLLING F LEVATION BET N E1 TO PSI.(M DUE TO WATER THROUGH WA THROUGH WA STH FROM BUIL NGTH BY 1.5 T ABLE FOR UNID DROP AVAILAB TION PIPING IS ABLE FOR UNID DROP AVAILAB TION PIPING IS UP IN WALL TO VERTICAL RISI WIM OF 3/4" UN UN OF 3/4" 1/2"	ABLE FOR UNI ABLE FOR UNI THE BUILDING THE BUILDING TER (WHEN M IXTURE: (SHO IVEEN BUILD ULTIPLLY E1 B R TREATEMEN SOFTENERS TER HEATER, LDING CONTR TO ACCOUNT IFORM LOSS (BLE PER 100 F ² S: COPPER, TY DOMESTIC HW (NOTE 3) - - - 1/2"	R CAL FORM LOSS CONTROL VA METER IS REC DWER) OING CONTROL BY 0.434) NT DEVICES A FILTERS, ETA WHICH SERV ROL VALVE TO FOR FITTING (MULTIPLY BY T) YPE L JGH-IN SANITARY (NOT E) I THE SIZES LIS SANITARY (NOT E) THE SIZES LIS SANITARY (NOT E) SANITARY (NOT E) (NOT	(VALUE OF "A ALVE (FROM # QUIRED) L VALVE AND AND BACKFLOM C.) VE THE CONT CONTROLLIN LOSS (H1 X 1. 100 TO GET JM OF 2". 2) 1/2 RANCH PIPING SCHEDU JM OF 2". 2) 1/2 RANCH PIPING SECHEDU JM OF 2". 2) 1/2 RANCH PIPING SECHEDU SECHED	THE CONTROLLIN W PREVENTERS W ROLLING FIXTURE IG FIXTURE IN FE 5): JLE 2" CW AND HW TO VERTICAL I ARE MINIMUMS. HEDULE SHALL REMARKS NOTE 1 & 2 - -	IG FIXTURE IN FEET: WHICH SERVE THE E: ET: Sheet Number PD100.1 PD100.1 PD100.1 PD102.1 P100.	VAI	SUBTOTA SUBTOTA SUBTOTA SUBTOTA SUBTOTA SUBTOTA (FEE SUBTOTA TIPLY B SUBTOTA SUBTOTA SUBTOTA (FEE SUBTOTA SUBTOTA SUBTOTA

8	9	10	11	12	13	14	15	16

	<u>1.5</u> 200.0	
	63.00	
TAL TAL	-3.0	
TAL TAL ET)	5.0 54.9 25.0 29.9 3.0 1.3	
TAL	<u>N/A</u> 28.6	
TAL	200.0 300.0 0.095 100.0	
TAL TAL ET) TAL	5.0 54.9 20.0 34.9 12.0 5.2	
	<u> 10.0</u> <u> 19.7</u> <u> 5.0</u> <u> 14.7</u>	
	200.0 300.0 0.049	
	100.0	
A	4.9	PSI/100F

	PLUMBING SYMBOL LIST
	NOT ALL SYMBOLS MAY APPLY.
YMBOL:	DESCRIPTION:
CA	COMPRESSED AIR
CW	COLD WATER - POTABLE
D	DRAIN
DT	DRAIN TILE
G	NATURAL GAS
GV	GAS REGULATOR VENT
—-HW	HOT WATER - POTABLE
—HWC——	HOT WATER CIRCULATING - POTABLE
—P	PROPANE GAS
—PD——	PUMPED DISCHARGE
—SAN——	SANITARY DRAINAGE
—SCW——	SOFT COLD WATER
-ST(1,000)—	STORM DRAINAGE (ROOF SQUARE FOOTAGE)
—STS——	STORM DRAINAGE (SECONDARY)
—STW——	SOFT TEMPERED WATER
TW	TEMPERED WATER
V	VENT
—VAC——	LAB VACUUM
W	SERVICE WATER - POTABLE
0	
o _{FD}	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN)
	PITCH PIPE IN DIRECTION
	DIRECTION OF FLOW IN PIPE
<u>RD-1</u> 6"(1000)	ROOF DRAIN PROPERTIES SIZE (ROOF SQ. FT.)
	NEW CONNECTION
	DIELECTRIC CONNECTION
	UNION/FLANGE
—⋈—	SHUTOFF VALVE NORMALLY OPEN
	SHUTOFF VALVE NORMALLY CLOSED
GPM	BALANCING VALVE (NUMBER INDICATES GPM)
	CHECK VALVE
X	SOLENOID VALVE
X- T ▼	SAFETY/RELIEF VALVE
D	REDUCER - REFERENCE SPECIFICATION FOR CONCENTRIC/ECCENTRIC AND FOT/FOB
-8	PRESSURE REDUCING VALVE (LIQUID/GAS)
	PUMP
	METER
Ý	VACUUM BREAKER
×®	PRESSURE GAUGE (FURNISHED WITH BALL VALVE)
	TEMPERATURE SENSOR WITH WELL
	THERMOMETER WITH WELL (DIAL TYPE)
	THERMOMETER WITH WELL (FILLED TYPE)
_ ×	PIPE ANCHOR

<u>PLl</u>	JMBING ABBREVIATION KEY
ABBR:	DESCRIPTION:
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
BFP	BACKFLOW PREVENTER
вт	BATHTUB
СВ	CATCH BASIN
CI	CAST IRON
со	CLEANOUT
CS	CLINICAL SINK
DB	DIALYSIS BOX
DF	DRINKING FOUNTAIN
DI	DUCTILE IRON
E	EXISTING
EE	EMERGENCY EYEWASH
ES	EMERGENCY SHOWER
ESE	EMERGENCY SHOWER/EYEWASH
EWC	ELECTRIC WATER COOLER
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FM	FLOW METER
FS	FLOOR SINK
GD	GARBAGE DISPOSER
GI	GREASE INTERCEPTOR
НВ	HOSE BIBB
I.E.	INVERT ELEVATION (FOR REFERENCE ONLY)
LAV	LAVATORY
MB	MOP BASIN
МН	MANHOLE
MV	MIXING VALVE
NC	NEW CONNECTION
NIC	NOT IN CONTRACT
NT	NEUTRALIZATION TANK
OS	OIL SEPARATOR
RD	ROOF DRAIN
SH	SHOWER
SK	SINK
SS	SERVICE SINK
TD	TRENCH DRAIN
TP	TRAP PRIMER
TYP	TYPICAL
UR	URINAL
VTR	VENT THROUGH ROOF
WC	WATER CLOSET
WCO	WALL CLEANOUT
WF	WASH FOUNTAIN
WH	WATER HEATER
WMF	WASHING MACHINE FIXTURE
WM	WATER METER
WS	WATER SOFTENER
UB	UTILITY BOX
UNO	UNLESS NOTED OTHERWISE
YCO	YARD CLEANOUT

Sheet Name	
UMBING	
JMBING	
IBING	
LUMBING	
PLUMBING	

[
<u>VIEW KEY</u>					
NAME - LEVEL NAME 10' - 0" - HEIGHT ABOVE PROJECT 0' - 0"	1 INDICATES NOTE USED TO DESCRIBE ADDITIONAL INFORMATION ABOUT WORK REQUIRED, SPECIFIC TO THE SHEET AND/OR DETAIL				
	PLAN OR DETAIL NUMBER				
	PLAN OR DETAIL NAME				
	<u>N NAME</u>				
ν _{ο R} τ ^χ 1/8" = 1'-0"	PLAN OR DETAIL SCALE				
_ SIM					
	DETAIL REFERRED TO BY SECTION CUT				
M101					
SIM					
	DETAIL REFERRED TO BY ELEVATION				
4 <u>3</u> <u>T101</u>					
LINE TYPE KEY:					
NEW WORK BY THIS CONTR (DARK SOLID LINE)	RACTOR				
— — — — NEW WORK UNDERFLOOR (DARK LONG DASHED L	OR UNDERGROUND BY THIS CONTRACTOR INE)				
NEW WORK BY OTHERS AN (LIGHT SOLID LINE)	ID/OR EXISTING TO REMAIN				
EXISTING TO BE REMOVED (DARK SHORT DASHED					

17 18 19 20 21

PLUMBING GENERAL NOTES:

- 1. THE SYMBOLS AND THE MATERIAL LIST ARE FOR THE CONVENIENCE OF THE CONTRACTOR. CONTRACTOR SHALL VERIFY QUANTITIES AND FURNISH ALL MATERIALS REQUIRED FOR FULLY OPERATIONAL SYSTEMS, WHETHER SPECIFIED OR NOT.
- CATALOG NUMBERS SHALL NOT BE CONSIDERED COMPLETE, BUT ARE GIVEN AS AN AID TO THE CONTRACTOR AND TO INDICATE THE QUALITY REQUIRED. CONTRACTOR IS RESPONSIBLE FOR COMPLETE DESCRIPTION OF MATERIAL ON THESE DRAWINGS AND IN THE SPECIFICATIONS BEFORE ORDERING. THE DESCRIPTION OF THE MATERIAL TAKES PRECEDENCE OVER THE CATALOG NUMBER. THE FIRST MANUFACTURER LISTED IS THE BASIS OF DESIGN.
 CONTRACTOR SHALL VERIFY THAT FIXTURES SUPPLIED ARE APPROVED PER ALL APPLICABLE
- STATE, LOCAL AND GOVERNING AUTHORITIES. 4. ALL FIXTURES SHALL CONFORM TO FEDERAL ACT S.3874
- INVERT ELEVATIONS ARE FROM EXISTING DRAWINGS AND MAY NOT BE ACCURATE. VERIFY ALL ELEVATIONS BEFORE BEGINNING WORK.
 VERIFY UNDERGROUND PIPE SIZES, INVERT ELEVATIONS, AND LOCATIONS PRIOR TO
- BEGINNING ANY WORK.
 7. REFER TO THE PLUMBING ROUGH-IN SCHEDULE FOR THE SIZES OF BRANCH PIPES TO
- PLUMBING FIXTURES.
 8. FOR CLARITY, NOT ALL VALVES HAVE BEEN SHOWN. PROVIDE SHUTOFF VALVES IN DOMESTIC WATER PIPING SERVING EACH FIXTURE. ANGLE STOPS SHALL NOT BE CONSIDERED SHUTOFF
- VALVES.
 9. EXISTING CONDITIONS ON DEMOLITION PLANS ARE PROVIDED TO INDICATE THE GENERAL SCOPE OF ITEMS TO BE REMOVED. SEE SPECIFICATION SECTION 22 05 05 FOR ADDITIONAL DEMOLITION INFORMATION.
- P.C. SHALL CUT AND PATCH EXISTING AS REQUIRED FOR NEW OR DEMOLITION WORK UNLESS NOTED OTHERWISE. SEE SPECIFICATION SECTION 22 05 05 FOR ADDITIONAL INFORMATION.
 CONTRACTOR TO PROVIDE AND INSTALL ALL SAFING AT ALL FLOOR DRAINS PER REQUIREMENTS STATED IN WISCONSIN PLUMBING CODE SECTION 384.20(4)(b)9.

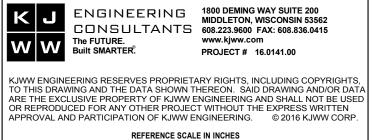
PLUMBING DEMOLITION NOTES:

- 1. THE DRAWINGS ARE INTENDED TO INDICATE THE SCOPE OF DEMOLITION WORK REQUIRED AND DO NOT INDICATE EVERY PIPE OR PIECE OF EQUIPMENT THAT MUST BE REMOVED. ACCESSIBILITY OF EQUIPMENT AND SYSTEMS IS NOT SHOWN NOR SHOULD IT BE INFERRED. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING A BID AND VERIFY EXISTING CONDITIONS.
- CONTRACTOR IS RESPONSIBLE FOR ALL COST ASSOCIATED WITH CEILING SYSTEM DISASSEMBLY AND REASSEMBLY TO ACCOMMODATE THIS WORK. CONTRACTOR TO SALVAGE, STORE, AND REINSTALL ALL CEILING MOUNTED DEVICES.
 CONTRACTOR IS RESPONSIBLE FOR PATCHING ALL PENETRATIONS CREATED BY REMOVAL OF
- EQUIPMENT, DUCTWORK, PIPING, ETC. TO MATCH EXISTING. REPAIR ADJACENT CONSTRUCTION AND FINISHES DAMAGED DURING DEMOLITION AND EXTENSION WORK. PATCH TO MATCH ORIGINAL CONSTRUCTION. VERIFY ALTERNATIVE OR SPECIAL REPAIR METHODS WITH ARCHITECT/ENGINEER BEFORE PROCEEDING WITH DEMOLITION.
- CONTRACTOR IS RESPONSIBLE FOR ALL MODIFICATIONS TO THE EXISTING SPRINKLER PIPING, PLUMBING PIPING, HVAC PIPING, AND DUCTWORK NECESSARY TO PERMIT THE INSTALLATION OF NEW WORK.
 PROVIDE TEMPORARY CONNECTIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING
- CONSTRUCTION. 6. WHEN WORK MUST BE PERFORMED ON OPERATING EQUIPMENT, USE PERSONNEL
- EXPERIENCED IN SUCH OPERATIONS. 7. EXTEND EXISTING INSTALLATIONS USING MATERIAL AND METHODS COMPATIBLE WITH EXISTING
- EXTEND EXISTING INSTALLATIONS USING MATERIAL AND METHODS COMPATIBLE WITH EXISTING MECHANICAL INSTALLATIONS, OR AS SPECIFIED FOR INTENDED SERVICE.
 EXISTING PLUMBING SYSTEM: MAINTAIN SERVICE TO ALL PLUMBING FIXTURES UNTIL NEW PIPING IS INSTALLED. OBTAIN PERMISSION FROM OWNER AT LEAST 48 HOURS BEFORE SHUTTING DOWN SYSTEM FOR ANY REASON. MAKE CHANGEOVER TO NEW PIPING WITH MINIMUM OUTAGE. DO NOT DISCONNECT ANY ROOF DRAINAGE PIPING UNTIL NEW PIPING IS IN
- PLACE AND OPERATIONAL.
 9. ALL SYSTEM CHANGEOVERS BE COMPLETED IN OVERTIME, NOT DURING NORMAL WORKING HOURS.
 10. REMOVE, RELOCATE, AND EXTEND EXISTING INSTALLATIONS TO ACCOMMODATE NEW
- CONSTRUCTION.
- REMOVE ABANDONED PIPING TO SOURCE OF SUPPLY AND/OR MAIN LINES AND CAP OR MAKE READY FOR RECONNECTION IF SERVICE IS EXTENDED AS PART OF NEW WORK.
 REMOVE EXPOSED ABANDONED PIPING INCLUDING ABANDONED PIPING ABOVE ACCESSIBLE CEILING FINISHES. CUT PIPING ABOVE CEILINGS, BELOW FLOORS, AND BEHIND WALLS. CAP REMAINING LINES. REMOVE ALL ASSOCIATED CLAMPS, HANGERS, SUPPORTS, ETC.,
- ASSOCIATED WITH PIPING REMOVAL. 13. DISCONNECT AND REMOVE MECHANICAL DEVICES AND EQUIPMENT SERVING EQUIPMENT THAT HAS BEEN REMOVED.
- MAINTAIN ACCESS TO EXISTING MECHANICAL INSTALLATIONS WHICH REMAIN ACTIVE. MODIFY INSTALLATION OR PROVIDE ACCESS PANEL AS APPROPRIATE.
 MECHANICAL ITEMS REMOVED AND NOT RELOCATED REMAIN THE PROPERTY OF THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF MATERIAL THE OWNER DOES

NOT WANT TO REUSE OR RETAIN FOR MAINTENANCE PURPOSES. MECHANICAL GENERAL NOTES:

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, VENTILATION, PIPING AND TEMPERATURE CONTROL.

- DRAWINGS SHOWING LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING, ETC. ARE DIAGRAMMATIC AND MAY NOT ALWAYS REFLECT EXACT INSTALLATION CONDITIONS. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF DUCTWORK, PIPING, EQUIPMENT, ETC., AND MAY NOT INCLUDE ALL OFFSETS AND FITTINGS REQUIRED FOR COMPLETE INSTALLATION. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION AND THE WORK OF OTHERS WILL PERMIT.
- DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS AND CLEARANCES FROM ARCHITECTURAL, STRUCTURAL, SUBMITTALS, AND OTHER APPROPRIATE DRAWINGS OR PHYSICALLY AT SITE. REVIEW ALL DRAWINGS, INCLUDING THOSE OF OTHER TRADES.
 COORDINATE ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION TO PROVIDE
- COORDINATE ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION TO PROVIDE CLEARANCES REQUIRED FOR OPERATION, MAINTENANCE, CODE COMPLIANCE, AND TO VERIFY NON-INTERFERENCE WITH OTHER WORK. DO NOT FABRICATE PRIOR TO VERIFICATION OF NECESSARY CLEARANCES FOR ALL TRADES. BRING ANY INTERFERENCES OR CONFLICTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH FABRICATION OR EQUIPMENT ORDERS.
- REVIEW SPACE REQUIREMENTS OF EQUIPMENT SPECIFIED OR SUBSTITUTED AND MAKE REASONABLE ACCOMMODATIONS IN LAYOUT AND POSITIONING TO PROVIDE PROPER ACCESS.
 ANY CHANGES REQUIRED TO ELIMINATE CONFLICTS OR THAT RESULT FROM A FAILURE TO COORDINATE SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COST OR EXPENSE
- TO OTHERS.
 6. EACH CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ELECTRICAL CHANGES REQUIRED FOR EQUIPMENT PROPOSED THAT DIFFERS FROM THE BASIS OF DESIGN.
 7. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN, ELECTRICAL, TECHNOLOGY
- AUDIO/VISUAL, AND OTHER MECHANICAL PLANS FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES, OTHER THAN SPRINKLERS.
 8. EACH CONTRACTOR IS RESPONSIBLE FOR DAMAGE CAUSED BY THEIR ACTIONS TO WALLS,
- FLOORS, CEILINGS, AND ROOFS. THE CONTRACTOR WHOSE WORK CAUSES DAMAGE IS RESPONSIBLE FOR PATCHING TO MATCH ORIGINAL CONSTRUCTION, FIRE RATING, AND FINISH.
 IN AREAS WITH DRYWALL CEILINGS COORDINATE LOCATIONS OF ACCESS PANELS WITH THE GC FOR ACCESS TO VALVES, DUCTWORK ACCESSORIES, DAMPERS, ETC. COORDINATE PANEL TYPE
- AND COLOR WITH ARCHITECT. NOTIFY THE GC OF THE REQUIRED ACCESS PANELS PRIOR TO BIDDING.
 10. SEAL ALL FLOOR, WALL, AND ROOF PENETRATIONS AIRTIGHT WHERE CONDUITS, PIPING, AND DUCTS PENETRATE. PENETRATIONS THROUGH EXTERIOR WALLS AND ROOF SHALL BE SEALED AIRTIGHT WITH WATERPROOFING MATERIALS RECOMMENDED BY MANUFACTURER FOR
- OUTDOOR USE. 11. CAULK ALL PIPE AND DUCT PENETRATIONS OF FULL HEIGHT NON-FIRE RATED WALL, PARTITION, FLOOR, AND ROOF ASSEMBLIES. THIS IS ESSENTIAL TO PREVENT NOISE TRANSMISSION FROM
- ONE ROOM TO ANOTHER AND TO PROVIDE THE DESIRED NC LEVELS WITHIN ROOMS.
 12. WHERE PIPES AND DUCTS ARE SHOWN TO PENETRATE FLOORS, PROVIDE SLEEVED OPENINGS WITH THE TOP EDGE RAISED ABOVE FLOOR SURFACE IN ACCORDANCE WITH ALL RELEVANT
- SPEC SECTIONS. SEAL SLEEVE PERIMETER TO BE WATERTIGHT.
 13. EQUIPMENT SIZES AND SERVICE CLEARANCE REQUIREMENTS VARY BETWEEN DIFFERENT MANUFACTURERS. CONSULT APPROVED SHOP DRAWINGS FOR EQUIPMENT SIZES AND REQUIRED SERVICE CLEARANCES. COORDINATE WITH LAYOUT OF EQUIPMENT PADS, PIPING,
- DUCTWORK, ETC. 14. DO NOT BLOCK TUBE PULL OR EQUIPMENT SERVICE CLEARANCES. 15. MAINTAIN MINIMUM 3'-6" CLEARANCE IN FRONT OF ALL ELECTRICAL PANELS, MOTOR STARTERS,
- SWITCHES, AND DISCONNECTS. 16. PROVIDE CONCRETE EQUIPMENT PAD FOR ALL FLOOR MOUNTED EQUIPMENT. PAD SHALL
- EXTEND MINIMUM 6" BEYOND ALL SIDES OF EQUIPMENT.
 17. DO NOT SUPPORT EQUIPMENT, PIPING, OR DUCTWORK FROM METAL DECKING OR OTHER NON-STRUCTURAL BUILDING ELEMENTS. ANCHORS EMBEDDED IN CONCRETE SHALL BE CRACKED CONCRETE APPROVED IN ACCORDANCE WITH SPECIFICATIONS.



OPIN ARCHITECTS CEDAR RAPIDS DES MOINES MADISON

OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

General Contractor

Proiect

Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713

Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Sheet Issue Date

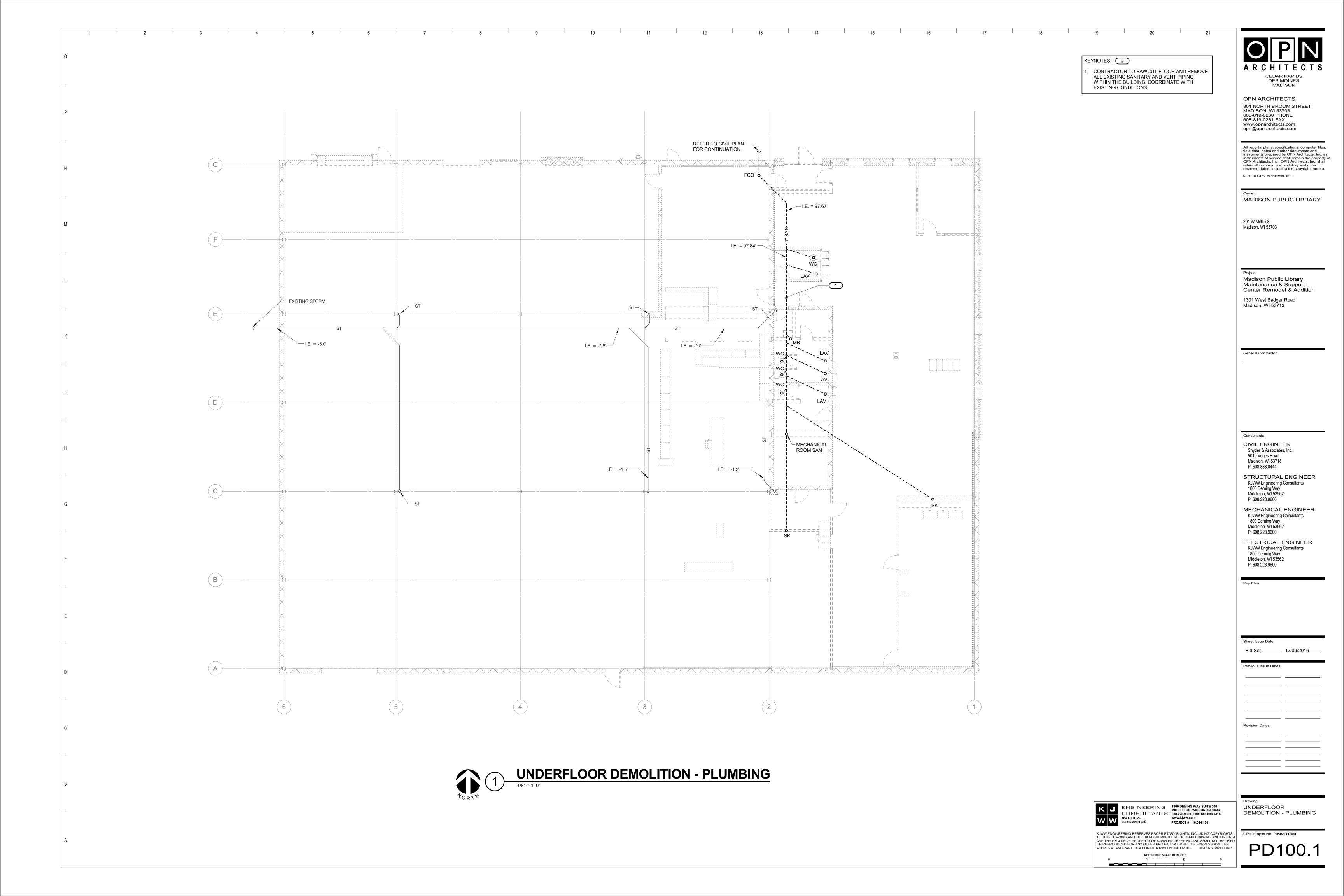
Key Plan

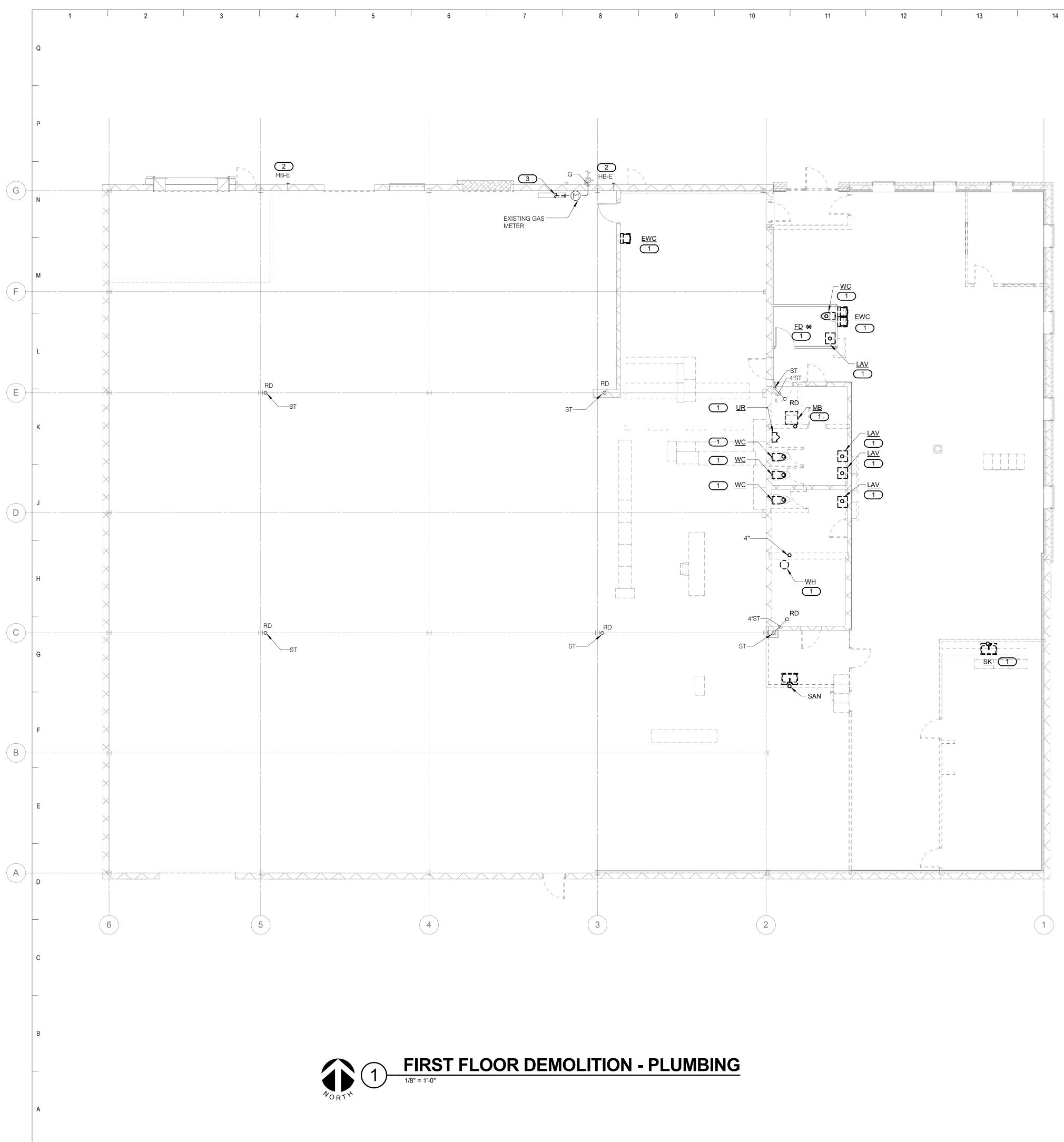
Bid Set	12/09/2016
Previous Issue Dates	

levision	Dates

Drawing COVER SHEET -PLUMBING

OPN Project No. **15617000**





17	18	19	2	0	21

15

1

16



KEYNOTES:

- REMOVE EXISTING PLUMBING FIXTURE AND ASSOCIATED CW, HW, HWC, VENT, SANITARY PIPING AND ACCESSORIES ON THIS FLOOR AS WELL AS UNDER FLOOR.
- REMOVE PIPING AND PIPE CONNECTION TO EXISTING HOSE BIBB TO REMAIN. REFER TO
- SHEET P101.1 FOR NEW CONNECTION. THIS CONTRACTOR TO FIELD VERIFY AND
- REMOVE ALL EXISTING GAS PIPING BACK TO GAS METER. COORDINATE WITH EXISTING CONDITIONS. PREPARE FOR NEW CONNECTION TO MATCH NEW PLANS SHOWN ON SHEET P101.1.

OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

General Contractor

Owner

Project Madison Public Library Maintenance & Support Center Remodel & Addition

1301 West Badger Road Madison, WI 53713

CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

Consultants

- STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

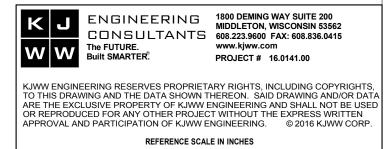
Sheet Issue Date Bid Set 12/09/2016

Previous Issue Dates

Revision Dates

Drawing FIRST FLOOR

DEMOLITION - PLUMBING

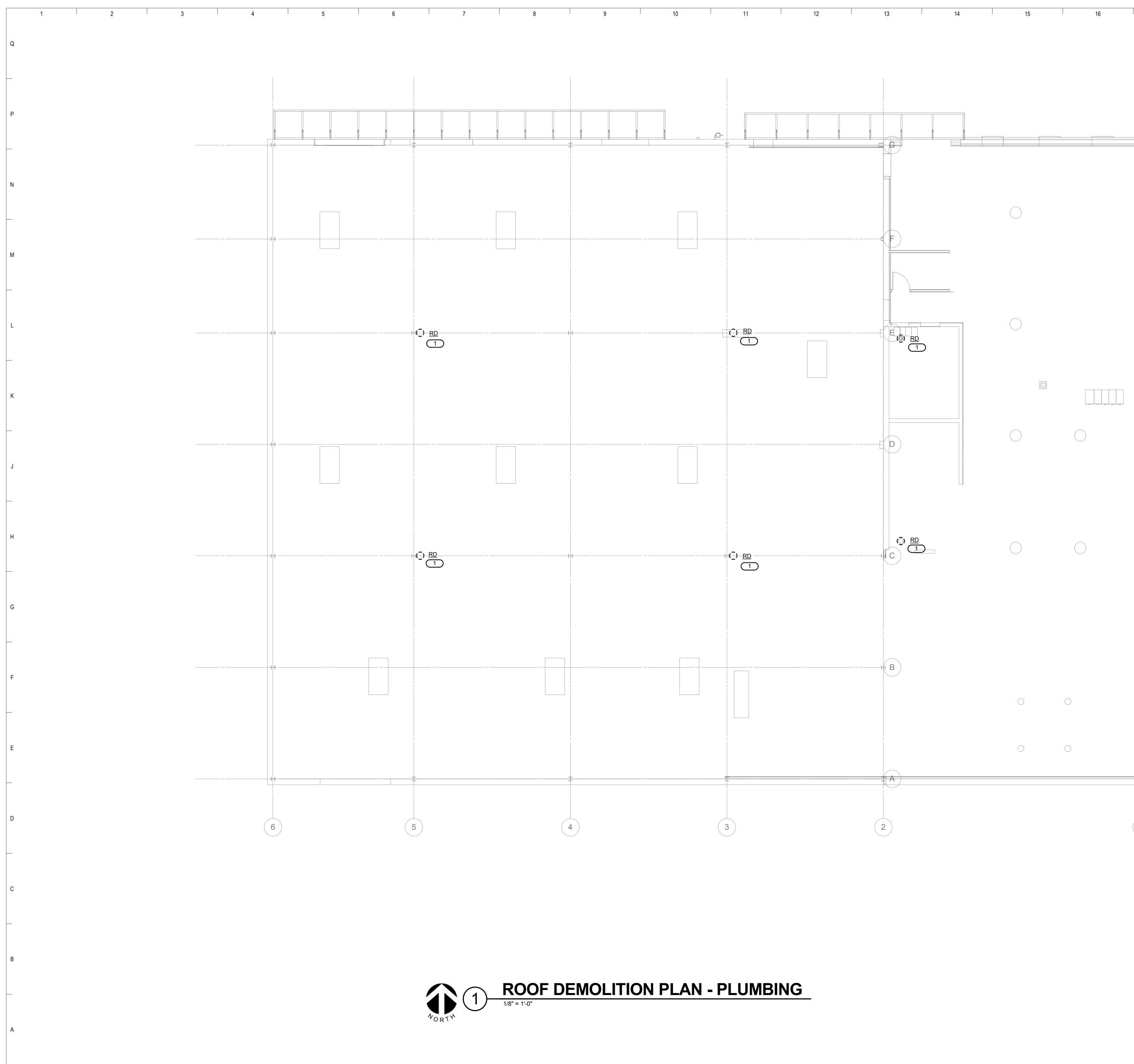


2

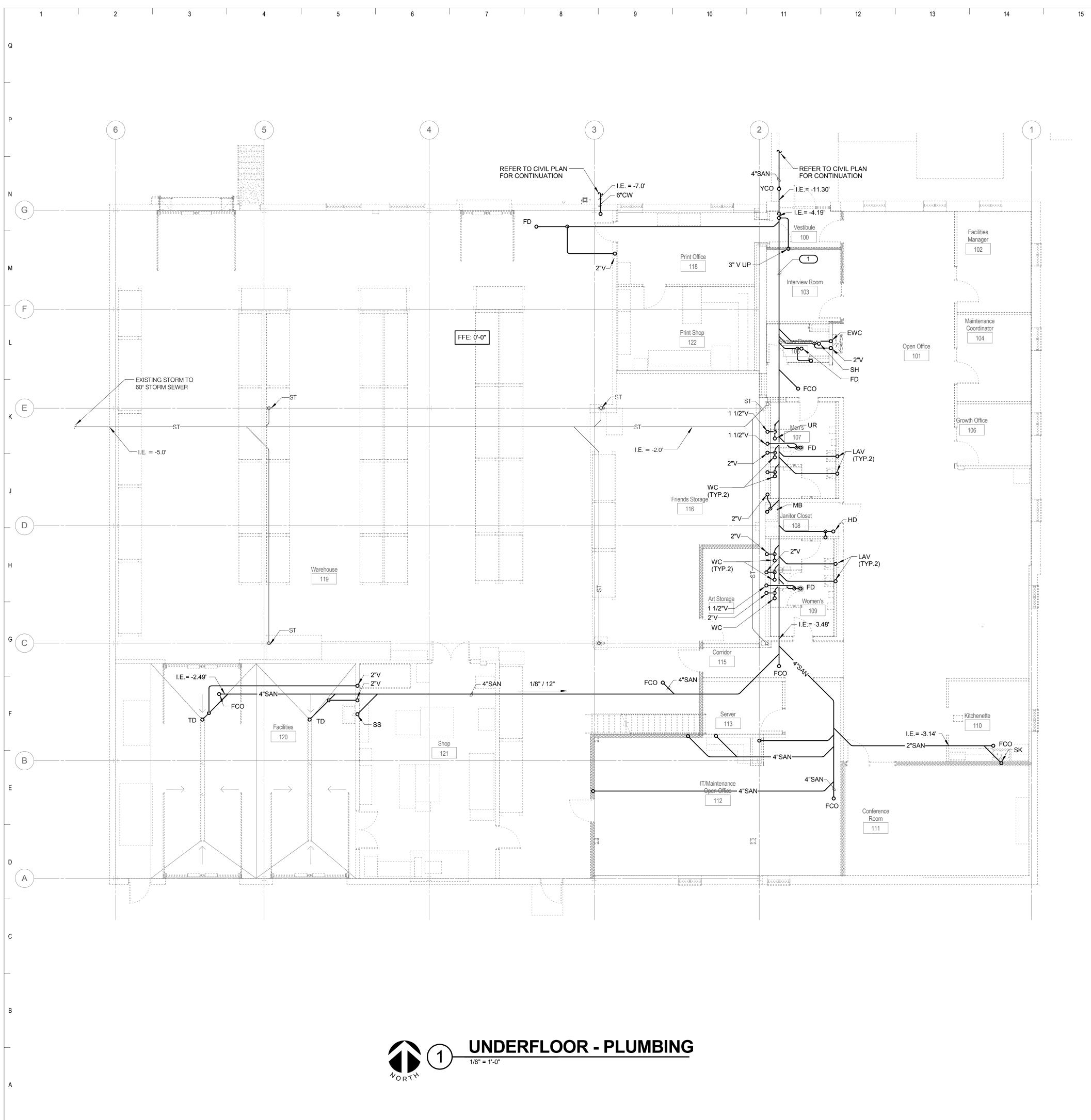
3

0

OPN Project No. 15617000 PD101.1



	17	18	19	20		21	
			XEYNOTES: # . REMOVE EXISTING RO EXISTING STORM RIS NEW ROOF DRAINS A P102.1.	ERS FOR CON S SHOWN ON S	NECTION TO		OPIN ARCHITECTS CEDAR RAPIDS DES MOINES MADISON
							OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com
							All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.
							Owner MADISON PUBLIC LIBRARY
							201 W Mifflin St Madison, WI 53703
							Project Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713
							General Contractor
							Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444 CTRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
							Sheet Issue Date Bid Set 12/09/2016 Previous Issue Dates
			KJWW ENGINEERING RESERV	LTANTS 608. WWW C. PRO VES PROPRIETARY F	0 DEMING WAY SU DLETON, WISCON 223.9600 FAX: 604 xkjww.com DJECT # 16.0141.0 RIGHTS, INCLUDIN	ISIN 53562 8.836.0415 00 NG COPYRIGHTS,	Drawing ROOF PLAN DEMOLITION - PLUMBING
			TO THIS DRAWING AND THE L ARE THE EXCLUSIVE PROPER OR REPRODUCED FOR ANY C APPROVAL AND PARTICIPATI	DATA SHOWN THERE RTY OF KJWW ENGIN DTHER PROJECT WIT	eon. Said Draw Neering and Sh. Thout the Expr Neering. © 20	ING AND/OR DATA	PD102.1



17	18	19	20	21

16

KEYNOTES:

CONTRACTOR TO SAWCUT FLOOR TO INSTALL NEW SANITARY MAIN AND BRANCH PIPING TO CONNECT NEW FIXTURES THROUGHOUT THE BUILDING.



OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

Owner MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

Project

General Contractor

Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713

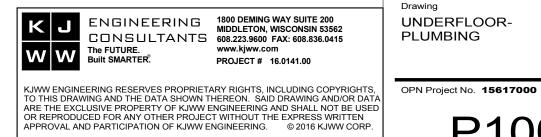
Consultants **CIVIL ENGINEER** Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

- STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date Bid Set 12/09/2016 Previous Issue Dates

Revision Dates

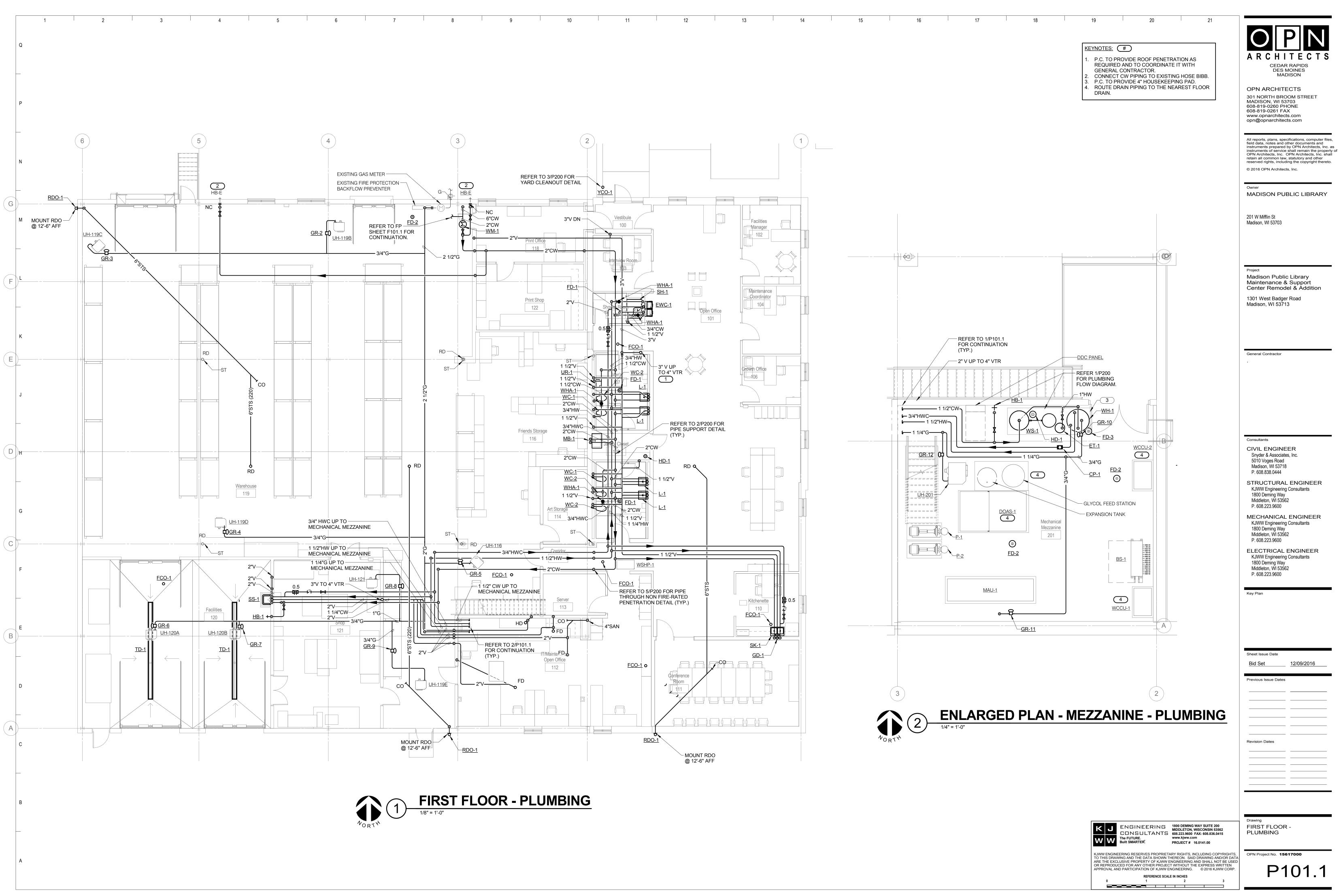


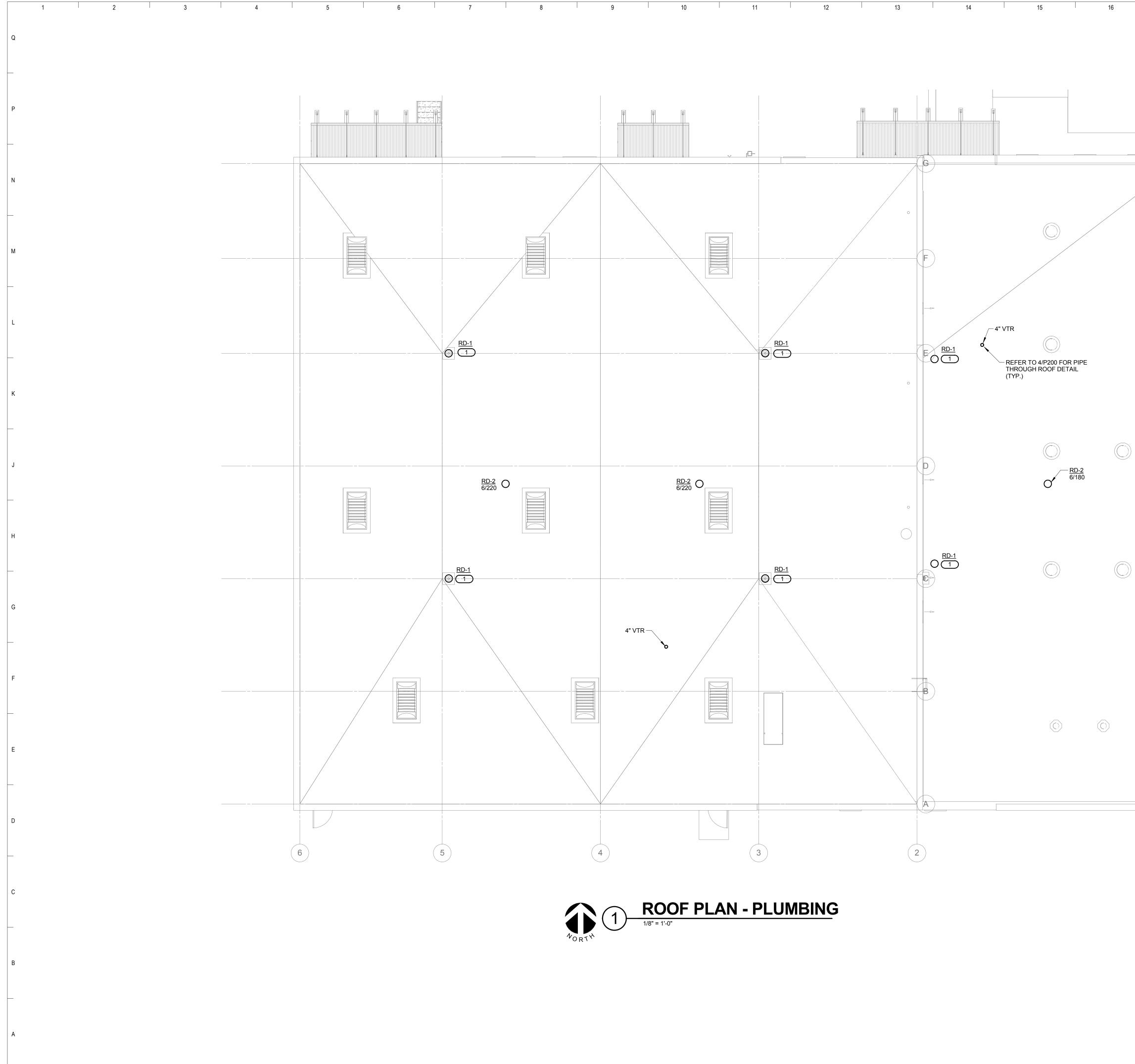
2

3

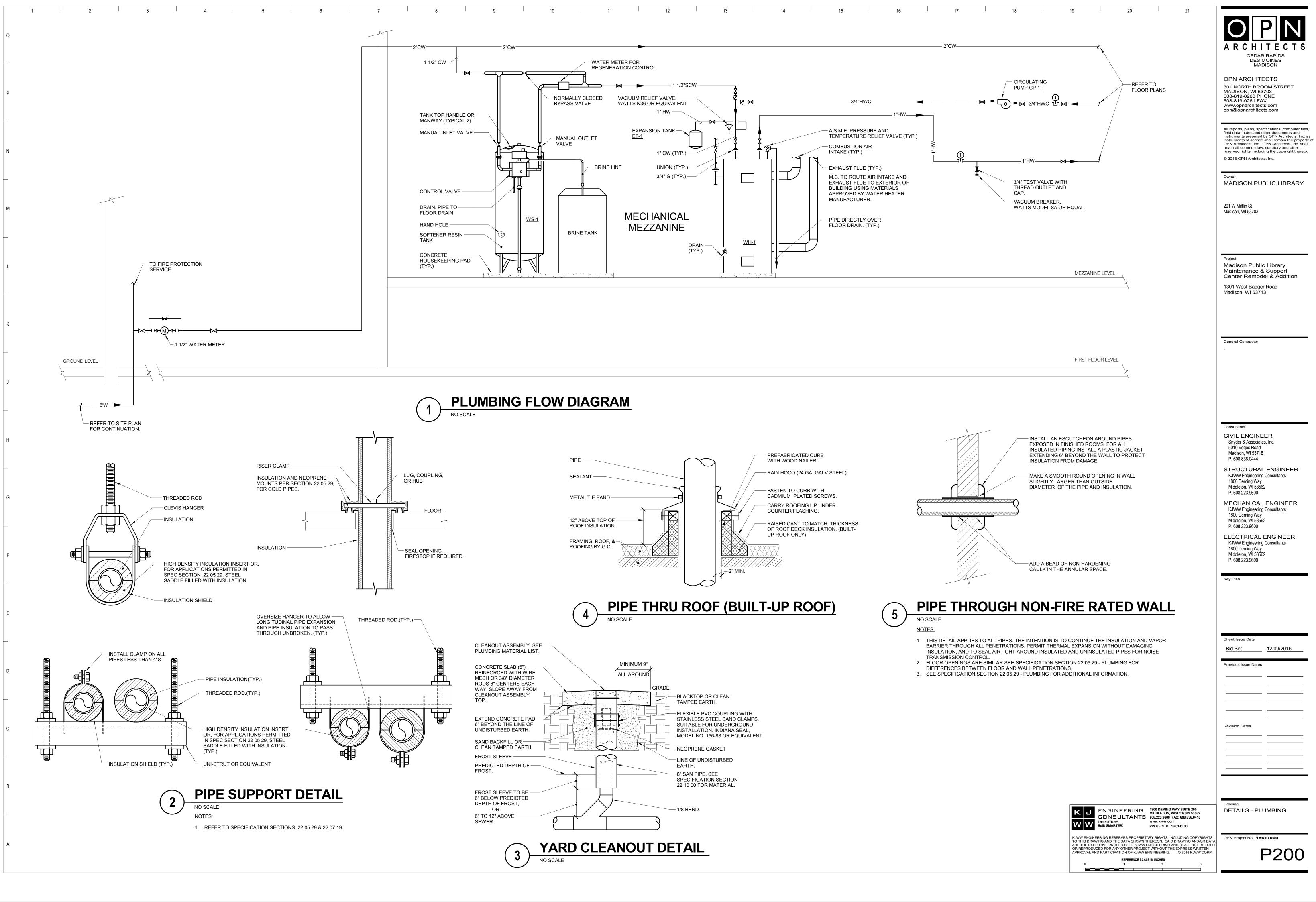
REFERENCE SCALE IN INCHES

0





	17	18		19		20		21		
			1.	PROVIDE N EXISTING S	TORM PIPIN	RAIN CONNI IG TO NEW. AND EXISTIN	COORDINAT	Ē	CEDA DES	P N I T E C T S MOINES DISON
									OPN ARCHIT 301 NORTH BR MADISON, WI 5 608-819-0260 P 608-819-0261 F www.opnarchite opn@opnarchite	OOM STREET 3703 HONE AX cts.com
									retain all common la	ecifications, computer files, other documents and d by OPN Architects, Inc. as se shall remain the property of OPN Architects, Inc. shall w, statutory and other iding the copyright thereto. cts, Inc.
									^{Owner} MADISON PU	JBLIC LIBRARY
									201 W Mifflin St Madison, WI 53703	
									Project Madison Publ Maintenance Center Remo 1301 West Badg Madison, WI 537	& Support del & Addition er Road
									General Contractor	
ی) F										
									Consultants CIVIL ENGIN Snyder & Associa 5010 Voges Road Madison, WI 5371 P. 608.838.0444	tes, Inc. I 8
									KJWW Engineerir 1800 Deming Wa Middleton, WI 535 P. 608.223.9600 MECHANICA KJWW Engineerir	y 62 L ENGINEER ng Consultants
									1800 Deming Wa Middleton, WI 535 P. 608.223.9600 ELECTRICAL KJWW Engineerir 1800 Deming Wa Middleton, WI 535 P. 608.223.9600	- ENGINEER ng Consultants
									Key Plan	
									Sheet Issue Date Bid Set	12/09/2016
									Previous Issue Date	s
	1									
									Revision Dates	
						TANTS 60	00 DEMING WAY S DDLETON, WISCO 8.223.9600 FAX: 6 wv.kjww.com	NSIN 53562	Drawing ROOF PLAN	- PLUMBING
				KJWW ENGINE TO THIS DRAW ARE THE EXCL OR REPRODUC APPROVAL ANI	ING AND THE DA USIVE PROPERT CED FOR ANY OTI D PARTICIPATION	PR S PROPRIETARY TA SHOWN THEF	OJECT # 16.0141 RIGHTS, INCLUD ECON. SAID DRAI INEERING AND SI ITHOUT THE EXP NEERING. © 2	ING COPYRIGHTS, VING AND/OR DATA HALL NOT BE USED		⁵⁶¹⁷⁰⁰⁰



General Contractor Consultants **CIVIL ENGINEER** Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718

CEDAR RAPIDS DES MOINES

MADISON

- STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date

12/09/2016

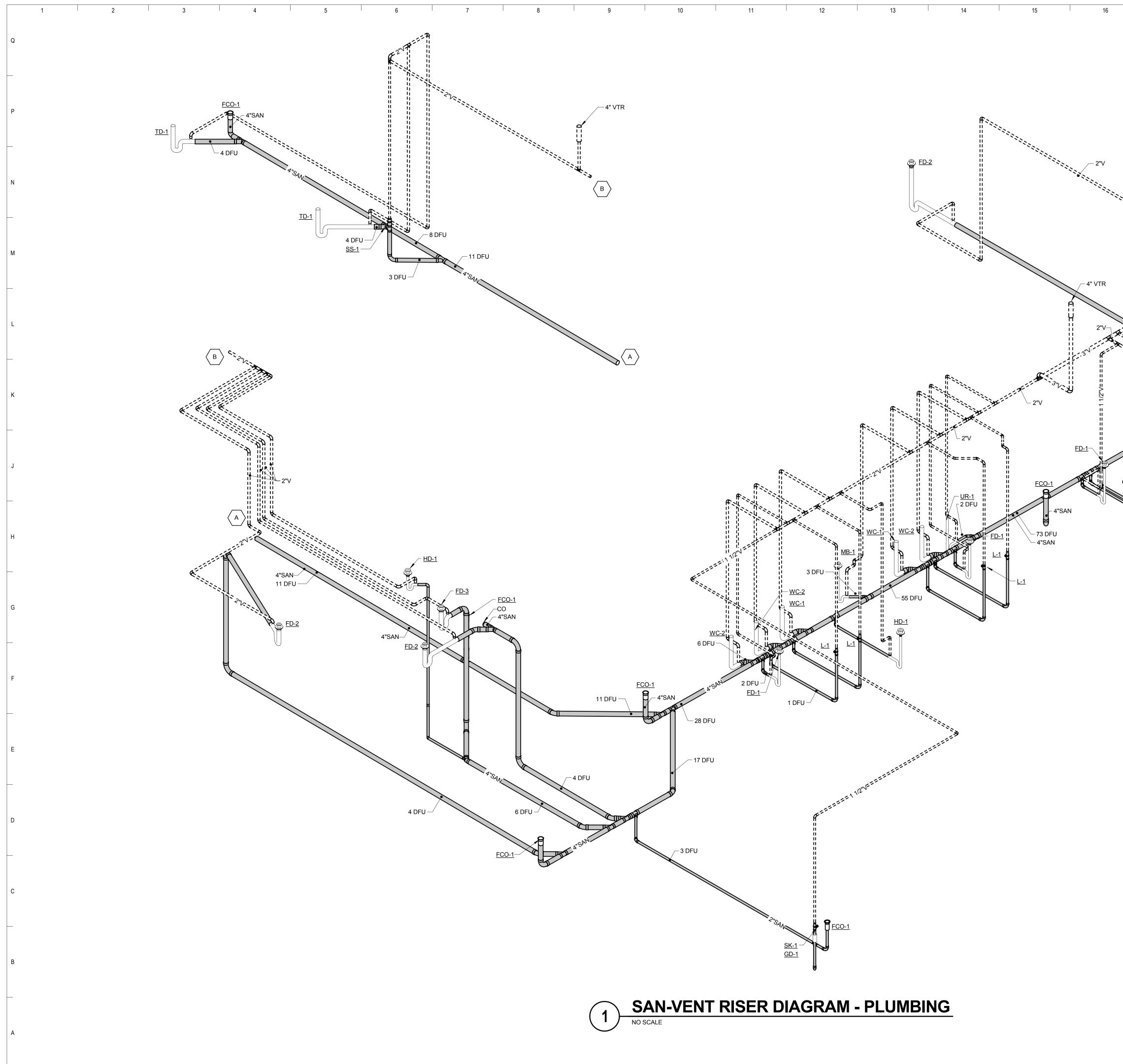
Previous Issue Dates

Revision Dates

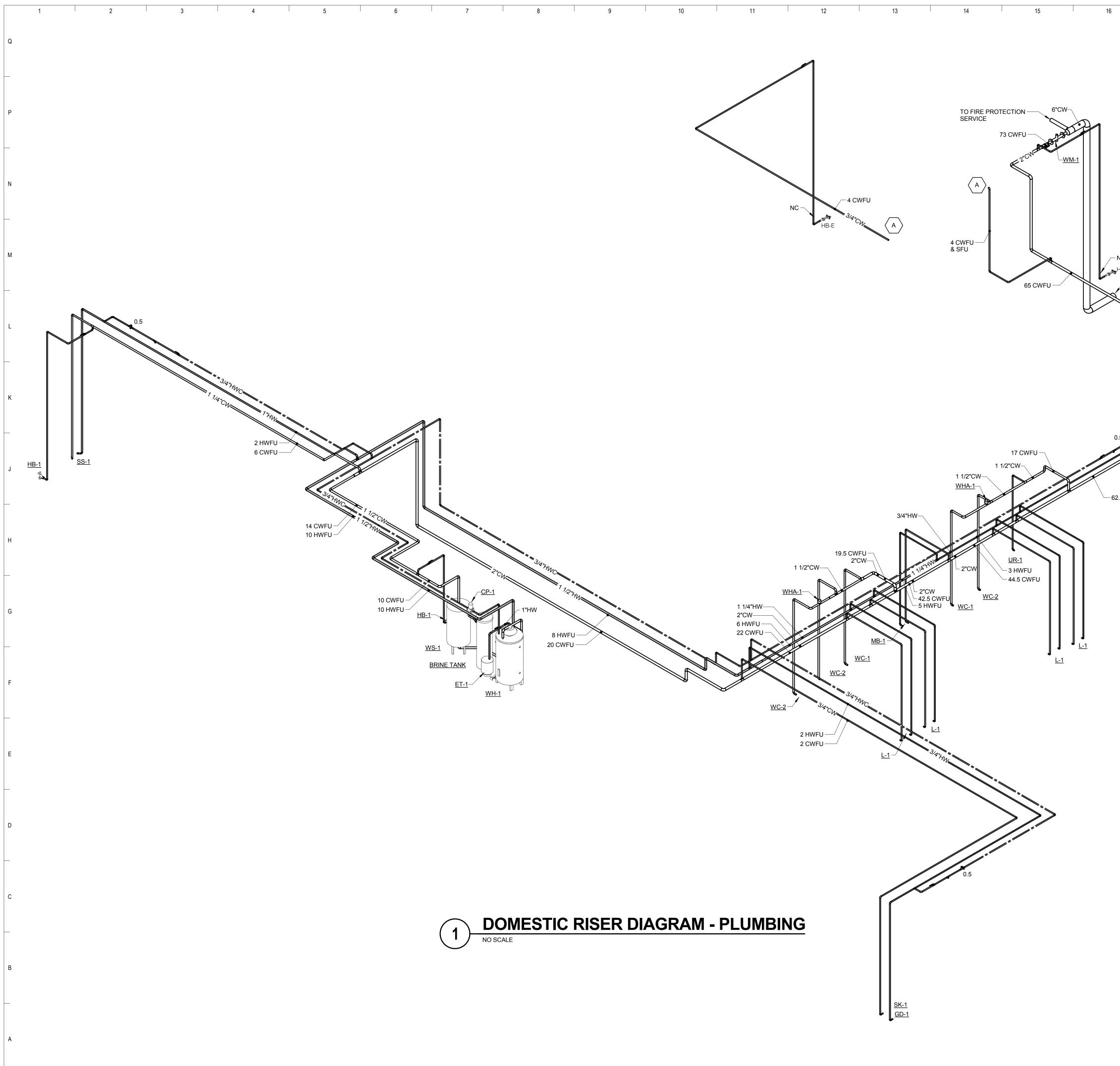
Drawing DETAILS - PLUMBING

OPN Project No. 15617000

P200



Multicity, W152718 P 60383.0444 STRUCTURAL ENCINEER KWV Explorent Consultants Work Status P 6082.0500 MCCHANCAL ENGINEER KWV Explorent Consultants 1800 Exemption 1800 Exemption Work Status P 6082.0500 MCCHANCEL ENGINEER KWW Explorent Consultants 1800 Dering Way Midden: W Status P 6082.0500 ELECCTRICAL ENGINEER KWW Explorent Consultants 1800 Dering Way Midden: W Status P 6082.0500 ELECCTRICAL ENGINEER KWW Explorent Consultants 1800 Dering Way Midden: W Status P 6082.0500 ELECTRICAL ENGINEER KWW Explorent Consultants 1800 Dering Way Midden: W Status P 6082.0500 ELECTRICAL ENGINEER KWW Explorent Consultants Hereit Exemption Hereit Exemption Hereit Exemption Hereit Exemption Hereit Exemption	16 17 18	19 20 21	<image/> <image/> <text><text><text><text><text><text><text><text><text><text><text><text><text></text></text></text></text></text></text></text></text></text></text></text></text></text>
Image: Strain		MIDDLETON, WISCONSIN 53562 608.223.9600 FAX: 608.836.0415 WWW.kjww.com PROJECT # 16.0141.00 KJWW ENGINEERING RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGH TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR D ARE THE EXCLUSIVE PROPERTY OF KJWW ENGINEERING AND SHALL NOT BE US OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF KJWW ENGINEERING. © 2016 KJWW COF REFERENCE SCALE IN INCHES	1800 Deming Way Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 Key Plan Sheet Issue Date Bid Set 12/09/2016 Previous Issue Dates Bid Set 12/09/2016 Revision Dates Revision Dates Drawing Drawing MATA SSED



17 18	19	20	21	ARCHITECTS CEDAR RAPIDS DES MOINES MADISON
				OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com
				All reports, plans, specifications, computer files field data, notes and other documents and instruments prepared by OPN Architects, Inc. a instruments of service shall remain the propert OPN Architects, Inc. OPN Architects, Inc. shal retain all common law, statutory and other reserved rights, including the copyright thereto © 2016 OPN Architects, Inc.
				Owner MADISON PUBLIC LIBRARY
C 3-E ∕── REFER TO CIVIL PLAN FOR				201 W Mifflin St Madison, WI 53703
CONTINUATION				
2"CW				Project Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713
WHA-1 3/4"CW 2 HWFU 2.5 CWFU	VFU			General Contractor
CWFU				Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road
<u>EWC-1</u> (TYP.2)				Madison, WI 53718 P. 608.838.0444 STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
				MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562
				P. 608.223.9600 ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
				Key Plan
				Sheet Issue Date Bid Set <u>12/09/2016</u>
				Previous Issue Dates
				Revision Dates
	K J	CONSULTANTS 6		Drawing DOMESTIC RISER DIAGRAMS - PLUMBING
	TO THIS DR.	The FUTURE. W Built SMARTER. P NEERING RESERVES PROPRIETAR AWING AND THE DATA SHOWN THE	ww.kjww.com ROJECT # 16.0141.00 / RIGHTS, INCLUDING COPYRIGHTS, REON. SAID DRAWING AND/OR DAT	OPN Project No. 15617000
	ARE THE EX OR REPROE		SINEERING AND SHALL NOT BE USEI VITHOUT THE EXPRESS WRITTEN INEERING. © 2016 KJWW CORP.	

	PLUMBING FIXTURE SCHEDULE		PLUMBING FIXTURE SCHEDULE		PLUMBING FIXTURE SCHEDULE
ET-1 E	DESCRIPTIONMANF. & MODELCIRCULATING PUMP - VARIABLE SPEED CONTROLLER WITH SETTINGS TO ADJUST AND WAINTAIN A CONSTANT: SPEED, FIXED PRESSURE, OR PROPORTIONAL PRESSURE. LEAD FREE BRONZE OR STAINLESS STEEL CONSTRUCTION, PERMANENTLY LUBRICATED SEALED BEARINGS, MECHANICAL SEAL, OIL LUBRICATED, ECM MOTOR WITH INTEGRATED VARIABLE SPEED CONTROL, FLANGED CONNECTIONS, RATED FOR 125 PSIG AT 225°F, UL LISTED.PUMP - GRUNDFOS (ALPHA SERIES), B (COMPASS 20-20 SS SERIES)36 GPM @ 10 FEET OF HEAD. MOTOR SHALL BE 0.65 AMPS.ELECTRICAL REQUIREMENTS - 115V, 1 PHASE HARD-WIRED.MMTROL (THERM-X-TROL), B&G (PT), E (DT), TACO (PAX SERIES), WATTS (DE) (DT), TACO (PAX SERIES), WATTS (DE) WON-CORROSIVE WATER RESERVOIR, DIAPHRAGM AND LINER SHALL BE APPROVED FOR USE N POTABLE WATER SYSTEMS, ALL WETTED COMPONENTS OF FDA APPROVED MATERIALS. PROVIDE STANDARD SCHRADER AIR VALVE FOR FIELD CHARGEING. TANK SHALL COMPLY WITH FEDERAL ACT S.3874.AMTROL (THERM-X-TROL), B&G (PT), E (DT), TACO (PAX SERIES), WATTS (DE) WESSELS (TX)TANK SHALL HAVE A RATED TEMPERATURE OF 200°F AND A RATED PRESSURE OF 125 PSIG. WINIMUM TANK VOLUME TO BE GALLONS, MINIMUM ACCEPTING VOLUME TO BE GALLONS. FACTORY PRE-CHARGED FOR SHIPPING. FIELD CHARGE TANK TO 70 PSIGELKAY (LZWS), HALSEY TAYLOR	BI	LAVATORY - ACCESSIBLE WALL MOUNTED, WHITE VITREOUS CHINA, 20"x18", 4" HIGH CONTOURED BACKSPLASH, SINGLE FAUCET HOLE, DRILLED FOR CONCEALED ARM CARRIER. LAVATORY TRIM - SINGLE HOLE DECK MOUNT ELECTRONIC SENSOR FAUCET, BRASS CONSTRUCTION, CHROME-PLATED FINISH, RIGID GOOSENECK SPOUT WITH NOMINAL 6" REACH AND VANDAL RESISTANT NON-AERATED SPRAY DEVICE, AC/DC CONTROL MODULE, TEMPERATURE CONTROL MIXING VALVE WITH INTEGRAL CHECK VALVES AND 3/8" COMPRESSION CONNECTIONS. MAXIMUM FLOW TO BE 0.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 2005 AND ASME/ANSI STANDARD A112.18.1/CSA B125.1, NSF 61-SECTION 9, NSF 372 AND UL 1951. MEETS ADA ANSI/ICC A117.1 REQUIREMENTS. MIXING VALVE - POINT-OF-USE ANTI-SCALD THERMOSTATIC MIXING VALVE FOR TEMPERED WATER CONTROL, ALL BRONZE/BRASS CONSTRUCTION, ROUGH FINISH, THREADED INLETS, TAMPER RESISTANT SETPOINT. 0.5 GPM OUTPUT. UNIT TO MIX 120 DEGREE F HOT WATER SUPPLY AND 40 DEGREE F COLD B WATER SUPPLY FOR 110 DEGREE F OUTLET.	MANF. & MODEL AVATORY - MERICAN STANDARD (0356.421), KOHLER (-2007), SLOAN (SS-3103), TOTO (LT307), JRN (Z5361) AVATORY TRIM - T&S BRASS (5EF-1D-DS) R EQUIVALENT IXING VALVE - WATTS (LFUSG-B), ACORN ONTROLS (ST70), APOLLO (34DLF), AWLER (MODEL 516), LEONARD 70-BP-LF), POWERS (LFE480), SLOAN AIX-135-A), SYMMONS (7-210), WILKINS W3870XLT) ISULATION KIT - TRUEBRO (LAV-GUARD), ROCAR PRODUCTS (TRAP WRAP), CGUIRE (PROWRAP), PLUMBEREX PRO-EXTREME)	TAG NAMEDESCRIPTIONMANF. & MODELWC-1WATER CLOSET - ACCESSIBLE, FLOOR MOUNTED, FLUSH VALVE TYPE, WHITE VITREOUS CHINA, SIPHON JET, WATER SAVING, ELONGATED BOWL, 1-1/2" TOP SPUD, BOLT CAPS. (25-730), KOHLER (K-4368), SLOAN (3043.001), CRANE (3H701), GERB (25-730), KOHLER (K-4368), SLOAN (ST-2023), ZURN (25660)WATER CLOSET - AMERICAN STA (3043.001), CRANE (3H701), GERB (25-730), KOHLER (K-4368), SLOAN (ST-2023), ZURN (25660)1.6 GALLONS PER FLUSH, 11-1/2" ROUGH-IN, CHROME PLATED, 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE WITH VANDAL RESISTANT CAP, HIGH BACK PRESSURE VACUUM BREAKER, ADJUSTABLE TAILPIECE, SPUD COUPLING AND FLANGE, WALL FLANGE WITH SET SCREW, MECHANICAL OVER-RIDE BUTTON, CHLORAMINE RESISTANT MATERIALS, CHROME PLATED COVER PLATE WITH TAMPER-PROOF SCREWS, TRANSFORMER AND LOW VOLTAGE WIRING, TRANSFORMER CAPABLE OF OPERATING UP TO 10 UNITS, LOW VOLTAGE WIRING FROM TRANSFORMER TO EACH FLUSH VALVE, ADA COMPLIANT, 3 YEAR WARRANTY.SEAT - BEMIS (1655C), CHURCH (B BENKE (633), KOHLER (K-4666-C) OLSONITE (95), SAME AS WATER MANUFACTURER]SEAT - WHITE, EXTRA HEAVY, OPEN FRONT, INJECTION MOLDED SOLID PLASTIC, CHECK HINGE, STAINLESS STEEL OR PLATED DSTEEL POSTS AND NUTS.SEAT - BEMIS (1655C), CHURCH (B BENKE (633), KOHLER (K-4666-C) OLSONITE (95), SAME AS WATER MANUFACTURER]TOP OF SEAT SHALL BE AT 17"-19" ABOVE FINISHED FLOOR. VERIFY EQUIPMENT REQUIREMENTS AND ROUGH-IN LOCATIONS.VERIFY EQUIPMENT REQUIREMENTS AND ROUGH-IN LOCATIONS.
S F E C C T V E S V F C C F C	WATCHING STAINLESS STEEL APRON INSTALLED UNDER UPPER UNIT, BI-LEVEL STAINLESS STEEL ROUND BASINS WITH STAINLESS STEEL FINISH, PERFORATED DRAINS, STREAM PROJECTORS WITH PROTECTIVE HOODS, PUSH BUTTON OPERATING CONTROLS ON FRONT, BUILT-IN FLOW REGULATORS, DRAINS AND TRAP ASSEMBLIES, HERMETIC COMPRESSOR TO OPERATE ON HFC-134a REFRIGERANT, CONCEALED ELECTRICAL CONNECTIONS, ADJUSTABLE THERMOSTAT, CONFORM TO LATEST ANSI A117.1 AND ADA STANDARDS. UNIT SHALL COMPLY WITH FEDERAL ACT S.3874. BOTTLE FILLING STATION - RECESSED MOUNTED ADJACENT TO WATER COOLER, STAINLESS STEEL CONSTRUCTION AND FINISH, 1 1/4" DRAIN, 1/2" COLD WATER INLET, SENSOR OPERATED WITH AUTOMATIC SHUTOFF, REPLACEABLE LEAD-CHLORINE-TASTE-ODOR WATER FILTER, BOTTLE COUNTER, ADJUSTABLE THERMOSTAT, CORD AND PLUG CONNECTION. JNIT SHALL PROVIDE 8.0 GPH OF WATER FROM 80°F TO 50°F AT 90°F AMBIENT. WATER SYSTEM SHALL BE OF LEAD FREE CONSTRUCTION. TANK SHALL BE TESTED TO 125 PSIG. DRIFICE SHALL BE AT 36" (MAXIMUM) ABOVE FINISHED FLOOR ON LOWER UNIT AND 40" ABOVE FINISHED FLOOR ON UPPER UNIT. BOTTOM OF APRON SHALL BE 27" ABOVE FINISHED FLOOR DN LOWER UNIT IN COMPLIANCE WITH LATEST ADA STANDARDS.	MB-1	REMOVABLE STRAINER, 3" OUTLET, CONTINUOUS STAINLESS STEEL CAP ON ALL EDGES.CTRIM - EXPOSED TWO HANDLE MIXING FAUCET, BRASS CONSTRUCTION, CHROME-PLATEDTIFINISH, SINGLE WING HANDLES, 1/4 TURN CERAMIC DISC CARTRIDGE, 3/4" HOSE THREADSSPOUT WITH [ASSE 1053 RATED] INTEGRAL VACUUM BREAKER, WALL BRACE, PAIL HOOK,(8CHECK STOPS OR INLINE CHECK VALVES TO PREVENT THERMAL CROSSOVER. FAUCET SHALL(8)	OP BASIN - FIAT (TSB), ACORN (TSH), REATIVE INDUSTRIES (MC), WILLIAMS (SB) RIM - DELTA (28C2383), AMERICAN TANDARD (8344.012), CHICAGO FAUCETS 97-CP), MOEN (8124), SPEAKMAN SC-5812), SYMMONS (S-2490), ZURN 2841M1-XL)	WC-2WATER CLOSET - FLOOR MOUNTED, FLUSH VALVE TYPE, WHITE VITREOUS CHINA, SIPHON JET, WATER SAVING, ELONGATED BOWL, 1-1/2" TOP SPUD, BOLT CAPS.WATER CLOSET - AMERICAN STA (3043.001), CRANE (3H701), GERB (25-730), KOHLER (K-4368), SLOAN (ST-2023), ZURN (Z5660)]1.6 GALLONS PER FLUSH, 11-1/2" ROUGH-IN, CHROME PLATED, 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE WITH VANDAL RESISTANT CAP, HIGH BACK PRESSURE VACUUM BREAKER, ADJUSTABLE TAILPIECE, SPUD COUPLING AND FLANGE, WALL FLANGE WITH SET SCREW, MECHANICAL OVER-RIDE BUTTON, CHLORAMINE RESISTANT MATERIALS, CHROME PLATED COVER PLATE WITH TAMPER-PROOF SCREWS, TRANSFORMER AND LOW VOLTAGE WIRING, TRANSFORMER TO EACH FLUSH VALVE, ADA COMPLIANT, 3 YEAR WARRANTY.FLUSH VALVE - ZURN (ZEMS6000, (ROYAL 111 ES-S), AMERICAN STA (6067.161), DELANY (1302), HYDRG (H-8000C), MOEN (8310AC16)ELECTRICAL REQUIREMENTS - 120VAC INPUTSEAT - WHITE, EXTRA HEAVY, OPEN FRONT, INJECTION MOLDED SOLID PLASTIC, CHECK HINGE, STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS. CONTRACTOR OPTION: COMBINATION WATER CLOSET/FLUSH VALVE PACKAGED SYSTEM BY AMERICAN STANDARD, KOHLER, SLOAN, OR ZURNSUTTING UP TO SURDAN CALVE PACKAGED SYSTEM BY AMERICAN STANDARD, KOHLER, SLOAN, OR ZURN
E	ELECTRICAL REQUIREMENTS - 115V-1 PHASE, HARD-WIRED, 1/5 HP MOTOR, DISCONNECT BY E.C.		ACCESSORIES - MOP HANGER, HOSE AND HOSE BRACKET, DEEP SEAL TRAP	ACUUM BREAKER - WATTS (8A), OR PPROVED EQUAL	TOP OF SEAT SHALL BE AT 17"-19" ABOVE FINISHED FLOOR. VERIFY EQUIPMENT REQUIREMENTS AND ROUGH-IN LOCATIONS.
FD-1 F FD-2 F	FLOOR CLEANOUT - ADJUSTABLE, CAST IRON HOUSING, ANCHOR FLANGE, TAPERED THREAD ZURN (Z1400), JOSAM (55000), MIFAB PLUG, SECURED NICKEL BRONZE TOP. (C1100), SMITH (4000), WADE (6000), W FLOOR DRAIN - CAST IRON BODY, NICKEL BRONZE ADJUSTABLE TOP, 6" ROUND, 2" BOTTOM FLOOR DRAIN - ZURN (Z-415), SMITH (2000), WADE (1100), JOSAM (30000), WATTS OUTLET, FLASHING COLLAR, DEEP SEAL TRAP. WADE (1100), JOSAM (30000), WATTS FLOOR DRAIN - CAST IRON BODY, NICKEL BRONZE ADJUSTABLE TOP, 8" ROUND, 4" BOTTOM FLOOR DRAIN - ZURN (Z-415), SMITH (2000), WATTS FLOOR DRAIN - CAST IRON BODY, NICKEL BRONZE ADJUSTABLE TOP, 8" ROUND, 4" BOTTOM FLOOR DRAIN - ZURN (Z-415), SMITH (2000), WATTS FLOOR DRAIN - CAST IRON BODY, NICKEL BRONZE ADJUSTABLE TOP, 8" ROUND, 4" BOTTOM FLOOR DRAIN - ZURN (Z-415), SMITH (2000), WATTS	05), RD-2	FLASHING CLAMP, GRAVEL STOP, UNDERDECK CLAMP, BEARING PAN, ADJUSTABLEJGEXTENSION TO MATCH INSULATION THICKNESS, OUTLET SIZE AS LISTED ON DRAWINGS.(FROOF DRAIN - CAST IRON BODY, SECURED CAST IRON DOME, 15" ROUND, SIDE OUTLET, FLASHING CLAMP, GRAVEL STOP, UNDERDECK CLAMP, BEARING PAN, EXTENSION TO MATCH INSULATION THICKNESS, 2" TALL EXTERNAL WATER DAM, OUTLET SIZE AS LISTED ON DRAWINGS.JG	JRN (Z-100), SMITH (1010), WADE (3000), DSAM (21500), WATTS (RD-300), MIFAB R1200) JRN (Z-100), SMITH (1080), WADE (3000), /ATTS (RD-300), MIFAB (R1200)	 WH-1 WATER HEATER - GAS FIRED, VERTICAL, MINIMUM 94% EFFICIENT, SEALED COMBUSTION, METAL CABINET, BAKED ENAMEL FINISH, GLASS-LINED ASME STAMPED WELDED STEEL TANK, 160 PSI WORKING PRESSURE, FIBERGLASS OR FOAM INSULATION, BRASS WATER CONNECTIONS AND DRAIN VALVE, ASME APPROVED T&P RELIEF VALVE, MULTIPLE MAGNESIUM ANODE RODS, VENT PIPING KIT, HIGH TEMPERATURE GAS SHUT OFF, AUTOMATIC WATER THERMOSTAT, BUILT-IN GAS REGULATING VALVE, ADJUSTABLE TEMPERATURE RANGE, CONDENSATE DRAIN NEUTRALIZATION KIT, 3-YEAR WARRANTY, UL LISTED, COMPLIANT TO NAECA, ASHRAE 90,1 AND ASHRAE 90A.
	(FD-100), MIFAB (F1100) FLOOR DRAIN - ACID RESISTANT, POLYPROPYLENE BODY, POLYPROPYLENE GRATE, 8" ROUND, 4" BOTTOM OUTLET, FLASHING CLAMP, SEDIMENT BUCKET, DEEP SEAL TRAP. (FD1-BAS), IPEX (ENFIELD SERIES F10)))	ANCHORING FLANGE, REMOVABLE STAINLESS STEEL SCREEN, OUTLET SIZE AS LISTED ON DRAWINGS.	JRN (Z-199), SMITH (1770), WADE (3940), DSAM (25010), WATTS (RD-940), MIFAB 81940)	60 GALLON CAPACITY, 120,000 BTUH INPUT NATURAL GAS, 138 GPH RECOVERY AT 100°F RISE.
	GARBAGE DISPOSER - CONTINUOUS FEED, SINGLE DIRECTION, CORROSION PROTECTION SHIELD, SERVICE WRENCH, STAINLESS STEEL GRINDING ELEMENTS, MANUALLY RESET OVERLOAD PROTECTION, FULL 4 YEAR WARRANTY.IN-SINK-ERATOR (EVOLUTION SERIES SINKMASTER (950), WASTE KING (3300) ELECTRICAL REQUIREMENTS - 115V-1 PHASE, CORD AND PLUG, 3/4 HP MOTOR, 15 AMPS.IN-SINK-ERATOR (EVOLUTION SERIES SINKMASTER (950), WASTE KING (3300)	SH-1	GELCOATED FINISH, 46"x36" (NOMINAL), RIGHT HAND AS SHOWN ON DRAWINGS, SLIP-RESISTANT FLOOR, 3" FLOOR DRAIN, 4" NICKEL BRONZE STRAINER, ASTM F-462, IN COMPLIANCE WITH LATEST ANSI A117.1 AND ADA STANDARDS.	HOWER - AQUATIC (1483BFSD), OASIS SHMD-4836 / TLV-RS/LS), AQUARIUS S4836BF) OR EQUIVALENT HOWER VALVE - MOEN COMMERCIAL	ELECTRICAL REQUIREMENTS - 120V CIRCUIT FOR BLOWER AND CONTROLS, HARD-WIRED SET WATER TEMPERATURE AT 120°F. SET WATER TEMPERATURE AT 120°F. SET WHA-1
GR-3 (GAS PRESSURE REGULATOR - CAST IRON BODY, INTERNAL PRESSURE RELIEF, THREADED FISHER, ITRON, SENSUS, MAXITROL CONNECTIONS, ADJUSTABLE PRESSURE SETTING, TIGHT SHUTOFF. FISHER, ITRON, SENSUS, MAXITROL B" WC INLET PRESSURE, 3.5" WC OUTLET PRESSURE, 51.2 CFH CAPACITY AS SHOWN IN FISHER, ITRON, SENSUS, MAXITROL SCHEDULE, MINIMUM CONTROLLABLE FLOW OF 0 CFH. FISHER, ITRON, SENSUS, MAXITROL GAS PRESSURE REGULATOR - CAST IRON BODY, INTERNAL PRESSURE RELIEF, THREADED FISHER, ITRON, SENSUS, MAXITROL CONNECTIONS, ADJUSTABLE PRESSURE SETTING, TIGHT SHUTOFF. FISHER, ITRON, SENSUS, MAXITROL B" WC INLET PRESSURE, 3.5" WC OUTLET PRESSURE, 51.2 CFH CAPACITY AS SHOWN IN FISHER, ITRON, SENSUS, MAXITROL		OR BRONZE CONSTRUCTION, WASHERLESS DESIGN, OFF-COLD-HOT TEMPERATURE RANGE INDICATOR DIAL, POLISHED CHROME CAST METAL LEVER HANDLE, INTEGRAL CHECK STOPS, (F	TANDARD (1662.221), DELTA 210000-UNWS/T13H152-20), LEONARD 2AM-II), POWERS (PB413-9)	UNITS. (SS), MIFAB (WHB) INSTALL PER MANUFACTURER'S RECOMMENDATIONS. (SS), MIFAB (WHB) WM-1 WATER METER - DISC TYPE, ALL BRONZE CONSTRUCTION, 1 1/2" SIZE, TOP READING CUMULATIVE DIAL WITH FACE PLATE CAP, AWWA COMPLIANT. NEPTUNE, BADGER, HERSEY PROVIDE FULL SIZE BYPASS WITH LOCKABLE VALVE. VATER SOFTENER - AUTOMATIC REGENERATION TYPE, SIMPLEX SOFTENER TANKS, POWER REFER TO SPECIFICATIONS
GR-4 (6 6 6 7 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7	SCHEDULE, MINIMUM CONTROLLABLE FLOW OF 0 CFH. FISHER, ITRON, SENSUS, MAXITROL GAS PRESSURE REGULATOR - CAST IRON BODY, INTERNAL PRESSURE RELIEF, THREADED FISHER, ITRON, SENSUS, MAXITROL CONNECTIONS, ADJUSTABLE PRESSURE SETTING, TIGHT SHUTOFF. FISHER, ITRON, SENSUS, MAXITROL B" WC INLET PRESSURE, 3.5" WC OUTLET PRESSURE, 51.2 CFH CAPACITY AS SHOWN IN FISHER, ITRON, SENSUS, MAXITROL SCHEDULE, MINIMUM CONTROLLABLE FLOW OF 0 CFH. FISHER, ITRON, SENSUS, MAXITROL GAS PRESSURE REGULATOR - CAST IRON BODY, INTERNAL PRESSURE RELIEF, THREADED FISHER, ITRON, SENSUS, MAXITROL S" WC INLET PRESSURE, 3.5" WC OUTLET PRESSURE, 51.2 CFH CAPACITY AS SHOWN IN FISHER, ITRON, SENSUS, MAXITROL CONNECTIONS, ADJUSTABLE PRESSURE SETTING, TIGHT SHUTOFF. FISHER, ITRON, SENSUS, MAXITROL B" WC INLET PRESSURE, 3.5" WC OUTLET PRESSURE, 51.2 CFH CAPACITY AS SHOWN IN FISHER, ITRON, SENSUS, MAXITROL SCHEDULE, MINIMUM CONTROLLABLE FLOW OF 0 CFH. FISHER, ITRON, SENSUS, MAXITROL GAS PRESSURE REGULATOR - CAST IRON BODY, INTERNAL PRESSURE RELIEF, THREADED FISHER, ITRON, SENSUS, MAXITROL CONNECTIONS, ADJUSTABLE PRESSURE SETTING, TIGHT SHUTOFF. FISHER, ITRON, SENSUS, MAXITROL		INSTALL ALL CONTROLS BETWEEN 38" AND 48" ABOVE FINISHED FLOOR IN COMPLIANCE WITH LATEST ADA STANDARDS. MAXIMUM FLOW TO BE 2.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 2005 AND ASME/ANSI STANDARD A112.18.1M. SET SAFETY LIMIT STOP TO 110 DEGREE F DISCHARGE. ACCESSORIES - FOLD DOWN PHENOLIC SIMULATED TEAKWOOD SEAT, 1 1/2" 18 GAUGE TYPE 304 STAINLESS STEEL HORIZONTAL GRAB BAR ON BACK WALL AND VALVE WALL, 1" DIAMETER STAINLESS STEEL CURTAIN ROD, COMMERCIAL GRADE VINYL SHOWER CURTAIN. GRAB BAR SHALL BE MOUNTED WITH STAINLESS STEEL NUTS AND BOLTS AND FASTENED FROM THE BACKSIDE OF THE UNIT WITH MINIMUM 3"x3" METAL PLATES. UNIT SHALL BE RECESSED IN SUB-FLOOR TO ALLOW FOR A MAXIMUM CURB HEIGHT OF 1/2" OR LESS ABOVE THE FINISHED FLOOR. MOUNT SHOWER CURTAIN ROD AS HIGH AS POSSIBLE.		CONTINUOUS FLOW RATE OF 9.8 GPM AT 10 PSI PRESSURE DROP, MAXIMUM FLOW RATE OF 13.1 GPM AT 15 PSI PRESSURE DROP. ELECTRICAL REQUIREMENTS - 120V-1 PHASE RECEPTACLE EEFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. YCO-1 YARD CLEANOUT - ROUND, DURA-COATED CAST IRON, SIZE AS LISTED ON DRAWINGS, DOUBLE FLANGED HOUSING, HEAVY DUTY SECURED SCORIATED DURA-COATED CAST IRON COVER, LIFTING DEVICE, BRONZE CLEANOUT PLUG WITH GAS/WATER-TIGHT SEAL. ZURN (Z1474), SMITH (4261), WAD (58680), WATTS (CO-300-M)
GR-7 (GR-7 (GR-8 (GR-8 (B" WC INLET PRESSURE, 3.5" WC OUTLET PRESSURE, 60.5 CFH CAPACITY AS SHOWN IN SCHEDULE, MINIMUM CONTROLLABLE FLOW OF 0 CFH. GAS PRESSURE REGULATOR - CAST IRON BODY, INTERNAL PRESSURE RELIEF, THREADED CONNECTIONS, ADJUSTABLE PRESSURE SETTING, TIGHT SHUTOFF. B" WC INLET PRESSURE, 3.5" WC OUTLET PRESSURE, 60.5 CFH CAPACITY AS SHOWN IN SCHEDULE, MINIMUM CONTROLLABLE FLOW OF 0 CFH. GAS PRESSURE REGULATOR - CAST IRON BODY, INTERNAL PRESSURE RELIEF, THREADED CONNECTIONS, ADJUSTABLE PRESSURE SETTING, TIGHT SHUTOFF. GAS PRESSURE REGULATOR - CAST IRON BODY, INTERNAL PRESSURE RELIEF, THREADED CONNECTIONS, ADJUSTABLE PRESSURE SETTING, TIGHT SHUTOFF.	SK-1	TYPE 304 SERIES STAINLESS STEEL, COMPLETELY UNDERCOATED, 33" (SIDE-TO-SIDE) x 22" (FRONT-TO-BACK) OVERALL SIZE, EACH COMPARTMENT 13.5" x 16" x 5.125" DEEP, 3-1/2" DIAMETER DRAIN OUTLET LOCATION OFF-CENTERED REAR IN EACH BOWL, PERFORATED TYPE 304 STAINLESS STEEL GRID STRAINER.SINK TRIM - TWO HANDLE MIXING FAUCET, BRASS CONSTRUCTION, CHROME-PLATED FINISH, GOOSENECK SWING SPOUT, 8" REACH, 4" WRISTBLADE HANDLES AT 8" CENTERS, 1/4-TURN OPERATION CERAMIC DISC CARTRIDGE.SINK TRIM - TWO BE 1.5 GPM IN COMPLIANCE WITH PROJECT WATER CONSERVATIONSINK TRIM - TWO BE 1.5 GPM IN COMPLIANCE WITH PROJECT WATER CONSERVATION	INK - ELKAY (PSR3322 / LK99), JUST DL-2233-A-GR / JDP-35), FRANKE (LBD), INDRED (QDL), MOEN INK TRIM - CHICAGO FAUCET (786), MERICAN STANDARD (7230.000), MOEN 225), SPEAKMAN (SC-3000 SERIES), ZURN 2831-XL)	
GR-9 (B" WC INLET PRESSURE, 3.5" WC OUTLET PRESSURE, 51.2 CFH CAPACITY AS SHOWN IN SCHEDULE, MINIMUM CONTROLLABLE FLOW OF 0 CFH. GAS PRESSURE REGULATOR - CAST IRON BODY, INTERNAL PRESSURE RELIEF, THREADED FISHER, ITRON, SENSUS, MAXITROL CONNECTIONS, ADJUSTABLE PRESSURE SETTING, TIGHT SHUTOFF. FISHER, ITRON, SENSUS, MAXITROL B" WC INLET PRESSURE, 3.5" WC OUTLET PRESSURE, 51.2 CFH CAPACITY AS SHOWN IN SHOWN IN		REQUIREMENTS. FAUCET SHALL COMPLY WITH FEDERAL ACT S.3874. PROVIDE RESTRICTIVE DEVICE AND ESCUTCHEON PLATE AS REQUIRED. ACCESSORIES - 1-1/2" 20 GAUGE CHROME-PLATED BRASS TAILPIECES AND P-TRAP, QUARTER-TURN BALL VALVE TYPE 3/8" CHROME-PLATED BRASS ANGLE SUPPLIES WITH LOOSE KEY STOPS, CHROME-PLATED SOFT COPPER SUPPLY LINES.		
GR-10 (SCHEDULE, MINIMUM CONTROLLABLE FLOW OF 0 CFH. GAS PRESSURE REGULATOR - CAST IRON BODY, INTERNAL PRESSURE RELIEF, THREADED FISHER, ITRON, SENSUS, MAXITROL CONNECTIONS, ADJUSTABLE PRESSURE SETTING, TIGHT SHUTOFF. FISHER, ITRON, SENSUS, MAXITROL	\$\$-1		INK - AMERICAN STANDARD (7695.000), ECO (868), KOHLER (K-6716-0)	
GR-11 (B" WC INLET PRESSURE, 7" WC OUTLET PRESSURE, 120 CFH CAPACITY AS SHOWN IN SCHEDULE, MINIMUM CONTROLLABLE FLOW OF 0 CFH. GAS PRESSURE REGULATOR - CAST IRON BODY, INTERNAL PRESSURE RELIEF, THREADED CONNECTIONS, ADJUSTABLE PRESSURE SETTING, TIGHT SHUTOFF.		SINK TRIM - TWO HANDLE EXPOSED MIXING FAUCET, BRASS CONSTRUCTION, CHROME-PLATED (8 FINISH, SINGLE WING HANDLES, 1/4 TURN CERAMIC DISC CARTRIDGE, 3/4" HOSE THREAD SPOUT, INTEGRAL VACUUM BREAKER, WALL BRACE, PAIL HOOK, CHECK STOPS OR INLINE CHECK VALVES TO PREVENT THERMAL CROSSOVER. FACUET SHALL COMPLY WITH FEDERAL ACT S.3874.	SC-5812), ZURN (Ż841M1-XL)	
GR-12 (B" WC INLET PRESSURE, 6" WC OUTLET PRESSURE, 163 CFH CAPACITY AS SHOWN IN SCHEDULE, MINIMUM CONTROLLABLE FLOW OF 0 CFH. GAS PRESSURE REGULATOR - CAST IRON BODY, INTERNAL PRESSURE RELIEF, THREADED FISHER, ITRON, SENSUS, MAXITROL CONNECTIONS, ADJUSTABLE PRESSURE SETTING, TIGHT SHUTOFF. FISHER, 3.5" WC OUTLET PRESSURE, 51.2 CFH CAPACITY AS SHOWN IN	UR-1	WIDE CHANNEL, 20' LONG, 0.6% SLOPE, EXTRA HEAVY DUTY LOCKING DUCTILE IRON GRATE, CLASS E RATED, INTEGRAL CATCH BASINS WITH SEDIMENT BUCKETS, 4" OUTLETS, LENGTH AS SHOWN ON DRAWINGS. 1 URINAL - ACCESSIBLE, FLOOR MOUNTED, WHITE VITREOUS CHINA, FLUSH VALVE TYPE, U	MITH (9814), ABT (POLYDRAIN), WATTS 00 SERIES), ACO (100K) RINAL - AMERICAN STANDARD (6400.014), OHLER (K 4920-T), ZURN (75790)	
HB-1 H	SCHEDULE, MINIMUM CONTROLLABLE FLOW OF 0 CFH. HOSE BIBB - FOR INDOOR USE, BRASS CONSTRUCTION, STANDARD FINISH, ASSE APPROVED VACUUM BREAKER, 3/4" MALE HOSE THREAD, METAL WHEEL HANDLE. BRASS (B-0736), MIFAB (MHY-90)	T&S	WASHOUT ACTION, LOW CONSUMPTION, 3/4" TOP SPUD, 2" OUTLET. FLUSH VALVE - FLUSH VALVE - EXPOSED, SENSOR OPERATION, HARD WIRED, 1.0 GALLON PER FLUSH, 11-1/2" ROUGH-IN, CHROME-PLATED, 3/4" I.P.S. SCREWDRIVER STOP-CHECK VALVE WITH (F VANDAL RESISTANT CAP, HIGH BACK PRESSURE VACUUM BREAKER, NON-HOLD-OPEN HANDLE, (6)	ROYAL 186 ES-S), AMÈRICAN STANDARD	
HD-1 F	MOUNT AT 18" ABOVE FINISHED FLOOR. FLOOR DRAIN - OPEN SITE HUB DRAIN, CAST IRON BODY, SEDIMENT BUCKET, 2" BOTTOM OUTLET, DEEP SEAL TRAP. (2005-HUB)	1		I-8000C), MOEN (8312AC10)	

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21



OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

Owner MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

General Contractor

Project Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713

Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

- STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date Bid Set 12/09/2016

Previous Issue Dates

_____ _____ _____ _____

_____ Revision Dates



0

2

3

KJWW ENGINEERING RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF KJWW ENGINEERING AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF KJWW ENGINEERING. © 2016 KJWW CORP. REFERENCE SCALE IN INCHES

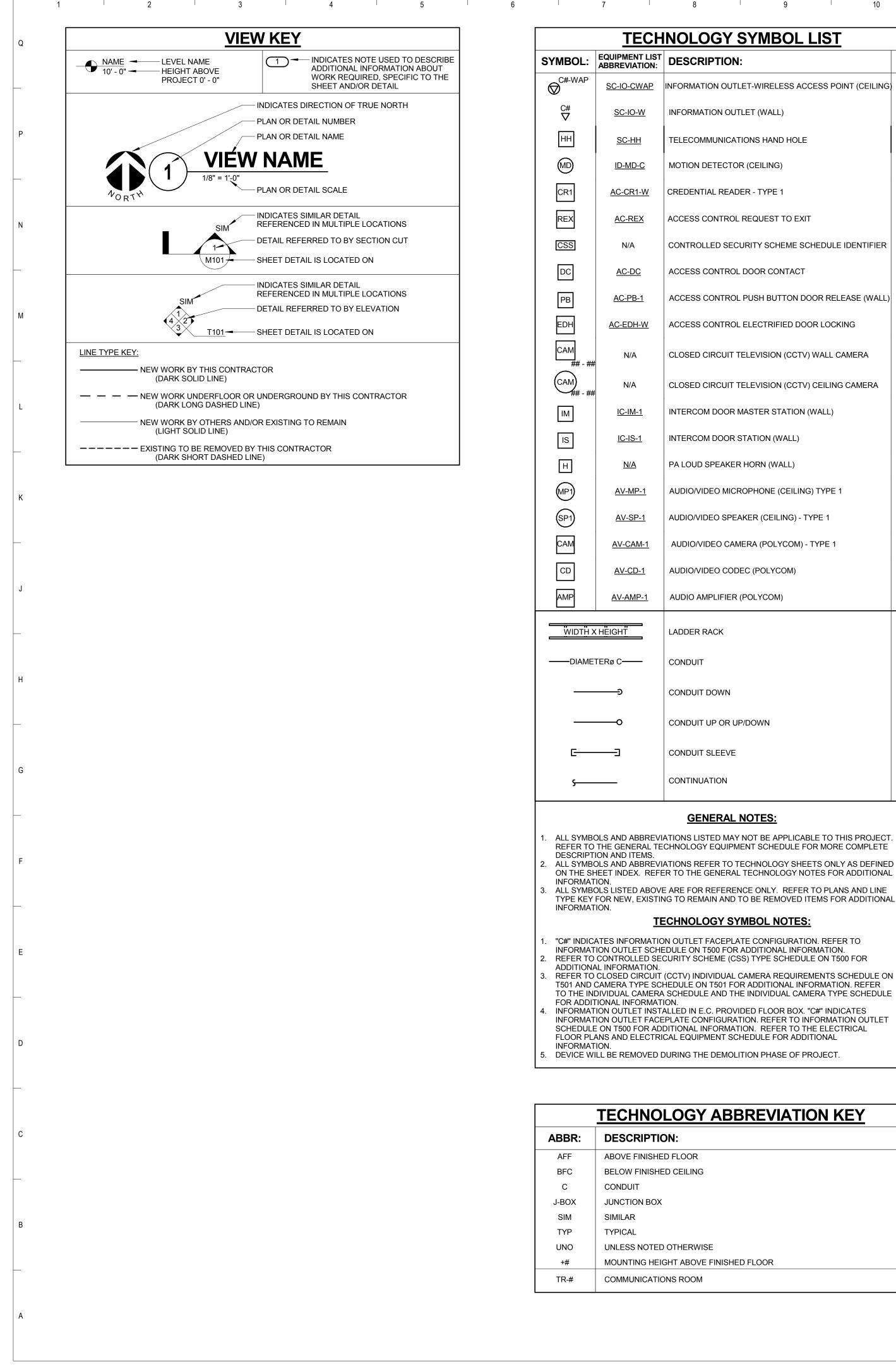
1

MATERIAL LIST - PLUMBING	

OPN Project No. 15617000

Drawing

P500



ESCRIPTION:	NOTE
FORMATION OUTLET-WIRELESS ACCESS POINT (CEILING) 1.
FORMATION OUTLET (WALL)	1.
ELECOMMUNICATIONS HAND HOLE	
IOTION DETECTOR (CEILING)	
REDENTIAL READER - TYPE 1	
CCESS CONTROL REQUEST TO EXIT	
ONTROLLED SECURITY SCHEME SCHEDULE IDENTIFIER	2.
CCESS CONTROL DOOR CONTACT	
CCESS CONTROL PUSH BUTTON DOOR RELEASE (WALL)	2.
CCESS CONTROL ELECTRIFIED DOOR LOCKING	
LOSED CIRCUIT TELEVISION (CCTV) WALL CAMERA	3.
LOSED CIRCUIT TELEVISION (CCTV) CEILING CAMERA	3.
ITERCOM DOOR MASTER STATION (WALL)	
ITERCOM DOOR STATION (WALL)	
A LOUD SPEAKER HORN (WALL)	5.
UDIO/VIDEO MICROPHONE (CEILING) TYPE 1	
UDIO/VIDEO SPEAKER (CEILING) - TYPE 1	
AUDIO/VIDEO CAMERA (POLYCOM) - TYPE 1	
UDIO/VIDEO CODEC (POLYCOM)	
UDIO AMPLIFIER (POLYCOM)	
ADDER RACK	
ONDUIT	
ONDUIT DOWN	
ONDUIT UP OR UP/DOWN	
ONDUIT SLEEVE	
ONTINUATION	
ONTINUATION GENERAL NOTES:	

REFER TO THE GENERAL TECHNOLOGY EQUIPMENT SCHEDULE FOR MORE COMPLETE ALL SYMBOLS AND ABBREVIATIONS REFER TO TECHNOLOGY SHEETS ONLY AS DEFINED ON THE SHEET INDEX. REFER TO THE GENERAL TECHNOLOGY NOTES FOR ADDITIONAL ALL SYMBOLS LISTED ABOVE ARE FOR REFERENCE ONLY. REFER TO PLANS AND LINE

TECHNOLOGY SYMBOL NOTES:

"C#" INDICATES INFORMATION OUTLET FACEPLATE CONFIGURATION. REFER TO INFORMATION OUTLET SCHEDULE ON T500 FOR ADDITIONAL INFORMATION. REFER TO CONTROLLED SECURITY SCHEME (CSS) TYPE SCHEDULE ON T500 FOR REFER TO CLOSED CIRCUIT (CCTV) INDIVIDUAL CAMERA REQUIREMENTS SCHEDULE ON

TO THE INDIVIDUAL CAMERA SCHEDULE AND THE INDIVIDUAL CAMERA TYPE SCHEDULE

INFORMATION OUTLET FACEPLATE CONFIGURATION. REFER TO INFORMATION OUTLET SCHEDULE ON T500 FOR ADDITIONAL INFORMATION. REFER TO THE ELECTRICAL FLOOR PLANS AND ELECTRICAL EQUIPMENT SCHEDULE FOR ADDITIONAL

DEVICE WILL BE REMOVED DURING THE DEMOLITION PHASE OF PROJECT.

<u>.0GY</u>	<u>ABBRE\</u>	<u>/IATION</u>	<u>KEY</u>

MOUNTING HEIGHT ABOVE FINISHED FLOOR

SUGGESTED MATRIX OF RESPONSIBILITY							
ITEM:	SHOWN ON:	FURNISHED BY:	INSTALLED BY:	NOTES:			
TECHNOLOGY ROUGH-IN, REFER TO GENERAL TECHNOLOGY EQUIPMENT SCHEDULE AND SPECIFICATIONS FOR DEFINITION	T-SERIES	E.C.	E.C.	3. 4.			
INFORMATION OUTLET FACEPLATES, JACKS, AND TERMINATIONS	T-SERIES	T.C.	T.C.				
CONDUIT SLEEVES (WHEN SHOWN ON DRAWINGS)	T-SERIES	E.C.	E.C.				
CONDUIT SLEEVES (NOT SHOWN BUT REQUIRED FOR PROPER INSTALLATION OF SYSTEM)	N/A	T.C.	T.C.	2. 4.			
TELECOMMUNICATION SYSTEMS ROUGH-IN	T-SERIES	E.C.	E.C.	1.			
TELECOMMUNICATION EQUIPMENT, CABLING, AND TERMINATIONS	T-SERIES	T.C.	T.C.				
GROUNDING LUGS ON TECHNOLOGY EQUIPMENT	T-SERIES	T.C.	E.C.	6.			
BONDING SYSTEM FOR TECHNOLOGY SYSTEM, REFER TO SPECIFICATION SECTION 27 05 26 FOR DEFINITION	T-SERIES	E.C.	E.C.	7. 8.			
CONNECTION OF TECHNOLOGY BONDING SYSTEM TO THE ELECTRICAL GROUND SYSTEM	T-SERIES	E.C.	E.C.				
LINE VOLTAGE POWER (+120V OR GREATER)	E-SERIES	E.C.	E.C.				
LINE VOLTAGE POWER (NOT SHOWN BUT REQUIRED FOR PROPER INSTALLATION OF SYSTEM)	N/A	T.C.	E.C.	2. 4.			
LINE VOLTAGE POWER FOR DOOR HARDWARE POWER SUPPLIES	ARCH SPEC	E.C.	E.C.				
LOW VOLTAGE CABLING FOR TECHNOLOGY SYSTEMS	T-SERIES	T.C.	T.C.				
CABLE HANGERS AND SUPPORTS OR OTHER CABLE ROUTING METHODS (OTHER THAN CONDUIT AND CABLE TRAY)	T-SERIES	T.C.	T.C.	5.			
TECHNOLOGY SERVICE ENTRANCE CONDUITS, HANDHOLES.	T-SERIES	E.C.	E.C.				

SUGGESTED MATRIX OF RESPONSIBILITY NOTES

- LOCATIONS OF COMMUNICATIONS ROUGH-INS SHALL BE INDICATED BY THE INFORMATION OUTLET SYMBOLS ON THE DRAWINGS. REFER TO THE TECHNOLOGY SYMBOL LIST FOR
- ADDITIONAL INFORMATION. BASED ON THE INHERENT DIFFERENCES IN PRODUCTS FROM VARIOUS MANUFACTURERS, ALL REQUIRED EQUIPMENT MAY NOT BE SHOWN ON THE DRAWINGS FOR ALL ACCEPTABLE
- MANUFACTURERS. INCLUDES BACKBOXES AND CONDUIT REQUIRED FOR THE TECHNOLOGY SYSTEMS
- INSTALLATION. THE E.C. SHALL BASE THE BID ON THE BASIS OF DESIGN SHOWN ON THE CONTRACT DOCUMENTS.
- ALL CHANGES TO THE SLEEVES, BACKBOXES, CONDUITS, AND POWER REQUIRED BECAUSE OF THE T.C.'S SELECTION OF AN ALTERNATE ACCEPTABLE MANUFACTURER OR FROM SYSTEM CONFIGURATIONS THAT ARE LEFT TO THE CHOICE OF THE CONTRACTOR SHALL BE INCLUDED IN THE T.C.'S BID.
- UNLESS TRADE RULES DICTATE OTHERWISE. FURNISHED AS PART OF THE EQUIPMENT WHEN POSSIBLE, OR FURNISHED TO THE E.C. FOR INSTALLATION IN THE FIELD.
- INCLUDES ALL CONDUCTORS, GROUND BARS, AND TERMINATIONS FOR THE COMPLETE BONDING SYSTEM REQUIRED BY THE SPECIFICATIONS.
- REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS OF PANELS AND SWITCHBOARDS SHOWN IN THE TECHNOLOGY BONDING RISER DIAGRAM AND TYPICAL TELECOM ROOM BONDING FLOW DIAGRAM.

	CONTRACTOR ABBREVIATION KEY				
ABBR:	DESCRIPTION:				
C.C.	CIVIL CONTRACTOR				
C.M.	CONSTRUCTION MANAGER				
E.C.	ELECTRICAL CONTRACTOR				
F.P.C.	FIRE PROTECTION CONTRACTOR				
G.C.	GENERAL CONTRACTOR				
M.C.	MECHANICAL CONTRACTOR				
P.C.	PLUMBING CONTRACTOR				
T.C.	TECHNOLOGY CONTRACTOR				

TELECOM ROOM REFERENCES							
DETAIL / SHEET FLOOR PLAN TELECOM ROOM REFERENCE REFERENCE ARCH ROOM NUME							
MDF	1/T300	1/T101.1	113				

17	18	19	20	21

TECHNOLOGY GENERAL NOTES:

- <u>T-001</u> INDICATES GENERAL TECHNOLOGY EQUIPMENT SCHEDULE ITEM LABELED AS "EQUIPMENT TAG"
- 2. REFER TO GENERAL TECHNOLOGY EQUIPMENT SCHEDULE AND SPECIFICATIONS FOR FULL DESCRIPTIONS AND MANUFACTURERS OF ALL DEVICES.

TECHNOLOGY MOUNTING SUBSCRIPT KEY: A MOUNT AT +6" TO CENTERLINE ABOVE COUNTER OR BACKSPLASH

- MOUNT ORIENTED HORIZONTALLY MOUNT IN CASEWORK
- MOUNT IN MODULAR FURNITURE M MOUNT IN SURFACE RACEWAY

A SLASH IS USED BETWEEN TWO SUBSCRIPTS, e.g., A/H.

TECHNOLOGY INSTALLATION NOTES:

- 1. THE COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE ADA STANDARDS FOR ACCESSIBLE DESIGN. REFER TO THE ADA GUIDELINES FOR ALL CONFIGURATIONS DETAIL ON THIS PAGE FOR ADDITIONAL INFORMATION.
- 2. CONCEAL ALL CONDUIT IN WALLS, PARTITIONS, ABOVE CEILING. UNLESS OTHERWISE INDICATED ON THE PLANS OR IN THE SPECIFICATIONS. CONDUIT IN MECHANICAL ROOMS AND STORAGE ROOMS WITHOUT CEILINGS MAY BE EXPOSED ON BUILDING STRUCTURE.
- BOXES LOCATED ON OPPOSITE SIDES OF NON-RATED WALLS SHALL BE OFFSET A MINIMUM OF 6" HORIZONTALLY. BOXES ON OPPOSITE SIDES OF FIRE RATED WALLS SHALL BE OFFSET A MINIMUM OF 24" HORIZONTALLY. "THRU-THE-WALL" BOXES SHALL NOT BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF THE ARCHITECT/ENGINEER.
- 4. VERIFY ALL FURNITURE AND EQUIPMENT LOCATIONS WITH ARCHITECTURAL PLANS. ELEVATIONS, AND REVIEWED SHOP DRAWINGS. PRIOR TO MAKING THE ACTUAL COMMUNICATIONS INSTALLATION, ADJUST OUTLETS OR CONNECTION LOCATIONS TO ACCOMMODATE FURNITURE AND/OR EQUIPMENT.
- COMMUNICATIONS EQUIPMENT SHALL BE MOUNTED TO ALLOW ACCESS TO ELECTRICAL AND MECHANICAL EQUIPMENT. ALL MOUNTING OF TELECOMMUNICATION DEVICES ON EQUIPMENT SUPPLIED BY ANOTHER CONTRACTOR SHALL BE APPROVED IN ADVANCE BY THE OTHER CONTRACTOR
- 6. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OPENINGS REQUIRED IN WALLS. ALL OPENINGS SHALL BE REPAIRED TO MATCH EXISTING BY A QUALIFIED CONTRACTOR AT THE EXPENSE OF THIS CONTRACTOR. ALL CONDUITS THROUGH WALLS SHALL BE GROUTED OR SEALED INTO OPENINGS.
- ALL MATERIALS USED TO SEAL PENETRATIONS OF FIRE RATED WALLS AND FLOORS SHALL BE TESTED AND CERTIFIED AS A SYSTEM PER ASTM E814 STANDARDS FOR FIRE TESTS OF THROUGH-PENETRATION FIRESTOPS. REFER TO DIVISION 21 FOR ADDITIONAL INFORMATION AND REQUIREMENTS SPECIFIC TO FIRESTOPPING.
- REMOVE AND REINSTALL ALL CEILING TILES AS REQUIRED FOR THE EXECUTION OF COMMUNICATIONS WORK THAT IS OUTSIDE THE CONTRACT LIMITS OF CONSTRUCTION. REPLACE CEILING TILES WITH IDENTICAL MATERIAL WHERE DAMAGED BY THIS CONTRACTOR.
- 9. ALL LADDER RACK SIZES ARE AS DEFINED ON THE DRAWINGS. REFER TO SPECIFICATION SECTIONS FOR APPROVED MANUFACTURERS AND INSTALLATION REQUIREMENTS.
- 10. FLUSH MOUNT ALL TELECOMMUNICATION OUTLETS AT +18" FROM FLOOR (CENTERLINE DIMENSION), EXCEPT WHERE OTHERWISE NOTED. OUTLETS MAY BE SURFACE MOUNTED WHEN CONDUIT IS SPECIFIED EXPOSED.

TECHNOLOGY OUTSIDE PLANT NOTES

- 1. THE LOCATION OF THE CONDUIT, HAND HOLES SHOWN ARE APPROXIMATE LOCATIONS. FIELD VERIFY THE LOCATION OF ALL UTILITIES PRIVATE AND/OR PUBLIC PRIOR TO THE INSTALLATION OF THE COMPONENT. FIELD COORDINATE THE FINAL LOCATION WITH THE OWNER AND ENGINEER PRIOR TO INSTALLATION.
- POTHOLING TO LOCATE EXISTING UNDERGROUND UTILITIES, IF APPLICABLE, SHALL BE INCLUDED WITHIN THE CONTRACTORS BID. CONTRACTOR IS RESPONSIBLE FOR FINAL PLACEMENT OF HANDHOLES AND SHALL NOTIFY THE ENGINEER OF FINAL LOCATIONS PRIOR TO INSTALLATION. HAND HOLES SHALL BE CONSTRUCTED SO THAT THE TOP OF THE FRAME WILL BE FLUSH WITH - 3 THE GROUND LINE.
- CONTRACTOR SHALL INCLUDE WITHIN THEIR BID ANY REMOVAL AND REPLACEMENT OF EXISTING SIDEWALK, PAVEMENT, GRASS, SHRUBS, TREES, ETC. THAT WILL BE IMPACTED BY THE INSTALLATION OF THE NEW CONDUITS SHOWN ON THE DRAWINGS. IF TREES ARE REQUIRED TO BE REMOVED THE CONTRACTOR SHALL CONTACT THE OWNER AND DISCUSS OPTIONS PRIOR TO CUTTING DOWN ANY TREE OR SHRUB OVER 5' IN HEIGHT.
- NO ADDITIONAL COST SHALL BE APPROVED FOR PLACING CONDUITS DEEPER THAN REQUIRED MINIMUM DEPTH TO AVOID EXISTING UNDERGROUND UTILITIES. PROVIDE A MINIMUM OF 25'-0" SLACK LOOP WITHIN EACH HAND HOLE. SLACK LOOP SHALL BE
- SECURE SO COPPER FIBER IS NOT RESTING ON EARTH AFTER FINAL INSTALLATION.

TECHNOLOGY SHEET INDEX

Т000	TECHNOLOGY COVER SHEET
T001	GENERAL TECHNOLOGY EQUIPMENT SCHEDULE
T050	SITE PLAN - TECHNOLOGY
T101.1	FIRST FLOOR - TECHNOLOGY
T300	ENLARGED PLANS – TECHNOLOGY
T400	RISER DIAGRAMS - TECHNOLOGY
T500	DETAILS AND SCHEDULES -TECHNOLOGY
T501	DETAILS AND SCHEDULES -TECHNOLOGY
TD101.1	FIRST FLOOR DEMOLITION - TECHNOLOGY



OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

General Contractor

Proiect

Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713

Consultants **CIVIL ENGINEER** Snvder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date Bid Set

Previous Issue Dates

12/09/2016

Revision Dates

The FUTURE. Built SMARTER.

ENGINEERING CONSULTANTS 1800 DEMING WAY SUITE 200 MIDDLETON, WISCONSIN 53562 608.223.9600 FAX: 608.836.0415 www.kjww.com PROJECT # 16.0141.00

KJWW ENGINEERING RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF KIWW ENGINEERING AND SHALL NOT BE USED. OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN PPROVAL AND PARTICIPATION OF KJWW ENGINEERING. © 2016 KJWW CORP. REFERENCE SCALE IN INCHES

OPN Project No. 15617000

TECHNOLOGY COVER

SHEET

ГООС

Heiss Head THE COMMEND DE DESIGNETION OF THE MAIL HAULA AUT GUIDANCH IN IN HESS DRAWINGS AND SHEEDANCH AVAILABLE AT NO THEOR MAINTURE LISTED IS THE BASIS OF DESIGN. TEXTRANDARE OLGAN INCOMENTS TATAOTAY INHA MAULABLE AT NO THEOR MAINTURE LISTED IS THE BASIS OF DESIGN. TEXTRANDARE OLGAN INFORMATION AND HESS DRAWINGS AND SHEEDANCH INFORMATION OF THE TATAO AND THE ALL ALL ALL ALL ALL ALL ALL ALL ALL AL				
Inter-Rolls-Rev Field Contraction In All The Additional To Control in State Trans. Field The Control Control Inter- Control Control Control Inter- Control Control Control Inter- State Trans. Field Control Control Inter- State Trans. Field Control Control Control Control Control Control Control Inter- State Trans. Field Control Control Control Control Control Control Control Control Control Inter- State Trans. Field Control Cont	[
Contractors Excelling Contractors Excelling Contractors <		G	ENERAL TECHNOLOGY EQUIPMENT SCHE	DULE
MATERIA, REDURED, WIETELING RECIPICE OR NO, TO PROJUCE A SUBSYCHOL YOR WIE SEARCH POR MATERIAL, NO MATERIA, SILL, EL CREEDED DY MAUN/FACING RO CATALOS MUBBER DAVY. EACH COMPUTATION IN THE ELECTION POR MATERIAL, NO MATERIA, SILL, EL CREEDED DY MAUN/FACING RO CATALOS MUBBER DAVY. EACH COMPUTATION IN MATERIAL, NO MATERIAL, SILL, EL CREEDED DY MAUN/FACING RO CATALOS MUBBER DAVY. EACH COMPUTATION SUB- POR MATERIAL, NO MATERIAL, SILL, EL CREEDED DY MAUN/FACING RO CATALOS MUBBER DAVY. EACH COMPUTATION SUB- MATERIAL COMPUTATION OF INF MATERIAL ROLES OF MUBBER DAVIS AN ADVECTION OF MUBBER DAVIS AN ADVECTION OF MATERIAL ROLES OF MUBBER DAVIS AN ADVECTION OF MUBBER D				
Problems	MATE	ERIAL REQUIRED	, WHETHER SPECIFIED OR NOT, TO PRODUCE A SATISFACTORY WORKING SYSTEM	
Inv Follower Description Mode Section 1 SCAM SCAM Mode Section 2011 Comparison 2011 <th>FOR FIRS</th> <th>MATERIAL. NO M FREAD THE COM</th> <th>IATERIAL SHALL BE ORDERED BY MANUFACTURER OR CATALOG NUMBER ONLY. E IPLETE DESCRIPTION OF THE MATERIAL AND EQUIPMENT ON THESE DRAWINGS AN</th> <th>ACH CONTRACTOR SHALL</th>	FOR FIRS	MATERIAL. NO M FREAD THE COM	IATERIAL SHALL BE ORDERED BY MANUFACTURER OR CATALOG NUMBER ONLY. E IPLETE DESCRIPTION OF THE MATERIAL AND EQUIPMENT ON THESE DRAWINGS AN	ACH CONTRACTOR SHALL
NO. INCOMPARIZING CUTLET, WALL MOUNT: 2:4 OR B-PORT FACEHAREAS INDOCATED IN INCOMPARIZING CUTLET SUB-PLANE AS CONSUMED AND AS INDOCATED IN INCOMPARIZING CUTLET SUB-PLANE AS CONSUMED AND AS INDOCATED ON THE FLOOR FACING. FOR CONSUMED AND AND AND FOR THE CONSUMED AND AND AND AND AND AND AND AND AND AN	ITEM	EQUIPMENT		
2 BECATED IN INFORMATION OUTLET SCHEDULE ON DRAWING TOD. HUBBELL IMPLEL VIENDERTE INFORMATION OUTLET SCHEDULE ON DRAWING TOD ON THE BECHELLO ON THE FLOOR FLANS, REFER TO INFORMATION OUTLET BECHELLO END ORWING TOD FOR DESCRIPTION OF DECK CONTROL ON OTLET BECHELLO END ORWING TOTO TOTO EDECKRIPTION OF DECK CONTROL ON OTLET BECHELLO END AND THE INFORMATION OUTLET TRADE VIENDE TENENDAL DRAWING LUBBAT SCHEDUNG HINDUNG LINUX TENENDE TENENDAL TO KONTRE LINUX HUBBELL BLANK HUBBELL 2 SCHEDUNG HUBBELT FLANCH TENENDAL TO KONTRE TO INFORMATION OUTLET MARGET ACCESSIBIL CELLINA TENENDE TENENDAL DRAWING LUBBAT SCHEDUNG HUBBELT FLANCH TENENDAL DRAWING HUBBELT HUBBELL BLANK HUBBELL 2 SCHEDUNG HUBBELT H	NO.			
2 BUICATE DO NITE FLOOR PLANS. REFERENCE NO. REAK CONSUMATION. Charlies and construction of a voice. Charlies and construction. C		0010-11		HUBBELL
4 ACK IN STANLESS STELE FACEFLATE WITH WALL PHONE MATTING LÜDS AT HER ALL INCOMATION OUTLET IN A 19 OLIVE 2-197 DEEP PACK BOX WITH A BISRIEL INCOMATION OUTLET IN A 19 OLIVE 2-197 DEEP PACK BOX WITH A BISRIEL INCOMATION OUTLET IN A 19 OLIVE 2-197 DEEP PACK BOX WITH A BISRIEL INCOMATION OUTLET IN A 19 OLIVE 2-197 DEEP PACK BOX WITH A BISRIEL INCOMATION OUTLET IN A 19 OLIVE 2-197 DEEP PACK BOX WITH A BISRIEL INCOMATION OUTLET IN ALL BETTER TO TUNINGE TO TORUMOUS AT INCOMOTINUOUS CALLS SUPPORT HOULD TO TABLE TO A PRESENSIBILITY ON DRAWING TWO FOR ADDITIONAL INCOMATION WALL MOUNT OUTLET IS WILL BE 1-197 AT 11 UNION DEAL TO A 11 WILL MOUNT OUTLET IS WILL BE 1-197 AT 11 UNION DEAL TO A 11 WILL MOUNT OUTLET IS WILL BE 1-197 AT 11 UNION DEAL TO A 11 WILL MOUNT OUTLET IS WILL BE 1-197 AT 11 UNION DEAL TO A 11 WILL INCOMATION OUTLET CELLING MOUNT 2-4, OR B PORT HOULD AS INFORMATION OUTLET OUTLET OUTLES OF DUDING TO ADDITION BOREDULE ON IDWING THE TO COME AND A TEXT COMONATION OUTLET A BOREDULE ON IDWING THE TO ALL AND SINCE TO TO DEBARMENT MODE TO THE TO COME AND A TEXT COMONATION OUTLET A INFORMATION OUTLET IN ALL SOLARE 2-187 DEEP PACK BOX WITH A BIS AND AND AND A TEXT COMONATION OUTLET AND A 19 OLIVINAL TO BE ADDITION BOREDULE ON IDWING THE TO ALL AND A TEXT COMONATION OUTLET AND ADDITIONAL INFORMATION OUTLET IN A 19 OLIVINAL TO BE ADDITIONAL SOLARE BUACESSANT ADDITION OUTLET IN A 19 OLIVINAL TEXT OF DEAL AND A TEXT COMONATION OUTLET AND ADDITIONAL INFORMATION OUTLET IN A 19 OLIVINAL TEXT OF DEBARMENT ADDITIONAL INFORMATION OUTLET IN A 19 OLIVINAL TEXT OF DEBARMENT ADDITIONAL INFORMATION OUTLET IN A 19 OLIVINAL TEXT ON TO DE ON ADDITIONAL INFORMATION OUTLET IN A 19 OLIVINAL TEXT ON TO DE ON ADDITIONAL INFORMATION OUTLET IN A 19 OLIVINAL TEXT ON TO DE ON ADDITIONAL INFORMATION OUTLET IN A 19 OLIVINAL TEXT ON TO DE ON ADDITIONAL INFORMATION OUTLET IN A 19 OLIVINAL TEXT ON TO DE ON ADDITIONAL INFORMATION OUTLET IN A 19 OLIVINAL TEXT ON TO DEAL ADDITIONAL ADDITIONAL AND THE ID SITUAT			INDICATED ON THE FLOOR PLANS. REFER TO INFORMATION OUTLET SCHEDULE ON DRAWING T500 FOR DESCRIPTION OF EACH CONFIGURATION	HUBBELL
3 SC-ID-CHARGE FAME A PLATTER RING AND A TEAT CONDUCT STUBLED TO INCREEST ACCESSING CELLING. REFER TO INTERVISE ANALOGY INCREEST ACCESSING CELING. REFER TO INTERVISE THAT ANALOGY INCREEST ACCESSING CELING. REFER TO INFORMATION ANALOGY INTERVISE THAT ANALOGY INTERVISE THAT ANALOGY INTERVISE INDICATED IN INFORMATION OUT IT TA ACCESSING ANALOGY INTERVISE INDICATED INTERVISE AND INTERVISE THAT INTERVISE THAT INDICATED INTERVISE AND INTERVISE AND INTERVISE AND INTERVISE INTERVISE ANALOGY INTERVISE AND INTERVISE AND INTERVISE AND INTERVISE INTERVISE ANALOGY INTERVISE AND INTERVISE AND INTERVISE			JACK IN STAINLESS STEEL FACEPLATE WITH WALL PHONE MATING LUGS AT	HUBBELL
Image: Sector of the set of the			SINGLE GANG PLASTER RING AND A 1" EMT CONDUIT STUBBED TO NON-CONTINUOUS CABLE SUPPORT ROUTE OR CABLE TRAY ABOVE NEAREST ACCESSIBLE CEILING. REFER TO 1/T500 FOR TECHNOLOGY ROUGH-IN MOUNTING DETAIL. REFER TO SUGGESTED MATRIX OF SCOPE	
2 SCIOCEMMA INFORMATION OUTLET CELEND RUDINT 2,4,006 PROTTACEPLATE AS INDICATED IN INFORMATION OUTLET SCIEDULE ON DRIVING TBOD. FACEPLATE. 2 SCIOCEMMA INFORMATION OUTLET SCIEDULE ON DRIVING TBOD. FACEPLATE. 3 SCIEDULE ON DRIVING TBOD CONCENTRACE AND CONFIGURATION AS INDICATED ON THE FLOOR FLANS. REFER TO INFORMATION OUTLET. CATE JACK HUBBELL 3 SCIEDULE ON DRIVING TBOD CONFERNITION OF CARCES SCIEDULE ON DRIVING TBOD CHARGES (SCIEDULE ON DRIVING TBOD FOR AND FOR THI CONFIGURATION OF LACKS. SERVICE SCIEDULE ON DRIVING TBOD FOR DRIVING TBOD FOR DRIVING TBOD FOR AND FOR THI CONFIGURATION OF LACKS. SCIEDULE CANDADING TBOD FOR DRIVING TBOD FOR ADDITIONAL INFORMATION. SCIEDULE CANDADING SCIEDULE SCIEDU			WALL MOUNT OUTLETS WILL BE AT 18" AFF UNLESS NOTED OTHERWISE.	
Image: Source in the second provide provide the second provide the	2	SC-IO-CWAP	INFORMATION OUTLET, CEILING MOUNT. 2, 4, OR 6-PORT FACEPLATE AS	
AND FOR PIN CONFIGURATION OF JACKS. HUBBEI AND FOR PIN CONFIGURATION OUTLET IN A 4" SQUARE 2-18" DEEP BACK BOX WITH A SINGLE GANO PLASTER ING AND A TENT CONDUIT STUBBED TO NON-CONTINUOUS CABLE SUPPORT ROUTE OR CABLE TRAY ADVOYAGE HUBBELL SPB10 3 SC-TTE-1 THE MOVABLE BLANK INSERTS FOR UNUSED FACEPLATE PORTS. - 3 SC-TTE-1 THEOROMANICAL INSERTS FOR UNUSED FACEPLATE PORTS. - 4 SC-TTE-1 THEOROMANICAL INSERTS FOR UNUSED FACEPLATE PORTS. - 4 SC-TTE-1 THEOROMANICATION OF PROVIDE DEVICED SPECIFIC UTIVAL CONTROL OF PROVIDE CONTRUCTION, RUST RESISTANT DEVICE VERTICALLY WITH TOP OF PLYWOOD AT 80" AF F. RATING STAMP NUST REMAIN VISIBLE. - 4 SC-LTE-1 LADORE RACK. 19" WIDE TUBULAR STEEL CONSTRUCTION, RUST RESISTANT NUST REMAIN VISIBLE. CHATSWORTH PRODUC 11275-718 - 5 SC-GRD1 WALL-MOUNT GROUND BAR. MINIMUM 4" HX 12" LX 14" D COPPER RADIUS BRORS. REMOVE SHARP BURRS FROM LADDER RACK AND REPAINT ALL AREAS THAT HAVE BEEN FIELD MOUNTED CONTRESSION LUSS. ANSIENTIA 647 AND BICS LOWELANT. ULLISTED. AND MUNICAL PROSED. CHATSWORTH PRODUC 40153-012 5 SC-GRD2 RACK MOUNT GROUND BAR. MINIMUM 4" HX 12" LX 14" D COPPER BLCCRESS, FEDDIUE DUC TOWEL FOR UNDERSES ON PROSED. CHATSWORTH PRODUC 40153-012 6 SC-GRD2 RACK MOUNT GROUND BAR. MINIMUM 4" HX 12" LX 14" D COPPER BLCCR			INDICATED IN INFORMATION OUTLET SCHEDULE ON DRAWING T500. "#" INDICATES INFORMATION OUTLET FACEPLATE CONFIGURATION AS INDICATED ON THE FLOOR PLANS. REFER TO INFORMATION OUTLET	IFP14EI CAT6 JACK:
Image: Sincle GANG PLASTER RING AND A1* ENT CONDUIT STUBBED TO NON-CONTINUOUS CABLE SUPPORT ROUTE OR CABLE TRAY ABOVE INSAREST ACCESSIBLE CELLING (MINIMUM 6* BEYOND BACK BOX), REFER TO SUGGSTED MATRING OF SCOPE RESPONSIBILITY ON DRAWING TOOP FOR ADDITIONAL INFORMATION. Self 10 Self 10 3 SCITE: 1 TELECOMUNICATION STEMINAL BOARD. 4*X8 Y34*AC GRADE FIRE-RATED PLYWOOD. EXPOSED SIDE SHALL BE SMOOTH. MOUNT ORIGINE VERTICALLY WITH TOP OF PLYWOOD AT 95*AF.F. RATING STAMP MUST REMAIN VISIBLE. CHATSWORTH PRODUC 11275-718 4 SCITE: 1 ELADOR RACK. 15*WIDE TUBULAR STEEL CONSTRUCTION, RUST RESISTANT BLACK RAAKE, 15*WIDE TUBULAR STEEL CONSTRUCTION, RUST RESISTANT BLACK RAAKES, RAPONDE RATE, 12*YIP CHATSWORTH PRODUC 11275-718 5 SC-GND: 1 WALL-MOUNT GROUND BAR, MINIMUM 4*H X 12* X 14*D COPER, CONFIGURED WITH NUMPER DUIT CONFIGURED WITH STREEN (10) SSTS OF 515* TOT 10*Y 10*Y 5*STS OF 515* TOT 10*Y 10*Y 5* 5* CONFILETE VITH ADD ADA STRUCTUS STRUCTUS AND ADA S				
3 SC-TTB-1 TELECOMMUNICATIONS TERMINAL BOARD. 4' X8'X 34' A'C GRADE FIRE-RATED PL TWOOD, EXPOSED SIDE SHALL BE SMOUTH, MOUNT ORINTED VERTICALLY WITH TOO CP PL YWOOD AT 55' AF.F. RATING STAMP MUST REMAIN VISIBLE. - 4 SC-LTB-1 LADDER RACK. 18' WIDE TUBULAR STEEL CONSTRUCTION, RUST RESISTANT BLACK EMMAN VISIBLE. CHATSWORTH PRODUC COMPLETE WITH ALL STEED. PROVIDE COMPLETE WITH ALL STEED. PROVIDE COMPLETE WITH ALL STEED. PROVIDE COMPLETE WITH ALL AREAS THAT HAVE BEEN FIELD MODIFIED, CUT OR EXPOSED. CHATSWORTH PRODUC 11275-718 5 SC-GND-1 WALL-MOUNT GROUND BAR. MINIMUM 4' X 12'' LX 14'D COPPER, RECORDE WITH CONDUCTIONE INTEGRAL TO MOUNTING RECESSARY ADOUGE UNIT CONFIGURED WITH SIXTEEN (16) SETS OF 5'16'' HOLES SPACED 56'' ON CENTER TO ACCOMMODATE '''S PACED 1''ON CENTER TO ACCOMMODATE 'C'' SPACED TWO-HOLE COMPRESSION LUCS. ANDERVARY AND BICS CONFIGURED WITH SIXTEEN (16) SETS OF 5'16'' HOLES SPACED 5'0' ON CENTER TO ACCOMMODATE 'C'' SPACED TWO-HOLE SOME ANDERVARY AND BICS CONFIGURED WITH SIXTEEN (16) SETS OF 5'16'' HOLES SPACED 5'0' ON CENTER TO ACCOMMODATE 'C'' SPACED TWO-HOLE SOME ANDERVARY AND BICS CONFIGURED WITH SIXTEEN (16) SETS OF 5'16'' HOLES SPACED 5'0' ON CENTER TO ACCOMMODATE 'C'' SPACED TWO-HOLE SOME ANDERVARY AND BICS CONFIGURED WITH MINIMUM S' 15'' X 3'' 4'' X 19'' W COPPER, CONFIGURED WITH MINIMUM BEGHT (8) #5'' X 3'' 4'' X 19'' W COPPER, COMPLIAT. REQUIRES ONE (1) 175' RACK MOUNTING SPACE. - 7 SC-ER-1 EQUIPMENT RACK 84''H X 20.25''W X 15'D TWO-POST CONFIGURATION. PROVIDE COMPLETE WITH MINIMUM S' X 'C' APACITY FRONT AND BEAR. AND DROP LADDER RACK. EXISTING OWNER FURNISHED 8 SC-EDC-1 FIBER O			SINGLE GANG PLASTER RING AND A 1" EMT CONDUIT STUBBED TO NON-CONTINUOUS CABLE SUPPORT ROUTE OR CABLE TRAY ABOVE NEAREST ACCESSIBLE CEILING (MINIMUM 6" BEYOND BACK BOX). REFER TO SUGGESTED MATRIX OF SCOPE RESPONSIBILITY ON DRAWING T000 FOR	HUBBELL
FIRE-RATED PLYWOOD. EXPOSED SIDE SHALL BE SMOOTH. MOUNT ORIENTED VERTICALLY WITH TOP OF PLYWOOD AT 80° AFF. RATING STAMP MUST REMAIN VISIBLE. CHATSWORTH PRODUC 11275-718 4 SC-EE1 LADDER RACK. 18' WIDE TUBULAR STEEL CONSTRUCTION, RUST RESISTANT INCESSSARY ADAPTERS, SUPPORT HARDWARE, AND ETTINGS, TO INCLUDE RADUS DROPS. REMOVE SHARP BURRS FROM LADDER RACK AND REPAINT ALL AREAS THAT HAVE BEEN FIELD MODIFIED. CUT OR EXPOSED. CHATSWORTH PRODUC 11275-718 5 SC-GND-1 WALL-MOUNT GROUND BAR. MINIMUM 4" H X 12" L X 14" D COPPER, ELECTRICALLY ISOLATED BY INSULATORS INTEGRAL TO MOUNTING BRACKETS. PROVIDE UNIT CONFIGURED WITH SIXTEED TO SCHOOD THE OF STOF BRACKETS. PROVIDE UNIT CONFIGURED WITH SIXTEED TO SCHOOD THE AS SPACED TWO-HOLE COMPRESSION LUGS AND THREE (3) SETS OF 71/6 HOLES SPACED TWO HOLE COMPRESSION LUGS AND THREE (3) SETS OF 71/6 HOLES SPACED TWO HOLES SPACED 58' ON CENTER TO ACCOMMODATE "A" SPACED TWO HOLE COMPRESSION LUGS AND THREE (3) SETS OF 71/6 HOLES SPACED TWO HOLES SPACECOMMODATE "A" SPACED TWO HOLES SPACED TWO DIDITIONAL INFORMATION. ERICO HARGER 6 SC-GND-2 RACK MOUNT GROUND BAR. MINIMUM 31/6" D X 3/4" H X 19" W COPPER, CONFIGURED WITH MINIMUM GIGHT (8) #6-32 TAPPED HOLES AND MINIMUM JOITONUAL UNTAPPED HOLES. UL LISTED AND ANSIFICATI-AGO' AND BICSI COMPLIANT. REQUIRES ONE (1) 1.75' RACK MOUNTING SPACE. EXISTING OWNER FURNISHED 7 SC-ER-1 EQUIPMENT RACK. 84" H X 20 25" W X 15"D TWO-SOST CONFIGURATION. PROVIDE COMPLETE WITH HIMINUM GY &" CAPACITY FRONT AND REAR, AND UTH LADDER RACK. CAPCH TH MINIMUM SITE RACE MOUNT. ACCOMMIDATES TWELVE (12) MODULAR RACK CONVERCE CONT FINISH. INTEGRATED FP. FOR RACK, EACH WITH MINIMUM GY &" CAPACITY FRONT AND R				
8 SC-GND-2 RACK MOUNT GROUND BAR, MINIMUM 4" H X 12" LX 14" O COPPER, GAD STINUS, CONFLUENCESSARY, DAVIERS, STORMADER, AND FITTING, STO INCLUDE, ELECTRICALLY ISOLATED BY INSULATORS INTEGRAT. TO MOUNTING CHATSWORTH PRODUC 5 SC-GND-1 WALL-MOUNT GROUND BAR, MINIMUM 4" H X 12" LX 14" O COPPER, BLACK STORM CONFIGURATION, CONFIGURATION CONFIGURATION, CONTERT TO ACCOMMODATE "C" SPACED TWO-HOLE COMPRESSION LUGS, AND ADDITIONAL INFORMATION. CRACK MOUNT GROUND BAR, MINIMUM 3" A" X 12" LX 14" O COPPER, CONFIGURATION, FOUR (1) 175" RACK MOUNTING SPACE. CRACK MOUNT GROUND BAR, MINIMUM 3" A" D 23" W X 15" D TWO-POST CONFIGURATION, FURNISHED WITH MINIMUM SIGHT (2) TWO-SIDED VERTICAL WIRE MANAGERS PER ACK, CACH WITH MINIMUM 5" (2) TWO-SIDED VERTICAL WIRE MANAGERS PER ACK, CACH WITH MINIMUM 5" (2) TWO-SIDED VERTICAL WIRE MANAGERS PER ACK, CACH WITH MINIMUM 5" (2) TWO-SIDED VERTICAL WIRE MANAGERS PER ACK, CACH WITH MINIMUM 5" (2) TWO-SIDED VERTICAL WIRE MANAGERS PER ACK, CACH WITH MINIMUM 5" (2) TWO-SUDED STELL OCOMPOLES AND RADIUS DROP LADDER RACK. EXISTING OWNER FURNISH, INTEGRATED FRONT CABLE MANAGERS PER ACK, CONNECTION, BLACK POWDER, COAT FINISH, INTEGRATED FRONT CABLE MANAGERS PER ACK, CACH WITH MINIMUM 5" (2) TWO-SIDED VERTICAL WIRE MANAGERS PER ACK, CACH WITH MINIMUM 5" (2) TWO-SIDED VERTICAL WIRE MANAGERS PER ACK, CACH WITH MINIMUM 5" (2) TWO-VOOST CONFIGURATION, DROP ACACK. EXISTING OWNER FURNISH, INTEGRATED FRONT CABLE MANAGERS PER ACK, CACH TH THINDUCUL 5" TACLUMENT STRUCK (2) TY 5" CACH (C) MOUNTING SPACE.	3	<u>SC-TTB-1</u>	FIRE-RATED PLYWOOD. EXPOSED SIDE SHALL BE SMOOTH. MOUNT ORIENTED VERTICALLY WITH TOP OF PLYWOOD AT 8'6" A.F.F. RATING STAMP	
ALL AREAS THAT HAVE BEEN FIELD MODIFIED, CUT OR EXPOSED. HOFFMAN 5 SC-GND-1 WALL-MOUNT GROUND BAR. MINIMUM 4" H 12 X 14" D COPPER, ELECTRICALLY ISOLATED BY INSULATORS INTEGRAL TO MOUNTING BRACKETS. PROVIDE UNIT CONFIGURED WITH SIXTEEN (B) SETS OF 5/16" HOLES SPACED 5/8" ON CENTER TO ACCOMMODATE "A" SPACED TWO-HOLE COMPRESSION LUGS AND THREE (3) SETS OF 7/16" HOLES SPACED 1"ON CENTER TO ACCOMMODATE "O" SPACED TWO-HOLE COMPRESSION LUGS. ANDIFLATIA-607 AND BICS ICOMPLIANT. UL LISTED. REFER TO 1/T500 FOR ADDITIONAL INFORMATION. ERICO ERICO COMPLIANT GROUND BAR. MINIMUM 3/16" D X 3/4" H X 19" W COPPER, CONFIGURED WITH MINIMUM IEIGHT (6) #*32 TAPPED HOLES AND MINIMUM FOUR (4) 5/16" UNTAPPED HOLES. UL LISTED AND ANSIGE/ATTA-607 AND BICSI COMPLIANT. REQUIRES ONE (1) 1.75" RACK MOUNTING SPACE. . 7 SC-ER-1 EQUIPMENT RACK. 84"H X 20.25"W X 15"D TWO-POST CONFIGURATION. PROVIDE COMPLETE WITH MINIMUM 6"X 6" CAPACITY FRONT AND REAR, AND WITH LADDER RACK, CONPLIANT AND CREAR AND DROP LADDER RACK. EXISTING OWNER FURNISHED 8 SC-EDC-1 FIBER OPTIC DISTRIBUTION CABINET, RACK MOUNT, ACCOMMODATES TWELVE (2) MODULAR ADAPTER PARELS OR MODULES. WELDED STEEL CONSTRUCTION, BLACK POWDER-COAT FINISH, INTEGRATED FRONT CABLE MANAGEMENT THROUGH, LOCKABLE. REQUIRES TWO(2) 1.75" RACK HUBBELL HC219CC3P NO EQUALS 9 SC-HWM-1 HORIZONTAL CABLE MANAGEMENT, FINGER DUCT STYLE, 3" X 3" CAPACITY FRONT, 2" X 5" CAPACITY REAR, REMOVABLE FRONT AND REAR CADING. WELDED STEEL CONSTRUCTION, BLACK POWDER COAT FINISH, MOUNTS PASS THROUGH HOLES TO FACILITATE FRONT TO REAR CABLING. REQUIRES NO EQUALS 10 SC-MPP-1	4	<u>SC-LR-1</u>	BLACK ENAMEL FINISH, UL LISTED. PROVIDE COMPLETE WITH ALL NECESSARY ADAPTERS, SUPPORT HARDWARE, AND FITTINGS, TO INCLUDE RADIUS DROPS. REMOVE SHARP BURRS FROM LADDER RACK AND REPAINT	
8 SC-ED-1 EQUIPMENT RACK. 84"H X 20.25"W X 15"D RACK MOUNTING GARD RAND 40153-012 7 SC-ER-1 RACK MOUNT GROUND GARD THREE (3) SETS OF 7/16" HOLES SPACED TWO-HOLE COMPRESSION LUGS AND THREE (3) SETS OF 7/16" HOLES SPACED 1"YO CENTER TO ACCOMMODATE "C" SPACED TWO-HOLE COMPRESSION LUGS. ANSWELATIA-607 AND BICSI COMPLIANT. UL LISTED. REFER TO 1/T500 FOR ADDITIONAL INFORMATION. • 6 SC-GND-2 RACK MOUNT GROUND BAR MINIMUM 3/16" D X 3/4" H X 19" W COPPER. CONFIGURED WITH MINIMUM EIGHT (8) #6-32 TAPPED HOLES AND MINIMUM FOUR (4) 5/16" UNTAPPED HOLES. UL LISTED AND ANSIEIATIA-607 AND BICSI COMPLIANT. REQUINTERS ONE (1) 1.75" RACK MOUNTING SPACE. • 7 SC-ER-1 EQUIPMENT RACK. 84"H X 20.25"W X 15"D TWO-POST CONFIGURATION. PROVIDE COMPLETE WITH TWO (2) TWO-SIDED VERTICAL WIRE MANAGERS PER RACK. EACH WITH MINIMUM 6" X 6" CAPACITY FRONT AND REAR. AND WITH LADDER RACK CONNECTION HARDWARE ACCESSORIES AND RADIUS DROP LADDER RACK. • 8 SC-FDC-1 FIBER OPTIC DISTRIBUTION CABINET, RACK MOUNT. ACCOMMODATES TWELVE (12) MODULAR ADAPTER PANELS OR MODULES. WELDED STEEL CONSTRUCTION. BLACK POWDER-COAT FINISH, INTEGRATED FRONT CABLE MANAGEMENT THROUGH, LOCKABLE. REQUIRES TWO(2) 1.75" RACK MOUNTING SPACES. • 9 SC-HWM-1 HORIZONTAL CABLE MANAGEMENT, FINGER DUCT STYLE, 3".X 3" CAPACITY PASS THROUGH HOLES TO FACILITATE FRONT TO REAR CABLING. REQUIRES (2) 1.75" MOUNTING SPACES. HUBBELL HC219CC3P NO EQUALS 10 SC-MPP-1 MODULAR PATCH PANEL. FORTY EIGHT (48) MODULAR RJ-45 SNAP-IN JACKS				
6 SC-GND-2 RACK MOUNT GROUND BAR. MINIMUM 3/16" D X 3/4" H X 19" W COPPER, CONFIGURED WITH MINIMUM EIGHT (8) #6-32 TAPPED HOLES AND MINIMUM FOUR (4) 5/16" UNTAPPED HOLES. UL LISTED AND ANSI/EIATIA-607 AND BICSI COMPLIANT. REQUIRES ONE (1) 1.75" RACK MOUNTING SPACE. . 7 SC-ER-1 EQUIPMENT RACK. 84"H X 20.25"W X 15"D TWO-POST CONFIGURATION. PROVIDE COMPLETE WITH TWO (2) TWO-SIDED VERTICAL WIRE MANAGERS PER RACK, EACH WITH MINIMUM 6" X 6" CAPACITY FRONT AND REAR, AND WITH LADDER RACK CONNECTION HARDWARE ACCESSORIES AND RADIUS DROP LADDER RACK. EXISTING OWNER FURNISHED 8 SC-EDC-1 FIBER OPTIC DISTRIBUTION CABINET, RACK MOUNT. ACCOMMODATES TWELVE (12) MODULAR ADAPTER PANELS OR MODULES. WELDED STEEL CONSTRUCTION, BLACK POWDER-COAT FINISH, INTEGRATED FRONT CABLE MANAGEMENT THROUGH, LOCKABLE. REQUIRES TWO(2) 1.75" RACK MOUNTING SPACES. HUBBELL HC219CC3P PASS THROUGH HOLES TO FACILITATE FRONT AND REAR COVERS. (2) 1.75" MOUNTING SPACES. HUBBELL HC219CC3P NO EQUALS 10 SC-MPP-1 MODULAR PATCH PANEL. FORTY EIGHT (48) MODULAR RJ-45 SNAP-IN JACKS. WELDED STEEL CONSTRUCTION, BLACK POWDER COAT FINISH, MOUNTS DIRECTLY TO EIA/TIA FARCH POWDER COAT FINISH, MOUNTS PASS THROUGH HOLES TO FACILITATE FRONT TO REAR CABLING. REQUIRES (2) 1.75" MOUNTING SPACES. HUBBELL CAT 6: P6648U	с С	<u>90-0110-1</u>	ELECTRICALLY ISOLATED BY INSULATORS INTEGRAL TO MOUNTING BRACKETS. PROVIDE UNIT CONFIGURED WITH SIXTEEN (16) SETS OF 5/16" HOLES SPACED 5/8" ON CENTER TO ACCOMMODATE "A" SPACED TWO-HOLE COMPRESSION LUGS AND THREE (3) SETS OF 7/16" HOLES SPACED 1" ON CENTER TO ACCOMMODATE "C" SPACED TWO-HOLE COMPRESSION LUGS. ANSI/EIA/TIA-607 AND BICSI COMPLIANT. UL LISTED. REFER TO 1/T500 FOR	40153-012 ERICO
7 SC-ER-1 EQUIPMENT RACK. 84"H X 20.25"W X 15"D TWO-POST CONFIGURATION. PROVIDE COMPLETE WITH TWO (2) TWO-SIDED VERTICAL WIRE MANAGERS PER RACK, EACH WITH MINIMUM 6" X 6" CAPACITY FRONT AND REAR, AND WITH LADDER RACK. CONNECTION HARDWARE ACCESSORIES AND RADIUS DROP LADDER RACK. EXISTING OWNER FURNISHED 8 SC-FDC-1 FIBER OPTIC DISTRIBUTION CABINET, RACK MOUNT, ACCOMMODATES TWELVE (12) MODULAR ADAPTER PANELS OR MODULES. WELDED STEEL CONSTRUCTION, BLACK POWDER-COAT FINISH, INTEGRATED FRONT CABLE MANAGEMENT THROUGH, LOCKABLE. REQUIRES TWO(2) 1.75" RACK MOUNTING SPACES. HUBBELL HC219CC3P NO EQUALS 9 SC-HWM-1 HORIZONTAL CABLE MANAGEMENT, FINGER DUCT STYLE, 3" X 3" CAPACITY FRONT, 2" X 5" CAPACITY REAR. REMOVABLE FRONT AND REAR COVERS. PASS THROUGH HOLES TO FACILITATE FRONT TO REAR CABLING. REQUIRES (2) 1.75" MOUNTING SPACES. HUBBELL HC219CC3P NO EQUALS 10 SC-MPP-1 MODULAR PATCH PANEL. FORTY EIGHT (48) MODULAR RJ-45 SNAP-IN JACKS. WELDED STEEL CONSTRUCTION, BLACK POWDER COAT FINISH, MOUNTS DIRECTLY TO ELATIA STANDARD 19" RELAY RACK. REQUIRES (2) 1.75" HUBBELL CAT 6; P6E48U	6	SC-GND-2	RACK MOUNT GROUND BAR. MINIMUM 3/16" D X 3/4" H X 19" W COPPER, CONFIGURED WITH MINIMUM EIGHT (8) #6-32 TAPPED HOLES AND MINIMUM FOUR (4) 5/16" UNTAPPED HOLES. UL LISTED AND ANSI/EIA/TIA-607 AND BICSI	
9 SC-HWM-1 HORIZONTAL CABLE MANAGEMENT, FINGER DUCT STYLE, 3" X 3" CAPACITY FRONT AND REAR COVERS. HUBBELL HC219CC3P NO EQUALS 10 SC-MPP-1 MODULAR PATCH PANEL. FORTY EIGHT (48) MODULAR RJ-45 SNAP-IN JACKS. WELDED STEEL CONSTRUCTION, BLACK POWDER COAT FINISH, MOUNTS CONSTRUCTION, BLACK POWDER COAT FINISH, MOUNTS CONSTRUCTION, BLACK POWDER COAT FINISH, MOUNTS CONSTRUCTION, BLACK POWDER COAT FINISH, INTEGRATED FRONT CABLE MOUNTING SPACES. HUBBELL HUBBELL HC219CC3P NO EQUALS		SC-ER-1		EXISTING OWNFR
8 SC-FDC-1 FIBER OPTIC DISTRIBUTION CABINET, RACK MOUNT. ACCOMMODATES TWELVE (12) MODULAR ADAPTER PANELS OR MODULES. WELDED STEEL CONSTRUCTION, BLACK POWDER-COAT FINISH, INTEGRATED FRONT CABLE MANAGEMENT THROUGH, LOCKABLE. REQUIRES TWO(2) 1.75" RACK MOUNTING SPACES. Image: Construction of the sector of			PROVIDE COMPLETE WITH TWO (2) TWO-SIDED VERTICAL WIRE MANAGERS PER RACK, EACH WITH MINIMUM 6" X 6" CAPACITY FRONT AND REAR, AND WITH LADDER RACK CONNECTION HARDWARE ACCESSORIES AND RADIUS	
9 SC-HWM-1 HORIZONTAL CABLE MANAGEMENT, FINGER DUCT STYLE, 3" X 3" CAPACITY FRONT, 2" X 5" CAPACITY REAR. REMOVABLE FRONT AND REAR COVERS. PASS THROUGH HOLES TO FACILITATE FRONT TO REAR CABLING. REQUIRES (2) 1.75" MOUNTING SPACES. HUBBELL HC219CC3P NO EQUALS 10 SC-MPP-1 MODULAR PATCH PANEL. FORTY EIGHT (4 8) MODULAR RJ-45 SNAP-IN JACKS. WELDED STEEL CONSTRUCTION, BLACK POWDER COAT FINISH, MOUNTS DIRECTLY TO EIA/TIA STANDARD 19" RELAY RACK. REQUIRES (2) 1.75" HUBBELL CAT 6: P6E48U	8	SC-FDC-1	FIBER OPTIC DISTRIBUTION CABINET, RACK MOUNT. ACCOMMODATES TWELVE (12) MODULAR ADAPTER PANELS OR MODULES. WELDED STEEL CONSTRUCTION, BLACK POWDER-COAT FINISH, INTEGRATED FRONT CABLE	
Image: Contract of the second seco				
10 SC-MPP-1 WELDED STEEL CONSTRUCTION, BLACK POWDER COAT FINISH, MOUNTS HUBBELL CAT 6: DIRECTLY TO EIA/TIA STANDARD 19" RELAY RACK. REQUIRES (2) 1.75"	9	SC-HWM-1	FRONT, 2" X 5" CAPACITY REAR. REMOVABLE FRONT AND REAR COVERS. PASS THROUGH HOLES TO FACILITATE FRONT TO REAR CABLING. REQUIRES	HC219CC3P
DIRECTLY TO EIA/TIA STANDARD 19" RELAY RACK. REQUIRES (2) 1.75" P6E48U	10	SC-MPP-1	MODULAR PATCH PANEL. FORTY EIGHT (4 8) MODULAR RJ-45 SNAP-IN JACKS.	HUBBELL
NO EQUALS				P6E48U

	ITEM NO.	EQUIPMENT TAG	DESCRIPTION	APPROVED MANUFACTURE
	11	<u>SC-HH</u>	TELECOMMUNICATIONS HAND HOLE. IN GROUND HAND HOLE TIER 5 APPROXIMATE SIZE 13"X 24" WITH STANDARD COVER.	
	12	AC-CR1-W	CARD READER. PROVIDED AS INTEGRAL PART OF SECURITY MANAGEMENT SYSTEM. CARD READERS SHOWN ON PLANS TO IDENTIFY INTENDED MOUNTING LOCATION. REFER TO SPECIFICATION SECTION 28 13 00 FOR COMPLETE INFORMATION.	KEYSCAN
	13	AC-MD-C	MOTION DETECTOR, CEILING MOUNTED. PROVIDE WITH CEILING MOUNT BRACKET.	
			INSTALL IN A 4" SQUARE 2-1/8" DEEP BACKBOX WITH A SINGLE GANG PLASTER RING AND A 1" EMT CONDUIT STUBBED TO NON-CONTINUOUS CABLE SUPPORT ROUTE ABOVE NEAREST ACCESSIBLE CEILING (MINIMUM 6" BEYOND BOX). REFER TO SUGGESTED MATRIX OF RESPONSIBILITY ON DRAWING T000 FOR ADDITIONAL INFORMATION.	
	14	<u>AC-EDH</u>	ACCESS CONTROL ELECTRIFIED DOOR HARDWARE. FURNISHED AND INSTALLED BY OTHERS, CABLING AND CONNECTION TO ELECTRONIC ACCESS CONTROL SYSTEM PANEL BY THIS CONTRACTOR. COORDINATE CONNECTIONS AND TESTING WITH ON-SITE DOOR CONTRACTOR. REFER TO 3/T400 FOR WIRING REQUIREMENTS.	
	15	<u>IC-IM-1</u>	DOOR INTERCOM MASTER STATION.	
			INSTALL 4" SQUARE 2-1/8 DEEP BOX WITH SINGLE-GANG PLASTER RING. 3/4" EMT CONDUIT STUBBED TO NON-CONTINUOUS CABLE SUPPORT ROUTE ABOVE NEAREST ACCESSIBLE CEILING. LOCATE IN PRINT SHOP AREA AS DIRECTED BY OWNER, FIELD COORDINATE FINAL LOCATION BEFORE BEGINNING INSTALLATION.	
			FURNISH AND INSTALL ONE CAT 6 CABLE AND TERMINATE WITH CAT 6 JACK. INSTALL DEVICE AS DIRECTED BY OWNER, FIELD COORDINATE PRIOR TO FINAL INSTALLATION, REFER TO SUGGESTED MATRIX OF SCOPE RESPONSIBILITY ON DRAWING T000 FOR ADDITIONAL INFORMATION.	
			REFER TO 2/T401 FOR CABLING REQUIREMENTS.	
	16	<u>IC-IS-1</u>	DOOR INTERCOM STATION, FLUSH WALL MOUNTED, VANDAL RESISTANT. INSTALL IN MANUFACTURER'S MATCHING ACCESSORY WITH 3/4" EMT CONDUIT STUBBED TO NON-CONTINUOUS CABLE SUPPORT ROUTE ABOVE NEAREST ACCESSIBLE CEILING. REFER TO SUGGESTED MATRIX OF SCOPE RESPONSIBILITY ON DRAWING T000 FOR ADDITIONAL INFORMATION. FURNISH AND INSTALL ONE (1) CAT 6 CABLE AND TERMINATE WITH RJ-45 PLUG. REFER TO 2/T000 FOR CABLING REQUIREMENTS.	
5	17	<u>AC-PB-1</u>	ACCESS CONTROL PUSH BUTTON DOOR RELEASE, WALL MOUNT. SPST, HARD-WIRE, MOMENTARY. INSTALL IN A 4" SINGLE 2-1/8" DEEP BACKBOX WITH A SINGLE GANG PLASTER RING AND 3/4" CONDUIT STUBBED TO NON-CONTINUOUS CABLE SUPPORT ROUTE ABOVE NEAREST ACCESSIBLE CEILING (MINIMUM 6" BEYOND BOX). REFER TO SUGGESTED MATRIX OF SCOPE RESPONSIBILITY DRAWING ON T000 FOR ADDITIONAL INFORMATION.	
5	18	<u>AV-MON-1</u>	VIDEO DISPLAY. 80" DIAGONAL LED VIDEO DISPLAY. 16:9 FORMAT, 1920X1080 RESOLUTION WITH HDMI (3) INPUTS AND (1) VGA INPUT MINIMUM. PROVIDE AND INSTALL WITH WALL MOUNT. REFER TO SPECIFICATION FOR ADDITIONAL INFORMATION.	
	19	AV-CD-1	AUDIO VIDEO POLYCOM CODEC. PROVIDED BY OWNER, INSTALLED BY CONTRACTOR. FIELD COORDINATE LOCATION IN CONFERENCE ROOM, MOUNT IN CASEWORK IF POSSIBLE.	
	20	AV-CAM-1	AUDIO VIDEO CAMERA (POLYCOM). PROVIDED BY OWNER, INSTALLED BY CONTRACTOR. FIELD COORDINATE LOCATION IN CONFERENCE ROOM, MOUNT ON CASEWORK FACING TABLES.	
	21	AV-SP-1	AUDIO VIDEO RECESSED CEILING SPEAKER TYPE 1, 70 VOLT, 8 INCH DIAMETER, BY CONTRACTOR, SEE SPECIFICATION FOR ADDITIONAL INFORMATION.	
	22	<u>AV-MP-1</u>	AUDIO VIDEO RECESSED CEILING MICROPHONE TYPE , BY OWNER.	
	23	AV-AMP-1	AUDIO AMPLIFIER, BY CONTRACTOR. MOUNT IN CASEWORK, SEE 6/A403 FOR LOCATION. REFER TO SPECIFICATION FOR ADDITIONAL INFORMATION.	

13

14

15

16

11

9

10

	CEDAR RAPIDS DES MOINES MADISON
	OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com
	All reports, plans, specifications, computer file field data, notes and other documents and instruments prepared by OPN Architects, Inc. instruments of service shall remain the proper OPN Architects, Inc. OPN Architects, Inc. sha retain all common law, statutory and other reserved rights, including the copyright thereto © 2016 OPN Architects, Inc.
	Owner MADISON PUBLIC LIBRARY
	201 W Mifflin St Madison, WI 53703
	Project Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713
	General Contractor
	Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 D. 608 939 0444
	P. 608.838.0444 STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
	MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 ELECTRICAL ENGINEER
	KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
	Key Plan
	Sheet Issue Date Bid Set 12/09/2016
	Previous Issue Dates
KJENGINEERING1800 DEMING WAY SUITE 200 MIDDLETON, WISCONSIN 53562 608.223.9600 FAX: 608.836.0415 www.kjww.com PROJECT # 16.0141.00WWWBuilt SMARTER.PROJECT # 16.0141.00	GENERAL TECHNOLOGY EQUIPMENT SCHEDULE
KJWW ENGINEERING RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, TO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF KJWW ENGINEERING AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF KJWW ENGINEERING. © 2016 KJWW CORP. REFERENCE SCALE IN INCHES	OPN Project No. 15617000

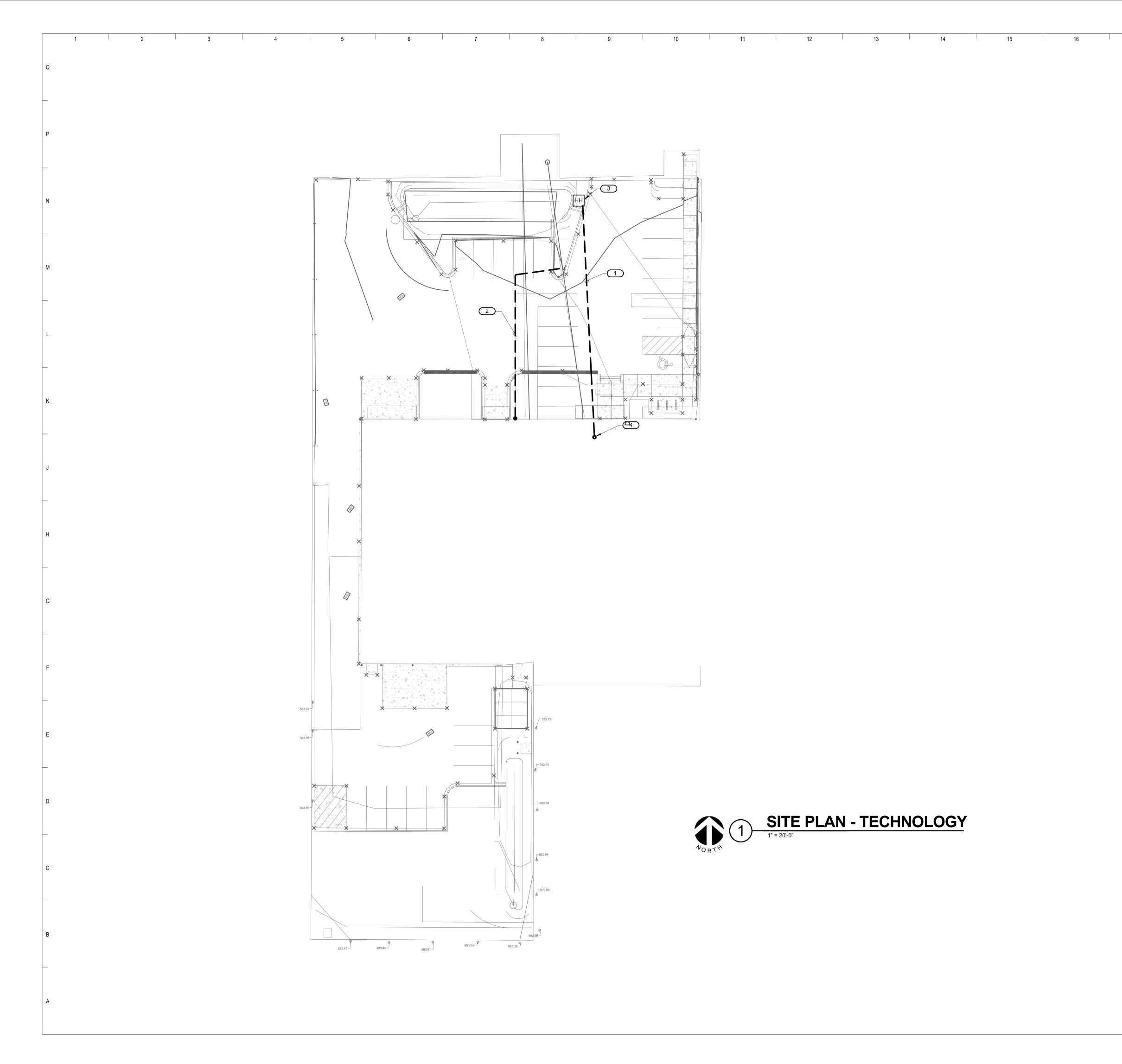
20

21

17

18

19



17	18	19	20	21

KEYNOTES: #

. CONTRACTOR TO ROUTE (1) 3" UNDERGROUND HDPE CONDUIT FROM NEW HAND HOLE TO FRONT OF BUILDING. DEPTH

OF CONDUIT SHOULD BE A MINIMUM OF 30" TO ALLOW FOR RECOMMENDED BEND RADIUS AND TO BE BELOW FROST LINE.

CONTRACTOR TO ROUTE (1) 1" GALVANIZED RIGID CONDUIT UNDERGROUND FROM THE

CONDUIT AND CABLING BEING PROVIDED

AND INSTALLED BY CONTRACTOR. FOR

SURVEILLANCE CAMERA TO THE LIGHT POLE IN THIS APPROXIMATE LOCATION. COORDINATE WITH ELECTRICAL

CONTRACTOR AND ROUTE THIS CONDUIT ALONG SIDE CONDUIT FEEDING LIGHT FIXTURE AT POLE.

CONTRACTOR TO PROVIDE NEW HANDHOLE FOR CONNECTION OF NEW OPTICAL FIBER

CABLE (12 STRAND OS2 SINGLE MODE)

APPROXIMATE LOCATION WHERE (1) 3" CONDUIT SHOULD BEND UP AND INTO

BUILDING IN THE PRINT OFFICE AS

INDICATED ON SHEET T101.1.

CONTINUATION SEE SHEET T101.1.

BUILDING FOR FUTURE VIDEO

NOTED IN 1 ABOVE.



OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

Owner MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

General Contractor

Project Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713

CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

Consultants

- STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Bid Set 12/09/2016

Previous Issue Dates

Revision Dates

_____ ____ ____

^{Drawing} SITE PLAN -TECHNOLOGY



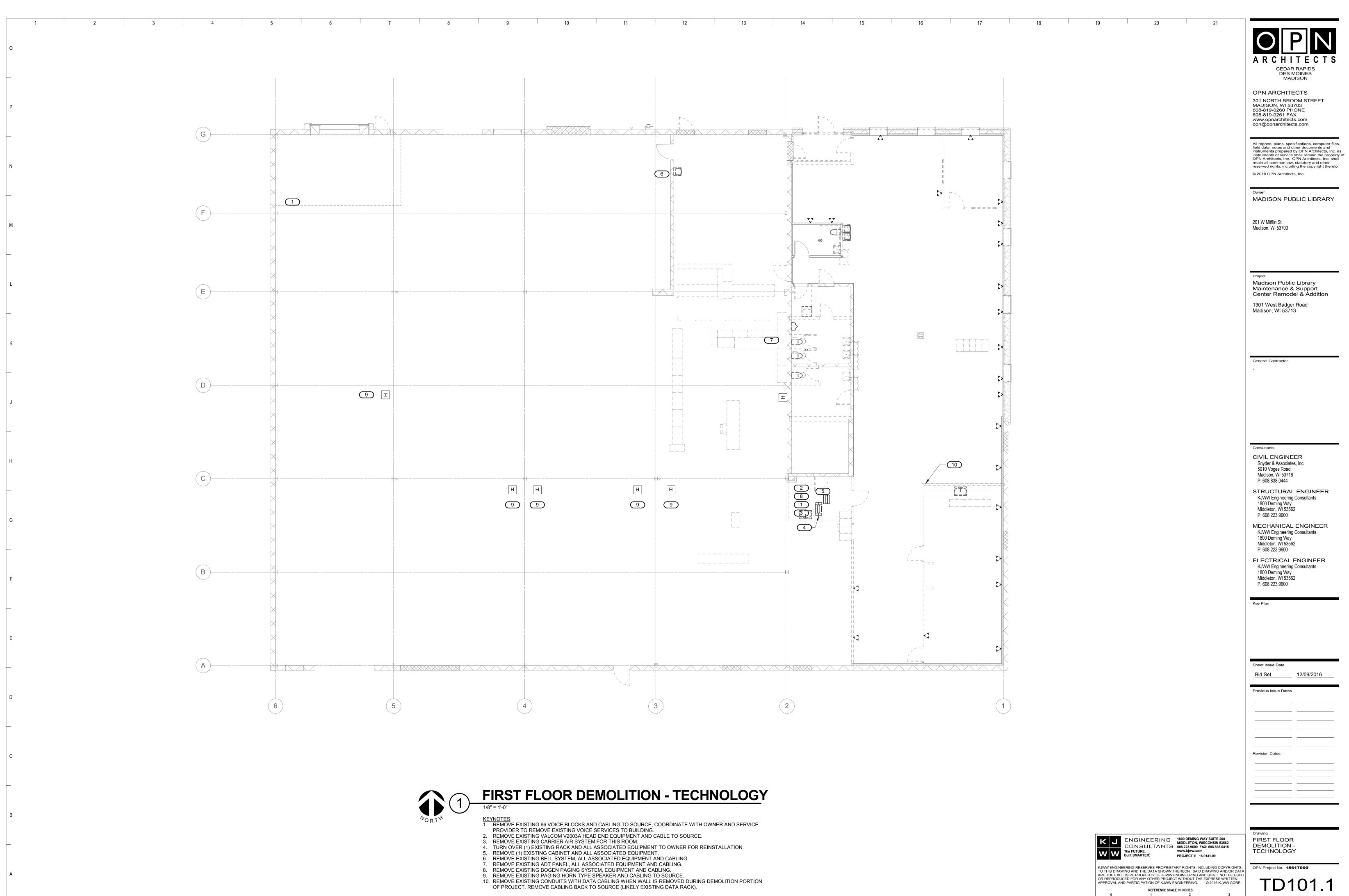
0

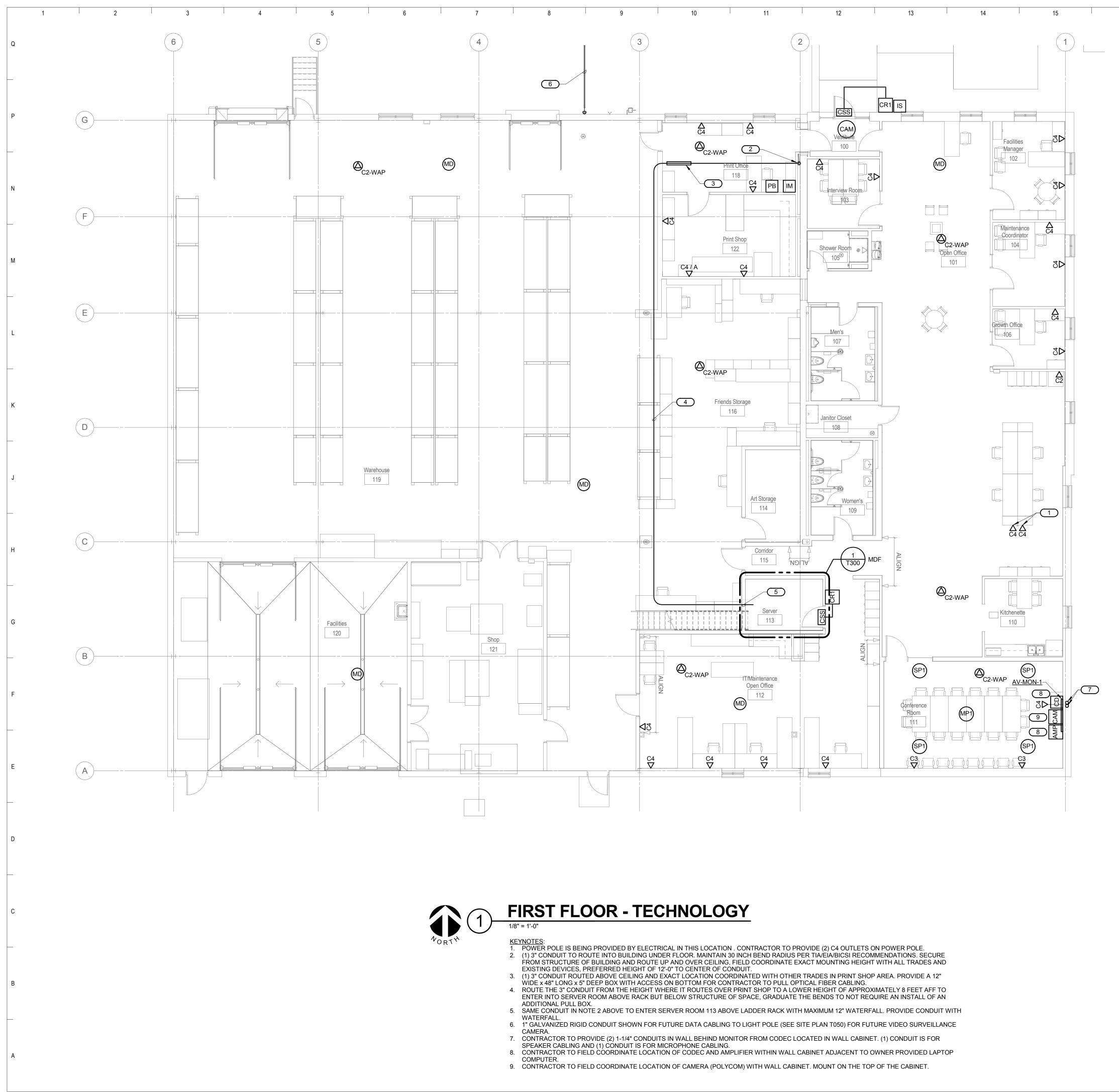
REFERENCE SCALE IN INCHES

2

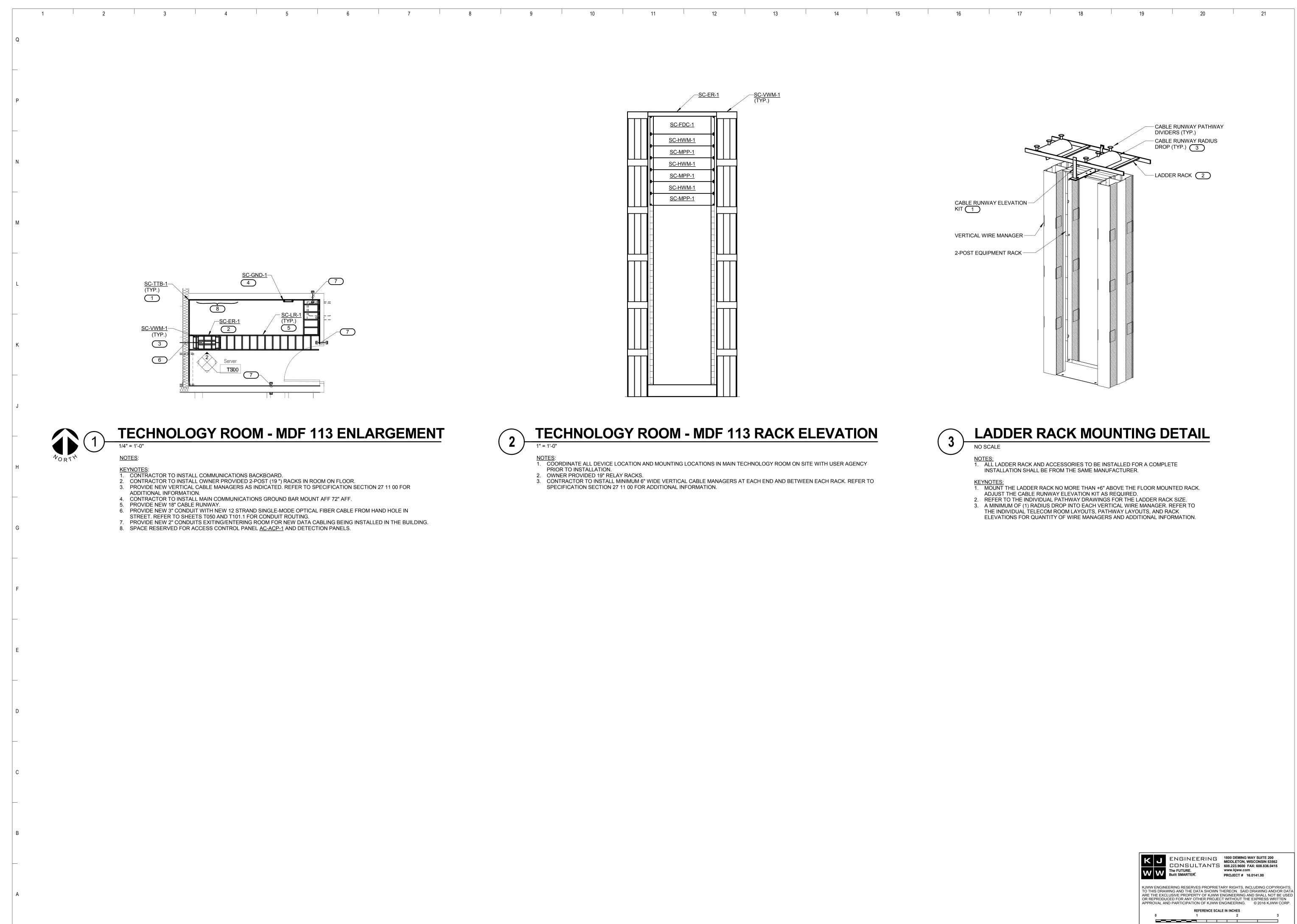
ING COPYRIGHTS, VING AND/OR DATA HALL NOT BE USED







17		18	19		20		21	
								A R C H I T E C T S CEDAR RAPIDS DES MOINES MADISON
								OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com
								All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.
								Owner MADISON PUBLIC LIBRARY
								201 W Mifflin St Madison, WI 53703
								Project Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713
								General Contractor
								Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444 STRUCTURAL ENGINEER
								KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562
		Mechan Mezzan 201	ine					P. 608.223.9600 ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
		©						Key Plan
	3			2				Sheet Issue Date Bid Set 12/09/2016 Previous Issue Dates
$\mathbf{\hat{R}}(2)$		ANINE	- TECH	INOL	OGY			Revision Dates
ORTH		ET FOR DDC PANE EFORE ROUGHIN						
			K W V		LTANTS 60	000 DEMING WAY S IDDLETON, WISCO 88.223.9600 FAX: 6 ww.kjww.com ROJECT # 16.014	NSIN 53562 08.836.0415	Drawing FIRST FLOOR - TECHNOLOGY
			TO THIS D ARE THE I OR REPRO	EXCLUSIVE PROPER ODUCED FOR ANY C L AND PARTICIPATIO	OATA SHOWN THEI RTY OF KJWW ENG OTHER PROJECT W	REON. SAID DRA GINEERING AND S VITHOUT THE EXF INEERING. ©	WING AND/OR DATA	OPN Project No. 15617000 T101.1





OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

General Contractor

Owner

Project

Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713

Consultants **CIVIL ENGINEER** Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

- STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date

Bid Set 12/09/2016

_____ _____ _____

Previous Issue Dates

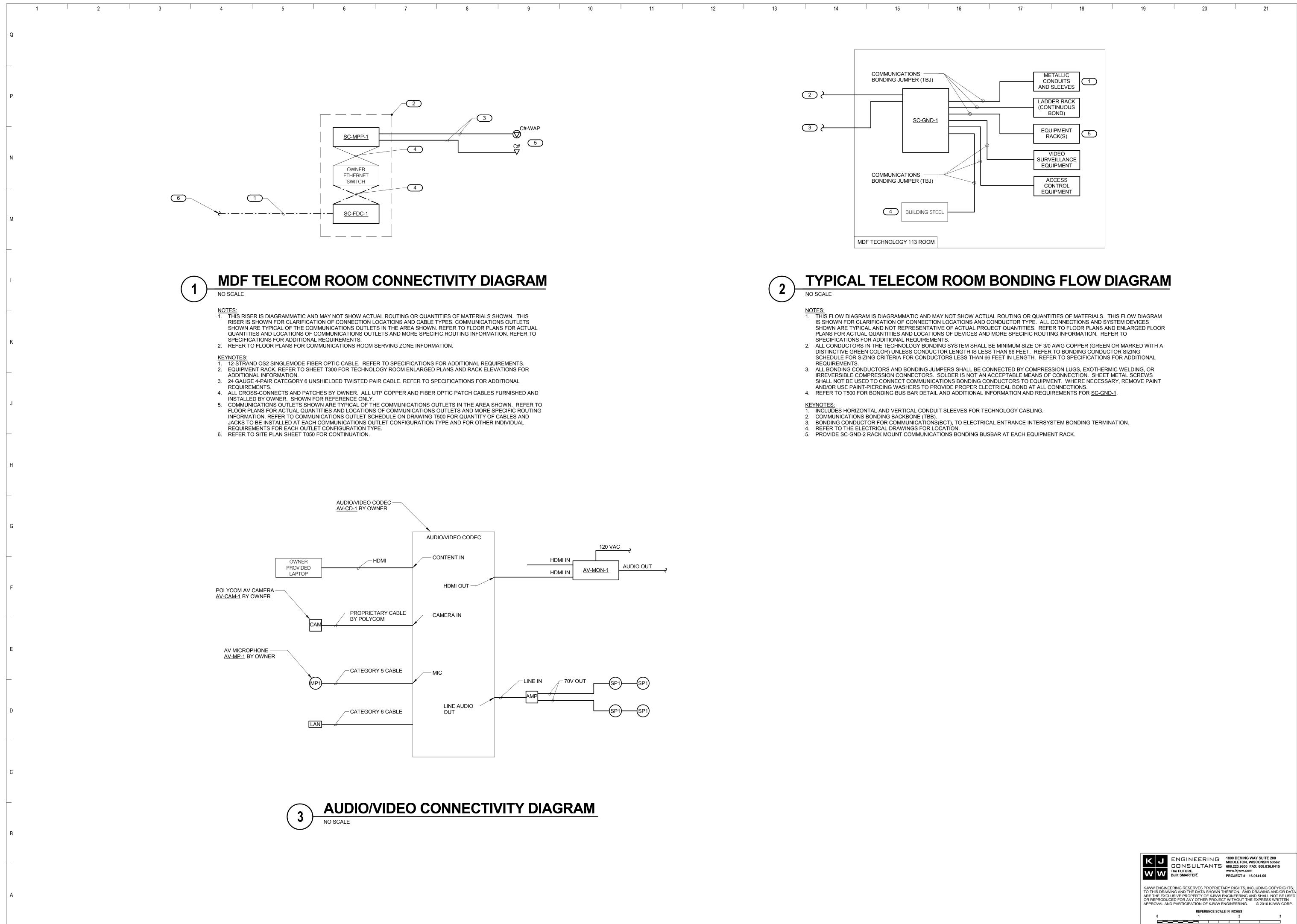
_____ Revision Dates

____ _____

Drawing ENLARGED PLANS – TECHNOLOGY

3

OPN Project No.	15617000
	T300



CEDAR RAPIDS DES MOINES MADISON

OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

Owner MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

Project Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road

Madison, WI 53713

General Contractor

Consultants **CIVIL ENGINEER** Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

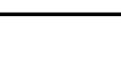
Sheet Issue Date Bid Set

Previous Issue Dates

12/09/2016

Revision Dates

Drawing



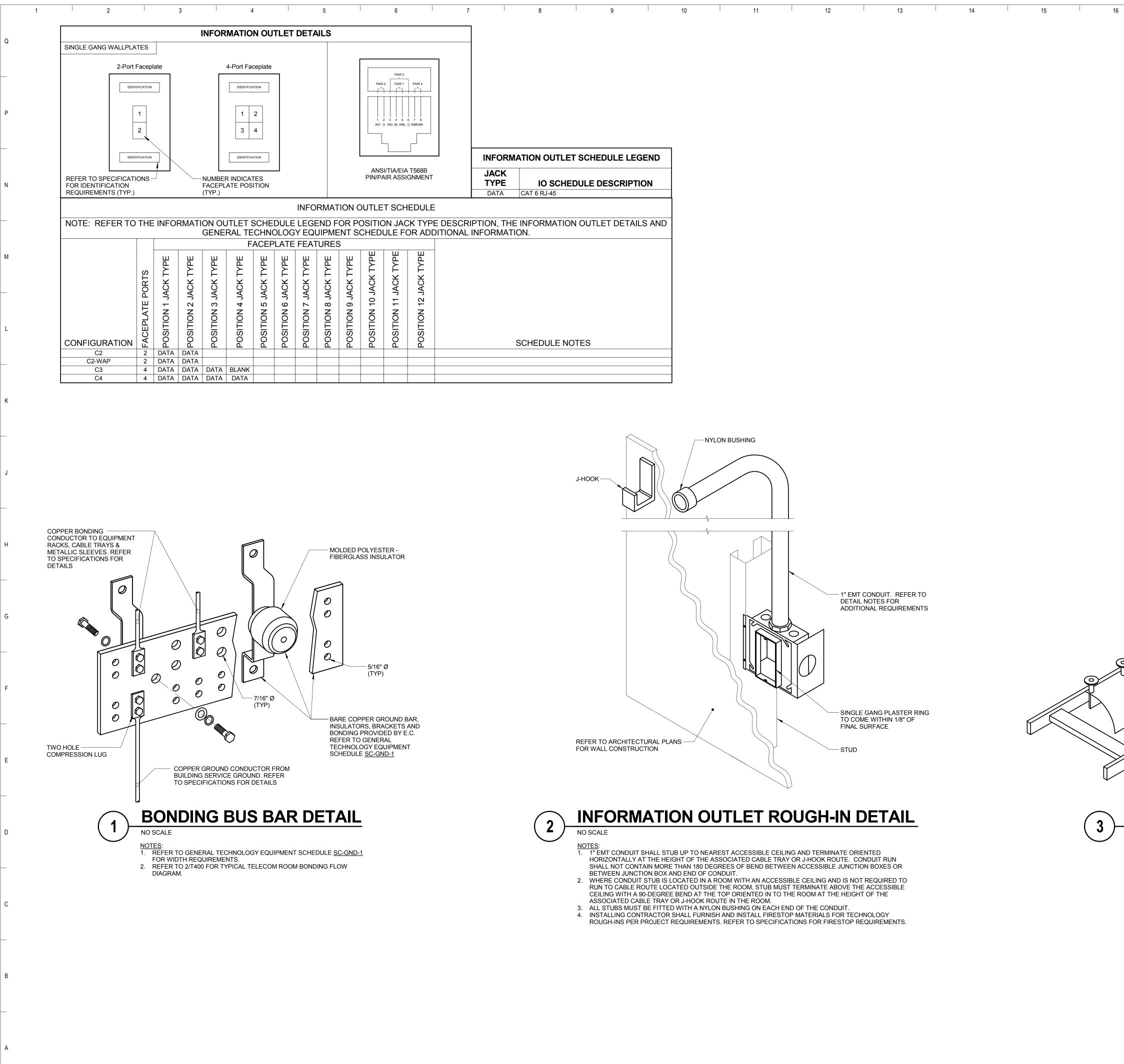
RISER DIAGRAMS -TECHNOLOGY

PROJECT # 16.0141.00

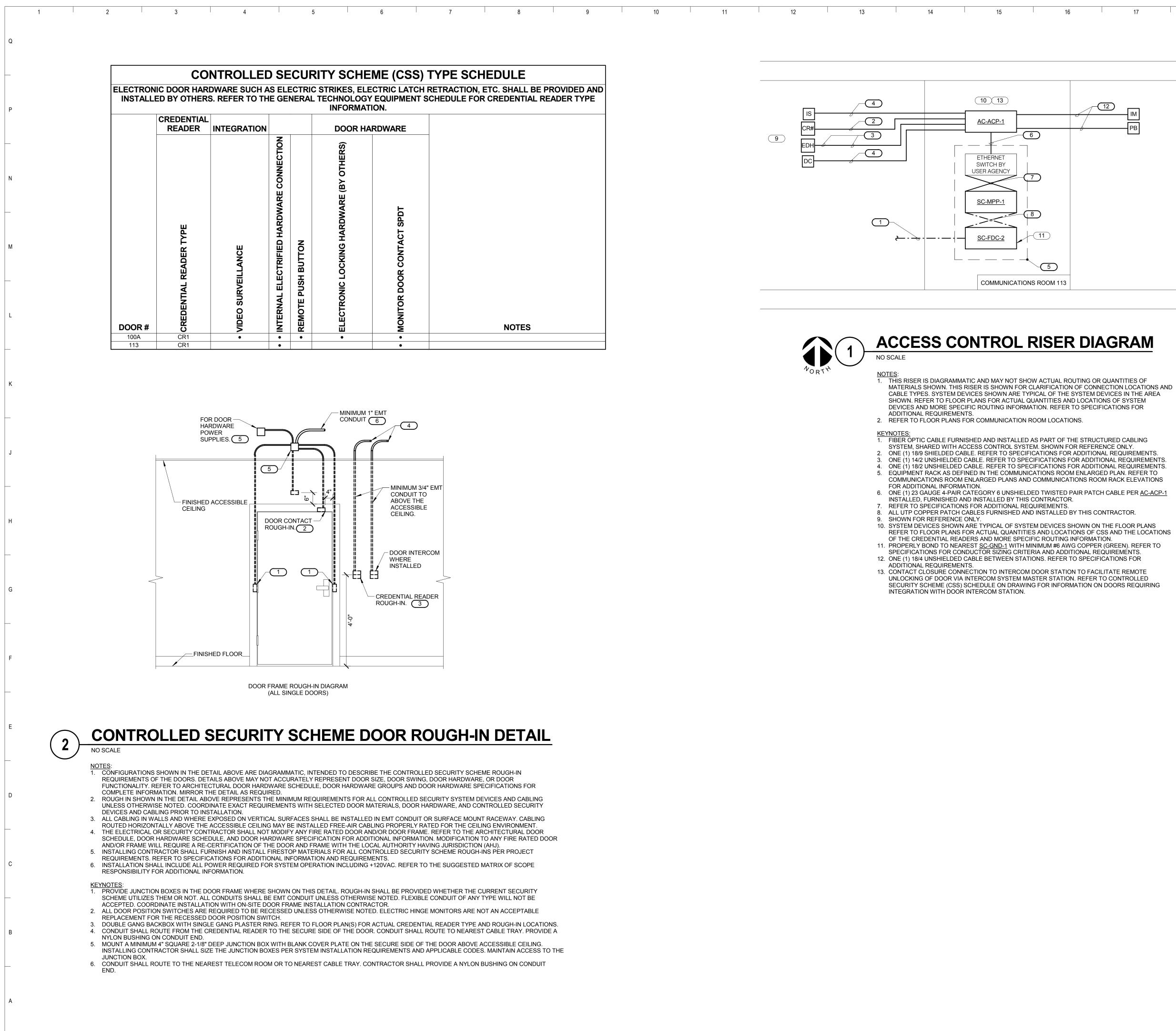
ARE THE EXCLUSIVE PROPERTY OF K-IWW ENGINEERING AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN PPROVAL AND PARTICIPATION OF KJWW ENGINEERING. © 2016 KJWW CORP.

OPN Project No.	15617000
	T400





6	17	18	19	20	21	ARCHITECTS CEDAR RAPIDS DES MOINES MADISON
						OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com
						All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.
						^{Owner} MADISON PUBLIC LIBRARY
						201 W Mifflin St Madison, WI 53703
						Project Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713
						General Contractor
		ER RACK			5	Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444 CTRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 CIECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600 CIECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
		IWAY RA	DIUS DRO	P		Sheet Issue Date <u>Bid Set 12/09/2016</u>
NO SCALE				<u> </u>		Previous Issue Dates
						Revision Dates
				CONSULTANTS	1800 DEMING WAY SUITE 200 MIDDLETON, WISCONSIN 53562 608.223.9600 FAX: 608.836.0415 www.kjww.com PROJECT # 16.0141.00	Drawing DETAILS AND SCHEDULES -TECHNOLOGY
			ARE THE EXCLUS OR REPRODUCE APPROVAL AND I	SIVE PROPERTY OF KJWW EN		



17	18	19	20	21



OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

General Contractor

Proiect Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713

-(12)

-I IM

Consultants **CIVIL ENGINEER** Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

- STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date Bid Set

12/09/2016

Previous Issue Dates

Revision Dates

Drawing

DETAILS AND

SCHEDULES

-TECHNOLOGY

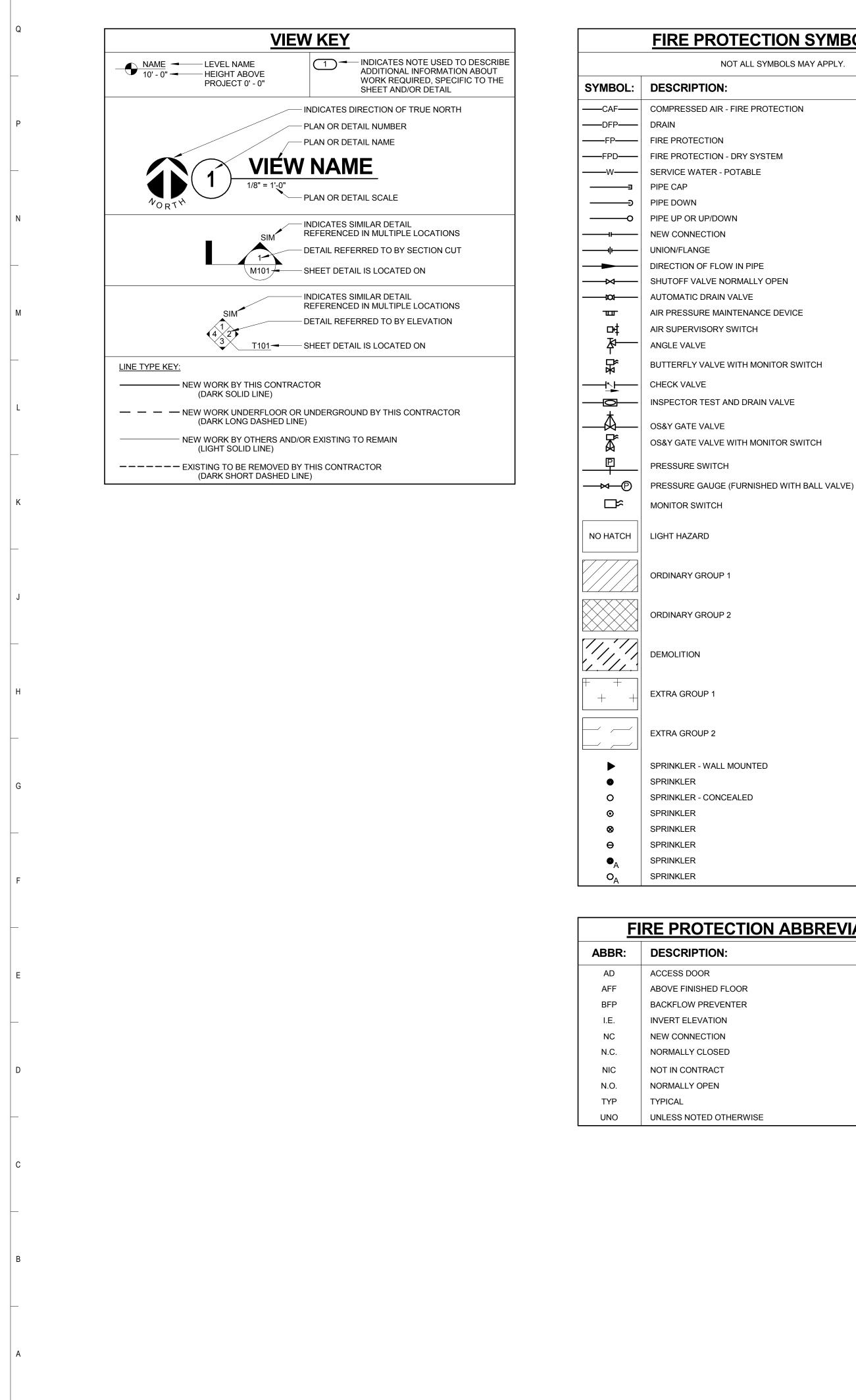
OPN Project No. 15617000

NGINEERING DNSULTANTS FUTURE. It SMARTER.	1800 DEMING WAY SUITE 200 MIDDLETON, WISCONSIN 53562 608.223.9600 FAX: 608.836.0419 www.kjww.com PROJECT # 16.0141.00

, WISCONSIN 53562 FAX: 608.836.0415 16.0141.00

XJWW ENGINEERING RESERVES PROPRIETARY RIGHTS, INCLUDING COPYRIGHTS, IO THIS DRAWING AND THE DATA SHOWN THEREON. SAID DRAWING AND/OR DATA ARE THE EXCLUSIVE PROPERTY OF KJWW ENGINEERING AND SHALL NOT BE USED OR REPRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN PPROVAL AND PARTICIPATION OF KJWW ENGINEERING. © 2016 KJWW CORP. REFERENCE SCALE IN INCHES

Т	50	1
	JU	



3

4

5

6

7

8	9	10	11	12	13	14	15	16

PROTECTION SYMBOL LIST	MECHANICAL RENOVATION NOTES: THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED
NOT ALL SYMBOLS MAY APPLY.	TO, FIRE PROTECTION, PLUMBING, VENTILATION, PIPING AND TEMPERATURE CONTROL. 1. EXISTING CONDITIONS ARE SHOWN BASED ON INFORMATION OBTAINED FROM FIELD
IPTION:	SURVEYS, EXISTING BUILDING DOCUMENTS, AND STAFF. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS BEFORE PROCEEDING.
SSED AIR - FIRE PROTECTION	 NOT ALL EXISTING DUCTWORK AND PIPING IS SHOWN. VERIFY EXISTING CONDITIONS BEFORE STARTING WORK. NOTIFY ENGINEER OF ANY CONFLICTS WITH NEW WORK. FIELD VERIFY THE AVAILABLE CLEARANCES FOR DUCTWORK AND PIPING BEFORE FABRICATION. RISES AND DROPS MAY BE NECESSARY BECAUSE OF EXISTING FIELD
TECTION	CONDITIONS. 4. EACH CONTRACTOR SHALL FIELD VERIFY ACCESSIBILITY TO THE AREA OF HIS WORK AND
TECTION - DRY SYSTEM	SHALL NOTIFY THE GENERAL CONTRACTOR PRIOR TO BIDDING IF OTHER UTILITIES ARE
WATER - POTABLE	 REQUIRED TO BE REMOVED OR RELOCATED TO ALLOW ACCESS TO HIS AREA OF WORK. 5. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CUTTING, REMOVAL AND PATCHING OF ROOFS, WALLS, AND FLOORS ASSOCIATED WITH WORK BY ALL CONTRACTORS.
VN	 CONTRACTORS SHALL NOTIFY THE GC OF AFFECTED AREAS PRIOR TO BIDDING. 6. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF
DR UP/DOWN	CEILINGS, CEILING TILES, AND CEILING GRIDS ASSOCIATED WITH AREAS OF WORK BY ALL CONTRACTORS. NOTIFY THE GENERAL CONTRACTOR OF AFFECTED AREAS PRIOR TO BIDDING.
INECTION	 WHERE EXISTING MECHANICAL SYSTEMS ARE LOCATED IN AREAS THAT CONFLICT WITH NEW EQUIPMENT, PIPING, OR DUCTWORK TO BE INSTALLED, EACH CONTRACTOR SHALL EITHER
ANGE	ARRANGE NEW EQUIPMENT, PIPING, OR DUCTWORK IN SUCH A FASHION THAT IT DOES NOT CONFLICT WITH EXISTING SYSTEMS, OR REWORK EXISTING MECHANICAL SYSTEMS TO ALLOW
IN OF FLOW IN PIPE	FOR INSTALLATION OF NEW EQUIPMENT, PIPING, OR DUCTWORK.
VALVE NORMALLY OPEN	 DISCONNECT AND REMOVE MECHANICAL DEVICES AND EQUIPMENT SERVING EQUIPMENT THAT HAS BEEN REMOVED.
FIC DRAIN VALVE	
SURE MAINTENANCE DEVICE	
RVISORY SWITCH	FIRE HYDRANT FLOW TEST DATA
ALVE	TEST DATE: 06/16/2015
LY VALVE WITH MONITOR SWITCH	HYDRANT ELEVATION: 882'-0"
ALVE	LOCATION: 1501 BADGER ROAD STATIC PRESSURE: 75 PSI
OR TEST AND DRAIN VALVE	RESIDUAL PRESSURE: 63 PSI
TE VALVE	TOTAL FLOW: 1210 GPM

CONTRACTOR ABBREVIATION KEY				
ABBR:	DESCRIPTION:			
C.C.	CIVIL CONTRACTOR			
C.M.	CONSTRUCTION MANAGER			
E.C.	ELECTRICAL CONTRACTOR			
F.P.C.	FIRE PROTECTION CONTRACTOR			
G.C.	GENERAL CONTRACTOR			
M.C.	MECHANICAL CONTRACTOR			
P.C.	PLUMBING CONTRACTOR			
T.C.	TECHNOLOGY CONTRACTOR			

FIRE PROTECTION SHEET INDEX			
Sheet Number	Sheet Name		
F000	FIRE PROTECTION COVER SHEET		
FD101.1	FIRST FLOOR DEMOLITION - FIRE PROTECTION		
F101.1	FIRST FLOOR - FIRE PROTECTION		
F200	FIRE PROTECTION DETAILS AND SCHEDULES		

FIRE PROTECTION ABBREVIATION KEY

UNLESS NOTED OTHERWISE

17 18 19 20 21

FIRE PROTECTION GENERAL NOTES:

- 1. THE SYMBOLS AND THE MATERIAL LIST ARE FOR THE CONVENIENCE OF THE CONTRACTOR. CONTRACTOR SHALL VERIFY QUANTITIES AND FURNISH ALL MATERIALS REQUIRED FOR FULLY
- OPERATIONAL SYSTEMS, WHETHER SPECIFIED OR NOT. 2. CATALOG NUMBERS SHALL NOT BE CONSIDERED COMPLETE, BUT ARE GIVEN AS AN AID TO THE CONTRACTOR AND TO INDICATE THE QUALITY REQUIRED. CONTRACTOR IS RESPONSIBLE FOR COMPLETE DESCRIPTION OF MATERIAL ON THESE DRAWINGS AND IN THE SPECIFICATIONS
- BEFORE ORDERING. THE DESCRIPTION OF THE MATERIAL TAKES PRECEDENCE OVER THE CATALOG NUMBER. THE FIRST MANUFACTURER IS THE BASIS OF DESIGN. 3. FIRE PROTECTION PIPE ROUTING IS SHOWN FOR GENERAL LAYOUT. DETERMINE EXACT
- NUMBER OF SPRINKLERS, PIPE SIZING, AND PIPE ROUTING. 4. CENTER SPRINKLERS IN CEILING TILES IN BOTH DIRECTIONS IN ALL AREAS. IN AREAS WITH 2'X4' CEILING TILES CENTERING USING A 2'X2' CEILING PATTERN IS ACCEPTABLE.
- 5. NEW SPRINKLERS SHALL BE QUICK RESPONSE TYPE, UNLESS OTHERWISE NOTED. CONTRACTOR SHALL NOT MIX STANDARD RESPONSE SPRINKLERS WITH QUICK RESPONSE SPRINKLERS IN UNPARTITIONED SPACES.

MECHANICAL GENERAL NOTES:

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES. INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, VENTILATION, PIPING AND TEMPERATURE CONTROL.

- 1. DRAWINGS SHOWING LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING, ETC. ARE DIAGRAMMATIC AND MAY NOT ALWAYS REFLECT EXACT INSTALLATION CONDITIONS. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF DUCTWORK, PIPING, EQUIPMENT, ETC., AND MAY NOT INCLUDE ALL OFFSETS AND FITTINGS REQUIRED FOR COMPLETE INSTALLATION. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION AND THE WORK OF OTHERS WILL PERMIT
- 2. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS AND CLEARANCES FROM ARCHITECTURAL, STRUCTURAL, SUBMITTALS, AND OTHER APPROPRIATE DRAWINGS OR PHYSICALLY AT SITE. REVIEW ALL DRAWINGS, INCLUDING THOSE OF OTHER TRADES.
- 3. COORDINATE ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION TO PROVIDE CLEARANCES REQUIRED FOR OPERATION, MAINTENANCE, CODE COMPLIANCE, AND TO VERIFY NON-INTERFERENCE WITH OTHER WORK. DO NOT FABRICATE PRIOR TO VERIFICATION OF NECESSARY CLEARANCES FOR ALL TRADES. BRING ANY INTERFERENCES OR CONFLICTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH FABRICATION OR EQUIPMENT ORDERS.
- 4. REVIEW SPACE REQUIREMENTS OF EQUIPMENT SPECIFIED OR SUBSTITUTED AND MAKE REASONABLE ACCOMMODATIONS IN LAYOUT AND POSITIONING TO PROVIDE PROPER ACCESS. 5. ANY CHANGES REQUIRED TO ELIMINATE CONFLICTS OR THAT RESULT FROM A FAILURE TO COORDINATE SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COST OR EXPENSE
- TO OTHERS. 6. EACH CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ELECTRICAL CHANGES REQUIRED FOR EQUIPMENT PROPOSED THAT DIFFERS FROM THE BASIS OF DESIGN.
- 7. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN, ELECTRICAL, TECHNOLOGY AUDIO/VISUAL, AND OTHER MECHANICAL PLANS FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES, OTHER THAN SPRINKLERS. 8. EACH CONTRACTOR IS RESPONSIBLE FOR DAMAGE CAUSED BY THEIR ACTIONS TO WALLS,
- FLOORS, CEILINGS, AND ROOFS. THE CONTRACTOR WHOSE WORK CAUSES DAMAGE IS RESPONSIBLE FOR PATCHING TO MATCH ORIGINAL CONSTRUCTION, FIRE RATING, AND FINISH. 9. IN AREAS WITH DRYWALL CEILINGS COORDINATE LOCATIONS OF ACCESS PANELS WITH THE GC
- FOR ACCESS TO VALVES, DUCTWORK ACCESSORIES, DAMPERS, ETC. COORDINATE PANEL TYPE AND COLOR WITH ARCHITECT. NOTIFY THE GC OF THE REQUIRED ACCESS PANELS PRIOR TO BIDDING
- 10. SEAL ALL FLOOR, WALL, AND ROOF PENETRATIONS AIRTIGHT WHERE CONDUITS, PIPING, AND DUCTS PENETRATE. PENETRATIONS THROUGH EXTERIOR WALLS AND ROOF SHALL BE SEALED AIRTIGHT WITH WATERPROOFING MATERIALS RECOMMENDED BY MANUFACTURER FOR OUTDOOR USE.
- 11. CAULK ALL PIPE AND DUCT PENETRATIONS OF FULL HEIGHT NON-FIRE RATED WALL, PARTITION, FLOOR, AND ROOF ASSEMBLIES. THIS IS ESSENTIAL TO PREVENT NOISE TRANSMISSION FROM ONE ROOM TO ANOTHER AND TO PROVIDE THE DESIRED NC LEVELS WITHIN ROOMS. 12. WHERE PIPES AND DUCTS ARE SHOWN TO PENETRATE FLOORS. PROVIDE SLEEVED OPENINGS
- WITH THE TOP EDGE RAISED ABOVE FLOOR SURFACE IN ACCORDANCE WITH ALL RELEVANT SPEC SECTIONS. SEAL SLEEVE PERIMETER TO BE WATERTIGHT. 13. EQUIPMENT SIZES AND SERVICE CLEARANCE REQUIREMENTS VARY BETWEEN DIFFERENT MANUFACTURERS. CONSULT APPROVED SHOP DRAWINGS FOR EQUIPMENT SIZES AND
- REQUIRED SERVICE CLEARANCES. COORDINATE WITH LAYOUT OF EQUIPMENT PADS, PIPING, DUCTWORK, ETC. 14. DO NOT BLOCK TUBE PULL OR EQUIPMENT SERVICE CLEARANCES.
- 15. MAINTAIN MINIMUM 3'-6" CLEARANCE IN FRONT OF ALL ELECTRICAL PANELS, MOTOR STARTERS, SWITCHES, AND DISCONNECTS. 16. PROVIDE CONCRETE EQUIPMENT PAD FOR ALL FLOOR MOUNTED EQUIPMENT. PAD SHALL
- EXTEND MINIMUM 6" BEYOND ALL SIDES OF EQUIPMENT. 17. DO NOT SUPPORT EQUIPMENT, PIPING, OR DUCTWORK FROM METAL DECKING OR OTHER NON-STRUCTURAL BUILDING ELEMENTS. ANCHORS EMBEDDED IN CONCRETE SHALL BE CRACKED CONCRETE APPROVED IN ACCORDANCE WITH SPECIFICATIONS.



OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

General Contractor

Owner

Proiect Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713

Consultants **CIVIL ENGINEER** Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

- STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date Bid Set

Previous Issue Dates

12/09/2016

Revision Dates

Drawing

© 2016 KJWW CORP.

< ۷	U W	ENGINEERING CONSULTANTS The FUTURE. Built SMARTER.	1800 DEMING WAY SUITE 200 MIDDLETON, WISCONSIN 53562 608.223.9600 FAX: 608.836.0415 www.kjww.com PROJECT # 16.0141.00	
			ARY RIGHTS, INCLUDING COPYRI HEREON. SAID DRAWING AND/O	
			NGINEERING AND SHALL NOT BI	
PRC	OVAL AN	ND PARTICIPATION OF KJWW EI	NGINEERING. © 2016 KJWW (CORP.

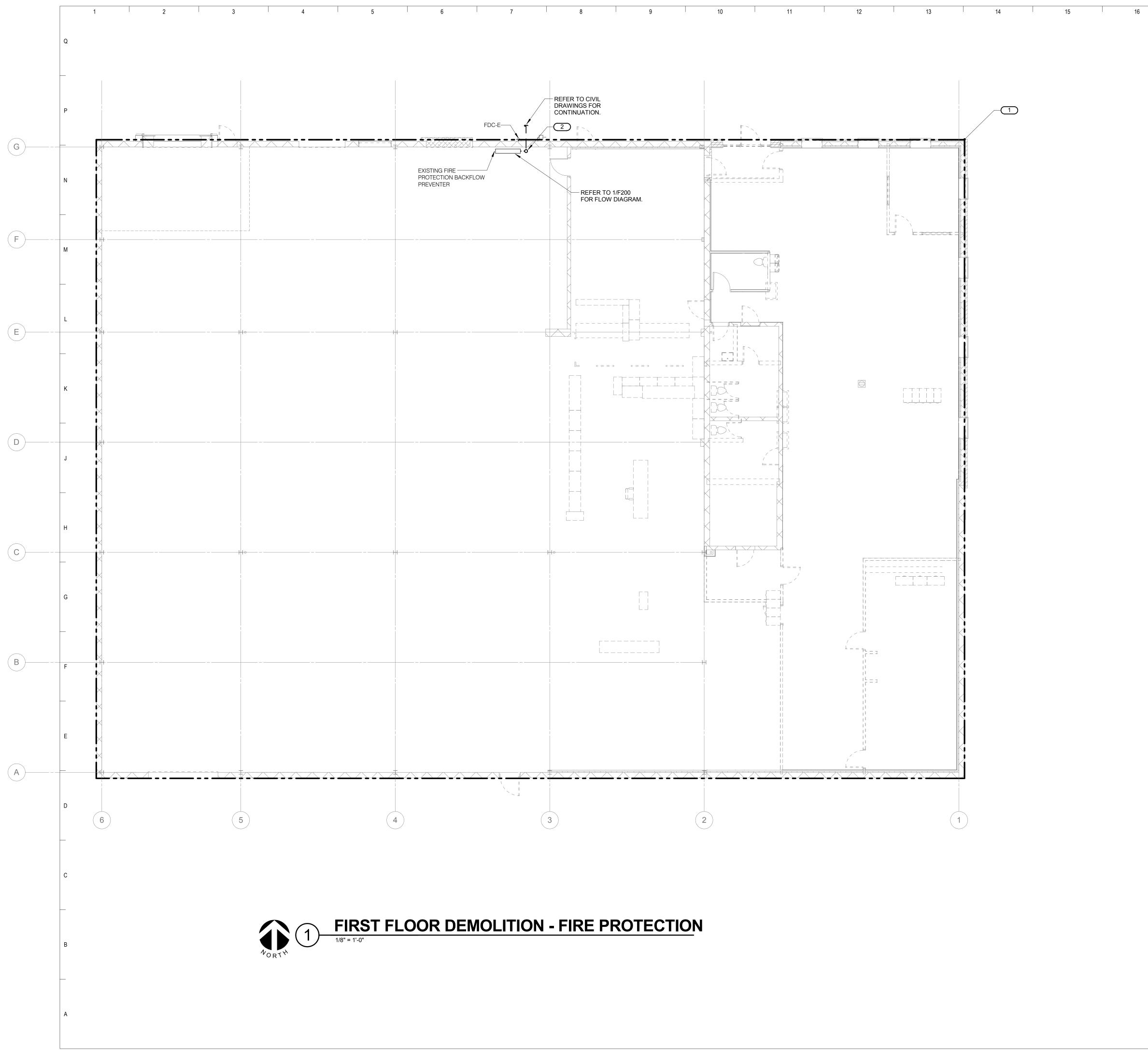
REFERENCE SCALE IN INCHES

OPN Project No. 15617000

FIRE PROTECTION

COVER SHEET

F000



17	18	19	20	21

KEY NOTES :

- REMOVE EXISTING SPRINKLERS AND BRANCH PIPING AS REQUIRED FOR THE RENOVATED SPACES. PREPARE FOR INSTALLATION OF NEW SPRINKLERS FOR NEW BUILDING LAYOUT. EXISTING FIRE PROTECTION SERVICE AND FIRE DEPARTMENT CONNECTION TO REMAIN. REFER TO F101.1 FOR NEW ROOM CONFIGURATION.
- EXISTING WATER SERVICE TO BE REPLACED. REMOVE INCOMING SERVICE PIPING NEAR FLOOR LEVEL AND PREPARE FOR CONNECTION FROM NEW INCOMING SERVICE LINE TO EXISTING FIRE PROTECTION SERVICE.



OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

Owner MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

Project

General Contractor

Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713

Consultants CIVIL ENGINEER Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718 P. 608.838.0444

- STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600
- ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date Bid Set 12/09/2016

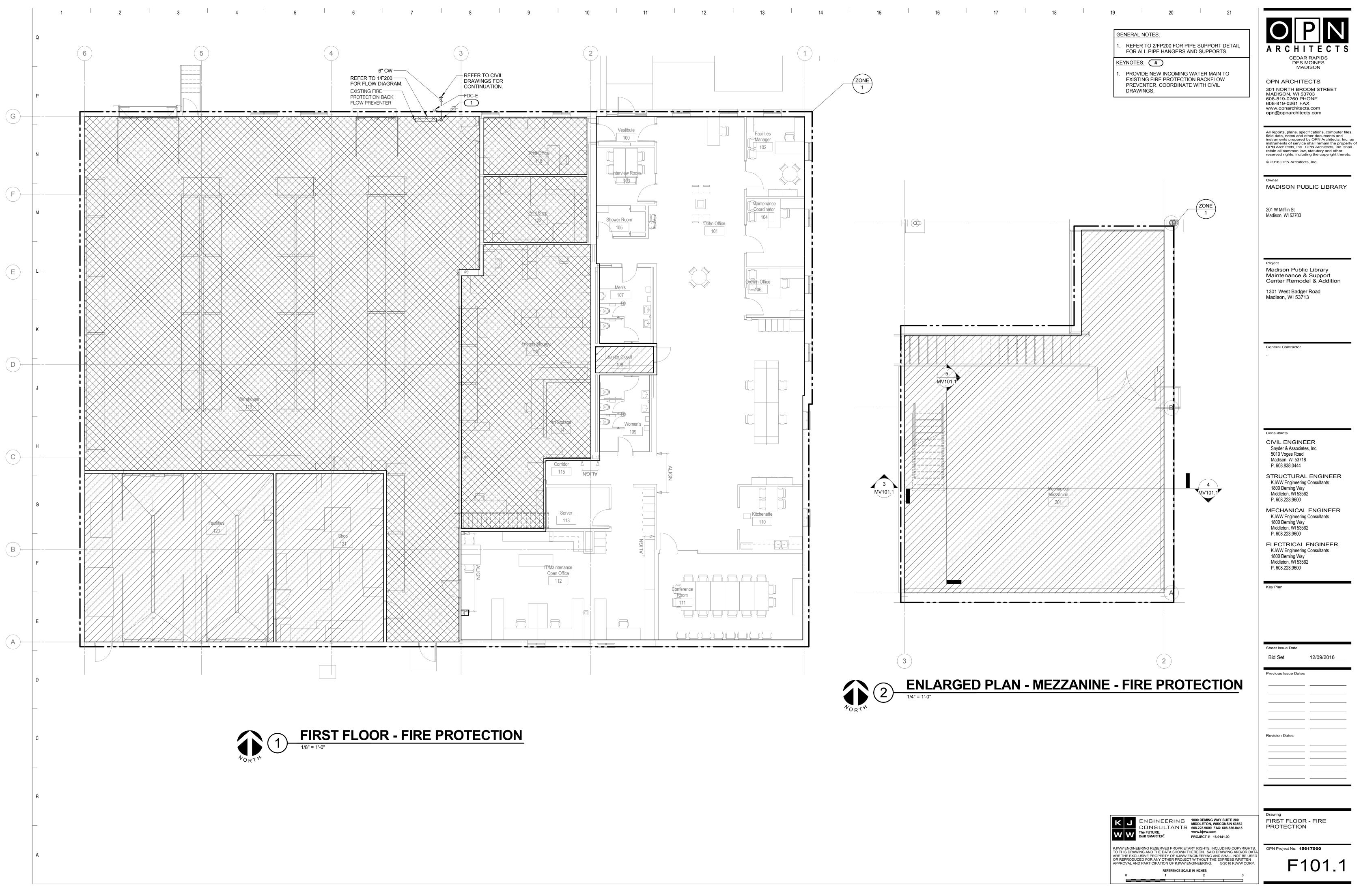
Previous Issue Dates

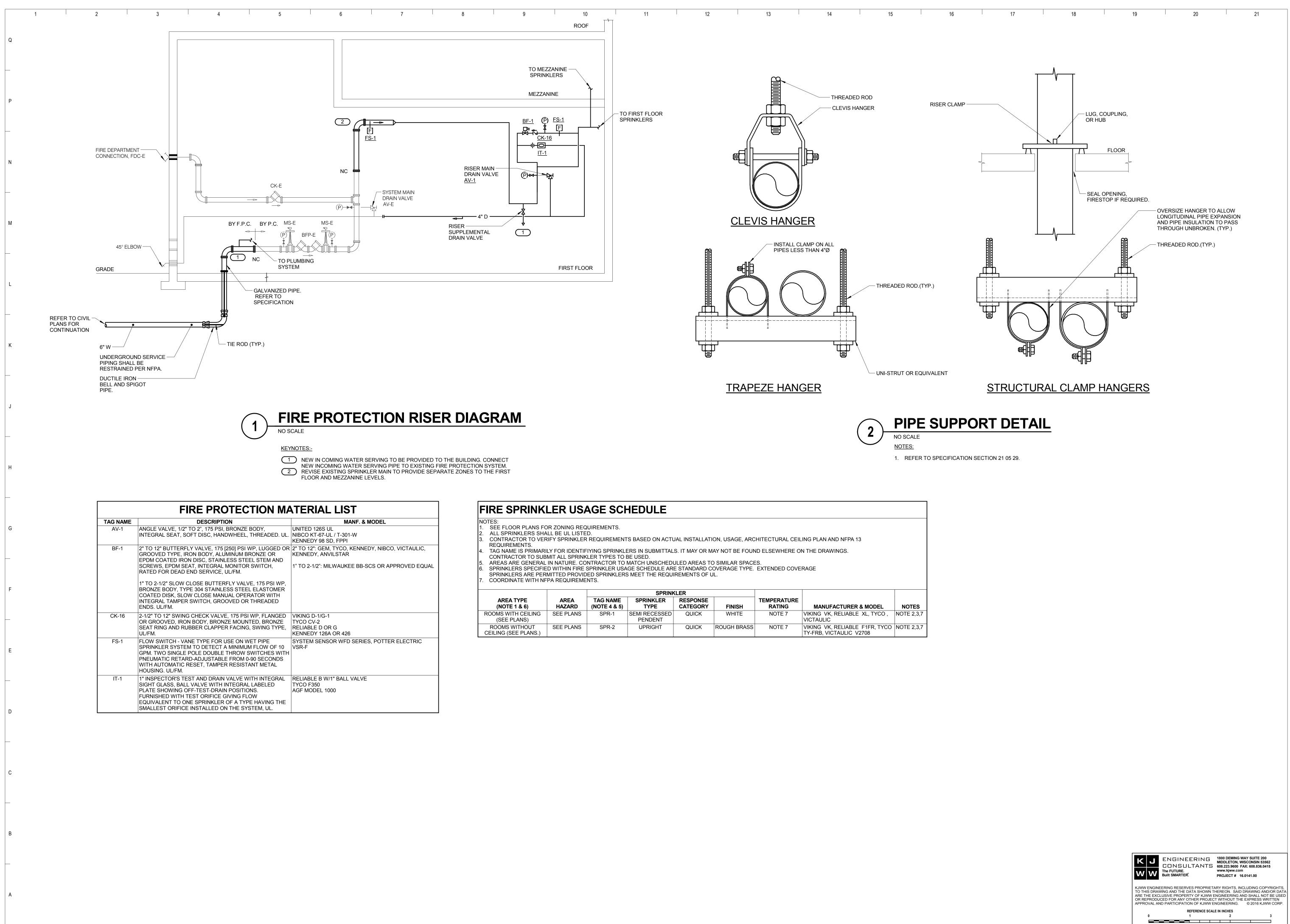
-		
-		
-		
-		
-		
-		
_		
-		
-		
-		
	•	

			Drawing
C J	ENGINEERING	1800 DEMING WAY SUITE 200 MIDDLETON, WISCONSIN 53562 608.223.9600 FAX: 608.836.0415	FIRST FLOOR DEMOLITION - FIRE
vw	The FUTURE. Built SMARTER.	www.kjww.com PROJECT # 16.0141.00	PROTECTION
THIS DRA	WING AND THE DATA SHOWN T	ARY RIGHTS, INCLUDING COPYRIGHTS, HEREON. SAID DRAWING AND/OR DATA	OPN Project No. 15617000
REPROD	UCED FOR ANY OTHER PROJEC ND PARTICIPATION OF KJWW E		FD101
	REFERENCE SCAL	E IN INCHES	

2

OPN Project No. 15617000	
FD101	.1





CEDAR RAPIDS DES MOINES MADISON

OPN ARCHITECTS 301 NORTH BROOM STREET MADISON, WI 53703 608-819-0260 PHONE 608-819-0261 FAX www.opnarchitects.com opn@opnarchitects.com

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by OPN Architects, Inc. as instruments of service shall remain the property of OPN Architects, Inc. OPN Architects, Inc. shall retain all common law, statutory and other reserved rights, including the copyright thereto. © 2016 OPN Architects, Inc.

Owner MADISON PUBLIC LIBRARY

201 W Mifflin St Madison, WI 53703

General Contractor

Project Madison Public Library Maintenance & Support Center Remodel & Addition 1301 West Badger Road Madison, WI 53713

Consultants **CIVIL ENGINEER** Snyder & Associates, Inc. 5010 Voges Road Madison, WI 53718

P. 608.223.9600

P. 608.223.9600

- P. 608.838.0444 STRUCTURAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562
- MECHANICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562
- ELECTRICAL ENGINEER KJWW Engineering Consultants 1800 Deming Way Middleton, WI 53562 P. 608.223.9600

Key Plan

Sheet Issue Date Bid Set 12/09/2016 Previous Issue Dates

_____ Revision Dates

_____ _____ _____

Drawing FIRE PROTECTION DETAILS AND SCHEDULES

OPN Project No. 15617000

F200