ELECTRICAL NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORD WITH ALL CODES ADOPTED BY ALL AGENCIES HAVING JURISDICTION OVER THE PROJECT TO THE APPROVAL OF THE ARCHITECT.
2. ALL WORK TO BE PERFORMED BY QUALIFIED ELECTRICIANS IN ACCORDANCE WITH BOTH LOCAL AND NATIONAL ELECTRICAL CODES.
3. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL PHONE/DATA CONDUIT AND BOXES. WIRING, PLATES AND DEVICES IS THE RESPONSIBILITY OF THE OWNER.
4. ALL CONDUCTORS SHALL BE COPPER, UNLESS NOTED OTHERWISE.
5. ALL SPLICES SHALL BE MADE WITH APPROVED PRESSURE TYPE CONNECTORS WITH FIELD APPLIED INSULATION THAT EQUALS, OR EXCEEDS, FACTORY APPLIED INSULATION.
6. THE COMPLETE ELECTRICAL SYSTEM SHALL BE GROUNDED IN ACCORDANCE WITH N.E.C. ART. 250.
7. ALL MATERIALS SHALL BE NEW. THESE MATERIALS (EXCEPT LAMPS AND CORDS) AND ALL WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE.
8. ELECTRICAL CONTRACTOR SHALL REVIEW ALL OTHER DOCUMENTS OF THIS PROJECT AND COORDINATE HIS WORK WITH ALL OTHER TRADES. TO ASSURE A COMPLETE AND WORKABLE ELECTRICAL SYSTEM.
9. MINIMUM WIRE SIZE SHALL BE #12 AWG. UNLESS NOTED OTHERWISE. WIRE SIZE #8 AWG. AND LARGER, SHALL BE STRANDED.
10. WIRE SIZE #10 AWG. AND SMALLER, SHALL HAVE THHN INSULATION. WIRE SIZE #8 AWG. AND LARGER, SHALL HAVE THWN INSULATION.
11. ALL CONDUCTORS SHALL BE INSTALLED IN CONDUIT PER CODE. THE USE OF MC FLEX CABLE SHALL BE PERMITTED IF ALLOWED BY CODE.
12. ALL FIXTURES SHALL BE FURNISHED AND INSTALLED COMPLETE WITH NEW LAMPS, UNLESS NOTED OTHERWISE.
13. THE ELECTRICAL DESIGN SHOWN IS INTENDED TO BE COMPLETE AND A WORKABLE ELECTRICAL SYSTEM IN ACCORDANCE WITH APPLICABLE CODES. ALL MISCELLANEOUS PARTS, WHETHER SHOWN OR NOT, SHALL BE INCLUDED. ANY DISCREPANCIES IN DRAFTING OR OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT, OR ENGINEER PRIOR TO BID OR THEY SHALL BE CONSIDERED TO BE INCLUDED.
14. ELECTRICAL CONTRACTOR TO PROVIDE REQUIRED ELECTRICAL FOR CONDENSATE PUMPS. COORDINATE WITH MECH. CONTRACTOR.
15. ELECTRICAL CONTRACTOR SHALL COMPLY WITH FBC ENERGY CONSERVATION CODE 2010/CHAPTER 5, ALL SECTIONS.
16. FEEDERS AND CUSTOMER OWNED SERVICE CONDUCTORS SHALL BE SIZED FOR A MAXIMUM VOLTAGE DROP OF 2 PERCENT AT DESIGN LOAD.
17. BRANCH CIRCUIT CONDUCTORS SHALL BE SIZED FOR A MAXIMUM VOLTAGE DROP OF 3 PERCENT AT DESIGN LOAD.
    ELECTRICAL BRANCH CIRCUITS WITHIN PATIENT CARE, TREATMENT AND EXAM AREAS, INCLUDING EXAMINATION TABLES AND/OR CHAIRS, SHALL BE FURNISHED WITH REDUNDANT GROUNDING FOR CIRCUITS PER NATIONAL ELECTRICAL CODE ARTICLE 517.5.
18. RECESSED LUMINAIRES INSTALLED IN THE BUILDINGS THERMAL ENVELOPE SHALL BE SEALED TO LIMIT AIR LEAKAGE BETWEEN CONDITIONED AND UNCONDITIONED SPACES. ALL RECESSED LUMINAIRES SHALL BE IC-RATED AND LABELED AS HAVING AN AIR LEAKAGE RATE OF NOT MORE THAN 2.0 CFM WHEN TESTED IN ACCORDANCE WITH ASTM E 283 AT A 1.57 PSF PRESSURE DIFFERENTIAL. ALL RECESSED LUMINAIRES SHALL BE SEALED WITH A GASKET OR CAULK BETWEEN THE HOUSING AND INTERIOR WALL OR CEILING COVERING.

ELECTRICAL LEGEND

⊖	DUPLEX RECEPTACLE
⊕	QUAD RECEPTACLE
	PHONE/DATA OUTLET 1900 BOX WITH SINGLE RING WITH 1" CONDUIT STUBBED INTO ACCESSIBLE CEILING SPACE WITH ELL, CONNECTOR AND BUSHING ALL MUST HAVE WIRE PRIOR TO C.O. VERIFY DATA REQUIREMENTS WITH TENANT/OWNER
(J)	JUNCTION IN CEILING OR WALL AS SHOWN ON SHEETS A2.1 & A4. MAX. TOTAL 50W THERE ARE EXISTING JUNCTIONS IN THE CEILING. USE AS MANY CLOSEST EXISTING JUNCTIONS AS POSSIBLE.
	DISCONNECT
DD	DUCT DETECTOR - NOT REQUIRED FOR 2000 CFM'S OR LESS
TV	TV OUTLET VERIFY IF WALL OR CEILING MOUNTED TV'S. FURNISH & INSTALL BACKING FOR WALL OR CEILING MOUNTED TV'S. COORDINATE MOUNTING TYPE, LOCATION, SUPPORT AND HEIGHT W/ TENANT
(x'-x") FD	STANDARD DUPLEX OUTLET AT SPECIFIED HEIGHT, OFF FINISHED FLOOR TO CENTER OF OUTLET, OUTLET TO BE WIRED TO SINGLE POLE SWITCH.
	FLUSH FLOOR DUPLEX ELECTRICAL RECEPTACLE W/ VOICE & DATA OUTLET AND FLUSH COVER.
$	WALL SWITCH
	PANEL CIRCUIT NUMBER

KEY NOTES

(T) DOOR BELL UNDER COUNTERTOP - CHIME IN LAB ROOM #116. VERIFY WITH TENANT/OWNER
(U) DOORBELL CHIME TO BE SELECTED BY TENANT/OWNER

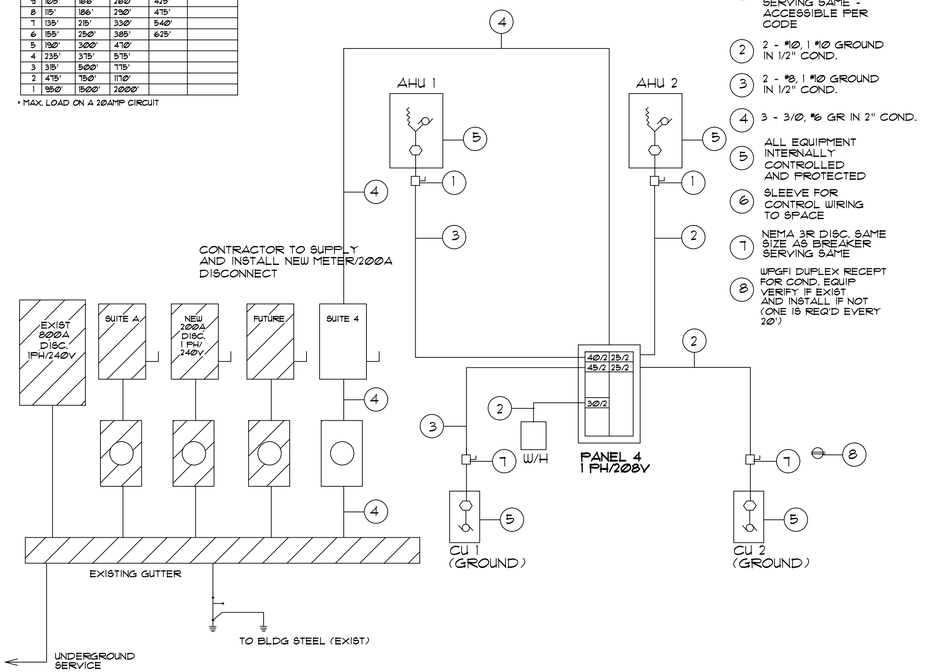
BRANCH CIRCUIT VOLTAGE DROP ON 120V (MAX ALLOWABLE 3%)

AMPS	MAX. LENGTH (2 WIRE #12 CU 1/2" CONDUIT)	MAX. LENGTH (2 WIRE #10 CU 1/2" CONDUIT)	MAX. LENGTH (3 WIRE #12 CU 3/4" CONDUIT)	MAX. LENGTH (3 WIRE #10 CU 3/4" CONDUIT)	
*16	55'	90'	145'	240'	
15	60'	100'	155'	255'	
14	65'	108'	165'	270'	
13	70'	115'	180'	290'	
12	75'	128'	190'	300'	
11	85'	131'	210'	345'	
10	95'	153'	235'	380'	
9	105'	166'	260'	425'	
8	115'	186'	290'	475'	
7	135'	215'	330'	540'	
6	155'	250'	385'	625'	
5	190'	300'	470'		
4	235'	375'	575'		
3	315'	500'	775'		
2	475'	750'	1170'		
1	950'	1500'	2000'		

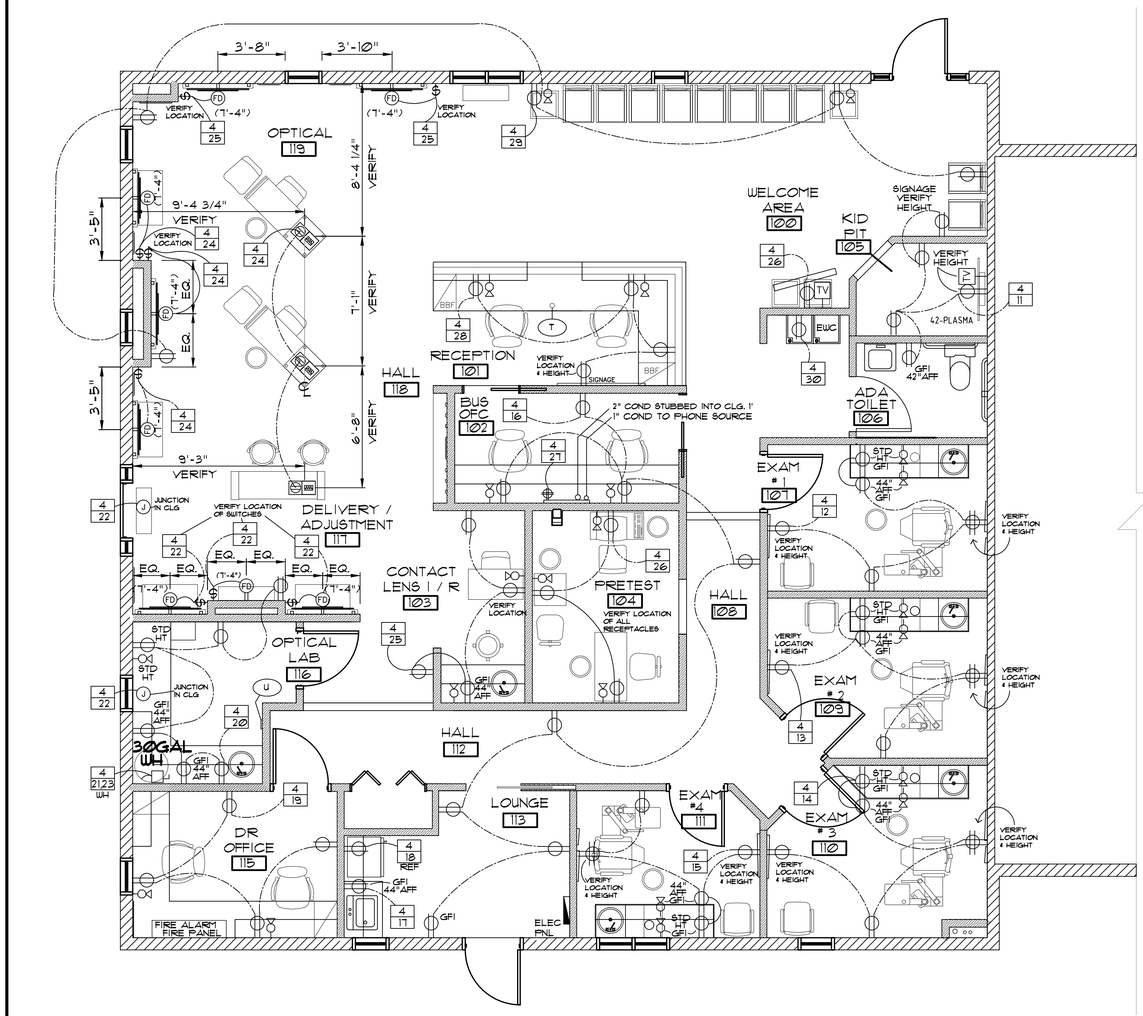
* MAX. LOAD ON A 20AMP CIRCUIT

RISER NOTES

1. DISC. SAME SIZE AS BREAKER SERVING SAME - ACCESSIBLE PER CODE
2. 2 - #10, 1 #10 GROUND IN 1/2" COND.
3. 2 - #8, 1 #10 GROUND IN 1/2" COND.
4. 3 - 3/0, #6 GR IN 2" COND.
5. ALL EQUIPMENT INTERNALLY CONTROLLED AND PROTECTED
6. SLEEVE FOR CONTROL WIRING TO SPACE
7. NEMA 3R DISC. SAME SIZE AS BREAKER SERVING SAME
8. WPGFI DUPLEX RECEPT FOR COND. EQUIP VERIFY IF EXIST AND INSTALL IF NOT (ONE IS REQ'D EVERY 20')



ELECTRICAL RISER



ELECTRICAL PLAN

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

2185 S.F.

PANEL: 4
MANUFACTURER: CUTLER HAMMER OR EQ
UL LISTED NO ALUMINUM BUSS
AIC: MIN. 22,000 SERIES RATED MAIN: MLO
NEMA 3R ___ SURFACE: ___
FLUSH: ✓ CIRCUITS: 42
WIRE: 3 PHASE: 1 AMPS: 200
FED FROM: METER CENTER
FEEDER: 3 3/0, 1 #6 GR. IN 2" COND
REMARKS:

23,733 WATTS
11,667
884 25% LARGEST MOTOR LOAD
36,284 TOTAL CALC. WATTS
208 = 174 AMPS

LOAD DESCRIPTION	WATTS	BKR	MLO		BKR	WATTS	LOAD DESCRIPTION
AHU #1	**6448	40/2	1	2	25/2	**(3536)	AHU #2
↓	—	—	3	4	—	—	↓
CU #1	**5616	45/2	5	6	25/2	(**3120)	CU #2
↓	—	—	7	8	—	—	↓
LIGHTING	*1429	20/1	9	10	20/1	*1647	LIGHTING
5 REC. @ 180	900	20/1	11	12	20/1	1260	6 REC. @ 180
6 REC. @ 180	1080	20/1	13	14	20/1	1260	6 REC. @ 180
6 REC. @ 180	1080	20/1	15	16	20/1	1440	8 REC. @ 180
APPLIANCE	1200	30/2	17	18	20/1	780	REFRIG
4 REC. @ 180	—	—	19	20	20/1	1080	6 REC. @ 180
WATER HEATER	3500	30/2	21	22	20/1	900	5 REC. @ 180
↓	—	—	23	24	20/1	1260	6 REC. @ 180
6 REC. @ 180	1080	20/1	25	26	20/1	720	4 REC. @ 180
PHONE	500	20/1	27	28	20/1	720	4 REC. @ 180
5 REC. @ 180	900	20/1	29	30	20/1	600	EWC
SPARE	—	20/1	31	32	20/1	—	SPARE
SPACE	—	—	33	34	—	—	SPACE
SPACE	—	—	35	36	—	—	SPACE
SPACE	—	—	37	38	—	—	SPACE
SPACE	—	—	39	40	—	—	SPACE
SPACE	—	—	41	42	—	—	SPACE
TOTAL WATTS	23,733					11,667	TOTAL WATTS

* INCLUDES CONT. USE FACTOR (125%)
** VERIFY WITH NAMEPLATE DATA AND RECALCULATE AS REQUIRED

PANEL SCHEDULE

IT IS THE CLIENT'S RESPONSIBILITY TO VERIFY ALL OUTLET HEIGHTS & LOCATIONS WITH GENERAL CONTRACTOR, EQUIPMENT SUPPLIER AND/OR MANUFACTURER.

design associates, inc.
space planning and architecture

MB DESIGN ASSOCIATES, INC.
FLORIDA LICENSE #: AA26000521

P.O. Box 4376
Tequesta, Florida 33469
phone: (561) 222-2993
email: tjmaraist@aol.com

WILLIAM TRACY, #AR0014756

DATE:

THE FOLLOWING CODES WERE USED IN THE DESIGN OF THIS PROJECT:

2014 FLORIDA BUILDING CODE
EXISTING BUILDING, BUILDING, PLUMBING, FUEL GAS, MECHANICAL , TEST PROTOCOLS FOR HIGH VELOCITY HURRICANE ZONES, ACCESSIBILITY AND ENERGY

2011 NATIONAL ELECTRICAL CODE NFPA 70

FLORIDA FIRE PREVENTION CODE, 5TH EDITION (INCLUDING NFPA 1, 2012 AND 101, 2012 EDITION) WITH FLORIDA AMENDMENTS

PROJECT NAME/LOCATION:

ADVANCED VISION CARE

DR. AMIR CUKIERMAN, O.D.

3893 MILITARY TRAIL
SUITE #4
ADMIRAL'S CROSSING

JUPITER, FL

I (WE) HAVE REVIEWED THESE DRAWINGS, UNDERSTAND THE WORK OUTLINED THEREON, AND HEREBY APPROVE SAME FOR CONSTRUCTION.

BY:

DATE:

THESE DRAWINGS ARE BASED ON EXISTING DRAWINGS WHEN AVAILABLE. FIELD INSPECTION OF AS BUILT CONDITIONS AND OTHER INFORMATION FROM THE BUILDING OWNER, MAINTENANCE DEPARTMENT AND AS NOTED. INFORMATION WAS GATHERED WITHOUT "DESTRUCTIVE INVESTIGATION" (CUTTING INTO EXISTING SURFACES TO REVEAL STRUCTURE, PIPING, DUCTWORK ETC). CONTRACTORS AND SUBCONTRACTORS ARE TO BASE BIDS ON INFORMATION SHOWN. SHOULD CONSTRUCTION REVEAL THAT EXISTING CONDITIONS ARE NOT AS ANTICIPATED OR AS SHOWN ON THESE DRAWINGS THE CONTRACTOR AND/OR SUBCONTRACTORS WILL NOTIFY THE OWNER/TENANT OF THE DIFFERENCE AND THE PRICE WILL BE ADJUSTED UP OR DOWN TO REFLECT THE DISCREPANCY.

JOB #:	DR CUKIERMAN
DATE:	3/16/2016
SCALE:	VARIES
DRAWN BY:	JM

ISSUED:	REVISIONS:

SHEET NO:

E-2

OF 2