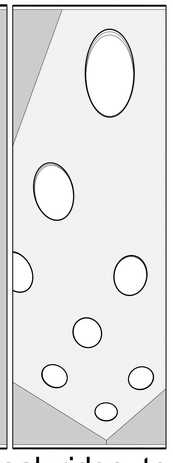
redChair:architects

lighting upgrades for

oak ridge public library

14-010

contract # FY2015-177



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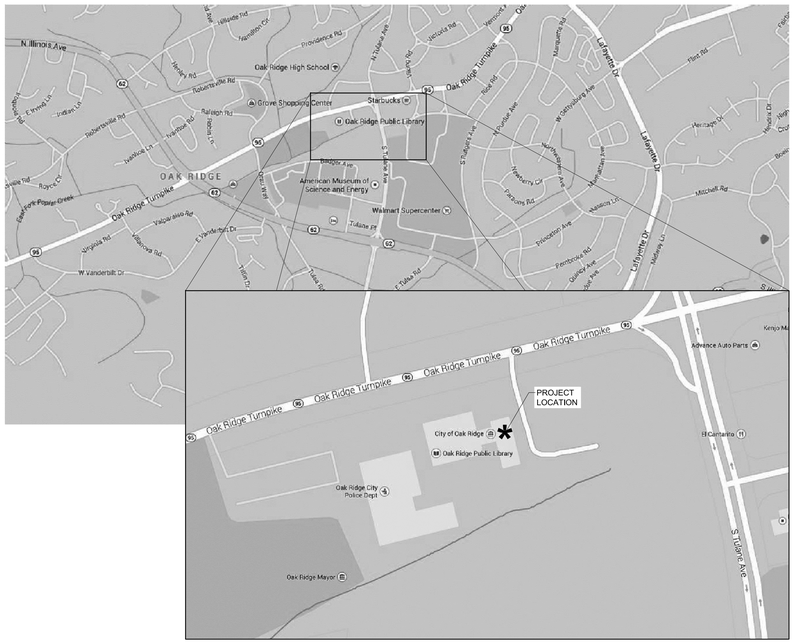
construction documents | 2014 october 21

oak ridge, tn

Tuesday November 04, 2014, 1:43pm, pcore



Q01 SITE LOCATION

REVISION CLOUD & SYMBOL	NORTH ARROW
EXTERIOR ELEVATION TAG	ROOM TAG
INTERIOR ELEVATION TAG	SPOT ELEVATION TAG
SECTION MARKER	DOOR TAGS
BOUNDARY DETAIL MARKER	GLAZING TAG
BREAK LINE	WALL TAG
KEYED NOTES	TOILET ACCESSORY TAG
CEILING TAG	GLAZING DETAIL TAGS
COLUMN GRID	GLAZING TYPE TAG

Q10 SYMBOLS

FINISHED WOOD	FILL INSULATION	GRAVEL
PLYWOOD	RIGID INSULATION	CONCRETE
WOOD FRAMING	ACOUSTICAL TILE	PLASTER / SAND / GROUT
WOOD BLOCKING	CERAMIC TILE	BRICK
BATT INSULATION	EARTH	CMU
FIRE SAFING / BLOCKING	STEEL / ALUMINUM / METAL	CUT STONE / CAST STONE

M10 MATERIALS

PROJECT DATA

PROJECT : OAK RIDGE PUBLIC LIBRARY LIGHTING UPGRADES
PROJECT # : RCA 14-010
LOCATION : 1401 OAK RIDGE TURNPIKE
OAK RIDGE, TN 37830
OWNER : CITY OF OAK RIDGE
MUNICIPAL BUILDING
200 SOUTH TULANE AVENUE
OAK RIDGE, TN 37830
CONTACT : PAT FALLON - V | 865.425.1847

PROJECT SCOPE

DEMOLISH AND REPLACE EXISTING CEILING AND LIGHTING IN THE MAIN READING ROOM AND OTHER AREAS AT OAK RIDGE PUBLIC LIBRARY. AT STACKS, CONTRACTOR SHALL REMOVE AND REPLACE LIGHT FIXTURES AND EXISTING CEILING SHALL REMAIN. PORTIONS OF WORK SHALL BE CONSTRUCTED BY OWNER AND OTHER PORTIONS SHALL BE CONSTRUCTED BY GENERAL CONTRACTOR.

W16 PROJECT DATA

2012 INTERNATIONAL BUILDING CODE
2012 INTERNATIONAL PLUMBING CODE
2011 NATIONAL ELECTRICAL CODE
2012 INTERNATIONAL MECHANICAL CODE
2012 INTERNATIONAL FIRE CODE
2012 INTERNATIONAL RESIDENTIAL CODE
2009 INTERNATIONAL ENERGY CONVERVATION CODE
2009 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES CODE (ICC A117,1-2009)

T16 CODES / LEGISLATION

COVER SHEET

GENERAL
G0.01 INDEX OF DRAWINGS, INFORMATION, SYMBOLS, LOCATION MAP, ABBREVIATIONS & KEY PLAN

ARCHITECTURAL DRAWINGS
AD1.10 MAIN AND UPPER LEVEL REFLECTED CEILING DEMOLITION PLANS, LEGEND AND NOTES
A1.10 MAIN AND UPPER LEVEL REFLECTED CEILING PLANS, LEGEND AND NOTES
A1.11 ENLARGED MAIN LEVEL REFLECTED CEILING PLAN, LEGEND AND DETAILS

ELECTRICAL DRAWINGS
E0.01 LEGEND, NOTES, DETAILS, AND SCHEDULES
E1.10 MAIN AND UPPER LEVELS LIGHTING PLAN

M16 INDEX OF DRAWINGS

ARCHITECT: PATRICK R. CORE (# 104085)
RED CHAIR ARCHITECTS
220 W JACKSON AVE
KNOXVILLE, TN 37902
V | 865.633.9058

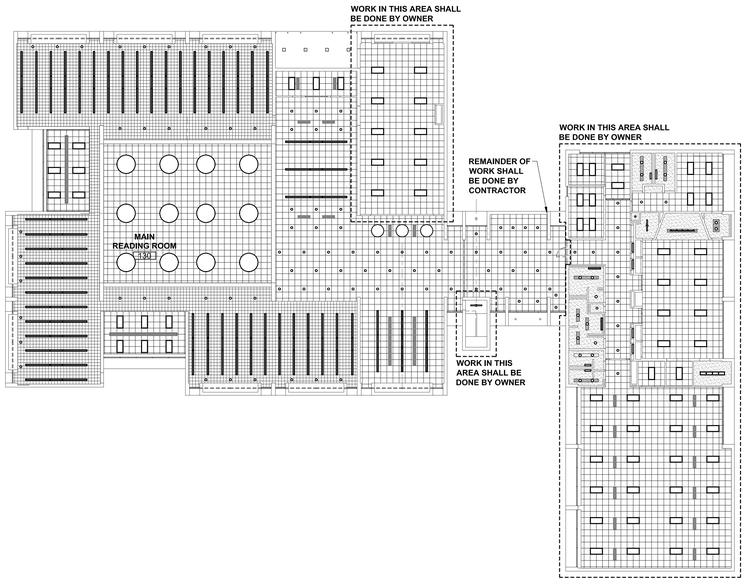
ELECTRICAL: KEN BLALOCK (#107685)
IC THOMASSON
1114 CLINCH AVE.
KNOXVILLE, TN 37916
V | 865.525.3488

M20 DESIGNERS OF RECORD

NOTE: PERIODS MAY BE OMITTED

&	AND
<	ANGLE
@	AT
℄	CENTERLINE
Ø	DIAMETER OR ROD
±	PLUS OR MINUS
#	POUND
A.B.	ANCHOR BOLT
A.F.F.	ABOVE FINISH
A.P.	ACCESS PANEL
ACT	ACOUSTICAL CEILING TILE
A/C	AIR CONDITIONING
ABV	ABOVE
ACOUS.	ACOUSTICAL
ADD.	ADDENDUM
ADJ.	ADJACENT OR ADJUSTABLE
AGG.	AGGREGATE
AL.	ALUMINUM
ALT.	ALTERNATE
ANOD.	ANODIZE
APPROX.	APPROXIMATE
APT.	APARTMENT
ARCH.	ARCHITECT (URAL)
AUTO.	AUTOMATIC
AVG.	AVERAGE
B.U.R.	BUILT-UP ROOFING
BD.	BOARD
BEV.	BEVELED
BITUM.	BITUMINOUS
BLDG.	BUILDING
BLK.	BLOCK
BLKG.	BLOCKING
BM.	BEAM OR BENCH MARK
BR.	BEDROOM
BRCG.	BRACING
BRG.	BEARING
BSMT.	BASEMENT
BTW.	BETWEEN
C.B.	CATCH BASIN
C.H.	CEILING HEIGHT
C.I.	CAST IRON
C.J.	CONTROL JOINT OR CONSTRUCTION JOINT
C.T.	CERAMIC TILE
C. TO C.	CENTER TO CENTER
CAB.	CABINET
CPT.	CARPET
CEM.	CEMENT
CER.	CERAMIC
CLG.	CEILING
CLO.	CLOSET
CLR.	CLEAR
C.M.T.	CERAMIC MOSAIC TILE
C.M.U.	CONCRETE MASONRY UNIT
CNTR.	COUNTER
COL.	COLUMN
COMP.	COMPOSITION
CONC.	CONCRETE
CONF.	CONFERENCE
CONN.	CONNECTION
CONSTR.	CONSTRUCTION
CONT.	CONTINUOUS
CONTR.	CONTRACTOR
CORR.	CORRIDOR
CSMT.	CASEMENT
CTR.	CENTER
CTSK.	COUNTERSINK (SUNK)
DIA.	DIAMETER
D.F.	DRINKING FOUNTAIN
D.H.	DOUBLE HUNG
D.L.	DOUBLE LOAD
DBL.	DOUBLE
DEMO.	DEMOLISH, DEMOLITION
DEPT.	DEPARTMENT
DIAG.	DIAGONAL, DIAGRAM
DIFF.	DIFFUSER
DIM.	DIMENSION
DMT.	DEMOUNTABLE
DN.	DOWN
DO.	DOOR OPENING
DR.	DOOR
DS.	DOWNSPOUT
DTL.	DETAIL
DWG.	DRAWING
DWR.	DRAWER
E.	EAST
E.C.	ELECTRICAL CONTRACTOR
E.J.	EXPANSION JOINT
E.W.C.	ELECTRIC WATER COOLER
EA.	EACH
ELAS.	ELASTOMERIC
ELECT.	ELECTRIC (AL.)
ELEV.	ELEVATOR, ELEVATION
EMER.	EMERGENCY
ENCL.	ENCLOSE (URE)
ENTR.	ENTRANCE
EQ.	EQUAL
EQUIP.	EQUIPMENT
EST.	ESTIMATE (D)
ESTB.	ESTABLISH
EXP.	EXPANSION
EXSTG.	EXISTING
EXT.	EXTERIOR
F.B.O.	FURNISHED BY OTHERS
F.D.	FLOOR DRAIN
F.E.	FIRE EXTINGUISHER
F.E.C.	FIRE EXTINGUISHER CABINET
F.H.C.	FIRE HOSE CABINET
F.O.C.	FACE OF CONCRET
F.O.F.	FACE OF FINISH
F.O.S.	FACE OF STUDS
F.S.	FULL SIZE
F.T.F.	FACE TO FACE
FDN.	FOUNDATION
FIN.	FINISH (ED)
FL.	FLOOR (ING)
FLASHG	FLASHING
FLOUR.	FLOURESCENT
FRPF.	FIREPROOF (ING)
F.P.W.H.	FREEZE PROOF WALL HYDRANT
FT.	FOOT OR FEET
FTG.	FOOTING
FURN.	FURNISH
FURR.	FURRING
FUT.	FUTURE
F.V.	FIELD VERIFY
G.B.	GRAB BAR
G.C.	GENERAL CONTRACTOR
GA.	GAGE, GAUGE
GALV.	GALVANIZED
GL.	GLASS, GLAZING
GR.	GRADE
GYP.	GYPSUM
GWB	GYPSUM WALL BOARD
H.B.	HOSE BIBB
H.C.	HOLLOW CORE
H.C.P.	HANDICAP
H.M.	HOLLOW METAL
H.P.	HORSEPOWER
HDW.	HARDWARE
HDWD.	HARDWOOD
HORIZ.	HORIZONTAL
HGT.	HEIGHT
HVAC.	HEATING / VENTILATING / AIR CONDITIONING
HWY.	HIGHWAY
I.S.	IRON PIPE SIZE
ID.	INSIDE DIAMETER
IN.	INCHES
INCL.	INCLUDE (ED) (SION)
INSUL.	INSULATION (ED)
INT.	INTERIOR
INV.	INVERT
INV. EL.	INVERT ELEVATION
JAN.	JANITOR
JT.	JOINT
K.D.	KILN DRIED OR KNOCK DOWN
KIT.	KITCHEN
K.O.	KNOCKOUT
L.	LEFT, LENGTH
L.H.	LEFT HAND
L.L.	LIVE LOAD
L.P.	LOW POINT
L.R.	LIVING ROOM
L.W.	LIGHTWEIGHT
LAB.	LABORATORY
LAM.	LAMINATE (D)
LAV.	LAVATORY
LT.	LIGHT
LTG.	LIGHTING
LVR.	LOUVER
M.C.	MEDICINE CABINET OR MECHANICAL CONTRACTOR
M.H.	MANHOLE
M.O.	MASONRY OPENING
MACH.	MACHINE
MAINT.	MAINTENANCE
MAS.	MASONRY
MATL.	MATERIAL
MAX.	MAXIMUM
MBR.	MEMBER
MECH.	MECHANIC (AL)
MED.	MEDIUM
MEMB.	MEMBRANE
MTL.	METAL
MEZZ.	MEZZANINE
MFG.	MANUFACTURE (ER)
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MOD.	MODIFIED
MPH.	MILES PER HOUR
MRGB.	MOISTURE RESISTANT GYP. BD.
MTD.	MOUNTED
MUL.	MULLION
N.	NORTH
NFPA	NATIONAL FIRE PROTECTION ACT
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
NO. OR #	NUMBER
NOM.	NOMINAL
O. TO O.	OUT TO OUT
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
OFF.	OFFICE
O.H.	OPPOSITE HAND
OPNG.	OPENING
OPP.	OPPOSITE
OUT.	OUTVERT
OZ.	OUNCE
P.C.	PLUMBING CONTRACTOR
P.C.F.	POUNDS PER CUBIC FOOT
P.L.F.	POUNDS PER LINEAR FOOT
P.LAM.	PLASTIC LAMINATE
P.S.F.	POUNDS PER SQUARE FOOT
P.S.I.	POUNDS PER SQUARE INCH
P.T.D.	PAPER TOWEL DISPENSER
P.T.R.	PAPER TOWEL RECEPTICAL
P.T.	PRESSURE TREAT (ED)
PLAS.	PLASTER
PLYWD.	PLYWOOD
PNL.	PANEL
PNT (D).	PAINT (ED)
PR.	PAIR
PT.	POINT
PTD/R.	COMBINATION PAPER TOWEL DISPENSER & RECEPTACLE
PTN.	PARTITION
PVC.	POLYVINYL CHLORIDE
PVMT.	PAVEMENT
Q.T.	QUARRY TILE
R.	RISER, RADIUS
R.A.	RETURN AIR
R.C.P.	REINFORCED CONCRETE PIPE OR REFLECTED CEILING PLAN
R.J.	REVEAL JOINT (AESTHETIC)
R.B.	RUBBER BASE
R.D.	ROOF DRAIN
R.H.	RIGHT HAND
R.O.	ROUGH OPENING
R.O.W.	RIGHT OF WAY
REBAR.	REINFORCING BAR
REC.	RECESSED
RECT.	RECTANGULAR
REF.	REFRIGERATOR
REG.	REGISTER
REINF.	REINFORCED
REQ'D.	REQUIRED
RESIL.	RESILIENT
RET.	RETURN
REV.	REVISION (S), REVISED
RFG.	ROOFING
RM.	ROOM
S.	SOUTH
S-P.	SINGLE-PLY
S.C.	SOLID CORE
S.C.J.	STRUCTURAL CONTROL JOINT
S.D.	SOAP DISPENSER OR STORM DRAIN
SED.	SEDIMENT (ATION)
S.N.D.	SANITARY NAPKIN DISPENSER
S.N.R	SANITARY NAPKIN RECEPTACLE
S.S.	STAINLESS STEEL
S.T.C.	SOUND TRANSMISSION CLASSIFICATION
S4S.	SURFACED 4 SIDES
SAN.	SANITARY
SCHED.	SCHEDULE
SECT.	SECTION
SFTWD.	SOFTWOOD
SHT.	SHEET
SIM.	SIMILAR
SPCNG.	SPACING
SPEC.	SPECIFICATION
SQ.	SQUARE
SQ. FT.	SQUARE FOOT (FEET)
STD.	STANDARD
STL.	STEEL
STOR.	STORAGE
STRUC.	STRUCTURE (AL)
SURF.	SURFACE
SUSP.	SUSPENDED
SW.	SWITCH
SYM.	SYMMETRY (ICAL)
T&B.	TOP AND BOTTOM
T&G.	TONGUE AND GROOVE
T.O.W	TOP OF WALL
T.O.S.	TOP OF SLAB
T.	TREAD
T.O.C	TOP OF CURB OR TABLE OF CONTENTS
T.O.P.	TOP OF PAVEMENT
T.P.D.	TOILET PAPER DISPENSER
TELE.	TELEPHONE
TEMP.	TEMPERED OR TEMPERATURE
TERZ.	TERRAZZO
THK.	THICK (NESS)
THRES.	THRESHOLD
TL.T.	TOILET
TV.	TELEVISION
TYP.	TYPICAL
UL	UNDERWRITERS LABORATORY
U.N.O.	UNLESS NOTED OTHERWISE
UNIF.	UNFINISHED
UTIL.	UTILITY
V.B.	VINYL BASE
V.C.T.	VINYL COMPOSITION TILE
V.I.F.	VERIFY IN FIELD
V.F.	VINYL FABRIC
V.T.	VINYL TILE
V.W.F.	VINYL WALL FABRIC
VENT.	VENTILATING (ION)
VERT.	VERTICAL
VEST.	VESTIBULE
VOL.	VOLUME
W.	WEST, WOMEN
W.C.	WATER CLOSET
W.F.	WIDE FLANGE
W.I.	WROUGHT IRON
W.W.F.	WELDED WIRE FABRIC
W/	WITH
W/O	WITHOUT
WD.	WOOD
WDW.	WINDOW
WP.	WATERPROOFING
WSCT.	WAINSCOT
WGT.	WEIGHT
YD.	YARD

A01 ABBREVIATIONS



A10 REFLECTED CEILING - KEY PLAN

plan-clng-01 | 1'=20'

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contract # FY2015-177

lighting upgrades for
oak ridge
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oak ridge, tn

14-010

issue date	10/21/14
project manager	PRC
design coordinator	PRC
drawn by	PRC
checked by	PMMC

revisions

no.	issued by	date

G0.01

index of drawings, information, symbols, location map, abbreviations & key plan

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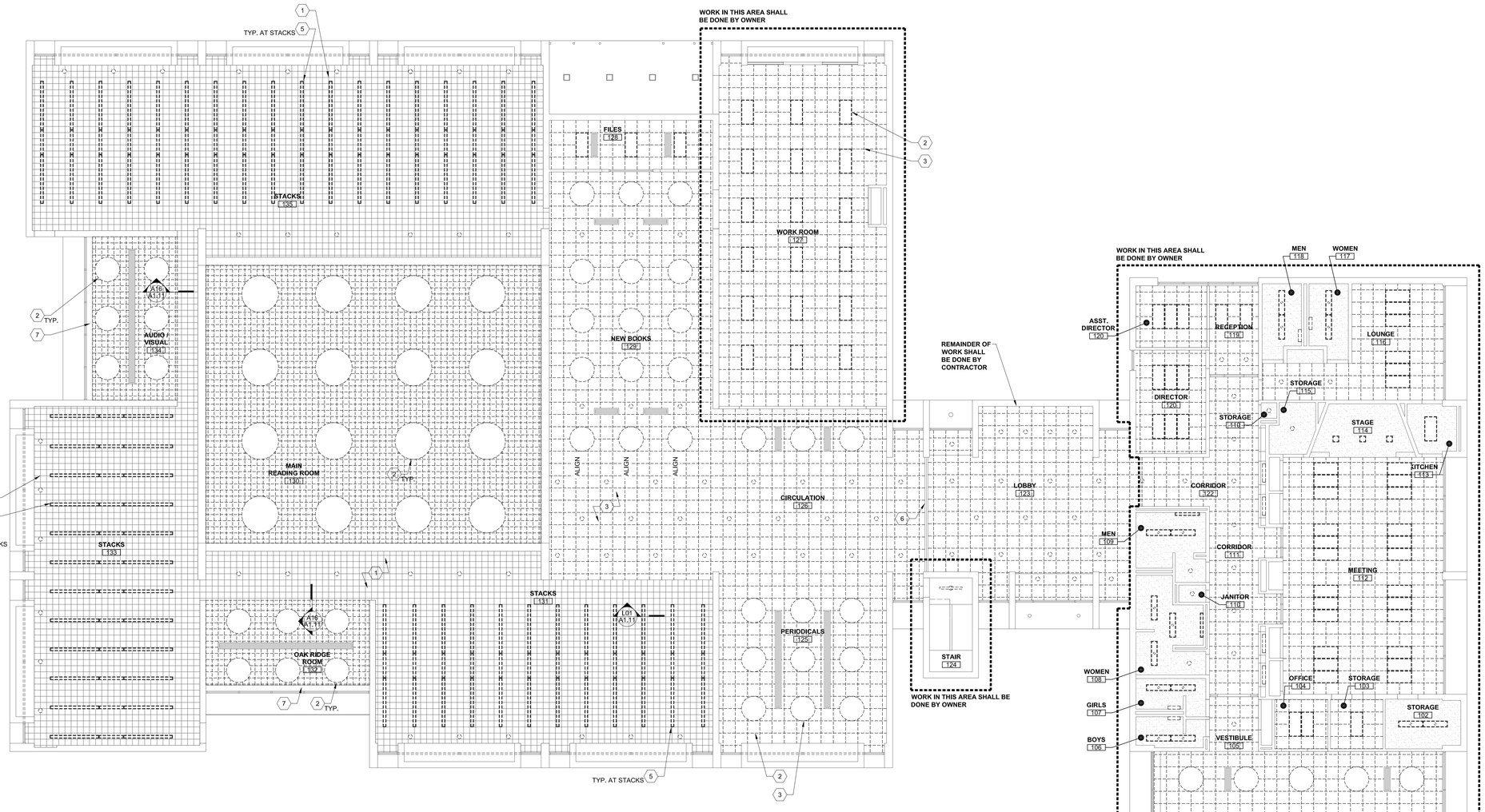

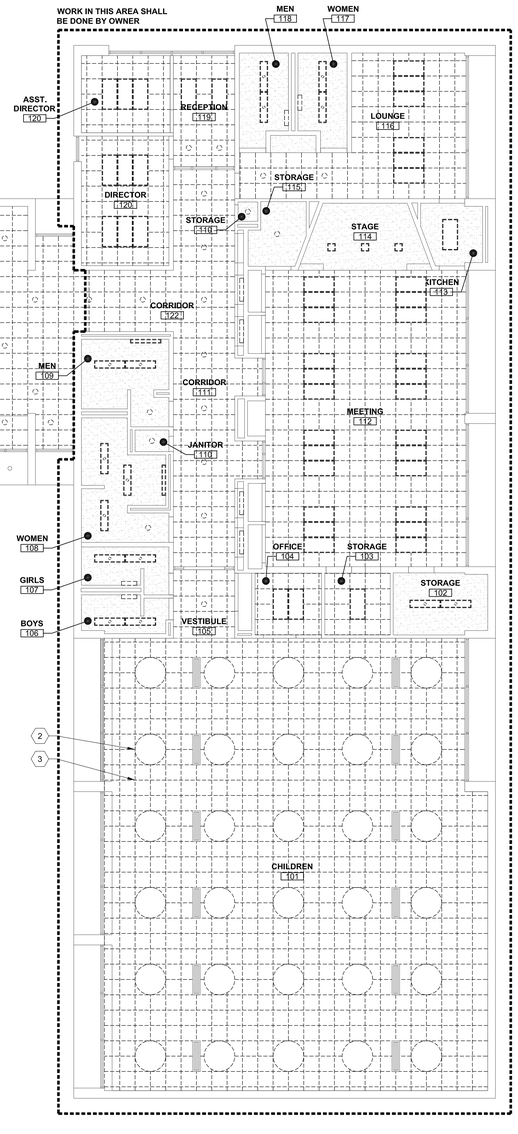

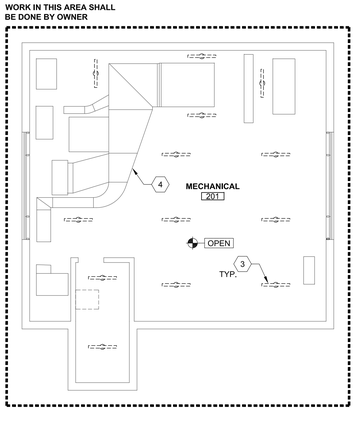

A01	UPPER LEVEL DEMOLITION RCP
plan-clng-02	1/8" = 1'-0"

A08	MAIN LEVEL DEMOLITION RCP
plan-clng-01	1/8" = 1'-0"

1. FIELD VERIFY EXISTING CONDITIONS, AND ADVISE ARCHITECT IF CONDITIONS VARY FROM DRAWING
2. ANY SECTIONS OF CEILINGS, PARTITIONS, FIXTURES, ETC. INDICATED AS DASHED SHALL BE DEMOLISHED AND REMOVED UNLESS NOTED OTHERWISE. PATCH AND REPAIR ANY DAMAGED PORTIONS OF WALLS OR FLOORS TO REMAIN AND RECEIVE NEW FINISH. REFER TO KEYED NOTES FOR SPECIFIC LOCATIONS AND CONDITIONS.
3. PROVIDE PROTECTION FOR EXISTING ITEMS TO REMAIN IN AREAS OF DEMOLITION.
4. PROVIDE ADEQUATE BRACING DURING DEMOLITION
5. REFER TO ELECTRICAL FOR ADDITIONAL DEMOLITION INFORMATION
6. DEMOLISH AND REMOVE ALL SUPPORTS AND FRAMING FOR EXISTING LIGHT FIXTURES TO BE REMOVED AND CEILINGS TO BE REMOVED, UNLES NOTED OTHERWISE

T22	GENERAL NOTES
note-clng	NTS

X

1. 024119 - EXISTING CEILING TO REMAIN
2. 024119 - DEMOLISH AND REMOVE EXISTING LIGHT FIXTURE AND EXISTING SUPPORTS
3. 024119 - DEMOLISH AND REMOVE EXISTING ACOUSTIC TILE CEILING AND SUPPORT
4. 024119 - EXISTING MECHANICAL EQUIPMENT TO REMAIN
5. 024119 - DEMOLISH AND REMOVE EXISTING LIGHT FIXTURE. EXISTING SUPPORTS SHALL REMAIN AND BE REUSED
6. 024119 - EXISTING BUILDING EXPANSION JOINT TO REMAIN
7. 024119 - EXISTING CEILING POCKET TO REMAIN

N22	KEYED NOTES
note-clng	NTS

- 1'-0" X 1'-0" EXISTING CEILING GRID
- 1'-0" X 1'-0" EXISTING CEILING GRID TO BE DEMOLISHED
- 095100 - 2'-0" X 2'-0" ACOUSTIC TILE CEILING
- NEW GYPSUM BOARD CEILING PATCHING - ALL WORK BY OWNER, U.N.O.
- 2'-0" X 2'-0" EXISTING CEILING GRID TO BE DEMOLISHED
- EXISTING LIGHT FIXTURES TO BE DEMOLISHED
- 6'-0" LIGHT FIXTURE - REFER TO ELECTRICAL
- 4'-0" LIGHT FIXTURE - REFER TO ELECTRICAL
- WALL MOUNTED OR STACK LIGHT FIXTURE - REFER TO ELECTRICAL
- RECESSED CAN LIGHT FIXTURE - REFER TO ELECTRICAL
- UTILITY LIGHT FIXTURE - REFER TO ELECTRICAL
- 2X4 RECESSED LIGHT FIXTURE - REFER TO ELECTRICAL
- SURFACE MOUNTED LIGHT FIXTURE - REFER TO ELECTRICAL
- TRACK & LIGHT FIXTURES - REFER TO ELECTRICAL
- EXISTING MECHANICAL DIFFUSER TO REMAIN
- EXISTING GYPSUM BOARD CEILING TO REMAIN - PAINT ENTIRE CEILING WHERE PATCHED (BY OWNER)

A22	LEGEND - CEILING
lgnd-clng	NTS

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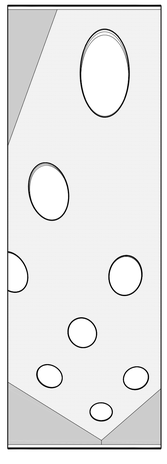

issue date	10/21/14
project manager	PRC
design coordinator	PRC
drawn by	PRC
checked by	PMMC

revisions		
no.	issued by	date

AD1.10

main and upper level reflected ceiling demolition plans, legend and notes

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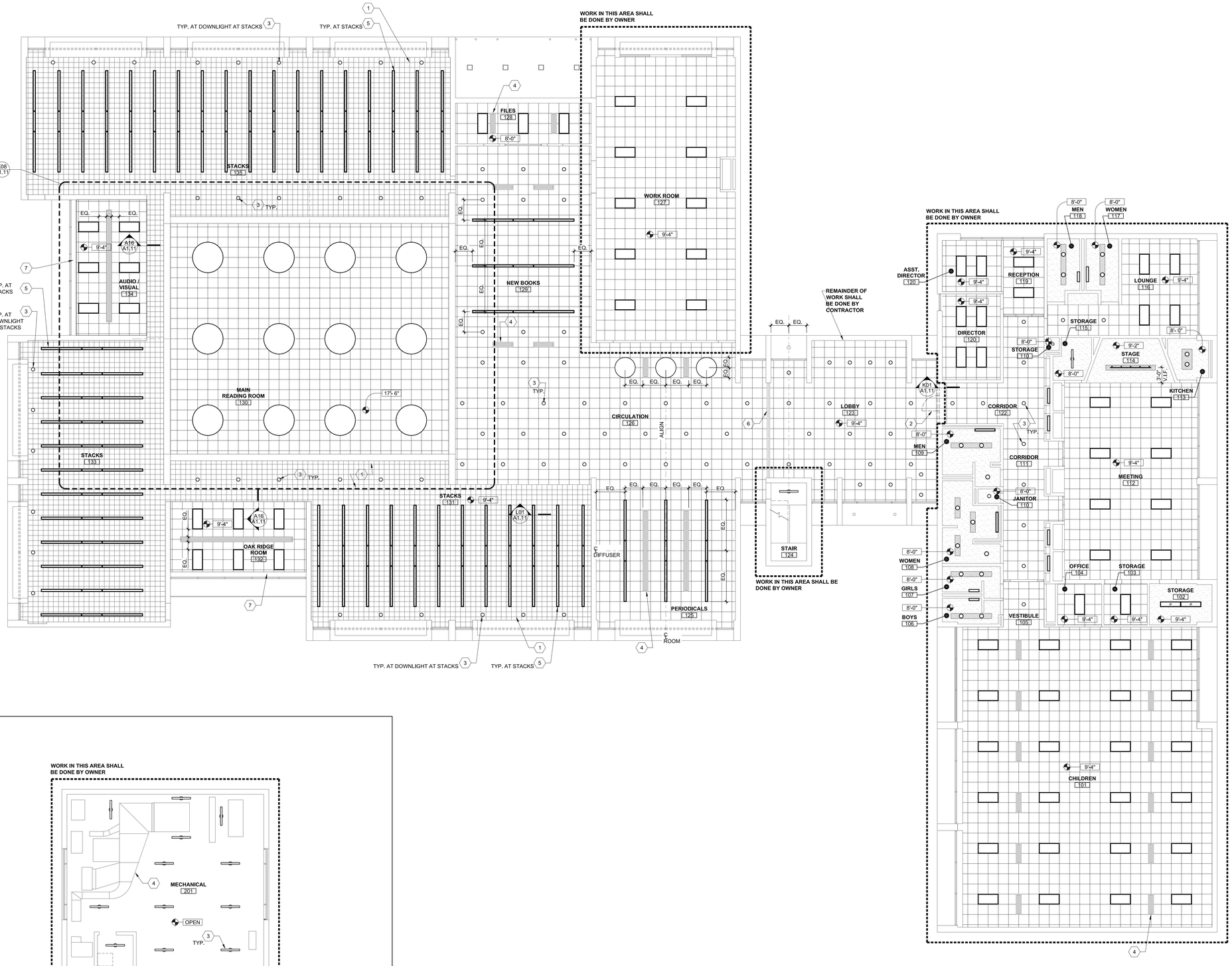

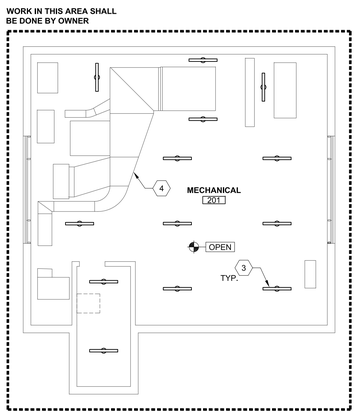

1. ALL SINGLE LIGHT FIXTURES IN A GIVEN SPACE SHALL BE CENTERED WITHIN, UNLESS NOTED OTHERWISE.
2. INSTALL NEW LIGHT FIXTURES IN SAME LOCATION AS EXISTING REMOVED LIGHT FIXTURES, UNLESS NOTED OR DIMENSIONED OTHERWISE.
3. REFER TO ELECTRICAL DRAWINGS FOR ALL ADDITIONAL LIGHTING NOT SHOWN AND FOR COORDINATION. CONTACT ARCHITECT WITH ANY DISCREPANCIES PRIOR TO COMMENCEMENT OF WORK.
4. ALL GYPSUM BOARD CEILING HEIGHTS INDICATED SHALL BE MEASURED FROM BOTTOM FACE OF GYPSUM BOARD TO FINISH FLOOR ELEVATION DIRECTLY BELOW.
5. ALL GYPSUM BOARD SOFFITS SHALL BE CONSTRUCTED OUT OF METAL STUD FRAMING AT 16" O.C. AND ANCHORED/SUSPENDED AND BRACED TO STRUCTURE ABOVE FOR LATERAL STABILITY AND WEIGHT DISTRIBUTION.
6. REFER TO ELECTRICAL FOR EMERGENCY LIGHTING LOCATIONS.
7. PROVIDE ADEQUATE STRUCTURE FOR INSTALLATION OF SMOKE DETECTORS AS REQUIRED.
8. ALL LIGHT FIXTURES SHALL BE SUPPLIED BY OWNER AND INSTALLED BY CONTRACTOR
9. VERIFY ALL CEILING HEIGHTS IN FIELD. ALIGN NEW CEILINGS WITH EXISTING ADJACENT CEILINGS TO REMAIN.
10. CONTRACTOR SHALL INSTALL NEW 4' AND 6' DIAMETER LIGHTS TO MINIMIZE SLIVERS AND SMALL PIECES OF ACOUSTIC TILE AND GRID. VERIFY IN FIELD.
11. CONCEAL ALL NEW WIRING AND CONDUIT TO THE GREATEST EXTENT POSSIBLE. COORDINATE WITH OWNER AND ARCHITECT IN FIELD.
12. ALL REQUIRED HARDWARE, SUPPORTS, WIRING, CONDUIT, ETC. NOT SUPPLIED BY LIGHT FIXTURE MANUFACTURER SHALL BE PROVIDED BY CONTRACTOR. REFER TO LIGHTING FIXTURE CUT SHEETS IN PROJECT MANUAL.

T22	GENERAL NOTES
note-clng	NTS

X

1. 024119 - EXISTING CEILING TO REMAIN
2. 015000 - TEMPORARY DUSTPROOF WOOD FRAMED PARTITION WITH 3'-0" x 6'-8" MIN. DOOR
3. 265100 - NEW LIGHT FIXTURE IN LOCATION OF EXISTING REMOVED LIGHT FIXTURE. CONTRACTOR SHALL PROVIDE NEW SUPPORT FOR LIGHT FIXTURE AS REQUIRED. REFER TO LIGHTING FIXTURE CUT SHEETS IN PROJECT MANUAL.
4. 024119 - EXISTING MECHANICAL EQUIPMENT TO REMAIN
5. 265100 - NEW LIGHT FIXTURE IN LOCATION OF EXISTING REMOVED LIGHT FIXTURE, EXISTING SUPPORT FOR LIGHTS SHALL REMAIN AND BE REUSED.
6. 024119 - EXISTING BUILDING EXPANSION JOINT TO REMAIN
7. 024119 - EXISTING CEILING POCKET TO REMAIN

N22	KEYED NOTES
note-clng	NTS

- 1'-0" X 1'-0" EXISTING CEILING GRID
- 1'-0" X 1'-0" EXISTING CEILING GRID TO BE DEMOLISHED
- 095100 - 2'-0" X 2'-0" ACOUSTIC TILE CEILING
- NEW GYPSUM BOARD CEILING PATCHING - ALL WORK BY OWNER, U.N.O.
- 2'-0" X 2'-0" EXISTING CEILING GRID TO BE DEMOLISHED
- EXISTING LIGHT FIXTURES TO BE DEMOLISHED
- 6'-0" LIGHT FIXTURE - REFER TO ELECTRICAL
- 4'-0" LIGHT FIXTURE - REFER TO ELECTRICAL
- WALL MOUNTED OR STACK LIGHT FIXTURE - REFER TO ELECTRICAL
- RECESSED CAN LIGHT FIXTURE - REFER TO ELECTRICAL
- UTILITY LIGHT FIXTURE - REFER TO ELECTRICAL
- 2X4 RECESSED LIGHT FIXTURE - REFER TO ELECTRICAL
- SURFACE MOUNTED LIGHT FIXTURE - REFER TO ELECTRICAL
- TRACK & LIGHT FIXTURES - REFER TO ELECTRICAL
- EXISTING MECHANICAL DIFFUSER TO REMAIN
- EXISTING GYPSUM BOARD CEILING TO REMAIN - PAINT ENTIRE CEILING WHERE PATCHED (BY OWNER)

A01	UPPER LEVEL RCP
plan-clng-02	1/8" = 1'-0"

A08	MAIN LEVEL RCP
plan-clng-01	1/8" = 1'-0"

A22	LEGEND - CEILING
lgnd-clng	NTS

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PATRICK R. CORN REGISTERED ARCHITECT AGRICULTURE CT. ARCHITECT No. 104095 STATE OF TENNESSEE

contract # FY2015-177

lighting upgrades for
oak ridge
public library

oak ridge, tn

14-010

issue date	10/21/14
project manager	PRC
design coordinator	PRC
drawn by	PRC
checked by	PMMC

revisions

no.	issued by	date

A1.10

main and upper level reflected ceiling plans, legend and notes

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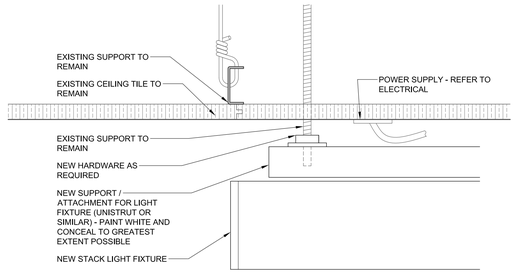
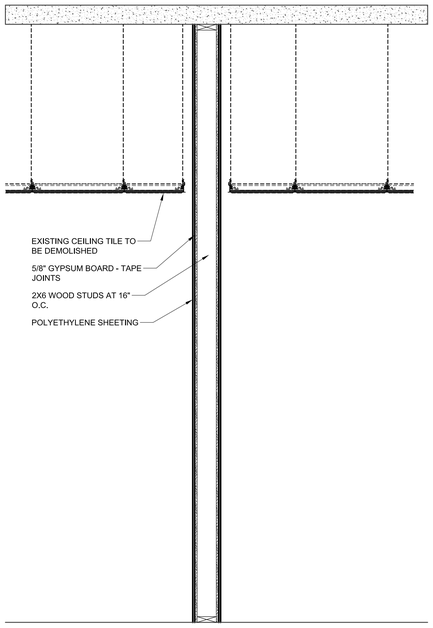
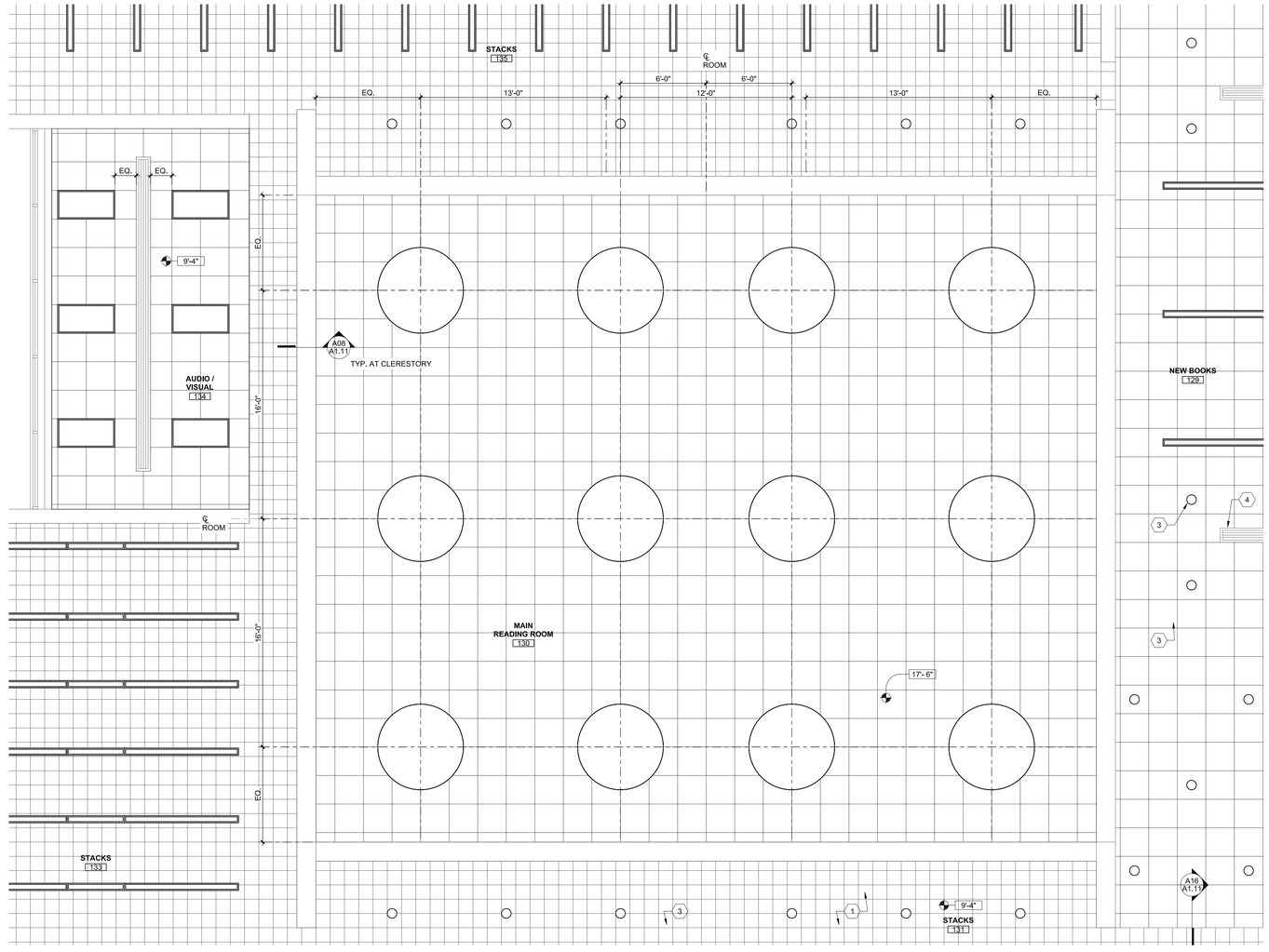
Tuesday November 04, 2014, 1:38pm, pcore



V01	CEILING DETAIL
dlts-clng	6" = 1'-0"



K01	SECTION DETAIL
dlts-clng	3/4" = 1'-0"



K08	MAIN LEVEL RCP
plan-clng-01	1/8" = 1'-0"

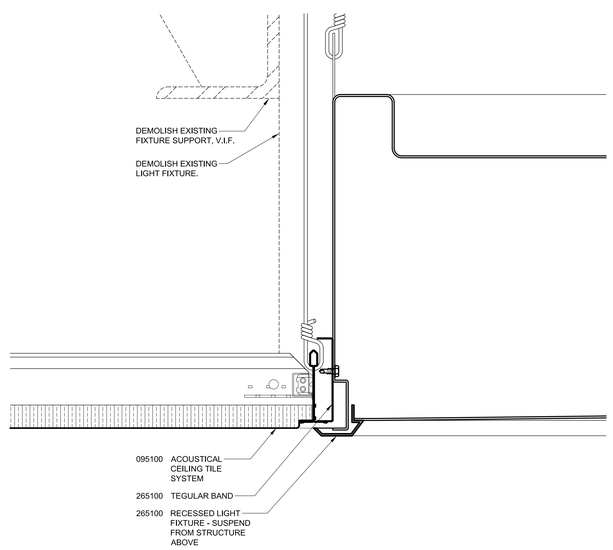
1. ALL SINGLE LIGHT FIXTURES IN A GIVEN SPACE SHALL BE CENTERED WITHIN, UNLESS NOTED OTHERWISE.
2. INSTALL NEW LIGHT FIXTURES IN SAME LOCATION AS EXISTING REMOVED LIGHT FIXTURES, UNLESS NOTED OR DIMENSIONED OTHERWISE.
3. REFER TO ELECTRICAL DRAWINGS FOR ALL ADDITIONAL LIGHTING NOT SHOWN AND FOR COORDINATION. CONTACT ARCHITECT WITH ANY DISCREPANCIES PRIOR TO COMMENCEMENT OF WORK.
4. ALL GYPSUM BOARD CEILING HEIGHTS INDICATED SHALL BE MEASURED FROM BOTTOM FACE OF GYPSUM BOARD TO FINISH FLOOR ELEVATION DIRECTLY BELOW.
5. ALL GYPSUM BOARD SOFFITS SHALL BE CONSTRUCTED OUT OF METAL STUD FRAMING AT 16" O.C. AND ANCHORED/SUSPENDED AND BRACED TO STRUCTURE ABOVE FOR LATERAL STABILITY AND WEIGHT DISTRIBUTION.
6. REFER TO ELECTRICAL FOR EMERGENCY LIGHTING LOCATIONS.
7. PROVIDE ADEQUATE STRUCTURE FOR INSTALLATION OF SMOKE DETECTORS AS REQUIRED.
8. ALL LIGHT FIXTURES SHALL BE SUPPLIED BY OWNER AND INSTALLED BY CONTRACTOR
9. VERIFY ALL CEILING HEIGHTS IN FIELD. ALIGN NEW CEILINGS WITH EXISTING ADJACENT CEILINGS TO REMAIN.
10. CONTRACTOR SHALL INSTALL NEW 4' AND 6' DIAMETER LIGHTS TO MINIMIZE SLIVERS AND SMALL PIECES OF ACOUSTIC TILE AND GRID. VERIFY IN FIELD.
11. CONCEAL ALL NEW WIRING AND CONDUIT TO THE GREATEST EXTENT POSSIBLE. COORDINATE WITH OWNER AND ARCHITECT IN FIELD.
12. ALL REQUIRED HARDWARE, SUPPORTS, WIRING, CONDUIT, ETC. NOT SUPPLIED BY LIGHT FIXTURE MANUFACTURER SHALL BE PROVIDED BY CONTRACTOR. REFER TO LIGHTING FIXTURE CUT SHEETS IN PROJECT MANUAL.

T22	GENERAL NOTES
note-clng	NTS

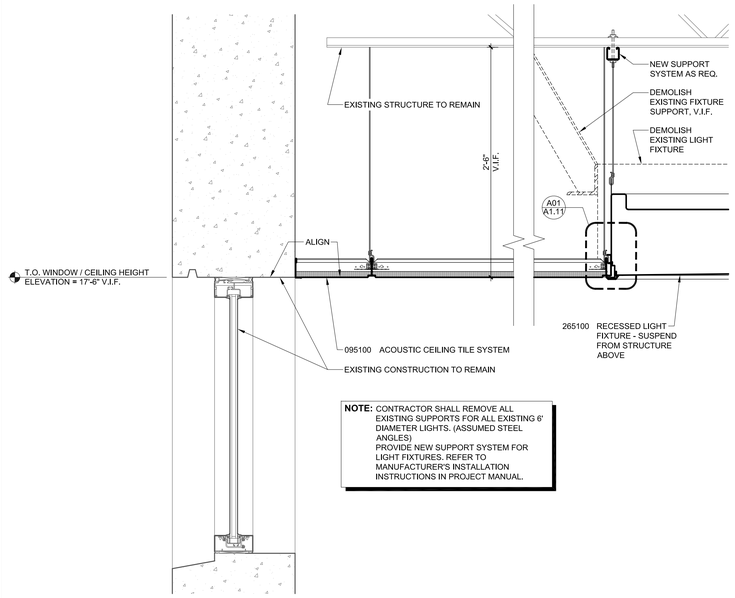
X

1. 024119 - EXISTING CEILING TO REMAIN
2. 015000 - TEMPORARY DUSTPROOF WOOD FRAMED PARTITION WITH 3'-0" x 6'-8" MIN. DOOR
3. 265100 - NEW LIGHT FIXTURE IN LOCATION OF EXISTING REMOVED LIGHT FIXTURE. CONTRACTOR SHALL PROVIDE NEW SUPPORT FOR LIGHT FIXTURE AS REQUIRED. REFER TO LIGHTING FIXTURE CUT SHEETS IN PROJECT MANUAL.
4. 024119 - EXISTING MECHANICAL EQUIPMENT TO REMAIN
5. 265100 - NEW LIGHT FIXTURE IN LOCATION OF EXISTING REMOVED LIGHT FIXTURE, EXISTING SUPPORT FOR LIGHTS SHALL REMAIN AND BE REUSED.
6. 024119 - EXISTING BUILDING EXPANSION JOINT TO REMAIN
7. 024119 - EXISTING CEILING POCKET TO REMAIN

N22	KEYED NOTES
note-clng	NTS

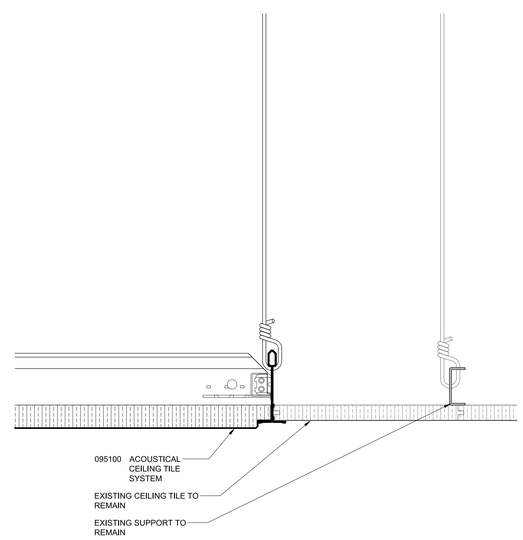


A01	CEILING DETAIL
dlts-clng	6" = 1'-0"



NOTE: CONTRACTOR SHALL REMOVE ALL EXISTING SUPPORTS FOR ALL EXISTING 6' DIAMETER LIGHTS. (ASSUMED STEEL ANGLES)
PROVIDE NEW SUPPORT SYSTEM FOR LIGHT FIXTURES. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS IN PROJECT MANUAL.

A08	CEILING DETAIL
dlts-clng	1 1/2" = 1'-0"



A16	CEILING DETAIL
dlts-clng	6" = 1'-0"

1'-0" X 1'-0" EXISTING CEILING GRID

1'-0" X 1'-0" EXISTING CEILING GRID TO BE DEMOLISHED

095100 - 2'-0" X 2'-0" ACOUSTIC TILE CEILING

NEW GYPSUM BOARD CEILING PATCHING - ALL WORK BY OWNER, U.N.O.

2'-0" X 2'-0" EXISTING CEILING GRID TO BE DEMOLISHED

EXISTING LIGHT FIXTURES TO BE DEMOLISHED

6'-0" LIGHT FIXTURE - REFER TO ELECTRICAL

4'-0" LIGHT FIXTURE - REFER TO ELECTRICAL

WALL MOUNTED OR STACK LIGHT FIXTURE - REFER TO ELECTRICAL

RECESSED CAN LIGHT FIXTURE - REFER TO ELECTRICAL

UTILITY LIGHT FIXTURE - REFER TO ELECTRICAL

2X4 RECESSED LIGHT FIXTURE - REFER TO ELECTRICAL

SURFACE MOUNTED LIGHT FIXTURE - REFER TO ELECTRICAL

TRACK & LIGHT FIXTURES - REFER TO ELECTRICAL

EXISTING MECHANICAL DIFFUSER TO REMAIN

EXISTING GYPSUM BOARD CEILING TO REMAIN - PAINT ENTIRE CEILING WHERE PATCHED (BY OWNER)

G22	LEGEND - CEILING
lgnd-clng	NTS

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PATRICK R. CORR REGISTERED ARCHITECT AGRICULTURE CT. ARCHITECT No. 104055 STATE OF TENNESSEE

contract # FY2015-177

lighting upgrades for
oak ridge
public library

oak ridge, tn

14-010

issue date	10/21/14
project manager	PRC
design coordinator	PRC
drawn by	PRC
checked by	PMMC

revisions		
no.	issued by	date

A1.11

enlarged main level reflected ceiling plan, legend and details

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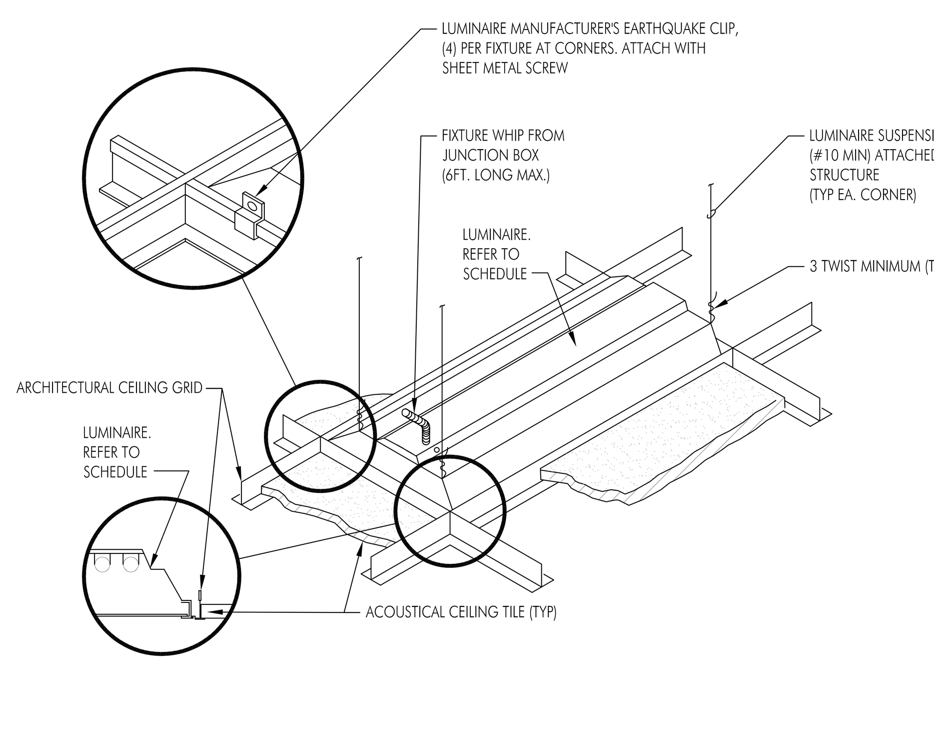
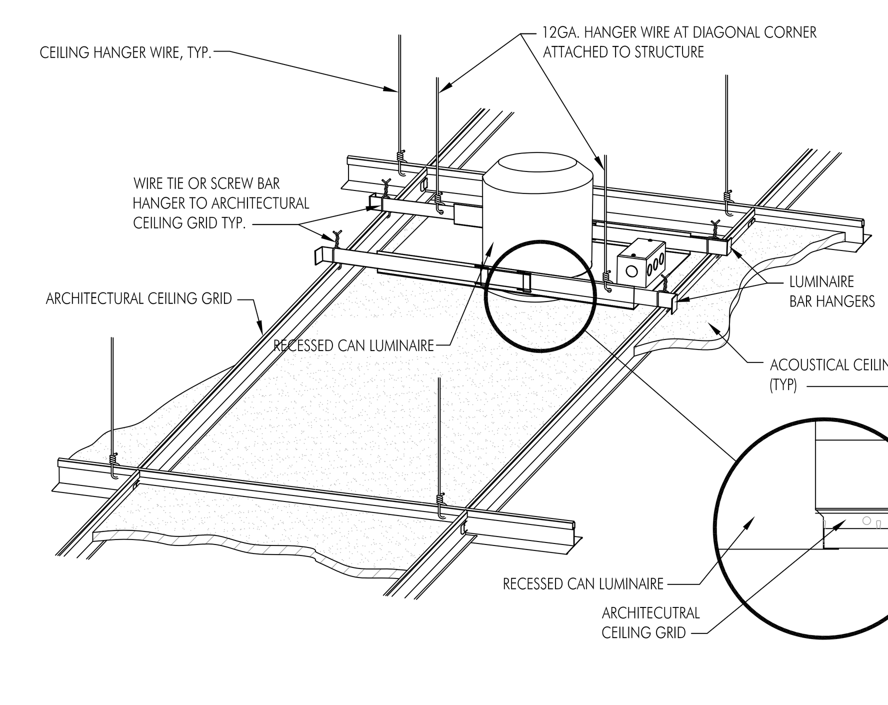
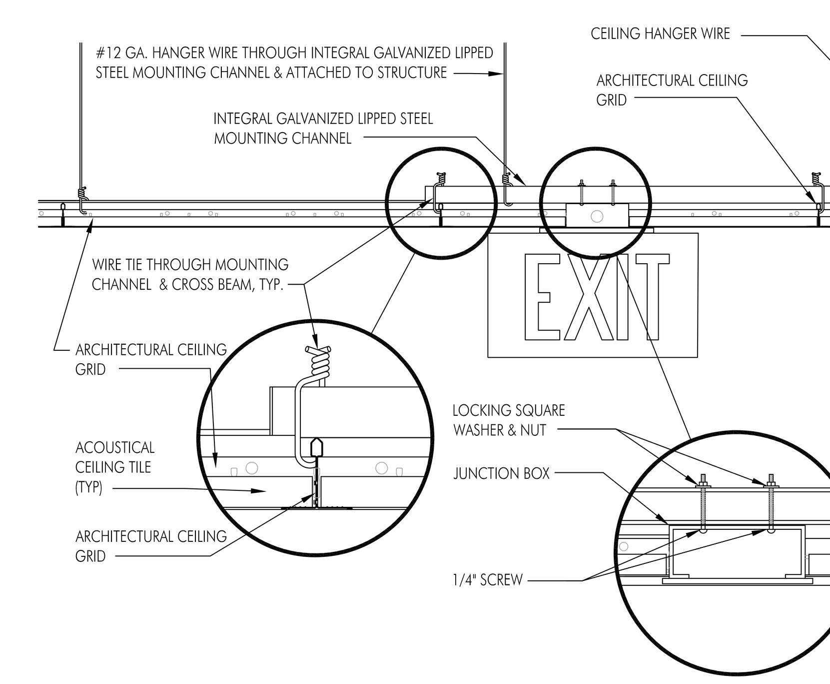
V01 NOT USED



P01 LUMINAIRE MOUNTING
nts



G01 DOWNLIGHT MOUNTING
nts



A01 EXIT SIGN MOUNTING
nts

LIGHTING FIXTURE SCHEDULE - OAK RIDGE PUBLIC LIBRARY

LAMP TYPE: FLR = FLUORESCENT; INC = INCANDESCENT; MH = METAL HALIDE; LED = LIGHT EMITTING DIODE

MOUNTING METHODS: CP-** = CEILING - PENDANT - MOU; CS = CEILING - SURFACE; CR = CEILING - RECESSED; W-** = WALL - HEIGHT AFF; GP-** = GROUND - POLE HEIGHT; GS = GROUND - SURFACE; GR = GROUND - RECESSED

DESIGNATION	LAMP TYPE	WATTAGE EACH	MOUNTING	GENERAL DESCRIPTION	MANUFACTURER COMPANY	CATALOG NUMBER
A	LED	74	CR	2'X4' RECESSED FIXTURE. 90 CRI 6800 LUMEN 3500K	PHILIPS	4124 D1 ST L 9B A S 1 277 E
					LEDALITE	
CN	LED	38	CR	6" RECESSED LED DOWN LIGHT WITH NEW CONSTRUCTION HOUSING. 3000 LUMEN	INTENSE	SS6G2 3000 358 120V IC630 HZ-SF
CNW	LED	38	CR	6" RECESSED LED DOWN LIGHT WITH WALL WASH TRIM. NEW CONSTRUCTION HOUSING. 3000 LUMEN	INTENSE	SS6G2 3000 358 120V IC635 HZ-SF
CR	LED	38	CR	8" RECESSED LED DOWN LIGHT WITH REMODEL CONSTRUCTION HOUSING. 3000 LUMEN	INTENSE	SS8RG2 3000 358 120V IC830 HZ-SF
						OWNER TO VERIFY COMPATIBILITY WITH SAMPLE PRIOR TO ORDER ENTRY
CS	LED	24	CS	13.75" DIAMETER SURFACE MOUNT LED FIXTURE. 2000 LUMEN. GLASS DIFFUSER WITH CHROME ACCENT.	PBH	CL530-FR-PC-DOB24
					STONE - ALTA	SURFACE MOUNT IN EXISTING RECESSED FIXTURE LOCATIONS.
D4	LED	112	CR	4' DIAMETER RECESSED FIXTURE. 6" DEPTH. 8121 LUMEN OUTPUT. FIELD REPLACEABLE LED BOARDS.	PRUDENTIAL	P-8940-LED35LO-FWA-TMW-SC-UNV-X1-ND-MOD
					P8900	
D6	LED	415	CR	6' DIAMETER RECESSED FIXTURE. 6" DEPTH. 26000 LUMEN OUTPUT. FIELD REPLACEABLE LED BOARDS.	PRUDENTIAL	P-8960-LED35SO-CWA-TMW-SC-UNV-X1-DM10
					P8900	0-10V DIMMING - SEE ELECTRICAL DRAWING FOR DIMMER LOCATION
E	LED	44	CS	4' SURFACE MOUNTED LED STRIP LIGHT WITH SYMMETRIC REFLECTOR AND WIRE GUARD.	HE WILLIAMS	75 4 PH50 WG-7511-LED UNV
F	LED	170	CR	20' RECESSED LINEAR LED FIXTURE.	PRUDENTIAL	STR-LED35-SO-20'-TMW-D1-SC-UNV-ND
G	LED	11	CS	3' LED STRIP LIGHT SURFACE MOUNTED IN DISPLAY CASE. REMOTE POWER SUPPLY WILL POWER TWO FIXTURES.	INSIGHT	PL 3.5 35K 15 HM 36 REM MW WL
					PILOT	120V 100 WATT REMOTE POWER SUPPLY
SS	LED	240	CS	20' SURFACE MOUNT LED STACK FIXTURE. SINGLE POWER FEED. COORDINATE MOUNTING AND INSTALL WITH ARCHITECTURAL	PRUDENTIAL	R1-LED35 HO-20'-SAL-YGW-UNV-SUR-X3-ND
					SNAP	PRIOR TO ORDERING OWNER TO CONFIRM POWER FEED LOCATIONS
TR	LED	21	CS	8' SURFACE MOUNT TRACK WITH HEADS AS INDICATED ON DRAWINGS. 1600 LUMEN LED HEADS.	SISTEMALUX	1690-835-20-45-120V-01
						SURFACE MOUNT TRACK - WHITE FINISH
W2	LED	20	W	2' WALL MOUNTED DIRECT/INDIRECT LED FIXTURE. PERFORATED FRONT.	FINELITE	S17-LED-VCF-PF-2-HO-3500k-277
					SERIES 17	
W4	LED	40	W	4' WALL MOUNTED DIRECT/INDIRECT LED FIXTURE. PERFORATED FRONT.	FINELITE	S17-LED-VCF-PF-4-HO-3500k-277
					SERIES 17	
X	LED	#	CS	EXIT SIGN WITH EMERGENCY HEADS.	BEGHELLI	PCH G SA
X2	LED	#	CR	RECESSED BACK BOX EDGE LIT EXIT SIGN.	BEGHELLI	OL2 SA LG

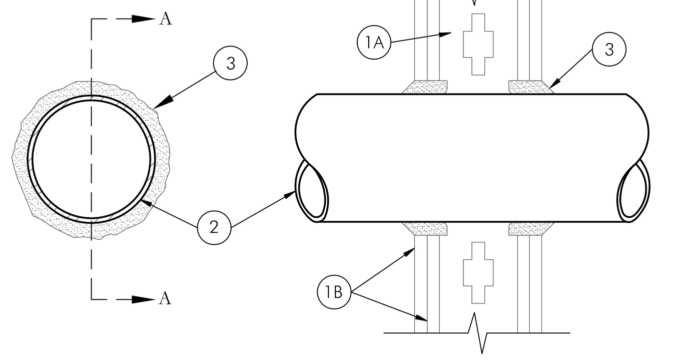
NOTES: NO SUBSTITUTIONS. CONTACT DIANNA OSICKEY AT SESCO LIGHTING FOR PRICING AND SOURCING INFORMATION. REPRESENTATIVE TO COORDINATE REVIEW WITH OWNER PRIOR TO ORDER ENTRY. REPRESENTATIVE TO COORDINATE FIXTURE ORDER ENTRIES BY AREAS OF WORK: OWNER INSTALLED AND CONTRACTOR INSTALLED. DISTRIBUTOR TO TAKE POSSESSION OF ALL LIGHTING AND COORDINATE ONE DELIVERY WITH OWNER AND CONTRACTOR. DISTRIBUTOR, UPON RECEIPT OF LUMINAIRES SHALL CHECK FOR DAMAGE DURING SHIPMENT. IF THERE IS NONE, DISTRIBUTOR SHALL TAKE RESPONSIBILITY AND CARE OF FIXTURES TO ARRIVE DAMAGE FREE. DISTRIBUTOR, UPON RECEIPT, TO SORT OWNER INSTALLED FIXTURES AND CONTRACTOR INSTALLED FIXTURES FOR PROPER DELIVERY. DISTRIBUTOR TO DELIVER FIXTURES THAT ARE OWNER SUPPIED AND INSTALLED TO THE CITY OF OAK RIDGE'S WAREHOUSE FOR LONG TERM STORAGE. COORDINATE WITH OWNER. DISTRIBUTOR TO DELIVER FIXTURES THAT ARE OWNER SUPPLIED AND CONTRACTOR INSTALLED TO JOB SITE [OAK RIDGE PUBLIC LIBRARY]. COORDINATE WITH CONTRACTOR AND OWNER.

L09 LIGHTING FIXTURE SCHEDULE
nts

1. ALL ELECTRICAL COMPONENTS EXTENDED THROUGH A FIRE RATED STRUCTURE SHALL BE PROTECTED OR SEALED AS REQUIRED TO MAINTAIN RATING OF STRUCTURE.
2. VERIFY ELECTRICAL REQUIREMENTS FOR ALL EQUIPMENT, PROVIDE CIRCUITS AND FUSES SIZED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
3. MAINTAIN CODE REQUIRED CLEARANCES AT ALL ELECTRICAL PANELS AND DISCONNECT SWITCHES. THERE SHALL BE NO EQUIPMENT, PIPING, OR DUCT WORK INSTALLED IN OR ABOVE THE WORKING SPACE CLEARANCES.
4. THE FIRE ALAM CONTRACTOR MUST BE CERTIFIED IN ACCORDANCE WITH THE TENNESSEE ALARM CONTRACTORS LICENSING ACT OF 1991, TCA TITLE 62, AND CHAPTER 32. CALL 615-741-9771 FOR ADDITIONAL INFORMATION.
5. MORE THAN TWO VISIBLE FIRE ALARM NOTIFICATION DEVICES IN THE SAM ROOM OR ADJACENT SPACE WITH THE FIELD OF VIEW MUST FLASH IN SYNCHRONIZATION. (NFPA 72 7.5.4.1.1 AND 7.5.4.1.2(3))
6. ALL FIRE ALARM WIRING SHALL BE INSTALLED IN MINIMUM 1" CONDUIT WITH JUNCTION BOXES PAINTED RED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ALL FIRE ALARM CONDUITS NOT SHOWN ON PLANS PER NFPA 70.
7. ALL REQUIRED DOCUMENTATION REGARDING THE DESIGN OF FIRE DETECTION, ALARM, AND COMMUNICATIONS SYSTEMS AND THE PROCEDURES FOR MAINTENANCE, INSPECTION, AND TESTING OF FIRE DETECTION, ALARM, AND COMMUNICATIONS SYSTEMS SHALL BE MAINTAINED AT AN APPROVED, SECURED LOCATION FOR THE LIFE OF THE SYSTEM. (NFPA 101 9.6.1.9 AND IFC 901.6.2.1)
8. THE CONTRACTOR SHALL VISIT THE JOB SITE AND CAREFULLY EXAMINE THOSE PORTIONS OF THE SITE AFFECTED BY THIS WORK SO AS TO BECOME FAMILIAR WITH EXISTING CONDITIONS THAT MAY AFFECT EXECUTION OF THE WORK.
9. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE 2011 NATIONAL ELECTRICAL CODE, NFPA 70, LOCAL CODES/ORDINANCES AND THE APPLICABLE ACCESSIBILITY CODE. SHOULD PLANS AND CODES CONFLICT, THE CODE TAKES PRECEDENCE. MAKE NO CHANGES, EVEN IN THE CASE OF CONFLICT, WITHOUT FIRST OBTAINING APPROVAL OF THE ENGINEER.
10. "PROVIDE" AS USED HERE AND ON THE DRAWINGS, IS AN ALL-INCLUSIVE TERM REQUIRING CONTRACTOR TO FURNISH, INSTALL, WIRE, AND CONNECT ALL SPECIFIED EQUIPMENT AS WELL AS COMPONENTS, ACCESSORIES, AND MOUNTING HARDWARE TO INSURE THAT SPECIFIED EQUIPMENT FUNCTIONS TO MEET SYSTEM REQUIREMENTS.
11. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT OTHER FACILITIES AND EQUIPMENT FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSE FOR REPAIR OR REPLACEMENT OF FACILITIES, EQUIPMENT, OR OTHER PROPERTY DAMAGED BY OPERATIONS IN CONJUNCTION WITH THE COMPLETION OF THIS WORK.
12. CONTRACTOR SHALL GIVE ADEQUATE NOTIFICATION TO TENNESSEE ONE CALL, (800) 351-1111, PRIOR TO COMMENCEMENT OF ANY EXCAVATION.
13. INSTALL SPECIFIED EQUIPMENT, AS NOTED ON DRAWINGS, OR APPROVED EQUAL. ADDITIONAL EQUIPMENT AND MATERIAL MAY BE REQUIRED OTHER THAN THAT SHOWN ON DRAWINGS. CONTRACTOR SHALL PROVIDE ALL MATERIAL, LABOR, AND EQUIPMENT REQUIRED.
14. THE CONTRACTOR SHALL VERIFY THAT THE ACTUAL EQUIPMENT SUPPLIED HAS THE SAME ELECTRICAL SPECIFICATIONS AS THE EQUIPMENT USED AS THE BASIS OF DESIGN. IF THE EQUIPMENT IS DIFFERENT, THE CONTRACTOR SHALL MAKE ADJUSTMENTS TO THE PANELS AND CIRCUITS AND INCLUDE THEM IN SUBMITTALS.
15. ALL MATERIALS SHALL BE LISTED AND LABELED BY UNDERWRITERS LABORATORY, INC.
16. ALL WIRES SHALL BE TERMINATED AND LABELED. ALL JUNCTION BOXES SHALL BE LABELED TO INDICATED THE CIRCUITS CONTAINED IN THE BOX.
17. PANELBOARD LEGENDS SHALL BE TYPED.
18. ALL FEEDERS #4 AND LARGER SHALL BE MEGGER TESTED AFTER INSTALLATION.
19. UNLESS OTHERWISE NOTED, ALL CONDUCTORS SHALL BE COPPER AND #12 AWG MINIMUM WITH THHN/THWN, 600 VOLT INSULATION.
20. PROVIDE A DEDICATED NEUTRAL, COLOR CODED, FOR EACH UNGROUNDED CONDUCTOR. SHARING OF NEUTRALS IS PROHIBITED.
21. DO NOT INSTALL MORE THAN THREE CIRCUITS (SIX CURRENT CARRYING CONDUCTORS) IN A CONDUIT.
22. THE MINIMUM CONDUIT SIZE SHALL BE 3/4", UNLESS OTHERWISE NOTED. INTERIOR CONDUITS SHALL BE EMT; UNDERGROUND CONDUIT AND CONCRETE ENCASED CONDUIT SHALL BE SCHEDULE 40 PVC. EXTERIOR EXPOSED CONDUIT SHALL BE SCHEDULE 80 PVC.
23. MC CABLE SHALL NOT BE USED.
24. A GREEN, COPPER GROUND WIRE SHALL BE INSTALLED IN ALL CONDUIT SYSTEMS AND SHALL BE BONDED TO ALL ENCLOSURES, BOXES, AND EQUIPMENT.
25. BONDING JUMPERS SHALL BE USED TO BOND CONDUIT TO ENCLOSURES, BOXES, AND EQUIPMENT WHERE KNOCKOUTS ARE USED.

L16 GENERAL NOTES
n.t.s.

System No.W-L-1001
June 15, 2005
F Ratings - 1, 2, 3 and 4 Hr (See Items 2 and 3)
T Ratings - 0, 1, 2, 3, and 4 Hr (See Item 3)
L Rating At Ambient - less than 1 CFM/sq ft
L Rating At 400 F - less than 1 CFM/sq ft



SECTION A-A

1. Wall Assembly - The 1, 2, 3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs - Wall framing may consist of either wood studs (max 2 h fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC with nom 2 by 4 in. lumber end plates and cross braces. Steel studs to be min 3-5/8 in. wide by 1-3/8 in. deep channels spaced max 24 in. OC.
   B. Gypsum Board* - Nom 1/2 or 5/8 in. thick, 4 ft. wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 26 in.
2. Through Penetrant - One metallic pipe, conduit or tubing installed either concentrically or eccentrically within the firestop system. The annular space between pipe, conduit or tubing and periphery of opening shall be min of 0 in. (point contact) to max 2 in. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
   A. Steel Pipe - Nom 24 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. Iron Pipe - Nom 24 in. diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in diam (or smaller) or Class 50 (or heavier) ductile iron pressure pipe.
   C. Conduit - Nom 6 in. diam (or smaller) steel conduit or nom 4 in diam (or smaller) steel electrical metallic tubing
   D. Copper Tubing - Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing
   E. Copper Pipe - Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.
   F. Through Penetrating Product* - Flexible Metal Piping - The following types of steel flexible metal gas piping may be used:
      1. Nom 2 in. diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly. OMEGA FLEX INC
      2. Nom 1 in. diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly. TITEFLEX CORP, A BUNDY CO
      3. Nom 1 in. diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly. WARD MFG INC
3. Fill,Void or Cavity Material* - Caulk or Sealant - Min 5/8. 1-1/4,1-7/8 and 2-1/2 in. thickness of caulk or sealant for 1, 2, 3 and 4 hr rated assemblies, respectively, applied within annulus, flush with both surfaces of wall. Min 1/4 in. diam bead of caulk or sealant applied to gypsum board/penetrant interface at point contact location on both sides of wall.

The hourly F Rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table.

The hourly T Rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

Max Pipe or Conduit Diam in.	F Rating Hr	T Rating Hr
1	1 or 2	0+, 1 or 2
1	3 or 4	3 or 4
4	1 or 2	0
6	3 or 4	0
12	1 or 2	0

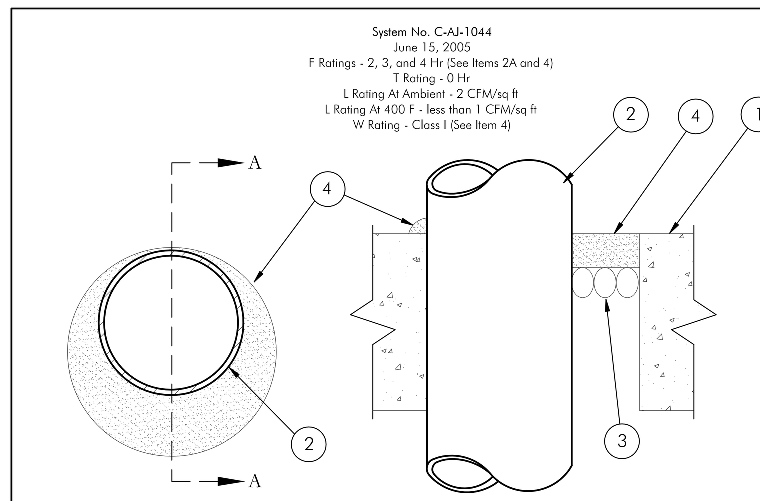
+When copper pipe is used, T Rating is 0 hr.

3M COMPANY - CP 25WB+ caulk or FB-3000 WT sealant,

*Bearing the UL Classification Marking

1-4 HOUR GYPSUM BOARD FIRE STOPPING DETAIL
NO SCALE

System No. C-AJ-1044
June 15, 2005
F Ratings - 2, 3, and 4 Hr (See Items 2A and 4)
T Rating - 0 Hr
L Rating At Ambient - 2 CFM/sq ft
L Rating At 400 F - less than 1 CFM/sq ft
W Rating - Class I (See Item 4)



SECTION A-A

1. Floor or Wall Assembly - Lightweight or normal weight (100-150 pcf) concrete. Except as noted in table under Item 4, min thickness of solid concrete floor or wall assembly is 4-1/2 in. Floor may also be constructed of any min 6 in. thick UL Classified hollow core Precast Concrete Units* . When floor is constructed of hollow core precast concrete units, packing material (Item 3) and caulk fill material (Item 4) to be installed symmetrically on both sides of floor, flush with floor surface. Wall assembly may also be constructed of any UL Classified Concrete Blocks* . Max diam of opening is in solid lightweight or normal weight concrete. Floor is 32 in. Max diam of opening in floor constructed of hollow-core precast concrete units is 7 in.

See Concrete Blocks (CAZT) and Precast Concrete Units (CFTV) categories in the Fire Resistance Directory for names of manufacturers.

1A. Steel Sleeve (Optional, not shown) - Max 15 in. ID (or smaller) Schedule 10 (or heavier) steel sleeve cast or grouted into floor or wall assembly. Sleeve may extend a max of 2 in. above top of floor or beyond either surface of wall. Max 16 in. ID (or smaller) min 0.028 wall thickness (or heavier) galvanized steel sleeve cast or grouted into floor or wall assembly. Sleeve may extend a max of 1/2 in. beyond either surface of floor or wall.

2. Through Penetrants - One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. Max annular space between pipe, conduit or tubing and edge of through opening or sleeve is dependent on the parameters shown in Item 4. Min annular space between pipe or conduit and edge of through opening is zero in. (point contact). Pipe conduit or tubing to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
   A. Steel Pipe - Nom 30 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. Iron Pipe - Nom 30 in. diam (or smaller) cast or ductile iron pipe.
   C. Conduit - Nom 6 in. diam (or smaller) rigid steel conduit.
   D. Conduit - Nom 4 in. diam (or smaller) steel electrical metallic tubing.
   E. Copper - Tubing Nom 6 in. diam (or smaller) Type L (or heavier) copper tube.
   F. Copper Pipe - Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.

3. Packing Material - Polyethylene backer rod or nom 1 in. thickness of tightly-packed mineral wool batt or glass fiber insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall as required to accommodate the required thickness of caulk fill material (Item 4).

4. Fill,Void or Cavity Material* - Caulk or Sealant - Applied to fill the annular space flush with top surface of floor. In wall assemblies, required caulk thickness to be installed symmetrically on both sides of wall, flush with wall surface. At point contact location between penetrant and sleeve or between penetrant and concrete, a min 1/4 in. diam bead of caulk shall be applied at top surface of floor and at both surfaces of wall. The hourly F Ratings and the min required caulk thicknesses are dependent upon a number of parameters, as shown in the following table:

Min Floor or Wall Thkns In.	Nom Pipe Tube or Conduit Diam in.	Max Annular Space in.	Min Caulk Thkns in.	F Rating Hr
2-1/2	1/2-12	1-3/8	1/2	2
2-1/2	1/2-12	3-1/4	1	2
4-1/2	1/2-6	1-3/8	1/4 (a)	2
4-1/2	1/2-12	1-1/4	1/2	3
4-1/2	1/2-20	2	1	3
4-1/2	1/2-20	2	1	3
4-1/2	1/2-12	3-1/4	1	3
4-1/2	22-30	2	2	3
5-1/2	1/2-6	1-3/8	1 (b)	4

(a)Min 2 in thickness of mineral wool batt insulation required in annular space.
(b)Min 1 in. thickness of mineral wool batt insulation required in annular space on both sides of floor or wall assembly. Min 1 in. thickness of caulk to be installed flush with each surface of floor or wall assembly.

3M COMPANY - CP 25WB+ caulk or FB-3000 WT sealant. (The W Rating applies only when FB-3000 WT sealant is used.)

*Bearing the UL Classification Marking

2-4 HOUR CONCRETE FIRE STOPPING DETAIL
NO SCALE

A09 FIRE STOPPING DETAILS
nts

GENERAL ELECTRICAL

	PANELBOARD, RECESSED OR SURFACE MOUNTED AS INDICATED ON DRAWINGS; ADJUST HEIGHT OF PANEL SO THAT NO BREAKER IS HIGHER THAN +6' A.F.F.
A-1	HOMERUN - EXTEND FEEDER TO THE DESIGNATED PANELBOARD OR DEVICE. ALL FEEDERS SHALL BE PROVIDED WITH A GREEN CODE SIZE EQUIPMENT GROUND CONDUCTOR. BOND TO GROUND BUS BAR IN PANELBOARD. CIRCUITS OVER 200 FEET IN LENGTH SHALL BE INCREASED BY AT LEAST ONE WIRE SIZE TO COMPENSATE FOR VOLTAGE DROP. ELECTRICAL CONTRACTOR TO ADJUST WIRE SIZES PER NEC. WIRE SIZE MAY BE ASSUMED TO BE 2#12, 1#12GND. IN 3/4" CONDUIT, UNLESS OTHERWISE NOTED.
	CONDUIT IN THE FLOOR CONSTRUCTION OR UNDERGROUND SHOWN TURNING UP.
	CONDUIT IN THE WALL OR CEILING CONSTRUCTION SHOWN TURNING DOWN.
2-4"	WALL SLEEVE - PROVIDE TWO 2" IMC CONDUITS THREADED ON BOTH ENDS WITH BUSHINGS UNLESS OTHERWISE NOTED. EXTEND 8" OUT ON EACH SIDE OF WALL. IN EXAMPLE, PROVIDE TWO 4" SLEEVES. WHEN INSTALLED IN A FIRE WALL: FIRESTOP AROUND OUTSIDE CONDUIT, FIRESTOP INSIDE AFTER INSTALLATION OF ALL CABLING AND PROVIDE THREADED ENDCAPS ON BOTH ENDS OF EMPTY SLEEVES.
J	JUNCTION BOX; SIZE, USE AND LOCATION AS REQUIRED.

LIGHTING

3 A b	2'x4' LED LIGHTING FIXTURE. "A" REFERS TO DESIGNATION IN THE FIXTURE SCHEDULE. "3" INDICATES CIRCUIT NUMBER, "b" INDICATES THIS FIXTURE SWITCHED BY S_b.
3 A b	4' LED LINEAR LIGHTING FIXTURE. NOTATIONS SAME AS ABOVE.
"A" b 3	LED STRIP FIXTURE; LENGTH IS SPECIFIED ON DRAWINGS. NOTATIONS SAME AS OTHER FIXTURE.
3 b 'A'	WALL MOUNTED INCANDESCENT, COMPACT FLUORESCENT, OR H.I.D. TYPE FIXTURE; NOTATIONS SAME AS ABOVE.
3 b 'A'	INCANDESCENT, COMPACT FLUORESCENT, LED, OR H.I.D. TYPE FIXTURE; NOTATIONS SAME AS ABOVE.
"X"	SINGLE FACE WALL MOUNTED EXIT SIGN. EXIT SIGN SHALL HAVE DIRECTIONAL ARROWS AS SHOWN. FIXTURE TYPE "X" AS INDICATED IN THE LIGHTING FIXTURE SCHEDULE UNLESS NOTED OTHERWISE. PROVIDE A BATTERY PACK FOR OPERATION DURING LOSS OF NORMAL BUILDING POWER.

CONTROLS

$^{wp}_{b}S_3$	WALL LIGHT SWITCH; SINGLE POLE UNLESS NOTED 3 OR 4-WAY; +48" ABOVE FLOOR. "b" INDICATES SWITCH CONTROLS LIGHT FIXTURES LABELED "b", "wp" INDICATES WEATHER PROOF.
S_D	0-10 VOLT DIMMER TO BE USED IN CONJUNCTION WITH ROOM CONTROLLER. USE WATT STOPPER MODEL #LMSW-105-W. CONTRACTOR SHALL SUPPLY ALL LOW VOLTAGE WIRING NECESSARY BETWEEN SWITCH AND ROOM CONTROLLER.
RC	0-10 VOLT DIMMING ROOM CONTROLLER MOUNTED ABOVE CEILING. USE WATT STOPPER LMRC-210 SERIES OR APPROVED EQUAL. CONTRACT SHALL PROVIDE ALL MATERIAL AND LABOR NECESSARY FOR A COMPLETE INSTALLATION.

FIRE ALARM SYSTEM

FACP	FIRE ALARM CONTROL PANEL. WALL MOUNTED, TOP OF PANEL TO BE 5'-0" A.F.F. WITH AUTO DIALER AND BATTERY BACKUP. PROVIDE ADDRESSABLE SYSTEM WITH ADDRESSABLE DEVICES.
S	FIRE ALARM AUTOMATIC SMOKE DETECTOR.

ABBREVIATIONS

EX	EXISTING TO REMAIN
EXR	EXISTING TO BE REMOVED
REX	EXISTING TO BE RELOCATED

GENERAL LEGEND NOTES:
1) SOME ITEMS SHOWN ON LEGEND MAY NOT BE USED IN DRAWINGS.
2) ALL DEVICE COVERPLATES SHALL BE LABELED INDICATING PANEL AND CIRCUIT SERVED. LABELS SHALL BE MASTIC PRINTED TYPE. CONTRACTOR SHALL USE A DEVICE SIMILAR TO A BRADY LABEL MAKER. REFER TO ARCHITECTECTURAL ELEVATIONS FOR EXACT MOUNTING HEIGHT LOCATIONS OF ELECTRICAL DEVICES IN CASEWORK AND KITCHEN/BREAK AREAS.

GENERAL LIGHTING WIRING NOTES:
1) EACH LIGHTING FIXTURE SHALL BE STRUCTURALLY SUPPORTED; DO NOT USE CONDUIT FOR SUPPORT OF FIXTURES OR BOXES.
2) PROVIDE GROUND CONDUCTOR IN ALL CONDUIT RUNS (NOT ILLUSTRATED).
3) THROUGH WIRING OF FIXTURES SHALL NOT BE PERMITTED UNLESS SPECIFICALLY ILLUSTRATED.

A20 LEGEND
nts

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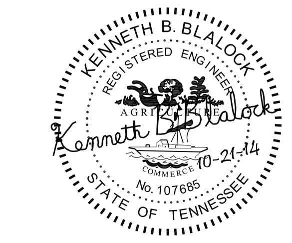

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contract # FY2015-177

lighting upgrades for
oak ridge public library

oak ridge, tn

14-010

issue date	10/21/14
project manager	KBB
design coordinator	STE
drawn by	STE
checked by	KBB

revisions

no.	issued by	date

E0.01
legend, notes, details, and schedules

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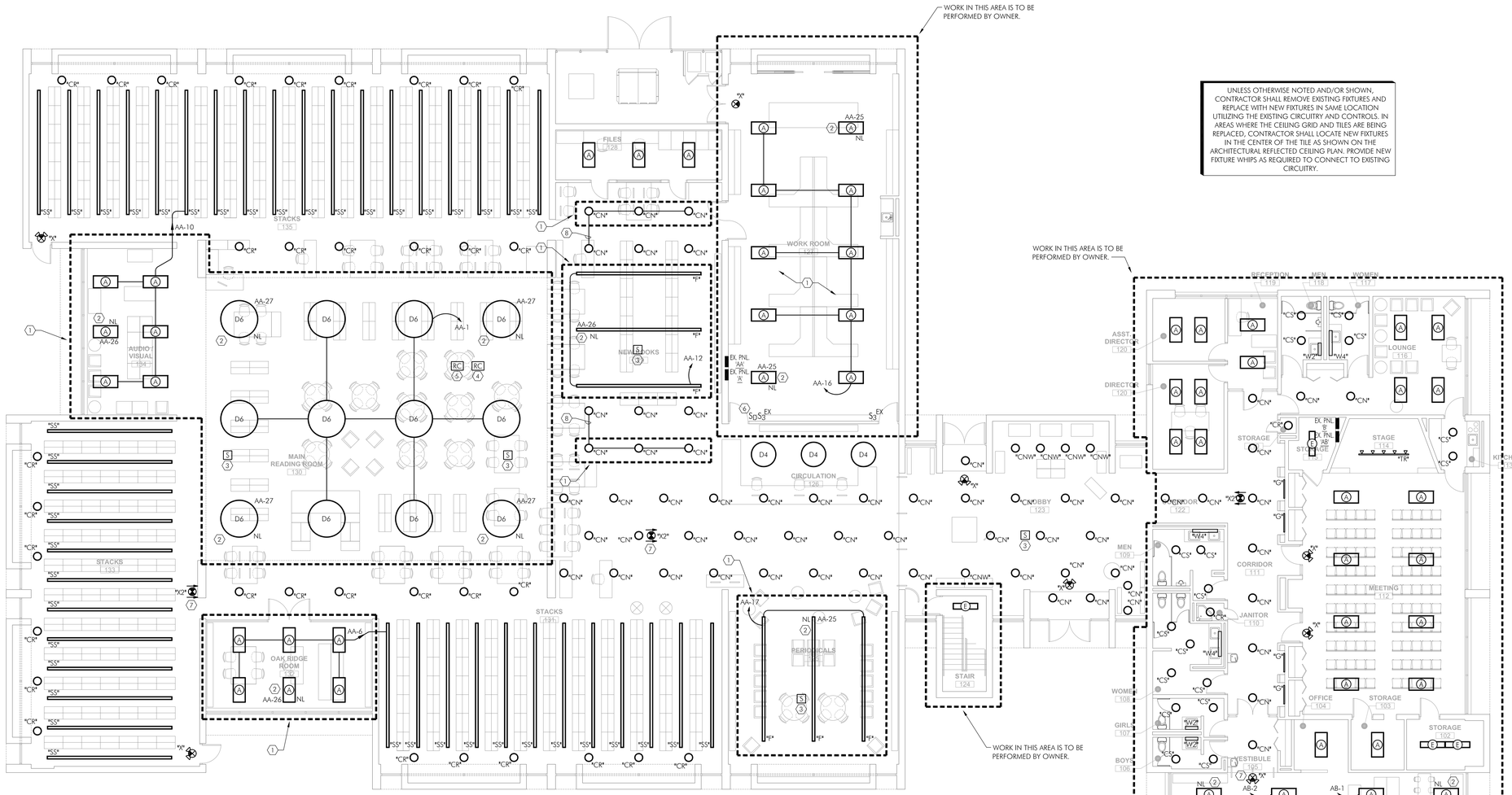
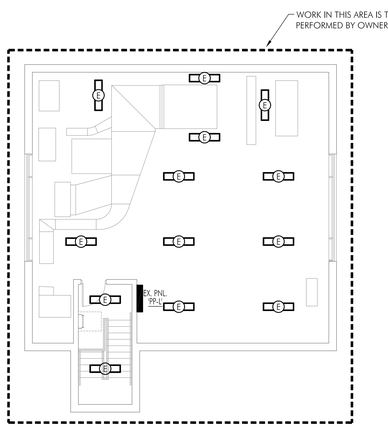


UNLESS OTHERWISE NOTED AND/OR SHOWN, CONTRACTOR SHALL REMOVE EXISTING FIXTURES AND REPLACE WITH NEW FIXTURES IN SAME LOCATION UTILIZING THE EXISTING CIRCUITRY AND CONTROLS. IN AREAS WHERE THE CEILING GRID AND TILES ARE BEING REPLACED, CONTRACTOR SHALL LOCATE NEW FIXTURES IN THE CENTER OF THE TILE AS SHOWN ON THE ARCHITECTURAL REFLECTED CEILING PLAN. PROVIDE NEW FIXTURE WHIPS AS REQUIRED TO CONNECT TO EXISTING CIRCUITRY.



1. THIS DRAWING IS GENERALLY DIAGRAMMATIC IN NATURE AND EXCEPT WHERE SPECIFICALLY DIMENSIONED OR DETAILED, INDICATES THE GENERAL ARRANGEMENT OF THE WORK. THE CONTRACTOR SHALL INSTALL HIS/HER WORK TO CONFORM AS NEARLY AS POSSIBLE TO THE LOCATIONS AND ARRANGEMENTS SHOWN, WITH ONLY SUCH MINOR ADJUSTMENTS AS NECESSARY. THE CONTRACTOR SHALL COORDINATED THE WORK WITH ALL OTHER TRADES TO AVOID INTERFERENCES.
2. ALL ELECTRICAL COMPONENTS EXTENDED THROUGH A FIRE RATED STRUCTURE SHALL BE PROTECTED OR SEALED AS REQUIRED TO MAINTAIN RATING OF STRUCTURE.
3. VERIFY ELECTRICAL REQUIREMENTS FOR ALL EQUIPMENT, PROVIDE CIRCUITS AND FUSES SIZED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
4. MAINTAIN CODE REQUIRED CLEARANCES AT ALL ELECTRICAL PANELS AND DISCONNECT SWITCHES. THERE SHALL BE NO EQUIPMENT, PIPING, OR DUCT WORK INSTALLED IN OR ABOVE THE WORKING SPACE CLEARANCES.
5. THE CONTRACTOR SHALL VISIT THE JOB SITE AND CAREFULLY EXAMINE THOSE PORTIONS OF THE SITE AFFECTED BY THIS WORK SO AS TO BECOME FAMILIAR WITH EXISTING CONDITIONS THAT MAY AFFECT EXECUTION OF THE WORK.
6. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.
7. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE 2011 NATIONAL ELECTRICAL CODE, NFPA 70, LOCAL CODES/ORDINANCES AND THE APPLICABLE ACCESSIBILITY CODE. SHOULD PLANS AND CODES CONFLICT, THE CODE TAKES PRECEDENCE. MAKE NO CHANGES, EVEN IN THE CASE OF CONFLICT, WITHOUT FIRST OBTAINING APPROVAL OF THE ENGINEER.
8. "PROVIDE" AS USED HERE AND ON THE DRAWINGS, IS AN ALL-INCLUSIVE TERM REQUIRING CONTRACTOR TO FURNISH, INSTALL, WIRE, AND CONNECT ALL SPECIFIED EQUIPMENT AS WELL AS COMPONENTS, ACCESSORIES, AND MOUNTING HARDWARE TO INSURE THAT SPECIFIED EQUIPMENT FUNCTIONS TO MEET SYSTEM REQUIREMENTS.
9. UNLESS OTHERWISE NOTED, ALL CONDUCTORS SHALL BE COPPER AND #12 AWG MINIMUM WITH THHN/THWN, 600 VOLT INSULATION.
10. PROVIDE A DEDICATED NEUTRAL, COLOR CODED, FOR EACH UNGROUNDED CONDUCTOR. SHARING OF NEUTRALS IS PROHIBITED.
11. DO NOT INSTALL MORE THAN THREE CIRCUITS (SIX CURRENT CARRYING CONDUCTORS) IN A CONDUIT.
12. THE MINIMUM CONDUIT SIZE SHALL BE 3/4", UNLESS OTHERWISE NOTED. INTERIOR CONDUITS SHALL BE EMT; UNDERGROUND CONDUIT AND CONCRETE ENCASED CONDUIT SHALL BE SCHEDULE 40 PVC. EXTERIOR EXPOSED CONDUIT SHALL BE SCHEDULE 80 PVC.
13. EXISTING SURFACE MOUNTED DUAL HEAD EMERGENCY FIXTURES NOT SHOWN ON PLANS SHALL REMAIN.

R22	GENERAL NOTES
	nts

1. EXISTING LIGHTING IN THIS AREA IS TO BE REMOVED AND REPLACED WITH NEW FIXTURES AS SHOWN. CONTRACTOR SHALL REMOVE EXISTING CIRCUITRY AND AND REPLACE WITH NEW AS SHOWN. CONTRACTOR SHALL CONCEAL NEW CONDUIT TO GREATEST DEGREE POSSIBLE. COORDINATE ANY EXPOSED CONDUIT WITH OWNER/ARCHITECT.
2. NIGHT LIGHT FIXTURE TO BE CIRCUITED TO EXISTING NIGHT LIGHT CIRCUIT PREVIOUSLY SERVING THIS AREA.
3. EXISTING CEILING MOUNTED FIRE ALARM SMOKE DETECTOR SHALL BE RELOCATED TO NEW CEILING AS REQUIRED.
4. LIGHTING ROOM CONTROLLER FOR CONTROL OF FIXTURES ON CIRCUIT AA-1. CONTROLLER SHALL BE WIRED SUCH THAT THE EXISTING CONTACTOR PREVIOUSLY SERVING LIGHT FIXTURES IN THIS AREA HAS ON/OFF CONTROL OF THE FIXTURES AND CONTROLLER HAS CONTROL OF FIXTURES WHEN LIGHTS ARE SCHEDULED TO BE ON.
5. LIGHTING ROOM CONTROLLER FOR CONTROL OF D6 FIXTURES ON THE NIGHT LIGHT CIRCUIT. CONTROLLER SHALL BE WIRED SUCH THAT IT ONLY CONTROLS THE FOUR (4) D6 FIXTURES ON THE NIGHT LIGHT CIRCUIT IN MAIN READING ROOM.
6. DIMMER SWITCH FOR CONTROL OF ROOM CONTROLLERS. COORDINATE EXACT LOCATION IN FIELD WITH OWNER PRIOR TO ROUGH-IN.
7. CIRCUIT TO EMERGENCY LIGHT CIRCUIT SERVING EXISTING EXIT SIGNS.
8. CIRCUIT TO EXISTING 120V DOWNLIGHT CIRCUIT SHOWN.

J22	KEYED NOTES
	nts

A01	UPPER LEVEL LIGHTING PLAN
	1/8" = 1'-0"

A08	MAIN LEVEL LIGHTING PLAN
	1/8" = 1'-0"

A22	NOT USED

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lighting upgrades for
oak ridge public library

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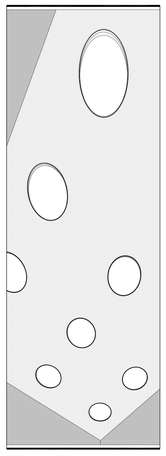
14-010



issue date	10/21/14
project manager	KBB
design coordinator	STE
drawn by	STE
checked by	KBB

revisions		
no.	issued by	date

E1.10

main level lighting plan

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