RECEIVED
By Alameda County Environmental Health 10:30 am, Jun 28, 2017

FLOOR AREA (SQ. FT.)	CFM / PERSON (TABLE 6-1)	CFM / SQ. FT. (TABLE 6-1)	OCCUPANTS	VENTILATION REQUIRED	VENTILATION PROVIDED
715	5	0.06	2	53	60

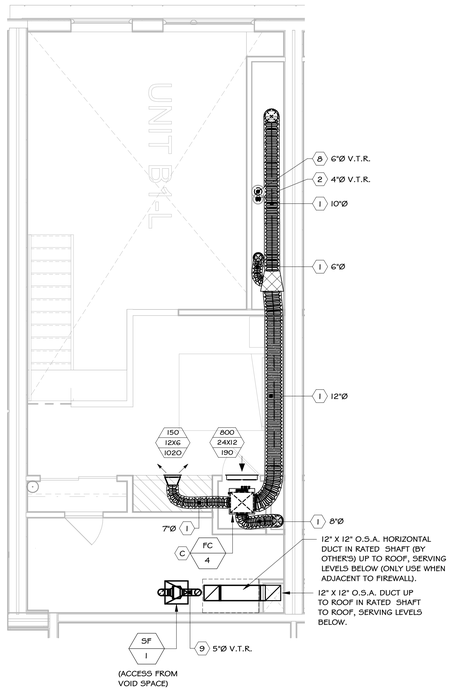
(ZONE AREA * CFM/SQ.FT) + (CFM/PERSON * OCCUPANTS) = BREATHING ZONE OUTDOOR AIRFLOW
VENTILATION CALCULATIONS PER ASHRAE 62.1-2007 SECTION 6.2.2.1 & TABLE 6-1.

NOTES:

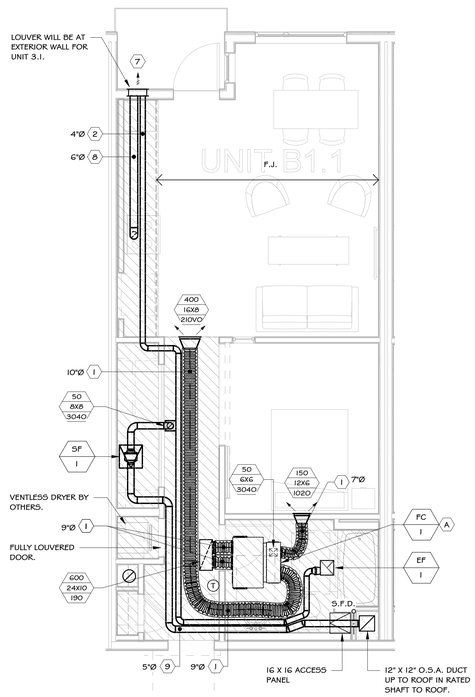
1. ALL BATH, KITCHEN EXHAUST DUCTS & DRYER VENTS AT TOP FLOOR SHALL TERMINATE THRU ROOF.

2. ALL SUPPLY, RETURN, O.S.A. & EXHAUST DUCTS SHALL BE SEALED SUBSTANTIALLY TO COMPLY WITH TEST / BALANCE & DUCT LEAKAGE TOLERANCES.

3. MECHANICAL VENTILATION (WHERE SHOWN) SHALL BE TESTED AT OUTSIDE SUPPLY AIR ONLY.



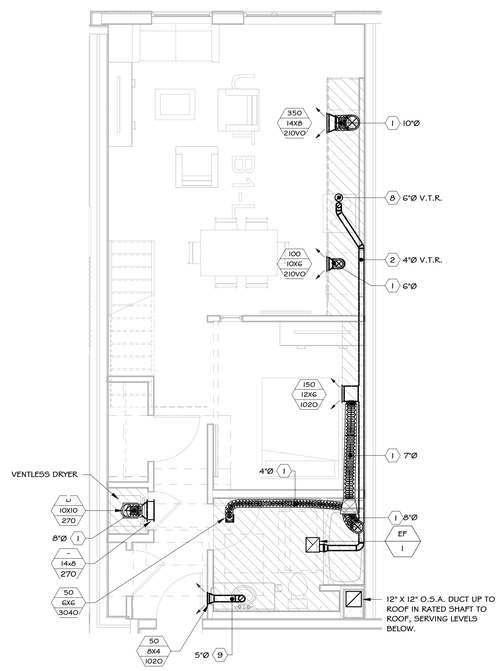
4 UNIT B1-L2 (SIM. UNIT B2-L2)
1/4" = 1'-0"



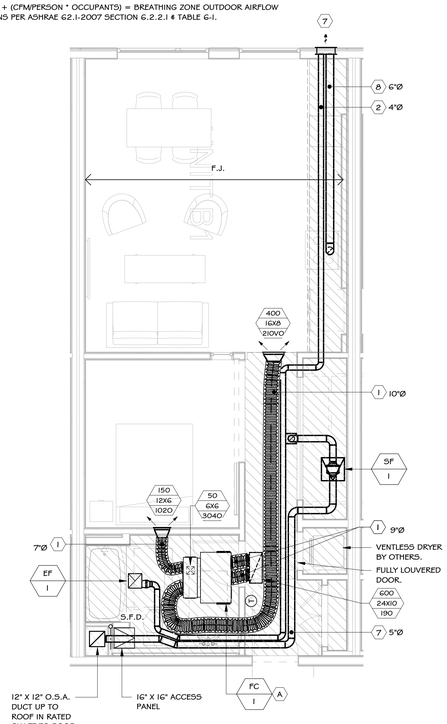
1 UNIT B1.1 (UNIT 3.1 SIM.)
1/4" = 1'-0"

FLOOR AREA (SQ. FT.)	CFM / PERSON (TABLE 6-1)	CFM / SQ. FT. (TABLE 6-1)	OCCUPANTS	VENTILATION REQUIRED	VENTILATION PROVIDED
903	5	0.06	3	70	75

(ZONE AREA * CFM/SQ.FT) + (CFM/PERSON * OCCUPANTS) = BREATHING ZONE OUTDOOR AIRFLOW
VENTILATION CALCULATIONS PER ASHRAE 62.1-2007 SECTION 6.2.2.1 & TABLE 6-1.



3 UNIT B1-L (SIM. UNIT B2-L)
1/4" = 1'-0"



2 UNIT B1(UNIT B2 & B3 SIM.)
1/4" = 1'-0"

KEY NOTES

- A — HORIZONTAL (CASED) AIR HANDLER WITH SOLID CEILING ACCESS PANEL. SEE FAN COIL SCHEDULE ON SHEET M-1.
- B — HORIZONTAL (CASED) AIR HANDLER WITH LOUVERED CEILING ACCESS PANEL FOR RETURN AIR. SEE FAN COIL SCHEDULE ON SHEET M-1.
- C — VERTICAL AIR HANDLER IN MECHANICAL CLOSET WITH LOW RETURN GRILLE. GENERAL CONTRACTOR TO PROVIDE PLATFORM. SEE FAN COIL SCHEDULE ON SHEET M-1.
- 1 — SUPPLY/RETURN DUCT IN FURRED SPACE BELOW RATED CEILING.
- 1A — SUPPLY AIR DUCT IN JOIST BAY. GENERAL CONTRACTOR TO DRYWALL BAY WITH 5/8" TYPE 'X' GYPSUM BOARD (SEE DETAIL).
- 1B — EXPOSED S.M. SPIRAL DUCT. REFER TO CMC CHAPTER 6 FOR SUPPORT AND INSTALLATION.
- 2 — EXHAUST AIR DUCT TO WALL/CEILING CAP OR ROOF JACK.EXHAUST DUCT SHALL BE 26 GAUGE SHEET METAL.
- 3 — VENTLESS DRYER TO BE UTILIZED. PROVIDE W/ LOUVER ABOVE DOOR AND # 2" DOOR UNDERCUT OR FULLY LOUVERED DOOR. MIN. 100 SQ. INCHES.
- 4 — WALL / CEILING / ROOF S.M. JACK MINIMUM 3'-0" AWAY FROM OPENINGS INTO BUILDING # 10'-0" AWAY FROM DUCTED O.S.A. INLETS.
- 5 — 10" X 10" EXHAUST LOUVER. MINIMUM 3'-0" AWAY FROM OPENINGS INTO THE BUILDING # 10'-0" AWAY FROM DUCTED O.S.A. INLETS.
- 6 — 14" X 14" EXHAUST LOUVER. MINIMUM 3'-0" AWAY FROM OPENINGS INTO THE BUILDING # 10'-0" AWAY FROM DUCTED O.S.A. INLETS.
- 7 — 14" X 10" EXHAUST LOUVER. MINIMUM 3'-0" AWAY FROM OPENINGS INTO THE BUILDING # 10'-0" AWAY FROM DUCTED O.S.A. INLETS.
- 8 — KITCHEN RANGE HOOD EXHAUST DUCT TO WALL/ CEILING CAP OR ROOF JACK. EXHAUST DUCT SHALL BE 26 GAUGE SHEET METAL WITH SMOOTH INTERIOR SURFACE. INSTALL PER RANGE HOOD (BY OTHERS) MANUFACTURER'S RECOMMENDATIONS.
- 9 — OUTSIDE AIR DUCT MIN. 10 FT. IN LENGTH OR SIX FEET WITH ONE ELBOW. MAINTAIN MIN. 10 FT. OF SEPARATION FROM EXHAUST/ VENTS. DUCT CONSTRUCTION SHALL BE MIN. 26 GAUGE SHEET METAL WITHIN RATED ASSEMBLIES OR FLEX DUCT WITHIN NON-RATED CAVITIES. PROVIDE WITH GASKETED AIR-TIGHT GRAVITY BACKDRAFT DAMPER (OR MOTORIZED IF SPECIFIED ON PLANS) # VOLUME DAMPER.
- 10 — HORIZONTAL DRYER VENT CLEANOUT W/ 12" X 12" CEILING ACCESS PANEL(S) BELOW.
- 11 — VENTING DESIGN/ INSTALL BY OTHERS.
- 12 — REFRIGERANT LINES TO CONDENSING UNIT/ HEAT PUMP. LINE SIZES & INSTALLATION PER MANUFACTURER'S SPECIFICATIONS.
- 13 — NOT USED.

CEILING LEGEND

DENOTES LINED JOIST BAY (MIN. 13.25-INCHES CLEAR WIDTH AFTER DRYWALL)

DENOTES 9'-1" CEILING UNLESS NOTED OTHERWISE

DENOTES MIN. 12" INSIDE CLEAR DROP CEILING UNLESS NOTED OTHERWISE

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CONSULTANT

ENLARGED UNIT PLANS

PROJECT NO: 1132-0018
DATE: 05/12/2017

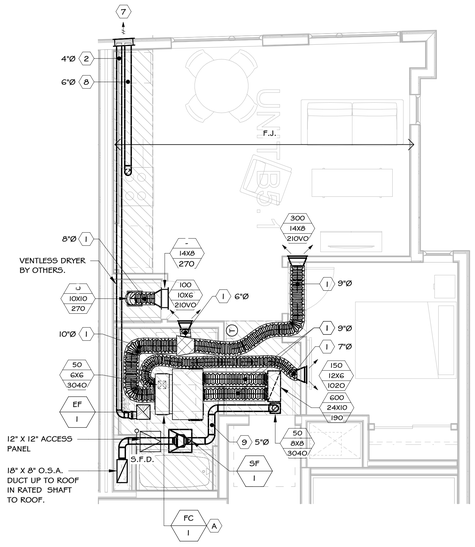
SHEET NO:

M-4.00B.1

PLAN CHECK RESPONSE #2 / ADDENDUM #1

FLOOR AREA (SQ. FT.)	CFM / PERSON (TABLE 6-I)	CFM / SQ. FT. (TABLE 6-I)	OCCUPANTS	VENTILATION REQUIRED	VENTILATION PROVIDED
611	5	0.06	2	47	60

(ZONE AREA * CFM/SQ.FT) + (CFM/PERSON * OCCUPANTS) = BREATHING ZONE OUTDOOR AIRFLOW
VENTILATION CALCULATIONS PER ASHRAE 62.1-2007 SECTION 6.2.2.1 & TABLE 6-1.



4 UNIT B5.1
1/4" = 1'-0"

FLOOR AREA (SQ. FT.)	CFM / PERSON (TABLE 6-I)	CFM / SQ. FT. (TABLE 6-I)	OCCUPANTS	VENTILATION REQUIRED	VENTILATION PROVIDED
611	5	0.06	2	47	60

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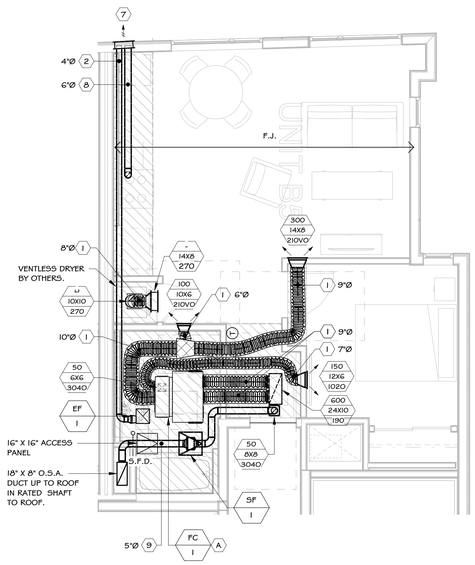

3 UNIT B5
1/4" = 1'-0"

FLOOR AREA (SQ. FT.)	CFM / PERSON (TABLE 6-I)	CFM / SQ. FT. (TABLE 6-I)	OCCUPANTS	VENTILATION REQUIRED	VENTILATION PROVIDED
749	5	0.06	2	55	60

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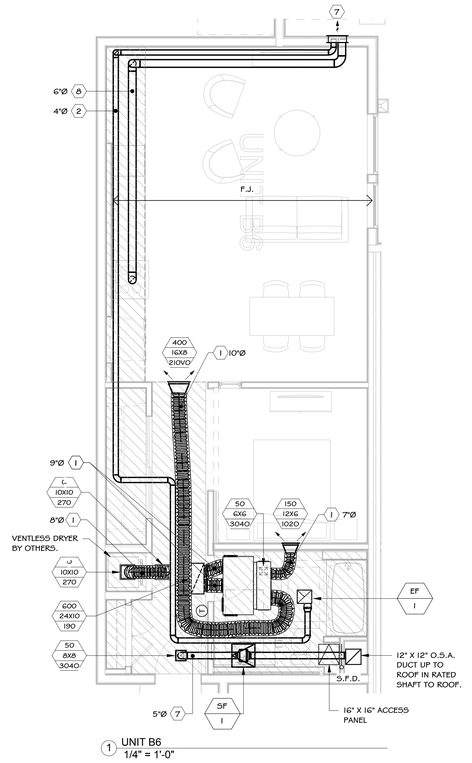

1 UNIT B6
1/4" = 1'-0"

FLOOR AREA (SQ. FT.)	CFM / PERSON (TABLE 6-I)	CFM / SQ. FT. (TABLE 6-I)	OCCUPANTS	VENTILATION REQUIRED	VENTILATION PROVIDED
695	5	0.06	2	52	60

(ZONE AREA * CFM/SQ.FT) + (CFM/PERSON * OCCUPANTS) = BREATHING ZONE OUTDOOR AIRFLOW
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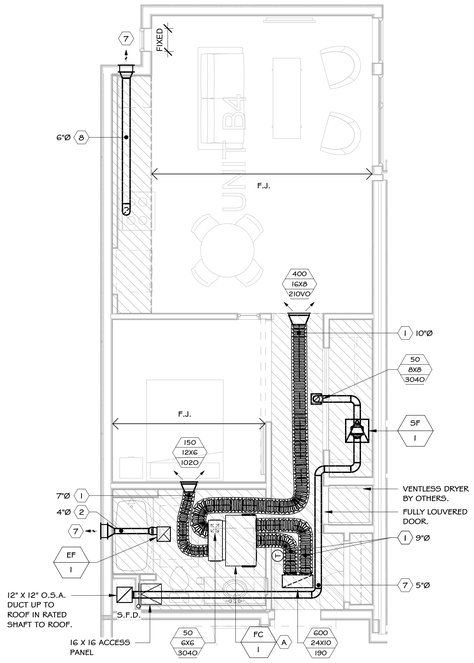

2 UNIT B4
1/4" = 1'-0"

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KEY NOTES

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CONSULTANT

ENLARGED UNIT PLANS

PROJECT NO: 1132-0018
DATE: 05/12/2017

SHEET NO:

M-4.00B.3

PLAN CHECK RESPONSE #2 / ADDENDUM #1

FLOOR AREA (SQ. FT.)	CFM / PERSON (TABLE G-I)	CFM / SQ. FT. (TABLE G-I)	OCCUPANTS	VENTILATION REQUIRED	VENTILATION PROVIDED
1193	5	0.06	3	87	90

(ZONE AREA * CFM/SQ.FT) + (CFM/PERSON * OCCUPANTS) = BREATHING ZONE OUTDOOR AIRFLOW
VENTILATION CALCULATIONS PER ASHRAE 62.1-2007 SECTION 6.2.2.1 & TABLE 6-1.

FLOOR AREA (SQ. FT.)	CFM / PERSON (TABLE G-I)	CFM / SQ. FT. (TABLE G-I)	OCCUPANTS	VENTILATION REQUIRED	VENTILATION PROVIDED
993	5	0.06	3	75	85

(ZONE AREA * CFM/SQ.FT) + (CFM/PERSON * OCCUPANTS) = BREATHING ZONE OUTDOOR AIRFLOW
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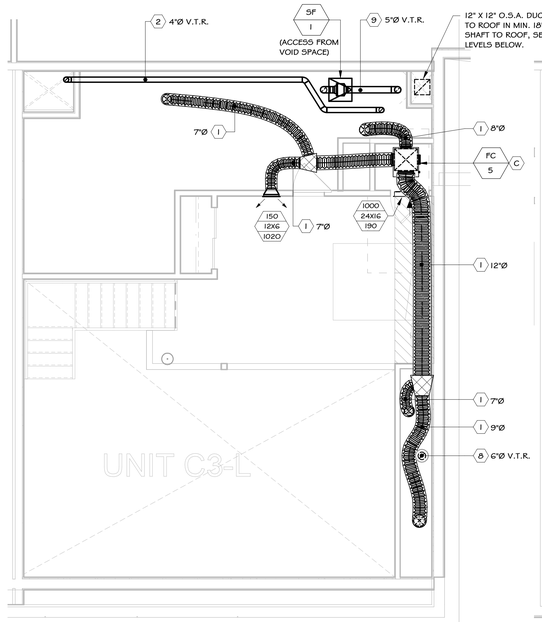
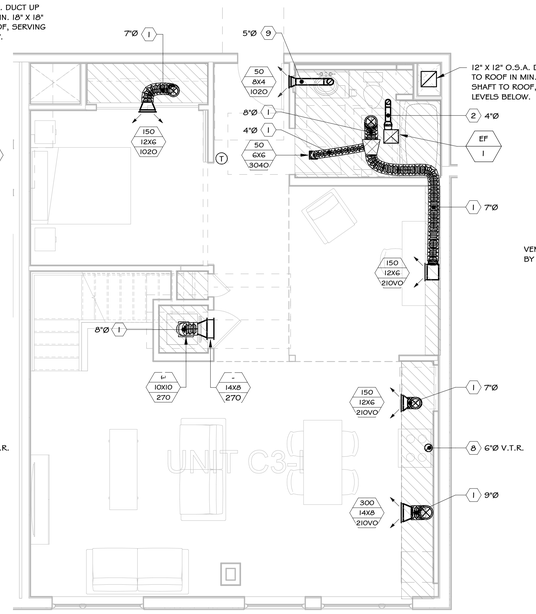
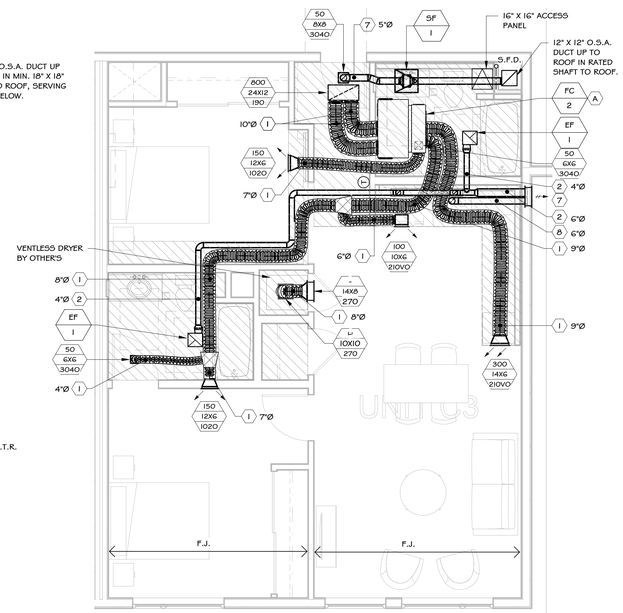


6 UNIT C3-L2
1/4" = 1'-0"



4 UNIT C3-L
1/4" = 1'-0"



1 UNIT C3
1/4" = 1'-0"

FLOOR AREA (SQ. FT.)	CFM / PERSON (TABLE G-I)	CFM / SQ. FT. (TABLE G-I)	OCCUPANTS	VENTILATION REQUIRED	VENTILATION PROVIDED
1424	5	0.06	4	106	110

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FLOOR AREA (SQ. FT.)	CFM / PERSON (TABLE G-I)	CFM / SQ. FT. (TABLE G-I)	OCCUPANTS	VENTILATION REQUIRED	VENTILATION PROVIDED
1120	5	0.06	3	83	90

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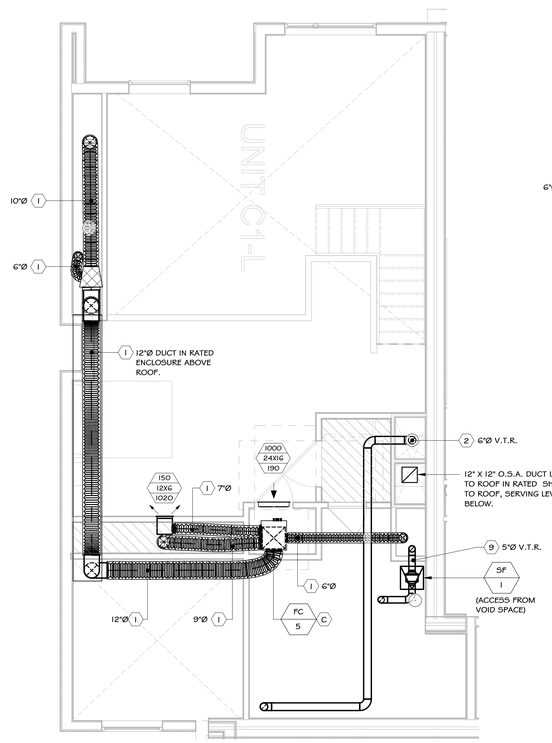

5 UNIT C1-L2
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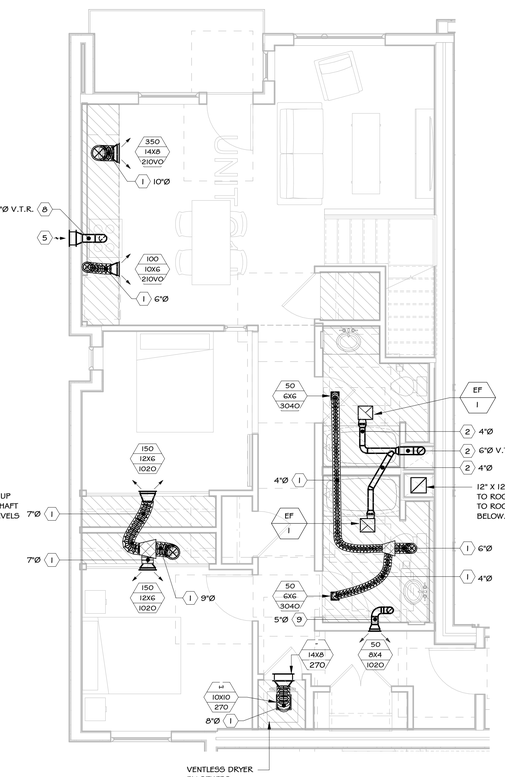
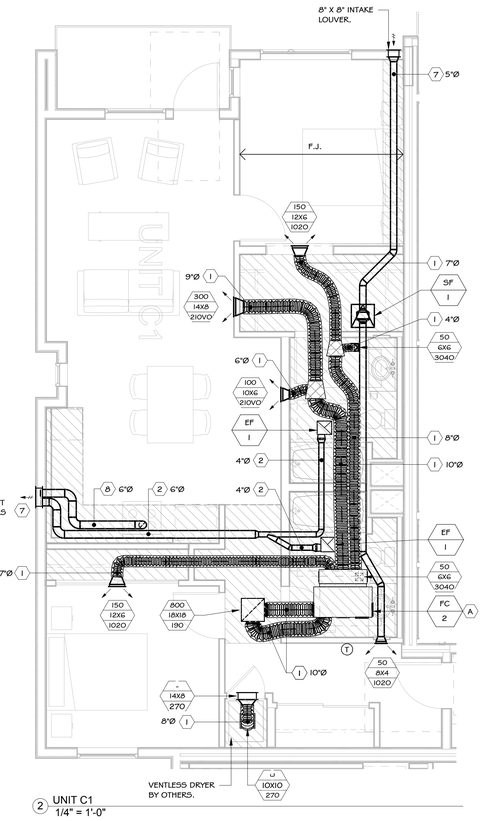


3 UNIT C1-L
1/4" = 1'-0"



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DENOTES MIN. 12" INSIDE CLEAR DROP CEILING UNLESS NOTED OTHERWISE

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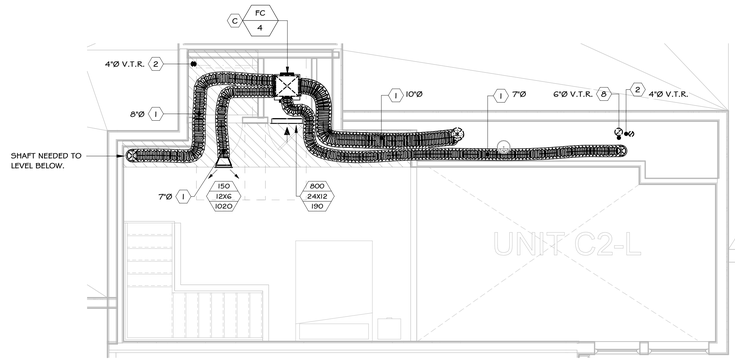
PROJECT NO: 1132-0018
DATE: 05/12/2017

SHEET NO:

M-4.00C.1

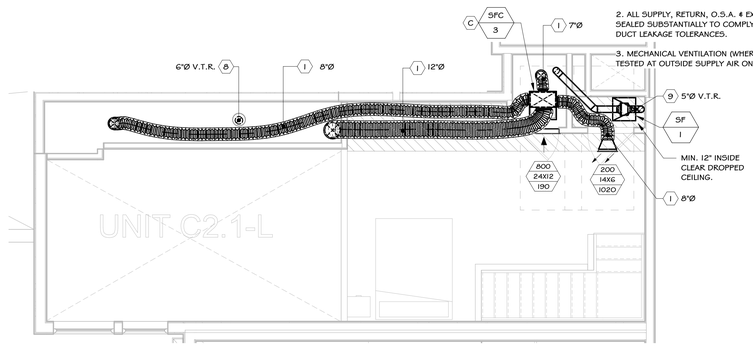
PLAN CHECK RESPONSE #2 / ADDENDUM #1



5 UNIT C2-L2
1/4" = 1'-0"

FLOOR AREA (SQ. FT.)	CFM / PERSON (TABLE 6-1)	CFM / SQ. FT. (TABLE 6-1)	OCCUPANTS	VENTILATION REQUIRED	VENTILATION PROVIDED
1282	5	0.06	3	92	95

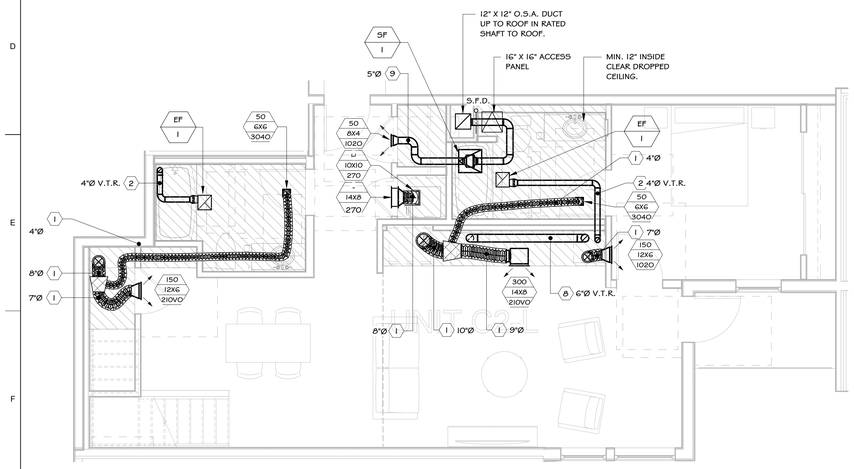
(ZONE AREA * CFM/SQ.FT) + (CFM/PERSON * OCCUPANTS) = BREATHING ZONE OUTDOOR AIRFLOW
VENTILATION CALCULATIONS PER ASHRAE 62.1-2007 SECTION 6.2.2.1 & TABLE 6-1.



6 UNIT C2.1-L2
1/4" = 1'-0"

FLOOR AREA (SQ. FT.)	CFM / PERSON (TABLE 6-1)	CFM / SQ. FT. (TABLE 6-1)	OCCUPANTS	VENTILATION REQUIRED	VENTILATION PROVIDED
1282	5	0.06	3	92	95

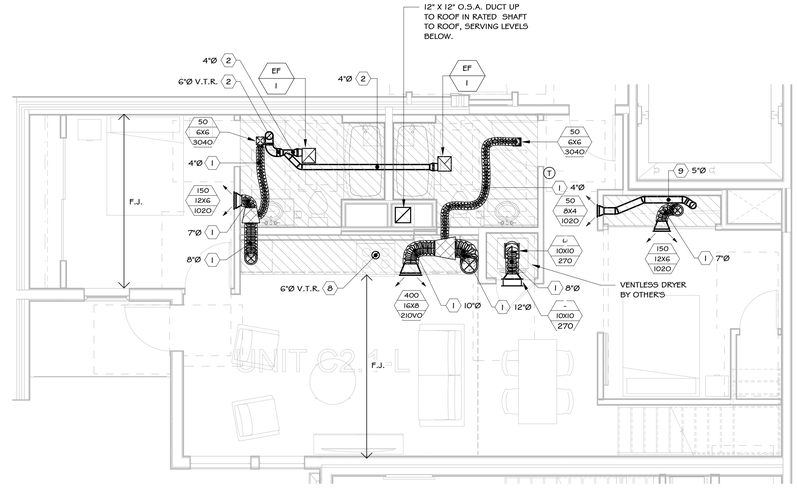
(ZONE AREA * CFM/SQ.FT) + (CFM/PERSON * OCCUPANTS) = BREATHING ZONE OUTDOOR AIRFLOW
VENTILATION CALCULATIONS PER ASHRAE 62.1-2007 SECTION 6.2.2.1 & TABLE 6-1.



4 UNIT C2-L
1/4" = 1'-0"

FLOOR AREA (SQ. FT.)	CFM / PERSON (TABLE 6-1)	CFM / SQ. FT. (TABLE 6-1)	OCCUPANTS	VENTILATION REQUIRED	VENTILATION PROVIDED
1038	5	0.06	3	78	85

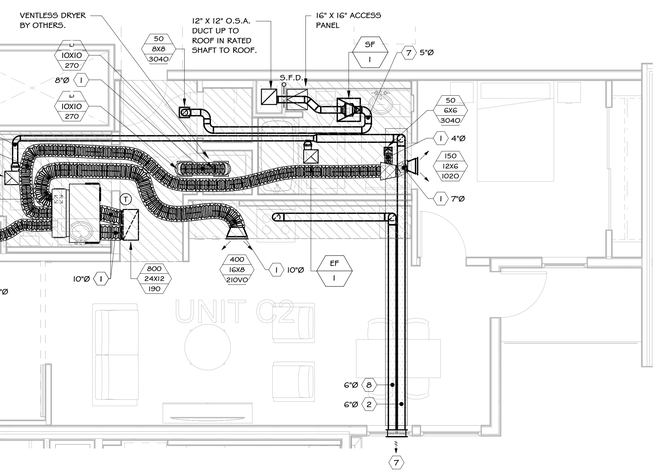
(ZONE AREA * CFM/SQ.FT) + (CFM/PERSON * OCCUPANTS) = BREATHING ZONE OUTDOOR AIRFLOW
VENTILATION CALCULATIONS PER ASHRAE 62.1-2007 SECTION 6.2.2.1 & TABLE 6-1.



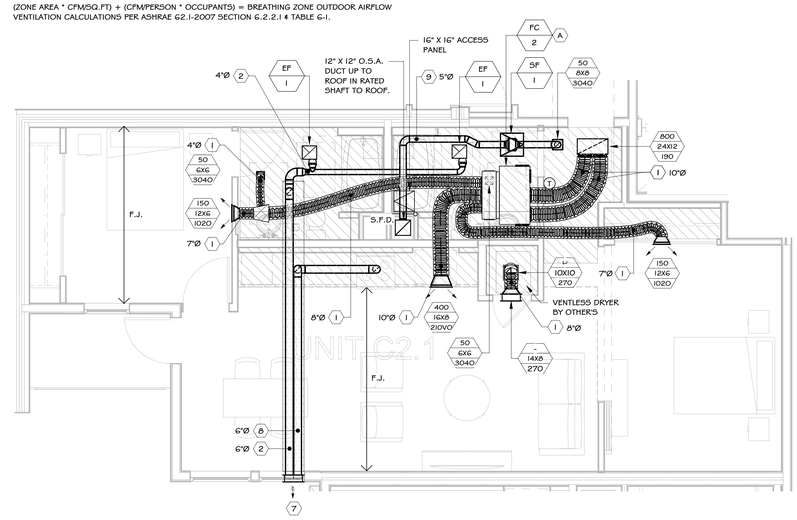
1 UNIT C2.1-L
1/4" = 1'-0"

FLOOR AREA (SQ. FT.)	CFM / PERSON (TABLE 6-1)	CFM / SQ. FT. (TABLE 6-1)	OCCUPANTS	VENTILATION REQUIRED	VENTILATION PROVIDED
1046	5	0.06	3	78	85

(ZONE AREA * CFM/SQ.FT) + (CFM/PERSON * OCCUPANTS) = BREATHING ZONE OUTDOOR AIRFLOW
VENTILATION CALCULATIONS PER ASHRAE 62.1-2007 SECTION 6.2.2.1 & TABLE 6-1.



3 UNIT C2
1/4" = 1'-0"



2 UNIT C2.1
1/4" = 1'-0"

A HORIZONTAL (CASED) AIR HANDLER WITH SOLID CEILING ACCESS PANEL. SEE FAN COIL SCHEDULE ON SHEET M-1.

B HORIZONTAL (CASED) AIR HANDLER WITH LOUVERED CEILING ACCESS PANEL FOR RETURN AIR. SEE FAN COIL SCHEDULE ON SHEET M-1.

C VERTICAL AIR HANDLER IN MECHANICAL CLOSET WITH LOW RETURN GRILLE. GENERAL CONTRACTOR TO PROVIDE PLATFORM. SEE FAN COIL SCHEDULE ON SHEET M-1.

1 SUPPLY/RETURN DUCT IN FURRED SPACE BELOW RATED CEILING.

1A SUPPLY AIR DUCT IN JOIST BAY. GENERAL CONTRACTOR TO DRYWALL BAY WITH 5/8" TYPE 'X' GYPSUM BOARD (SEE DETAIL).

1B EXPOSED S.M. SPIRAL DUCT. REFER TO CMC CHAPTER 6 FOR SUPPORT AND INSTALLATION.

2 EXHAUST AIR DUCT TO WALL/CEILING CAP OR ROOF JACK.EXHAUST DUCT SHALL BE 26 GAUGE SHEET METAL.

3 VENTLESS DRYER TO BE UTILIZED. PROVIDE W/ LOUVER ABOVE DOOR AND 4 2" DOOR UNDERCUT OR FULLY LOUVERED DOOR. MIN. 100 SQ. INCHES.

4 WALL / CEILING / ROOF S.M. JACK MINIMUM 3'-0" AWAY FROM OPENINGS INTO BUILDING & 10'-0" AWAY FROM DUCTED O.S.A. INLETS.

5 10" X 10" EXHAUST LOUVER. MINIMUM 3'-0" AWAY FROM OPENINGS INTO THE BUILDING & 10'-0" AWAY FROM DUCTED O.S.A. INLETS.

6 14" X 14" EXHAUST LOUVER. MINIMUM 3'-0" AWAY FROM OPENINGS INTO THE BUILDING & 10'-0" AWAY FROM DUCTED O.S.A. INLETS.

7 14" X 10" EXHAUST LOUVER. MINIMUM 3'-0" AWAY FROM OPENINGS INTO THE BUILDING & 10'-0" AWAY FROM DUCTED O.S.A. INLETS.

8 KITCHEN RANGE HOOD EXHAUST DUCT TO WALL/ CEILING CAP OR ROOF JACK. EXHAUST DUCT SHALL BE 26 GAUGE SHEET METAL WITH SMOOTH INTERIOR SURFACE. INSTALL PER RANGE HOOD (BY OTHERS) MANUFACTURER'S RECOMMENDATIONS.

9 OUTSIDE AIR DUCT MIN. 10 FT. IN LENGTH OR SIX FEET WITH ONE ELBOW. MAINTAIN MIN. 10 FT. OF SEPARATION FROM EXHAUST/ VENTS. DUCT CONSTRUCTION SHALL BE MIN. 26 GAUGE SHEET METAL WITHIN RATED ASSEMBLIES OR FLEX DUCT WITHIN NON-RATED CAVITIES. PROVIDE WITH GASKETED AIR-TIGHT GRAVITY BACKDRAFT DAMPER (OR MOTORIZED IF SPECIFIED ON PLANS) & VOLUME DAMPER.

10 HORIZONTAL DRYER VENT CLEANOUT W/ 12" X 12" CEILING ACCESS PANEL(S) BELOW.

11 VENTING DESIGN/ INSTALL BY OTHERS.

12 REFRIGERANT LINES TO CONDENSING UNIT/ HEAT PUMP. LINE SIZES & INSTALLATION PER MANUFACTURER'S SPECIFICATIONS.

13 NOT USED.

KEY NOTES

DENOTES LINED JOIST BAY (MIN. 13.25-INCHES CLEAR WIDTH AFTER DRYWALL)

DENOTES 9'-1" CEILING UNLESS NOTED OTHERWISE

DENOTES MIN. 12" INSIDE CLEAR DROP CEILING UNLESS NOTED OTHERWISE

CEILING LEGEND

LDI Mechanical, Inc.
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CONSULTANT

ENLARGED UNIT PLANS

PROJECT NO: 1132-0018
DATE: 05/12/2017

SHEET NO:

M-4.00C.2

PLAN CHECK RESPONSE #2 / ADDENDUM #1

NOTES:

1. ALL BATH, KITCHEN EXHAUST DUCTS & DRYER VENTS AT TOP FLOOR SHALL TERMINATE THRU ROOF.

2. ALL SUPPLY, RETURN, O.S.A. & EXHAUST DUCTS SHALL BE SEALED SUBSTANTIALLY TO COMPLY WITH TEST / BALANCE & DUCT LEAKAGE TOLERANCES.

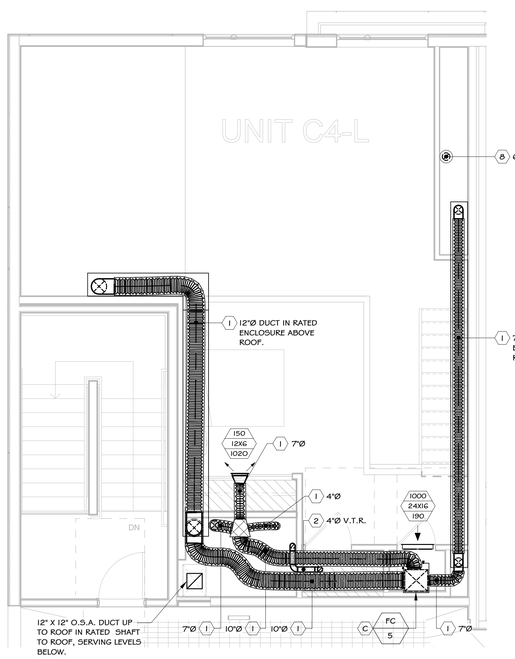
3. MECHANICAL VENTILATION (WHERE SHOWN) SHALL BE TESTED AT OUTSIDE SUPPLY AIR ONLY.

FLOOR AREA (SQ. FT.)	CFM / PERSON (TABLE 6-1)	CFM / SQ. FT. (TABLE 6-1)	OCCUPANTS	VENTILATION REQUIRED	VENTILATION PROVIDED
1198	5	0.06	4	92	95

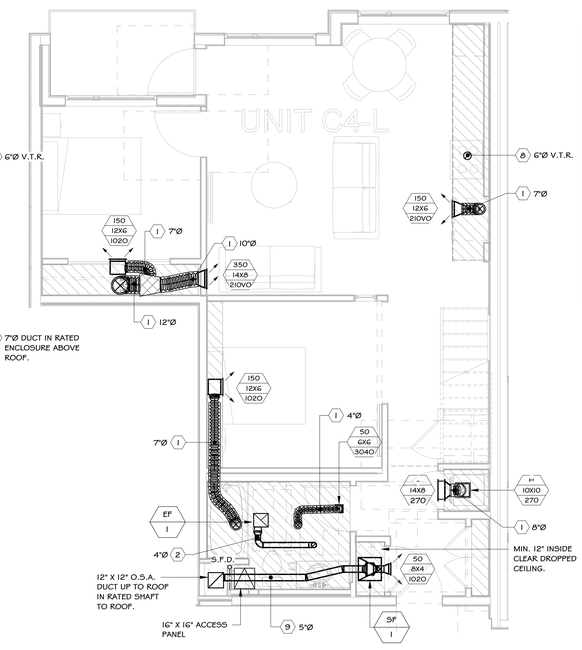
(ZONE AREA * CFM/SQ.FT) + (CFM/PERSON * OCCUPANTS) = BREATHING ZONE OUTDOOR AIRFLOW
VENTILATION CALCULATIONS PER ASHRAE 62.1-2007 SECTION 6.2.2.1 & TABLE 6-1.

FLOOR AREA (SQ. FT.)	CFM / PERSON (TABLE 6-1)	CFM / SQ. FT. (TABLE 6-1)	OCCUPANTS	VENTILATION REQUIRED	VENTILATION PROVIDED
930	5	0.06	3	71	75

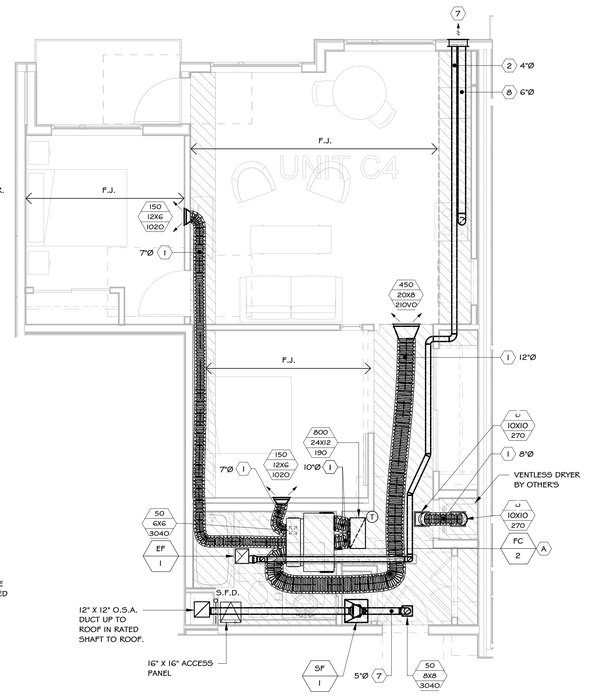
(ZONE AREA * CFM/SQ.FT) + (CFM/PERSON * OCCUPANTS) = BREATHING ZONE OUTDOOR AIRFLOW
VENTILATION CALCULATIONS PER ASHRAE 62.1-2007 SECTION 6.2.2.1 & TABLE 6-1.



3 UNIT C4-L2
1/4" = 1'-0"



2 UNIT C4-L
1/4" = 1'-0"



1 UNIT C4
1/4" = 1'-0"

- A HORIZONTAL (CASED) AIR HANDLER WITH SOLID CEILING ACCESS PANEL. SEE FAN COIL SCHEDULE ON SHEET M-1.
- B HORIZONTAL (CASED) AIR HANDLER WITH LOUVERED CEILING ACCESS PANEL FOR RETURN AIR. SEE FAN COIL SCHEDULE ON SHEET M-1.
- C VERTICAL AIR HANDLER IN MECHANICAL CLOSET WITH LOW RETURN GRILLE. GENERAL CONTRACTOR TO PROVIDE PLATFORM. SEE FAN COIL SCHEDULE ON SHEET M-1.
- 1 SUPPLY/RETURN DUCT IN FURRED SPACE BELOW RATED CEILING.
- 1A SUPPLY AIR DUCT IN JOIST BAY. GENERAL CONTRACTOR TO DRYWALL BAY WITH 5/8" TYPE 'X' GYPSUM BOARD (SEE DETAIL).
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- 3 VENTLESS DRYER TO BE UTILIZED. PROVIDE W/ LOUVER ABOVE DOOR AND & 2" DOOR UNDERCUT OR FULLY LOUVERED DOOR. MIN. 100 SQ. INCHES.
- 4 WALL / CEILING / ROOF S.M. JACK MINIMUM 3'-0" AWAY FROM OPENINGS INTO BUILDING & 10'-0" AWAY FROM DUCTED O.S.A. INLETS.
- 5 10" X 10" EXHAUST LOUVER. MINIMUM 3'-0" AWAY FROM OPENINGS INTO THE BUILDING & 10'-0" AWAY FROM DUCTED O.S.A. INLETS.
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- 11 VENTING DESIGN/ INSTALL BY OTHERS.
- 12 REFRIGERANT LINES TO CONDENSING UNIT/ HEAT PUMP. LINE SIZES & INSTALLATION PER MANUFACTURER'S SPECIFICATIONS.
- 13 NOT USED.

KEY NOTES

DENOTES LINED JOIST BAY (MIN. 13.25-INCHES CLEAR WIDTH AFTER DRYWALL)

DENOTES 9'-1" CEILING UNLESS NOTED OTHERWISE

DENOTES MIN. 12" INSIDE CLEAR DROP CEILING UNLESS NOTED OTHERWISE

CEILING LEGEND

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CONSULTANT

ENLARGED UNIT PLANS

PROJECT NO: 1132-0018
DATE: 05/12/2017

SHEET NO:

M-4.00C.3

PLAN CHECK RESPONSE #2 / ADDENDUM #1

NOTES:

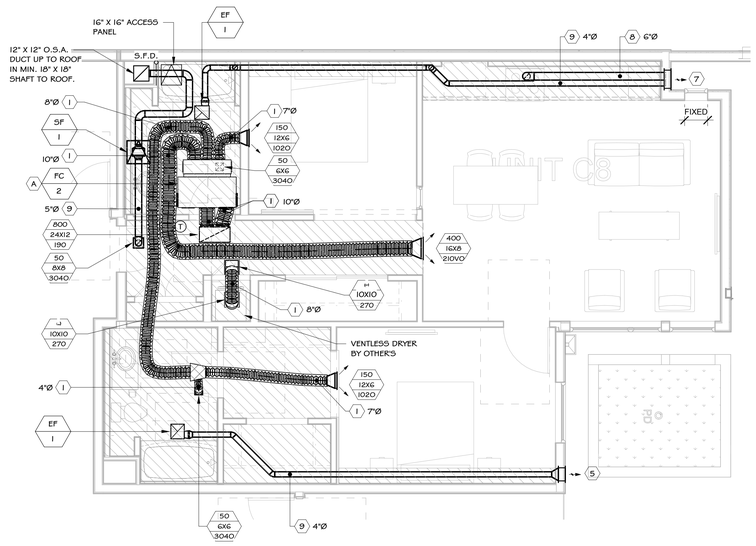
1. ALL BATH, KITCHEN EXHAUST DUCTS & DRYER VENTS AT TOP FLOOR SHALL TERMINATE THRU ROOF.

2. ALL SUPPLY, RETURN, O.S.A. & EXHAUST DUCTS SHALL BE SEALED SUBSTANTIALLY TO COMPLY WITH TEST / BALANCE & DUCT LEAKAGE TOLERANCES.

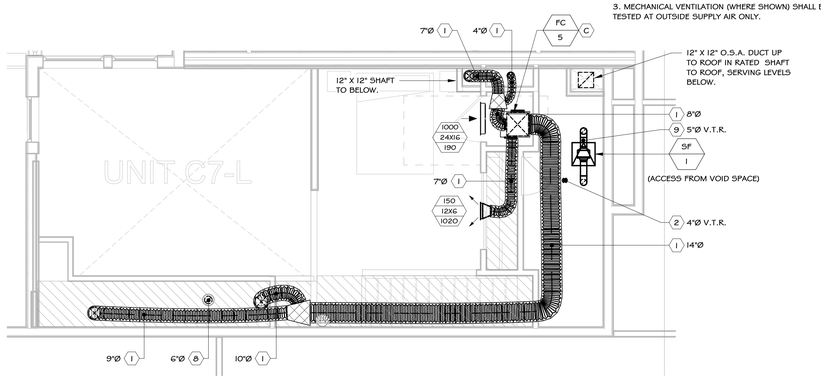
3. MECHANICAL VENTILATION (WHERE SHOWN) SHALL BE TESTED AT OUTSIDE SUPPLY AIR ONLY.

FLOOR AREA (SQ. FT.)	CFM / PERSON (TABLE 6-I)	CFM / SQ. FT. (TABLE 6-I)	OCCUPANTS	VENTILATION REQUIRED	VENTILATION PROVIDED
1014	5	0.06	3	76	85

(ZONE AREA * CFM/SQ.FT) + (CFM/PERSON * OCCUPANTS) = BREATHING ZONE OUTDOOR AIRFLOW
VENTILATION CALCULATIONS PER ASHRAE 62.1-2007 SECTION 6.2.2.1 & TABLE 6-1.



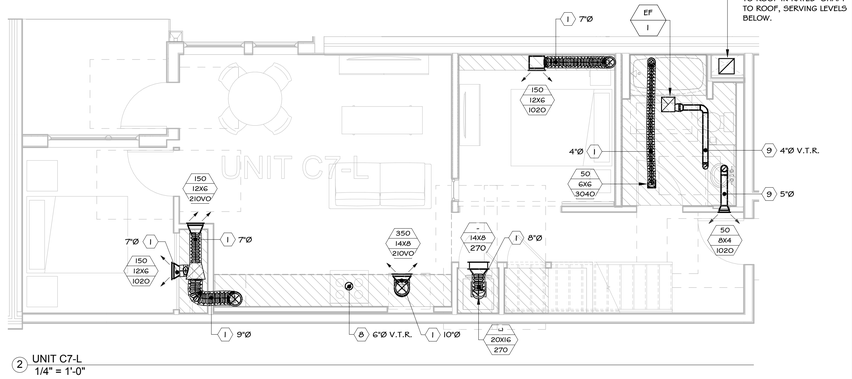
5 UNIT C8
1/4" = 1'-0"



3 UNIT C7-L2
1/4" = 1'-0"

FLOOR AREA (SQ. FT.)	CFM / PERSON (TABLE 6-I)	CFM / SQ. FT. (TABLE 6-I)	OCCUPANTS	VENTILATION REQUIRED	VENTILATION PROVIDED
1002	5	0.06	4	81	85

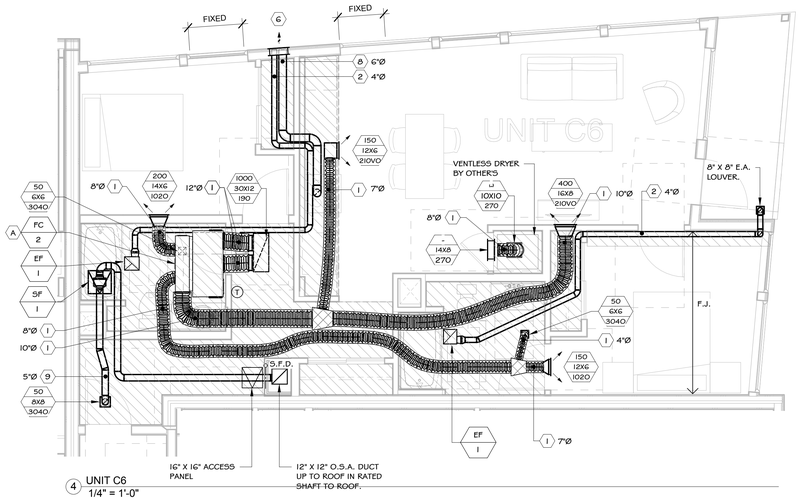
(ZONE AREA * CFM/SQ.FT) + (CFM/PERSON * OCCUPANTS) = BREATHING ZONE OUTDOOR AIRFLOW
VENTILATION CALCULATIONS PER ASHRAE 62.1-2007 SECTION 6.2.2.1 & TABLE 6-1.



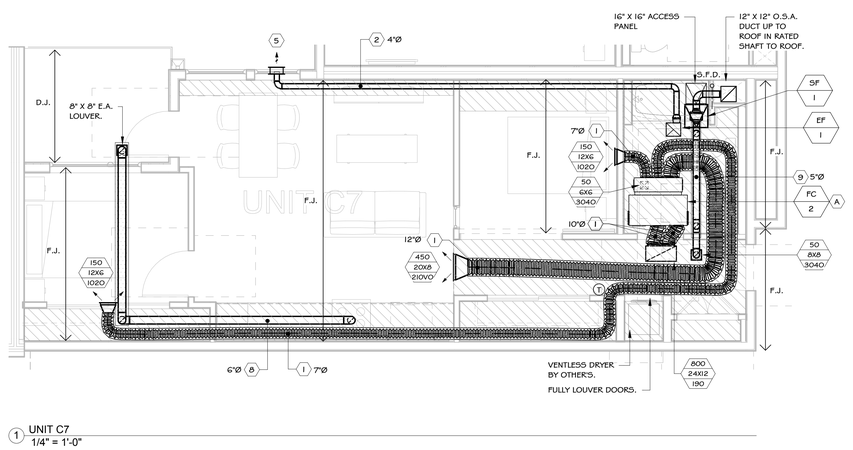
2 UNIT C7-L
1/4" = 1'-0"

FLOOR AREA (SQ. FT.)	CFM / PERSON (TABLE 6-I)	CFM / SQ. FT. (TABLE 6-I)	OCCUPANTS	VENTILATION REQUIRED	VENTILATION PROVIDED
1089	5	0.06	3	81	85

(ZONE AREA * CFM/SQ.FT) + (CFM/PERSON * OCCUPANTS) = BREATHING ZONE OUTDOOR AIRFLOW
VENTILATION CALCULATIONS PER ASHRAE 62.1-2007 SECTION 6.2.2.1 & TABLE 6-1.



4 UNIT C6
1/4" = 1'-0"



1 UNIT C7
1/4" = 1'-0"

A HORIZONTAL (CASED) AIR HANDLER WITH SOLID CEILING ACCESS PANEL. SEE FAN COIL SCHEDULE ON SHEET M-1.

B HORIZONTAL (CASED) AIR HANDLER WITH LOUVERED CEILING ACCESS PANEL FOR RETURN AIR. SEE FAN COIL SCHEDULE ON SHEET M-1.

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3 VENTLESS DRYER TO BE UTILIZED. PROVIDE W/ LOUVER ABOVE DOOR AND 4 2" DOOR UNDERCUT OR FULLY LOUVERED DOOR, MIN. 100 SQ. INCHES.

4 WALL / CEILING / ROOF S.M. JACK MINIMUM 3'-0" AWAY FROM OPENINGS INTO BUILDING & 10'-0" AWAY FROM DUCTED O.S.A. INLETS.

5 10" X 10" EXHAUST LOUVER. MINIMUM 3'-0" AWAY FROM OPENINGS INTO THE BUILDING & 10'-0" AWAY FROM DUCTED O.S.A. INLETS.

6 14" X 14" EXHAUST LOUVER. MINIMUM 3'-0" AWAY FROM OPENINGS INTO THE BUILDING & 10'-0" AWAY FROM DUCTED O.S.A. INLETS.

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9 OUTSIDE AIR DUCT MIN. 10 FT. IN LENGTH OR SIX FEET WITH ONE ELBOW, MAINTAIN MIN. 10 FT. OF SEPARATION FROM EXHAUST/ VENTS. DUCT CONSTRUCTION SHALL BE MIN. 26 GAUGE SHEET METAL WITHIN RATED ASSEMBLIES OR FLEX DUCT WITHIN NON-RATED CAVITIES. PROVIDE WITH GASKETED AIR-TIGHT GRAVITY BACKDRAFT DAMPER (OR MOTORIZED IF SPECIFIED ON PLANS) & VOLUME DAMPER.

10 HORIZONTAL DRYER VENT CLEANOUT W/ 12" X 12" CEILING ACCESS PANEL(S) BELOW.

11 VENTING DESIGN/ INSTALL BY OTHERS.

12 REFRIGERANT LINES TO CONDENSING UNIT/ HEAT PUMP. LINE SIZES & INSTALLATION PER MANUFACTURER'S SPECIFICATIONS.

13 NOT USED.

KEY NOTES

DENOTES LINED JOIST BAY (MIN. 13.25-INCHES CLEAR WIDTH AFTER DRYWALL)

DENOTES 9'-1" CEILING UNLESS NOTED OTHERWISE

DENOTES MIN. 12" INSIDE CLEAR DROP CEILING UNLESS NOTED OTHERWISE

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CONSULTANT

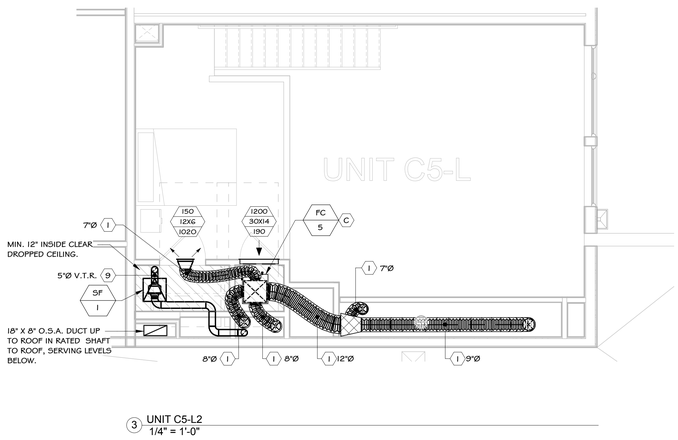
ENLARGED UNIT PLANS

PROJECT NO: 1132-0018
DATE: 05/12/2017

SHEET NO:

M-4.00C.4

PLAN CHECK RESPONSE #2 / ADDENDUM #1



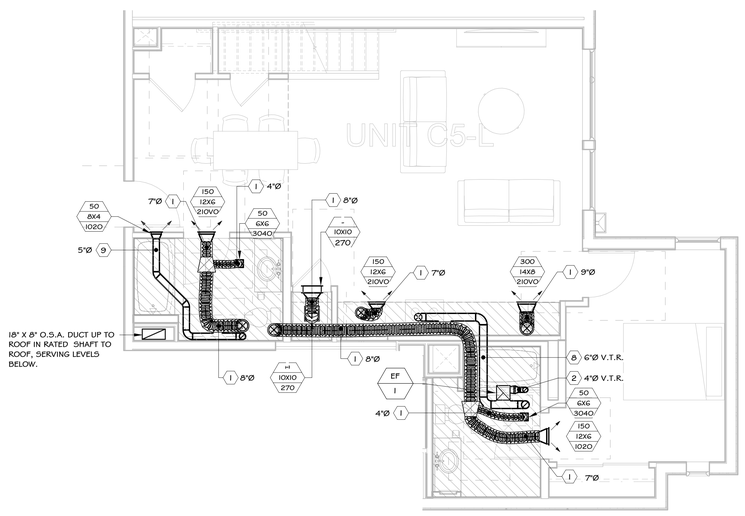
3 UNIT C5-L2
1/4" = 1'-0"

FLOOR AREA (SQ. FT.)	CFM / PERSON (TABLE 6-1)	CFM / SQ. FT. (TABLE 6-1)	OCCUPANTS	VENTILATION REQUIRED	VENTILATION PROVIDED
1118	5	0.06	4	88	95

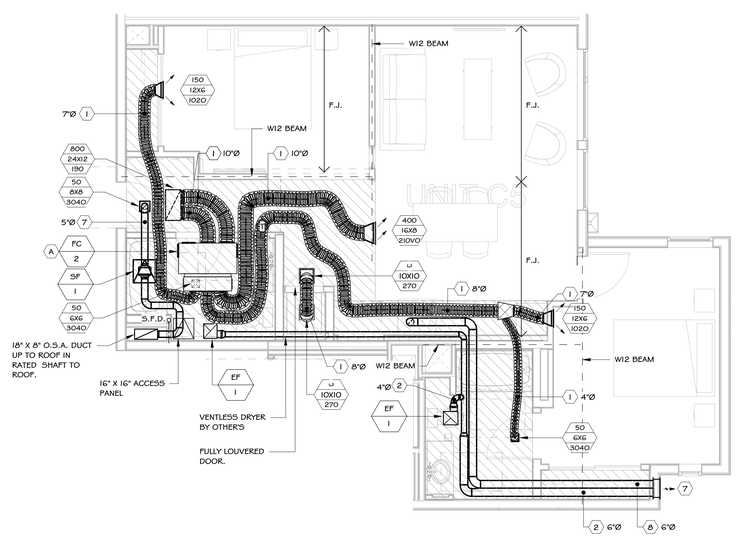
(ZONE AREA * CFM/SQ.FT) + (CFM/PERSON * OCCUPANTS) = BREATHING ZONE OUTDOOR AIRFLOW
VENTILATION CALCULATIONS PER ASHRAE 62.1-2007 SECTION 6.2.2.1 & TABLE 6-1.

FLOOR AREA (SQ. FT.)	CFM / PERSON (TABLE 6-1)	CFM / SQ. FT. (TABLE 6-1)	OCCUPANTS	VENTILATION REQUIRED	VENTILATION PROVIDED
918	5	0.06	3	70	75

(ZONE AREA * CFM/SQ.FT) + (CFM/PERSON * OCCUPANTS) = BREATHING ZONE OUTDOOR AIRFLOW
VENTILATION CALCULATIONS PER ASHRAE 62.1-2007 SECTION 6.2.2.1 & TABLE 6-1.



2 UNIT C5-L
1/4" = 1'-0"



1 UNIT C5
1/4" = 1'-0"

NOTES:

1. ALL BATH, KITCHEN EXHAUST DUCTS & DRYER VENTS AT TOP FLOOR SHALL TERMINATE THRU ROOF.

2. ALL SUPPLY, RETURN, O.S.A. & EXHAUST DUCTS SHALL BE SEALED SUBSTANTIALLY TO COMPLY WITH TEST / BALANCE & DUCT LEAKAGE TOLERANCES.

3. MECHANICAL VENTILATION (WHERE SHOWN) SHALL BE TESTED AT OUTSIDE SUPPLY AIR ONLY.

- (A) HORIZONTAL (CASED) AIR HANDLER WITH SOLID CEILING ACCESS PANEL. SEE FAN COIL SCHEDULE ON SHEET M-1.
- (B) HORIZONTAL (CASED) AIR HANDLER WITH LOUVERED CEILING ACCESS PANEL FOR RETURN AIR. SEE FAN COIL SCHEDULE ON SHEET M-1.
- (C) VERTICAL AIR HANDLER IN MECHANICAL CLOSET WITH LOW RETURN GRILLE. GENERAL CONTRACTOR TO PROVIDE PLATFORM. SEE FAN COIL SCHEDULE ON SHEET M-1.
- (1) SUPPLY/RETURN DUCT IN FURRED SPACE BELOW RATED CEILING.
- (1A) SUPPLY AIR DUCT IN JOIST BAY. GENERAL CONTRACTOR TO DRYWALL BAY WITH 5/8" TYPE 'X' GYPSUM BOARD (SEE DETAIL).
- (1B) EXPOSED S.M. SPIRAL DUCT. REFER TO CMC CHAPTER 6 FOR SUPPORT AND INSTALLATION.
- (2) EXHAUST AIR DUCT TO WALL/CEILING CAP OR ROOF JACK.EXHAUST DUCT SHALL BE 26 GAUGE SHEET METAL.
- (3) VENTLESS DRYER TO BE UTILIZED. PROVIDE W/ LOUVER ABOVE DOOR AND & 2" DOOR UNDERCUT OR FULLY LOUVERED DOOR. MIN. 100 SQ. INCHES.
- (4) WALL / CEILING / ROOF S.M. JACK MINIMUM 3'-0" AWAY FROM OPENINGS INTO BUILDING & 10'-0" AWAY FROM DUCTED O.S.A. INLETS.
- (5) 10" X 10" EXHAUST LOUVER. MINIMUM 3'-0" AWAY FROM OPENINGS INTO THE BUILDING & 10'-0" AWAY FROM DUCTED O.S.A. INLETS.
- (6) 14" X 14" EXHAUST LOUVER. MINIMUM 3'-0" AWAY FROM OPENINGS INTO THE BUILDING & 10'-0" AWAY FROM DUCTED O.S.A. INLETS.
- (7) 14" X 10" EXHAUST LOUVER. MINIMUM 3'-0" AWAY FROM OPENINGS INTO THE BUILDING & 10'-0" AWAY FROM DUCTED O.S.A. INLETS.
- (8) KITCHEN RANGE HOOD EXHAUST DUCT TO WALL/ CEILING CAP OR ROOF JACK. EXHAUST DUCT SHALL BE 26 GAUGE SHEET METAL WITH SMOOTH INTERIOR SURFACE. INSTALL PER RANGE HOOD (BY OTHERS) MANUFACTURER'S RECOMMENDATIONS.
- (9) OUTSIDE AIR DUCT MIN. 10 FT. IN LENGTH OR SIX FEET WITH ONE ELBOW. MAINTAIN MIN. 10 FT. OF SEPARATION FROM EXHAUST/ VENTS. DUCT CONSTRUCTION SHALL BE MIN. 26 GAUGE SHEET METAL WITHIN RATED ASSEMBLIES OR FLEX DUCT WITHIN NON-RATED CAVITIES. PROVIDE WITH GASKETED AIR-TIGHT GRAVITY BACKDRAFT DAMPER (OR MOTORIZED IF SPECIFIED ON PLANS) & VOLUME DAMPER.
- (10) HORIZONTAL DRYER VENT CLEANOUT W/ 12" X 12" CEILING ACCESS PANEL(S) BELOW.
- (11) VENTING DESIGN/ INSTALL BY OTHERS.
- (12) REFRIGERANT LINES TO CONDENSING UNIT/ HEAT PUMP. LINE SIZES & INSTALLATION PER MANUFACTURERS SPECIFICATIONS.
- (13) NOT USED.

KEY NOTES

DENOTES LINED JOIST BAY (MIN. 13.25-INCHES CLEAR WIDTH AFTER DRYWALL)

DENOTES 9'-1" CEILING UNLESS NOTED OTHERWISE

DENOTES MIN. 12" INSIDE CLEAR DROP CEILING UNLESS NOTED OTHERWISE

CEILING LEGEND

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OAKLAND, CA

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CONSULTANT

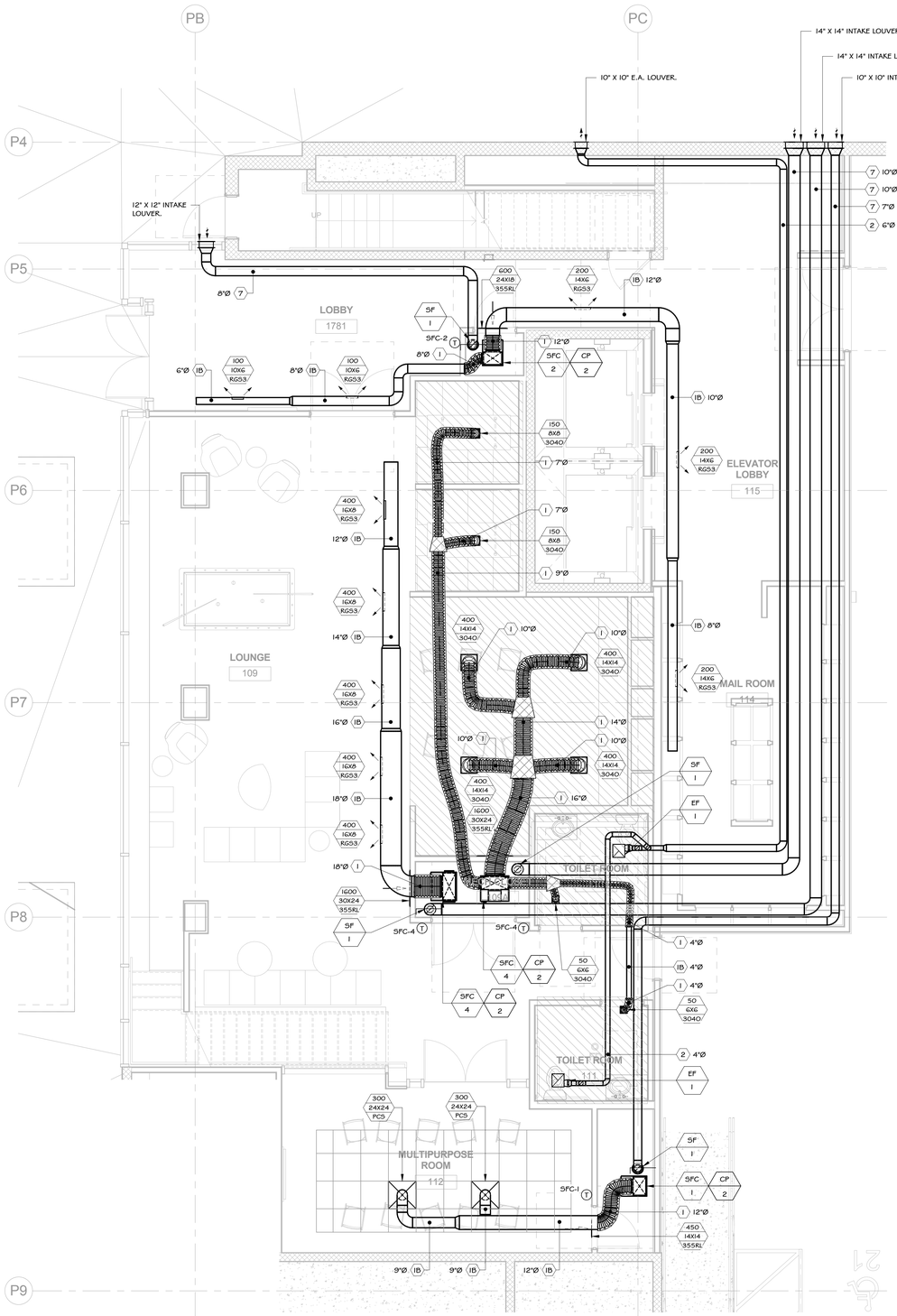
ENLARGED UNIT PLANS

PROJECT NO: 1132-0018
DATE: 05/12/2017

SHEET NO:

M-4.00C.5

PLAN CHECK RESPONSE #2 / ADDENDUM #1



- (A) HORIZONTAL (CASED) FAN COIL WITH SOLID ACCESS PANEL.
- (B) HORIZONTAL FAU/FAN COIL IN ATTIC. EQUIPMENT IN ATTIC TO COMPLY WITH 2013 CALIFORNIA MECHANICAL CODE.

  EQUIPMENT IN ATTIC REQUIRING ACCESS SHALL BE PROVIDED WITH:
  1. AN ACCESS OPENING LARGE ENOUGH TO REMOVE THE LARGEST PIECE OF EQUIPMENT, BUT NOT LESS THAN 30 INCHES BY 22 INCHES.
  2. AN UNOBSTRUCTED PASSAGE WAY WHICH:
  2.1 IS LARGE ENOUGH TO REMOVE THE LARGEST PIECE OF EQUIPMENT BUT NOT LESS THAN 30 INCHES HIGH BY 30 INCHES WIDE,
  2.2 IS NO MORE THAN 20 FEET IN LENGHT WHEN MEASURED ALONG THE CENTER LINE OF THE PASSAGEWAY FROM THE ACCESS OPENING TO THE EQUIPMENT, AND
  2.3 HAS CONTINUOUS SOLID FLOORING NOT LESS THAN 24 INCHES WIDE THROUGHOUT ITS LENGTH: AND
  3. A LEVEL SERVICE SPACE AT LEAST 30 INCHES DEEP AND 30 INCHES WIDE LOCATED AT THE FRONT OR SERVICE SIDE OF THE EQUIPMENT.
- (C) VERTICAL AIR HANDLER IN MECHANICAL CLOSET W/ LOW RETURN GRILLE. GENERAL CONTRACTOR TO PROVIDE PLATFORM & ACCESS DOOR.
- (1) SUPPLY/RETURN DUCT IN FURRED SPACE BELOW (NON-RATED) CEILING.
- (1A) SUPPLY/RETURN DUCT IN ATTIC SPACE ABOVE THE (NON-RATED) CEILING.
- (1B) EXPOSED S.M. SPIRAL DUCT. REFER TO CMC CHAPTER 6 FOR SUPPORT AND INSTALLATION.
- (2) EXHAUST AIR DUCT TO WALL/CEILING CAP OR ROOF JACK. EXHAUST DUCT SHALL BE 26 GAUGE SHEET METAL.
- (3) WALL / CEILING / ROOF S.M. JACK MINIMUM 3'-0" AWAY FROM OPENINGS INTO BUILDING & 10'-0" AWAY FROM DUCTED O.S.A. INLETS.
- (4) DOMESTIC WATER HEATER BY OTHERS. REFER TO PLUMBING PLANS FOR SIZE AND SPECIFICATIONS.
- (5) MIN. 20 SQ. IN. FREE AREA HI/LO OPENINGS FOR COMBUSTION AIR BY GENERAL CONTRACTOR. (OPENINGS TO BE WITHIN 12 INCHES OF CEILING AND FLOOR).
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- (8) VENTING DESIGN / INSTALL BY OTHERS.
- (9) REFRIGERANT LINES, SIZES & INSTALL PER MANUFACTURER'S SPECIFICATIONS. CONTRACTOR TO COORDINATE EXACT ROUTING OF REFRIGERANT LINES IN FIELD.
- (10) FAU TYPE B FLUE VENT.

KEY NOTES

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CONSULTANT

ENLARGED AMENITIES

PROJECT NO: 1132-0018

DATE: 05/12/2017

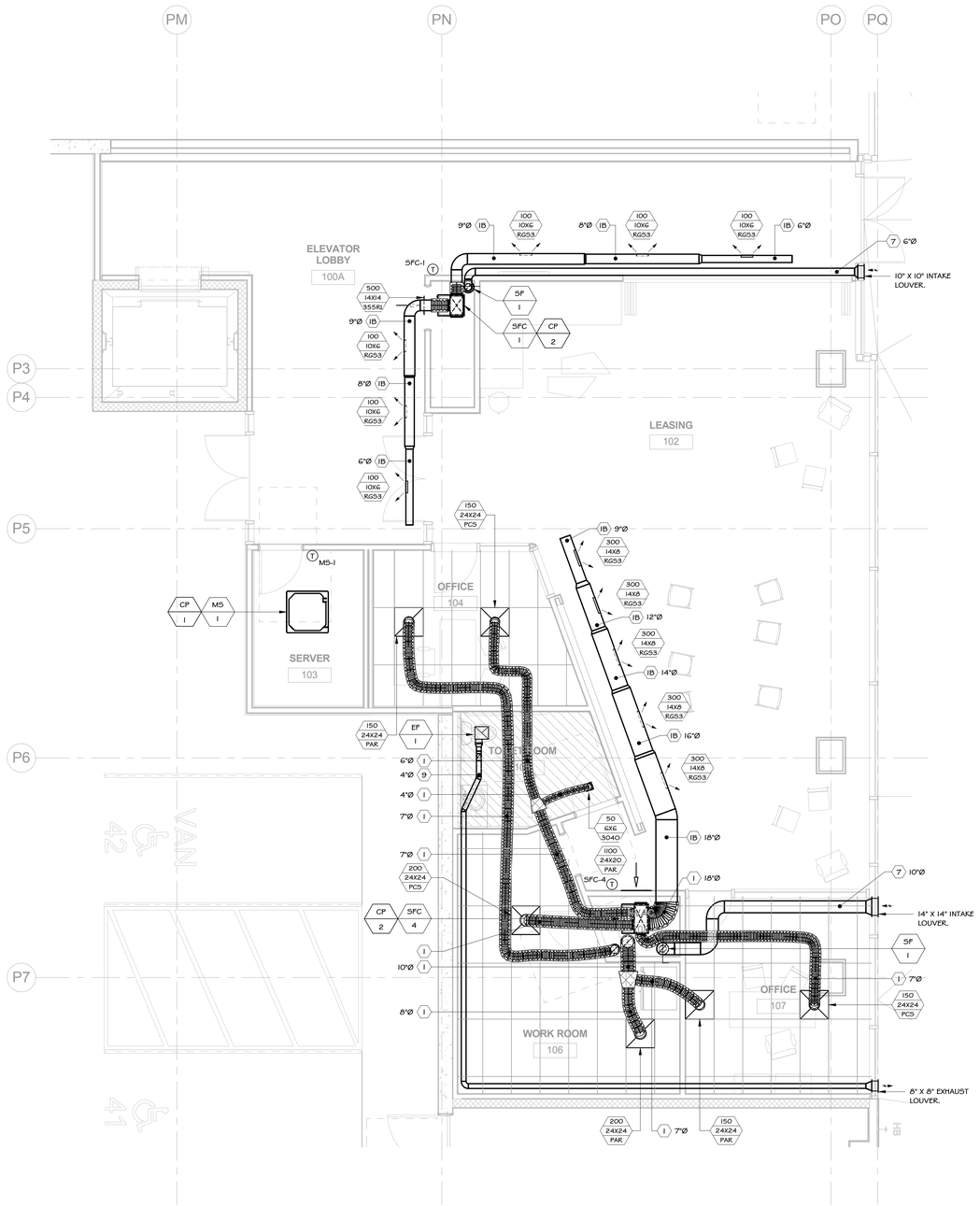
SHEET NO:

M-3

PLAN CHECK RESPONSE #2 / ADDENDUM #1

LOUNGE / MULTIPURPOSE (GROUND FLOOR)

SCALE 1/4" = 1'-0"



KEY NOTES

A- HORIZONTAL (CASED) FAN COIL WITH SOLID ACCESS PANEL.

B- HORIZONTAL FAU/FAN COIL IN ATTIC. EQUIPMENT IN ATTIC TO COMPLY WITH 2013 CALIFORNIA MECHANICAL CODE.

EQUIPMENT IN ATTIC REQUIRING ACCESS SHALL BE PROVIDED WITH:

1. AN ACCESS OPENING LARGE ENOUGH TO REMOVE THE LARGEST PIECE OF EQUIPMENT, BUT NOT LESS THAN 30 INCHES BY 22 INCHES.
2. AN UNOBSTRUCTED PASSAGE WAY WHICH:
   - 2.1 IS LARGE ENOUGH TO REMOVE THE LARGEST PIECE OF EQUIPMENT BUT NOT LESS THAN 30 INCHES HIGH BY 30 INCHES WIDE,
   - 2.2 IS NO MORE THAN 20 FEET IN LENGHT WHEN MEASURED ALONG THE CENTER LINE OF THE PASSAGEWAY FROM THE ACCESS OPENING TO THE EQUIPMENT, AND
   - 2.3 HAS CONTINUOUS SOLID FLOORING NOT LESS THAN 24 INCHES WIDE THROUGHOUT ITS LENGTH: AND
3. A LEVEL SERVICE SPACE AT LEAST 30 INCHES DEEP AND 30 INCHES WIDE LOCATED AT THE FRONT OR SERVICE SIDE OF THE EQUIPMENT.

C- VERTICAL AIR HANDLER IN MECHANICAL CLOSET W/ LOW RETURN GRILLE. GENERAL CONTRACTOR TO PROVIDE PLATFORM & ACCESS DOOR.

1- SUPPLY/RETURN DUCT IN FURRED SPACE BELOW (NON-RATED) CEILING.

1A- SUPPLY/RETURN DUCT IN ATTIC SPACE ABOVE THE (NON-RATED) CEILING.

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3- WALL / CEILING / ROOF S.M. JACK MINIMUM 3'-0" AWAY FROM OPENINGS INTO BUILDING & 10'-0" AWAY FROM DUCTED O.S.A. INLETS.

4- DOMESTIC WATER HEATER BY OTHERS. REFER TO PLUMBING PLANS FOR SIZE AND SPECIFICATIONS.

5- MIN. 20 SQ. IN. FREE AREA HI/LO OPENINGS FOR COMBUSTION AIR BY GENERAL CONTRACTOR. (OPENINGS TO BE WITHIN 12 INCHES OF CEILING AND FLOOR).

6- KITCHEN RANGE HOOD EXHAUST DUCT TO WALL/ CEILING CAP OR ROOF JACK. EXHAUST DUCT SHALL BE 26 GAUGE SHEET METAL WITH SMOOTH INTERIOR SURFACE. INSTALL PER RANGE HOOD (BY OTHERS) MANUFACTURER'S RECOMMENDATIONS.

7- OUTSIDE AIR DUCT MIN. 10 FT. IN LENGTH OR SIX FEET WITH ONE ELBOW. MAINTAIN MIN. 10 FT. OF SEPARATION FROM EXHAUST/ VENTS. DUCT CONSTRUCTION SHALL BE MIN. 26 GAUGE SHEET METAL WITHIN RATED ASSEMBLIES OR FLEX DUCT WITHIN NON-RATED CAVITIES. PROVIDE WITH GASKETED AIR-TIGHT GRAVITY BACKDRAFT DAMPER (OR MOTORIZED IF SPECIFIED ON PLANS) & VOLUME DAMPER.

8- VENTING DESIGN / INSTALL BY OTHERS.

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10- FAU TYPE B FLUE VENT.

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CONSULTANT

ENLARGED AMENITIES

PROJECT NO: 1132-0018

DATE: 05/12/2017

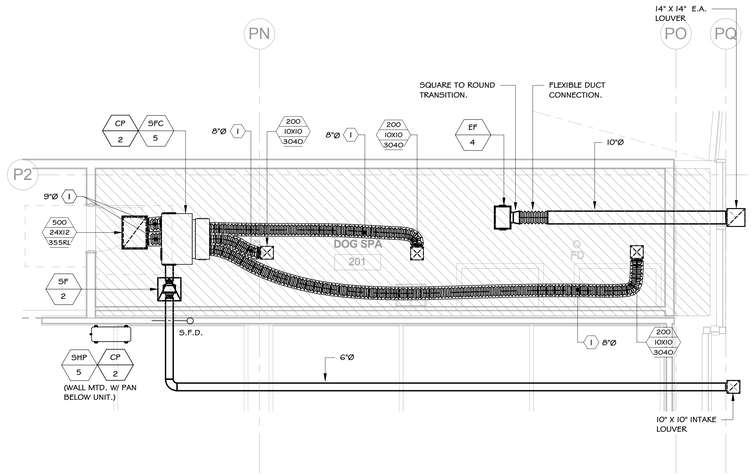
SHEET NO:

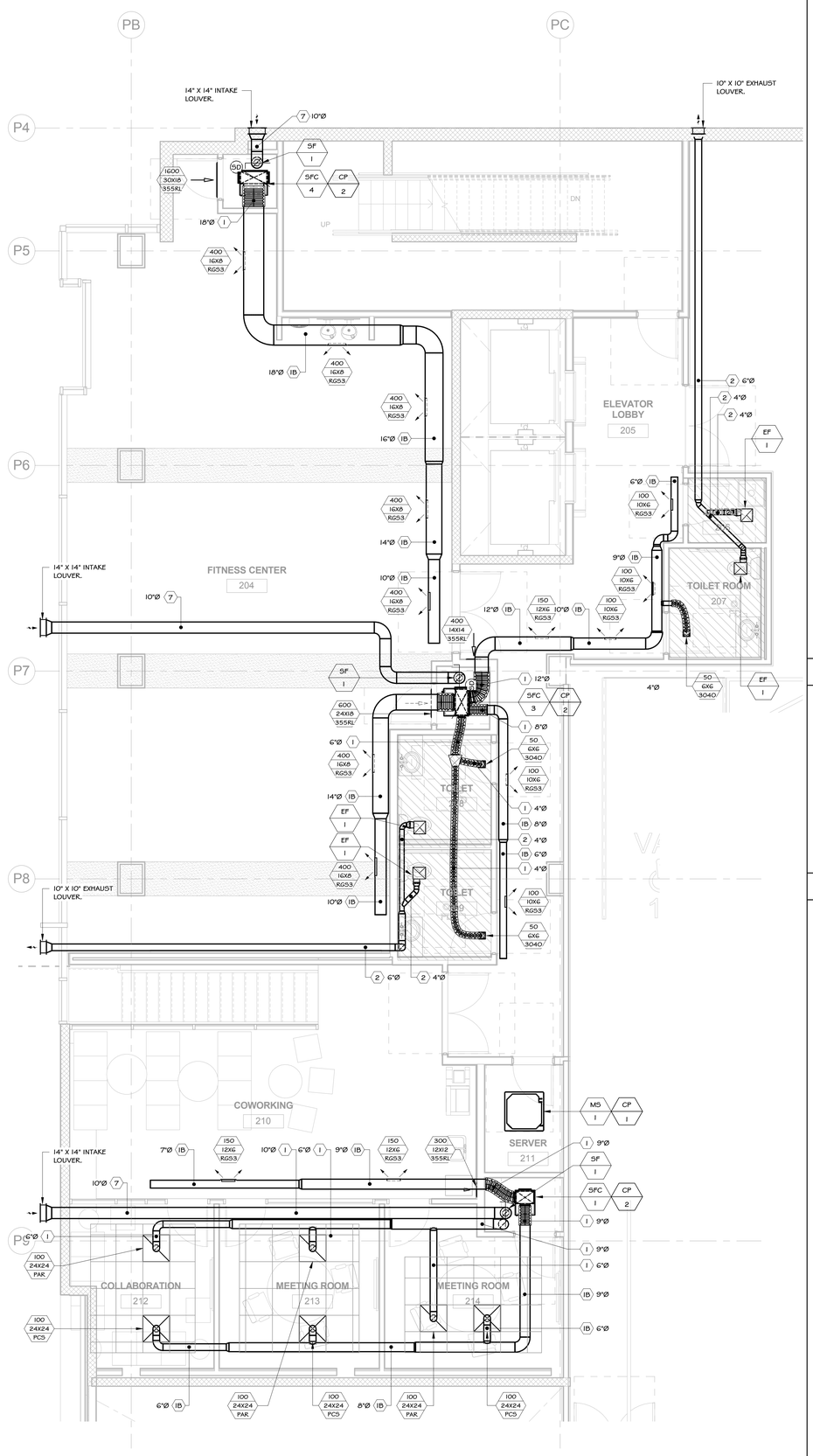
M-4

PLAN CHECK RESPONSE #2 / ADDENDUM #1

LEASING / OFFICES (GROUND FLOOR)

SCALE 1/4" = 1'-0"





A HORIZONTAL (CASED) FAN COIL WITH SOLID ACCESS PANEL.

B HORIZONTAL FAU/FAN COIL IN ATTIC. EQUIPMENT IN ATTIC TO COMPLY WITH 2013 CALIFORNIA MECHANICAL CODE.

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3. A LEVEL SERVICE SPACE AT LEAST 30 INCHES DEEP AND 30 INCHES WIDE LOCATED AT THE FRONT OR SERVICE SIDE OF THE EQUIPMENT.

C VERTICAL AIR HANDLER IN MECHANICAL CLOSET W/ LOW RETURN GRILLE. GENERAL CONTRACTOR TO PROVIDE PLATFORM & ACCESS DOOR.

1 SUPPLY/RETURN DUCT IN FURRED SPACE BELOW (NON-RATED) CEILING.

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7 OUTSIDE AIR DUCT MIN. 10 FT. IN LENGTH OR SIX FEET WITH ONE ELBOW. MAINTAIN MIN. 10 FT. OF SEPARATION FROM EXHAUST/ VENTS. DUCT CONSTRUCTION SHALL BE MIN. 26 GAUGE SHEET METAL WITHIN RATED ASSEMBLIES OR FLEX DUCT WITHIN NON-RATED CAVITIES. PROVIDE WITH GASKETED AIR-TIGHT GRAVITY BACKDRAFT DAMPER (OR MOTORIZED IF SPECIFIED ON PLANS) & VOLUME DAMPER.

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10 FAU TYPE B FLUE VENT.

KEY NOTES

DOG SPA (201) — SCALE 1/4" = 1'-0"

FITNESS / CO-WORKING (UPPER GARAGE) — SCALE 1/4" = 1'-0"

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CONSULTANT

ENLARGED AMENITIES

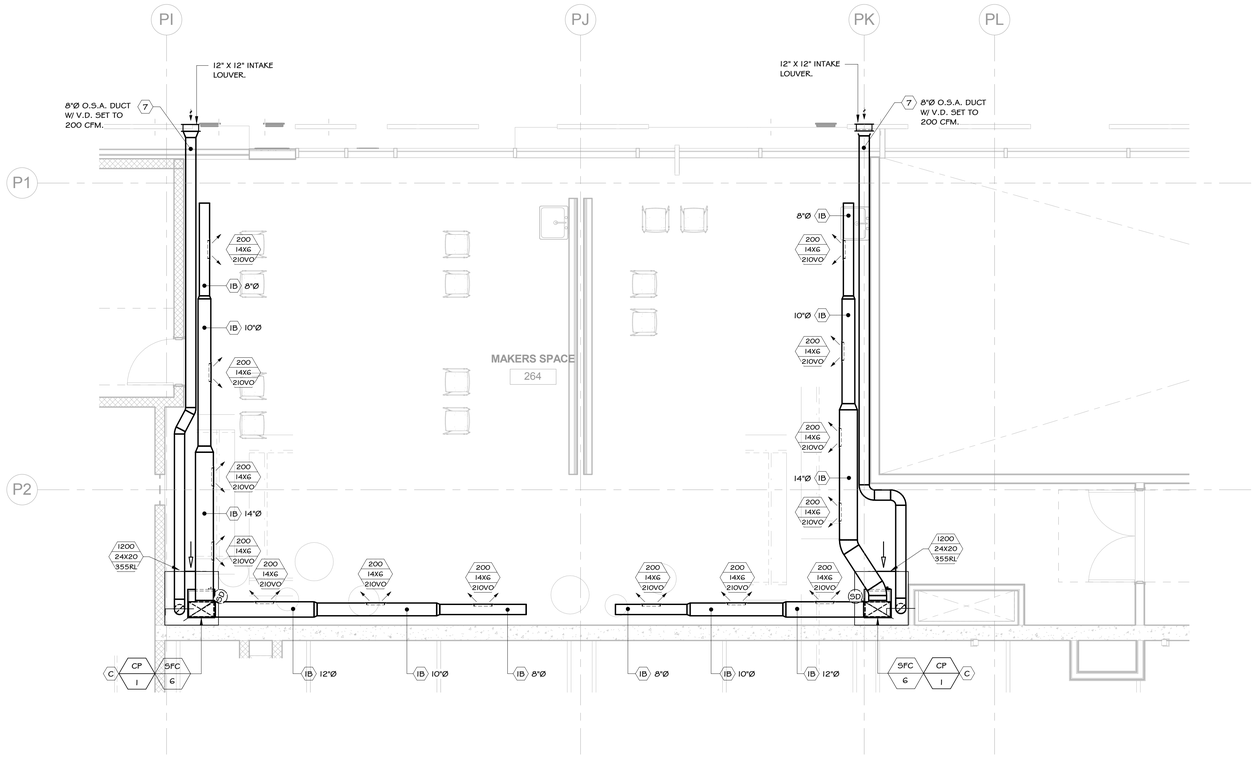
PROJECT NO: 1132-0018

DATE: 05/12/2017

SHEET NO:

M-5

PLAN CHECK RESPONSE #2 / ADDENDUM #1



A HORIZONTAL (CASED) FAN COIL WITH SOLID ACCESS PANEL.

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   - 2.3 HAS CONTINUOUS SOLID FLOORING NOT LESS THAN 24 INCHES WIDE THROUGHOUT ITS LENGTH: AND
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4 DOMESTIC WATER HEATER BY OTHERS. REFER TO PLUMBING PLANS FOR SIZE AND SPECIFICATIONS.

5 MIN. 20 SQ. IN. FREE AREA HI/LO OPENINGS FOR COMBUSTION AIR BY GENERAL CONTRACTOR. (OPENINGS TO BE WITHIN 12 INCHES OF CEILING AND FLOOR).

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7 OUTSIDE AIR DUCT MIN. 10 FT. IN LENGTH OR SIX FEET WITH ONE ELBOW. MAINTAIN MIN. 10 FT. OF SEPARATION FROM EXHAUST/ VENTS. DUCT CONSTRUCTION SHALL BE MIN. 26 GAUGE SHEET METAL WITHIN RATED ASSEMBLIES OR FLEX DUCT WITHIN NON-RATED CAVITIES. PROVIDE WITH GASKETED AIR-TIGHT GRAVITY BACKDRAFT DAMPER (OR MOTORIZED IF SPECIFIED ON PLANS) & VOLUME DAMPER.

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10 FAU TYPE B FLUE VENT.

KEYNOTES

MAKERS SPACE (264) — SCALE 1/4" = 1'-0"

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CONSULTANT

ENLARGED AMENITIES

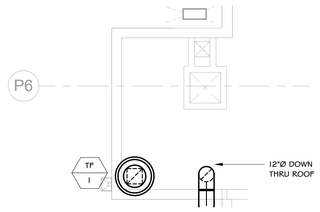
PROJECT NO: 1132-0018

DATE: 05/12/2017

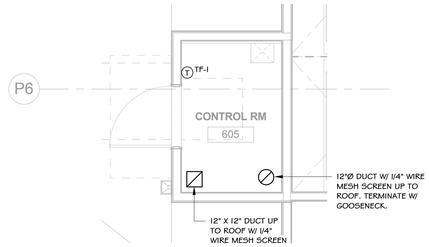
SHEET NO:

M-6

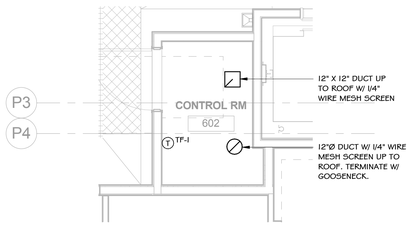
PLAN CHECK RESPONSE #2 / ADDENDUM #1



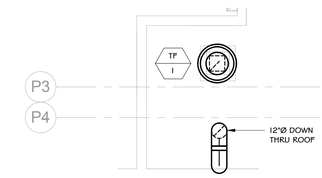
ELEVATOR CONTROL ROOM ROOF (1626) | SCALE 1/4" = 1'-0" | 4



CONTROL RM (1626) | SCALE 1/4" = 1'-0" | 1



CONTROL ROOM (556) | SCALE 1/4" = 1'-0" | 2



ELEVATOR CONTROL ROOM ROOF (556) | SCALE 1/4" = 1'-0" | 3

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CONSULTANT

ENLARGED ELEVATOR CONTROL ROOMS

PROJECT NO: 1132-0018

DATE: 05/12/2017

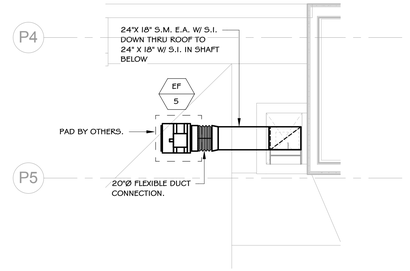
SHEET NO:

M-7

PLAN CHECK RESPONSE #2 / ADDENDUM #1

NOTES:

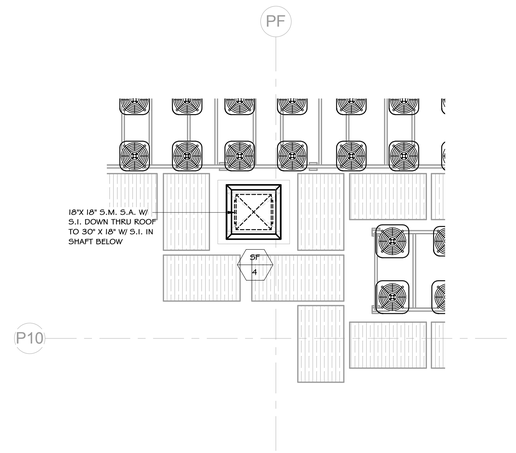
1. PROVIDE CEILING & DUCT ACCESS PANELS FOR SUSPENDED MECHANICAL EQUIPMENT & COMBINATION SMOKE FIRE DAMPERS & FIRE DAMPERS.



ENLARGED ROOF EXHAUST 1 — SCALE 1/4" = 1'-0" — 7 / 4 / 1

NOTES:

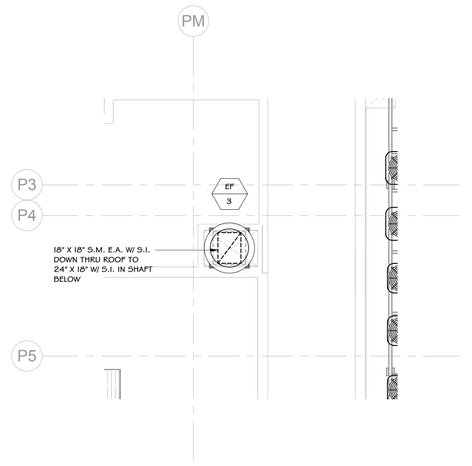
1. PROVIDE CEILING & DUCT ACCESS PANELS FOR SUSPENDED MECHANICAL EQUIPMENT & COMBINATION SMOKE FIRE DAMPERS & FIRE DAMPERS.



ENLARGED ROOF SUPPLY — SCALE 1/4" = 1'-0" — 8 / 5 / 2

NOTES:

1. PROVIDE CEILING & DUCT ACCESS PANELS FOR SUSPENDED MECHANICAL EQUIPMENT & COMBINATION SMOKE FIRE DAMPERS & FIRE DAMPERS.



ENLARGED ROOF EXHAUST 2 — SCALE 1/4" = 1'-0" — 9 / 6 / 3

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CONSULTANT

PARTIAL ENLARGED ROOF

PROJECT NO: 1132-0018

DATE: 05/12/2017

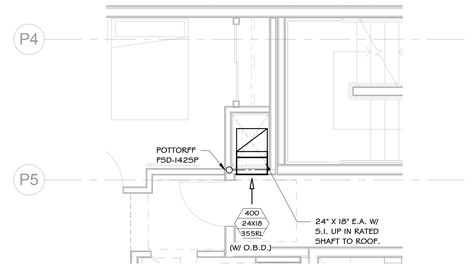
SHEET NO:

M-8

PLAN CHECK RESPONSE #2 / ADDENDUM #1

NOTES:

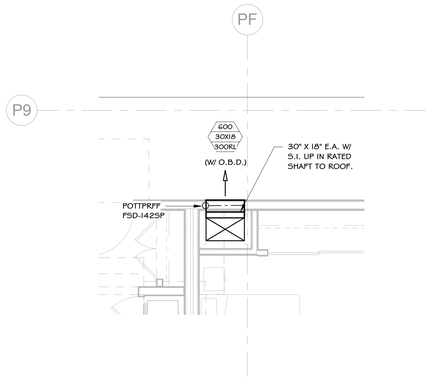
1. PROVIDE CEILING & DUCT ACCESS PANELS FOR SUSPENDED MECHANICAL EQUIPMENT & COMBINATION SMOKE FIRE DAMPERS & FIRE DAMPERS.



7 — 4 — ENLARGED CORRIDOR EXHAUST 1 — SCALE 1/4" = 1'-0" — 1

NOTES:

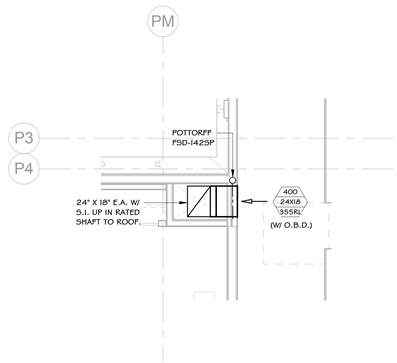
1. PROVIDE CEILING & DUCT ACCESS PANELS FOR SUSPENDED MECHANICAL EQUIPMENT & COMBINATION SMOKE FIRE DAMPERS & FIRE DAMPERS.



8 — 5 — ENLARGED CORRIDOR SUPPLY — SCALE 1/4" = 1'-0" — 2

NOTES:

1. PROVIDE CEILING & DUCT ACCESS PANELS FOR SUSPENDED MECHANICAL EQUIPMENT & COMBINATION SMOKE FIRE DAMPERS & FIRE DAMPERS.



9 — 6 — ENLARGED CORRIDOR EXHAUST 2 — SCALE 1/4" = 1'-0" — 3

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CONSULTANT

PARTIAL ENLARGED CORRIDORS

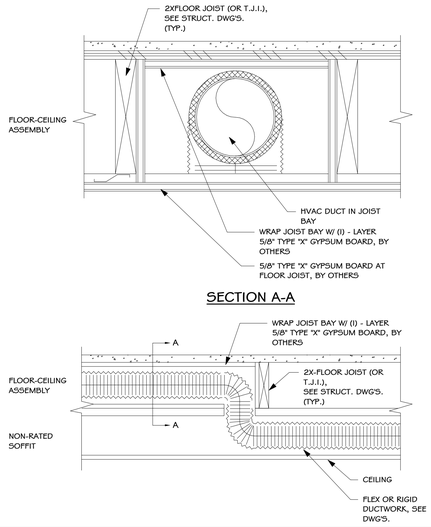
PROJECT NO: 1132-0018

DATE: 05/12/2017

SHEET NO:

M-9

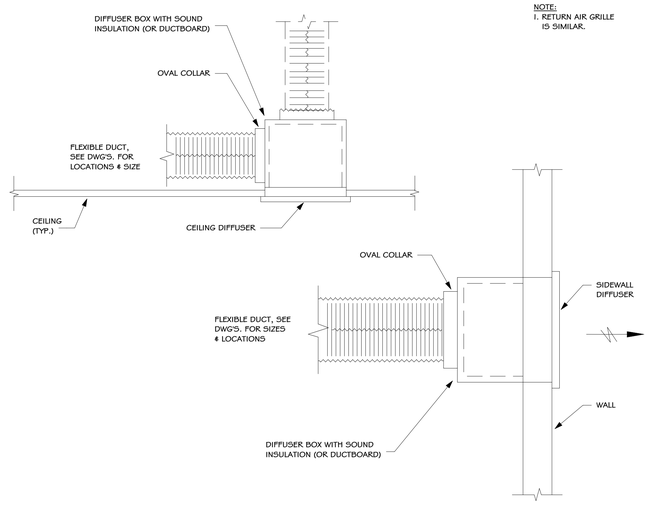
PLAN CHECK RESPONSE #2 / ADDENDUM #1



SECTION A-A

LINED JOIST BAY

SCALE: NONE (7)

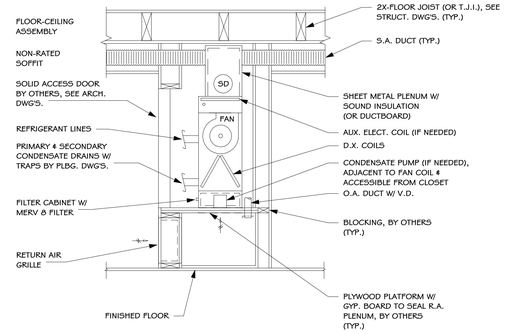


NOTE:
1. RETURN AIR GRILLE IS SIMILAR.

CEILING DIFFUSER & SIDEWALL DIFFUSER

SCALE: NONE (4)

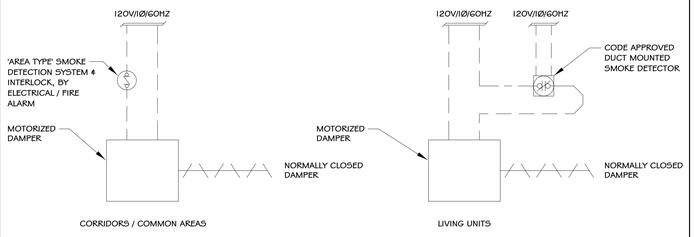
NOTES:
1. PROVIDE 1-1/2" SHEET METAL STRAPS FASTENED TO FAN COIL & PLATFORM FOR SEISMIC BRACING (TYP. AT 4 CORNERS OF FAN COIL).



VERTICAL FAN COIL (NON-RESIDENTIAL) (MERV 8)

SCALE: NONE (1)

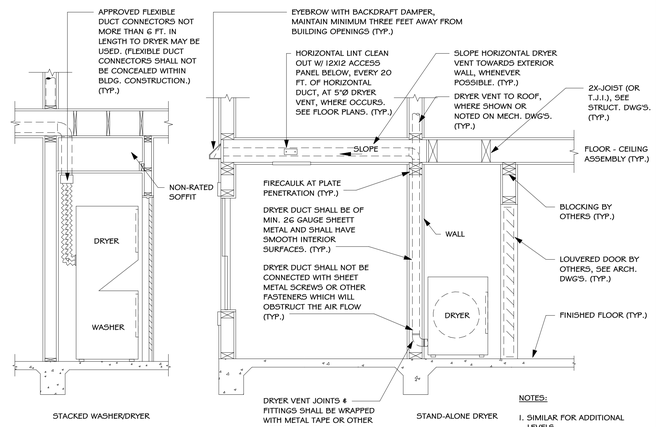
WIRING LEGEND:
- WIRING & CONDUIT BY ELECTRICAL
- LOW VOLTAGE WIRING BY MECHANICAL CONTRACTOR



NOTES:
1. FIRE ALARM CONTRACTOR SHALL INTERLOCK S.F.D. TO FIRE ALARM PANEL, WHEN REQUIRED BY CODE OR LOCAL JURISDICTION.

COMBINATION SMOKE & FIRE DAMPER WIRING (RESIDENTIAL)

SCALE: NONE (8)

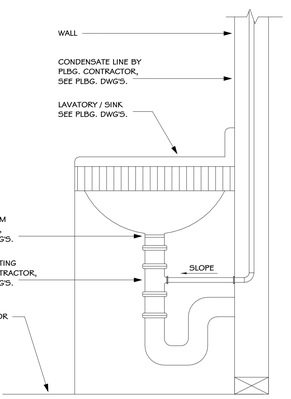


NOTES:
1. SIMILAR FOR ADDITIONAL LEVELS.
2. SEE LINED JOIST BAY DETAIL WHEN DUCT DOES NOT ENTER FLOOR - CEILING OR ROOF-CEILING ASSEMBLY FROM WALL CAVITY.
3. SEE EXHAUST / VENT TERMINATION DETAIL
4. SEE CLEAN-OUT DETAIL, WHEN APPLICABLE.

DRYER VENTING

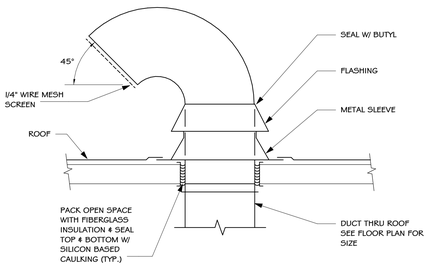
SCALE: NONE (5)

NOTES:
1. IT IS RECOMMENDED ENTIRE CONDENSATE SYSTEM BE OF COPPER TO MINIMIZE POTENTIAL DAMAGE FROM REFRIGERANT OIL.



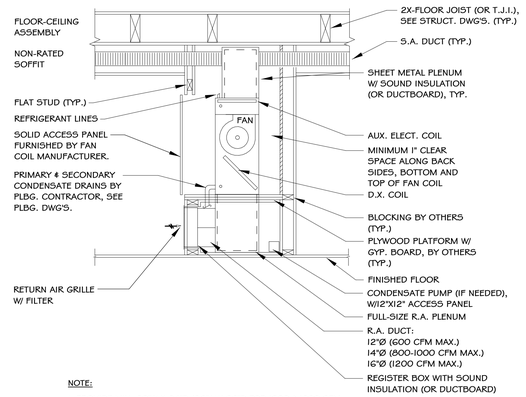
CONDENSATE DRAIN TERMINATION

SCALE: NONE (2)



DUCT THRU ROOF W/ GOOSENECK (RESIDENTIAL)

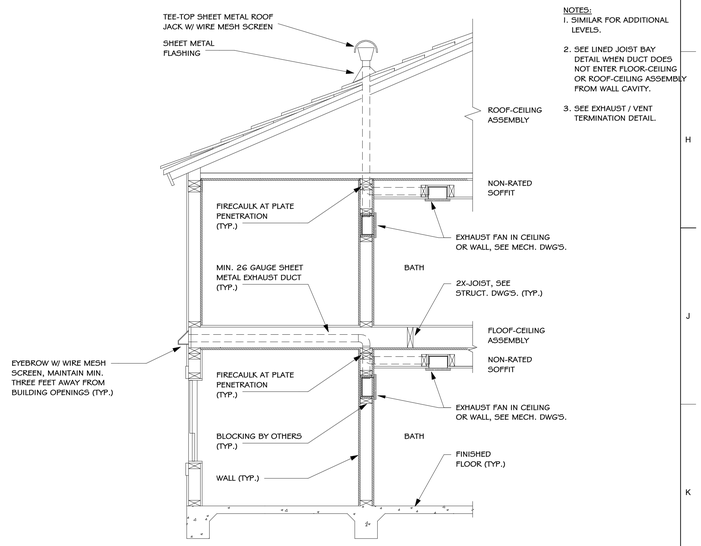
SCALE: 12" = 1'-0" (9)



NOTE:
1. PROVIDE MIN. 30"W X 24"D (36"W X 26"D FOR 1000 & 1200 CFM UNIT) CLEAR SPACE IN CLOSET.

VERTICAL FAN COIL (RESIDENTIAL)

SCALE: NONE (6)



NOTES:
1. SIMILAR FOR ADDITIONAL LEVELS.
2. SEE LINED JOIST BAY DETAIL WHEN DUCT DOES NOT ENTER FLOOR-CEILING OR ROOF-CEILING ASSEMBLY FROM WALL CAVITY.
3. SEE EXHAUST / VENT TERMINATION DETAIL.

BATHROOM EXHAUST VENTING

SCALE: NONE (3)

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CONSULTANT

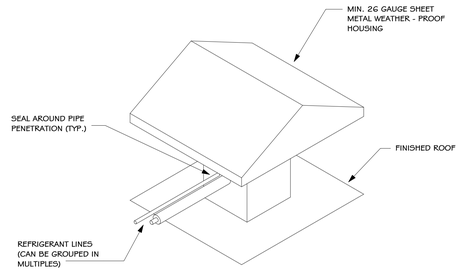
MECHANICAL DETAILS

PROJECT NO: 1132-0018
DATE: 05/12/2017

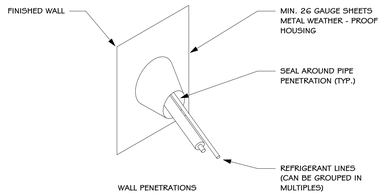
SHEET NO:

M-10

PLAN CHECK RESPONSE #2 / ADDENDUM #1



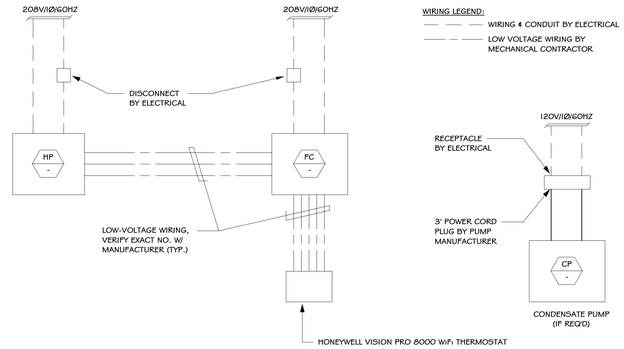
ROOF PENETRATIONS



WALL PENETRATIONS

REFRIGERANT LINESET WEATHER-PROOF HOUSING

SCALE: NONE | 6

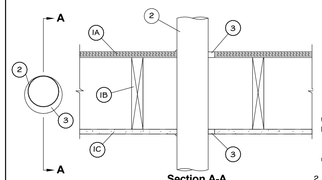


SPLIT SYSTEM HEAT PUMP WIRING (RESIDENTIAL)

SCALE: NONE | 3

2010 CBC section 713 PENETRATION FIRSTOP SYSTEM.

Penetration shall be protected by an approved penetration firestop system installed as test in accordance with ASTM E 814 or UL 1479. The system shall have an F rating and a T rating not less than one-hour but not less than the required rating of the floor penetrated. EXCEPTION: Floor penetrations contained and located within the cavity of wall do not require a T rating.



Section A-A

System No.F-C-7014
November 5, 2009
F Rating ----1Hr
T Rating ---1/4 and 1HR (see Item 2)
Specified Technologies INC -- SpecSeal LCI Sealant

1. Floor-Ceiling Assembly -- The 1hr fire-rated wood joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Designs in the UL Fire Resistance Directory, as summarized below:

A. Flooring System -- Lumber or plywood subfloor with finish floor of lumber, plywood or floor topping mixture* as specified in the individual Floor-Ceiling Design. Diam of opening is to be max 1 in. larger than diam of steel duct.

B. Wood Joists -- Nom 10 in. deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or Structural Wood Members* with bridging as required and with ends firestopped.

C. Gypsum Board* -- Thickness, type, number of layers and fasteners as required in the individual Floor-Ceiling Design. Diam of opening is to be max 1 in. larger than diam of steel duct.

1A. Chase wall -- (Optional, Not Shown) -- The through penetrant (item 2) may be routed through a 1hr fire rated single, double or staggered wood stud/gypsum board chase wall. Depth of chase wall stud cavity to be min 1/2 in. greater than diameter of opening cut in sole and top plates to accommodate the through penetrant (item 2). the chase wall shall be constructed of the materials and in the manner specified in the individual u300 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs-- nom 2 by 4 in., 2 by 6 in. or double nom 2 by 4 in. lumber studs.

B. Sole Plate-- nom 2 by 4 in., 2 by 6 in. or parrallel 2 by 4 in. lumber plates, tightly butted. diam of opening is to be max 1 in. larger than diam of steel pipe.

C. Top Plate-- The double top plate shall consist of two nom 2 by 4 in., two nom 2 by 6 in. or two sets of parallel 2 by 4 in. lumber plates tightly butted. Diam of opening is to be max 1 in. larger than diam of steel duct.

D. Gypsum Board*-- Thickness, type, number of layers and fasteners shall be as specified in the individual Wall and Partition Design.

2. Steel Duct -- One Nom 4 in. diam (or smaller) No. 30 GA (or heavier) steel duct or one nom 10 in. diam (or smaller) no. 28 ga (or heavier) steel duct to be installed either concentrically or eccentrically within the opening. annular space to be min 0 in. (point contact) to max 1 in. Steel duct to be rigidly supported on both sides of flooring-ceiling assembly.

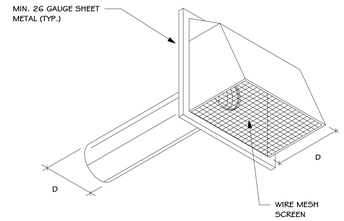
T rating is 1hr for nom 4 in. diam (or smaller) ducts. T rating is 1/4hr for ducts greater than nom 4 in.

3. Fill, Void or Cavity Material*-- Sealant -- min 3/4 in. thickness of fill material applied within the annulus, flush with the top surface of the floor or sole plate. min 5/8 in. thickness of fill material applied within the annulus, flush with bottom surface of ceiling or top plate. Min 1/4 in. diam bead of fill material applied at point contact location on the top surface of floor or chase wall sole plate and at the penetrant/ceiling of chase wall top plate interface.

*Beanng the UL Classification Mark

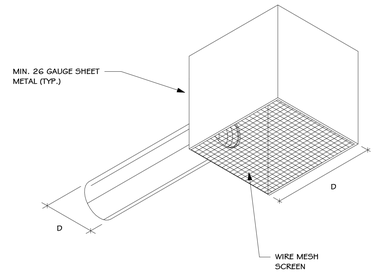
FIRE-STOP (MAX. 4"Ø VENT)1

SCALE: NONE | 1

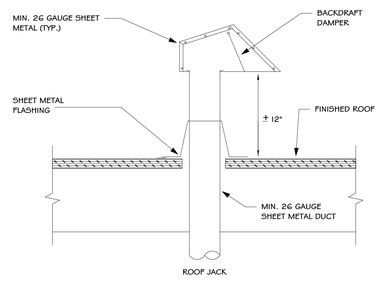


EYEBROW (WALL JACK)

NOTES:
1. TYPICAL FOR EXHAUST / INTAKE O.S.A. TERMINATION.
2. SIMILAR FOR DRYER VENT TERMINATION EXCEPT THE ADDITION OF A BACKDRAFT DAMPER & REMOVAL OF WIRE MESH SCREEN.
3. EXHAUST TERMINATION MUST BE MIN. 3 FEET AWAY FROM OPENINGS INTO BLDG.
4. INTAKE O.S.A. TERMINATION MUST BE MIN. 10 FEET AWAY FROM EXHAUST OUTLETS AND VENTS.
5. SIMILAR FOR KITCHEN RANGE HOOD EXHAUST EXCEPT ADDITION OF BACKDRAFT DAMPER.
6. FOR LOW-RISE RESIDENTIAL, DRYER VENT OUTLET MUST BE LOCATED MINIMUM 5FT. AWAY FROM OUTDOOR CONDENSING UNIT / HEAT PUMP.

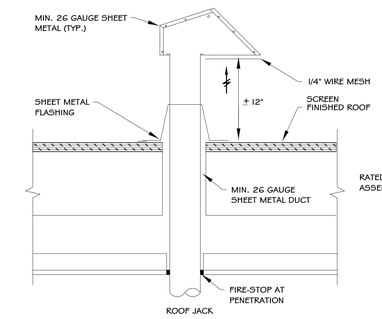


CEILING JACK



ROOF JACK

NOTES:
1. TYPICAL FOR DRYER VENT TERMINATION.
2. SIMILAR FOR BATH EXHAUST TERMINATION EXCEPT USE TEE-TOP FITTING W/ 1/4" WIRE MESH SCREEN.
3. TERMINATION MUST BE MIN. 3 FEET AWAY FROM OPENINGS INTO BLDG.
4. SIMILAR FOR KITCHEN RANGE HOOD EXHAUST EXCEPT ADDITION OF BACKDRAFT DAMPER.
5. FOR LOW-RISE RESIDENTIAL, DRYER VENT OUTLET MUST BE LOCATED MINIMUM 5FT. AWAY FROM OUTDOOR CONDENSING UNIT / HEAT PUMP.



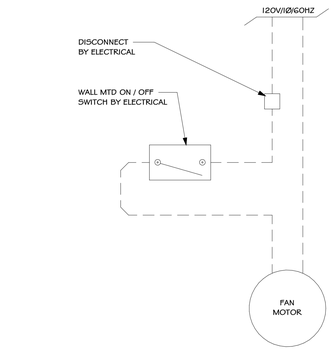
ROOF JACK

NOTES:
1. TYPICAL FOR OSA INTAKE TERMINATION.
2. TERMINATION MUST BE MIN. 10 FEET AWAY FROM EXHAUST OUTLETS AND VENTS.

EXHAUST / VENT / O.S.A. TERMINATION

SCALE: NONE | 2

WIRING LEGEND:
WIRING & CONDUIT BY ELECTRICAL
LOW VOLTAGE WIRING BY MECHANICAL CONTRACTOR



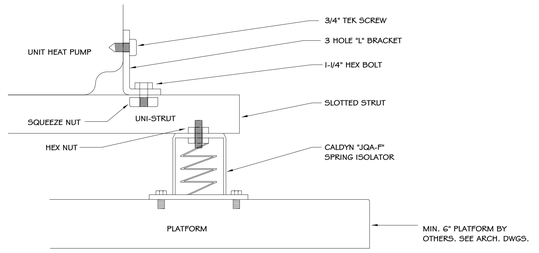
NOTES:
1. WIRING DIAGRAM TYPICAL FOR 5F-1.
2. PROVIDE "MECHANICAL VENTILATION" LABEL ABOVE WALL MTD. SWITCH.

O.S.A. FAN WIRING (RESIDENTIAL)

SCALE: NONE | 7

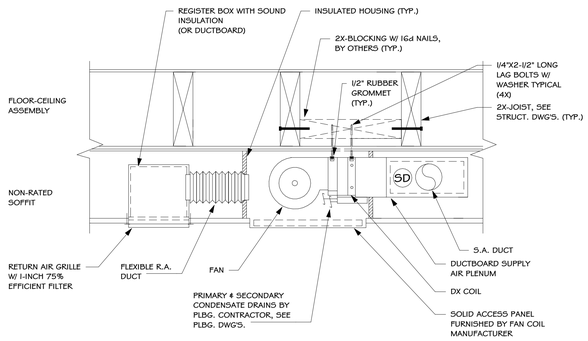
CLEARANCE REQUIRMENTS:
48" OVERHEAD
18" BETWEEN UNITS (NO OVERHANG)
36" IN FRONT FOR SERVICE
12" FROM WALL

NOTES:
1. EQUIPMENT SHALL BE PERMANENTLY LABELED INDICATING WHICH APT. UNIT IS BEING SERVED.
2. SECURE EQUIPMENT TO PAD / PLATFORM ADEQUATELY.
3. PROVIDE OUTDOOR REFRIGERANT SERVICE PORTS WITH LOCKING TYPE TAMPER-RESISTANT CAPS, WHERE REQUIRED BY CODE.



HEAT PUMP UNI-STRUT RAIL SYSTEMS

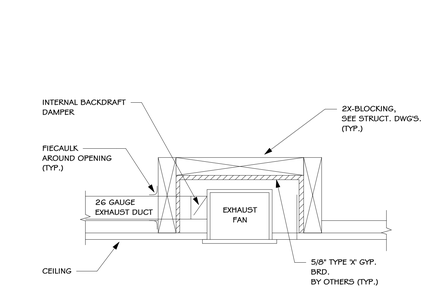
SCALE: NONE | 4



NOTE:
1. SYSTEM PROVIDED FOR PROCESS LOAD.

SOFFIT MTD. FAN COIL (NON-MERV FILTER)

SCALE: NONE | 8



EXHAUST FAN IN RATED CEILING

SCALE: NONE | 5

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301 19TH & HARRISON

OAKLAND, CA

301 19TH STREET, OAKLAND, CA

NO. ISSUE DATE

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CONSULTANT

MECHANICAL DETAILS

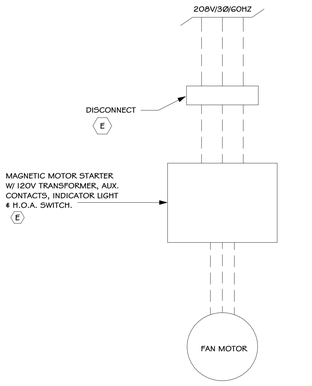
PROJECT NO: 1132-0018

DATE: 05/12/2017

SHEET NO:

M-11

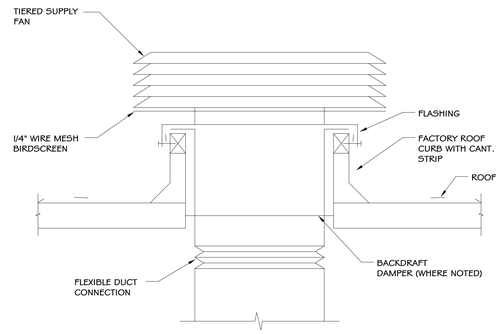
PLAN CHECK RESPONSE #2 / ADDENDUM #1



NOTE:
1. WIRING DIAGRAM TYPICAL FOR SF-4.
2. SF-4 SHALL BE INTERLOCKED TO FIRE ALARM PANEL & SHALL SHUT DOWN ON ALARM.

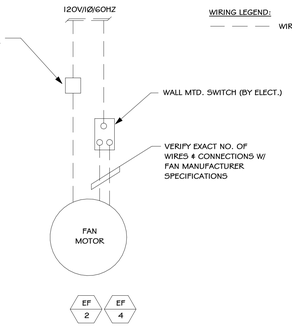
SUPPLY FAN WIRING (CORRIDOR)

SCALE: NONE — 6



TIERED ROOF MTD. FAN

SCALE: NONE — 3

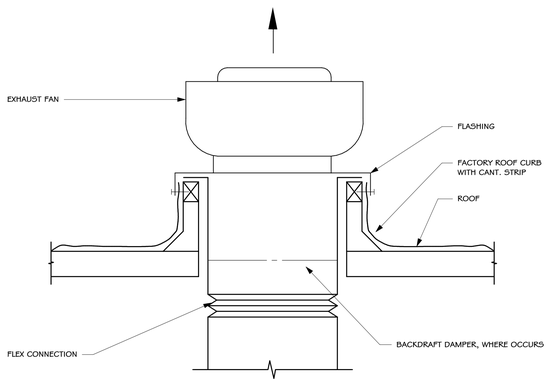


NOTES:

1. HUMIDITY SENSING FANS SHALL BE WIRED FOR MANUAL (ON/OFF) AND AUTOMATIC (HUMIDITY SENSING) MODES, SEE MANUF. SPECS.

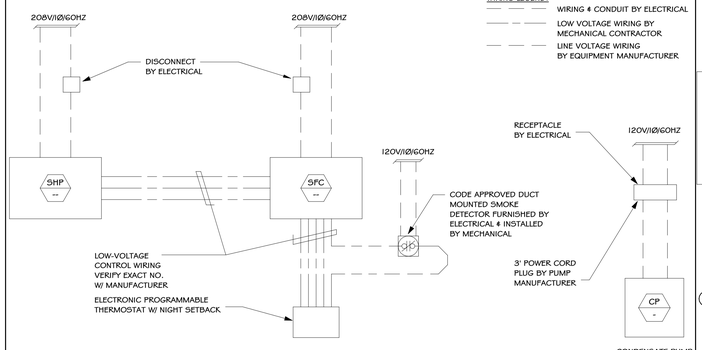
EXHAUST FAN WIRING (AMENITIES)

SCALE: NONE — 1



UPBLAST ROOF MTD. FAN

SCALE: NONE — 7



NOTES:

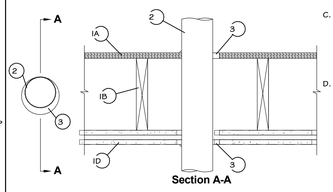
1. PROVIDE 7-DAY PROGRAMMABLE THERMOSTATS FOR RETAIL, RESTAURANTS AND THEATERS.

SPLIT SYSTEM HEAT PUMP WIRING (AMENITIES)

SCALE: NONE — 4

2013 CBC Section 713 PENETRATION FIRESTOP SYSTEM.

Penetration shall be protected by an approved penetration firestop system installed as tested in accordance with ASTM E 814 or UL 1479. The system shall have an F rating and a T rating not less than one-hour but not less than the required rating of the floor penetrated. EXCEPTION: Floor penetrations contained and located within the cavity of wall do not require a T rating.



System No.F-C-7019
January 7, 2010
F Rating ---1 and 2 Hr (See Item 1)
T Rating ---1 and 1-1/2 Hr (See Item 1)
L Rating at ambient ---Less than 1 CFM/sq ft
L Rating at 400°F ---Less than 1 CFM/sq ft
Rectorseal -- FS900+ Sealant

1. Floor-Ceiling Assembly -- The 1hr fire-rated solid or trussed lumber joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory. The 2hr fire-rated wood joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in Design Nos. L505, L511 or L536 in the UL Fire Resistance Directory. The general construction features of the floor-ceiling assembly are summanzed below:

A. Flooring System -- Lumber or plywood subfloor with finish floor of lumber, plywood or Floor Topping Mixture* as specified in the individual Floor-Ceiling Design. Max diam of floor opening is 6-1/2 in. (165 mm).

B. Wood Joists* -- For 1hr fire-rated floor-ceiling assemblies nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or Structural Wood Members* with bridging as required and with ends firestopped. For 2hr fire-rated floor-ceiling assemblies, nom 2 by 10 in. (51 by 254 mm) lumber joists spaced 16 in. (406 mm) OC with nom 1 by 3 in. (25 by 76 mm) lumber bridging and with ends firestopped.

C. Furring Channels -- (Not Shown) -- In 2hr fire-rated assemblies, resilient galv steel furring installed perpendicular to wood joists between first and second layers of gypsum board (item 1D), furring channels spaced max 24 in. (610 mm) OC. In 1 hr fire-rated assemblies, resilient galv steel furring installed perpendicular to wood joists between gypsum board and wood joists as specified in the individual Floor-Ceiling Design. Furring channels spaced max 24 in. (610 mm) OC.

D. Gypsum Board* -- Nom 4 ft (1.2 m) wide by 5/8 in. (16 mm) thick as specified in the individual Floor-Ceiling Design. First layer of gypsum board secured to wood joists or furring channels as specified in the individual Floor-Ceiling Design. Second layer of gypsum board (2 hr fire-rated assembly) screw attached to furring channels as specified in the individual Floor-Ceiling Design. Max diam of ceiling opening is 6-1/2 in. (165 mm)

The hourly F and T ratings of the firestop system are dependent on the hourly fire rating of the floor-ceiling/chase wall assembly in which it is installed as shown in the following table:

Rating of Assembly, Hr	F Rating, Hr	T Rating, Hr
2	2	1-1/2
1	1	1

1.1 Chase wall -- (Not Shown, Optional) -- The through penetrants (item 2) may be routed through a 1 or 2hr fire-rated single, double or staggered wood stud/gypsum board chase wall having a fire rating consistent with that of the floor-ceiling assembly. The chase wall shall be constructed of the materials and in the manner specified in the individual U300 Series Wall and Partition Designs in the UL Fire Resistance and shall include the following construction features:

A. Studs-- Nom 2 by 8 in. (51 by 203 mm) lumber or double nom 2 by 6 in. (51 by 152 mm) lumber studs.

B. Sole Plate-- Nom 2 by 8 in. (51 by 203) lumber or parallel 2 by 6 in. (51 by 152 mm) lumber plates, tightly butted.

C. Top Plate-- The double top plate shall consist of two nom 2 by 8 in. (51 by 203 mm) lumber plates or two sets of nom 2 by 6 in. (51 by 152 mm) lumber plates tightly butted. Max diam of opening is 6-1/2 in. (165 mm).

D. Gypsum Board* -- Thickness, type, number of layers and fasteners shall be as specified in individual Wall and Partition Designs.

Through Penetrant -- Nom 6 in. (152 mm) diam (or smaller) by No. 30 MSG (or heavier) steel duct. One steel duct to be installed either concentrically or eccentrically within the firestop system. The annular space within the firestop system shall be a min 0 in. (point contract) to a max 1/2 in. (13 mm). Steel duct to be rigidly supported on both sides of floor-ceiling assembly.

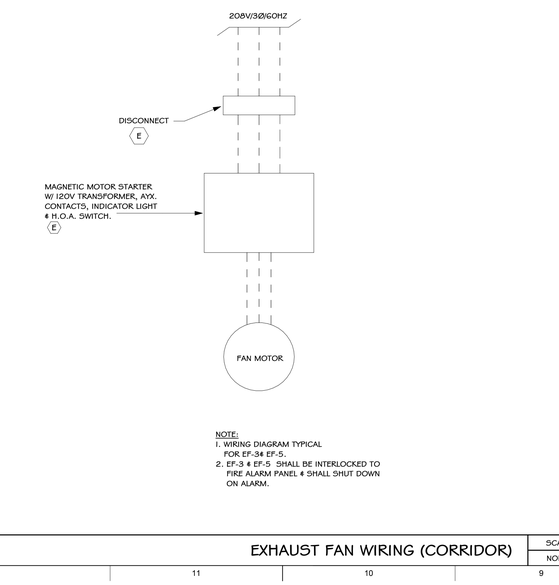
Fill, Void or Cavity Material* -- Sealant -- Min 3/4 in. (19 mm) thickness of fill material applied flush with annulus on top surface of floor or sole plate. Min 1/2 in. (13 mm) thickness of fill material applied flush with annulus on bottom surface of ceiling or on bottom surface of lower top plate of chase wall assembly. At point contact, min 3/8 in. (10 mm) diam bead of fill material applied at penetrant/floor or sole plate interface and at penetrant/ceiling or top plate interface.

RECTORSEAL -- FS900+ Sealant

+Bearing the UL Listing Mark
*Bearing the UL Classification Mark

FIRE-STOP (5"Ø & 6"Ø VENTS)

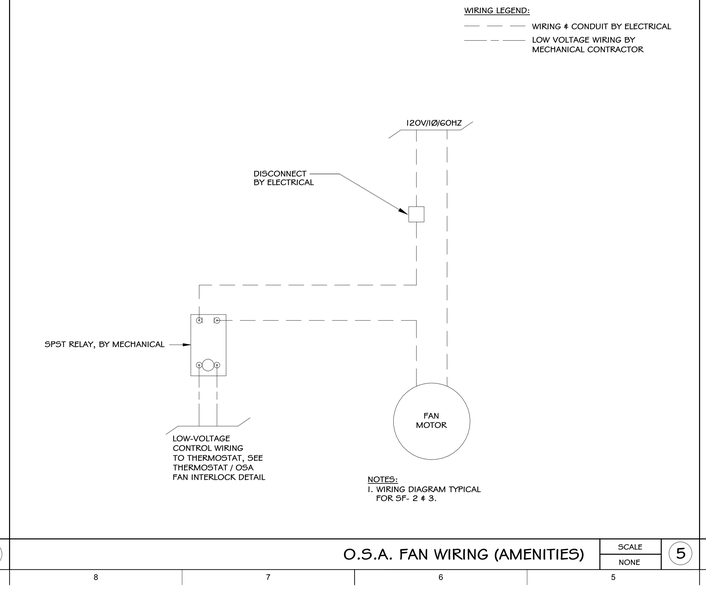
SCALE: NONE — 2



NOTE:
1. WIRING DIAGRAM TYPICAL FOR EF-34 EF-5.
2. EF-3 & EF-5 SHALL BE INTERLOCKED TO FIRE ALARM PANEL & SHALL SHUT DOWN ON ALARM.

EXHAUST FAN WIRING (CORRIDOR)

SCALE: NONE — 8



NOTES:
1. WIRING DIAGRAM TYPICAL FOR SF- 2 & 3.

O.S.A. FAN WIRING (AMENITIES)

SCALE: NONE — 5

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CONSULTANT

MECHANICAL DETAILS

PROJECT NO: 1132-0018
DATE: 05/12/2017

SHEET NO:

M-12

PLAN CHECK RESPONSE #2 / ADDENDUM #1

1. ALL HVAC COMPONENTS, CONTROLS, & SYSTEMS SHALL COMPLY WITH 2013 CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS.

2. ALL HVAC APPLIANCES SHALL COMPLY WITH 2013 CALIFORNIA APPLIANCE EFFICIENCY REGULATIONS.

3. SEE ARCHITECTURAL DRAWINGS FOR BUILDING ENVELOPE CONSTRUCTION ASSEMBLIES & INSTALLATION REQUIREMENTS.

4. SEE PLUMBING DRAWINGS FOR DOMESTIC HOT WATER SYSTEM & INSTALLATION REQUIREMENTS.

5. HEAT PUMPS WITH SUPPLEMENTARY ELECTRIC RESISTANCE HEATERS SHALL HAVE CONTROLS THAT PREVENT SUPPLEMENTARY HEATER OPERATION WHEN THE HEATING LOAD CAN BE MET BY THE HEAT PUMP ALONE AND IN WHICH THE CUT-ON TEMPERATURE FOR COMPRESSION HEATING IS HIGHER THAN THE CUT-ON TEMPERATURE FOR SUPPLEMENTARY HEATING, AND THE CUT-OFF TEMPERATURE FOR COMPRESSION HEATING IS HIGHER THAN THE CUT-OFF TEMPERATURE FOR SUPPLEMENTARY HEATING.

6. ALL UNITARY HEATING AND / OR COOLING SYSTEMS INCLUDING HEAT PUMPS THAT ARE NOT CONTROLLED BY A CENTRAL ENERGY MANAGEMENT CONTROL SYSTEM (EMCS) SHALL HAVE A SETBACK THERMOSTAT CAPABLE OF PROGRAMMING SET POINTS FOR AT LEAST FOUR PERIODS WITHIN 24 HOURS. THERMOSTAT TO BE INSTALLED 42-INCHES A.F.F.

7. ALL FACTORY-FABRICATED & FIELD-FABRICATED DUCT SYSTEMS SHALL COMPLY WITH UL 181.

8. DUCT WORK: SUPPLY & RETURN AIR DUCTS SHALL HAVE INSULATION WITH A MINIMUM THERMAL RESISTANCE OF R-8 (DUCTS IN UNCONDITIONED SPACES).

9. REFRIGERANT LINES: SUCTION LINE SHALL BE INSULATED WITH 1/2-INCH ARMAFLEX INSULATION & WRAPPED WITH A WATER-RETARDANT UV PROTECTIVE COATING FOR OUTDOOR APPLICATIONS. PROVIDE A VAPOR RETARDANT ON SUCTION LINE WHEN LOCATED OUTSIDE CONDITIONED SPACE.

10. SPACE-HEATING HOT WATER LINES: HOT WATER SUPPLY & RETURN PIPES SHALL BE INSULATED WITH 1-INCH ARMAFLEX INSULATION.

11. INSULATION: ALL DUCT & PIPE INSULATION MUST BE PROTECTED FROM DAMAGE. INSULATION EXPOSED TO WEATHER MUST BE SUITABLE FOR OUTDOOR SERVICE.

12. OUTSIDE SUPPLY AIR & EXHAUST AIR DUCTS SHALL BE INSTALLED WITH GRAVITY BACKDRAFT DAMPERS UNLESS EQUIPMENT IS OPERATED CONTINUOUSLY.

13. SEE 2013 CALIFORNIA NONRESIDENTIAL COMPLIANCE MANUAL FOR TESTING / VERIFICATION PROCEDURES WHEN THIRD PARTY HERS VERIFICATION IS REQUIRED OR SELECTED.

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETING CERTIFICATE OF ACCEPTANCE FORMS AND ANY FIELD TESTING / VERIFICATION WORK ASSOCIATED. SEE 2013 STANDARDS & MANUAL FOR ACCEPTANCE TESTS THAT REQUIRE ATTCP CERTIFIED TECHNICIANS.

15. NATURALLY VENTILATED SPACES SHALL BE PERMANENTLY OPEN TO AND WITHIN 20 FEET OF OPERABLE WALL OR ROOF OPENINGS TO THE OUTDOORS, THE OPENABLE AREA OF WHICH IS NOT LESS THAN 5 PERCENT OF THE CONDITIONED FLOOR AREA OF THE NATURALLY VENTILATED SPACE.

16. HVAC SYSTEMS SHALL HAVE DEMAND VENTILATION CONTROLS WHEN THEY ARE EQUIPPED WITH ECONOMIZERS, SERVE A SPACE WITH A DESIGN OCCUPANT DENSITY EQUAL TO OR LESS THAN 40 SQ. FT. PER PERSON AND EITHER HAVE SINGLE OR MULTIPLE ZONES.

17. MECHANICAL SYSTEMS SERVING RETAIL STORES AND ASSOCIATED MALLS, RESTAURANTS, GROCERY STORES, CHURCHES AND THEATERS, SHALL BE EQUIPPED WITH 7-DAY PROGRAMMABLE THERMOSTATS.

18. MECHANICAL VENTILATION SYSTEM SHALL BE TESTED & BALANCED WITHIN 10% OF REQUIRED OUTSIDE AIR RATE. ACCEPTANCE TESTS / FORMS SHALL FOLLOW 2013 NONRESIDENTIAL APPENDIX NA 7.5.1. & SHALL BE TESTED BY ATTCP CERTIFIED TECHNICIAN.

19. CONSTANT-VOLUME, SINGLE-ZONE, UNITARY AIR CONDITIONS AND HEAT PUMPS SHALL BE TESTED BY ATTCP CERTIFIED TECHNICIAN PER PROCEDURES OUTLINED IN 2013 NONRESIDENTIAL APPENDIX NA 7.5.2.

20. SUPPLY FAN VARIABLE FLOW CONTROLS (IF APPLICABLE) SHALL BE TESTED BY ATTCP CERTIFIED TECHNICIAN PER PROCEDURES OUTLINED IN 2013 NONRESIDENTIAL APPENDIX NA 7.5.6.

21. AIR ECONOMIZER CONTROLS (IF APPLICABLE) SHALL BE TESTED BY ATTCP CERTIFIED TECHNICIAN PER PROCEDURES OUTLINED IN 2013 NONRESIDENTIAL APPENDIX NA 7.5.4.

22. DEMAND CONTROL VENTILATION SYSTEMS (IF APPLICABLE) SHALL BE TESTED BY ATTCP CERTIFIED TECHNICIAN PER PROCEDURES OUTLINED IN 2013 NONRESIDENTIAL APPENDIX NA 7.5.5.

23. OCCUPANT CONTROLLED SMART THERMOSTAT (OCST) SHALL MEET THE REQUIREMENTS IN 2013 JOINT APPENDIX JA-5.

24. ALL NEW NONRESIDENTIAL BUILDINGS WILL REQUIRE DESIGN DOCUMENTS REVIEW PER SECTION 120.8 (d). BUILDINGS LESS THAN 10,000 SQ. FT. MAY BE REVIEWED BY THE DESIGN ENGINEER. BUILDINGS BETWEEN 10,000 & 50,000 SQ. FT. MAY BE REVIEWED BY AN IN-HOUSE ENGINEER, NOT ASSOCIATED WITH THE PROJECT. BUILDINGS LARGER THAN 50,000 SQ. FT. WILL REQUIRE REVIEW BY THIRD PARTY DESIGN ENGINEER.

25. HVAC UNITS EQUIPPED WITH ECONOMIZERS WITH COOLING CAPACITY GREATER THAN OR EQUAL TO 54,000 BTU / HR, SHALL INCLUDE A FAULT DETECTION & DIAGNOSTICS SYSTEM PER SECTION 120.2(i) OF THE 2013 STANDARDS.

26. FOR MULTI-PURPOSE ROOMS LESS THAN 1,000 SQ. FT. OR CLASSROOMS GREATER THAN 750 SQ. FT., OCCUPANT SENSORS & CONTROLS SHALL BE INCORPORATED TO SETBACK TEMPERATURE & VENTILATION DURING UNOCCUPIED PERIODS PER SECTION 120.2(e)3.

T-24 GENERAL NOTES (NON-RESIDENTIAL)

SCALE: NONE

(6)

1. UPON FINAL INSPECTION, THE FOLLOWING OPERATION AND MAINTENANCE DOCUMENTATION FOR HVAC EQUIPMENT SHALL BE PLACE IN THE BUILDING FOR REFERENCE PER SECTION 4.410.1:
   a. EQUIPMENT AND APPLIANCES, INCLUDING WATER SAVING DEVICES AND SYSTEMS, HVAC SYSTEMS WATER HEATING SYSTEMS AND OTHER MAJOR APPLIANCES.
   b. SPACE CONDITIONING SYSTEMS, INCLUDING CONDENSERS AND AIR FILTERS.
   c. EDUCATIONAL MATERIAL ON THE POSITIVE IMPACTS OF INTERIOR RELATIVE HUMIDITY BETWEEN 30-60 PERCENT AND WHAT METHODS AN OCCUPANT MAY USE TO MAINTAIN THE RELATIVE HUMIDITY LEVEL IN THAT RANGE.

2. FROM THE BEGINNING OF CONSTRUCTION UNTIL FINAL STARTUP OF HEATING AND COOLING EQUIPMENT, ALL DUCTS AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC OR SHEET METAL PER SECTION 4.504.1.

3. ADHESIVES, SEALANTS & CAULKS SHALL COMPLY WITH SECTION 4.504.2.

4. BATHROOM EXHAUST FANS SHALL COMPLY WITH THE FOLLOWING PER SECTION 4.506.1:
   a. FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMINATE ON THE OUTSIDE OF THE BUILDING.
   b. UNLESS FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENTILATION SYSTEM, FANS MUST BE CONTROLLED BY A HUMIDISTAT WHICH SHALL BE READILY ACCESSIBLE.
   c. HUMIDISTAT CONTROLS SHALL BE CAPABLE OF ADJUSTMENT BETWEEN A RELATIVE HUMIDITY RANGE OF 50-80 PERCENT.

5. HEATING AND AIR-CONDITIONING SYSTEMS SHALL BE SIZED DESIGNED UTILIZING THE FOLLOWING METHODS PER SECTION 4.507.2:
   a. HEAT LOSS AND HEAT GAIN ESTABLISHED USING ACCA MANUAL J, ASHRAE HANDBOOK OR OTHER EQUIVALENT DESIGN METHODS.
   b. DUCT SYSTEMS ARE SIZED IN ACCORDANCE WITH ACCA MANUAL D, ASHRAE HANDBOOK OR OTHER EQUIVALENT DESIGN METHODS.
   c. HEATING AND COOLING SYSTEMS ARE SELECTED ACCORDING TO ACCA MANUAL S OR OTHER EQUIVALENT DESIGN METHODS.

6. HVAC SYSTEM INSTALLERS SHALL BE TRAINED AND CERTIFIED IN THE PROPER INSTALLATION OF HVAC SYSTEMS. UNCERTIFIED PERSONS MAY HVAC INSTALLATIONS WHEN UNDER DIRECT SUPERVISION OF A CONTRACTOR LICENSED TO INSTALL HVAC SYSTEMS PER SECTION 702.1.

2013 CALGREEN MANDATORY RESIDENTIAL REQUIREMENTS

SCALE: NONE

(4)

1. NEW BUILDINGS EQUALING OR EXCEEDING 10,000 SQUARE FEET, SHALL REQUIRE COMMISSIONING IN THE DESIGN AND CONSTRUCTION PROCESSES TO VERIFY THAT THE BUILDING SYSTEMS AND COMPONENTS MEET THE OWNERS PROJECT REQUIREMENTS PER SECTION 5.410.2. ALL BUILDING SYSTEMS COVERED BY TITLE-24, PART 6, AS WELL AS PROCESS EQUIPMENT AND CONTROLS SHALL BE INCLUDED IN THE SCOPE OF COMMISSIONING REQUIREMENTS. COMMISSIONING REQUIREMENTS SHALL INCLUDE:

   a. OWNER'S REPRESENTATIVE PROJECT REQUIREMENTS.
   b. BASIS OF DESIGN.
   c. COMMISSIONING MEASURES SHOWN IN THE CONSTRUCTION DOCUMENTS.
   d. COMMISSIONING PLAN.
   e. FUNCTIONAL PERFORMANCE TESTING.
   f. DOCUMENTATION AND TRAINING.
   g. COMMISSIONING REPORT.

2. TESTING AND ADJUSTING OF SYSTEMS SHALL BE REQUIRED FOR BUILDING LESS THAN 10,000 SQUARE FEET PER SECTION 5.410.4. THE SYSTEM SHALL BE BALANCED IN ACCORDANCE WITH THE PROCEDURES DEFINED BY THE TESTING ADJUSTING AND BALANCING BUREAU NATIONAL STANDARDS, THE NATIONAL ENVIRONMENTAL BALANCING BUREAU PROCEDURAL STANDARDS OR ASSOCIATED AIR BALANCING COUNCIL NATIONAL STANDARDS. AFTER COMPLETION OF TESTING, ADJUSTING AND BALANCING, PROVIDE A FINAL REPORT OF TESTING SIGNED BY THE INDIVIDUAL RESPONSIBLE FOR PERFORMING THE SERVICES.

3. PROVIDE THE BUILDING OWNER OR REPRESENTATIVE WITH DETAILED OPERATION AND MAINTENANCE INSTRUCTIONS AND COPIES OF GUARANTEES / WARRANTIES FOR EACH SYSTEM PER SECTION 5.410.4.5. O&M INSTRUCTIONS SHALL BE CONSISTENT WITH OSHA REQUIREMENTS IN CCR, TITLE 8, SECTION 5142, AND OTHER RELATED REGULATIONS.

4. FROM THE BEGINNING OF CONSTRUCTION UNTIL FINAL STARTUP OF HEATING AND COOLING EQUIPMENT, ALL DUCTS AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC OR SHEET METAL PER SECTION 5.504.3.

5. ADHESIVES, SEALANTS & CAULKS SHALL COMPLY WITH SECTION 5.504.4.

6. IN MECHANICALLY VENTILATED BUILDINGS, PROVIDE REGULARLY OCCUPIED AREAS OF THE BUILDING WITH A MINIMUM MERV-8 AIR FILTRATION MEDIA FOR OUTSIDE AND RETURN AIR PRIOR TO OCCUPANCY PER SECTION 5.504.5.3

7. BUILDINGS SHALL MEET OR EXCEED THE INDOOR MOISTURE CONTROL PROVISIONS OF THE CALIFORNIA BUILDING CODE, CCR, TITLE-24 PART 2, SECTIONS 1203 (VENTILATION) & CHAPTER 14 PER SECTION 5.505.1.

8. FOR MECHANICALLY OR NATURALLY VENTILATED SPACES IN BUILDINGS, MEET THE MINIMUM OUTSIDE AIR DELIVERY REQUIREMENTS OF SECTION 121 OF THE CALIFORNIA ENERGY CODE, CCR, TITLE-24, PART 6 OR THE APPLICABLE LOCAL CODE, WHICHEVER IS MORE STRINGENT AND DIVISION 1, CHAPTER 4 OF CCR, TITLE 8 PER SECTION 5.506.1.

9. FOR BUILDINGS EQUIPPED WITH DEMAND CONTROL VENTILATION, CARBON DIOXIDE (CO2) SENSORS AND VENTILATION CONTROLS SHALL BE SPECIFIED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITION OF THE CALIFORNIA ENERGY CODE, SECTION 121 (C) (4) PER SECTION 5.506.2.

10. INSTALL HVAC, REFRIGERATION AND FIRE SUPPRESSION EQUIPMENT THAT DO NOT CONTAIN CFC'S AND HALONS PER SECTION 5.508.1.

11. HVAC SYSTEM INSTALLERS SHALL BE TRAINED AND CERTIFIED IN THE PROPER INSTALLATION OF HVAC SYSTEMS. UNCERTIFIED PERSONS MAY PERFORM HVAC INSTALLATIONS WHEN UNDER DIRECT SUPERVISION OF A CONTRACTOR LICENSED TO INSTALL HVAC SYSTEMS PER SECTION 702.1.

2013 CALGREEN MANDATORY NON-RESIDENTIAL REQUIREMENTS

SCALE: NONE

(5)

1. ALL HVAC COMPONENTS, CONTROLS, & SYSTEMS SHALL COMPLY WITH 2013 CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS.

2. ALL HVAC APPLIANCES SHALL COMPLY WITH 2013 CALIFORNIA APPLIANCE EFFICIENCY REGULATIONS.

3. SEE ARCHITECTURAL DRAWINGS FOR BUILDING ENVELOPE CONSTRUCTION ASSEMBLIES & INSTALLATION REQUIREMENTS.

4. SEE PLUMBING DRAWINGS FOR DOMESTIC HOT WATER SYSTEM & INSTALLATION REQUIREMENTS.

5. HEAT PUMPS WITH SUPPLEMENTARY ELECTRIC RESISTANCE HEATERS SHALL HAVE CONTROLS THAT PREVENT SUPPLEMENTARY HEATER OPERATION WHEN THE HEATING LOAD CAN BE MET BY THE HEAT PUMP ALONE AND IN WHICH THE CUT-ON TEMPERATURE FOR COMPRESSION HEATING IS HIGHER THAT THE CUT-ON TEMPERATURE FOR SUPPLEMENTARY HEATING, AND THE CUT-OFF TEMPERATURE FOR COMPRESSION HEATING IS HIGHER THAN THE CUT-OFF TEMPERATURE FOR SUPPLEMENTARY HEATING.

6. ALL UNITARY HEATING AND / OR COOLING SYSTEMS INCLUDING HEAT PUMPS THAT ARE NOT CONTROLLED BY A CENTRAL ENERGY MANAGEMENT CONTROL SYSTEM (EMCS) SHALL HAVE A SETBACK THERMOSTAT CAPABLE OF PROGRAMMING SET POINTS FOR AT LEAST FOUR PERIODS WITHIN 24 HOURS. THERMOSTAT SHALL BE INSTALLED 42-INCHES A.F.F.

7. ALL FACTORY-FABRICATED & FIELD-FABRICATED DUCT SYSTEMS SHALL COMPLY WITH UL 181.

8. DUCT WORK: SUPPLY & RETURN AIR DUCTS SHALL HAVE INSULATION WITH A MINIMUM THERMAL RESISTANCE OF R-8 (DUCTS IN UNCONDITIONED SPACES).

9. REFRIGERANT LINES: SUCTION LINE SHALL BE INSULATED WITH 1/2-INCH ARMAFLEX INSULATION & WRAPPED WITH A WATER-RETARDANT UV PROTECTIVE COATING FOR OUTDOOR APPLICATIONS. PROVIDE A VAPOR RETARDANT ON SUCTION LINE WHEN LOCATED OUTSIDE CONDITIONED SPACE.

10. SPACE-HEATING HOT WATER LINES: HOT WATER SUPPLY & RETURN PIPES SHALL BE INSULATED WITH 1-INCH ARMAFLEX INSULATION.

11. INSULATION: ALL DUCT & PIPE INSULATION MUST BE PROTECTED FROM DAMAGE. INSULATION EXPOSED TO WEATHER MUST BE SUITABLE FOR OUTDOOR SERVICE.

12. OUTSIDE SUPPLY AIR & EXHAUST AIR DUCTS SHALL BE INSTALLED WITH GRAVITY BACKDRAFT DAMPERS UNLESS EQUIPMENT IS OPERATED CONTINUOUSLY.

13. SEE 2013 CALIFORNIA NONRESIDENTIAL COMPLIANCE MANUAL FOR TESTING / VERIFICATION PROCEDURES WHEN THIRD PARTY HERS VERIFICATION IS REQUIRED OR SELECTED.

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETING CERTIFICATE OF ACCEPTANCE FORMS AND ANY FIELD TESTING / VERIFICATION WORK ASSOCIATED. SEE 2013 STANDARDS & MANUAL FOR ACCEPTANCE TESTS THAT REQUIRE ATTCP CERTIFIED TECHNICIANS.

15. NATURALLY VENTILATED SPACES SHALL BE PERMANENTLY OPEN TO AND WITHIN 25 FEET OF OPERABLE WALL OR ROOF OPENINGS TO THE OUTDOORS, THE OPENABLE AREA OF WHICH IS NOT LESS THAN 5 PERCENT OF THE CONDITIONED FLOOR AREA OF THE NATURALLY VENTILATED SPACE.

16. MECHANICAL VENTILATION SYSTEM SHALL BE TESTED & BALANCED WITHIN 10% OF REQUIRED OUTSIDE AIR RATE. ACCEPTANCE TESTS / FORMS SHALL FOLLOW 2013 NONRESIDENTIAL APPENDIX NA 7.5.1. & SHALL BE TESTED BY ATTCP CERTIFIED TECHNICIAN.

17. CONSTANT-VOLUME, SINGLE-ZONE, UNITARY AIR CONDITIONS AND HEAT PUMPS SHALL BE TESTED BY ATTCP CERTIFIED TECHNICIAN PER PROCEDURES OUTLINED IN 2013 NONRESIDENTIAL APPENDIX NA 7.5.2.

18. SUPPLY FAN VARIABLE FLOW CONTROLS (IF APPLICABLE) SHALL BE TESTED BY ATTCP CERTIFIED TECHNICIAN PER PROCEDURES OUTLINED IN 2013 NONRESIDENTIAL APPENDIX NA 7.5.6.

19. OCCUPANT CONTROLLED SMART THERMOSTAT (OCST) SHALL MEET THE REQUIREMENTS IN 2013 JOINT APPENDIX JA-5.

20. HVAC UNITS EQUIPPED WITH ECONOMIZERS WITH COOLING CAPACITY GREATER THAN OR EQUAL TO 54,000 BTU / HR, SHALL INCLUDE A FAULT DETECTION & DIAGNOSTICS SYSTEM PER SECTION 120.2(i) OF THE 2013 STANDARDS.

T-24 GENERAL NOTES (RESIDENTIAL)

SCALE: NONE

(1)

SUMMARY OF ENERGY CONSERVATION FEATURES

Following the Performance Method of Compliance and using the energy features outlined below, the buildings were able to meet the Hugh-Rise Residential Title 24 energy requirements set by the CEC. Energy Pro. 6.7 Calculation Software was used to perform this calculation.

HIGH-RISE RESIDENTIAL ENERGY CONSERVATION MEASURES

1. R-38 CEILING INSULATION.
2. R-19 EXTERIOR WALL INSULATION (WOOD).
   R-19 + 1" RIGID INSULATION (METAL).
3. R-4.2 SUPPLY / RETURN AIR DUCT INSULATION (DUCTS IN CONDITIONED SPACE).
   R-8 SUPPLY / RETURN AIR DUCT INSULATION (DUCTS IN UNCONDITIONED SPACE).
4. VINYL LOW-E WINDOWS AND PATIO DOORS.
   a. OPERABLE WINDOWS WITH U-VALUE OF 0.32 & SHGC OF 0.25.
   b. FIXED WINDOWS WITH U-VALUE OF 0.32 & SHGC OF 0.25.
   c. PATIO DOORS WITH U-VALUE OF 0.32 & SHGC OF 0.25.
   d. STOREFRONT WINDOWS WITH A U-VALUE OF 0.48 & SHGC OF 0.36.
5. HEAT PUMP SYSTEM INCORPORATED THE FOLLOWING:
   a. FIRST COMPANY AIR HANDLER.
   b. HEAT PUMP WITH 14.00 SEER RATING.
6. DHW TYPE BOILER WITH 96% EFFICIENCY.

NOTE: PROPOSED TITLE-24 (EXCLUDING LIGHTING & RECEPTACLE) EXCEEDS STANDARD DESIGN BY OVER 1.75% (11.28% USING ENERGY PRO 6.4 FOR GPR).

ENERGY COMPLIANCE SUMMARY (RESIDENTIAL)

SCALE: NONE

(2)

- [X] DUCT TEST (TIGHT DUCTS)
- [ ] QUALITY INSULATION INSPECTION (QII)
- [ ] EER VERIFICATION
- [ ] REFRIGERANT CHARGE VERIFICATION

HERS CREDITS

SCALE: NONE

(3)

(7)

LDI Mechanical, Inc.

California Nevada Colorado Maryland

1587 Bentley Drive Corona, CA 92879 (951) 340-9688 • (951) 340-9688 FX
CA Lic. #784662 · NV Lic. #51319 HVAC · NV Lic. #51268 PLUMB

301 19TH & HARRISON

OAKLAND, CA

301 19TH STREET, OAKLAND, CA

NO.	ISSUE	DATE

MECHANICAL'S STAMP APPROVAL

THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO LPAS, INC. AND IS FURNISHED FOR THE PURPOSES OF REVIEW, BIDDING OR CONSTRUCTION OF THE PROJECT LISTED IN THE JOB TITLE BOX ABOVE AND SHALL NOT BE USED FOR ANY OTHER PURPOSE, OR RELEASED TO ANY OTHER PARTY WITHOUT THE WRITTEN CONSENT OF LPAS, INC. ANY INFORMATION CONTAINED HEREIN IS AN INSTRUMENT OF PROFESSIONAL SERVICES AND SHALL REMAIN THE PROPERTY OF LPAS, INC. ALL RIGHTS RESERVED COPYRIGHT © 2009.

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CONSULTANT

ENERGY COMPLIANCE

PROJECT NO: 1132-0018

DATE: 05/12/2017

SHEET NO:

EN-1

PLAN CHECK RESPONSE #2 / ADDENDUM #1

BUILDING ENERGY ANALYSIS REPORT

PROJECT:

19th and Harrison T24

Oakland, CA

Project Designer:

LPAS
2484 Natomas Park Dr Suite 100
Sacramento, CA 95833
9164430335

Report Prepared by:

LDI Mechanical, Inc
1587 E Bentlet Dr
Corona, CA 92879
951-340-9685

Job Number:

Date:

8/18/2016

The EnergyPro computer program has been used to perform the calculations summarized in this compliance report. This program has approval and is authorized by the California Energy Commission for use with both the Residential and Nonresidential 2013 Building Energy Efficiency Standards.

This program developed by EnergySoft, LLC – www.energysoft.com.

EnergyPro 6.7 by EnergySoft *User Number: 4693 A* *ID:*

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Form ENV-MM Envelope Mandatory Measures	24

EnergyPro 6.7 by EnergySoft — Job Number: ID: — User Number: 4693 A

Project Name:	19th and Harrison T24	NRCC-PRF-01-E	Page 1 of 21
Project Address:	Oakland	Calculation Date/Time:	08/05, Thu, Aug 18, 2016
Compliance Scope:	NewEnvelopeAndMechanical	Input File Name:	19th and Harrison.xml

A. PROJECT GENERAL INFORMATION

1.	Project Location (city)	Oakland	7.	# of dwelling units	232
2.	CA Zip Code		8.	Standards Version	Compliance2015
3.	Climate Zone	3	9.	Compliance Software (version)	EnergyPro 6.7
4.	Total Conditioned Floor Area	155,989 ft²	10.	Building Orientation (deg)	(N) 0 deg
5.	Total Unconditioned Floor Area	57,186 ft²	11.	Permitted Scope of Work	NewEnvelopeAndMechanical
6.	# of Stories (Habitable Above Grade)	6	12.	Building Type(s)	High-Rise Residential

B. COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kBtu/ft.² yr) **§ 140.1**

BUILDING COMPLIES

1. Energy Component	2. Standard Design (TDV)	3. Proposed Design (TDV)	4. Compliance Margin (TDV)	5. Percent Better than Standard
Space Heating	18.8	17.8	1.0	5.3%
Space Cooling	6.2	10.4	-4.2	-67.7%
Indoor Fans	44.8	42.6	2.2	4.9%
Heat Rejection	0.4	–	0.4	–
Pumps & Misc.	2.6	0.0	2.6	–
Domestic Hot Water	33.8	31.2	2.6	7.7%
Indoor Lighting	36.2	36.2	0.0	0.0%
COMPLIANCE TOTAL	**127.6**	**126.2**	**1.6**	**1.3%**
Receptacle	37.6	37.6	0.0	0.0%
Process	–	–	–	–
Process Ltg	–	–	–	–
TOTAL	**165.4**	**163.8**	**1.6**	**1.0%**

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C. PRIORITY PLAN CHECK/ INSPECTION ITEMS (in order of highest to lowest TDV energy savings)

Compliance Margin By Energy Component (from Table B column 4)

1st	Pumps & Misc.: Check mechanical	
2nd	Indoor Fans: Check envelope and mechanical	
3rd	Space Heating: Check envelope and mechanical	
4th	Heat Rejection: Check envelope and mechanical	
5th	Indoor Lighting: Check lighting	
6th	Recessed Hot Water: Check mechanical	
7th	Space Cooling: Check envelope and mechanical	

D. EXCEPTIONAL CONDITIONS

The project shows partial compliance; either envelope only or mechanical only, excluding lighting systems. The building must show partial compliance including lighting or full new building compliance or show prescriptive lighting compliance before operation

E. HERS VERIFICATION

This Section Does Not Apply

F. ADDITIONAL REMARKS

None Provided

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H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) –
Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance
(Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).
See Tables G, and I in NOA and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms (required for submittal)	Location of Mandatory Notes on Plans	Confirmed	
			Pass	Fail
Covered Process	☐ NRCI-PRC-01-E Refrigerated Warehouse		☐	☐
	☐ NRCA-PRC-03-F- Compressed Air Systems		☐	☐
	☐ NRCA-PRC-02-F- Kitchen Exhaust		☐	☐
	NRCA-PRC-03-F- Garage Exhaust		☐	☐
	NRCA-PRC-04-F- Refrigerated Warehouse- Evaporator Fan Motor Controls		☐	☐
	NRCA-PRC-05-F- Refrigerated Warehouse- Evaporator Fan Motor Controls		☐	☐
	NRCA-PRC-06-F- Refrigerated Warehouse- Air Cooled Condenser Controls		☐	☐
	NRCA-PRC-07F- Refrigerated Warehouse- Variable Speed Compressor		☐	☐
	NRCA-PRC-08-F - Electrical Resistance Underslab Heating System		☐	☐

I. ENVELOPE GENERAL INFORMATION (see NRCC-PRF-ENV-DETAILS for more information)

1.	Total Conditioned Floor Area	155,989 ft²	5.	Number of Floors Above Grade	6
2.	Total Unconditioned Floor Area	57,186 ft²	6.	Number of Floors Below Grade	0
3.	Addition Conditioned Floor Area	0 ft²			
4.	Addition Unconditioned Floor Area	0 ft²			

7. Opaque Surfaces & Orientation	8. Total Gross Surface Area	9. Total Fenestration Area	10. Window to Wall Area	Confirmed	
				Pass	Fail
North Wall	58,435 ft²	5,012 ft²	08.6%	☐	☐
East Wall	19,252 ft²	8,076 ft²	41.9%	☐	☐
South Wall	9,711 ft²	2,710 ft²	27.9%	☐	☐
West Wall	37,529 ft²	7,036 ft²	40.1%	☐	☐
Total	**104,927 ft²**	**22,834 ft²**	**21.8%**	☐	☐
Roof	29,319 ft²	0 ft²	00.0%	☐	☐

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J. FENESTRATION ASSEMBLY SUMMARY **§ 110.6** **Confirmed**

1. Fenestration Assembly Name / Orientation	2. Fenestration Type	3. Certification Method[1]	4. Assembly Method	Area ft²	5. U-Factor	6. Overall U-Factor	7. SHGC	8. Overall SHGC	9. Status[2]	Pass	Fail
Vinyl Fixed Windows	VerticalFenestration	NFRCRated	Manufactured	18644	0.32	0.25	0.50	0.50	N	☐	☐
Vinyl Fixed Patio Door	VerticalFenestration	NFRCRated	Manufactured	1568	0.32	0.25	0.50	0.50	N	☐	☐
Storefront	VerticalFenestration	NFRCRated	Manufactured	4010	0.48	0.36	0.50	0.50	N	☐	☐

[1] Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for fire glass only, determined by the manufacturer, and are for most severe condition (i.e. highest U-factor and highest solar heat gain coefficient).
[2] Status: N - New, A - Altered, E - Existing

Tabular compliance credit for fenestration shading devices? (if "Yes", see NRCC-PRF-ENV-DETAILS for more information)

K. OPAQUE SURFACE ASSEMBLY SUMMARY **§ 120.7 / § 140.3** **Confirmed**

1. Surface Name	2. Surface Type	3. Area (ft²)	4. Framing Type	5. Cavity R-Value	6. Continuous R-Value	7. U-Factor / C-Factor	8. Status[1]	Pass	Fail
Uninsulated Raised Slab FB	ExteriorFloor	56448	NA	0	NA	U-Factor:0.258	N	☐	☐
R-19 Wall10	ExteriorWall	98283	Wood	19	NA	U-Factor:0.072	N	☐	☐
Floor Framing Over Soil25	InteriorFloor	2337	Wood	19	NA	U-Factor:0.037	N	☐	☐
R-38 Wood Roof Attic134	Roof	29319	Wood	38	NA	U-Factor:0.027	N	☐	☐
Slab on Grade904	UndergroundFloor	33461	NA	0	NA	F-Factor:0.730	N	☐	☐
R-19 Wall Metal Stud +R4.906	ExteriorWall	9129	Metal	19	4	U-Factor:0.104	N	☐	☐
R-19 Wall Metal Stud +R4.9061	InteriorWall	3014	Metal	19	4	U-Factor:0.099	N	☐	☐
Floor over Conditioned Sp251	ExteriorFloor	2227	NA	0	NA	U-Factor:0.199	N	☐	☐

Status: N - New, A - Altered, E - Existing

L. ROOFING PRODUCT SUMMARY **§ 140.3** **Confirmed**

1. Product Type	2. Product SRI	3. Aged/Solar Reflectance	4. Thermal Emittance	5. SRI	6. Cool Roof Credit	7. CRRC Product ID Number	Pass	Fail
R-38 Wood Roof Attic134	No	0.08	0.75	NA	No	NA	☐	☐

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M. HVAC SYSTEM SUMMARY (see NRCC-PRF-MCH-DETAILS for more information) **§ 110.1 / § 110.2** **Confirmed**

Dry System Equipment[1] (Fan & Economizer info included below in Tab-N)

1. Equip Name	2. Equip Type	3. System Type (Simple[*] or Complex[**])	Qty	4. Total Heating Output (kBtu/h)	5. Supp Heat Output (kBtu/h)	6. Supp Heat Source (NON, Electric, Hydronic)	7. Efficiency	8. Total Cooling Output (kBtu/h)	9. Efficiency		10. Acceptance Testing Required? (Y/N)	11. Status[2]	Pass	Fail
									Cooling	Heating				
Co-Working Lounge898	s2HP (Split)3Phase)	Simple	3	45	No	0	47	SEER-14.0	HSPF-8.2	Yes	Y	N	☐	☐
Garage (Ground)922	Exhaust (Packaged)3Phase)	Simple	1	0	No	0	0	NA	NA	No	N	N	☐	☐
Garage (Ground)939	s2HP (Split)3Phase)	Simple	1	0	No	0	0	NA	NA	No	N	N	☐	☐
Mail/Package Room932	s2HP (Split)3Phase)	Simple	1	18	No	0	18	SEER-14.0	HSPF-8.2	Yes	N	N	☐	☐
Mail/Package Room1026	s2HP (Split)3Phase)	Simple	1	55	No	0	54	SEER-14.0	HSPF-8.2	Yes	N	N	☐	☐
Fitness963	s2HP (Split)3Phase)	Simple	4	45	No	0	47	SEER-14.0	HSPF-8.2	Yes	N	N	☐	☐
1B03	s2HP (Split)3Phase)	Simple	144	18	Yes	10	17	SEER-14.0	HSPF-8.2	Yes	N	N	☐	☐
2B323	s2HP (Split)3Phase)	Simple	40	22	Yes	10	21	SEER-14.0	HSPF-8.2	Yes	N	N	☐	☐
1B Loft537	s2HP (Split)3Phase)	Simple	29	22	No	0	22	SEER-14.0	HSPF-8.2	Yes	N	N	☐	☐
2 B Loft759	s2HP (Split)3Phase)	Simple	9	29	No	0	27	SEER-14.0	HSPF-8.2	Yes	N	N	☐	☐

Wet System Equipment[1]

12. Equip Name	13. Equip Type	14. Qty	15. Vol (gal)	16. Rated Capacity (kBtu/h)	17. Efficiency	18. Standby Loss	19. Tank Value	Pumps 20.	21.	22.	23.	24.	Status[2]	Pass	Fail
								Qty	GPM	HP	VSD (Y/N)				
NTV 17001	Storage	2	430	1700	Thrml_Eff: 0.960	0.0010	NA	NA	NA	NA	No	N	☐	☐	
NTV 17001 2	Storage	2	430	1700	Thrml_Eff: 0.960	0.0010	13.0	NA	NA	0 (175 GPM)	NA	N	☐	☐	

[1] Dry System Equipment includes fans, air handling units, heat pumps, etc.
[2] Wet System Equipment includes boilers, chillers, cooling towers, water heaters, etc.
[*] Simple System must comply with NRCC-PRF-04-E commissioning requirements.
[**] Complex System must comply with NRCC-PRF-04-E commissioning design review form.

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N. ECONOMIZER & FAN SYSTEMS SUMMARY[*] **§ 140.4** **Confirmed**

1. Equip Name	2. Supply Fan					3. Controls	4. Return Fan			5. Economizer Type (if present)	Pass	Fail
	Outside Air CFM	Supply Fan CFM	HP	BHP	FSP (kBtu/h) WC)	Control	CFM	HP	BHP			
Co-Working Lounge898	334	1600	0.500	0.99	Constant Volume	No DCV Controls No Supply Air Temp. Control	NA	NA	NA	NoEconomizer	☐	☐
Mail/Package Room932	78	600	0.100	0.53	Constant Volume	No DCV Controls No Supply Air Temp. Control	NA	NA	NA	NoEconomizer	☐	☐
Leasing938	315	2000	0.000	1.14	Constant Volume		NA	NA	NA	NoEconomizer	☐	☐
Fitness963	278	1600	0.000	0.99	Constant Volume		NA	NA	NA	NoEconomizer	☐	☐
1B03	0	800	0.000	0.99	Constant Volume		NA	NA	NA	NA	☐	☐
2B323	0	800	0.150	0.99	Constant Volume		NA	NA	NA	NA	☐	☐
1B Loft457	0	800	0.200	0.79	Constant Volume		NA	NA	NA	NA	☐	☐
2 B Loft759	0	1000	0.290	0.92	Constant Volume		NA	NA	NA	NA	☐	☐

Mechanical ventilation calculations and exhaust fans are included in the NRCC-PRF-MCH-DETAILS section

O. EQUIPMENT CONTROLS **§ 120.2** **Confirmed**

1. Equip Name	2. Equip Type	3. Controls	Pass	Fail
Co-Working Lounge898	SZHP	No DCV Controls No Supply Air Temp. Control	☐	☐
Garage (Ground)922	Exhaust	Economizer Type if present specified No Supply Air Temp. Control	☐	☐

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G. COMPLIANCE PATH & CERTIFICATE OF COMPLIANCE SUMMARY

Identify which building components use the performance or prescriptive path, indicate the chart number that includes mandatory notes on plans.
For components that utilize the performance path, indicate the chart number that includes mandatory notes on plans.

Building Component	Compliance Path	Compliance Forms (required for submittal)	Location of Mandatory Notes on Plans
Envelope	☑ Performance	NRCC-PRF-ENV-DETAILS (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-ENV-01 / 02 / 03 / 04 / 05 / 06-E	
	☐ NA		
Mechanical	☑ Performance	NRCC-PRF-MCH-DETAILS (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-MCH-01 / 02 / 03 / 04 / 05 / 06-E	
	☐ NA		
Domestic Hot Water	☑ Performance	NRCC-PRF-PLB-DETAILS (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-PLB-01-E	
	☐ NA		
Lighting (Indoor Conditioned)	☑ Performance	NRCC-LTI-DETAILS (section of this NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-LTI-02 / 03 / 04 / 05-E	
	☐ NA		
Covered Process: Commercial Kitchen	☑ Performance	S2 (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-PRC-02-E	
	☐ NA		
Covered Process: Computer Rooms	☑ Performance	S3 (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-PRC-02-E	
	☐ NA		
Covered Process: Laboratory Exhaust	☑ Performance	S4 (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-PRC-02-E	
	☑ NA		

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H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) –
Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance
(Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).
See Tables G, and I in NOA and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms (required for submittal)	Location of Mandatory Notes on Plans	Confirmed	
			Pass	Fail
Envelope	☑ NRCI-ENV-01-E - For all buildings			
	☐ NRCI-ENV-02-E - NRFC label certification for fenestration			
	☑ NRCA-ENV-01-E - For all buildings with Mechanical Systems			
	☑ NRCA-MCH-02-A - Outdoor Air			
	☑ NRCA-MCH-03-A – Constant Volume Single Zone HVAC			
	☑ NRCA-MCH-04-H- Air Distribution Duct Leakage			
	☐ NRCA-MCH-05-A- Air Economizer Controls			
	☐ NRCA-MCH-06-A- Demand Control Ventilation			
	☐ NRCA-MCH-07-A – Supply Fan Variable Flow Controls			
Mechanical	☐ NRCA-MCH-08-A – Hydronic System Variable Flow Controls			
	☑ NRCA-MCH-09-A – Supply Water Temp Reset Controls			
	☐ NRCA-MCH-10-A- Hydronic System Variable Flow Controls			
	☐ NRCA-MCH-11-A – Packaged Direct Expansion Units			
	☐ NRCA-MCH-12-A- Air Handling Units and Zone Terminal Units			
	☐ NRCA-MCH-13-A- Thermal Energy Storage			
	☐ NRCA-MCH-14-A – Supply Air Temp Reset Controls			
	☐ NRCA-MCH-15-A – Supply Water Temperature Controls			
	☐ NRCA-MCH-16-A- Energy Management Control Systems			
	☐ NRCA-MCH-04-H- Duct Leakage Test			

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I. ENVELOPE MANDATORY MEASURES SUMMARY

Building Component	Compliance Forms (required for submittal)	Location of Mandatory Notes on Plans	Confirmed	
			Pass	Fail
Envelope	☑ NRCC-ENV-01-E - For all buildings			
	☐ NRCC-ENV-02-E - Fenestration Products			
	☐ NRCC-ENV-03-E - Insulation Installation			
	☐ NRCC-ENV-04-E - Cool Roofs			
	☐ NRCC-ENV-05-E - Eliminated Heating Systems			
	☐ NRCC-ENV-06-E - Building Envelope Sealing			
Mechanical	☑ NRCC-MCH-01-E - For all buildings with Mechanical Systems			
	☐ NRCC-MCH-02-E - Ventilation			
	☐ NRCC-MCH-03-E - Air Distribution Ducts and Plenums			
	☐ NRCC-MCH-04-E - Pipe Insulation			
	☐ NRCC-MCH-05-E - Air Economizer Controls			
	☐ NRCC-MCH-06-E - Demand Control Ventilation			
	☐ NRCC-MCH-07-E - Supply Fan Variable Flow Controls			
	☐ NRCC-MCH-08-E - Hydronic System Variable Flow Controls			
	☐ NRCC-MCH-09-E - Supply Water Temperature Controls			
	☐ NRCC-MCH-10-E - Hydronic System Variable Flow Controls			
	☐ NRCC-MCH-11-E - Packaged Direct Expansion Units			
	☐ NRCC-MCH-12-E - Air Handling Units and Zone Terminal Units			
	☐ NRCC-MCH-13-E - Thermal Energy Storage			
	☐ NRCC-MCH-14-E - Supply Air Temp Reset Controls			
	☐ NRCC-MCH-15-E - Supply Water Temperature Controls			
	☐ NRCC-MCH-16-E - Energy Management Control Systems			
	☐ NRCC-MCH-04-E- Duct Leakage Test			
Plumbing	☑ NRCC-PLB-01-E - For all buildings with Plumbing Systems			
	☐ NRCC-PLB-02-E - required on control systems in high-rise residential, hotel/motel occupancies, and in healthcare facilities			
	☐ NRCC-PLB-03-E - Single-dwelling unit systems in high-rise residential, hotel/motel occupancies, and in healthcare facilities			
	☐ NRCC-PLB-21-E - HERS verified central systems in high-rise residential, hotel/motel occupancies, and in healthcare facilities			
	☐ NRCC-PLB-22-E - HERS verified single-dwelling unit systems in high-rise residential, hotel/motel occupancies, and in healthcare facilities			
	☐ NRCC-PLB-23-E - HERS verified single-dwelling unit systems in high-rise residential, hotel/motel occupancies, and in healthcare facilities			
	☐ NRCC-PLB-04-E - Automatic demand shed controls for electric water heating			
Indoor Lighting	☑ NRCC-LTI-01-E - For all buildings			
	☐ NRCC-LTI-02-E - Lighting control system, or for an Energy Management Control System (EMCS)			
	☐ NRCC-LTI-03-E - Line-voltage track lighting integral current limiter, or for a supplementary overcurrent protection panel used to energize only line-voltage track lighting			
	☐ NRCC-LTI-04-E - Two interlocked systems serving an auditorium, a convention center, a lecture hall, or a similar space			
	☐ NRCC-LTI-05-E - Additional wattage installed in a video conferencing studio			
	☐ NRCC-LTI-06-E - Additional wattage installed in a video conferencing studio			
	☐ NRCA-LTI-03-A - Automatic daylighting controls			
	☐ NRCA-LTI-04-A - Demand responsive lighting controls			
Outdoor Lighting	☐ NRCC-LTO-01-E - Outdoor Lighting			
	☐ NRCC-LTO-02-E- EMCS Lighting Control			
	☐ NRCC-LTO-03-A - Outdoor Lighting Control			
Sign Lighting	☐ NRCC-LTS-01-E – Sign Lighting			
Electrical Power	☐ NRCC-EPR-01-E – Electrical Power Distribution			
Photovoltaic	☐ NRCC-EPV-01-E Photovoltaic Systems			

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J. FENESTRATION ASSEMBLY SUMMARY **§ 110.6** **Confirmed**

1. Fenestration Assembly Name / Orientation	2. Fenestration Type	3. Certification Method[1]	4. Assembly Method	Area ft²	5. U-Factor	6. Overall U-Factor	7. SHGC	8. Overall SHGC	9. Status[2]	Pass	Fail
Vinyl Fixed Windows	VerticalFenestration	NFRCRated	Manufactured	18644	0.32	0.25	0.50	0.50	N	☐	☐
Vinyl Fixed Patio Door	VerticalFenestration	NFRCRated	Manufactured	1568	0.32	0.25	0.50	0.50	N	☐	☐
Storefront	VerticalFenestration	NFRCRated	Manufactured	4010	0.48	0.36	0.50	0.50	N	☐	☐

[1] Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for fire glass only, determined by the manufacturer, and are for most severe condition (i.e. highest U-factor and highest solar heat gain coefficient).
[2] Status: N - New, A - Altered, E - Existing

Tabular compliance credit for fenestration shading devices? (if "Yes", see NRCC-PRF-ENV-DETAILS for more information)

K. OPAQUE SURFACE ASSEMBLY SUMMARY **§ 120.7 / § 140.3** **Confirmed**

1. Surface Name	2. Surface Type	3. Area (ft²)	4. Framing Type	5. Cavity R-Value	6. Continuous R-Value	7. U-Factor / C-Factor	8. Status[1]	Pass	Fail
Uninsulated Raised Slab FB	ExteriorFloor	56448	NA	0	NA	U-Factor:0.258	N	☐	☐
R-19 Wall10	ExteriorWall	98283	Wood	19	NA	U-Factor:0.072	N	☐	☐
Floor Framing Over Soil25	InteriorFloor	2337	Wood	19	NA	U-Factor:0.037	N	☐	☐
R-38 Wood Roof Attic134	Roof	29319	Wood	38	NA	U-Factor:0.027	N	☐	☐
Slab on Grade904	UndergroundFloor	33461	NA	0	NA	F-Factor:0.730	N	☐	☐
R-19 Wall Metal Stud +R4.906	ExteriorWall	9129	Metal	19	4	U-Factor:0.104	N	☐	☐
R-19 Wall Metal Stud +R4.9061	InteriorWall	3014	Metal	19	4	U-Factor:0.099	N	☐	☐
Floor over Conditioned Sp251	ExteriorFloor	2227	NA	0	NA	U-Factor:0.199	N	☐	☐

Status: N - New, A - Altered, E - Existing

L. ROOFING PRODUCT SUMMARY **§ 140.3** **Confirmed**

1. Product Type	2. Product SRI	3. Aged/Solar Reflectance	4. Thermal Emittance	5. SRI	6. Cool Roof Credit	7. CRRC Product ID Number	Pass	Fail
R-38 Wood Roof Attic134	No	0.08	0.75	NA	No	NA	☐	☐

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M. HVAC SYSTEM SUMMARY (see NRCC-PRF-MCH-DETAILS for more information) **§ 110.1 / § 110.2** **Confirmed**

Dry System Equipment[1] (Fan & Economizer info included below in Tab-N)

1. Equip Name	2. Equip Type	3. System Type (Simple[*] or Complex[**])	Qty	4. Total Heating Output (kBtu/h)	5. Supp Heat Output (kBtu/h)	6. Supp Heat Source (NON, Electric, Hydronic)	7. Efficiency	8. Total Cooling Output (kBtu/h)	9. Efficiency		10. Acceptance Testing Required? (Y/N)	11. Status[2]	Pass	Fail
									Cooling	Heating				
Co-Working Lounge898	s2HP (Split)3Phase)	Simple	3	45	No	0	47	SEER-14.0	HSPF-8.2	Yes	Y	N	☐	☐
Garage (Ground)922	Exhaust (Packaged)3Phase)	Simple	1	0	No	0	0	NA	NA	No	N	N	☐	☐
Garage (Ground)939	s2HP (Split)3Phase)	Simple	1	0	No	0	0	NA	NA	No	N	N	☐	☐
Mail/Package Room932	s2HP (Split)3Phase)	Simple	1	18	No	0	18	SEER-14.0	HSPF-8.2	Yes	N	N	☐	☐
Mail/Package Room1026	s2HP (Split)3Phase)	Simple	1	55	No	0	54	SEER-14.0	HSPF-8.2	Yes	N	N	☐	☐
Fitness963	s2HP (Split)3Phase)	Simple	4	45	No	0	47	SEER-14.0	HSPF-8.2	Yes	N	N	☐	☐
1B03	s2HP (Split)3Phase)	Simple	144	18	Yes	10	17	SEER-14.0	HSPF-8.2	Yes	N	N	☐	☐
2B323	s2HP (Split)3Phase)	Simple	40	22	Yes	10	21	SEER-14.0	HSPF-8.2	Yes	N	N	☐	☐
1B Loft457	s2HP (Split)3Phase)	Simple	29	22	No	0	22	SEER-14.0	HSPF-8.2	Yes	N	N	☐	☐
2 B Loft759	s2HP (Split)3Phase)	Simple	9

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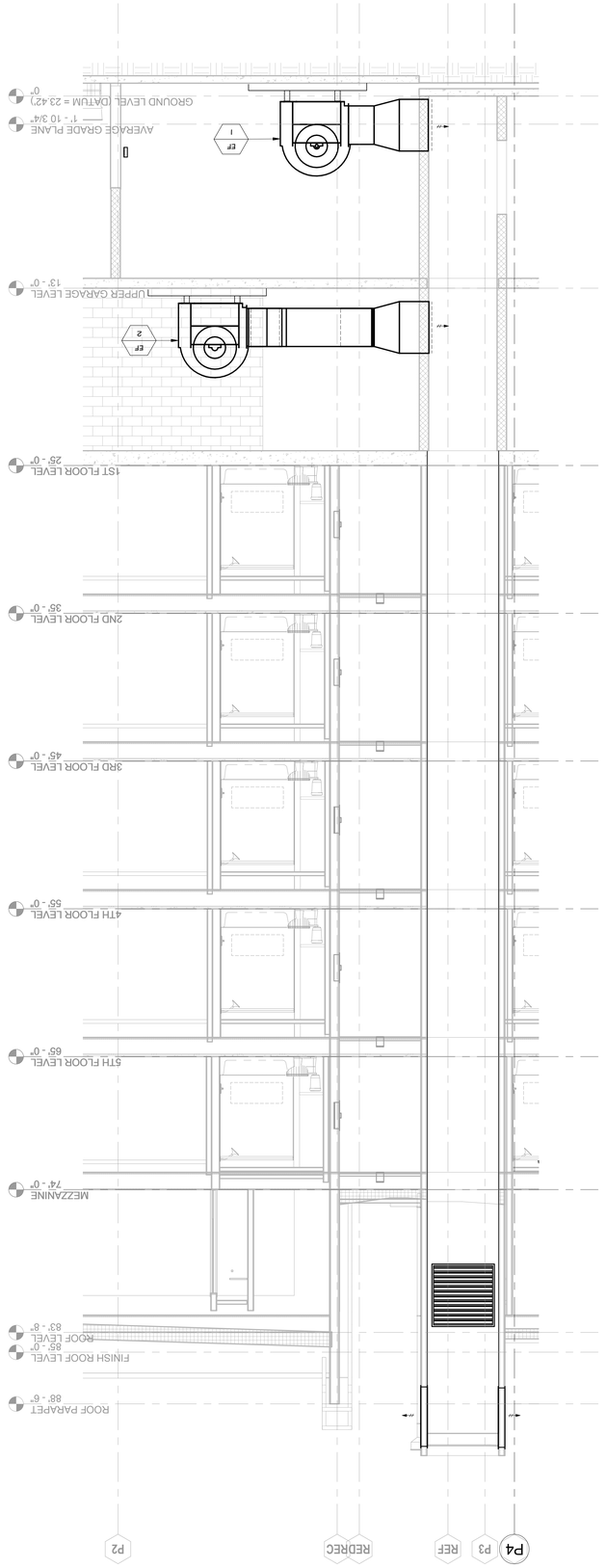
Compliance Scope:	New Envelope Add/Mechanical

| | | |


P2
RECREC
REF
P3
P4
ROOF PARAPET
68' - 6"
FINISH ROOF LEVEL
65' - 0"
ROOF LEVEL
63' - 8"
MEZZANINE
74' - 0"
5TH FLOOR LEVEL
65' - 0"
4TH FLOOR LEVEL
55' - 0"
3RD FLOOR LEVEL
45' - 0"
2ND FLOOR LEVEL
35' - 0"
1ST FLOOR LEVEL
25' - 0"
UPPER GARAGE LEVEL
13' - 0"
AVERAGE GRADE PLANE
1' - 10 3/4"
GROUND LEVEL (DATUM = 23.42')
0"
EF
1
EF
2

BUILDING INTERCEPTOR SCHEDULE

SOI - 1	SAND/OIL INTERCEPTOR (GARAGE FLOOR DRAINAGE)	JENSEN PRECAST MODEL JP750EPE-SO 320 GALLON OPERATING CAPACITY REINFORCED PRECAST CONCRETE CONSTRUCTION CAST IRON MANHOLES, FRAMES & GRADE RINGS BOX DESIGN LOAD: H-20 TRAFFIC RATED
GI - 1	GREASE INTERCEPTOR (FUTURE RETAIL TENANT USE)	JENSEN PRECAST MODEL JP1500EPE-G 1500 GALLON OPERATING CAPACITY REINFORCED PRECAST CONCRETE CONSTRUCTION CAST IRON MANHOLES, FRAMES & GRADE RINGS BOX DESIGN LOAD: H-20 TRAFFIC RATED

DRAIN SCHEDULE

MARK	MFR	MODEL	SERVICE	REMARKS
FD-1	ZURN	Z-556-Y-P	MECH. ROOM & TRASH ROOM FLOOR DRAINS	COATED CAST IRON BODY, SEEPAGE PAN, COMBINATION MEMBRANE FLASHING CLAMP AND ADJUSTABLE FRAME, HEAVY-DUTY SLOTTED CAST IRON GRATE, SEDIMENT BUCKET AND TRAP PRIMER CONNECTION.
FD-2	ZURN	Z-415-6B	GENERAL PURPOSE FLOOR DRAINS	COATED CAST IRON BODY, COMBINATION MEMBRANE CLAMP AND ADJUSTABLE COLLAR, TYPE "B" ROUND NICKEL-BRONZE STRAINER, TRAP PRIMER CONNECTION.
FS-1	ZURN	Z-1902-3-P	FLOOR SINK	COATED CAST IRON BODY WITH ENAMELED INTERIOR, 12"x12"x10" DEEP SUMP, INTERIOR DOME STRAINER, 3/4 GRATE, TRAP PRIMER CONNECTION.
RD-1	ZURN	Z-125-R-C	ROOF DRAIN	8" DIAMETER, COATED CAST IRON BODY WITH COMBINATION MEMBRANE FLASHING CLAMP / GRAVEL GUARD, CAST IRON LOW SILHOUETTE DOME, UNDERDECK CLAMP, SUMP RECEIVER FLANGE.
OD-1	ZURN	Z-127-R-C-2	OVERFLOW DRAIN	8" DIAMETER, COATED CAST IRON BODY WITH COMBINATION MEMBRANE FLASHING CLAMP / GRAVEL GUARD, 2" HIGH DAM, INTERNAL DOME STRAINER, UNDERDECK CLAMP, SUMP RECEIVER FLANGE.
PD-1	ZURN	Z-535	LANDSCAPE PLANTER DRAIN	COATED CAST IRON BODY, SEEPAGE PAN, COMBINATION MEMBRANE FLASHING CLAMP AND ADJUSTABLE FRAME, HEAVY-DUTY SLOTTED CAST IRON GRATE, SEDIMENT BUCKET COMPLY WITH WATERPROOFING REQUIREMENTS.
TD-1	ZURN	Z-665-TS	TRENCH DRAIN	12" WIDE MODULAR HEAVY-DUTY TRENCH DRAIN WITH HEAVY-DUTY SLOTTED GRATE SECURED WITH SLOTTED SCREWS.
GFD-1	ZURN	Z-556-Y-P	GARAGE EMERGENCY FLOOR DRAINS	COATED CAST IRON BODY, SEEPAGE PAN, COMBINATION MEMBRANE FLASHING CLAMP AND ADJUSTABLE FRAME, HEAVY-DUTY SLOTTED CAST IRON GRATE, SEDIMENT BUCKET AND TRAP PRIMER CONNECTION.
PSD-1	ZURN	Z-125-R-C	PODIUM SLAB DRAIN	8" DIAMETER, COATED CAST IRON BODY WITH COMBINATION MEMBRANE FLASHING CLAMP / GRAVEL GUARD, CAST IRON LOW SILHOUETTE DOME, UNDERDECK CLAMP, SUMP RECEIVER FLANGE.

EQUIPMENT SCHEDULE

ITEM	DESCRIPTION
DOMESTIC WATER SUBMETERS	EQUAL TO BADGER "RECORDALL" DISC METER - MODEL 25 - 5/8" x 3/4" SIZE - 2.8 PSI DROP @ 15 GPM - LEAD-FREE BRONZE ALLOY - REMOTE READOUT. COORDINATE WITH OWNER'S SUBMETER VENDOR.
BACKFLOW PREVENTER (TRASH CHUTE WASHDOWN)	ZURN LF008PCQT SPILL-RESISTANT ASSEMBLY - IAPMO LISTED.
HWR BALANCING VALVE	GRISWOLD Y SERIES, COMBINATION FLOW CONTROL, STRAINER, AND SHUTOFF VALVE. FACTORY SET FOR 0.5 GPM.
GAS SEISMIC SHUTOFF DEVICE	PACIFIC SEISMIC PRODUCTS MODEL 313(60) NPT VALVE - MAXIMUM PRESSURE 60 PSI - 0.108 PSI DROP AT 9,573 SCFH & 14" WC INLET PRESSURE. PROVIDE AT EACH GAS METER.
GAS EXCESS FLOW DEVICE	APARTMENT RANGES & LOUNGE FIREPLACE: BRASSCRAFT MODEL RU2-8L WITH #1540 CARTRIDGE - MAX FLOW 67.5 MBH @ 0.5" W.C. - CLOSING FLOW 70 MBH @ 0.5" W.C. BBQs & FIREPITS: BRASSCRAFT MODEL RU2-8 WITH #1550 CARTRIDGE - MAX FLOW 118 MBH @ 0.5" W.C. - CLOSING FLOW 135 MBH @ 0.5" W.C.
GAS REGULATORS	BOILERS & POOL EQUIPMENT: MAXITROL MODEL 210D - 1x1 PIPE SIZE - 3/8" VENT PIPED TO OUTDOORS. RANGES AND AMENITIES: MAXITROL MODEL 325-5AL - 3/4" PIPE SIZE - LINE PRESSURE REGULATOR, 550 CFH CAPACITY AT 2 PSI - WITH ACCESSORY VENT LIMITER (VENT LINE NOT REQUIRED).
HB-1 TRASH ROOM HOSE BIBBS	WOODFORD MODEL 24 - ROUGH CHROME PLATED - WITH INTEGRAL VACUUM BREAKER & METAL WHEEL HANDLE.
HB-2 WALL HYDRANT	WOODFORD MODEL B24 - ROUGH CHROME PLATED - WITH INTEGRAL VACUUM BREAKER, LOOSE KEY HANDLE, AND ROUGH CHROME WALL BOX.
HB-3 ROOFTOP HOSE BIBB	WOODFORD MODEL Y24 - ROUGH CHROME PLATED - WITH INTEGRAL VACUUM BREAKER, METAL WHEEL HANDLE, AND STANDPIPE.
OF	OVERFLOW DOWNSPOUT NOZZLE MIFAB R1940
TP-1 TRAP PRIMER	ELECTRONIC TRAP PRIMER - ZURN MODEL 1020 - WITH GALVANIZED STEEL WALL BOX - 1/2" COPPER INLET WITH BRASS BALL VALVE - SLOW CLOSING 24 V SOLENOID VALVE WITH INTEGRAL STRAINER - 120-24 VAC TXFMR - VACCUM BREAKER - MANIFOLD WITH FIVE 1/2" OUTLET CONNECTIONS.
TP-2 TRAP PRIMER	ZURN Z-1022 ALL-BRONZE BODY TRAP PRIMER WITH INTEGRAL VACUUM BREAKER.

GAS - FIRED WATER HEATER SCHEDULE

MARK	MFR.	MODEL #	GAS INPUT BTUH	RECOVERY GAL/HR @ 80°F RISE	FLUE SIZE INTAKE & EXHAUST	WEIGHT	ELECTRICAL POWER	NOTES
WH-1	LAARS	NEOTHERM # NTV 1000	1,000,000	1429 GPH	6" INTAKE 6" EXHAUST	720 LBS	120-1Ø-60 15 AMP / 30 FLA	COMMON SYSTEM & CONTROLS
WH-2	LAARS	NEOTHERM # NTV 1000 ③	1,000,000	1429 GPH	6" INTAKE 6" EXHAUST	720 LBS	120-1Ø-60 15 AMP / 30 FLA	

NOTES :

1. PROVIDE EXPANSION TANK AT WATER HEATER SYSTEM.
2. ALL WATER HEATERS SHALL BE C.E.C. CERTIFIED AND HAVE A MINIMUM R-16 RATED INTERNAL INSULATION AS PER TITLE 24 REQUIREMENTS.
3. WATER HEATERS & STORAGE TANK SHALL HAVE BE ANCHORED TO FLOOR PER UBC SEISMIC REQUIREMENTS. PROVIDE MANUFACTURERS ANCHORING DETAIL & CALCULATIONS AS PART OF EQUIPMENT SUBMITTAL.
4. WATER HEATER EM2 CONTROLLER SHALL INCLUDE SENSORS, THERMOMETERS AND ACCESSORIES. INITIAL START UP SHALL BE BY MANUFACTURERS REPRESENTATIVE.
5. COMPLETE SKID MOUNTED PACKAGE & CONTROLS. ALL COMPONENTS SHALL BE PRE-PIPED, WIRED & TESTED. MANUFACTURERS RERPRESENTATIVE SHALL PROVIDE SYSTEM CHECK & START-UP SERVICE.

DOMESTIC WATER - VARIABLE SPEED BOOSTER PUMP SCHEDULE

MARK	MFR. MODEL	SYSTEM PRESSURES & CAPACITY			WEIGHT	LOCATION
		MAX. SYSTEM CAPACITY GPM	DISCHARGE PRESSURE	MIN. SUCTION PRESSURE		
PBP-1	FLOW THERM # FMV3-12 TRIPLEX PUMP PRESSURE BOOSTER SYSTEM	450 GPM	75 PSI	35 PSI	2200 LBS	LEVEL 1 MECHANICAL ROOM

PUMP CAPACITIES			ELECTRICAL POWER		
PUMP	GPM	FT HD.	V-PH-HZ	HP	SPEED
PUMP 1	150	85	208V -3 PH - 60 HZ	15 HP	3500
PUMP 2	150	85	208V -3 PH - 60 HZ	15 HP	3500
PUMP 3	150	85	208V -3 PH - 60 HZ	15 HP	3500

NOTES :

1. UL LISTED TRIPLEX VARIABLE SPEED BOOSTER PUMP SYSTEM CAPACITIES AS LISTED IN SCHEDULE ABOVE. PUMPS SHALL BE BRONZE-FITTED & STANDARD MECHANICAL SEALS CONSTRUCTION.
2. EACH PUMP SHALL BE FITTED WITH ISOLATION VALVES, UNIONS/FLANGES, PILOT OPERATED COMBINATION PRV/SILENT CHECK VALVE WITH BRONZE TRIM, SPEED CONTROLS, RESILIENT SEAT AND EPOXY COATING.
3. NEMA UL MOTOR CONTROL PANEL WITH CIRCUIT BREAKER DISCONNECT SWITCH, MOTOR CIRCUIT BREAKERS, STARTERS & RESETS, AUTOMATIC ALTERNATION, MINIMUM RUN TIMERS, 110 CONTROL CIRCUIT TRANSFORMER, H-O-A SWITCHES & LIGHTS. NO-FLOW SHUT-DOWN CONTROLS WITH THERMALLY ACTIVATED PURGE VALVE TO BE PIPED TO FLOOR SINK.
4. COMPLETE SKID MOUNTED PACKAGE & CONTROLS BY CAL-HYDRONICS, HAYWARD, CA. ALL COMPONENTS SHALL BE PRE-PIPED, WIRED & TESTED. MANUFACTURERS RERPRESENTATIVE SHALL PROVIDE SYSTEM CHECK & START-UP SERVICE.

TANK SCHEDULE

MARK	EQUIPMENT	MFR.	CAPACITY	WEIGHT	LOCATION
ST-1	WATER HEATER STORAGE TANK	NILES STEEL TANK	765 GALLONS	8,000 LBS.	UPPER GARAGE MECHANICAL ROOM
ET-1	WATER HEATER EXPANSION TANK	BELL & GOSSET PT-80V	—	450 LBS	UPPER GARAGE MECHANICAL ROOM
BT-1	BOOSTER PUMP BLADDER TANK	WESSELS FX-300V	—	800 LBS	GROUND LEVEL MECHANICAL ROOM

NOTES :

1. WATER HEATER STORAGE TANK SHALL HAVE SEISMIC SADDLES SUPPORT & FACTORY APPLIED R16 POLYURETHANE JACKET WITH HARD SURFACE PROTECTION
2. TANKS SHALL HAVE BE ANCHORED TO FLOOR PER UBC SEISMIC REQUIREMENTS. PROVIDE MANUFACTUERS ANCHORING DETAIL & CALCULATIONS AS PART OF EQUIPMENT SUBMITTAL.

HOT WATER CIRCULATING PUMP SCHEDULE

MARK	MFR.	MODEL #	GPM	FT. HD.	HP	V-PH-HZ	LOCATION
CP-1	BELL & GOSSETT	SERIES 60	17	25	1/2 HP	120V-1ø 60 HZ	UPPER GARAGE MECHANICAL ROOM
CP-2	BELL & GOSSETT	SERIES 60	7	20	1/2 HP	120V-1ø 60 HZ	UPPER GARAGE MECHANICAL ROOM

NOTES : 1. PUMP SHALL BE IN-LINE BRONZE CONSTRUCTION.

2. PROVIDE BELL & GOSSETT AQUASTAT CONTROLLER, CHECK VALVE AND FLOW CONTROL VALVE.

ELECTRIC WATER HEATER SCHEDULE

MARK	LOCATION	MFR. MODEL #	RECOVERY	ELECTRICAL POWER	NOTES
EWH-1	OCCURS AT LAVATORIES IN RMS. # 105,110 & 111.	CHRONOMITE M-15L/208-MM	57° RISE @0.5 GPM	208-1ø-60 4,160 WATTS	FACTORY PRESET MAX. 104 ° TEMP. WITH ASSE 1070 MIXING VALVE
EWH-2 ③	OCCURS AT SINKS IN RMS. # 106 & 109.	CHRONOMITE M-40/208	50° RISE @1.5 GPM	208-1ø-60 8320 WATTS	FACTORY PRESET MAX. 110 ° TEMP.

NOTES

1. MOUNTED WALL HUNG UNDER SINK.
2. POINT OF USE WATER HEATER - FACTORY PRESET TEMPERATURE

SYMBOLS & ABBREVIATIONS SCHEDULE

- SHEET KEY NOTE
- XX FIXTURE IDENTIFICATION
- X / X EQUIPMENT IDENTIFICATION
- X / XX DOMESTIC WATER RISER KEY NUMBER
- SD / SS BELOW GROUND/FLOOR
- SD / SS ABOVE GROUND/FLOOR
- V VENT PIPING
- CW COLD WATER SUPPLY PIPE
- HW HOT WATER SUPPLY PIPE
- HWR HOT WATER RETURN PIPE
- G NATURAL GAS PIPE
- PRV PRESSURE REDUCING VALVE
- GRADE / FLOOR CLEAN OUT
- POC POINT OF CONNECTION
- GV GAS VALVE
- CV CHECK VALVE
- GV GATE VALVE
- FD FLOOR DRAIN
- WCO WALL CLEAN OUT

ARCH	ARCHITECTURAL	MAX	MAXIMUM
AP	ACCESS PANEL	MIN	MINIMUM
AFF	ABOVE FINISH FLOOR	NIFW	NOT IN PLUMBING WORK
BFF	BELOW FINISH FLOOR		
BWV	BACK WATER VALVE	OF	OVERFLOW DRAIN
		POC	POINT OF CONNECTION
CD	CONDENSATE DRAIN	PSI	POUNDS PER SQUARE INCH
CW	COLD WATER	PRV	PRESSURE REDUCING VALVE
CWV	COMBINATION WASTE & VENT	RCW	RECYCLED WATER
ELEV	ELEVATION	RWL	RAINWATER LEADER
DWG	DRAWING		
DWV	DOMESTIC WASTE & VENT	RP	REDUCED PRESSURE
		TP	TRAP PRIMER
FCO	FLOOR CLEAN OUT	SF	SQUARE FOOT
FF	FINISH FLOOR	SD	STORM DRAIN
FU	FIXTURE UNIT		
GCO	GRADE CLEAN OUT	S	SOIL
GM	GAS METER	SS	SANITARY SEWER
		TP	TRAP PRIMER
GPM	GALLONS PER MINUTE	TV	TEMPERING VALVE
HB	HOSE BIBB	V	VENT
HW	HOT WATER	W	WASTE
HWR	HVAC HOT WATER RETURN	WCO	WALL CLEAN OUT
IE	INVERT ELEVATION	WT	WEIGHT

GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES AND STANDARDS. WHERE MORE THAN ONE CODE OR STANDARD APPLIES, THE STRICTEST SHALL BE USED. ALL MATERIALS SHALL BE NEW, AND SHALL MEET NFPA REQUIREMENTS FOR FLAME SPREAD, HEAT CONTRIBUTION, AND SMOKE DEVELOPED. ALL WORK SHALL BE PERFORMED BY PROPERLY LICENSED CONTRACTORS.
2. PIPING: RUN PIPING IN NEAT AND WORKMANLIKE MANNER. ISOLATE ALL PIPING FROM STRUCTURE PER SPECIFICATIONS. SLOPE PIPING AS NEEDED TO DRAIN PROPERLY. PROVIDE HOSE-END DRAIN VALVES AT ALL LOW POINTS OF WATER PIPING SYSTEMS.
3. TESTING: PRESSURE TEST ALL PIPING AND REPAIR ALL LEAKS PRIOR TO INSULATING. TEST ALL EQUIPMENT FOR PROPER OPERATION AND EFFECTIVE ISOLATION OF VIBRATION. ADD AND/OR ADJUST SUPPORTS AND ISOLATORS UNTIL EQUIPMENT RUNS SMOOTHLY, IS STABLE, AND ALL VIBRATION IS EFFECTIVELY ISOLATED.
4. ALL EQUIPMENT, VALVES, METERS, AND CONTROLS SHALL BE INSTALLED IN ACCESSIBLE AND SERVICEABLE LOCATIONS. PROVIDE ADEQUATELY SIZED ACCESS DOORS WHERE NEEDED.
5. PROVIDE FIRESEALING WHERE WORK PENETRATES RATED ASSEMBLIES. REFER TO ARCHITECTURAL DRAWINGS FOR RATINGS OF ASSEMBLIES AND DETAILS OF FIRE PENETRATIONS.
6. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL PLUMBING FIXTURES.
7. ALL HOSE BIBBS SHALL BE EQUIPPED WITH INTEGRAL, NON-REMOVABLE BACKFLOW PREVENTION DEVICES.
8. SEE STRUCTURAL DRAWINGS FOR DETAILED REQUIREMENTS FOR PENETRATING STRUCTURAL MEMBERS. DO NOT CUT, DRILL, OR OTHERWISE ALTER STRUCTURAL COMPONENTS WITHOUT EXPRESS PERMISSION OF STRUCTURAL ENGINEER.
9. ALL PIPING CONVEYING FLUIDS SHALL BE INSTALLED WITH ACOUSTICAL ISOLATORS AND SHALL BE ISOLATED FROM ANY OTHER HARD MATERIALS INCLUDING BUT NOT LIMITED TO STRUCTURE, FINISH, DUCTS, CONDUITS, AND OTHER PIPES, WHICH COULD TRANSMIT SOUND TO THE OCCUPIED SPACES. PEX PIPING DOES NOT REQUIRE ACOUSTIC ISOLATION.
10. INSTALL ADEQUATE PROVISIONS FOR THERMAL EXPANSION AND CONTRACTION OF HOT WATER AND HOT WATER RETURN PIPING. INSTALL PIPE HANGERS (TYPE, SPACING, PROTECTION AGAINST ABRASION) ON ALL PIPING PER MOST STRINGENT REQUIREMENTS OF PIPE MANUFACTURER'S REQUIREMENTS AND 2010 CPC.
11. 4" SIZE & LARGER DRAINAGE PIPING SHALL HAVE MINIMUM 1% SLOPE. 3" & SMALLER DRAINAGE PIPING SHALL HAVE A MINIMUM 2% SLOPE.
12. SEE SPECIFICATIONS IN PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.

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LPAS

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Oakland, CA

ISSUE	DATE
50% DD	07/15/16
100% DD	09/01/16
100% DD PRICING SET	10/06/16
95% CD	12/08/16
GMP	03/15/17

REV #	ISSUE	DATE
1	PLAN CHECK RESPONSE #1/GMP	03/15/2017
2	PLAN CHECK RESPONSE #2	05/12/2017
3	ADDENDUM #1	05/12/2017

REGISTERED PROFESSIONAL ENGINEER JAMES J. MOREL No. M 23097 Exp. 8/30/18 MECHANICAL STATE OF CALIFORNIA

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CONSULTANT

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612 Kentucky Street Lawrence, KS 66044
jmcinc@me.com 1-888-322-3321

SCHEDULES

PROJECT NO: 1132-0018

DATE: 05/12/2017

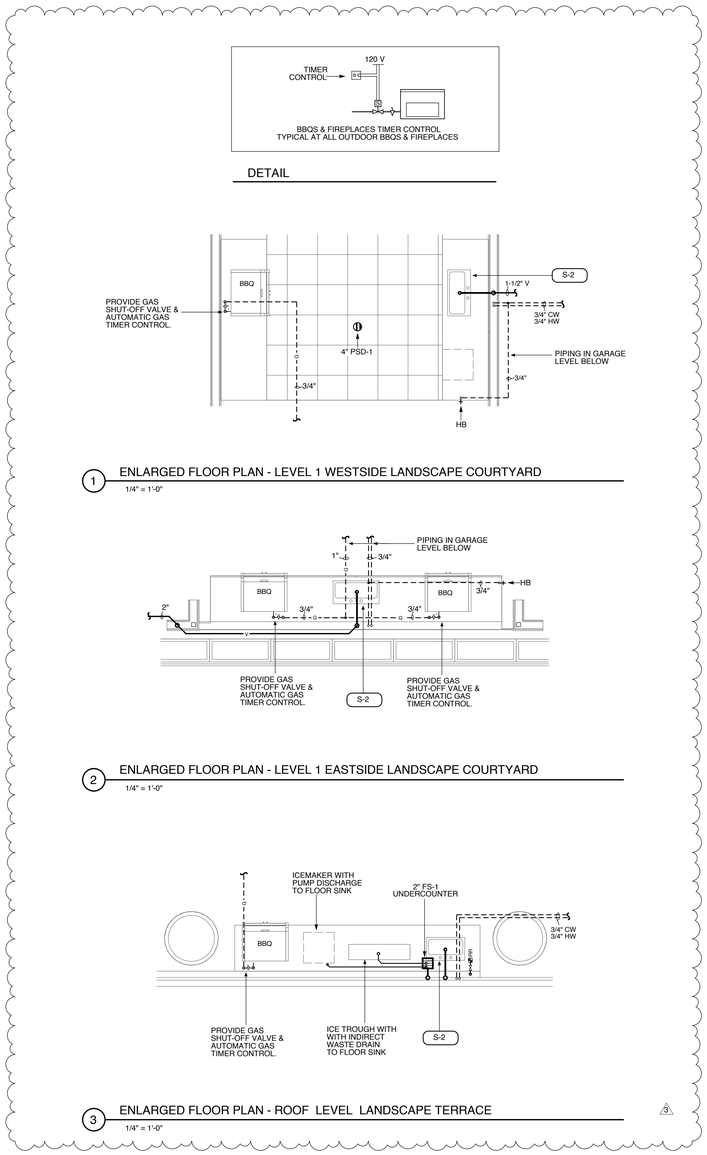
SHEET NO:

P1.01

PLAN CHECK RESPONSE #2 / ADDENDUM #1

GENERAL PLAN CHECK REQUIREMENT COMMENTS

1. BUILDING PIPE SCHEDULE INDICATED THE USE OF PVC DWV PIPE AND FITTINGS. THE USE OF PLASTIC PIPE AND FITTINGS IS NOT APPROVED FOR OTHER THAN RESIDENTIAL CONSTRUCTION OF 2-STORIES OR LESS AND/OR LOCATABLE SCHOOL BUILDINGS. OAKLAND AMENDMENTS TO THE 2013 CPC.
2. NO HUB CAST IRON SOIL PIPE AND FITTINGS MUST CONFORM TO ASTM 888. NO HUB CAST IRON SOIL PIPE SHALL BEAR THE UPC, ASTM 888 AND NSF MARKINGS AND COMPLY WITH ANNEX A OF THE CIS PI 301 STANDARD. NO HUB FITTINGS SHALL BE MARKED WITH THE UPC AND NSF MARKINGS AND COMPLY WITH THE CISPI 301 STANDARD, INCLUDING ANNEX A OF THE STANDARD. ALL 601 B NO HUB COUPLINGS SHALL BE SHIELDED AND BEAR THE UPC, NSF MARKINGS AND COMPLY WITH THE CISPI 310 STANDARD, 2013 CPC REFERENCED STANDARDS.
3. CONTRACTOR SHALL DETERMINE THE ELEVATION OF THE NEAREST UPSTREAM MANHOLE COVER IN RELATION TO THE LOWEST FLOOR LEVEL OF THE BUILDING CONTAINING PLUMBING FIXTURES AND NOTE THIS ON PLANS. FIXTURES ON SUCH FLOOR LEVEL THAT ARE NOT BELOW THE NEXT UPSTREAM MANHOLE COVER SHALL NOT BE REQUIRED TO BE PROTECTED BY A BACKWATER VALVE. FIXTURES ON FLOOR LEVELS ABOVE SUCH ELEVATION SHALL NOT DISCHARGE THROUGH THE BACKWATER VALVE. CLEANOUTS FOR DRAINS THAT PASS THROUGH A BACKWATER VALVE SHALL BE CLEARLY IDENTIFIED WITH A PERMANENT LABEL STATING "BACKWATER VALVE DOWNSTREAM". CONTRACTOR TO COMPLY WITH 2013 CPC SECTION 710.0.
4. DISINFECTION OF POTABLE WATER SYSTEM - NEW OR REPAIRED POTABLE WATER SYSTEMS SHALL BE DISINFECTED PRIOR TO USE WHERE REQUIRED BY THE AUTHORITY HAVING JURISDICTION. PRIOR TO UTILIZATION OF NEWLY CONSTRUCTED OR ALTERED POTABLE WATER PIPING SYSTEMS, ALL AFFECTED POTABLE WATER PIPING SHALL BE DISINFECTED USING PROCEDURES PRESCRIBED IN CALIFORNIA PLUMBING CODE SECTIONS 609.9 (1) THROUGH 609.9 (4), OR THOROUGHLY FLUSHED AND TESTED BY AN APPROVED THIRD PARTY AGENCY TO SHOWN BY BACTERIOLOGICAL EXAMINATION THAT NO CONTAMINATION PERSISTS IN THE SYSTEM. 2013 CPC 609.
5. WHEN FIRE SPRINKLER SYSTEMS ARE INSTALLED AND/OR ALTERED THE MAIN DRAIN AND INSPECTORS INSPECTION TEST DRAIN WILL BE REQUIRED TO BE ROUTED TO AN APPROVED LANDSCAPE AREA IF ALLOWED BY THE DETERMINATION OF THE FIRE DEPARTMENT OR ROUTED TO AN INDIRECT SANITARY STAND-PIPE DRAIN. THE HUB DRAIN PROVIDED TO BE A MINIMUM OF THREE (3) INCH WITH AN INCREASE IN SIZE OF THE HUB TO NO LESS THAN FOUR (4) INCH AS REQUIRED BY THE CALIFORNIA CLEAN WATER ACT. FIRE TEST HUB DRAIN TO BE CONNECTED TO THE SANITARY SEWER, TRAPPED, VENTED, AND PRIMED WITH A MINIMUM OF A ONE (1) INCH AIR GAP MAINTAINED. WHERE THE FIRE SPRINKLER STAND PIPE RISER IS IN A STAIR ENCLOSURE THE PROVIDED HUB DRAIN SHALL NOT BE LOCATED IN THE STAIR ENCLOSURE.
6. PLANS INDICATE TRASH ENCLOSURES WITH FLOOR DRAINS NOT ROUTED TO AN APPROVED SAND/OIL INTERCEPTORS. THE 2013 OAKLAND MUNICIPAL CODE STIPULATES THAT TRASH ENCLOSURES SHALL BE PROVIDED WITH APPROVED SAND/OIL INTERCEPTORS.
7. ANY VALVE BOXES, TUB/SHOWER VALVES, OR LIKE INSTALLATIONS INSTALLED AT FIRE RATED WALLS, SHAFTS ENCLOSURES, RATED CEILING ASSEMBLIES, ETC. MUST BE INSTALLED SO AS TO MAINTAIN THE REQUIRED FIRE RATING OF THE ASSEMBLIES. PROVIDE DETAILS OF METHODS TO BE USED TO COMPLY WITH THIS REQUIREMENT WHERE IT OCCURS.
8. WHERE REQUIRED, SEISMIC RESTRAINT FOR PIPES, DUCTS, AND EQUIPMENT TO BE BASED ON AN APPROVED ENGINEERED SYSTEM, AND BE VERIFIED AND INSPECTED BY A REGISTERED PROFESSIONAL ENGINEER, AND PROVIDE A WET STAMPED APPROVAL AFTER ACCEPTANCE.
9. MEDIUM PRESSURE GAS SUPPLY INTO THE BUILDING MAY REQUIRE THAT THE PROVIDED GAS PRESSURE REGULATORS BE PROVIDED WITH VENTS EXTENDING TO THE EXTERIOR OF THE BUILDING. VERIFY AND SHOW EVIDENCE THAT THE GAS REGULATORS HAVE APPROVED "VENT LIMITERS" OR PROVIDE VENTING AS REQUIRED.
10. PLANS INDICATE THAT THE ROOF MAY HAVE A WALKING OR PATIO AREA FOR THE USE OF TENANTS. ALL PLUMBING VENT TERMINATIONS AND/OR APPLIANCE VENTING WILL BE REQUIRED TO BE AT LEAST 10' FROM SUCH WALKING AREAS OR TERMINATE AT LEAST 7' ABOVE, OR AS REQUIRED BY CODE FOR THE TYPE OF EXHAUST.
11. ALL PUBLIC USE LAVATORIES PUBLIC USE LAVATORIES SHALL BE LIMITED TO A MAXIMUM TEMPERATURE OF 120° F BY A DEVICE THAT CONFORMS TO ASSE 1070 OR CSA 125.3 OR OTHER APPROVED METHOD. (2013 CPC 421.2)
12. BACKFLOW DEVICES SHALL BE TESTED AT THE TIME OF INSTALLATION, REPAIR, OR RELOCATION. BACKFLOW DEVICES ARE REQUIRED TO BE APPROVED DEVICES MEETING THE REQUIREMENTS OF 2013 CPC.
13. PSL (PRIVATE SEWER LATERAL) IS REQUIRED. SEE WWW.EASTBAYOSL.COM. PLEASE NOTE ON PLANS.



PLUMBING FIXTURE SCHEDULE - COMMON AMENITY AREAS

FIXTURE NO.	FIXTURE TYPE	MIN. ROUGH-IN SIZES WASTE	VENT	CW	HW	FIXTURE SPECIFICATION
WC-2	WATER CLOSET	3"	2"	1"	-	FIXTURE TOTO MODEL # CT705ELNG - TMT1LN32#CP ADA HEIGHT - WHITE VITREOUS CHINA BOWL SEAT TOTO MODEL # SC534 OPEN FRONT SEAT WATER USE 1.28 GPF
WC-3	WATER CLOSET	3"	2"	1"	-	FIXTURE TOTO MODEL # CT705ENG - TMT1LN32#CP ELONGATED WHITE VITREOUS CHINA BOWL SEAT TOTO MODEL # SC534 OPEN FRONT SEAT WATER USE 1.28 GPF
L-2	LAVATORY	2"	1-1/2"	1/2"	1/2"	FIXTURE KOHLER "PURIST" MODEL # K-2314-8 WHITE VITREOUS CHINA TRIM KOHLER MODEL # K-13468 - ELECTRONIC FAUCET - CHROME SATIN FINISH LEVER HANDLE TYPE FAUCET - POP-UP DRAIN ASSEMBLY - WITH 0.5 GPM AERATOR. TRUBRO MODEL 101-EZ PIPE COVERS THERMOSTATIC MIXING VALVE: LEONARD MODEL #170-LF LEAD FREE POINT OF USE APPLICATION, ASSE 1070 CERTIFIED WATER USE 0.5 GPM FLOW RESTRICTOR
S-1	SINK	2"	1-1/2"	1/2"	1/2"	FIXTURE KOHLER " VAULT" MODEL # K-3894 - SINGLE BOWL 18 GA. STAINLESS STEEL SINK. TRIM KOHLER MODEL # K-7547-4-VS - CHROME SATIN FINISH -1.8 GPM AERATOR - SINK STRAINER. TRUBRO MODEL 1021-EZ PIPE COVERS WATER USE 1.8 GPM FLOW RESTRICTOR
S-2	SINK LANDSCAPE COURTYARD SINK	2"	1-1/2"	1/2"	1/2"	FIXTURE SEE LANDSCAPE PLAN SINK DETAILS ON SHEET A1.13 NOTE: SAME FIXTURE & TRIM AS THE S-1 SINK
S-3 3	SINK LANDSCAPE COURTYARD ICE TROUGH	1-1/2"	-	-	-	FIXTURE SEE LANDSCAPE PLAN SINK DETAILS ON SHEET A1.13 KOHLER MODEL # K-3187 - SINGLE BOWL 16 GA. STAINLESS STEEL SINK. K-8801 SINK STRAINER
JS-1	JANITOR SINK	2"	1-1/2"	1/2"	1/2"	FIXTURE FLORESTONE MODEL # 82 TERRAZO MOP SINK WITH MR #370 THRU #376 ACCESSORIES WALL MOUNTED FAUCET ASSEMBLY
SS-1	SERVICE SINK	2"	1-1/2"	3/4"	3/4"	FIXTURE KOHLER "BANNON" MODEL # K-6714 CAST IRON MOP SINK - COMPLETE WITH DRAIN STRAINER RIM GUARD & TRAP. FAUCET KOHLER MODEL # K-8907 SERVICE SINK FAUCET ASSEMBLY.
EWC-1	ELECTRIC WATER COOLER	2"	1-1/2"	1/2"	1/2"	FIXTURE ELKAY # EFPM28K RECESSED WALL MOUNTED DUAL LEVEL 18 GAUGE STAINLESS STEEL BOWLS # MP200 MOUNTING PLATE POWER 120V - 1 PH - 60 HZ - 370 WATTS / 4.0 AMPS
BF	BOTTLE FILLING STATION	2"	1-1/2"	1/2"	-	FIXTURE ELKAY # LZWSSM SURFACE WALL MOUNTED REQUIRES 120V -1 AMP POWER.
PW-1	PETWASH	2"	1-1/2"	1/2"	1/2"	FIXTURE PETLIFT # AQ58K AQUA QUEST HEAVY DUTY 16 GAUGE STAINLESS STEEL CONSTRUCTION COMPLETE WITH FAUCET, SPRAYER, HOSE, CLEAN-OUT HAIR TRAP, BASKET STRAINER, FLOOR RACKS, SOAP DISPENSER, VACUUM BREAKER. ZURN Z-1175 HAIR INTERCEPTOR ON DRAIN.
CDB-1	CONDENSATE DRAIN BOX	2"	1-1/2"	-	-	FIXTURE IPS MODEL # FRAD12 RECESSED WALL BOX AUXILLARY DRAIN UNIT - 2" DRAIN OPENING

PLUMBING FIXTURE SCHEDULE - RESIDENTIAL UNITS

FIXTURE NO.	FIXTURE TYPE	MIN. ROUGH-IN SIZES WASTE	VENT	CW	HW	FIXTURE SPECIFICATION
WC-1	WATER CLOSET	3"	2"	1/2"	-	FIXTURE KOHLER "HIGHLINE" # K-3999 HIGH EFFICIENCY WHITE PORCELAIN ELONGATED BOWL SEAT KOHLER # K-4636 CLOSED FRONT SEAT AND COVER. WATER USE 1.28 GPF
L-1	LAVATORY	2"	1-1/2"	1/2"	1/2"	FIXTURE KOHLER "ARCHER" # K-2355-0 WHITE PORCELAIN UNDERMOUNT SINK 19-7/8" X 15-5/16" X 7-1/2" FAUCET SYMMONS "DIA" # SLS-3512 - SINGLE HANDLE POLISHED CHROME DECK MOUNTED POP UP DRAIN ASSEMBLY WATER USE PROVIDE 1.2 GPM FLOW RESTRICTOR ALTERNATE PRICING FAUCET DELTA "VERO" # 553LF - SINGLE HANDLE POLISHED CHROME DECK MOUNTED POP UP DRAIN ASSEMBLY WATER USE PROVIDE 1.2 GPM FLOW RESTRICTOR ALTERNATE PRICING FAUCET MOEN # 56700 - SINGLE HANDLE POLISHED CHROME DECK MOUNTED POP UP DRAIN ASSEMBLY WATER USE PROVIDE 1.2 GPM FLOW RESTRICTOR
KS-1	KITCHEN SINK	2"	1-1/2"	1/2"	1/2"	FIXTURE AMERISINK # AS132 - UNDERCOUNTER SINGLE BOWL 18 GA STAINLESS STEEL FAUCET SYMMONS "DIA" # SPP-3510 - HIGH ARC PULLOUT FAUCET POLISHED CHROME DECK MOUNTED DISPOSAL WHIRLPOOL MODEL # GC2000PE 1020V - 1/2 HP WATER USE PROVIDE 1.5 GPM FLOW RESTRICTOR ALTERNATE PRICING FAUCET DELTA "TRINSIC" # 9159-AR-DST - HIGH ARC PULLOUT FAUCET POLISHED CHROME DECK MOUNTED WATER USE PROVIDE 1.5 GPM FLOW RESTRICTOR ALTERNATE PRICING FAUCET MOEN "ALIGN " # 7565SRS - HIGH ARC PULLOUT FAUCET POLISHED CHROME DECK MOUNTED WATER USE PROVIDE 1.5 GPM FLOW RESTRICTOR
BT-1	BATHTUB	2"	1-1/2"	1/2"	1/2"	FIXTURE FIBERCARE # RT60-32WS-18 - ACRYLIC TUB WHITE - 60" X 32" X 18" SIZE FAUCET SYMMONS "DIA" # 3502-CYL-B - TEMPERATURE PRESSURE BALANCING - INTEGRAL SCREW STOPS - POLISHED CHROME WATER USE PROVIDE 1.8 GPM SHOWER HEAD ALTERNATE PRICING FAUCET DELTA "TRINSIC " # T-17T459-H20-R10000-UN TEMPERATURE PRESSURE BALANCING INTEGRAL STOPS POLISHED CHROME WATER USE PROVIDE 1.8 GPM SHOWER HEAD ALTERNATE PRICING FAUCET MOEN "LEVEL" # T2193-EP - TEMPERATURE PRESSURE BALANCING - INTEGRAL STOPS POLISHED CHROME WATER USE PROVIDE 1.8 GPM SHOWER HEAD
WM-1	WASHING MACHINE BOX	2"	1-1/2"	3/4"	3/4"	FIXTURE GUY GREY # FRM12SSHA - FIRE RATED SINGLE LEVER FIXTURE WATTS INTELLIFLOW MODEL # A2C-M1 AUTOMATIC SHUT-OFF VALVE & SENSOR VALVES ACTIVATED BY MOISTURE SENSOR IN DRAIN PAN. FIXTURE SIOUX CHIEF IN WALL ARRESTERS
RB-1	REFRIG. WATER SUPPLY BOX	-	-	1/2"	-	FIXTURE GUY GREY # FRIB12SHA - FIRE RATED SINGLE LEVER W/ ARRESTER FIXTURE SIOUX CHIEF ARRESTER

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Oakland, CA

ISSUE	DATE
50% DD	07/15/16
100% DD	09/01/16
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95% CD	12/08/16
GMP	03/15/17

REV #	ISSUE	DATE
1	PLAN CHECK RESPONSE #1/GMP	03/15/2017
2	PLAN CHECK RESPONSE #2	05/12/2017
3	ADDENDUM #1	05/12/2017

REGISTERED PROFESSIONAL ENGINEER JAMES J. MORE No. M 23097 Exp. 9/30/18 MECHANICAL STATE OF CALIFORNIA

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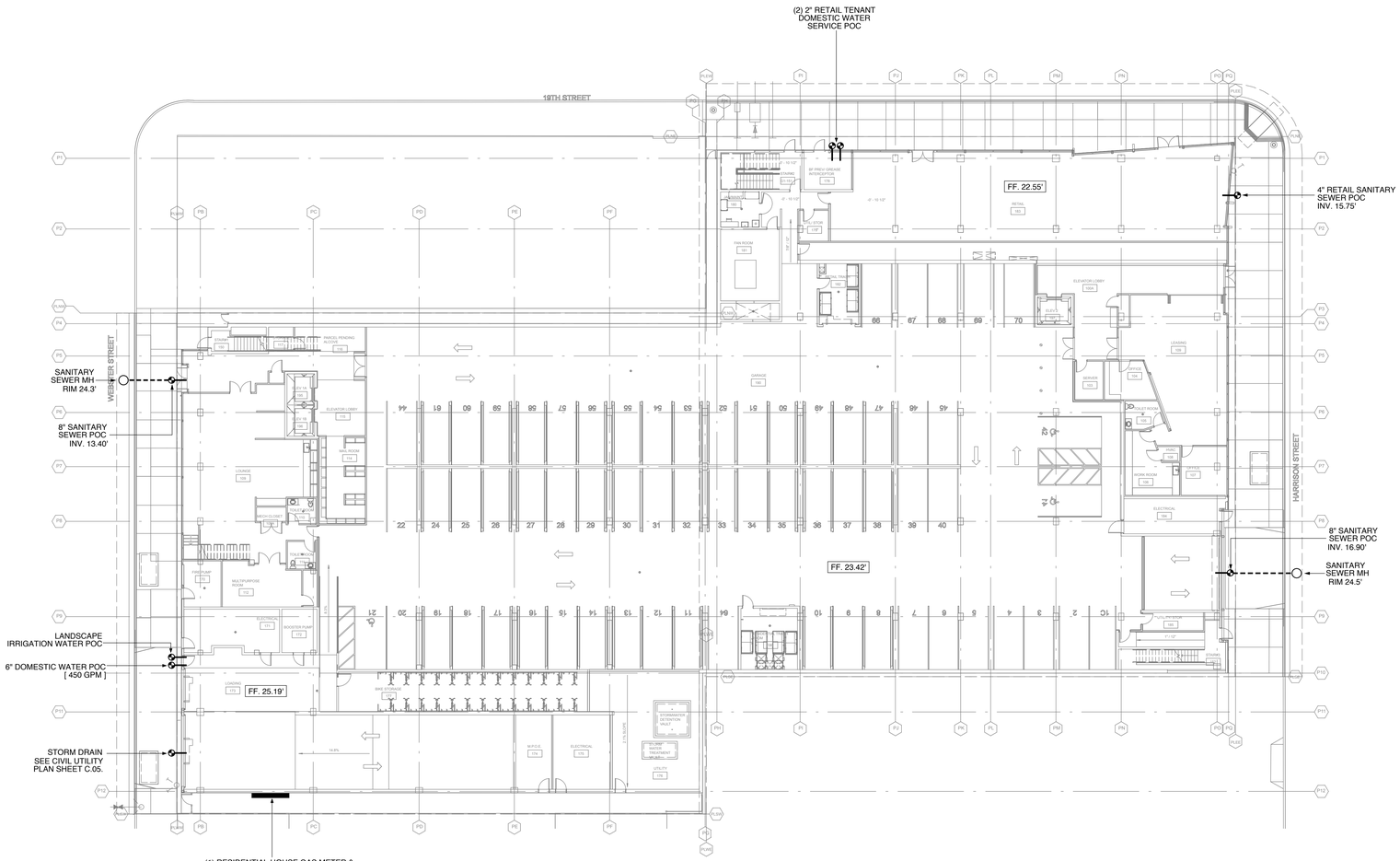
SCHEDULES

PROJECT NO: 1132-0018
DATE: 05/12/2017

SHEET NO:

P1.02

PLAN CHECK RESPONSE #2 / ADDENDUM #1



SITE PLAN

NOT TO SCALE

NOTES

1. CONTRACTOR SHALL CONNECT TO SITE DOMESTIC WATER, SANITARY SEWER AND STORM DRAIN PIPING STUBOUTS.
2. REFER TO CIVIL SITEWORK PLANS FOR FOR SITE DOMESTIC WATER METERS AND SITE PIPING CONNECTIONS TO PUBLIC MAINS.
3. SEE PLUMBING BUILDING PLANS FOR EXACT LOCATIONS OF BUILDING UTILITY CONNECTIONS REQUIRED.

BUILDING PLUMBING UTLITY LOADS

DOMESTIC WATER

DEMAND FIXTURE UNITS 3,600 WSFU
DEMAND FLOW ESTIMATE 450 GPM

DEMAND PIPE SIZING 6 INCH
PIPE SIZE MAXIMUM VELOCITY 5 FT/SECOND

SANITARY SEWER

DEMAND FIXTURE UNITS 2,686 DFU
PIPE SIZING (2) 8 INCH

WATER CALCULATIONS

WATER SERVICE

AVAILABLE STATIC PRESSURE				+ 58 PSI
LOSS THROUGH METER	6"	SIZE @ 450	GPM	- 5 PSI
LOSS THROUGH BACKFLOW DEVICE	6"	SIZE @ 450	GPM	- 10 PSI
AVAILABLE PRESSURE				+ 43 PSI

NOTE: INADEQUATE PRESSURE AVAILABLE - PRESSURE BOOSTER PUMP REQUIRED

BUILDING WATER SUPPLY INFORMATION

MAXIMUM CW DEMAND	500 GPM
PRESSURE BOOSTER PUMP OUTLET PRESSURE	75 PSI
PRESSURE AT REMOTE FIXTURE	- 20 PSI
STATIC LOSS BUILDING HEIGHT 74 FT. X 0.43 =	- 32 PSI
AVAILABLE PRESSURE FOR FRICTION LOSS	23 PSI

PIPING SUPPLY INFORMATION

AVAILABLE PRESSURE FOR FRICTION LOSS	23 PSI
TOTAL DEVELOPED LENGTH TDL	600 FEET
FRICTION LOSS RATE 23 AVAILABLE PSI / 600 TDL X 100 =	3.8 PSI /100 FT

CPVC PIPE SIZING SUMMARY

	PIPE SIZE	WATER WSFU	WATER GPM	VELOCITY	MAXIMUM PRESSURE DROP
SDR 11	1/2"	1	2	3.4 FPS	3.9 PSI / 100 FT
	3/4"	4	4	3.2 FPS	
	1"	12	9	4.3 FPS	
	1-1/4"	20	15	4.8 FPS	
	1-1/2"	30	20	4.6 FPS	
	2"	66	35	4.7 FPS	
SCH 80	2-1/2"	175	60	4.6 FPS	
	3"	380	100	4.9 FPS	
	4"	778	175	4.9 FPS	
	5"	1335	250	4.5 FPS	
	6"	3620	500	6.0 FPS	
	8"	8300	1000	7.0 FPS	

GAS METER LOADS

(1) HOUSE GAS METER

RESIDENTIAL HOUSE GAS METER LOADS

ITEM	Qty	MBH	Totals
WATER HEATER	2	1,000	2,000
POOL/SPA HEATERS	0	0	0
HVAC	0	0	0
RESIDENTIAL RANGES	224	65	14,560
AMENITY RANGES	0	0	0
LANDSCAPE BBQS	4	75	300
OUTDOOR FIREPLACES	4	80	320
INDOOR FIREPLACES	0	0	0
OTHER	0	0	0
TOTAL LOAD (MBH):			18,580 MBH

SERVICE PRESSURE REQUEST: 2 PSI

(1) FUTURE RETAIL GAS METER

RETAIL GAS METER LOAD ESTIMATE

(1) FUTURE RETAIL TENANT GAS METER ALLOWANCE FOR MAXIMUM ONE RETAIL RESTAURANT	
KITCHEN EQUIPMENT & HEATING ALLOWANCE	2,500 MBH
TOTAL LOAD (MBH):	2,500 MBH

SERVICE PRESSURE REQUEST: 2 PSI

FIRE SERVICE AVAILABLE FLOW & PRESSURE INFORMATION

Contact Information:

Easton McAllister
Tahis, inc
1025 Noel Dr Apt B
Menlo Park, 94025

Request Number: 4788

E-mail: easton@tahis-eng.com
Phone: 415-948-0440
Cell:
Fax:

Property Information:

1750 Webster
OAKLAND, CA 94612

Approximate Elevation (feet): 30
Design Flow if available (gpm): 4,000

The following available flow and pressure information is based on a Maximum Day Demand Hydraulic Model Analysis of EBMUD's water distribution system. This information should be used as a guideline of the approximate available flow. It is recommended that a design allowance be made for possible reductions in pressure and/or flow that could occur under other possible scenarios. Applicant understands that the District cannot guarantee any specific values for pressure and flow. If you have any questions, please contact us at nbo@ebmud.com or call (510)287-1008.

Available flow and pressure at the street main location for the above property information:

Possible Fire Service Connection #1
Off of the 12-inch main (12C32) in19th Street, on the south side of 19th Street, approximately 50 feet east of Webster Street.

Pressure Zone: CENTRAL
Connection Point Elevation (feet): 27
Connection Point Static Pressure (psi): 58
Residual Pressure at 1500 gpm (psi): 57
Residual Pressure at 3000 gpm (psi): 54
Residual Pressure at 4,000 gpm (psi): 52

Engineer's Comments: The pressure and flow information stated above is available at the street main connection in 19th Street.

SOILS REPORT - SOIL CORROSIVITY TEST REFERENCE

ROCKRIDGE GEOTECHNICAL

Underpinning piers will extend beneath the neighboring properties, which will require an encroachment agreement with neighboring property owners.

6.3 Construction Considerations

The soil to be excavated consists of predominantly clay and sand, which can be excavated with conventional earth-moving equipment such as loaders and backhoes. If site grading is performed during the rainy season, repeated loads by heavy equipment will reduce the strength of the surficial soil and decrease its ability to resist deformation; this phenomenon could result in severe rutting and pumping of the exposed subgrade. To reduce the potential for this behavior, heavy rubber-tired equipment, as well as vibratory rollers, should be avoided if work is performed during the wet season.

All excavations that will be entered by workers should be sloped and/or shored in accordance with CAL-OSHA standards (29 CFR Part 1926). Where there is sufficient clearance from the property line and adjacent structures, the excavation sides may be slope cut at a maximum inclination of 1.5:1 (horizontal:vertical), which is consistent with OSHA Type C soil. The selection, design, construction, and performance of the shoring system should be the responsibility of the contractor. A structural engineer knowledgeable in this type of construction should design the shoring.

To reduce the potential for damage to the adjacent buildings, heavy equipment should not be used within 10 feet from adjacent foundations and basement walls (if present). Jumping jack or vibratory plate compactors should be used for compacting fill within this zone.

6.4 Soil Corrosivity

Corrosivity testing was performed by Sunland Analytical of Rancho Cordova, California on a sample of soil obtained during our field investigation from Boring B-1 at a depth of five feet bgs. The results of the test are presented in Appendix B of this report. The results of the corrosivity analyses indicate the sample is "mildly corrosive" and "moderately corrosive" with respect to resistivity and pH, respectively. Accordingly, all buried iron, steel, cast iron, ductile iron, galvanized steel and dielectric-coated steel or iron may need to be protected against corrosion,

ROCKRIDGE GEOTECHNICAL

depending upon the critical nature of the structure. If it is necessary to have metal in contact with soil, a corrosion engineer should be consulted to provide recommendations for corrosion protection. The results indicate that sulfate ion concentrations are sufficiently low to not pose a threat to buried concrete. In addition, the chloride ion concentrations are insufficient to adversely impact steel reinforcement in concrete structures below ground.

7.0 RECOMMENDATIONS

In accordance with our scope of services, the remainder of this report presents our recommendations for site preparation and grading, foundation support, ground improvement, concrete flatwork, pavements, and seismic design.

7.1 Site Preparation and Grading

Site demolition should include removal of all existing pavements, former foundation elements, and underground utilities, if any. Demolished asphalt concrete should be taken to an asphalt recycling facility. Aggregate base beneath existing pavements may be re-used as select fill if carefully segregated. In general, abandoned underground utilities should be removed to the property line or service connections and properly capped or plugged with concrete. Where existing utility lines are outside of the footprint of the proposed improvements and will not interfere with the proposed construction, they may be abandoned in-place provided the lines are filled with lean concrete or cement grout to the property line. Voids resulting from demolition activities should be properly backfilled with engineered fill under our direction following the recommendations provided later in this section.

In areas that will receive fill or new improvements (i.e. building pad, concrete flatwork, etc.), the soil subgrade exposed should be scarified to a depth of at least eight inches, moisture-conditioned to above optimum moisture content, and compacted to at least 90 percent relative compaction[8]. In pavement areas to receive vehicular loads, the subgrade should be scarified to a

[8] Relative compaction refers to the in-place dry density of soil expressed as a percentage of the maximum dry density of the same material, as determined by the ASTM D1557-09 laboratory compaction procedure.

BUILDING PIPING MATERIALS SCHEDULE

PIPE	LOCATION	NO-HUB CAST IRON	PVC	TWV COPPER	CPVC	TYPE K COPPER	TYPE L COPPER	TYPE M COPPER	SCH. 40 BLACK STEEL	SCH. 40 GALVANIZED STEEL
SANITARY SEWER & VENT	BELOW GRADE ✳	●								
	ABOVE GRADE	●		●						
STORM DRAIN	BELOW GRADE ✳	●								
	ABOVE GRADE	●								
DOMESTIC WATER	BELOW GRADE					●				
	ABOVE GRADE				●		●			
NATURAL GAS	INTERIOR								●	
	EXTERIOR									●
CONDENSATE DRAIN	INTERIOR			●				●		

NOTES

1. PROJECT HAS CORROSIVE SOIL CONDITION. REFER TO THE SOILS REPORT FOR PIPING INSTALLATION RECOMENDATIONS .
2. ✳ ~~SANITARY SEWER PIPING BELOW GRADE SHALL BE PLASTIC PVC DRAIN PIPING PER SOILS REPORT REQUIREMENT.~~
3. ✳ ALL SANITARY SEWER PIPING BELOW GRADE SHALL BE CAST IRON PIPE COMPLETELY ENCASED WITH "POLYWRAP" TUBULAR POLYETHYLENE SLEEVE ENCASEMENT MATERIAL AS MANUFACTURED BY NORTHTOWN COMPANY OR EQUAL.

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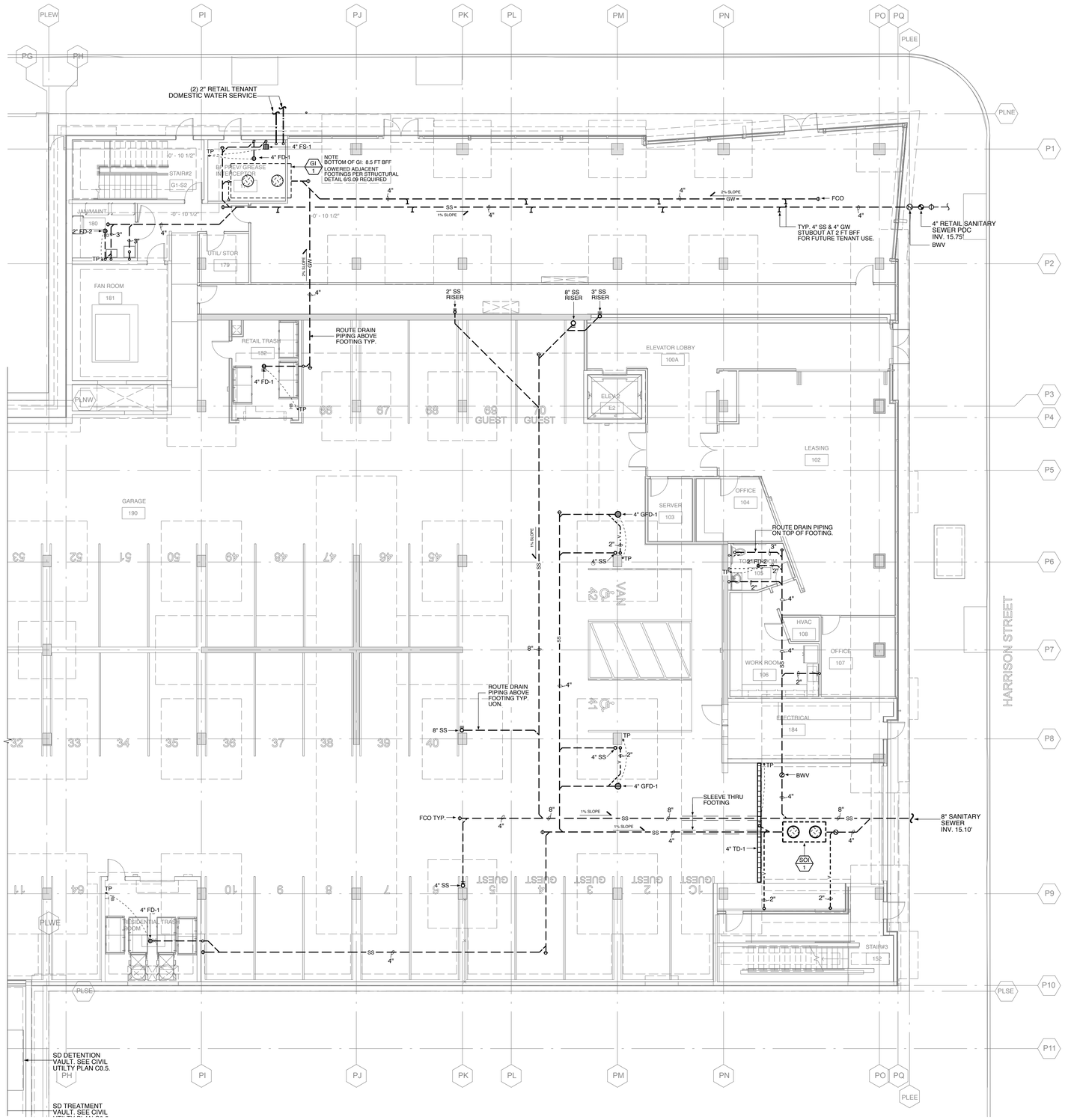
SITE PLAN

PROJECT NO: 1132-0018
DATE: 05/12/2017

SHEET NO:

P1.03

PLAN CHECK RESPONSE #2 / ADDENDUM #1



GENERAL NOTES

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PLAN SYMBOLS

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- DOMESTIC WATER RISER KEY NUMBER SEE SHEETS P6.01 & P6.02.
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- EQUIPMENT DESIGNATION

GROUND FLOOR PLAN EAST - BELOW SLAB PIPING | 1/8"=1'-0" | 1

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GROUND FLOOR PLAN EAST - BELOW SLAB PIPING

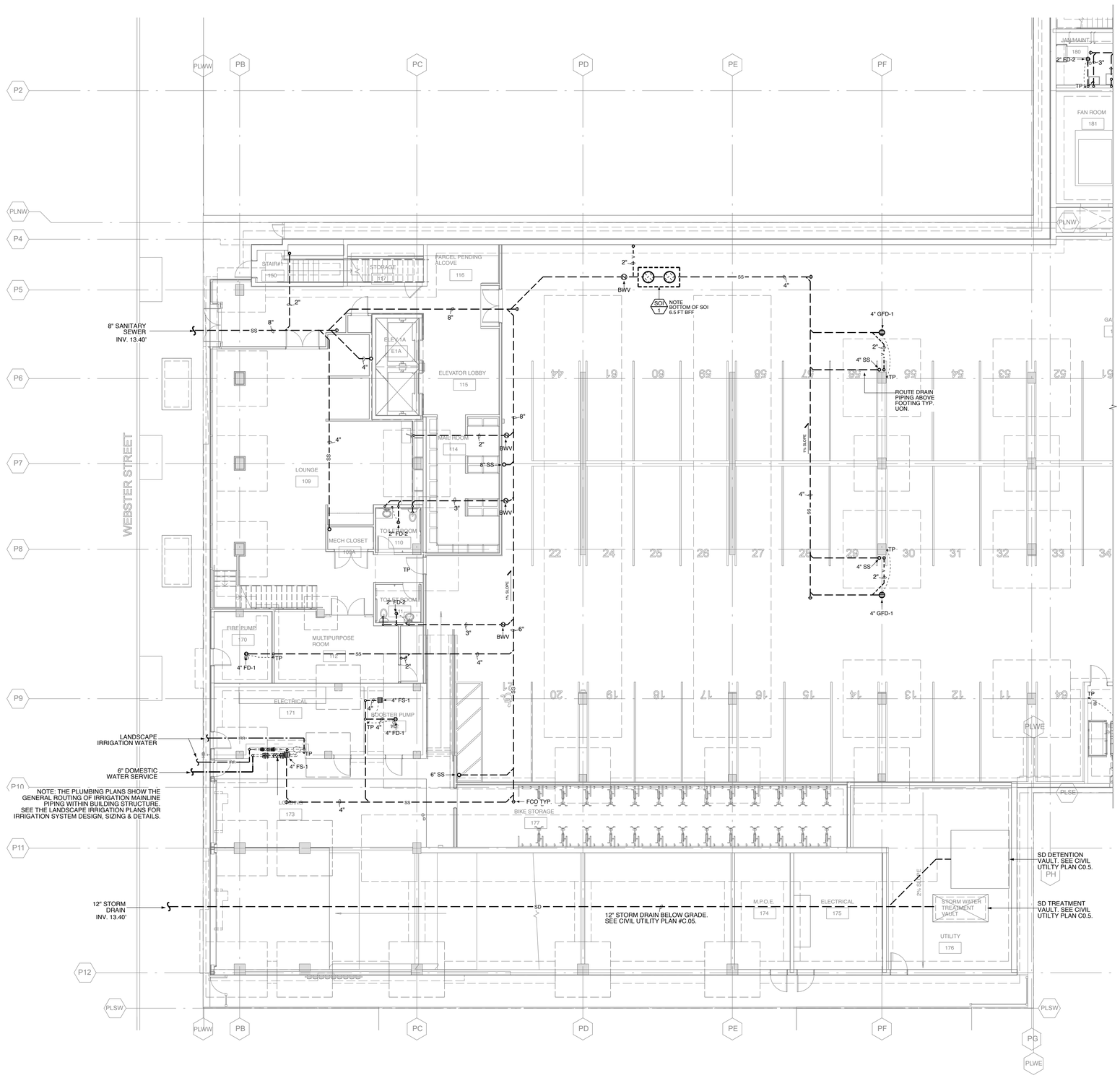
PROJECT NO: 1132-0018

DATE: 05/12/2017

SHEET NO:

P2.01E

PLAN CHECK RESPONSE #2 / ADDENDUM #1



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- EQUIPMENT DESIGNATION

GROUND FLOOR PLAN WEST - BELOW SLAB PIPING | 1/8"=1'-0" | 1

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GROUND FLOOR PLAN WEST - BELOW SLAB PIPING

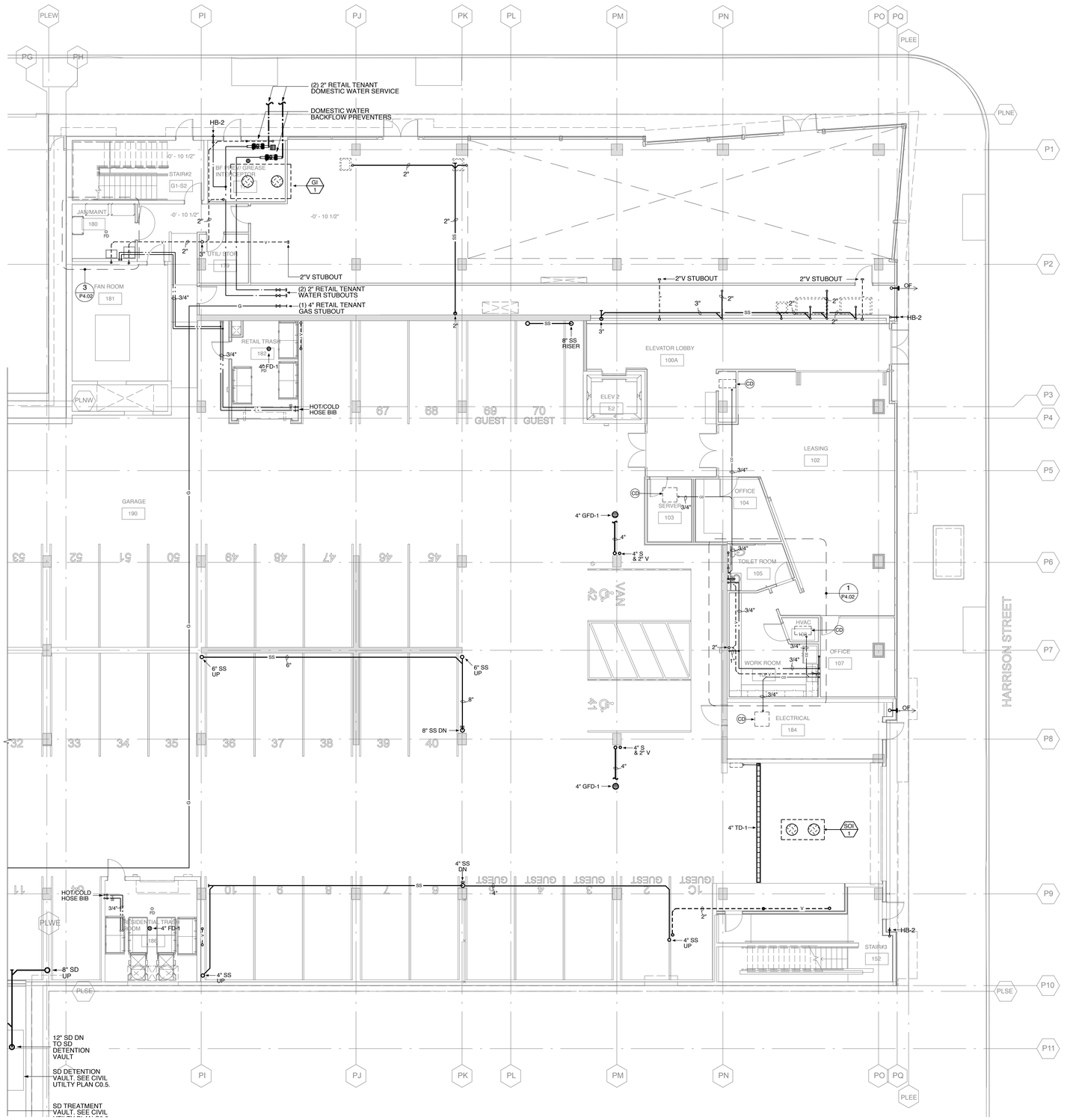
PROJECT NO: 1132-0018

DATE: 05/12/2017

SHEET NO:

P2.01W

PLAN CHECK RESPONSE #2 / ADDENDUM #1



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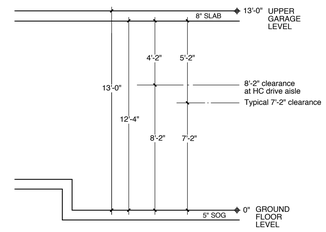

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GROUND FLOOR PLAN - EAST | 1/8"=1'-0" | 1

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GROUND FLOOR PLAN EAST

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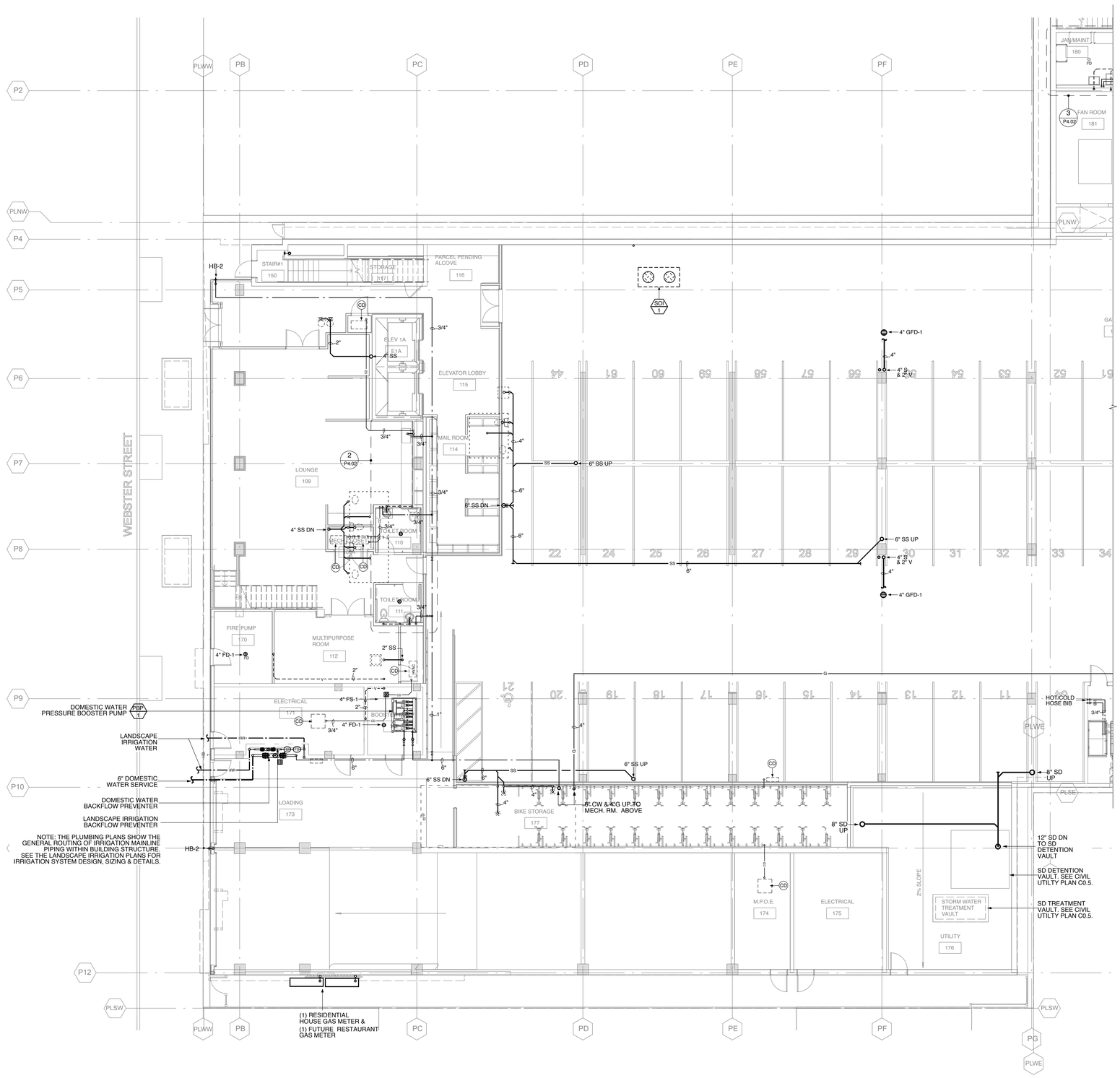

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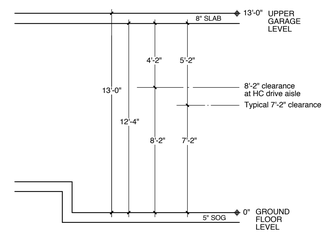

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GROUND FLOOR PLAN - WEST | 1/8"=1'-0" | 1

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GROUND FLOOR PLAN WEST

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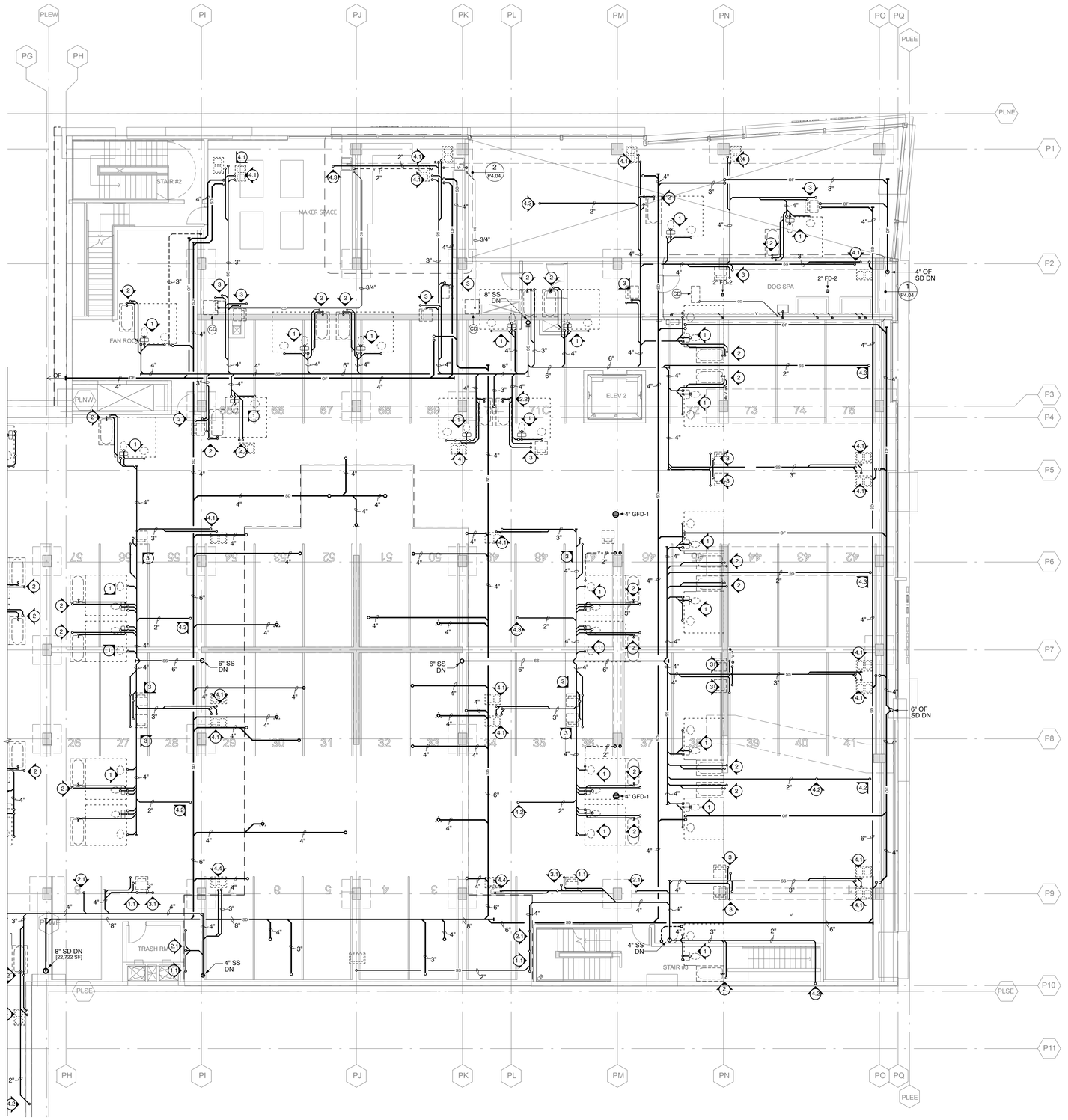

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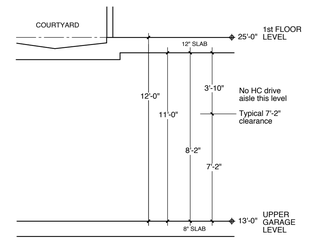

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UPPER GARAGE LEVEL FLOOR PLAN EAST - DRAINAGE PIPING | 1/8"=1'-0" | 1

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UPPER GARAGE LEVEL FLOOR PLAN EAST DRAINAGE PIPING

PROJECT NO: 1132-0018

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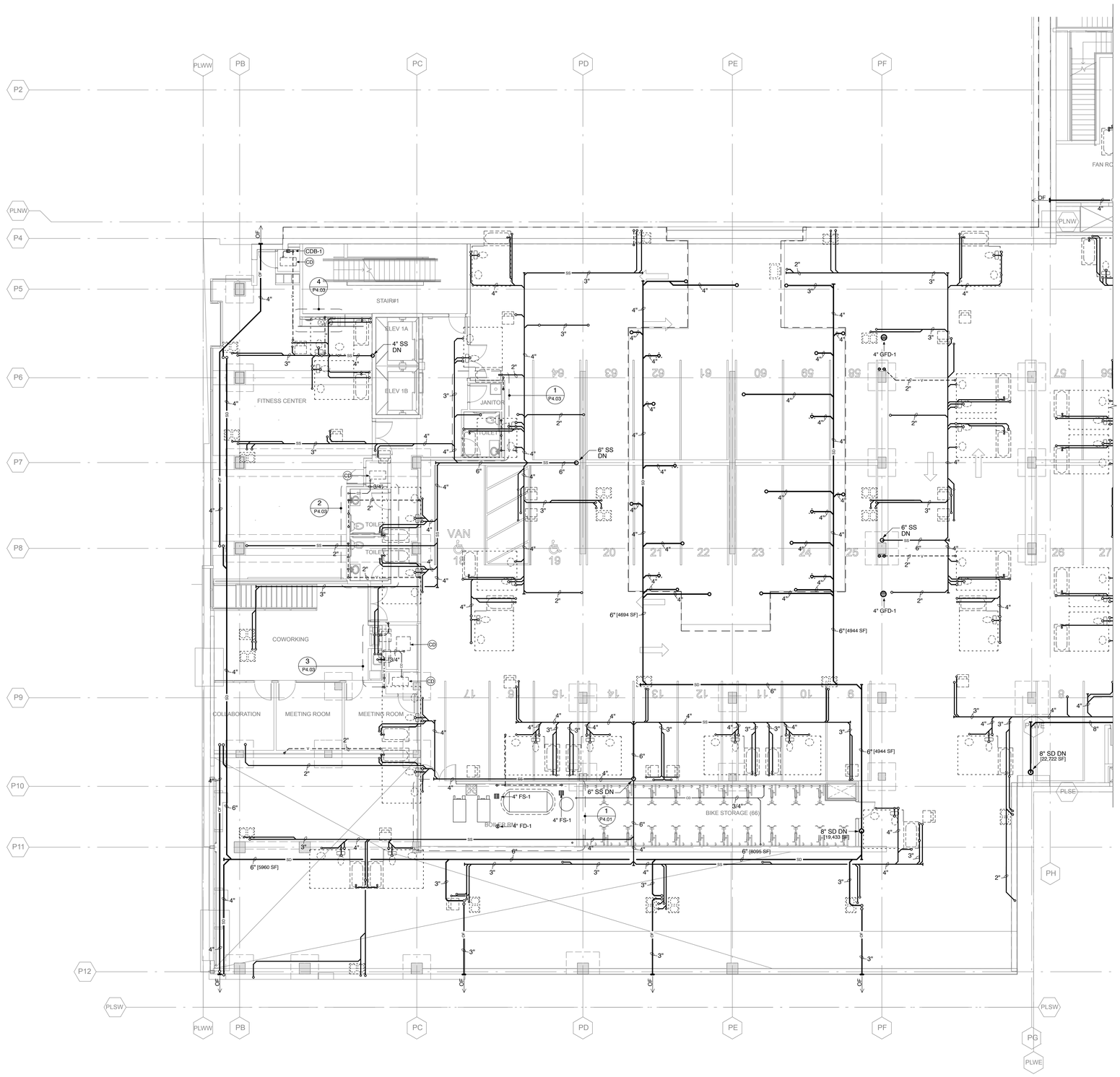

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2. BUILDING STRUCTURAL FOOTINGS AND COLUMN CAPS SHOWN FOR REFERENCE ONLY. SEE STRUCTURAL DWGS. FOR LOCATIONS & DETAILS.
3. PRIOR TO START OF INSTALLATION CONTRACTOR SHALL COORDINATE PIPING LAYOUT AND PROVIDE SPRINKLER DRAINS AS NEEDED BY DESIGN BUILD FIRE PROTECTION CONTRACTOR.
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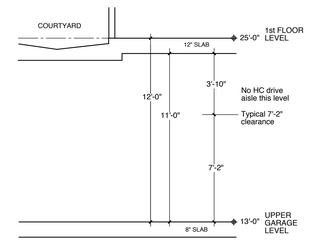
6. PIPING HEIGHT SHALL BE INSTALLED TO MAINTAIN MINIMUM 8'-2" CLEARANCE TO BOTTOM OF PIPE AT HANDICAP VAN DRIVE AISLE & OTHERWISE MINIMUM 7'-2" CLEARANCE TO BOTTOM OF PIPE.

SECTION



PLAN SYMBOLS

- SANITARY SEWER RISER KEY NUMBER SEE SHEETS P5.01 & P5.02.
- DOMESTIC WATER RISER KEY NUMBER SEE SHEETS P6.01 & P6.02.
- DASHED FIXTURES REFERENCE FIXTURES ON FLOOR ABOVE
- EQUIPMENT DESIGNATION
- 3/4" CONDENSATE DRAIN FROM HVAC FAN COIL UNIT TO FIXTURE DRAIN TAILPIECE OR AS SHOWN ON PLANS.

UPPER GARAGE LEVEL FLOOR PLAN WEST - DRAINAGE PIPING | 1/8"=1'-0" | 1

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GMP	03/15/17

REV #	ISSUE	DATE
1	PLAN CHECK RESPONSE #1/GMP	03/15/2017
2	PLAN CHECK RESPONSE #2	05/12/2017
3	ADDENDUM #1	05/12/2017

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CONSULTANT

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jmcinc@me.com 1-888-322-3321

UPPER GARAGE LEVEL FLOOR PLAN WEST DRAINAGE PIPING

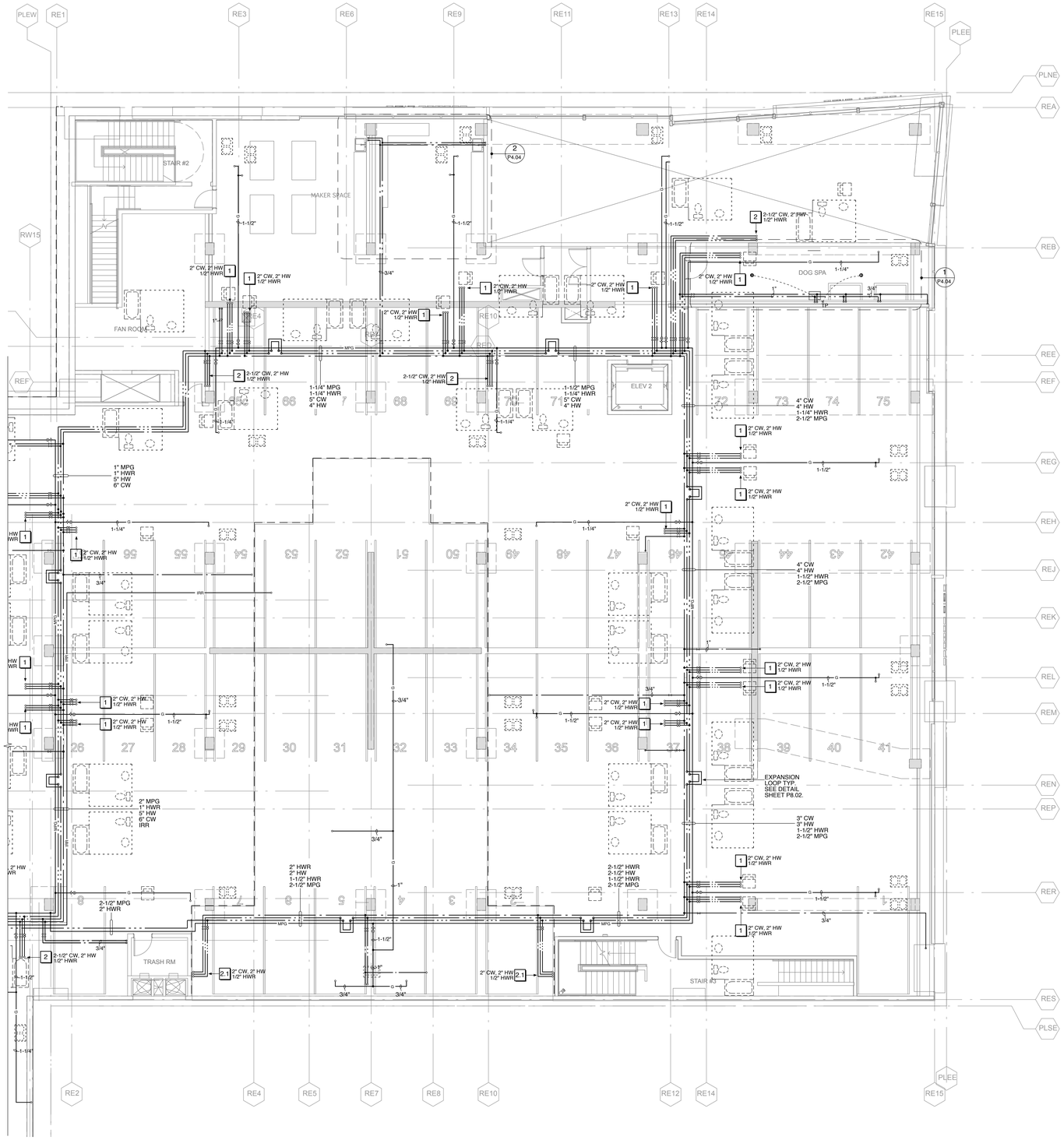
PROJECT NO: 1132-0018

DATE: 05/12/2017

SHEET NO:

P2.03W

PLAN CHECK RESPONSE #2 / ADDENDUM #1



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- DOMESTIC WATER RISER KEY NUMBER SEE SHEETS P6.01 & P6.02.
- DASHED FIXTURES REFERENCE FIXTURES ON FLOOR ABOVE
- EQUIPMENT DESIGNATION

UPPER GARAGE LEVEL FLOOR PLAN EAST - WATER & GAS PIPING | 1/8"=1'-0" | 1

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REGISTERED PROFESSIONAL ENGINEER JAMES J. MOREL No. M 23097 Exp. 9/30/18 MECHANICAL STATE OF CALIFORNIA

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UPPER GARAGE LEVEL FLOOR PLAN EAST WATER & GAS PIPING

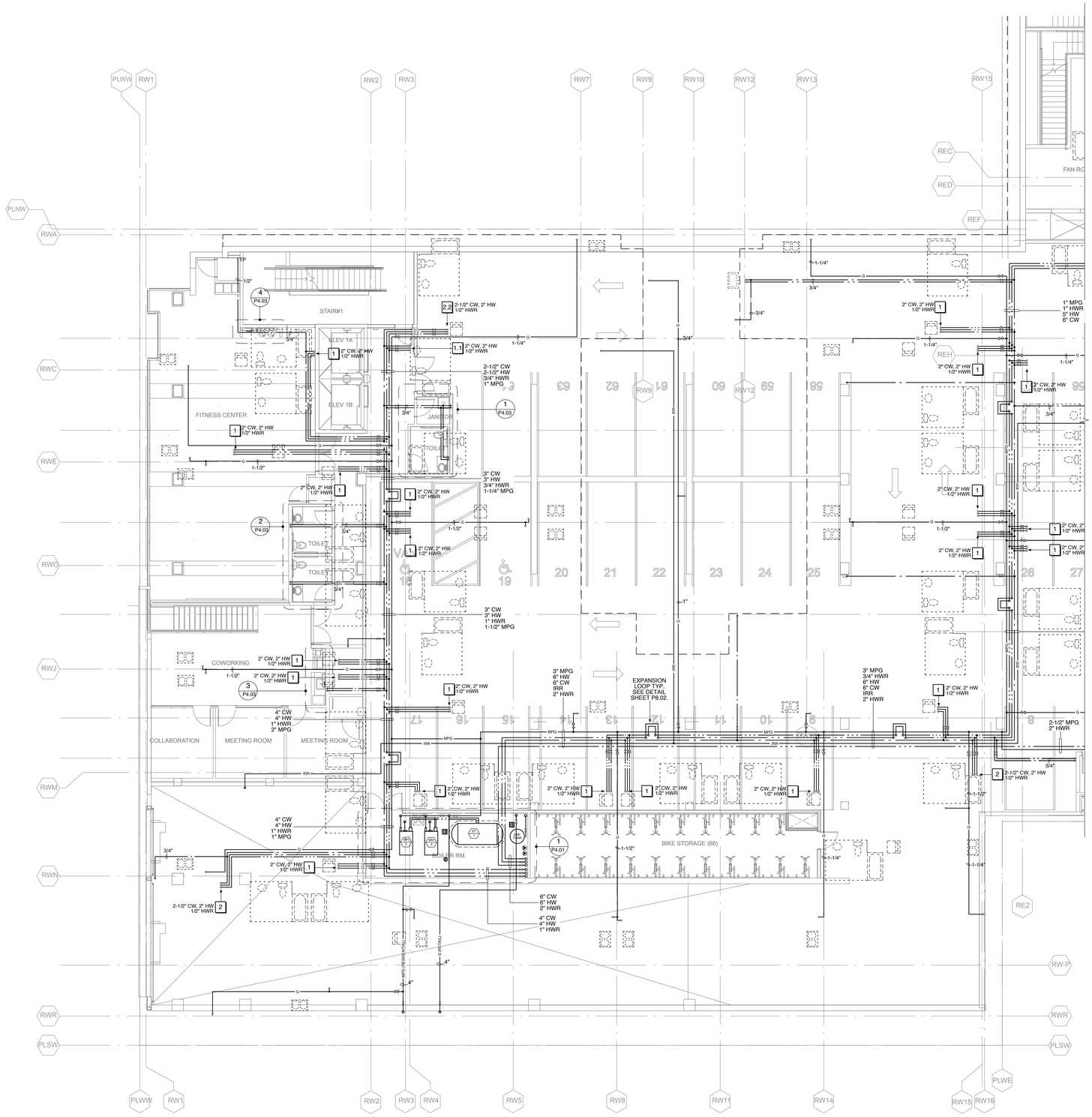
PROJECT NO: 1132-0018

DATE: 05/12/2017

SHEET NO:

P2.04E

PLAN CHECK RESPONSE #2 / ADDENDUM #1



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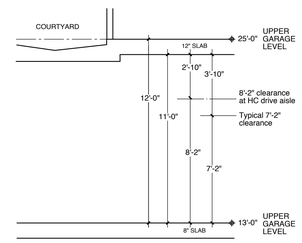

PLAN SYMBOLS

- X — SANITARY SEWER RISER KEY NUMBER SEE SHEETS P5.01 & P5.02.
- X — DOMESTIC WATER RISER KEY NUMBER SEE SHEETS P6.01 & P6.02.
- DASHED FIXTURES REFERENCE FIXTURES ON FLOOR ABOVE
- X/X — EQUIPMENT DESIGNATION

UPPER GARAGE LEVEL FLOOR PLAN WEST - WATER & GAS PIPING | 1/8"=1'-0" | 1

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3	ADDENDUM #1	05/12/2017

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UPPER GARAGE LEVEL FLOOR PLAN WEST WATER & GAS PIPING

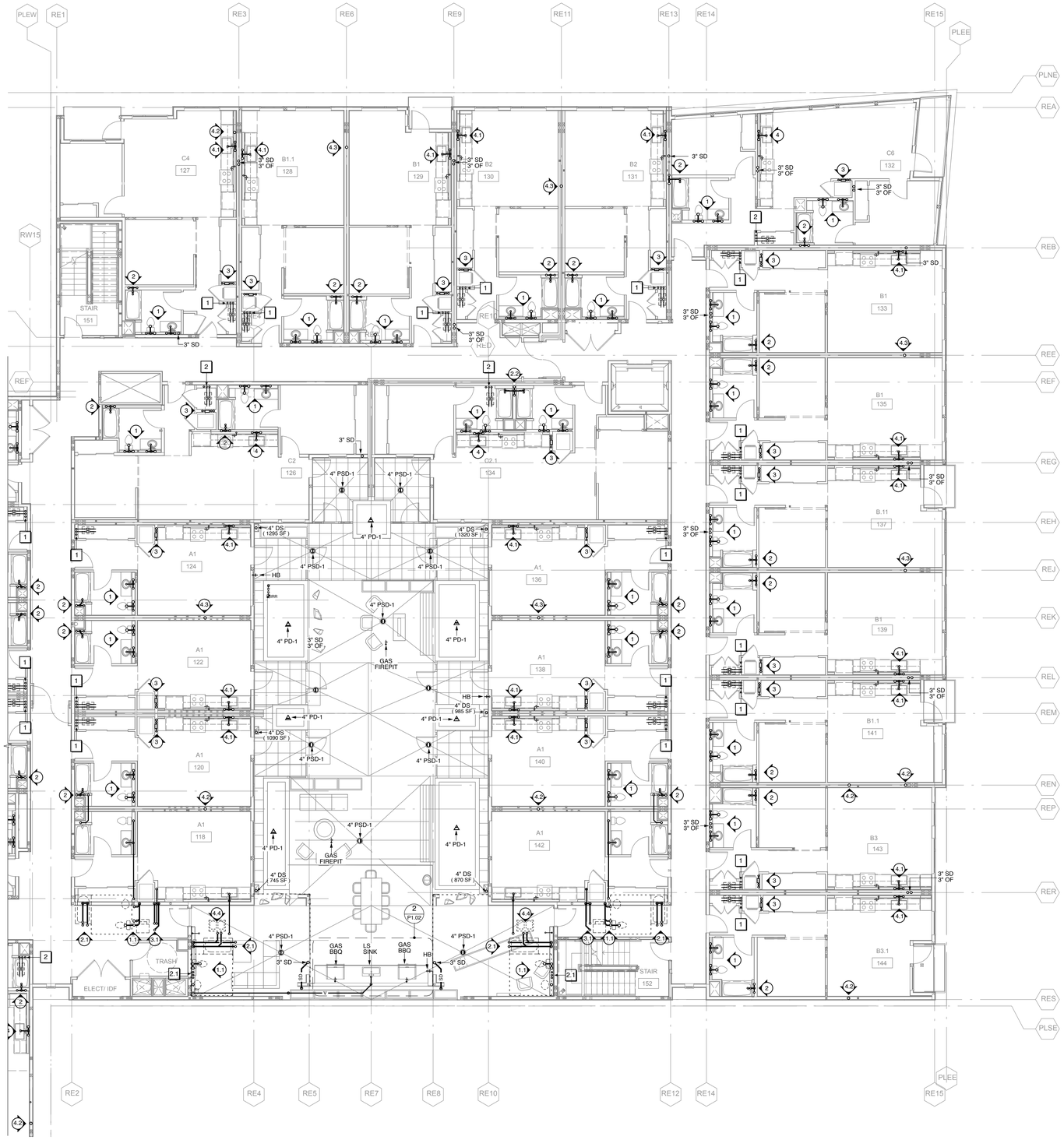
PROJECT NO: 1132-0018

DATE: 05/12/2017

SHEET NO:

P2.04W

PLAN CHECK RESPONSE #2 / ADDENDUM #1



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7. THE CONTRACTOR SHALL EXAMINE ARCH. DRAWINGS & PROVIDE UL LISTED FIRE SEALING AT PIPE PENETRATIONS OF FIRE RATED BUILDING ASSEMBLIES. SEE ARCHITECTURAL PLANS FOR DETAILS.
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PLAN SYMBOLS

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- DOMESTIC WATER RISER KEY NUMBER SEE SHEETS P6.01 & P6.02.
- DASHED FIXTURES REFERENCE FIXTURES ON FLOOR ABOVE
- EQUIPMENT DESIGNATION

FIRST FLOOR PLAN - EAST | 1/8"=1'-0" | 1

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FIRST FLOOR PLAN EAST

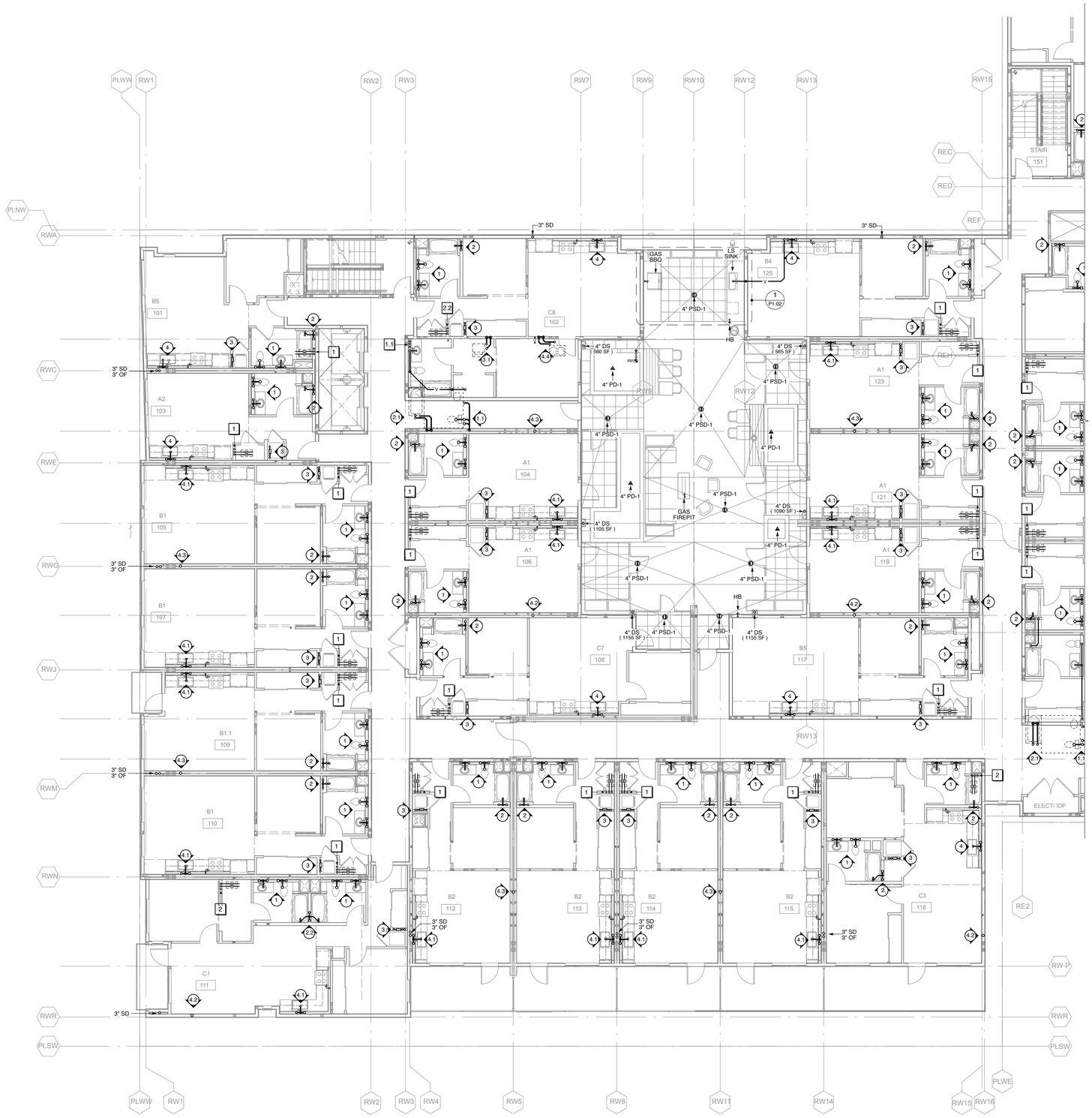
PROJECT NO: 1132-0018

DATE: 05/12/2017

SHEET NO:

P2.05E

PLAN CHECK RESPONSE #2 / ADDENDUM #1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RW2
RW3
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RWE
RWG
RWJ
RWM
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RWR
PLSW
RW-P
RE2
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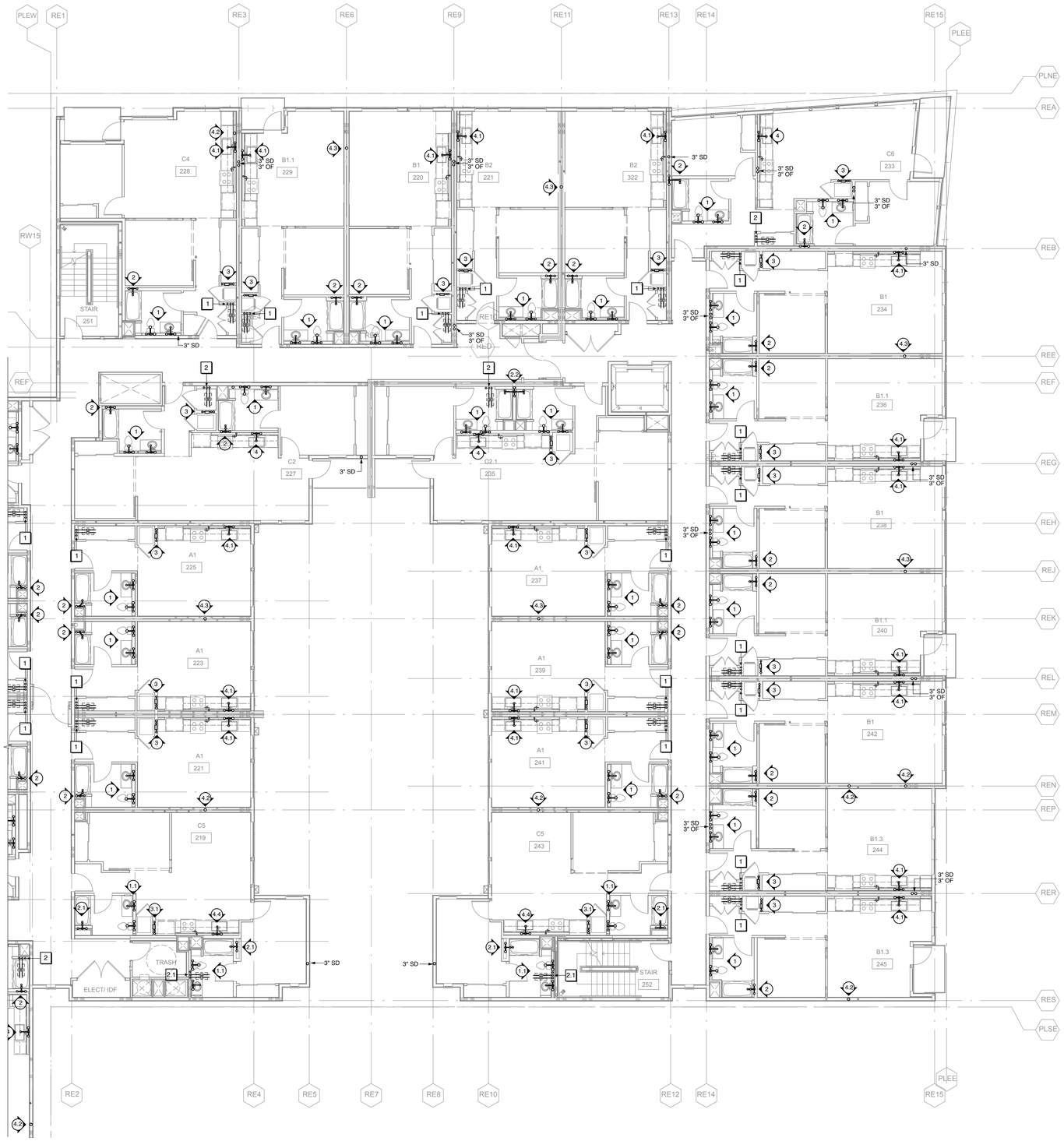

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PLAN SYMBOLS

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- DOMESTIC WATER RISER KEY NUMBER SEE SHEETS P6.01 & P6.02.
- DASHED FIXTURES REFERENCE FIXTURES ON FLOOR ABOVE
- EQUIPMENT DESIGNATION

SECOND FLOOR PLAN - EAST | 1/8"=1'-0" | 1

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SECOND FLOOR PLAN EAST

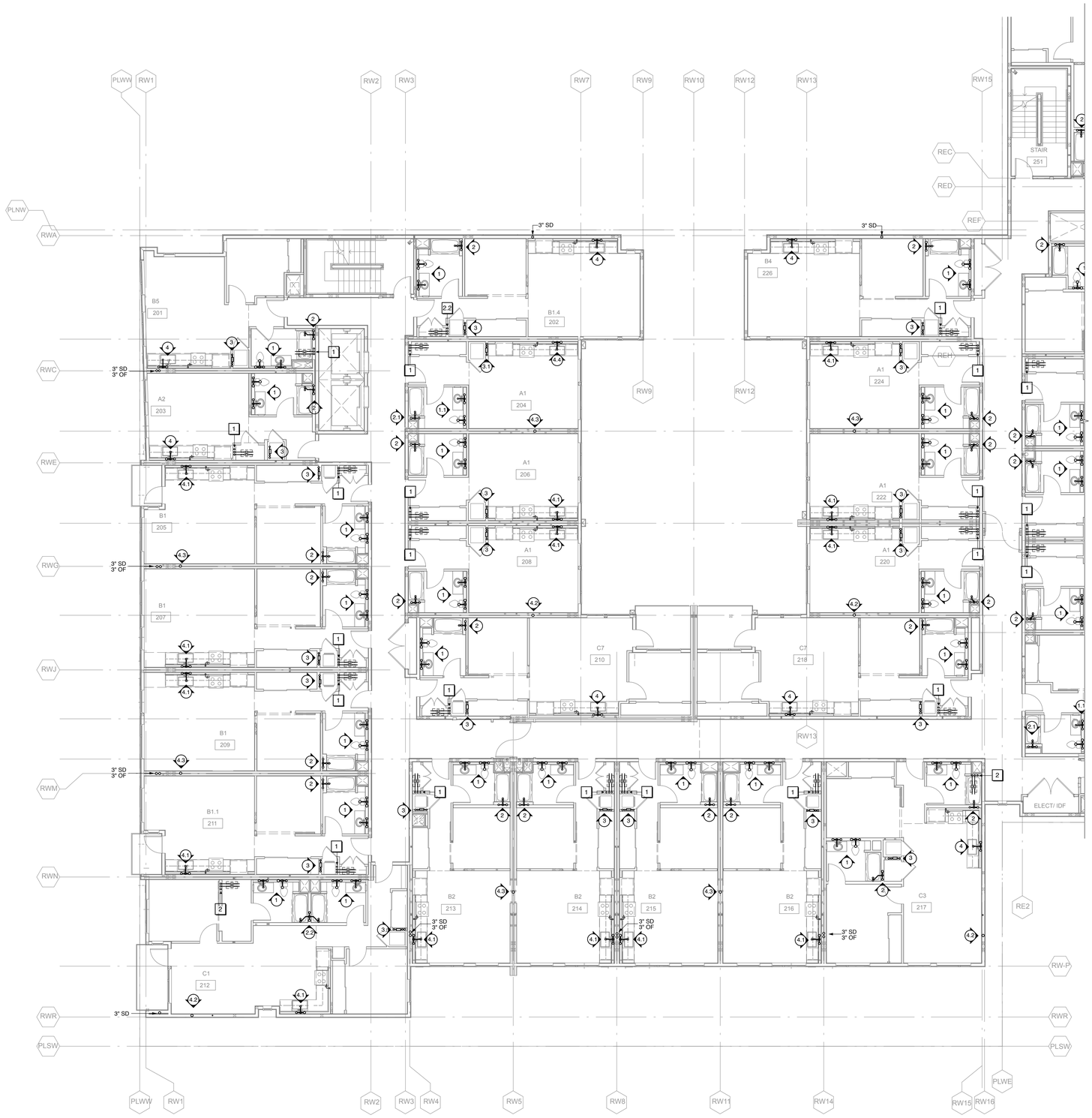
PROJECT NO: 1132-0018

DATE: 05/12/2017

SHEET NO:

P2.06E

PLAN CHECK RESPONSE #2 / ADDENDUM #1



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SECOND FLOOR PLAN - WEST | 1/8"=1'-0" | 1

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SECOND FLOOR PLAN WEST

PROJECT NO: 1132-0018

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SHEET NO:

P2.06W

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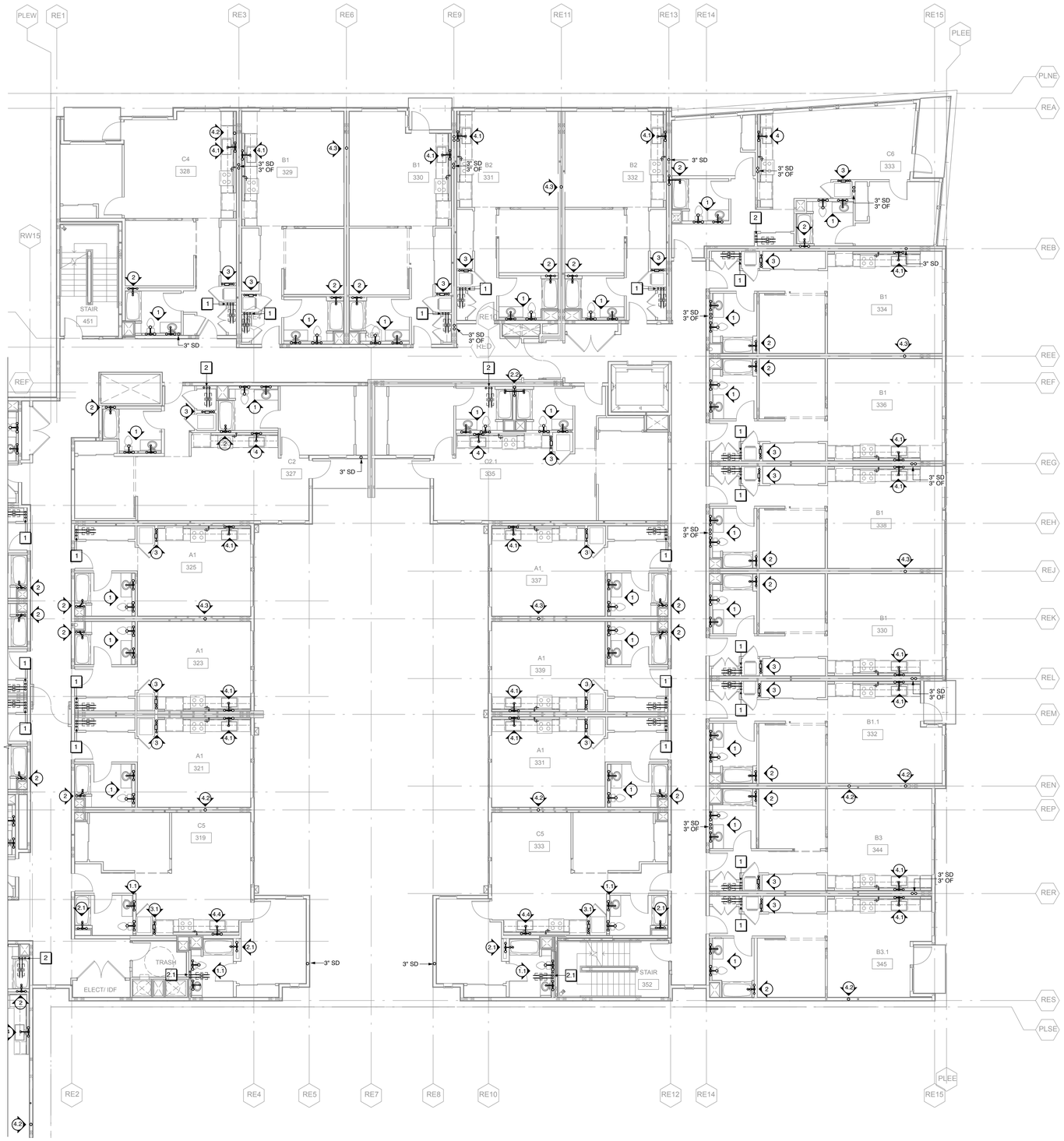

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- EQUIPMENT DESIGNATION

THIRD FLOOR PLAN - EAST | 1/8"=1'-0" | 1

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100% DD PRICING SET	10/06/16
95% CD	12/08/16
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REV #	ISSUE	DATE
1	PLAN CHECK RESPONSE #1/GMP	03/15/2017
2	PLAN CHECK RESPONSE #2	05/12/2017
3	ADDENDUM #1	05/12/2017

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612 Kentucky Street Lawrence, KS 66044
jmcinc@me.com 1-888-322-3321

THIRD FLOOR PLAN EAST

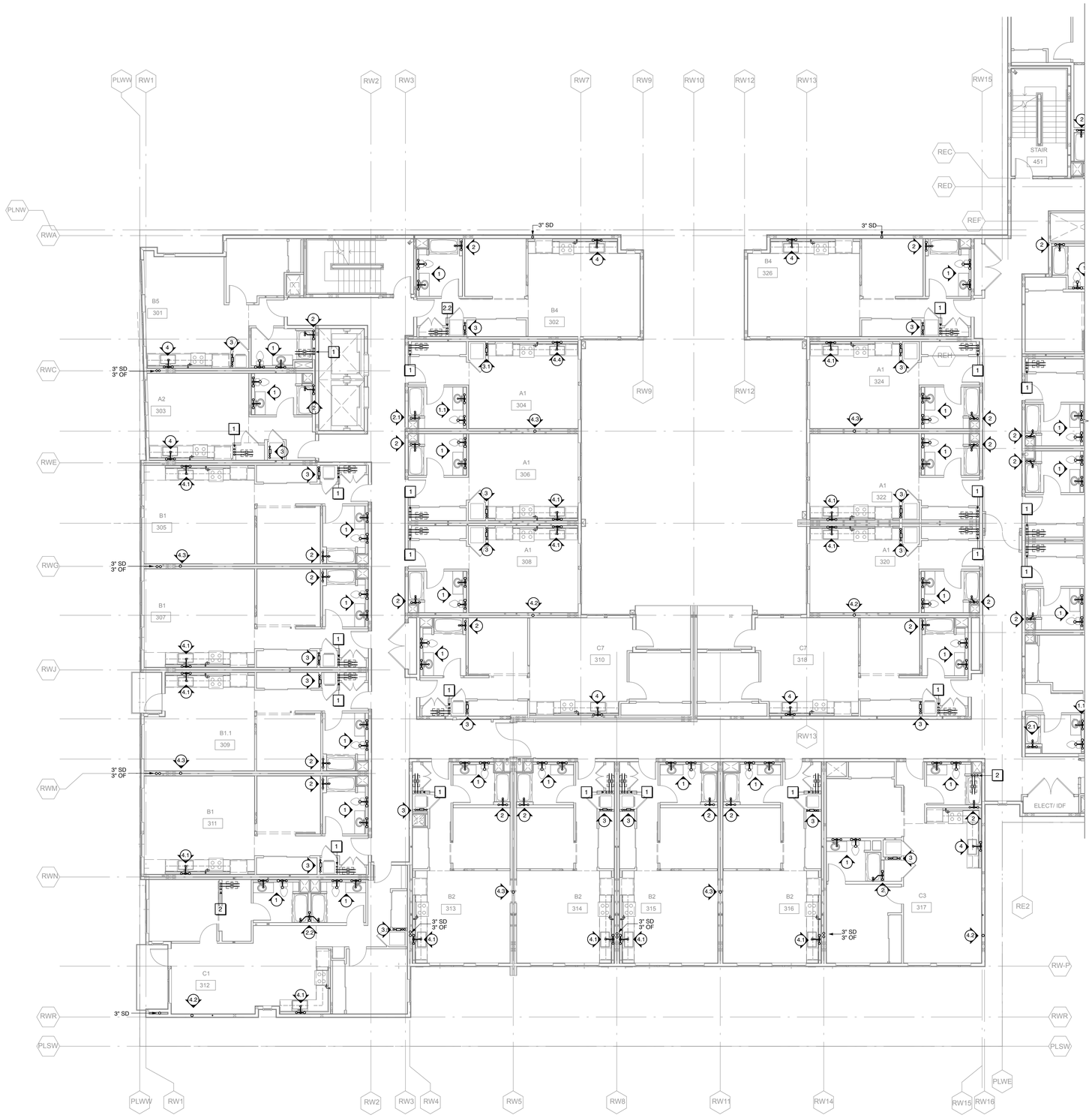
PROJECT NO: 1132-0018

DATE: 05/12/2017

SHEET NO:

P2.07E

PLAN CHECK RESPONSE #2 / ADDENDUM #1



GENERAL NOTES

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PLAN SYMBOLS

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- DOMESTIC WATER RISER KEY NUMBER SEE SHEETS P6.01 & P6.02.
- DASHED FIXTURES REFERENCE FIXTURES ON FLOOR ABOVE
- EQUIPMENT DESIGNATION

THIRD FLOOR PLAN - WEST | 1/8"=1'-0" | 1

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THIRD FLOOR PLAN WEST

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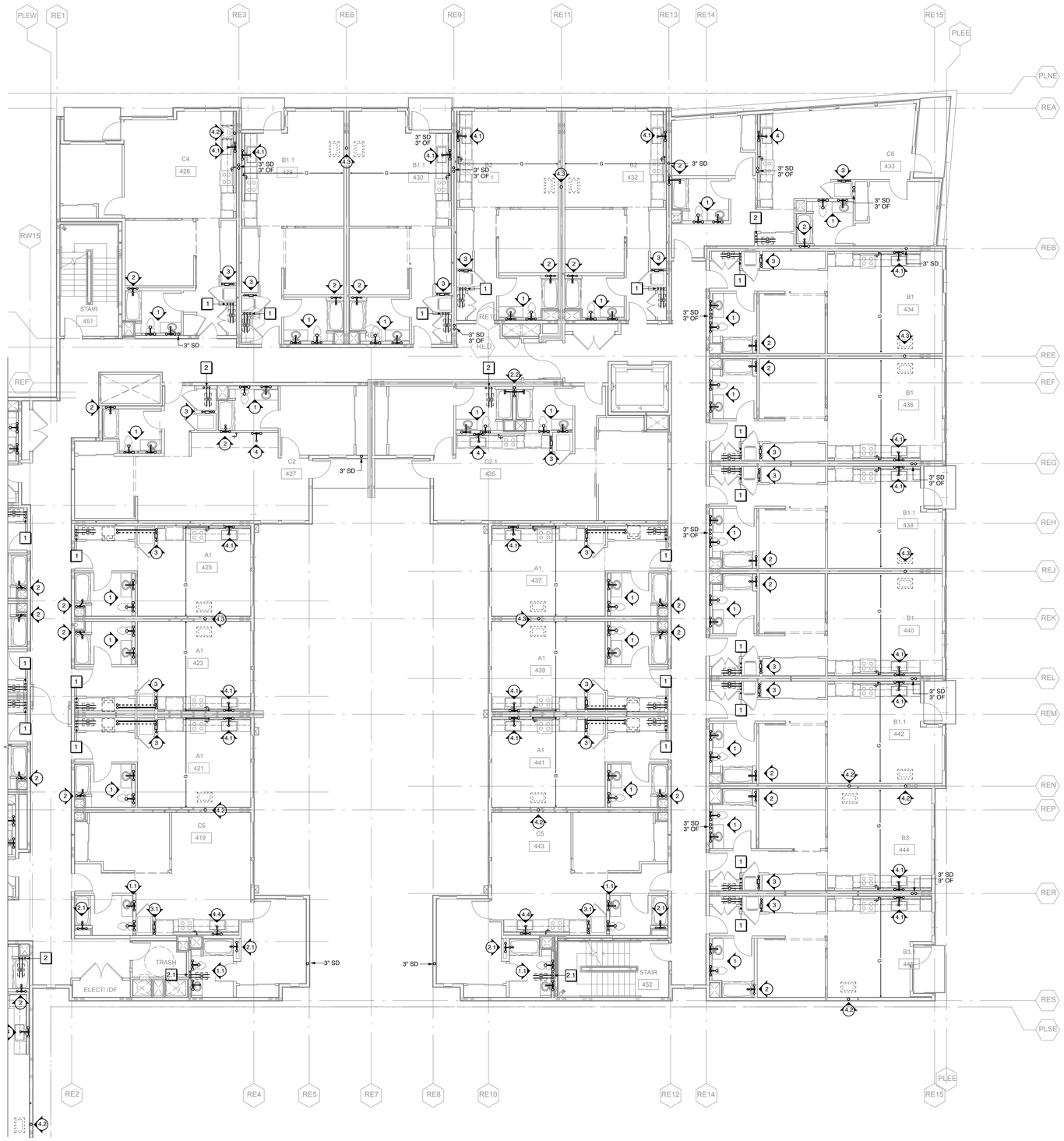

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FOURTH FLOOR PLAN - EAST | 1/8"=1'-0" | 1

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FOURTH FLOOR PLAN EAST

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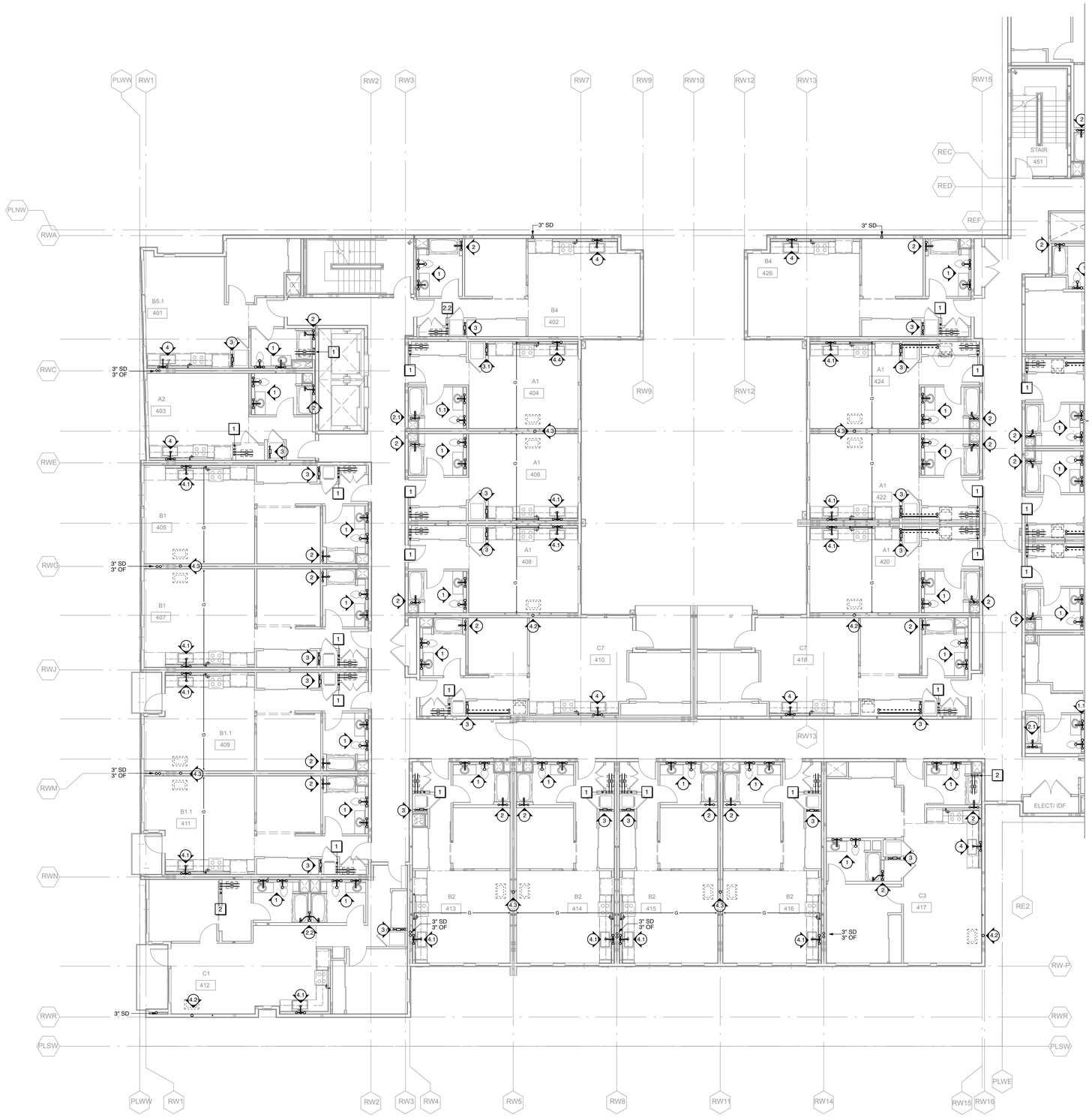

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FOURTH FLOOR PLAN - WEST | 1/8"=1'-0" | 1

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FOURTH FLOOR PLAN WEST

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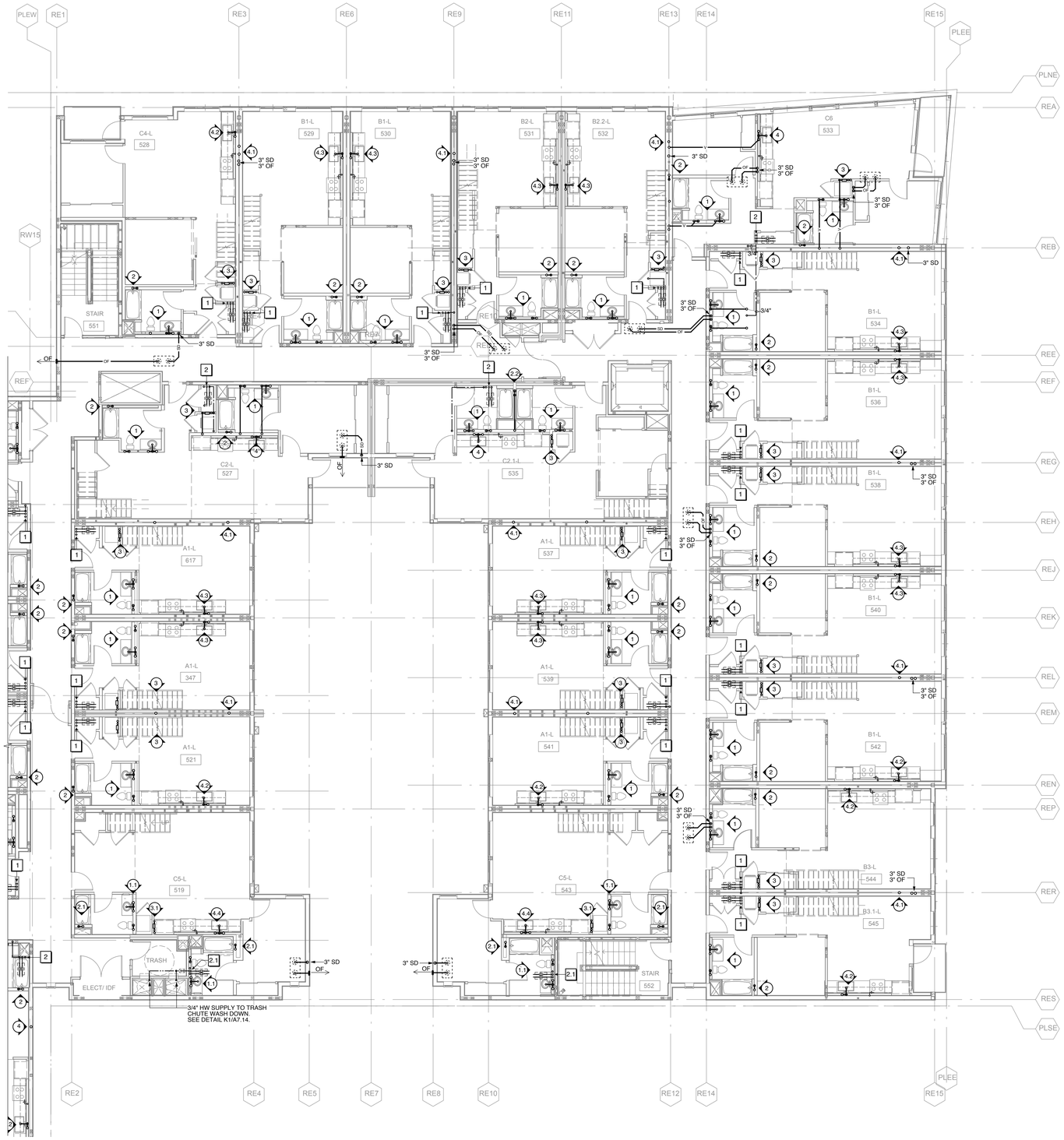

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FIFTH FLOOR PLAN - EAST | 1/8"=1'-0" | 1

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FIFTH FLOOR PLAN EAST

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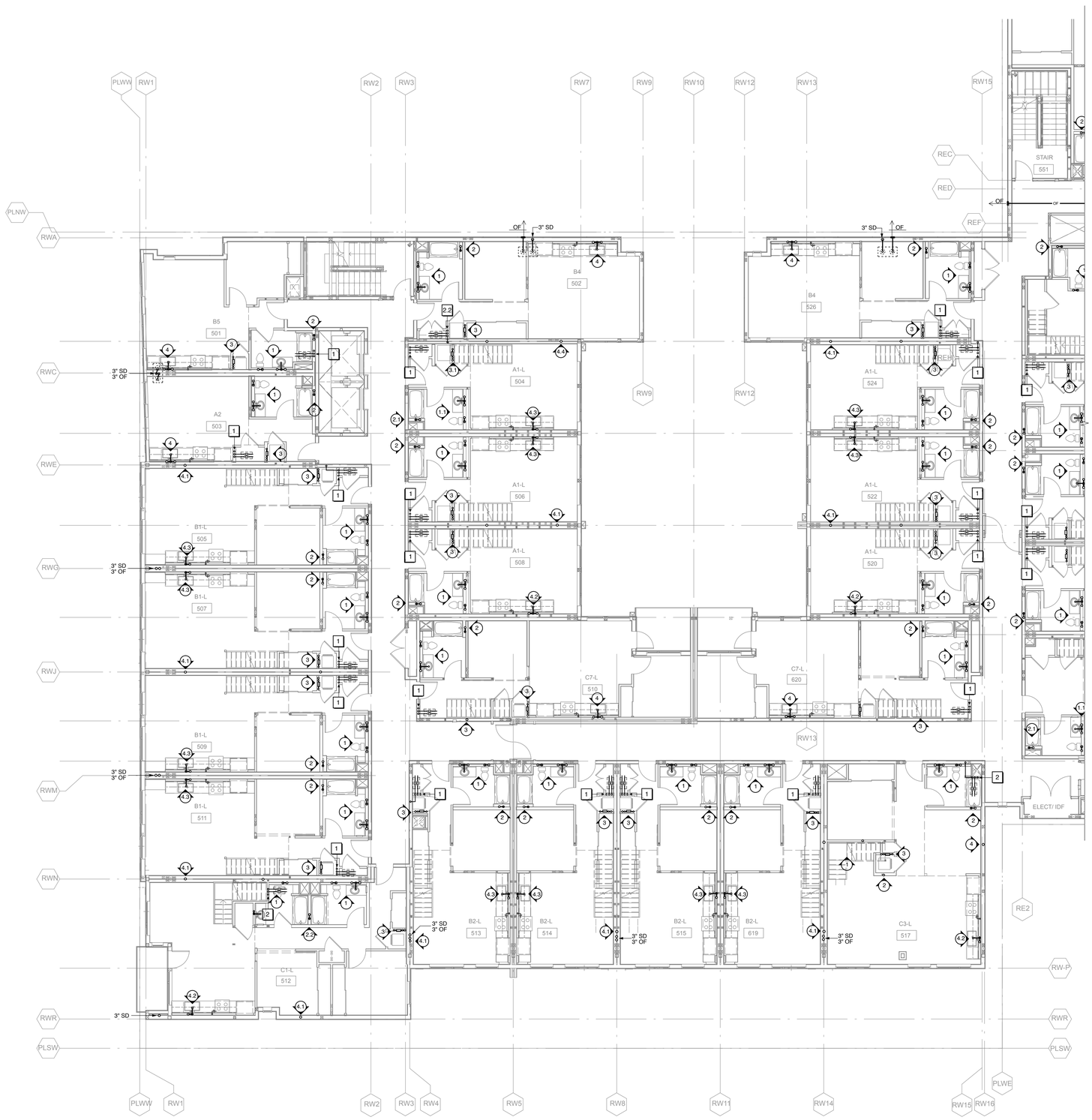

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FIFTH FLOOR PLAN - WEST | 1/8"=1'-0" | 1

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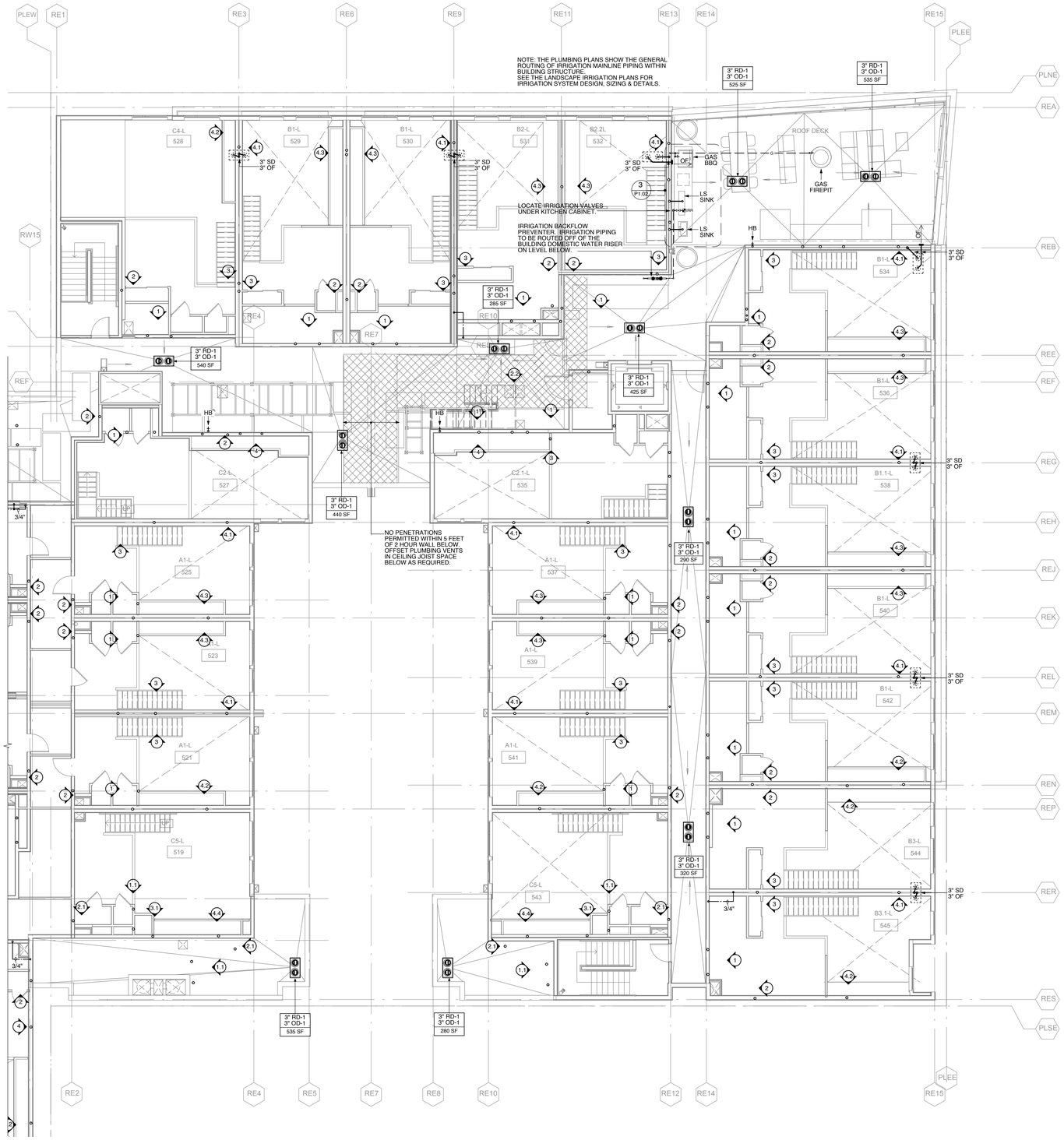

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MEZZANINE FLOOR PLAN - EAST | 1/8"=1'-0" | 1

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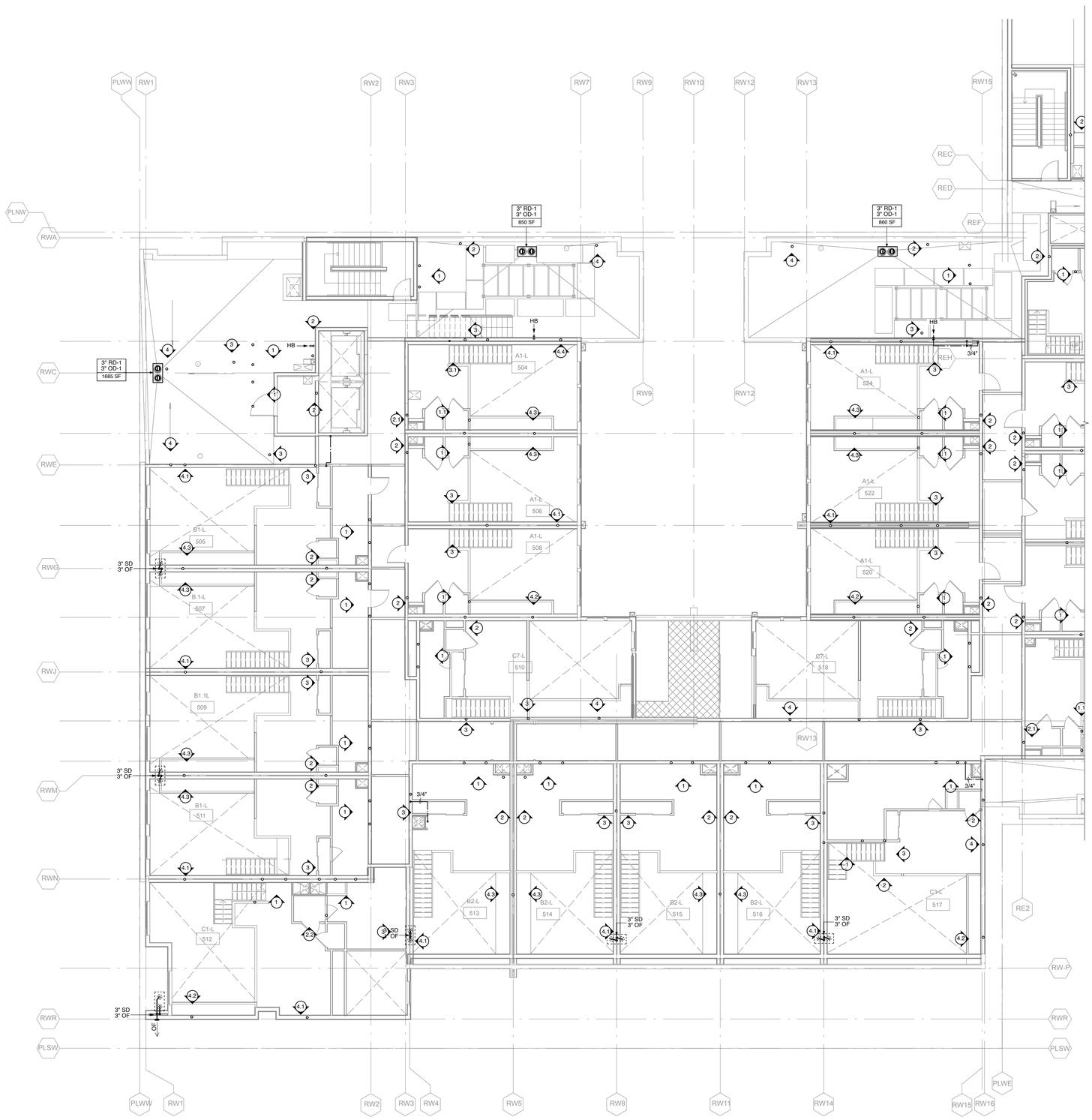

MEZZANINE FLOOR PLAN - WEST | 1/8"=1'-0" | 1

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6. VERTICAL AND HORIZONTAL OFFSETS SHOWN IN PIPES INDICATE THE GENERAL RELATIONSHIP OF THE SYSTEMS. PROVIDE ADDITIONAL OFFSETS SIMILAR TO THOSE SHOWN AS REQUIRED TO SUIT CONSTRUCTION AND WORK DONE BY OTHER TRADES.
7. THE CONTRACTOR SHALL EXAMINE ARCH. DRAWINGS & PROVIDE UL LISTED FIRE SEALING AT PIPE PENETRATIONS OF FIRE RATED BUILDING ASSEMBLIES. SEE ARCHITECTURAL PLANS FOR DETAILS.
8. ALL WATER PIPING & DRAINAGE PIPING SYSTEMS SHALL BE INSTALLED WITH ACOUSTICAL ISOLATORS AND SHALL BE ISOLATED FROM ANY STRUCTURAL MEMBERS, WALL SECTIONS OR OTHER MATERIALS THAT COULD TRANSMIT SOUND TO THE OCCUPIED AREAS.

PLAN SYMBOLS

- SANITARY SEWER RISER KEY NUMBER SEE SHEETS P5.01 & P5.02.
- DOMESTIC WATER RISER KEY NUMBER SEE SHEETS P6.01 & P6.02.
- DASHED FIXTURES REFERENCE FIXTURES ON FLOOR ABOVE
- EQUIPMENT DESIGNATION

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Oakland, CA

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95% CD	12/08/16
GMP	03/15/17

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1	PLAN CHECK RESPONSE #1/GMP	03/15/2017
2	PLAN CHECK RESPONSE #2	05/12/2017
3	ADDENDUM #1	05/12/2017

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CONSULTANT

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612 Kentucky Street Lawrence, KS 66044
jmcinc@me.com 1-888-322-3321

MEZZANINE FLOOR PLAN WEST

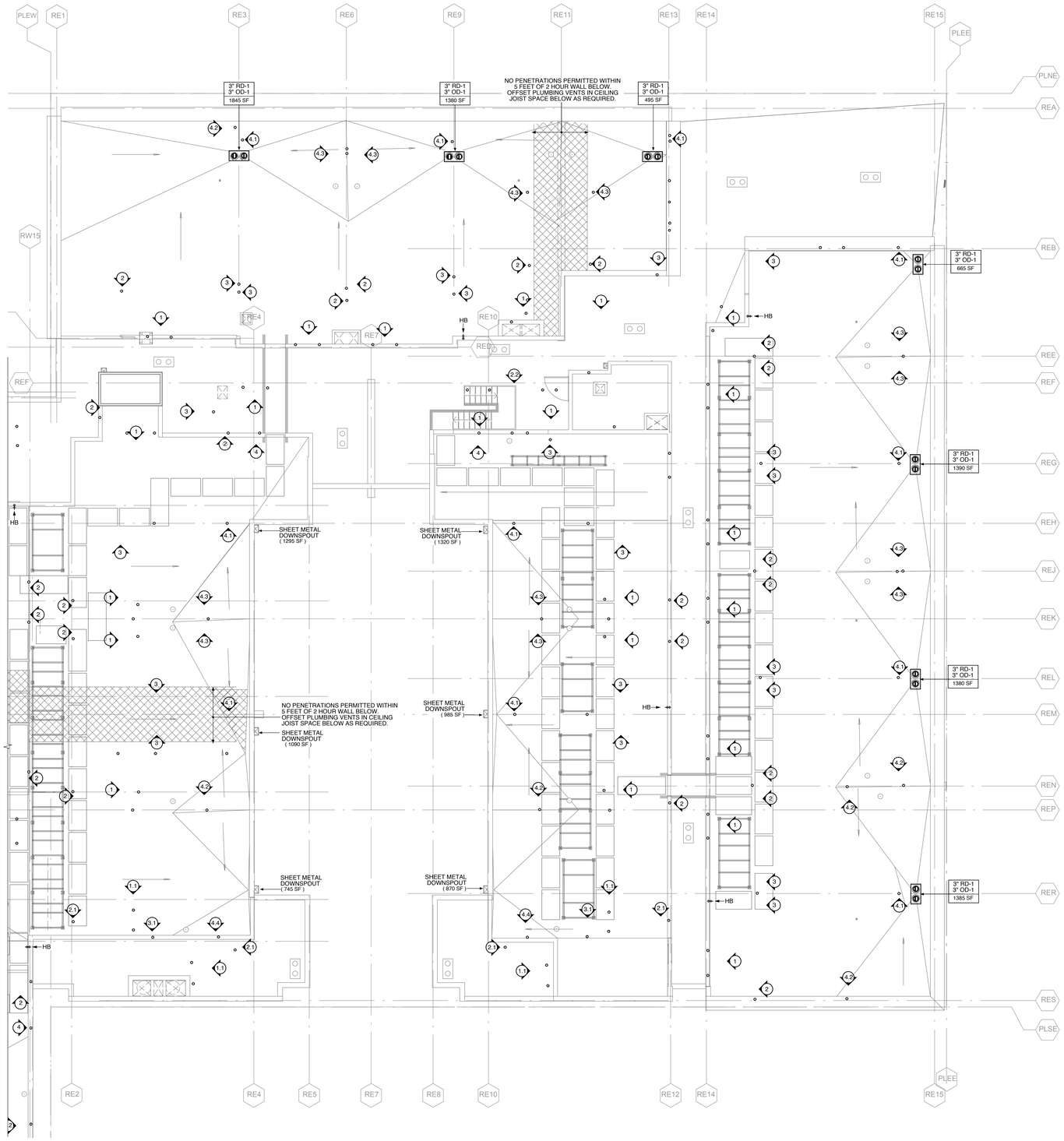
PROJECT NO: 1132-0018

DATE: 05/12/2017

SHEET NO:

P2.10W

PLAN CHECK RESPONSE #2 / ADDENDUM #1



ROOF FLOOR PLAN - EAST | 1/8"=1'-0" | 1

GENERAL NOTES

1. SEE ARCHITECTURAL DRAWINGS FOR EXACT PLAN LOCATION AND MOUNTING HEIGHTS OF PLUMBING FIXTURES
2. SEE STRUCTURAL PLANS FOR FRAMING LAYOUT AND DETAILS. CONTRACTOR SHALL COORDINATE SPECIAL JOIST SPACING OR BLOCKOUT CONDITIONS THAT MAY BE REQUIRED FOR PLUMBING INSTALLATION WORK.
3. PRIOR TO START OF INSTALLATION, CONTRACTOR SHALL COORDINATE PIPING LAYOUT AND PROVIDE SPRINKLER DRAINS AS NEEDED BY DESIGN BUILD FIRE PROTECTION CONTRACTOR.
4. ALL 4" & LARGER PIPING SEWER & STORM DRAIN PIPING SHALL HAVE A MINIMUM 1% SLOPE. ALL 3" & SMALLER PIPING SHALL HAVE MINIMUM 2% SLOPE.
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PLAN SYMBOLS

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- EQUIPMENT DESIGNATION

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ROOF PLAN EAST

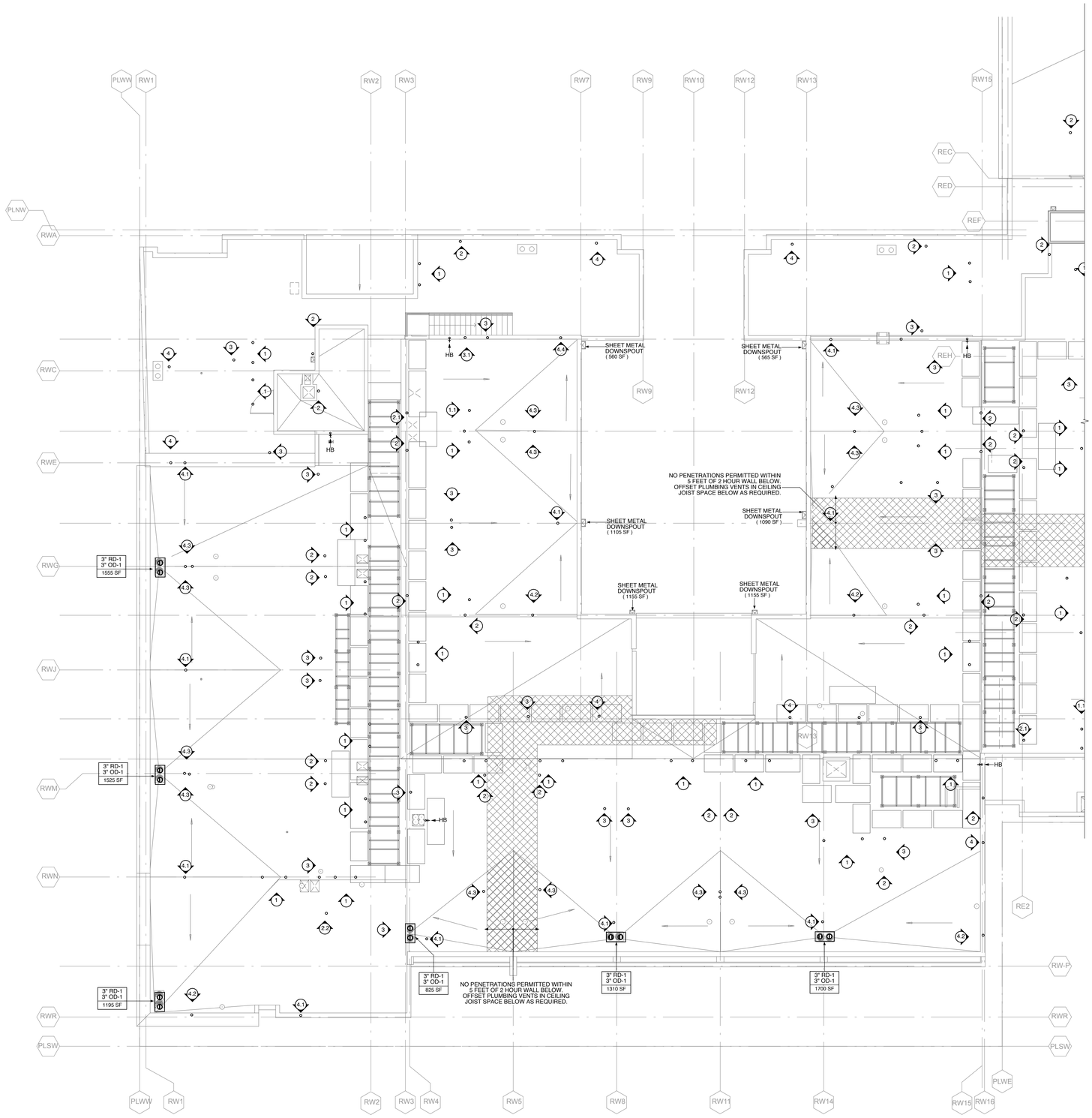
PROJECT NO: 1132-0018

DATE: 05/12/2017

SHEET NO:

P2.11E

PLAN CHECK RESPONSE #2 / ADDENDUM #1



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- EQUIPMENT DESIGNATION

ROOF FLOOR PLAN - WEST | 1/8"=1'-0" | 1

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ROOF PLAN WEST

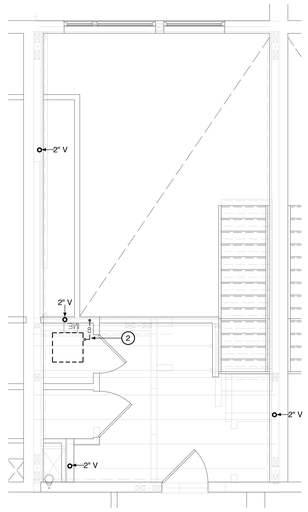
PROJECT NO: 1132-0018

DATE: 05/12/2017

SHEET NO:

P2.11W

PLAN CHECK RESPONSE #2 / ADDENDUM #1



MEZZANINE - UNIT A1-L
1/4" = 1'-0"

2

SHEET NOTES

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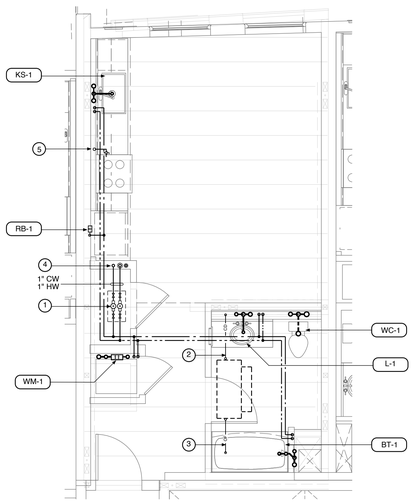
KEY NOTES

1. UNIT CW & HW SUBMETERS & SHUT OFF VALVE WITH CEILING ACCESS PANEL. SUBMETERS ARE TO BE PROVIDED BY OWNER & INSTALLED BY PLUMBING CONTRACTOR.
2. 3/4" PRIMARY CONDENSATE DRAIN FROM HVAC FAN COIL UNIT. PROVIDE CD PIPING TO LAVATORY DRAIN TAILPIECE OR WASHING MACHINE BOX DRAIN AS SHOWN ON PLANS.
3. 3/4" SECONDARY (OVERFLOW) CONDENSATE DRAIN FROM FURRED CEILING MOUNTED HVAC UNITS SHALL DAYLIGHT THRU CEILING OVER BATHTUB, OTHER FIXTURE OR EXTERIOR GRADE AS NOTED.
4. CW, HW & HWR MAIN PIPING RISERS. SEE RISER SCHEMATIC SHEETS P6.01 & P6.02.
5. PROVIDE GAS PIPE CONNECTION & SHUT-OFF VALVE TO UNIT KITCHEN RANGE.

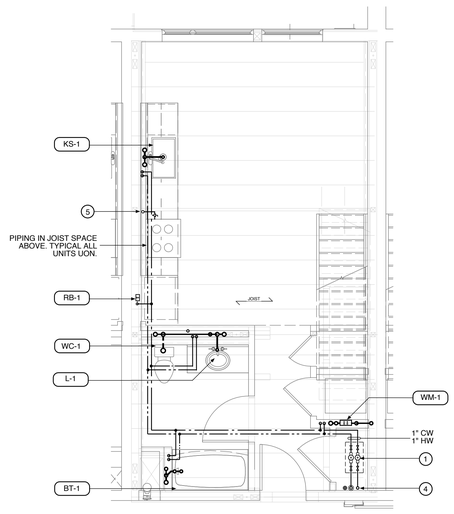
UNIT PIPE SIZING SUMMARY NOTES

UNIT BATH TYPE	UNIT CW / HW FIXTURE UNITS	UNIT CW / HW GPM	CPVC CW / HW SIZE
1 BATH UNITS	CW: 11 FU HW: 8 FU	CW: 9 GPM HW: 7 GPM	CW: 1" HW: 1"
2 BATH UNITS	CW: 17 FU HW: 12 FU	CW: 13 GPM HW: 10 GPM	CW: 1-1/4" HW: 1"



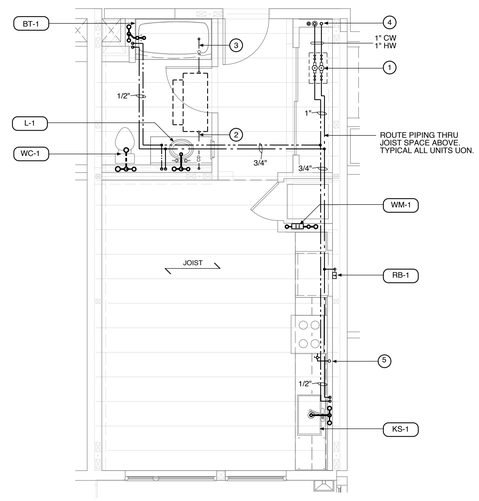
2ND FLOOR LEVEL - UNIT A2
1/4" = 1'-0"

4



FIFTH FLOOR LEVEL - UNIT A1-L
1/4" = 1'-0"

3



2ND FLOOR LEVEL - UNIT A1
1/4" = 1'-0"

1

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No. M 23097
Exp. 9/30/18
MECHANICAL
STATE OF CALIFORNIA

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CONSULTANT

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UNIT TYPE A FLOOR PLANS

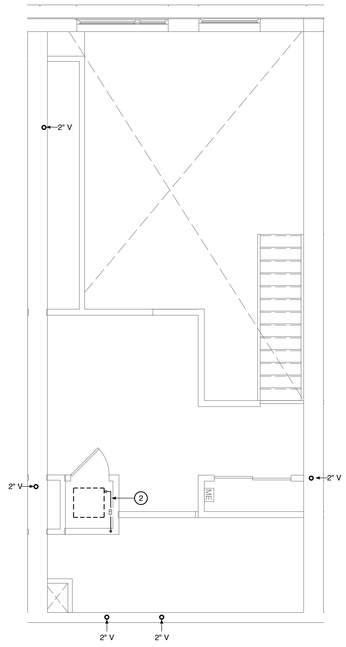
PROJECT NO: 1132-0018

DATE: 05/12/2017

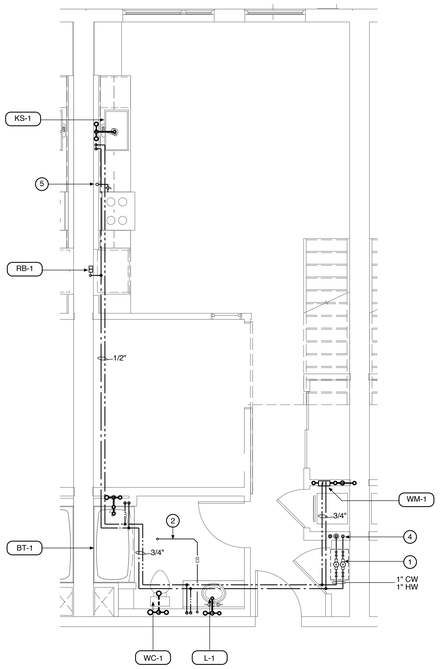
SHEET NO:

P3.01

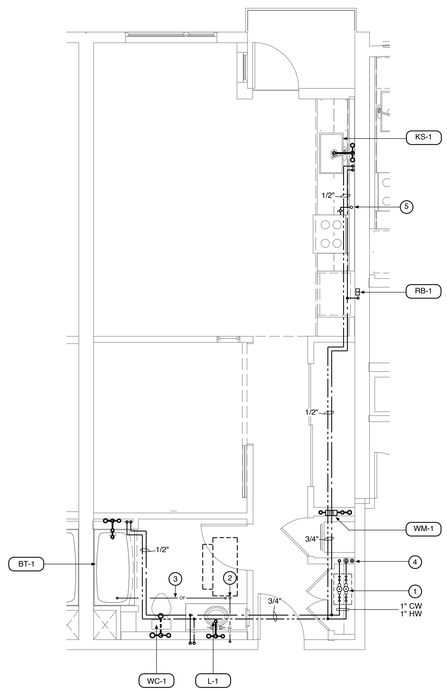
PLAN CHECK RESPONSE #2 / ADDENDUM #1



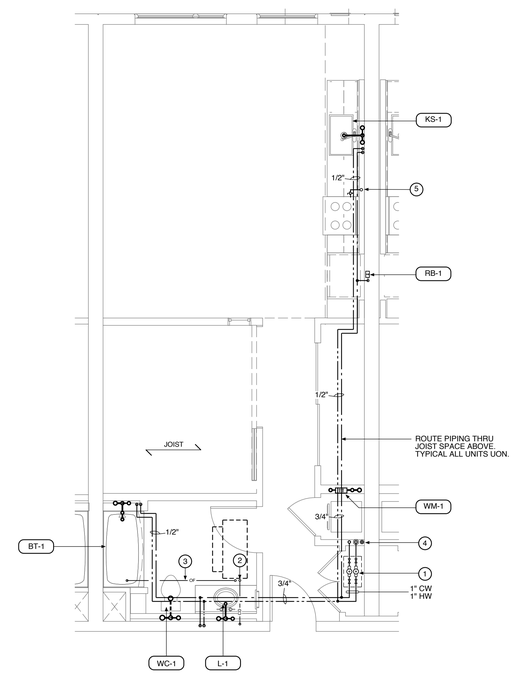
MEZZANINE - UNIT B1-L
1/4" = 1'-0"
3



UNIT B1-L
1/4" = 1'-0"
4



UNIT B1.1 & B3.1
1/4" = 1'-0"
2



UNIT B1, B2 & B3
1/4" = 1'-0"
1

SHEET NOTES

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KEY NOTES

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5. PROVIDE GAS PIPE CONNECTION & SHUT-OFF VALVE TO UNIT KITCHEN RANGE.

UNIT PIPE SIZING SUMMARY NOTES

UNIT BATH TYPE	UNIT CW / HW FIXTURE UNITS	UNIT CW / HW GPM	CPVC CW / HW SIZE
1 BATH UNITS	CW: 11 FU HW: 8 FU	CW: 9 GPM HW: 7 GPM	CW: 1" HW: 1"
2 BATH UNITS	CW: 17 FU HW: 12 FU	CW: 13 GPM HW: 10 GPM	CW: 1-1/4" HW: 1"

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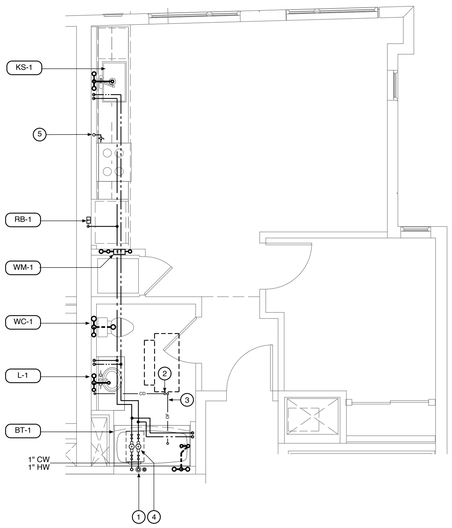
UNIT TYPE B FLOOR PLANS

PROJECT NO: 1132-0018
DATE: 05/12/2017

SHEET NO:

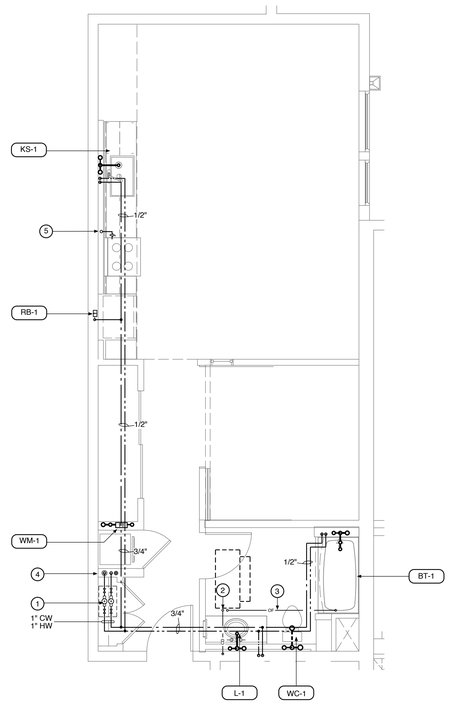
P3.02

PLAN CHECK RESPONSE #2 / ADDENDUM #1



UNIT B5.1
1/4" = 1'-0"

4



UNIT B6
1/4" = 1'-0"

2

B3.1 SIMILAR TO B1.1

SHEET NOTES

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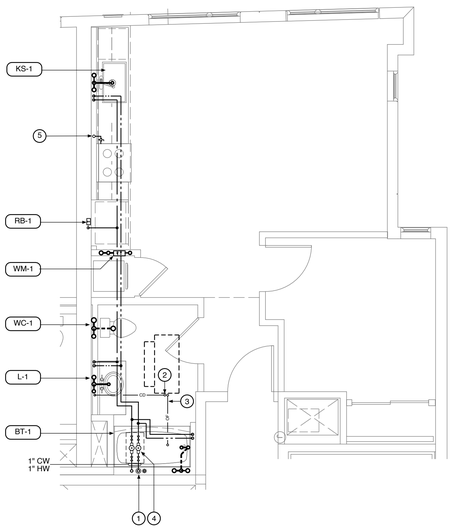
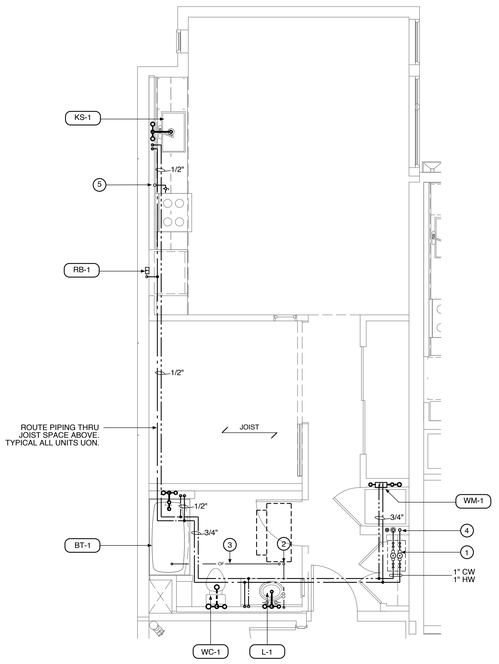
1 BATH UNITS	CW: 11 FU HW: 8 FU	CW: 9 GPM HW: 7 GPM	CW: 1" HW: 1"
2 BATH UNITS	CW: 17 FU HW: 12 FU	CW: 13 GPM HW: 10 GPM	CW: 1-1/4" HW: 1"



UNIT B5
1/4" = 1'-0"

3



UNIT B4
1/4" = 1'-0"

1

B3 SIMILAR TO B1 AND B2

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1	PLAN CHECK RESPONSE #1/GMP	03/15/2017
2	PLAN CHECK RESPONSE #2	05/12/2017
3	ADDENDUM #1	05/12/2017

REGISTERED PROFESSIONAL ENGINEER
JAMES J. MOREL
No. M 23097
Exp. 9/30/18
MECHANICAL
STATE OF CALIFORNIA

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CONSULTANT

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612 Kentucky Street Lawrence, KS 66044
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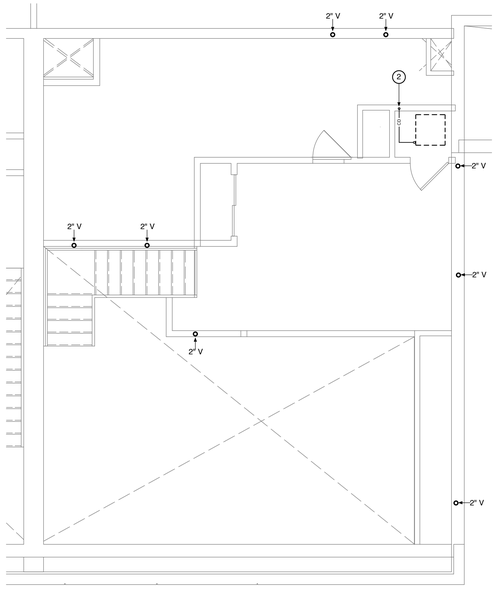
UNIT TYPE B FLOOR PLANS

PROJECT NO: 1132-0018
DATE: 05/12/2017

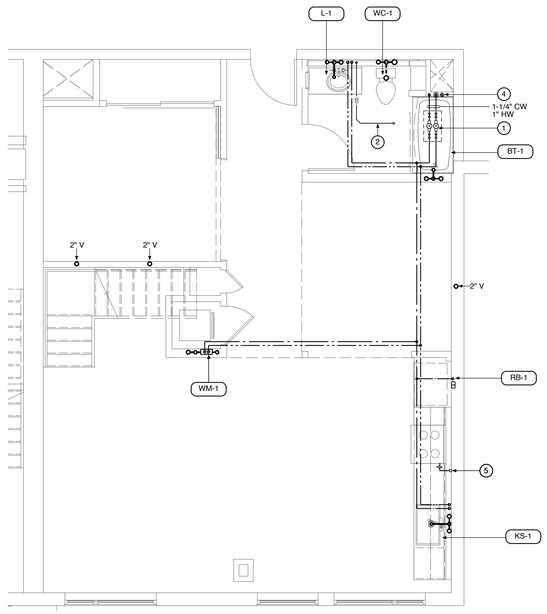
SHEET NO:

P3.03

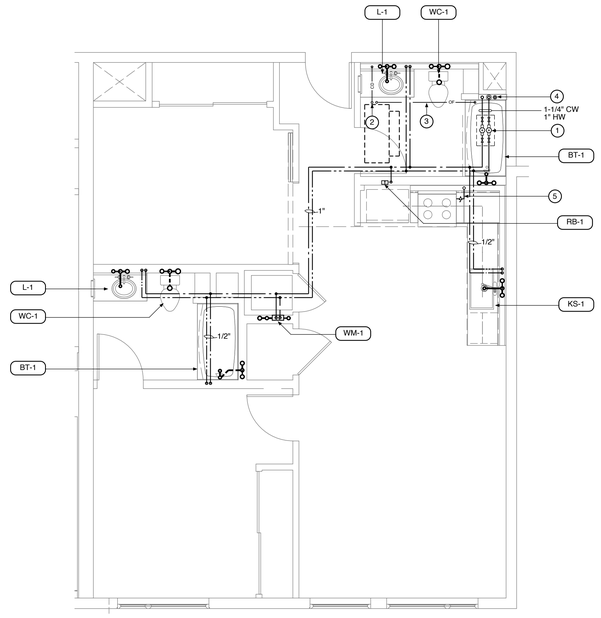
PLAN CHECK RESPONSE #2 / ADDENDUM #1



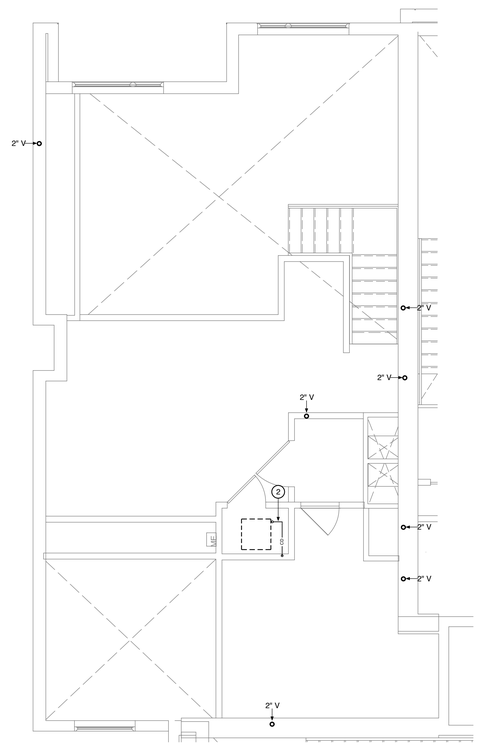
MEZZANINE - C3-L
1/4" = 1'-0"
6



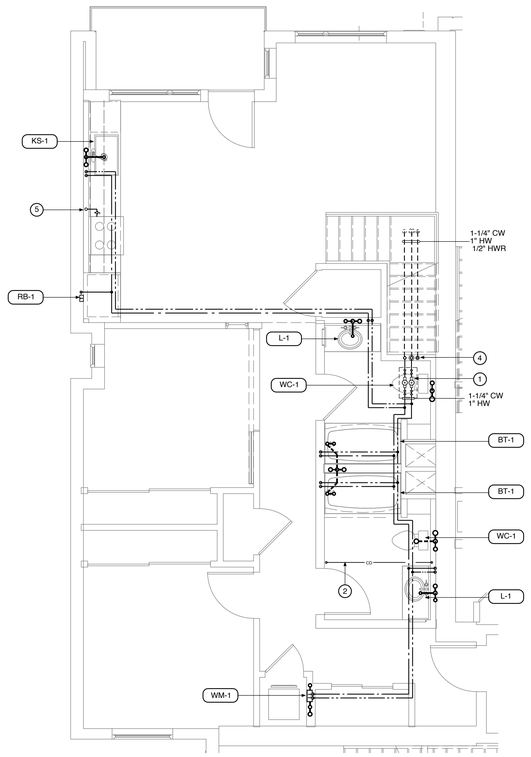
UNIT C3-L
1/4" = 1'-0"
4



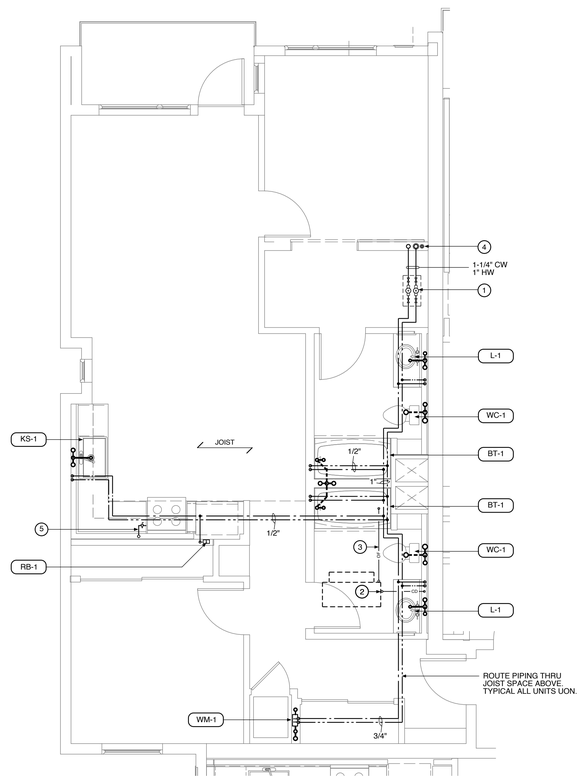
2ND FLOOR LEVEL - UNIT C3
1/4" = 1'-0"
2



MEZZANINE - UNIT C1-L
1/4" = 1'-0"
5



UNIT C1-L
1/4" = 1'-0"
3



UNIT C1
1/4" = 1'-0"
1

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3	ADDENDUM #1	05/12/2017

REGISTERED PROFESSIONAL ENGINEER
JAMES J. MOREL
No. M 23097
Exp. 9/30/18
MECHANICAL
STATE OF CALIFORNIA

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CONSULTANT

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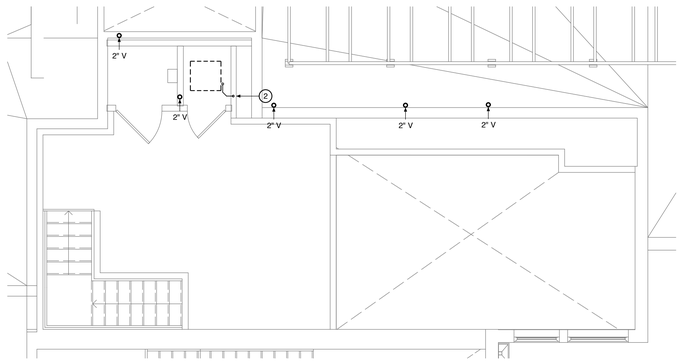
UNIT TYPE C FLOOR PLANS

PROJECT NO: 1132-0018
DATE: 05/12/2017

SHEET NO:

P3.04

PLAN CHECK RESPONSE #2 / ADDENDUM #1



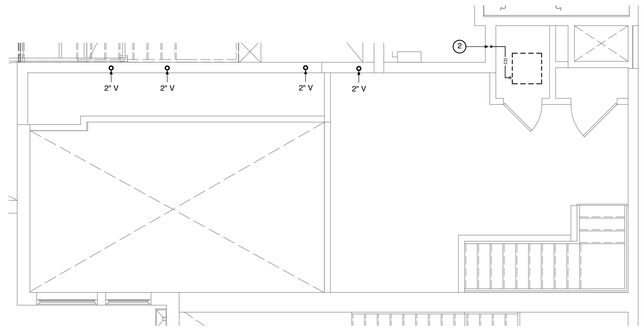
MEZZANINE - UNIT C2-L
1/4" = 1'-0" 6

SHEET NOTES

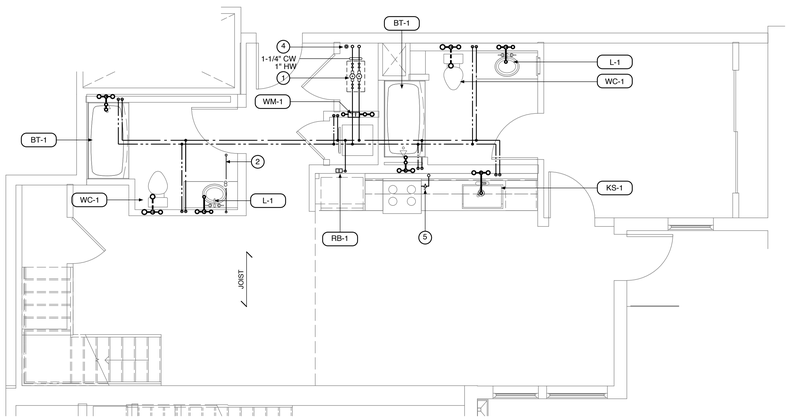
1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL PLUMBING FIXTURES.
2. HORIZONTAL PIPING SHOWN THIS PLAN TYPICALLY LOCATED WITHIN FLOOR JOIST SPACE UNLESS OTHER WISE NOTED.
3. REFER TO STRUCTURAL DRAWINGS FOR FRAMING LAYOUT AND DETAILS. CONTRACTOR SHALL COORDINATE PRIOR TO START OF FRAMING ANY SPECIAL JOIST SPACING OR BLOCKOUT CONDITIONS REQUIRED FOR PLUMBING INSTALLATION WORK.
4. ALL VALVES, METERS, AND CONTROLS SHALL BE INSTALLED IN ACCESSIBLE AND SERVICEABLE LOCATIONS. PROVIDE ADEQUATELY SIZED ACCESS DOORS WHERE NEEDED.
5. SEE STRUCTURAL DRAWINGS FOR DETAILED REQUIREMENTS FOR PENETRATING STRUCTURAL MEMBERS.
6. ALL PIPING CONVEYING FLUIDS SHALL BE INSTALLED WITH ACOUSTICAL ISOLATORS AND SHALL BE ISOLATED FROM ANY OTHER HARD MATERIALS INCLUDING BUT NOT LIMITED TO STRUCTURE, FINISH, DUCTS, CONDUITS, AND OTHER PIPES, WHICH COULD TRANSMIT SOUND TO THE OCCUPIED SPACES.

KEY NOTES

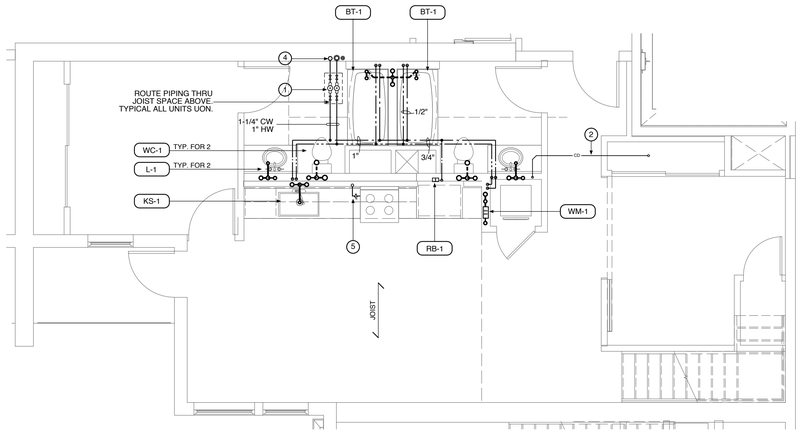
1. UNIT CW & HW SUBMETERS & SHUT OFF VALVE WITH CEILING ACCESS PANEL. SUBMETERS ARE TO BE PROVIDED BY OWNER & INSTALLED BY PLUMBING CONTRACTOR.
2. 3/4" PRIMARY CONDENSATE DRAIN FROM HVAC FAN COIL UNIT. PROVIDE CO PIPING TO LAVATORY DRAIN TAILPIECE OR WASHING MACHINE BOX DRAIN AS SHOWN ON PLANS.
3. 3/4" SECONDARY (OVERFLOW) CONDENSATE DRAIN FROM FURRED CEILING MOUNTED HVAC UNITS SHALL DAYLIGHT THRU CEILING OVER BATHTUB, OTHER FIXTURE OR EXTERIOR GRADE AS NOTED.
4. CW, HW & HWR MAIN PIPING RISERS. SEE RISER SCHEMATIC SHEETS P6.01 & P6.02.
5. PROVIDE GAS PIPE CONNECTION & SHUT-OFF VALVE TO UNIT KITCHEN RANGE.



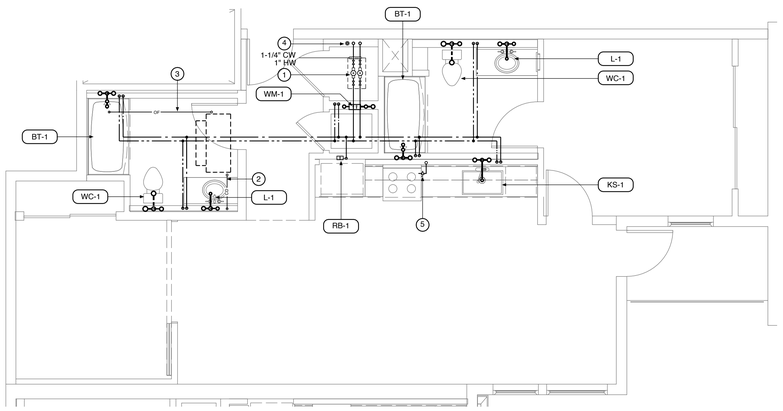
MEZZANINE - UNIT C2.1-L
1/4" = 1'-0" 3



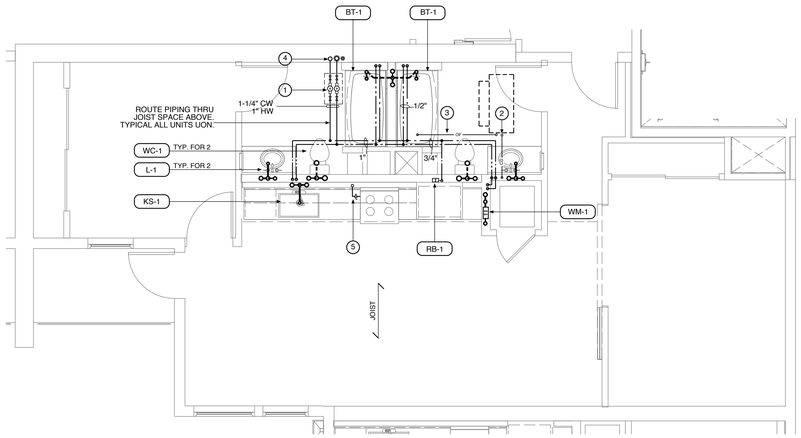
UNIT C2-L
1/4" = 1'-0" 5



UNIT C2.1-L
1/4" = 1'-0" 2



UNIT C2
1/4" = 1'-0" 4



UNIT C2.1
1/4" = 1'-0" 1

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1	PLAN CHECK RESPONSE #1/GMP	03/15/2017
2	PLAN CHECK RESPONSE #2	05/12/2017
3	ADDENDUM #1	05/12/2017

REGISTERED PROFESSIONAL ENGINEER
JAMES J. MORE
No. M 23097
Exp. 8/30/18
MECHANICAL
STATE OF CALIFORNIA

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CONSULTANT

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UNIT TYPE C FLOOR PLANS

PROJECT NO: 1132-0018
DATE: 05/12/2017

SHEET NO:

P3.05

PLAN CHECK RESPONSE #2 / ADDENDUM #1

SHEET NOTES

1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL PLUMBING FIXTURES.
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KEY NOTES

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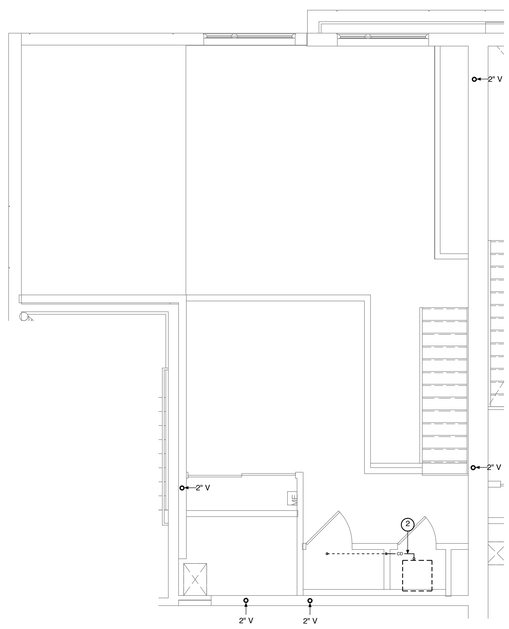
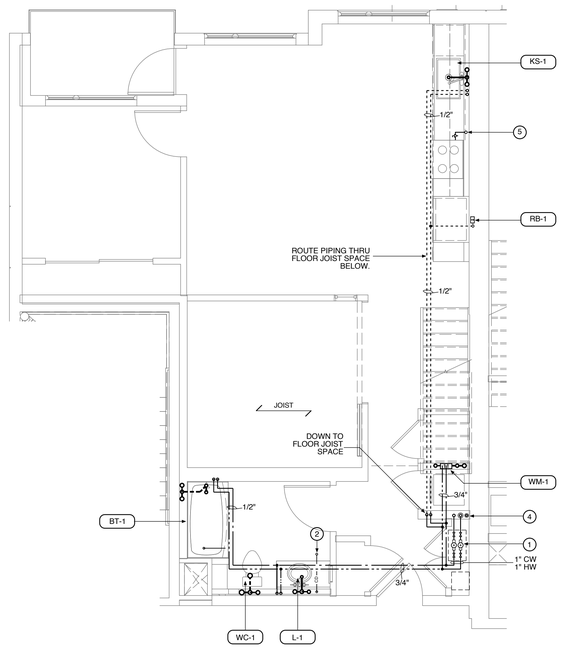
4. CW, HW & HWR MAIN PIPING RISERS. SEE RISER SCHEMATIC SHEETS P6.01 & P6.02.
5. PROVIDE GAS PIPE CONNECTION & SHUT-OFF VALVE TO UNIT KITCHEN RANGE.

LEGENDS

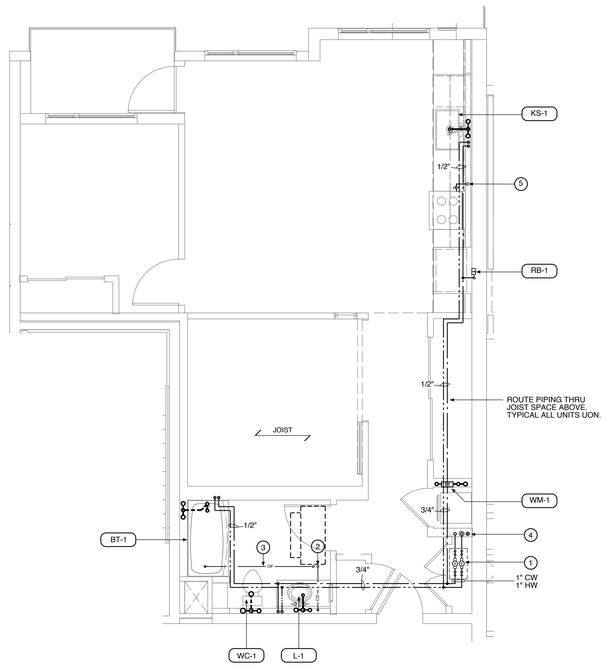
- SHEET KEY NOTE
- XX-X — FIXTURE DESIGNATION
- VENT PIPING
- SANITARY SEWER PIPING
- COLD WATER PIPING
- HOT WATER PIPING
- HOT WATER RETURN PIPING
- SUBMETER
- ISOLATION VALVE



MEZZANINE - UNIT C4-L 3
1/4" = 1'-0"



UNIT C4-L 2
1/4" = 1'-0"



UNIT C4 1
1/4" = 1'-0"

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REGISTERED PROFESSIONAL ENGINEER
JAMES J. MOREL
No. M 23097
Exp. 9/30/18
MECHANICAL
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CONSULTANT

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UNIT TYPE C FLOOR PLANS

PROJECT NO: 1132-0018
DATE: 05/12/2017

SHEET NO:

P3.06

PLAN CHECK RESPONSE #2 / ADDENDUM #1

KEY NOTES

1. UNIT CW & HW SUBMETERS & SHUT OFF VALVE WITH CEILING ACCESS PANEL. SUBMETERS ARE TO BE PROVIDED BY OWNER & INSTALLED BY PLUMBING CONTRACTOR.
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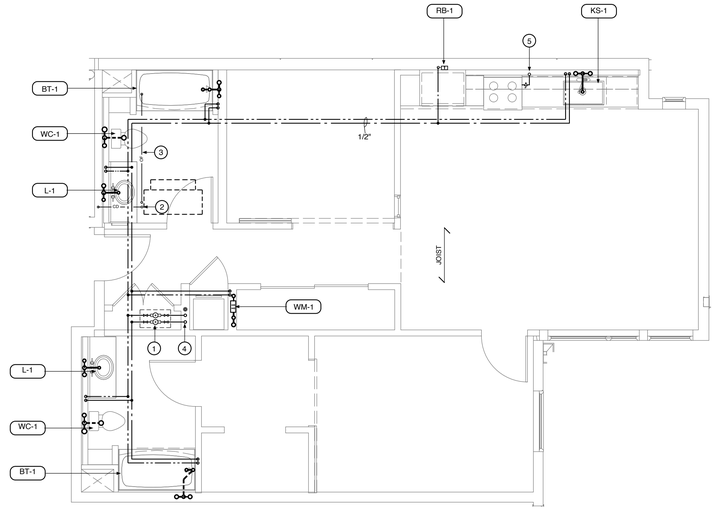
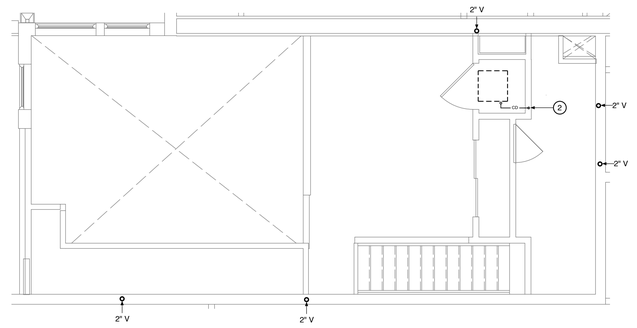
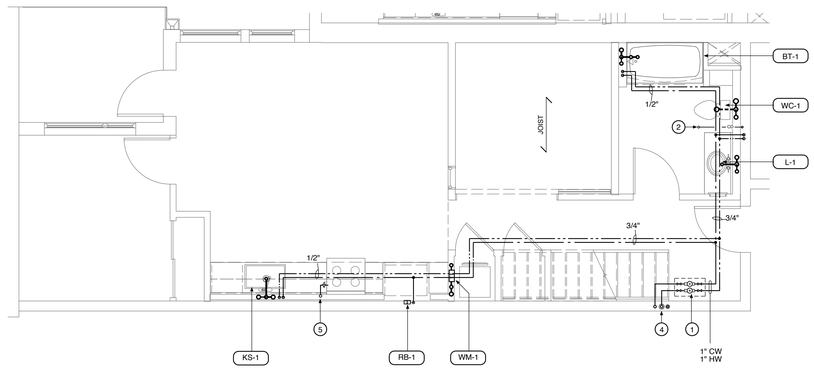


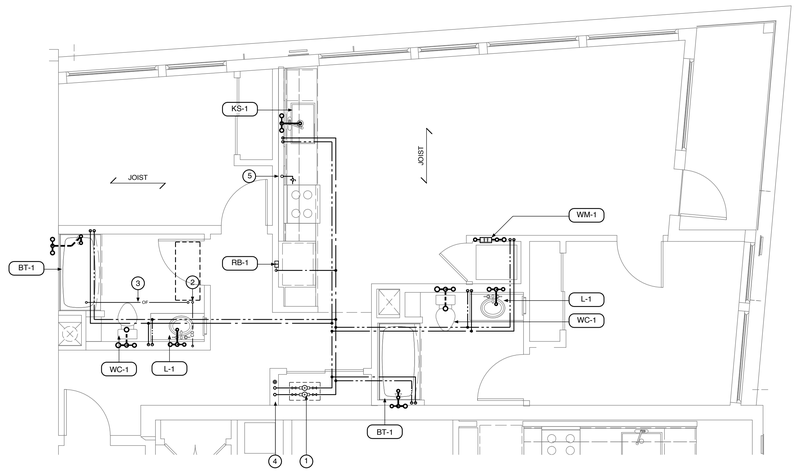
1ST FLOOR LEVEL - UNIT C8 1/4" = 1'-0" | 5



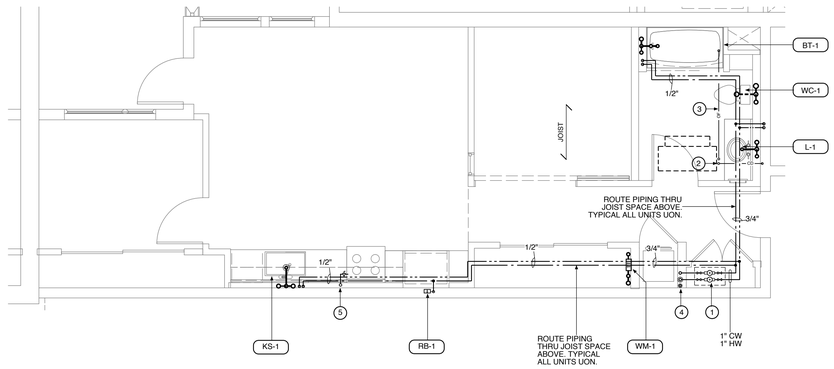
MEZZANINE - C7-L 1/4" = 1'-0" | 3



5TH FLOOR LEVEL - UNIT C7-L 1/4" = 1'-0" | 2



2ND FLOOR LEVEL - UNIT C6 1/4" = 1'-0" | 4



2ND FLOOR LEVEL - UNIT C7 1/4" = 1'-0" | 1

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REGISTERED PROFESSIONAL ENGINEER
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No. M 23097
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UNIT TYPE C FLOOR PLANS

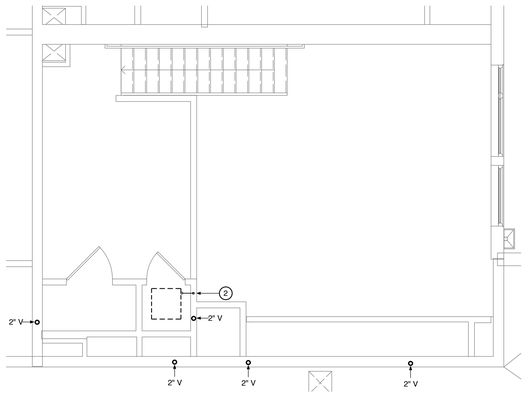
PROJECT NO: 1132-0018

DATE: 05/12/2017

SHEET NO:

P3.07

PLAN CHECK RESPONSE #2 / ADDENDUM #1



MEZZANINE - UNIT C5-7
1/4" = 1'-0"

3

KEY NOTES

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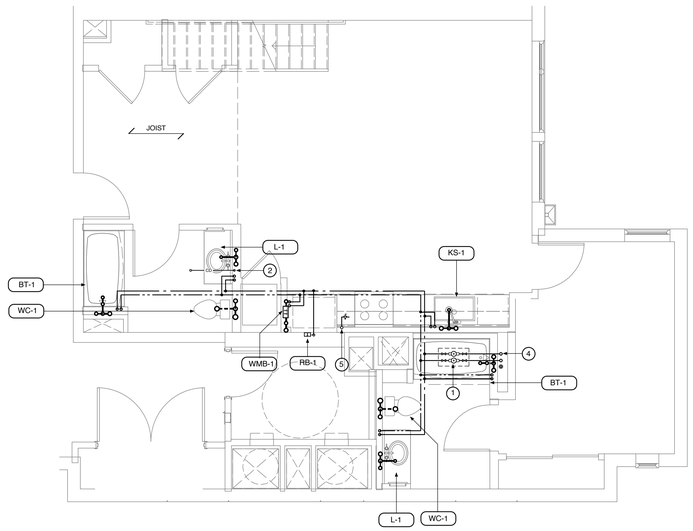
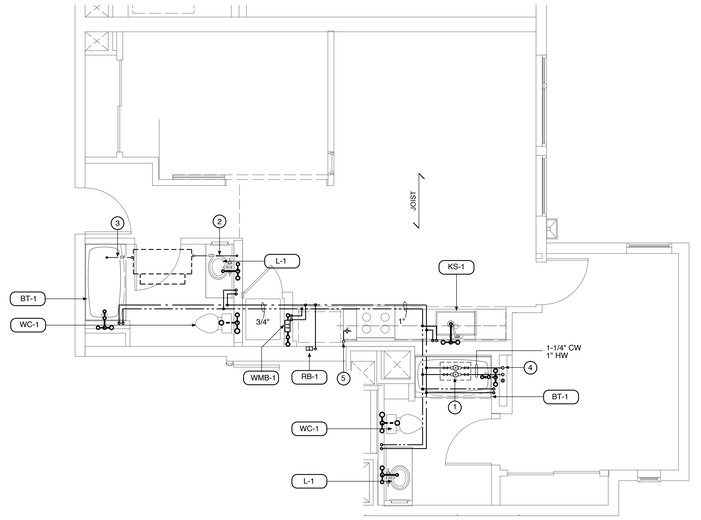
4. CW, HW & HWR MAIN PIPING RISERS. SEE RISER SCHEMATIC SHEETS P6.01 & P6.02.
5. PROVIDE GAS PIPE CONNECTION & SHUT-OFF VALVE TO UNIT KITCHEN RANGE.



5TH FLOOR LEVEL - UNIT C5-L
1/4" = 1'-0"

2



2ND FLOOR LEVEL - UNIT C5
1/4" = 1'-0"

1

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3	ADDENDUM #1	05/12/2017

REGISTERED PROFESSIONAL ENGINEER
JAMES J. MOREL
No. M 23097
Exp. 9/30/18
MECHANICAL
STATE OF CALIFORNIA

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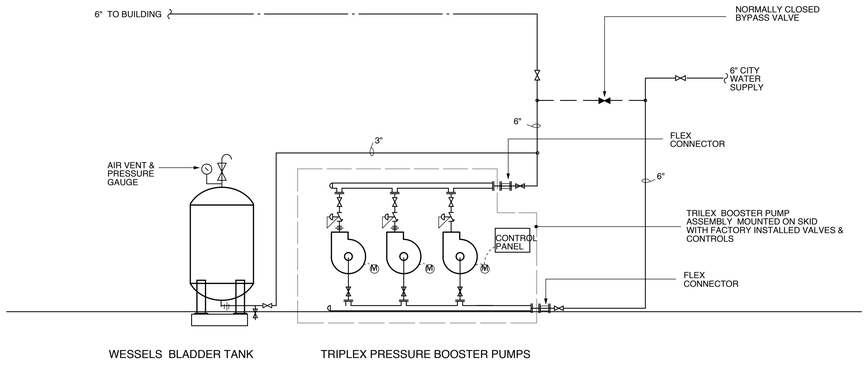
UNIT TYPE C FLOOR PLANS

PROJECT NO: 1132-0018
DATE: 05/12/2017

SHEET NO:

P3.08

PLAN CHECK RESPONSE #2 / ADDENDUM #1



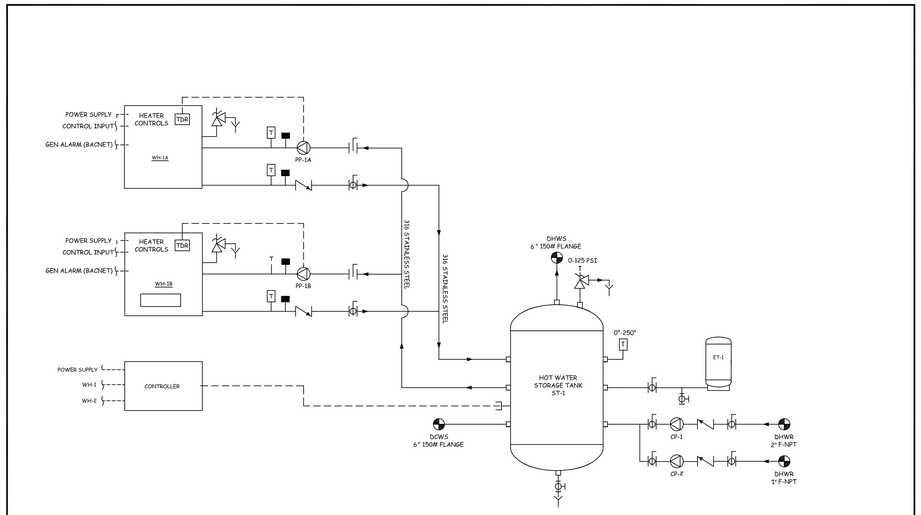
BOOSTER PUMP SCHEMATIC

NOTES :

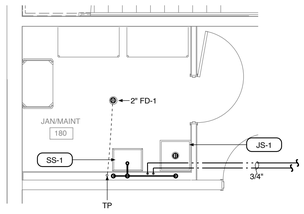
UL LISTED TRIPLEX VARIBLE SPEED BOOSTER PUMP SYSTEM CAPACITIES AS LISTED AIN SCHEDULE ABOVE. PUMPS SHALL BE BRONZE-FITTED & STANDARD MECHANICAL SEALS CONSTRUCTION.

EACH PUMP SHALL BE FITTED WITH ISOLATION VALVES, UNIONS/FLANGES, PILOT OPERATED COMBINATION PRV/SILENT CHECK VALVE WITH BRONZE TRIM, SPEED CONTROLS, RESILIENT SEAT AND EXPOXY COATING. NEMA UL MOTOR CONTROL PANEL WITH CIRCUIT BREAKER DISCONNECT SWITCH, MOTOR CIRCUIT BREAKERS, STARTERS & RESETS, AUTOMATIC ALTERNATION, MINIMUM RUN TIMERS, 110 CONTROL CIRCUIT TRANSFORMER, H-O-A SWITCHES & LIGHTS, NO-FLOW SHUT-DOWN CONTROLS WITH THERMALLY ACTIVATED PURGE VALVE TO BE PIPED TO FLOOR SINK.

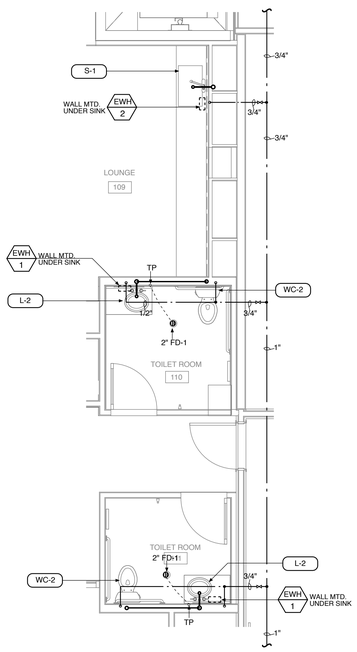
COMPLETE SKID MOUNTED PACKAGE & CONTROLS BY CAL-HYDRONICS, HAYWARD, CA. ALL COMPONENTS SHALL BE PRE-PIPED, WIRED & TESTED. MANUFACTURERS RERPRESENTATIVE SHALL PROVIDE SYSTEM CHECK & START-UP SERVICE.



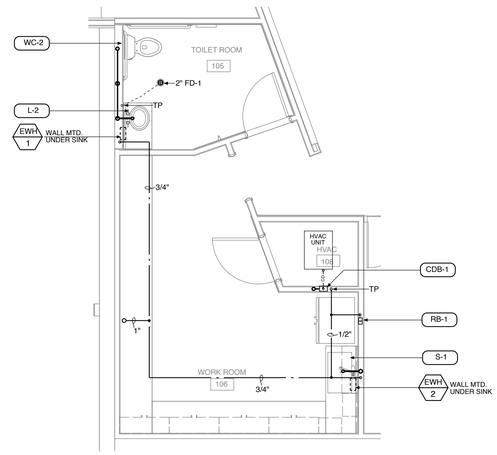
| | | |



3 ENLARGED FLOOR PLAN
1/4" = 1'-0"



2 ENLARGED FLOOR PLAN
1/4" = 1'-0"



1 ENLARGED FLOOR PLAN
1/4" = 1'-0"

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3	ADDENDUM #1	05/12/2017

REGISTERED PROFESSIONAL ENGINEER
JAMES J. MORELL
No. M 23097
Exp. 9/30/18
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STATE OF CALIFORNIA

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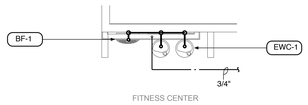
ENLARGED FLOOR PLANS

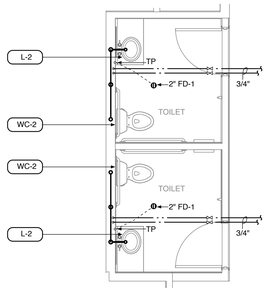
PROJECT NO: 1132-0018
DATE: 05/12/2017

SHEET NO:

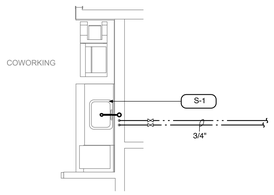
P4.02



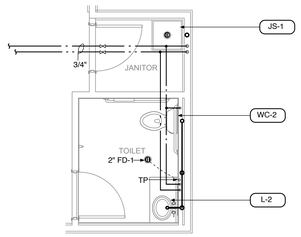
4 ENLARGED FLOOR PLAN
1/4" = 1'-0"



2 ENLARGED FLOOR PLAN
1/4" = 1'-0"



3 ENLARGED FLOOR PLAN
1/4" = 1'-0"



1 ENLARGED FLOOR PLAN
1/4" = 1'-0"

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ENLARGED FLOOR PLANS

PROJECT NO: 1132-0018
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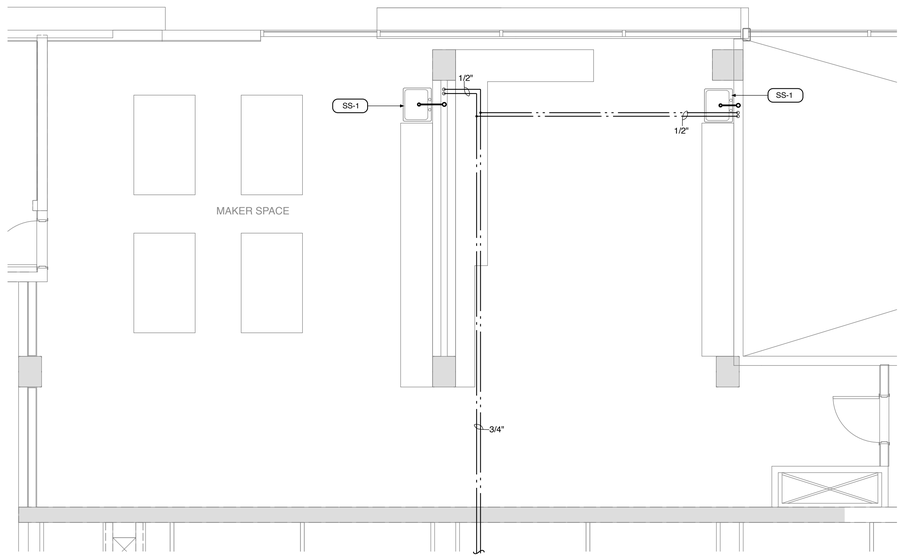
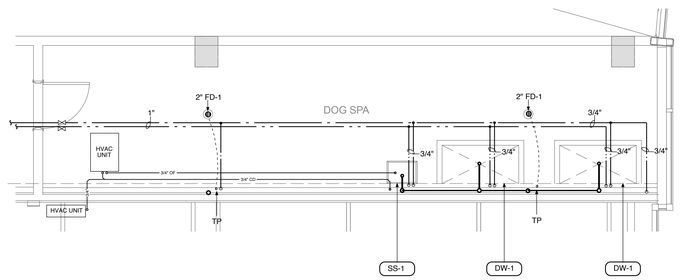
SHEET NO:

P4.03



2 ENLARGED FLOOR PLAN

1/4" = 1'-0"



1 ENLARGED FLOOR PLAN

1/4" = 1'-0"

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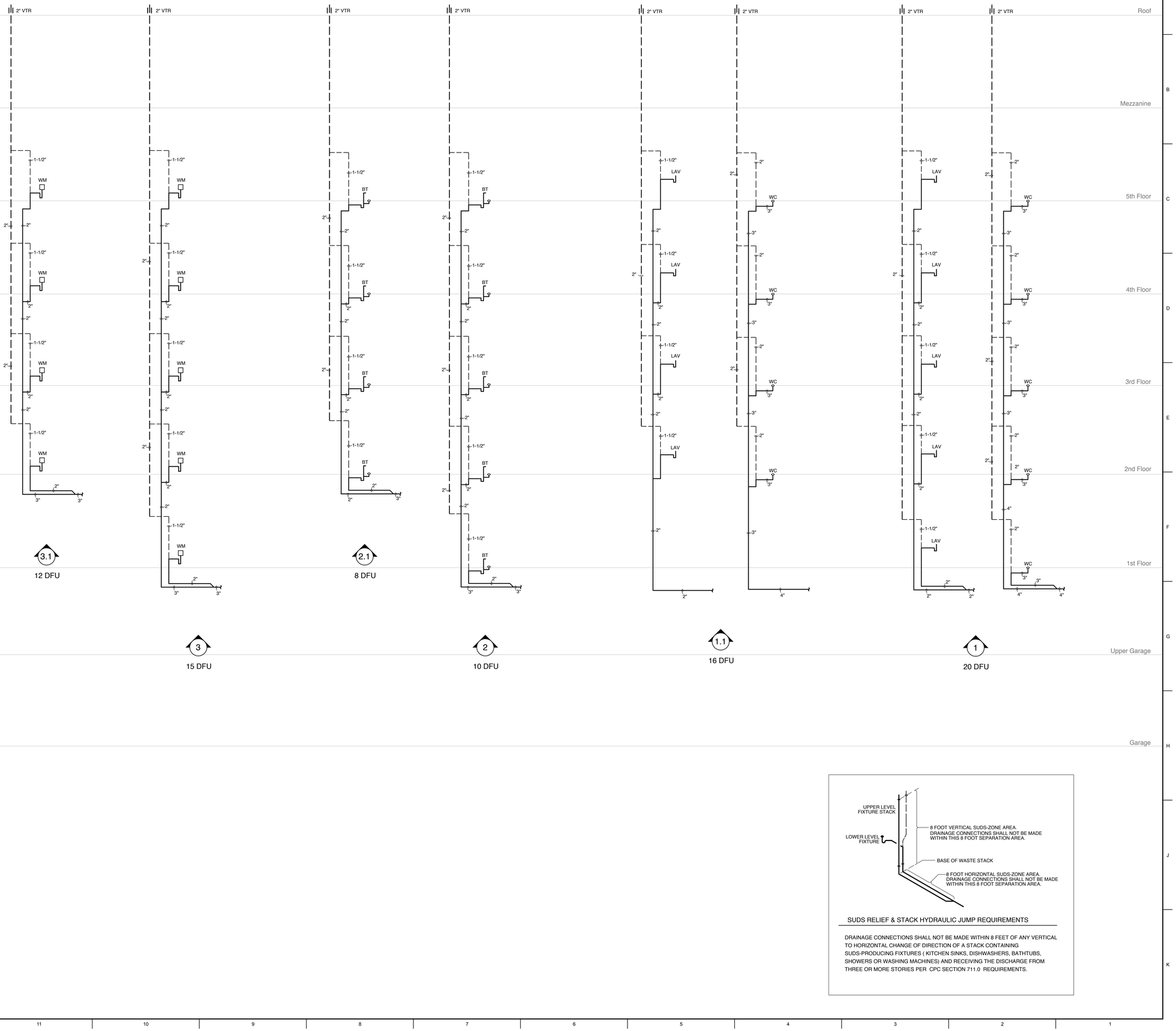
P4.04



SUDS RELIEF & STACK HYDRAULIC JUMP REQUIREMENTS

DRAINAGE CONNECTIONS SHALL NOT BE MADE WITHIN 8 FEET OF ANY VERTICAL TO HORIZONTAL CHANGE OF DIRECTION OF A STACK CONTAINING SUDS-PRODUCING FIXTURES (KITCHEN SINKS, DISHWASHERS, BATHTUBS, SHOWERS OR WASHING MACHINES) AND RECEIVING THE DISCHARGE FROM THREE OR MORE STORIES PER CPC SECTION 711.0 REQUIREMENTS.

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WASTE & VENT PIPING SCHEMATICS

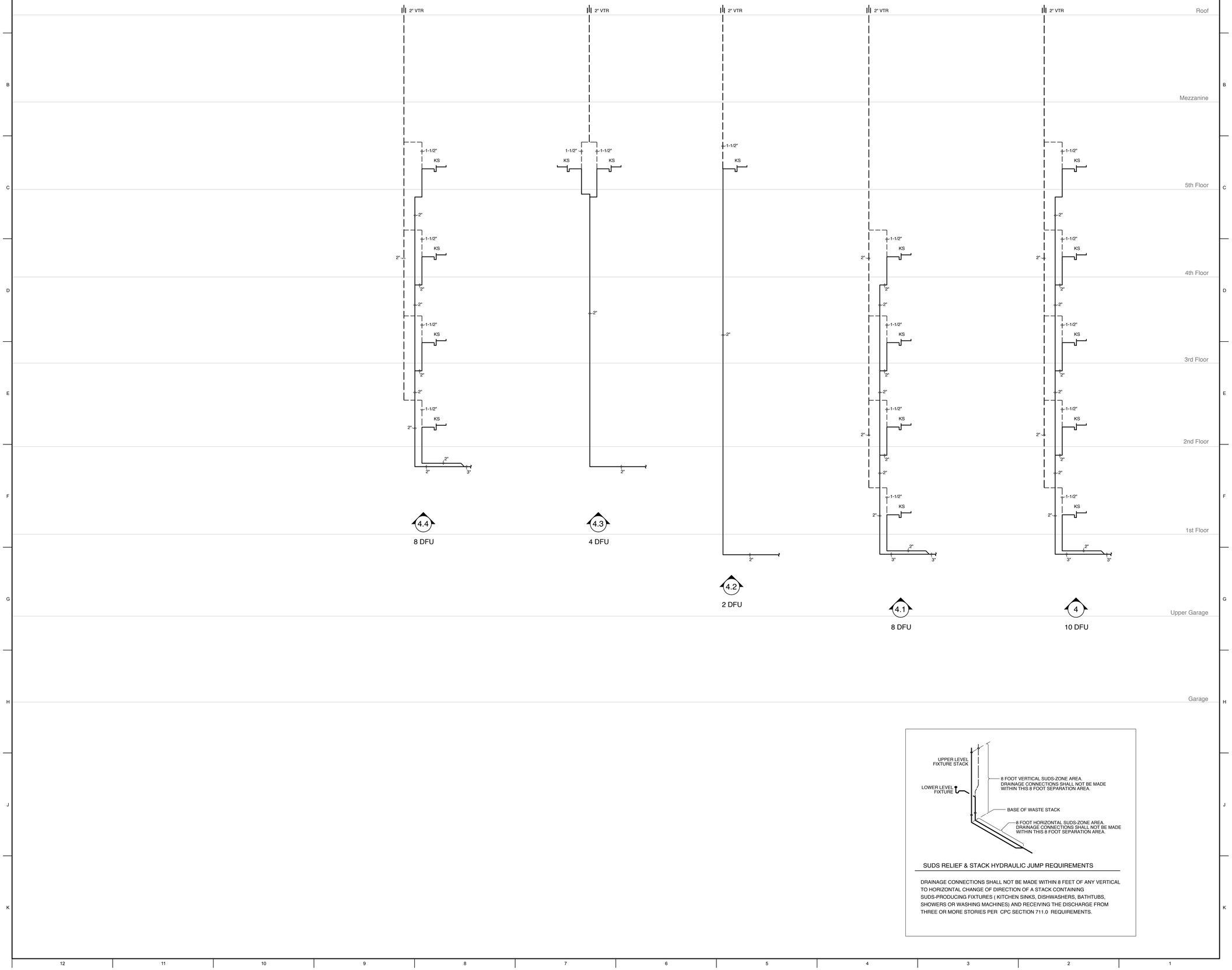
PROJECT NO: 1132-0018

DATE: 05/12/2017

SHEET NO:

P5.01

PLAN CHECK RESPONSE #2 / ADDENDUM #1



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WASTE & VENT PIPING SCHEMATICS

PROJECT NO: 1132-0018

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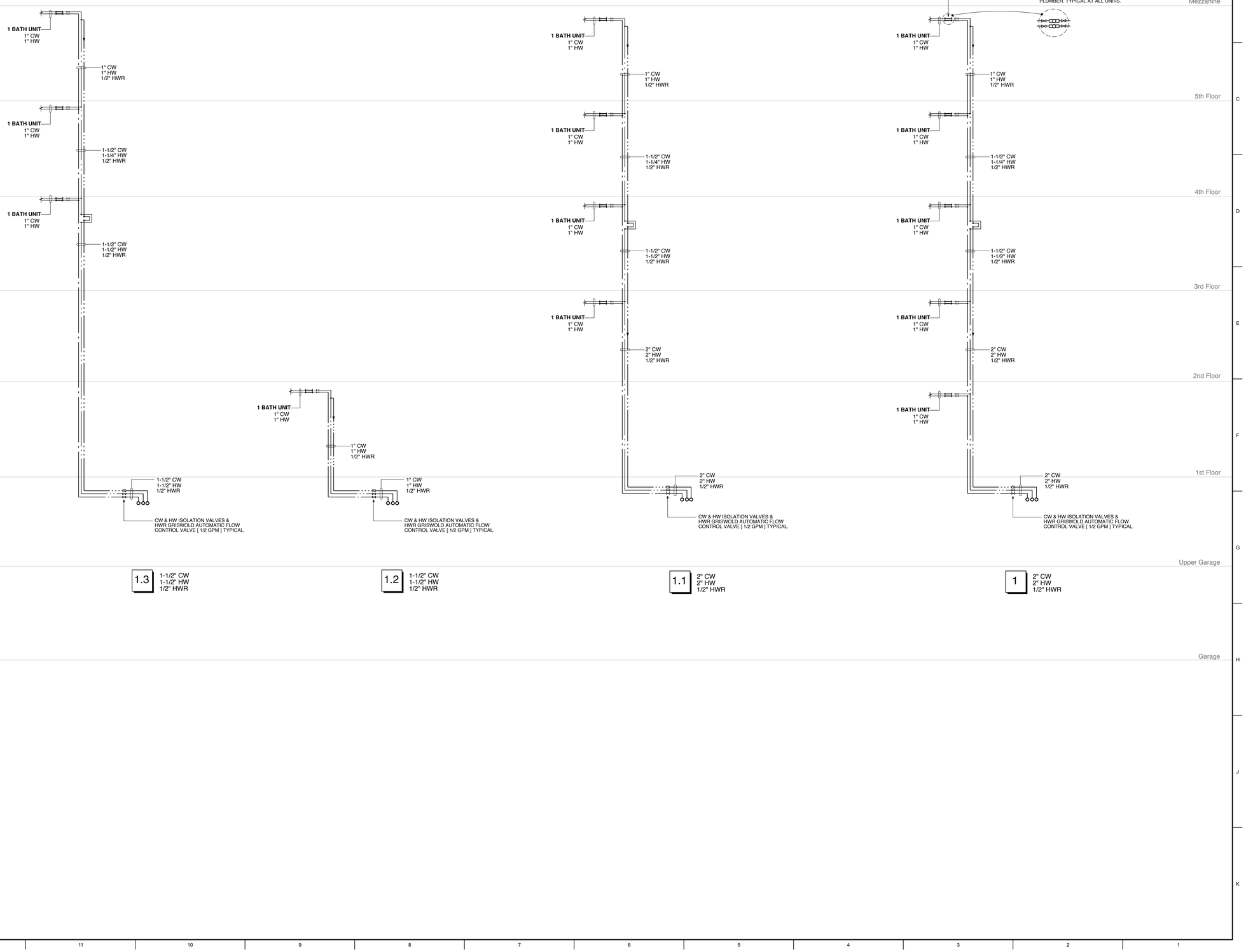
SHEET NO:

P5.02

PLAN CHECK RESPONSE #2 / ADDENDUM #1



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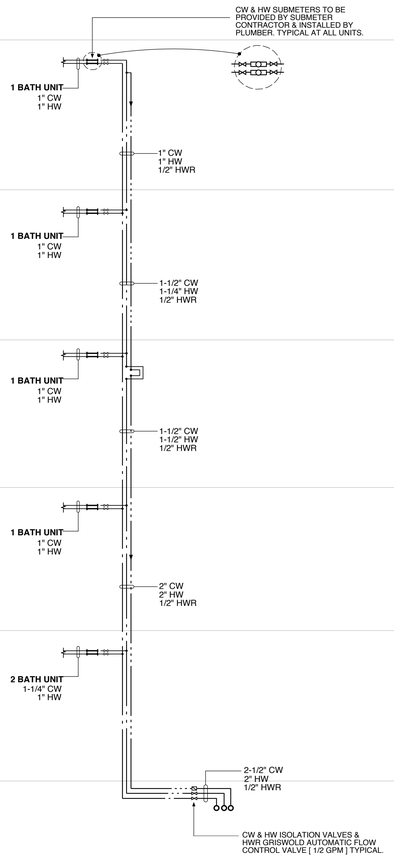
WATER PIPING SCHEMATICS

PROJECT NO: 1132-0018
DATE: 05/12/2017

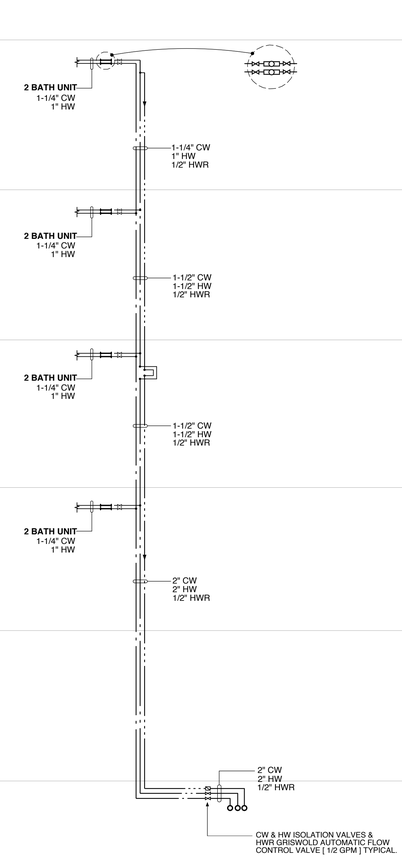
SHEET NO:

P6.01

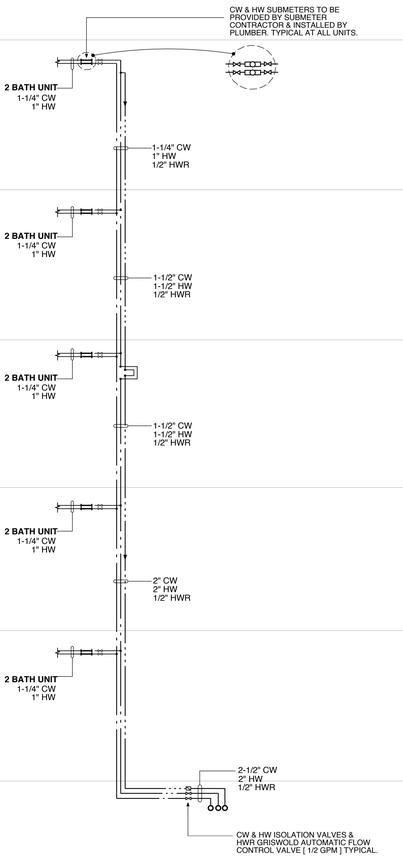
PLAN CHECK RESPONSE #2 / ADDENDUM #1



2.2 2-1/2" CW 2" HW 1/2" HWR



2.1 2" CW 2" HW 1/2" HWR



2 2-1/2" CW 2" HW 1/2" HWR

Roof
Mezzanine
5th Floor
4th Floor
3rd Floor
2nd Floor
1st Floor
Upper Garage
Garage

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No. M 23097
Exp. 9/30/18
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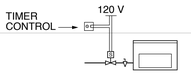
WATER PIPING SCHEMATICS

PROJECT NO: 1132-0018
DATE: 05/12/2017

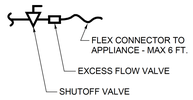
SHEET NO:

P6.02

PLAN CHECK RESPONSE #2 / ADDENDUM #1



BBQS & FIREPLACES TIMER CONTROL
TYPICAL AT ALL OUTDOOR BBQS & FIREPLACES

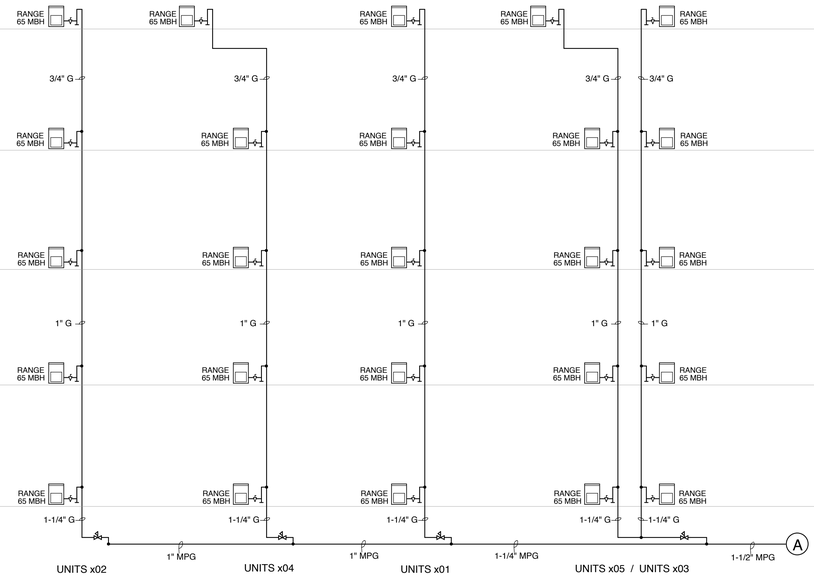


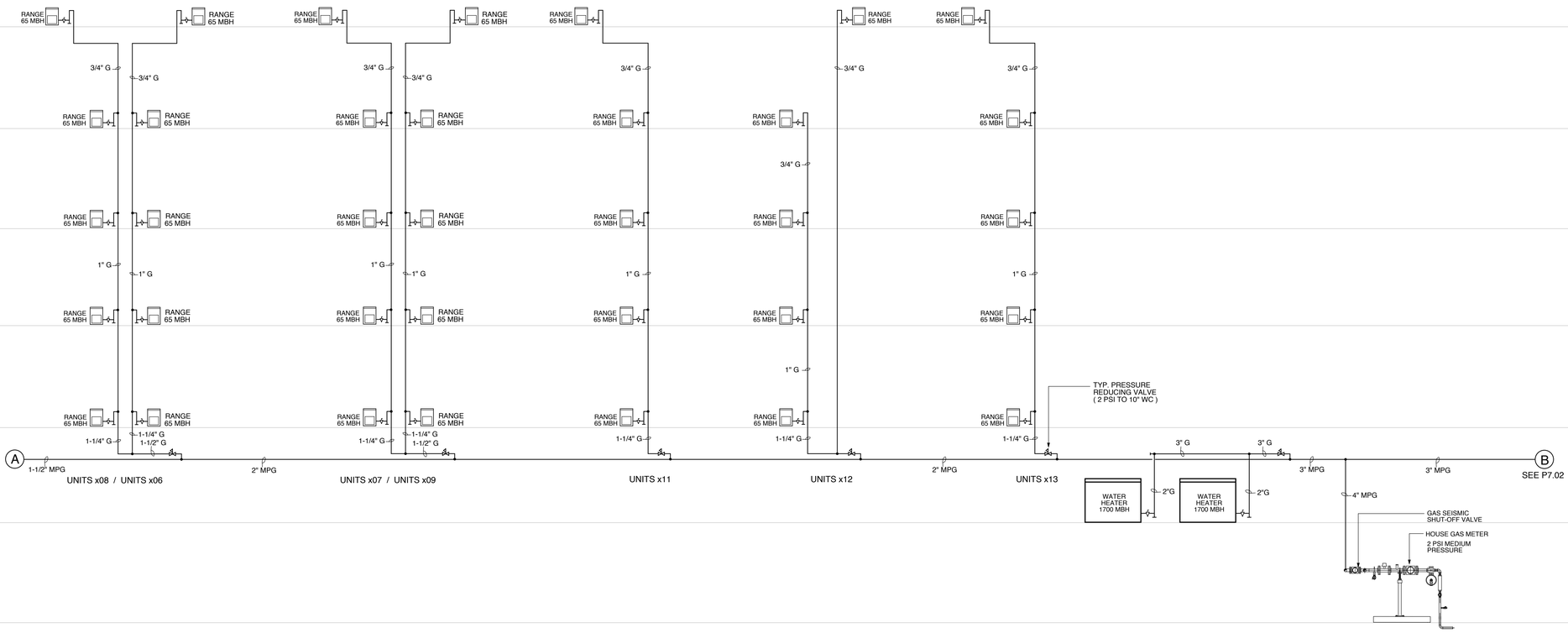
Typical Appliance Connection

(1) HOUSE GAS METER			
RESIDENTIAL HOUSE GAS METER LOADS			
ITEM	Qty	MBH	Totals
WATER HEATER	2	1,700	3,400
POOL/SPA HEATERS	0	0	0
HVAC	0	0	0
RESIDENTIAL RANGES	224	65	14,560
AMENITY RANGES	0	0	0
LANDSCAPE BBQS	4	75	300
OUTDOOR FIREPLACES	4	80	320
INDOOR FIREPLACES	0	0	0
OTHER	0	0	0
		TOTAL LOAD (MBH):	18,580 MBH
SERVICE PRESSURE REQUEST: 2 PSI			

GAS REGULATORS	BOILERS & POOL EQUIPMENT: MAXITROL MODEL 210D - 1x1 PIPE SIZE - BALANCED VALVE, LOCK-UP TYPE REGULATOR, 5800 CFH CAPACITY AT 2 PSI 3/8" VENT PIPED TO OUTDOORS. RANGES AND AMENITIES: MAXITROL MODEL 325-5AL - 3/4" PIPE SIZE - LINE PRESSURE REGULATOR, 550 CFH CAPACITY AT 2 PSI - WITH ACCESSORY VENT LIMITER (VENT LINE NOT REQUIRED).
GAS SEISMIC SHUTOFF DEVICE	PACIFIC SEISMIC PRODUCTS MODEL 313(60) NPT VALVE - MAXIMUM PRESSURE 60 PSI - 1-1/2" SIZE - 0.108 PSI DROP AT 9,573 SCFH & 14" WC INLET PRESSURE.
GAS EXCESS FLOW DEVICE	APARTMENT RANGES & LOUNGE FIREPLACE: BRASSCRAFT MODEL RU2-8L WITH #1540 CARTRIDGE - MAX FLOW 67.5 MBH @ 0.5" W.C. - CLOSING FLOW 70 MBH @ 0.5" W.C. BBQs & FIREPITS: BRASSCRAFT MODEL RU2-6 WITH #1550 CARTRIDGE - MAX FLOW 118 MBH @ 0.5" W.C. - CLOSING FLOW 135 MBH @ 0.5" W.C.

(1) FUTURE RETAIL GAS METER	
RETAIL GAS METER LOAD ESTIMATE	
(1) FUTURE RETAIL TENANT GAS METER ALLOWANCE FOR MAXIMUM ONE RETAIL RESTAURANT	
KITCHEN EQUIPMENT & HEATING ALLOWANCE	2,500 MBH
TOTAL LOAD (MBH):	2,500 MBH
SERVICE PRESSURE REQUEST: 2 PSI	





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1	PLAN CHECK RESPONSE #1/GMP	03/15/2017
2	PLAN CHECK RESPONSE #2	05/12/2017
3	ADDENDUM #1	05/12/2017

REGISTERED PROFESSIONAL ENGINEER
JAMES J. MOREL
No. M 23097
Exp. 9/30/18
MECHANICAL
STATE OF CALIFORNIA

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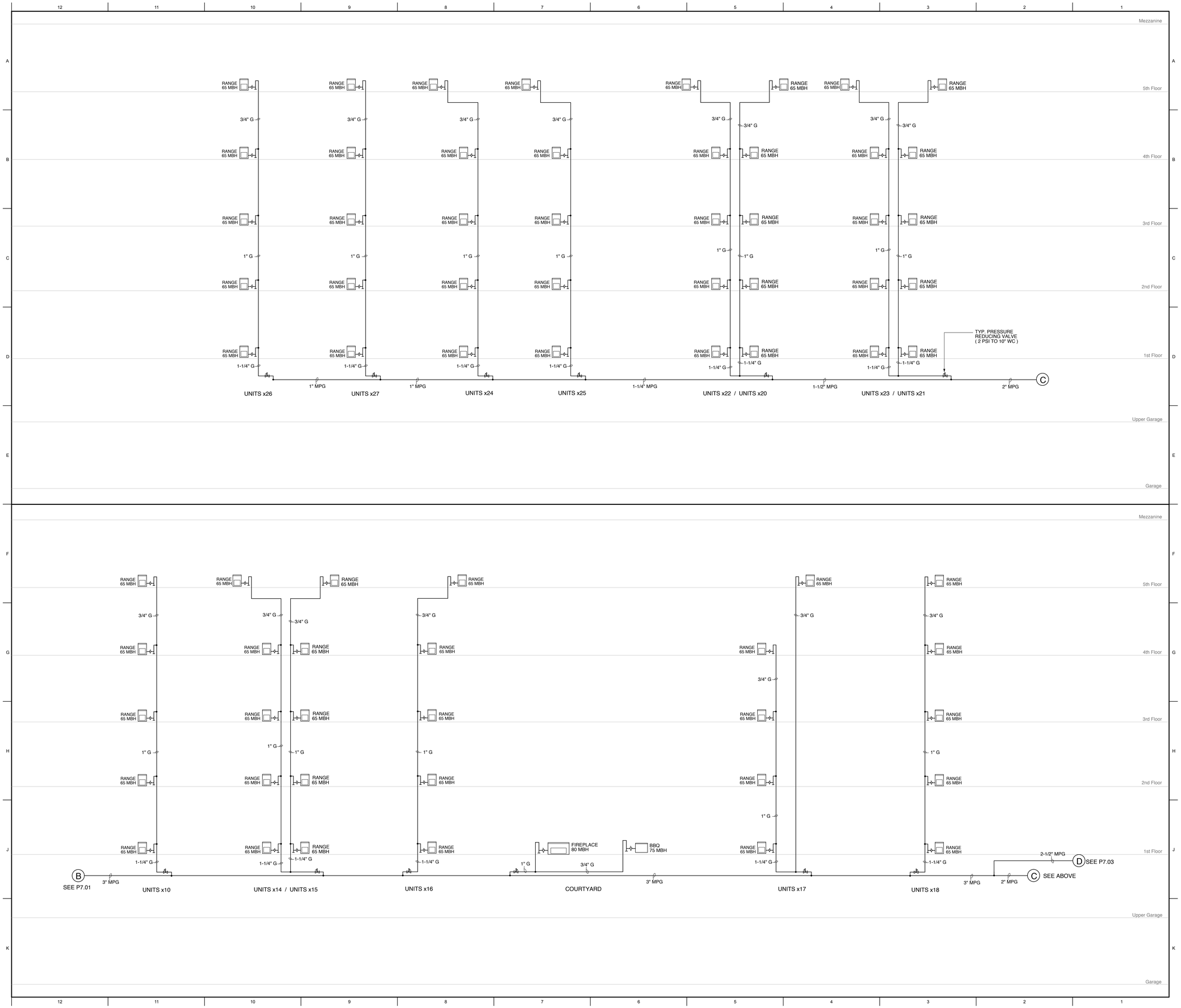
GAS PIPING SCHEMATICS

PROJECT NO: 1132-0018
DATE: 05/12/2017

SHEET NO:

P7.01

PLAN CHECK RESPONSE #2 / ADDENDUM #1



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PROJECT NO: 1132-0018
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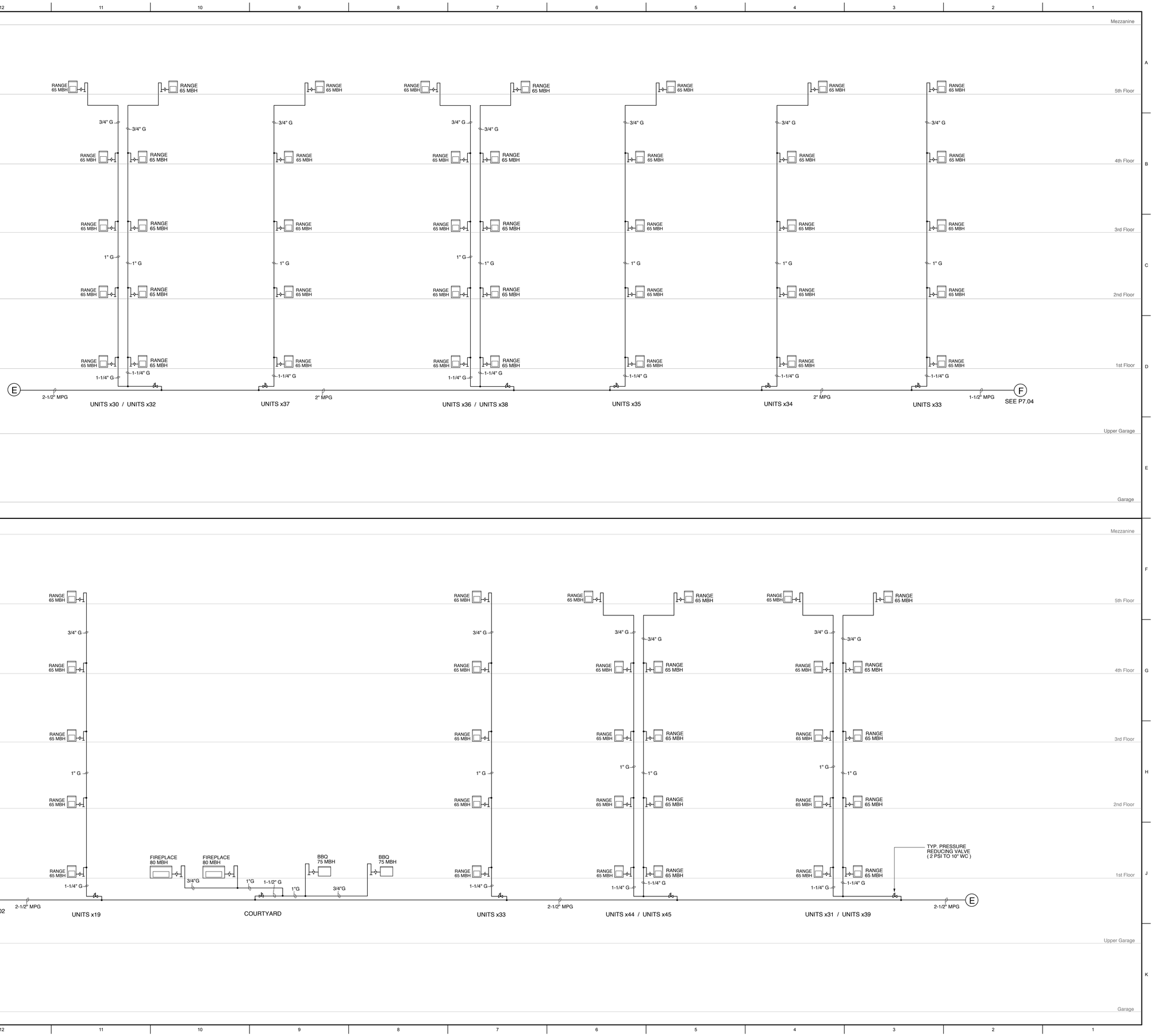

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GAS PIPING SCHEMATICS

PROJECT NO: 1132-0018

DATE: 05/12/2017

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P7.03

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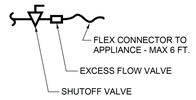
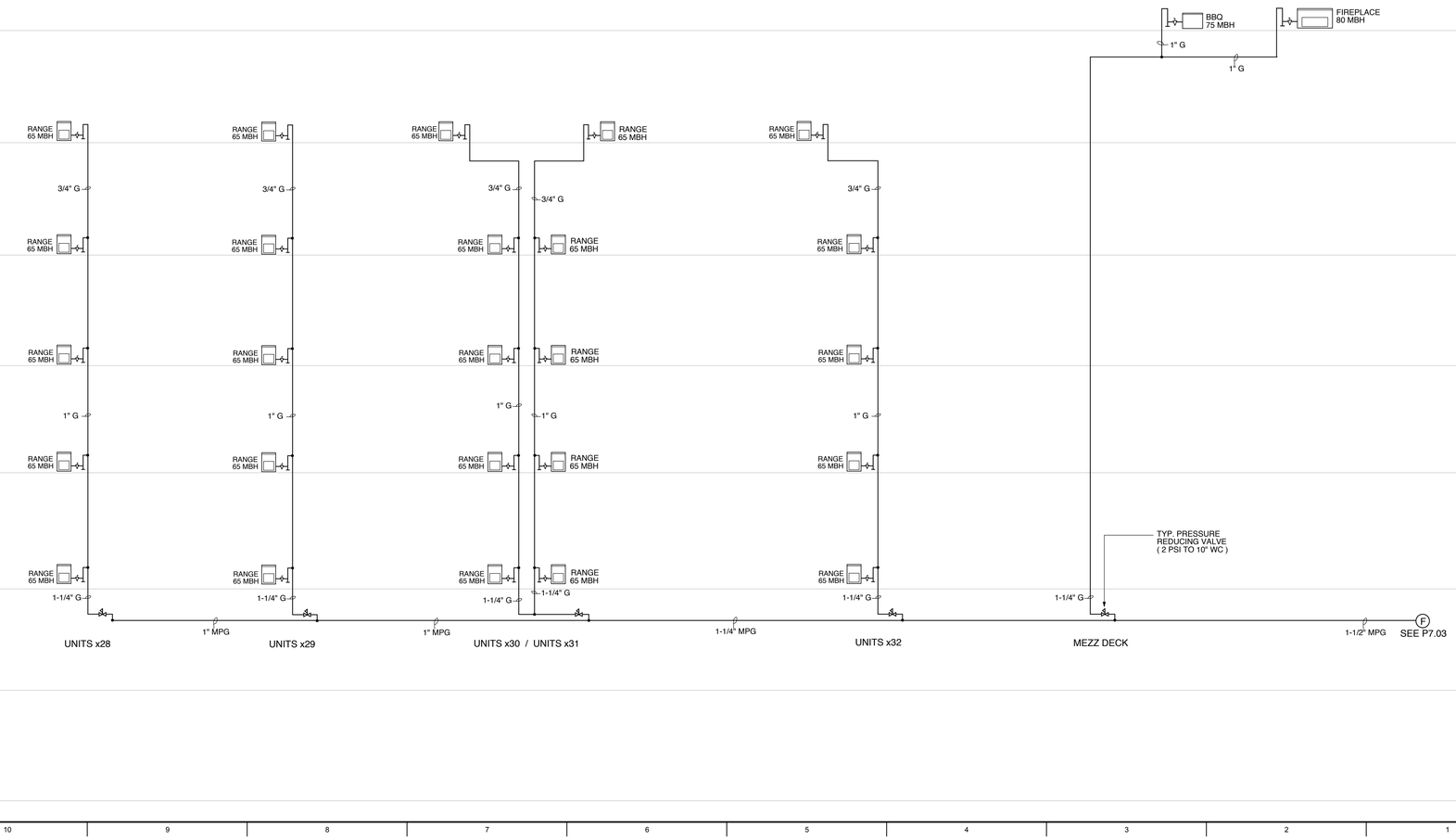


Typical Appliance Connection

GAS REGULATORS	BOILERS & POOL EQUIPMENT: MAXITROL MODEL 210D - 1x1 PIPE SIZE - BALANCED VALVE, LOCK-UP TYPE REGULATOR, 5800 CFH CAPACITY AT 2 PSI 3/8" VENT PIPED TO OUTDOORS. RANGES AND AMENITIES: MAXITROL MODEL 325-SAL - 3/4" PIPE SIZE - LINE PRESSURE REGULATOR, 550 CFH CAPACITY AT 2 PSI - WITH ACCESSORY VENT LIMITER (VENT LINE NOT REQUIRED).
GAS SEISMIC SHUTOFF DEVICE	PACIFIC SEISMIC PRODUCTS MODEL 313(60) NPT VALVE - MAXIMUM PRESSURE 60 PSI - 1-1/2" SIZE - 0.108 PSI DROP AT 9,573 SCFH & 14" WC INLET PRESSURE.
GAS EXCESS FLOW DEVICE	APARTMENT RANGES & LOUNGE FIREPLACE: BRASSCRAFT MODEL RU2-8L WITH #1540 CARTRIDGE - MAX FLOW 67.5 MBH @ 0.5" W.C. - CLOSING FLOW 70 MBH @ 0.5" W.C. BBQs & FIREPITS: BRASSCRAFT MODEL RU2-8 WITH #1550 CARTRIDGE - MAX FLOW 118 MBH @ 0.5" W.C. - CLOSING FLOW 135 MBH @ 0.5" W.C.

(1) HOUSE GAS METER			
RESIDENTIAL HOUSE GAS METER LOADS			
ITEM	Qty	MBH	Totals
WATER HEATER	2	1,700	3,400
POOL/SPA HEATERS	0	0	0
HVAC	0	0	0
RESIDENTIAL RANGES	224	65	14,560
AMENITY RANGES	0	0	0
LANDSCAPE BBQS	4	75	300
OUTDOOR FIREPLACES	4	80	320
INDOOR FIREPLACES	0	0	0
OTHER	0	0	0
		TOTAL LOAD (MBH):	18,580 MBH
SERVICE PRESSURE REQUEST: 2 PSI			

(1) FUTURE RETAIL GAS METER	
RETAIL GAS METER LOAD ESTIMATE	
(1) FUTURE RETAIL TENANT GAS METER ALLOWANCE FOR MAXIMUM ONE RETAIL RESTAURANT	
KITCHEN EQUIPMENT & HEATING ALLOWANCE	2,500 MBH
TOTAL LOAD (MBH):	2,500 MBH
SERVICE PRESSURE REQUEST: 2 PSI	



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GAS PIPING SCHEMATICS

PROJECT NO: 1132-0018
DATE: 05/12/2017

SHEET NO:

P7.04

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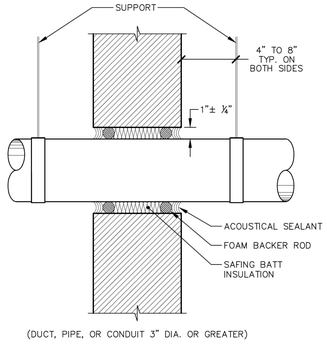
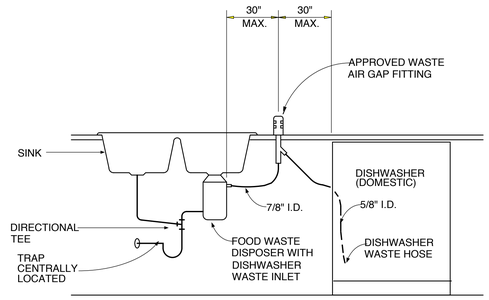


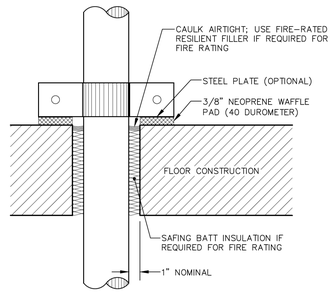
(DUCT, PIPE, OR CONDUIT 3" DIA. OR GREATER)

NOTE: APPLICABLE AT ALL SOUND–RATED CONSTRUCTIONS INCLUDING INTERIOR INSULATED ASSEMBLIES

PLUMBING PIPE ISOLATION | SCALE NONE | 10



DISHWASHER HOOK-UP | SCALE NONE | 7



NOTE: IF PIPE IS SUSPENDED FROM –OR DIRECTLY ATTACHED TO– STRUCTURE OR OTHER BUILDING ELEMENTS, USE ⅜" THICK FELT, OR 40–DUROMETER NEOPRENE AS SLEEVE BETWEEN PIPE AND PIPE HANGER

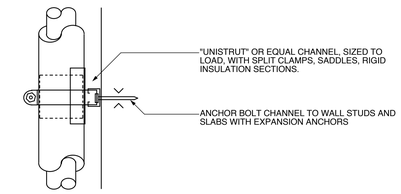
PIPE RISER ISOLATION | SCALE NONE | 4

GENERAL ACOUSTICAL NOTES

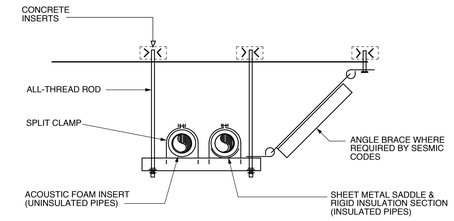
ALL DRAINAGE PIPING, CPVC WATER PIPING & COPPER WATER PIPING SYSTEMS SHALL BE ISOLATED WITH MINIMUM 1/4" THICK FELT OR EQUAL FROM ANY STRUCTURAL MEMBERS, WALL SECTIONS OR OTHER MATERIALS THAT COULD TRANSMIT SOUND TO THE OCCUPIED AREAS.

HUBBARD "HOLD-RITE", TSP "ACOUSTI-PLUMB", LASCO FELT PIPE WRAP, STONEMAN "TRISOLATORS OR EQUAL.

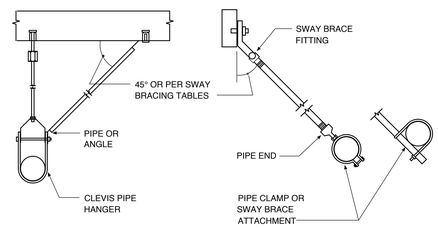
1. PIPES 1" AND SMALLER SHALL BE HUNG AND/OR SECURED WITH HUBBARD "HOLDRITE" ACOUSTICAL PIPE CLAMPS OR EQUAL.
2. PIPES LARGER THAN 1" SHALL BE ISOLATED AND/OR SECURED WITH HUBBARD "HOLDRITE", LASCO FELT PIPE WRAP OR EQUAL.
3. ALL HANGERS, CLAMPS, ETC. SHALL INCORPORATE MINIMUM 1/4-INCH THICK STICKY-BACK FELT OR RIBBED NEOPRENE BETWEEN THE HANGER AND THE PIPES. THE ISOLATION INTENDED SHALL BE CUT SO THAT IT WRAPS COMPLETELY AROUND THE PIPE. IN ADDITION, THE ISOLATION MATERIAL SHALL EXTEND OUT A MINIMUM 1/4-INCH PAST THE HANGER EDGES. THE HUBBARD SILENCER 300 AND 320 SERIES OF NEOPRENE-LINED HANGERS ARE ACCEPTABLE MANUFACTURED PRE-ISOLATED HANGERS
4. AT TRAPEZE AND UNISTRUT INSTALLATIONS, A RESILIENT MATERIAL SHALL BE REQUIRED BETWEEN THE PIPING AND THE CLAMP. IF A "RESILIENT" INSERT IS TO BE USED, IT MUST BE SUBMITTED TO VERIFY THAT IT IS SUFFICIENTLY ACOUSTICALLY RESILIENT; SOME "CUSHIONED" INSERTS (E.G., CUSH-A-CLAMP) ARE ACTUALLY NOT RESILIENT. CALCIUM SILICATE IS NOT RESILIENT. APPROPRIATE PRODUCTS INCLUDE HYDRO-STRUT BY HYDRO-CRAFT AND HUBBARD SILENCER 257-P AND 287-P.



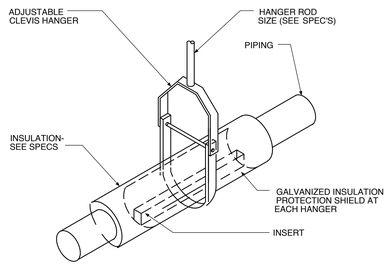
VERTICAL AND SLAB-MOUNTED PIPING:



TYPICAL TRAPEZEE PIPE HANGER DETAIL

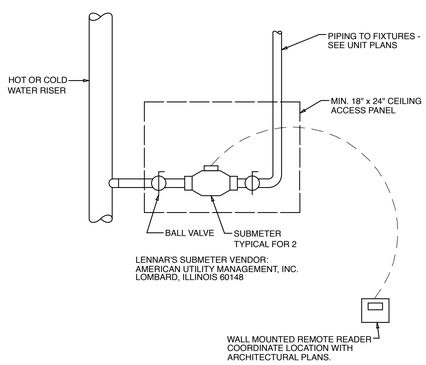


PIPE SWAY BRACE DETAIL

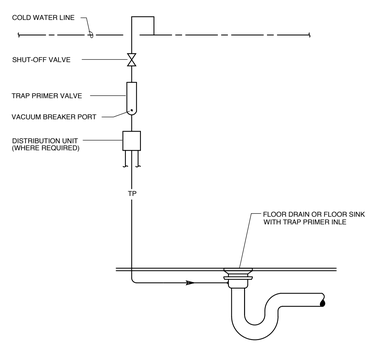


PIPE HANGER AND INSULATION DETAIL

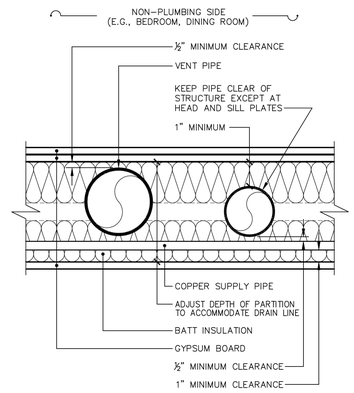
PIPE HANGER DETAIL | SCALE NONE | 1



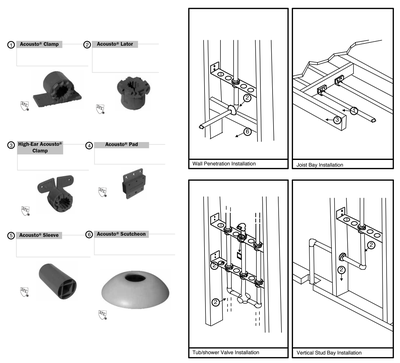
UNIT DOMESTIC WATER SUBMETER | SCALE NONE | 9



TRAP PRIMER INSTALLATION | SCALE NONE | 6



PLUMBING WALL PIPE ISOLATION | SCALE NONE | 3

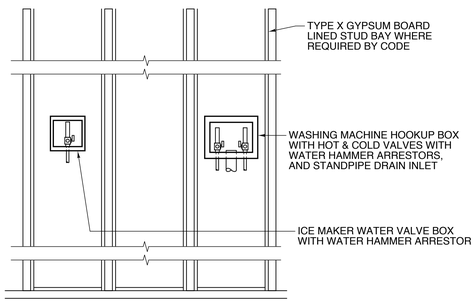


ACOUSTO–PLUMB SYSTEM INSTALLATION EXAMPLES
(Pipes 1" Diameter or less)

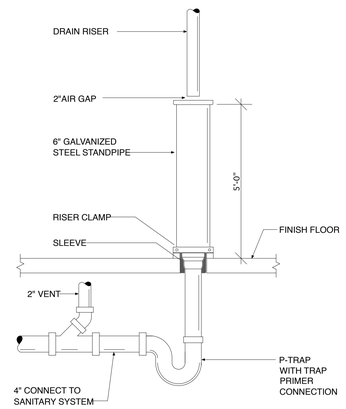
NOTE:

ACOUSTO-PLUMB SYSTEM, HUBBARD HOLDRITE SILENCER SYSTEM, AND THE TRISOLATOR SYSTEM ARE ACCEPTABLE EQUALS.

TYPICAL PIPE ACOUSTICAL ISOLATION DETAILS | SCALE NONE | 8



WATER HOOKUP DETAIL | SCALE NONE | 5



SPRINKLER HUB DRAIN | SCALE NONE | 2

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jmcinc@me.com 1-888-322-3321

DETAILS

PROJECT NO: 1132-0018

DATE: 05/12/2017

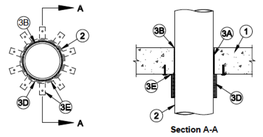
SHEET NO:

P8.01

PLAN CHECK RESPONSE #2 / ADDENDUM #1

System No. C-AJ-2104

F Rating - 2 Hr
T Rating - 0 Hr
L Rating At Ambient - 1 CFM/sq ft
L Rating At 400 F - Less Than 1 CFM/sq ft
W Rating - Class 1 (See Item 3B)



Section A-A

1. **Floor or Wall Assembly** - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete floor or min 5 in. (127 mm) thick reinforced lightweight or normal weight concrete wall. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 10 in. (254 mm).

   See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. **Through Penetrants** - One nonmetallic pipe to be centered within the firestop system. A nom annular space of 1/8 in. (3 mm) to 11/16 in.(17 mm) is required within the firestop system (See Item 4). Pipe to be rigidly supported on both sides of the floor or wall assembly. The following types and sizes of nonmetallic pipes may be used:
   A. **Polyvinyl Chloride (PVC) Pipe** - Nom 8 in. (203 mm) diam (or smaller) Schedule 40 PVC pipe for use in closed (process or supply) or vented (drain, waste, or vent) piping systems.
   B. **Flame Retardant Polypropylene (FRPP) Pipe** - Nom 8 in. (203 mm) diam (or smaller) Schedule 40 FRPP pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
   C. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** - Nom 8 in. (203 mm) diam (or smaller) SDR 13.5 CPVC pipe for use in closed (process or supply) piping systems.
   D. **Rigid Nonmetallic Conduit+** - Nom 6 in. (152 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with the National Electrical Code (NFPA No. 70).
3. **Firestop Systems** - The firestop system shall consist of the following:
   A. **Packing Material** - Min 4 in. (102 mm) thickness of 4 pcf (64 kg/m3) mineral wool firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or both surfaces of wall as required to accommodate the required thickness of fill material.
   B. **Fill, Void or Cavity Material*** - **Sealant** - Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with top surface of floor or both surfaces of wall.

      SPECIFIED TECHNOLOGIES INC - SpecSeal Series SSS Sealant, SpecSeal LCI Sealant, Pensil 300 Sealant or SpecSeal Series SIL 300 Sealant for floors and walls and Pensil 300 SL Sealant or SpecSeal Series SIL 300SL Sealant for floors only.

      W Rating applies only when Pensil 300, SpecSeal Series SIL 300, Pensil 300 S/L or SpecSeal Series SIL 300SL Sealants are used.

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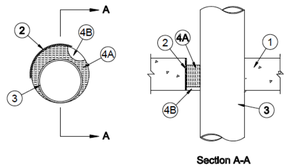
C-AJ-2104 PAGE 1 OF 2

System No. F-A-1015

F Rating - 3 Hr
T Rating - 0 Hr



Section A-A

1. **Floor Assembly** - Min 4-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Floor may also be constructed of any min 6 in. thick UL Classified hollow-core Precast Concrete Units*, Max diam of opening is 26 in. Max diam of opening in floor constructed of hollow-core precast concrete units is 7 in.

   See Precast Concrete Units (CFTV) category in the Fire Resistance Directory for names of manufacturers.

2. **Metallic Sleeve** - (Optional) -Nom 26 in. diam (or smaller) Schedule 10 (or heavier) steel pipe cast or grouted into floor. Sleeve to be installed flush with floor surfaces or such that top of sleeve projects a max 3 in. from the top surface of the floor.
3. **Through Penetrants** - One metallic pipe, conduit or tubing installed either concentrically or eccentrically within the firestop system. The annular space within the firestop system shall be a min 0 in. (point contact) to max 2 in. Pipe, conduit or tubing to be rigidly supported on both sides of floor 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 5 (or heavier) steel pipe.
   B. **Iron Pipe** - Nom 24 in. diam (or smaller) cast or ductile iron pipe.
   C. **Conduit** - Nom 6 in. diam (or smaller) rigid steel conduit, nom 4 in. (nom or smaller) electrical metallic tubing (EMT) or nom 1 in. diam (or smaller) flexible steel conduit.
   D. **Copper Tubing** - Nom 6 in. diam (or smaller) Type M (or heavier) copper tubing.
   E. **Copper Pipe** - Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.
4. **Firestop System** - The firestop system shall consist of the following:
   A. **Packing Material** - Min 3 in. thickness of min 4 pcf mineral wool batt insulation firmly packed into opening as a permanent form. When floor is constructed of hollow-core precast concrete units, depth of packing material to be increased to extend above top of hollow core penetrated by pipe, conduit or tubing. Packing material to be recessed from bottom surface of floor as required to accommodate the required thickness of fill material.
   B. **Fill Void or Cavity Materials*** - **Sealant** - Min 1/2 in. thickness of fill material applied within the annulus, flush with bottom surface of floor. At the point contact location between the through penetrant and concrete, a min 1/4 in. diam bead of fill material shall be applied at the concrete/through penetrant interface on the bottom surface of floor.

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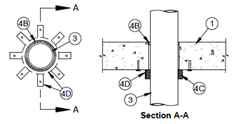
F-A-1015 PAGE 1 OF 1

System No. C-AJ-2297

F Ratings - 2 and 3 Hr (See Item 4C)
T Ratings - 0, 1, 2 and 3 Hr (See Item 4C)
L Rating At Ambient - Less Than 1 CFM/sq ft
L Rating At 400 F - Less Than 1 CFM/sq ft
W Rating - Class 1 (See Item 4B)



Section A-A

1. **Floor or Wall Assembly** - Lightweight or normal weight (100-150 pcf or 1600-2400 kg/ m3) concrete. Except as footnoted in the table under Item 4C, min thickness of concrete floor or wall assembly is 4-1/2 in. (114 mm). Floor may also be constructed of any min 6 in. (152 mm) thick hollow-core Precast Concrete Units*. Wall may also be constructed of any UL Classified Concrete Blocks*. Diam of opening to be min 5/8 in. (3.2 mm) to max 1-1/2 in. (38 mm) larger than outside diam of pipe or conduit.

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

2. **Steel Sleeve** - (Optional, Not Shown) - Nom 5 in. (127 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe or nom 5 in. (127 mm) diam (or smaller) No. 26 ga (0.022 in. or 0.56 mm thick) sheet steel sleeve with nom 2 in. wide square or circular anchor flange spot welded to the sleeve at it's approx mid-height. Sleeve cast or grouted into min 4-1/2 in. (114 mm) thick floor or wall assembly, flush with floor or wall surfaces.
3. **Through Penetrant** - One nonmetallic pipe or conduit to be installed eccentrically or concentrically within the firestop system. Pipe or conduit to be rigidly supported on both sides of the floor or wall assembly. The following types and sizes of nonmetallic pipes or conduits may be used:
   A. **Polyvinyl Chloride (PVC) Pipe** - Nom 6 in. (152 mm) diam (or smaller) solid or cellular core Schedule 40 polyvinyl chloride (PVC) pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
   B. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** - Nom 6 in. (152 mm) diam (or smaller) SDR 13.5 chlorinated polyvinyl chloride (CPVC) pipe for use in closed (process or supply) piping systems.
   C. **Rigid Nonmetallic Conduit+** - Nom 6 in. (152 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with Article 347 of the National Electrical Code (NFPA 70).
   D. **Acrylonitrile Butadiene Styrene (ABS) Pipe** - Nom 6 in. (152 mm) diam (or smaller) solid or cellular core Schedule 40 acrylonitrile butadiene styrene (ABS) pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
   E. **Fire Retardant Polypropylene (FRPP) Pipe** - Nom 6 in. (152 mm) diam (or smaller) solid or cellular core Schedule 40 fire retardant polypropylene (FRPP) pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
4. **Firestop System** - The firestop system shall consist of the following:
   A. **Packing Material** - (Not Shown) - When required, min 4 pcf (64 kg/m3) mineral wool batt insulation compressed and installed to the thickness specified in the table under Item 4C. Packing material to be recessed from top surface of floor or both surfaces of wall as required to accommodate sealant (Item 4B).

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System No. C-AJ-1353

F Rating - 3 Hr
T Rating - 0 Hr
L Rating At Ambient - Less Than 1 CFM/Ln Ft
L Rating At 400°F - Less Than 1 CFM/Ln Ft

Section A-A

1. **Floor or Wall Assembly** - Lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete floor or wall. Min thickness of concrete is shown in table in Item 4B. Floor may also be constructed of any min 6 in. (152 mm) thick hollow-core Precast Concrete Units*. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 14 in. (356 mm). Max diam of opening in floors constructed of hollow-core is 7 in. (178 mm).

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

2. **Steel Sleeve** - (Optional) - Nom 14 in. (356 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe or No. 26 ga (0.022 in. or 0.56 mm thick) sheet steel sleeve with square anchor flange spot welded to the sleeve at approx mid-height. Sleeve cast or grouted in place flush with floor or wall surfaces. Steel pipe sleeve may project a max of 2 in. (51 mm) beyond the floor or wall surfaces.
3. **Through Penetrant** - One metallic pipe, conduit or tube to be installed eccentrically or concentrically within the firestop system. The annular space between the pipe, conduit or tube and the periphery of the opening shall be min 0 in. (point contact). The max annular space is 1 in. or 2 in. (25 or 51 mm) as shown in the table in Item 4B . Pipe, conduit or tube to be rigidly supported on both sides of the floor or wall assembly. The following types and sizes of metallic pipes, conduits and tubes may be used:
   A. **Steel Pipe** - Nom 12 in. (305 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe.
   B. **Iron Pipe** - Nom 12 in. (305 mm) diam (or smaller) cast or ductile iron pipe.
   C. **Conduit** - Nom 6 in. (152 mm) diam (or smaller) rigid steel conduit, nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT) or nom 4 in. (102 mm) diam (or smaller) flexible steel conduit.
   D. **Copper Pipe** - Nom 4 in. (102 mm) diam (or smaller) Regular (or heavier) copper pipe.
   E. **Copper Tube** - Nom 4 in. (102 mm) diam (or smaller) Regular L (or heavier) copper tube.

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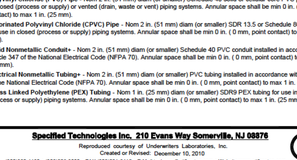
System No. W-L-2048

F Ratings - 1 and 2 Hr (See Item 1)
T Ratings - 1 and 2 Hr (See Items 2 and 4A)
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 or 2 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 Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. **Studs** - Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.
   B. **Gypsum Board*** - The gypsum board 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 5 in. (127 mm).

      The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.
2. **Steel Sleeve (Optional)** - Nom 3 in. (76 mm) diam (or smaller) Schedule 40 (or thinner) steel pipe friction-fit into wall assembly, flush with both surfaces of wall. **When steel sleeve is used, T Rating is 1 hr.**
3. **Through Penetrants** - One nonmetallic pipe or conduit to be centered within the firestop system. The annular space shall be min 1/4 in. (6 mm) to max 1-1/4 in (32 mm). Pipe or conduit to be rigidly supported on both sides of the wall assembly. The following types and sizes of nonmetallic pipes or conduits may be used:
   A. **Polyvinyl Chloride (PVC) Pipe** - Nom 3 in. (76 mm) diam (or smaller) Schedule 40 cellular or solid core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
   B. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** - Nom 3 in. (76 mm) diam (or smaller) SDR 13.5 CPVC pipe for use in closed (process or supply) piping systems.
   C. **Rigid Nonmetallic Conduit+** - Nom 3 in. (76 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with the National Electrical Code (NFPA No. 70).
   D. **Acrylonitrile Butadiene Styrene (ABS) Pipe** - Nom 3 in. (76 mm) diam (or smaller) Schedule 40 cellular or solid core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
   E. **Flame Retardant Polypropylene (FRPP) Pipe** - Nom 2 in. (51 mm) diam (or smaller) Schedule 40 FRPP pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
   F. **Polypropylene (PP) Pipe** - Nom 1 in. (25 mm) diam (or smaller) Schedule 80 PP pipe for use in closed (process or supply) piping systems .
   G. **Polyvinylidene Fluoride (PVDF) Pipe** - Nom 2 in. (51 mm) diam (or smaller) Schedule 40 PVDF pipe for use in closed (process or supply) piping systems .

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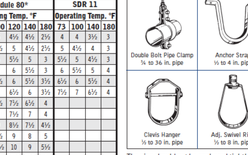
W-L-2048 PAGE 1 OF 2

System No. W-L-2243

F Ratings - 1 and 2 Hr (See Item 1)
T Ratings - 1, 1-3/4 and 2 Hr (See Item 1 and 3B)
L Rating At Ambient - 1 CFM/sq ft
L Rating At 400 F - Less Than 1 CFM/sq ft



Section A-A

1. **Wall Assembly** - The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. **Studs** - Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.
   B. **Gypsum Board*** - Thickness, type, number of layers and fasteners as specified in the individual Wall and Partition Design. Nom diam of opening is 1/4 to 1/2 in. (6 to 13 mm) larger than OD of through penetrant.

      The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed. The hourly T Rating is equal to the hourly fire rating of the wall in which it is installed except as noted under Item 3B.
2. **Through Penetrant** - One nonmetallic pipe or conduit to be installed eccentrically or concentrically within the firestop system. The annular space shall range from min 0 in. (point contact) to max 1/2 in. (13 mm), dependent upon pipe diameter. Pipe or conduit to be rigidly supported on both sides of the wall assembly. The following types and sizes of nonmetallic pipes or conduits may be used:
   A. **Polyvinyl Chloride (PVC) Pipe** - Nom 6 in. (152 mm) diam (or smaller) solid or cellular core Schedule 40 PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
   B. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** - Nom 6 in. (152 mm) diam (or smaller) SDR 13.5 CPVC pipe for use in closed (process or supply) piping systems.
   C. **Rigid Nonmetallic Conduit+** - Nom 6 in. (152 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with the National Electrical Code (NFPA 70).
   D. **Acrylonitrile Butadiene Styrene (ABS) Pipe** - Nom 6 in. (152 mm) diam (or smaller) solid or cellular core Schedule 40 ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
   E. **Fire Retardant Polypropylene (FRPP) Pipe** - Nom 6 in. (152 mm) diam (or smaller) Schedule 40 FRPP pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
3. **Firestop System** - The firestop system shall consist of the following:
   A. **Fill, Void or Cavity Material*** - **Sealant** - Fill material installed to min 1/4 in. (6 mm) depth within annulus on both sides of wall. When nom diam of pipe is less than 4 in. (102 mm) the sealant is optional. **L Ratings apply only when sealant is used.**

      SPECIFIED TECHNOLOGIES INC - SpecSeal Series 100, 101, 102, 105, 120 Or 129 Sealant, SpecSeal LCI Sealant, Pensil 300 Sealant or SpecSeal Series SIL300 Sealant

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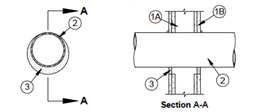
W-L-2243 PAGE 1 OF 3

System No. W-L-1049

F Ratings -1 and 2 Hr (See Item 1)
T Rating -0 Hr
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 or 2 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 Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. **Studs** -Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 3-5/8 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC. When steel studs are used and the diam of opening exceeds the width of stud cavity, the opening shall be framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. (102 to 152 mm) wider and 4 to 6 in. (102 to 152 mm) higher than the diam of the penetrating item such that, when the penetrating item is installed in the opening, a 2 to 3 in. (51 to 76 mm) clearance is present between the penetrating item and the framing on all four sides.
   B. **Gypsum Board*** -5/8 in. (16 mm) thick, 4 ft (1.22 m) wide with square or tapered edges. The gypsum board 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. (660 mm) for steel stud walls. Max diam of opening is 14-1/2 in. (368 mm) for wood stud walls.

      The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.

1A. **Metallic Sleeve** -(Optional, Not Shown) - Cylindrical sleeve fabricated from min 0.016 in. (0.41 mm) to max 0.105 in. (2.7 mm) thick sheet steel. Length of steel sleeve to be equal to the thickness of wall. Longitudinal seam of sleeve welded or overlapped min 1 in. (25 mm). The ends of the steel sleeve shall be flush or recessed max 1/4 in. (6 mm) from wall surfaces.

2. **Through Penetrant** -One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. Pipe, conduit or tubing may be installed at an angle not greater than 45 degrees from perpendicular. The annular space between pipe, conduit or tubing and periphery of opening shall be min 0 in. (0 mm, point contact) to max 2 in. (51 mm). 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. (610 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. **Iron Pipe** -Nom 24 in. (610 mm) diam (or smaller) cast or ductile iron pipe.
   C. **Conduit** -Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing, nom 6 in. (152 mm) diam (or smaller) steel conduit or nom 1 in. (25 mm) diam (or smaller) flexible steel conduit.
   D. **Copper Tubing** -Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
   E. **Copper Pipe** -Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
3. **Fill, Void or Cavity Material*** -**Sealant** -Min 5/8 in. (16 mm) thickness of fill material applied within annulus, flush with both surfaces of wall. At the point contact location between through penetrant and gypsum board, a min 3/8 in. (10 mm) diam bead of fill material shall be applied at the gypsum board/through penetrant interface on both surfaces of wall.

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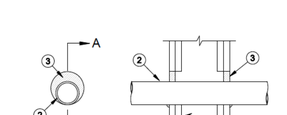
W-L-1049 PAGE 1 OF 1

System No. W-L-2241

F Ratings - 1 and 2 Hr (See Item 1)
T Ratings - 0, 1/4, 1 and 1-3/4 Hr (See Item 2)
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 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. **Studs** - Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced max 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.
   B. **Gypsum Board*** - Thickness, type, number of layers and fasteners as specified in the individual Wall and Partition Design. Diam of opening to be 1 in. to 1-1/8 in. (25 to 29 mm) larger than outside diam of pipe.

      The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed. When Item 5L or 2H is used, the hourly F Rating is 1 hr.
2. **Through Penetrant** - One nonmetallic pipe, conduit or tube to be installed eccentrically or concentrically within the firestop system. Pipe, conduit or tube to be rigidly supported on both sides of the wall assembly. The following types and sizes of nonmetallic pipes, conduits and tubes may be used:
   A. **Polyvinyl Chloride (PVC) Pipe** - Nom 2 in. (51 mm) diam (or smaller) Schedule 40 solid or cellular core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems. Annular space shall be min 0 in. (0 mm, point contact) to max 1 in. (25 mm).
   B. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** - Nom 2 in. (51 mm) diam (or smaller) SDR 13.5 or Schedule 80 CPVC pipe for use in closed (process or supply) piping systems. Annular space shall be min 0 in. (0 mm, point contact) to max 1 in. (25 mm).
   C. **Rigid Nonmetallic Conduit+** - Nom 2 in. (51 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with Article 347 of the National Electrical Code (NFPA 70). Annular space shall be min 0 in. (0 mm, point contact) to max 1 in. (25 mm).
   D. **Electrical Nonmetallic Tubing+** - Nom 2 in. (51 mm) diam (or smaller) PVC tubing installed in accordance with Article 331 of the National Electrical Code (NFPA 70). Annular space shall be min 0 in. (0 mm, point contact) to max 1 in. (25 mm).
   E. **Cross Linked Polyethylene (PEX) Tubing** - Nom 1 in. (25 mm) diam (or smaller) SDR9 PEX tubing for use in closed (process or supply) piping systems. Annular space shall be min 0 in. (0 mm, point contact) to max 1 in. (25 mm).

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W-L-2241 PAGE 1 OF 2

General Guidelines for Horizontal Support Spacing (in feet)

Nom. Pipe Size (In.)	PVC PIPE SDR 21 PR200 & SDR 26 PR160 Operating Temp. °F					PVC PIPE Schedule 40 Operating Temp. °F					PVC PIPE Schedule 80 Operating Temp. °F					ABS PIPE Schedule 40 Operating Temp. °F					
	60	80	100	120	140	60	80	100	120	140	60	80	100	120	140	60	80	100	120	140	160
½	3½	3½	3	2		4½	4½	4	2½	2½	5	4½	4½	3	2½						
¾	4	3½	3	2		5	4½	4	2½	2½	5½	5	4½	3	2½						
1	4	4	3½	2		5½	5	4½	3	2½	6	5½	5	3½	3						
1¼	4	4	3½	2½		5½	5½	5	3	3	6	6	5½	3½	3						
1½	4½	4	4	2½		6	5½	5	3½	3	6½	6	5½	3½	3½	6	6	5½	3½	3	3
2	4½	4	4	3		6	5½	5	3½	3	7	6½	6	4	3½	6	6	5½	3½	3	3
2½	5	5	4½	3		7	6½	6	4	3½	7½	7½	6½	4½	4						
3	5½	5½	4½	3		7	7	6	4	3½	8	7½	7	4½	4	7	7	7	4	3½	3½
4	6	5½	5	3½		7½	7	6½	4½	4	9	8½	7½	5	4½	7½	7½	7	4½	4	4
6	6½	6½	5½	4		8½	8	7½	5	4½	10	9½	9	6	5	8½	8½	8	5	4½	4½
8	7	6½	6	5		9	8½	8	5	4½	11	10½	9½	6½	5½						
10						10	9	8½	5½	5	12	11	10	7	6						
12						11½	10½	9½	6½	5½	13	12	10½	7½	6½						
14						12	11	10	7	6	13½	13	11	8	7						
16						12½	11½	10½	7½	6½	14	13½	11½	8½	7½						

NOTE: Always follow local code requirements for hanger spacing. Most plumbing codes have the following hanger spacing requirements:
- ABS and PVC pipe have a maximum horizontal hanger spacing of every four feet for all sizes.
- CPVC pipe or tubing has a maximum horizontal hanger spacing of every three feet for one inch and under and every four feet for sizes 1¼ inch and larger.

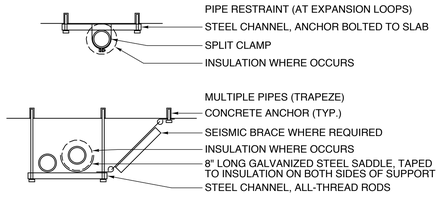
General Guidelines for Horizontal Support Spacing (in feet)

Nom. Pipe Size (In.)	CPVC PIPE Schedule 80* Operating Temp. °F						CPVC PIPE SDR 11 Operating Temp. °F					
	60	80	100	120	140	180	73	100	140	180		
½	5½	5½	5	4½	4½	2½	4	4	3½	3		
¾	5½	5½	5½	5	4½	2½	5	4½	4	3		
1	6	6	6	5½	5	3	5½	5	4½	3		
1¼	6½	6½	6	6	5½	3	6	5½	5	4		
1½	7	7	6½	6	5½	3½	6½	6	5½	4		
2	7	7	7	6½	6	3½	7½	7	6½	4		
2½	8	7½	7½	7½	6½	4						
3	8	8	8	7½	7	4						
4	9	9	9	8½	7½	4½						
6	10	10½	9½	9	8	5						
8	11	11	10½	10	9	5½						
10	11½	11½	11	10½	9½	6						
12	12½	12½	12½	11	10½	6½						

*Note: This product is not currently available. Information provided is for reference only.

Typical Pipe Hangers, Clamps, and Supports

The pipe should not be anchored tightly by the support, but secured in a manner to allow for movement caused by thermal expansion and contraction. It is recommended that you use clamps or straps that allow pipe to remain away from the framing, thus reducing the noise generated when pipe is allowed to rub against wood.



PIPE HANGER DETAILS

NOMINAL PIPE SIZE	LENGTH OF RUN IN FEET			
	40	60	80	100
	DIMENSION "L" IN INCHES			
1/2"	31	38	44	50
3/4 "	37	46	52	58
1"	42	52	60	67
1 1/4"	47	57	66	74
1 1/2"	51	62	72	80
2"	58	71	82	91
2 1 /2"	52	64	74	83
3"	58	71	82	91
4"	65	80	92	103
6"	79	97	112	125
8"	91	111	128	143
10"	101	124	143	160

NOTES:

1. BASED ON IAPMO IS 20-2006, USING TABLE 1 UP TO 2" PIPE SIZE. AND "CPVC SCHEDULE 80 CALCULATED LOOP (OFFSET) LENGTHS WITH ΔT OF APPROX. 100° F°, FOR PIPES OVER 2" SIZE.

2. IF PIPE MANUFACTURER REQUIRES GREATER LENGTH

LIGHTING FIXTURE SCHEDULE

ID	DESCRIPTION	MANUFACTURER	WATTS	COLOR TEMP	NOTES
UNIT LIGHTING FIXTURES					
UA	LED SURFACE MOUNTED FAUX "CAN LIGHT". 120V.	WAC# FM-4606-27	12.9W	3000K	OR APPROVED EQUAL
UB	FLUORESCENT SURFACE MOUNT IN CLOSET, 120V. MOUNTED ABOVE DOOR IN SHALLOW WALK-IN CLOSETS	GLOBAL CONCEPTS# qC-GU-V1P213-26WGU24-120-30K-WH	(2)18W GU24	3000K	OR APPROVED EQUAL
UC	FLUORESCENT WALL LIGHT ON PATIO WET LOCATION WITH INTEGRAL PHOTOCELL. 120V.	GLOBAL CONCEPTS# PL-12060-1-26-120-30K-BLACK MUST BE PROVIDED WITH INTEGRAL PHOTOCELL INTERIOR DESINGER TO CONFRIM SPECIFICAION UPON SAMPLE REVIEW.	26W	3000K	OR APPROVED EQUAL
UE	LED BATHROOM VANITY LIGHT, 120V.	TECH# 700BCSSPANZS-LED 830	21W	3000K	OR APPROVED EQUAL
UE (ADD)	FLUORESCENT ILLUMINATED MIRROR, 120V. (PRICE AS ADD ALT)	INNOVATIVE REFLECTIONS# 9240-38X36	(2)39W T5	3000K	ADD ALT
UF1	LED DECORATIVE PENDENT (PACKAGE #1), 120V.	TECH# 700TDMSGQPCWW-LED	22W LED	3000K	OR APPROVED EQUAL
UF2	LED DECORATIVE PENDENT (PACKAGE #2), 120V.	SLW# BISHADE PD-1	23W LED	3000K	OR APPROVED EQUAL
UG	LED UNDERCABINET LIGHT	NORA# NULB-8 SERIES (LENGTH PER PLANS) - A - NAL-801 NAL-800 + DRIVER(S) AS REQUIRED.	5W/LF	3000K	FIELD VERIFY TRANSFROMER LOCATION CONCEAL WHERE ACCESSIBLE.
UH	LED RECESSED CAN LIGHT AT LOFT VOLUME AREAS, 1200 LUMENS, 120V.	ELITE# HH6IC-LED-1200L-DMI0-120-MD-30K-90+	17W	3000K	OR APPROVED EQUAL
UJ (ADD)	JUNCTION BOX LOCATIONS WITHIN UNITS WITH BACKING FOR FUTURE CEILING FAN (PRICE AS ADD ALT), 120V.	CEILING MOUNTED JUNCTION BOX (ADD ALTERNATE) PROVIDE BACKING FOR FUTURE CEILING FAN INSTALL WALL SWITCH BLANK INSERT AT WALL SWITCH LOCATION. LEVITON 8044-W (OR EQUAL)			
EF - 1	COMBINATION EXHAUST FAN / LIGHT, 120V FAN SUPPLIED BY MECHANICAL CONTRACTOR, LAMPS BY ELECRICIAN.	BROAN# QTXE110FSLT CONFIRM WITH MECHANICAL PLANS SHEET M-1 PROVIDE (2) 18W GU-24 LAMPS - 3000◦ к	(2)18W	3000K	REFER TO DETAIL 9 / E-008
BUILDING LIGHTING FIXTURES					
BA	DECORATIVE UNIT ENTRY LIGHT, 120V.	MODERN FORMS# WS-115-22-WT	19W	3000K	OR APPROVED EQUAL
BB	LED DOWNLIGHT IN CORRIDOR, 120V.	GLOBAL CONCEPTS# ERH-023-120-30-LED 16W-80-ERT-CLWH	16W	3000K	OR APPROVED EQUAL
BC	LED EXTERIOR DOWNLIGHT, 120V.	INTENSE# 7CRL6-1000-409-C-SFW / IL6AC	15W.	3000K	OR APPROVED EQUAL
BD	SURFACE MOUNTED FLUORESCENT, 120V.	ALICO# FM1025-10-95	40W. G9	3000K	OR APPROVED EQUAL
BE	SURFACE MOUNTED LED IN GARAGE WITH INTEGRAL BI-LEVEL OCCUPANCY SENSOR, 120V.	GLOBAL CONCEPTS# EFV-002--3300LMIN-3500K-MI-CLR-IOC-DIM	40W	3000K	OR APPROVED EQUAL BI-LEVEL OCC SENSOR TO DIM 20-50% WHEN INACTIVE
BF	SURFACE MOUNTED LED IN STAIRS WITH INTEGRAL BI-LEVEL OCCUPANCY SENSOR, 120V.	PL# EFW-005-LED-30K-3000LUMEN-BN-DIMOCSEN	25W	3000K	OR APPROVED EQUAL BI-LEVEL OCC SENSOR TO DIM 20-50% WHEN INACTIVE
BG	4FT FLUORESCENT SURFACE MOUNT, 120V.	GLOBAL CONCEPTS# EFW-001-(2)F32T8-3000-120-WH	(2) 32W. T8	3000K	OR APPROVED EQUAL
BH	ELEVATOR PIT LIGHT, 120V.	GLOBAL CONCEPTS# GC43-1X32CFL-MV-300K-G	32W.	3000K	OR APPROVED EQUAL
BI	DECORATIVE WALL LIGHT AT BUILDING EXTERIOR, 120V.	HUBBARDTON FORGE# 306415-SMALL-BRONZE	14W		OR OWNER APPROVED EQUAL
BJ	DECORATIVE WALL LIGHT AT BUILDING EXTERIOR, 120V.	HUBBARDTON FORGE# 306420-LARGE-BRONZE	28W.		OR OWNER APPROVED EQUAL
BK	WET LOCATION LISTED LED TAPE LIGHT IN LANDSCAPE TROUGH REFER TO LANDSCAPE PLANS FOR DETAILS, CONCEAL TRANSFROMER / DRIVER AS REQUIRED, 120V.	KLUS# WP-K-30-1210-24V + XFMR AS REQUIRED	4.5W/LF	3000 K	OR APPROVED EQUAL
BL	OUTDOOR RATED FLOOR LAMP, 120V.	MARSET SANTORINI W/ FLOOR ACCESSORY VERIFY EXACT LOCATION WITH LANDSCAPE.	8W LED	3000 K	OR APPROVED EQUAL
BM	DECORATIVE LANDSCAPE WALL SCONCE, 120V.	MARSET SANTORINI W/ HARDWIRED WALL BRACKET	8W LED	3000 K	+7'-6" TO BOTTOM OF FIXTURE OR APPROVED EQUAL
BY	LED STRING LIGHT MOUNTED TO AIRCRAFT CABLE, 120V.	CAL-I-LIGHT# ML2000-24"-L-LED-2.7L-WET PROVIDE STAINLESS STEEL CABLE AND ACCESSORIES AS REQD.	1.25W/LF	2700 K	OR APPROVED EQUAL
BZ	LED WALL MOUNT AT ROOF DECK, WET LOCATION, 120V.	A-LIGHT#X4-4-L-H-30-U-P-HTL-F-**	20W	3000K	OR APPROVED EQUAL *** FINISH BY OWNER
B2	LED WALL PACK WITH INTEGRAL OCCUPANCY SENSOR AND PHOTOCELL, 120V.	BEACON# REV-D-24NB-27-3K-T2-UNV-OCS-PEC-**	26W	3500K	OR APPROVED EQUAL *** FINISH BY OWNER
EXIT 1	GARAGE EXIT SIGN, 120V.	LITHONIA# LQM-S-W-3-R-120	1.5W.	RED	OR OWNER APPROVED EQUAL
EXIT 2	RESIDENTIAL EXIT SIGN, 120V.	LITHONIA# LRP SERIES (MODEL PER PLAN)	1.5W.	RED	OR OWNER APPROVED EQUAL
EXIT WET	EXIT SIGN WET LOCATION, 120V.	LITHONIA# WLTE-W-1-R	1.5W.	RED	OR OWNER APPROVED EQUAL

Notes:
VERIFY FINISH AND STYLE WITH OWNER PRIOR TO ORDERING.

MATERIAL INVENTORY TURNOVER LIST

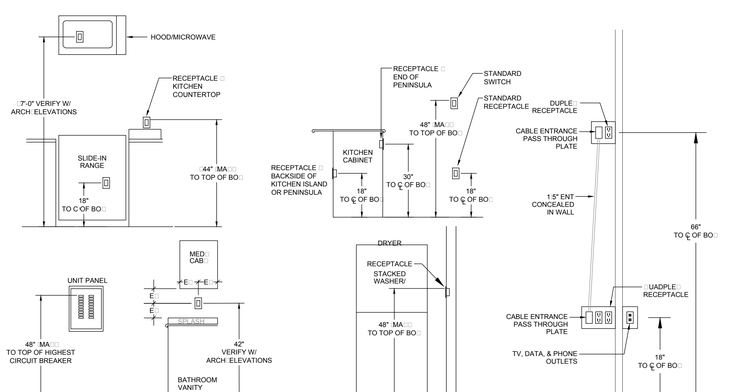
CONTRACTOR TO PROVIDE THE FOLLOWING ADDITIONAL MATERIALS AT OWNER TURNOVER:

QTY	MATERIAL
9	Smoke Detectors
9	Carbon Monoxide/Smoke Detectors
100	Misc. Sized electrical cover plates
10	Exit signs
9	Recessed Light Trim Kits
3	Kitchen Pendant Lights
3	Dining Area Pendant Lights
3	Bathroom Vanity Lights
5	Amenity Space Light Fixture Bulbs
5	Building Light Fixture Bulbs
5	Landscape Light Fixture Bulbs

LIGHTING SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	MODEL	NOTES	WATAGE / DIM
EF1	E□IT SIGN	LITHONIA □OR APPROVED E□□□	LRP-1-GC	UNIVERSAL MOUNT	5W MA□
F1	RECESSED LINEAR LED □TBAR□	A□IS	BEAM2 LED, BRLED-BS3-LED-1000-40-SO-A-M11LED#-W-UNV-D-1-TB15-B#-HD-DS#		42W / 0-10V
F2	RECESSED WALL WASHER	DELTA LIGHT	MINI REO 0K 82710		3W / 0-10V
F3	RECESSED LED □3" ROUND□	WAC LIGHTING	HR-LED90		10W / ELV
F4	RECESSED LED □6" ROUND□	WAC LIGHTING	HR-3LED-TL220-WT□ROUND TRIMLESS□		23W / 0-10V
F5	RECESSED LED, WET LOCATION □5" ROUND□	LYTECASTER	1050LRNDL	1050RNLDL - WHITE BAFFLE, WHITE FLANGE	15W / INC□
F6	SURFACE MOUNT LED	WAC LIGHTING	TUBE FM-W2605		16W / ELV
F7	SURFACE MOUNT FI□TURE □LOUNGE□	BUZZI SHADE	PENDANT, SIZE: MEDIUM, SHADE: BLACK, CORD: BLACK, LACE: BLACK		29W / ELV
F8	SURFACE MOUNT LED □RECTANGLE□	PHILIPS DAY-BRITE	4122-51-ST-L-8C-E-S-7-1-0-10V		28W / 0-10V
F9	LED COVE LIGHTING	DELTALIGHT	FEMTOLINE 25	W/ DRIVERS AS RE□D□	5W/LF / 0-10V
F10	LED STRIP LIGHTING	KLUS LIGHTING	K-30-1820-HD-24V □FMR AS RE□UIRED	W/ DRIVERS AS RE□D□	5W/LF / NON DIM
F11	LIT RESTROOM MIRRORS	ELECTRIC MIRROR	FUSION LIGHTED MIRROR□□		30W / NON DIM
F12	UNIT ENTRY FI□TURE		SEE FI□TURE BA		
F13	PENDANT □LOUNGE□	DMF LIGHTING	DCC2 LED CYLINDER, CORD MOUNT□DCC2CMS1040WH0□		15W / ELV
F14	DECORATIVE FI□TURE □GARAGE LOBBY□	HIGH TOWER	CARAVAGGIO MATTE WHITE CAR255		100W / TRIAC
F15	DECORATIVE FI□TURE □LOBBY/HALLWAY□	TECH LIGHTING	BRUMMEL PENDANT LED W/ CANOPY TRANSFORMER	COLOR: WHITE	8W / TRIAC
F16	DECORATIVE FI□TURE □LEASING□	TECH LIGHTING	SOCO PENDANT		150W / TRIAC
F17	DECORATIVE FI□TURE □COWORKING□	MOOOI	KROON 11		60W / TRIAC
F18	DECORATIVE FI□TURE □LOUNGE□	NEMO/MOST	CIRCUS 56		60W / TRIAC
F19	DECORATIVE FI□TURE □MAILROOM□	HIGH TOWER	CARAVAGGIO MATTE BLACK CAR255		100W / TRIAC
F20	DECORATIVE FI□TURE □FITNESS CENTER□	LBL	LOFT LED LINE VOLTAGE PENDANT	COLOR: RUBBERIZED BLACK WITH BLACK CAGE	60W / TRIAC
F21	DECORATIVE FI□TURE □ELEV LOBBY□	A□IS	BEAM2 LED PENDANT		42W / 0-10V
F22	DECORATIVE FI□TURE □WALL SCONCE□	MARSET	SANTORINI, WITH WALL BRACKET		
F23	DECORATIVE FI□TURE □MAKER SPACE□	COLOR CORD	METAL SINGLE CEILING FI□TURE, W/ INDUSTRIAL LIGHT BULB CAGE - RAW METAL		INCANDESCENT
F24	CEILING FAN □FITNESS□	BIGASS FAN	HAIKU I SERIES, SIZE: 60"	COLOR: BLACK	

LIGHTING FIXTURE SCHEDULE | 8



TYPICAL DEVICE HEIGHTS | 9

A: AREA CONTROLS□:
1: ALL LUMINAIRES SHALL BE FUNCTIONALLY CONTROLLED WITH MANUALLY SWITCHED ON AND OFF LIGHTING CONTROLS: EACH AREA ENCLOSED BY CEILING-HEIGHT PARTITIONS SHALL BE INDEPENDENTLY CONTROLLED.
E: CEPTION TO SECTION 130.1 A 1: 1 TO 2 0 WATTS PER S□UARE FOOT OF LIGHTING IN ANY AREA WITHIN A BUILDING MAY BE CONTINUOUSLY ILLUMINATED DURING OCCUPIED TIMES TO ALLOW FOR EMERGENCY EGRESS, IF:
A: THE AREA IS DESIGNATED AN EMERGENCY EGRESS AREA ON THE PLANS AND SPECIFICATIONS SUBMITTED TO THE ENFORCEMENT AGENCY UNDER SECTION 10-103 A 2 OF PART 1; AND
B: THE CONTROL SWITCHES FOR THE EGRESS LIGHTING ARE NOT ACCESSIBLE TO UNAUTHORIZED PERSONNEL□.
2: THE LIGHTING CONTROLS SHALL MEET THE FOLLOWING RE□UIREMENTS:
A: BE READILY ACCESSIBLE; AND
B: BE OPERATED WITH A MANUAL SWITCH THAT IS LOCATED IN THE SAME ROOM OR AREA WITH THE LIGHTING THAT IS CONTROLLED BY THAT LIGHTING CONTROL; AND
C: IF CONTROLLING DIMMABLE LUMINAIRES, BE A DIMMER SWITCH THAT ALLOWS MANUAL ON AND OFF FUNCTIONALITY, AND IS CAPABLE OF MANUALLY CONTROLLING LIGHTING THROUGH ALL LIGHTING CONTROL STEPS THAT ARE RE□UIRED IN SECTION 130.1 B□:
E□CEPTION 1 TO SECTION 130.1 A 2: IN MALLS, AUDITORIUMS, RETAIL AND WHOLESALE SALES FLOORS, INDUSTRIAL FACILITIES, CONVENTION CENTERS, AND ARENAS, THE LIGHTING CONTROL SHALL BE LOCATED SO THAT A PERSON USING THE LIGHTING CONTROL CAN SEE THE LIGHTS OR AREA CONTROLLED BY THAT LIGHTING CONTROL, OR SO THAT THE AREA BEING LIT IS ANNUNCIATED□.
E□CEPTION 2 TO SECTION 130.1 A 2: PUBLIC RESTROOMS HAVING TWO OR MORE STALLS MAY USE A MANUAL SWITCH NOT ACCESSIBLE TO UNAUTHORIZED PERSONNEL□.
3: OTHER LIGHTING CONTROLS□:
A: OTHER LIGHTING CONTROLS MAY BE INSTALLED IN ADDITION TO THE MANUAL LIGHTING CONTROLS PROVIDED THEY DO NOT OVERRIDE THE FUNCTIONALITY OF CONTROLS INSTALLED IN ACCORDANCE WITH SECTION 130.1 A 1, 2, OR 4 ;
4: SEPARATELY CONTROLLED LIGHTING SYSTEMS: IN ADDITION TO THE RE□UIREMENTS IN SECTION 130.1 A 1, 2, AND 3:
A: GENERAL LIGHTING SHALL BE SEPARATELY CONTROLLED FROM ALL OTHER LIGHTING SYSTEMS IN AN AREA□.
B: FLOOR AREAS NEAR WALL DISPLAY, WINDOW DISPLAY, CASE DISPLAY, ORNAMENTAL, AND SPECIAL EFFECTS LIGHTING SHALL EACH BE SEPARATELY CONTROLLED ON CIRCUITS THAT ARE 20 AMPS OR LESS□.
C: WHEN TRACK LIGHTING IS USED, GENERAL, DISPLAY, ORNAMENTAL, AND SPECIAL EFFECTS LIGHTING SHALL EACH BE SEPARATELY CONTROLLED□.
B: MULTI-LEVEL LIGHTING CONTROLS: THE GENERAL LIGHTING OF ANY ENCLOSED AREA 100 S□ UARE FEET OR LARGER, WITH A CONNECTED LIGHTING LOAD THAT E□CEEDS 0.5 WATTS PER S□ UARE FOOT SHALL MEET THE FOLLOWING RE□UIREMENTS:
1: LIGHTING SHALL HAVE THE RE□UIRED NUMBER OF CONTROL STEPS AND MEET THE UNIFORMITY RE□UIREMENTS IN ACCORDANCE WITH TABLE 130.1-A; AND
2: MULTI-LEVEL LIGHTING CONTROLS SHALL NOT OVERRIDE THE FUNCTIONALITY OF OTHER LIGHTING CONTROLS RE□UIRED FOR COMPLIANCE WITH SECTION 130.1 A, AND□C□THROUGH E□AND
3: EACH LUMINAIRE SHALL BE CONTROLLED BY AT LEAST ONE OF THE FOLLOWING METHODS:
A: MANUAL DIMMING MEETING THE APPLICABLE RE□UIREMENTS OF SECTION 130.1 A□
B: LUMEN MAINTENANCE AS DEFINED IN SECTION 100.1
C: TUNING AS DEFINED IN SECTION 100.1
D: AUTOMATIC DAYLIGHTING CONTROLS IN ACCORDANCE WITH SECTION 130.1 D□
E: DEMAND RESPONSIVE LIGHTING CONTROLS IN ACCORDANCE WITH SECTION 130.1 E□E□CEPTION 1 TO SECTION 130.1 B□
CLASSROOMS WITH A CONNECTED GENERAL LIGHTING LOAD OF 3.7 WATTS PER S□ UARE FEET AND LESS, SHALL HAVE AT LEAST ONE CONTROL STEP BETWEEN 30-70 PERCENT OF FULL RATED POWER□□
E□CEPTION 2 TO SECTION 130.1 B□ AN AREA ENCLOSED BY CEILING HEIGHT PARTITIONS THAT HAS ONLY ONE LUMINAIRE WITH NO MORE THAN TWO LAMPS□
C: SHUT-OFF CONTROLS
1: IN ADDITION TO LIGHTING CONTROLS INSTALLED TO COMPLY WITH SECTIONS 130.1 A□AND□B□ ALL INSTALLED INDOOR LIGHTING SHALL BE E□UIPPED WITH CONTROLS THAT MEET THE FOLLOWING RE□UIREMENTS:
A: SHALL BE CONTROLLED WITH AN OCCUPANT SENSING CONTROL, AUTOMATIC TIME-SWITCH CONTROL, SIGNAL FROM ANOTHER BUILDING SYSTEM, OR OTHER CONTROL CAPABLE OF AUTOMATICALLY SHUTTING OFF ALL OF THE LIGHTING WHEN THE SPACE IS TYPICALLY UNOCCUPIED□AND
B: SEPARATE CONTROLS FOR THE LIGHTING ON EACH FLOOR□AND
C: SEPARATE CONTROLS FOR A SPACE ENCLOSED BY CEILING HEIGHT PARTITIONS NOT E□CEEDING 5,000 S□ UARE FEET□AND
E: CEPTION 1 TO SECTION 130.1 C 1C: IN THE FOLLOWING FUNCTION AREAS THE AREA CONTROLLED MAY NOT E□CEED 20,000 S□ UARE FEET: MALLS, AUDITORIUMS, SINGLE TENANT RETAIL, INDUSTRIAL, CONVENTION CENTERS, AND ARENAS□
D: SEPARATE CONTROLS FOR GENERAL, DISPLAY, ORNAMENTAL, AND DISPLAY CASE LIGHTING□
E□CEPTION 1 TO SECTION 130.1 C 1: WHERE THE LIGHTING IS SERVING AN AREA THAT IS IN CONTINUOUS USE, 24 HOURS PER DAY□365 DAYS PER YEAR□
E: CEPTION 2 TO SECTION 130.1 C 1: LIGHTING COMPLYING WITH SECTION 130.1 C 5, OR 7□
E□CEPTION 3 TO SECTION 130.1 C 1: IN OFFICE BUILDINGS, UP TO 0.65 WATTS PER S□ UARE FOOT OF LIGHTING IN ANY AREA WITHIN A BUILDING MAY BE CONTINUOUSLY ILLUMINATED, PROVIDED THAT THE AREA IS DESIGNATED AN EMERGENCY EGRESS AREA ON THE PLANS AND SPECIFICATIONS SUBMITTED TO THE ENFORCEMENT AGENCY UNDER SECTION 10-103 A 2 OF PART 1□
E□CEPTION 4 TO SECTION 130.1 C 1: ELECTRICAL E□UIPMENT ROOMS SUBJECT TO ARTICLE 110 26 D□OF THE CALIFORNIA ELECTRICAL CODE□
2: COUNTDOWN TIMER SWITCHES SHALL NOT BE USED TO COMPLY WITH THE AUTOMATIC SHUT-OFF CONTROL RE□UIREMENTS IN SECTION 130.1 C 1□
E□CEPTION 1 TO SECTION 130.1 C 2: SINGLE-STALL BATHROOMS LESS THAN 70 S□ UARE FEET, AND CLOSETS LESS THAN 70 S□ UARE FEET MAY USE COUNTDOWN TIMER SWITCHES WITH A MA□IMUM SETTING CAPABILITY OF TWO MINUTES TO COMPLY WITH THE AUTOMATIC SHUT-OFF RE□UIREMENTS□
E□CEPTION 2 TO SECTION 130.1 C 2: LIGHTING IN A SERVER AISLE IN A SERVER ROOM, AS DEFINED IN SECTION 100.1, MAY USE COUNTDOWN TIMER SWITCHES WITH A MA□IMUM SETTING CAPABILITY OF 30 MINUTES TO COMPLY WITH THE AUTOMATIC SHUT-OFF RE□UIREMENTS□
3: IF AN AUTOMATIC TIME-SWITCH CONTROL, OTHER THAN AN OCCUPANT SENSING CONTROL, IS INSTALLED TO COMPLY WITH SECTION 130.1 C 1, IT SHALL INCORPORATE AN OVERRIDE LIGHTING CONTROL THAT:
A: COMPLIES WITH SECTION 130.1 A□AND
B: ALLOWS THE LIGHTING TO REMAIN ON FOR NO MORE THAN 2 HOURS WHEN AN OVERRIDE IS INITIATED□
E: CEPTION TO SECTION 130.1 C 3B: IN THE FOLLOWING FUNCTION AREAS, THE OVERRIDE TIME MAY E□CEED 2 HOURS: MALLS, AUDITORIUMS, SINGLE TENANT RETAIL, INDUSTRIAL, AND ARENAS WHERE CAPTIVE-KEY OVERRIDE IS UTILIZED□
4: IF AN AUTOMATIC TIME-SWITCH CONTROL, OTHER THAN AN OCCUPANT SENSING CONTROL, IS INSTALLED TO COMPLY WITH SECTION 130.1 C 1, IT SHALL INCORPORATE AN AUTOMATIC HOLIDAY "SHUT-OFF" FEATURE THAT TURNS OFF ALL LOADS FOR AT LEAST 24 HOURS, AND THEN RESUMES THE NORMALLY SCHEDULED OPERATION□
E□CEPTION TO SECTION 130.1(C)4: IN RETAIL STORES AND ASSOCIATED MALLS, RESTAURANTS, GROCERY STORES, CHURCHES, AND THEATERS, THE AUTOMATIC TIME-SWITCH CONTROL IS NOT RE□UIRED TO INCORPORATE AN AUTOMATIC HOLIDAY SHUT-OFF FEATURE□
5: **AREAS WHERE OCCUPANT SENSING CONTROLS ARE REQUIRED TO SHUT OFF ALL LIGHTING**: IN OFFICES 250 S□ UARE FEET OR SMALLER, MULTIPURPOSE ROOMS OF LESS THAN 1,000 S□ UARE FEET, CLASSROOMS OF ANY SIZE, AND CONFERENCE ROOMS OF ANY SIZE, LIGHTING SHALL BE CONTROLLED WITH OCCUPANT SENSING CONTROLS TO AUTOMATICALLY SHUT OFF ALL OF THE LIGHTING WHEN THE ROOM IS UNOCCUPIED□IN ADDITION, CONTROLS SHALL BE PROVIDED THAT ALLOW THE LIGHTS TO BE MANUALLY TURNED OFF IN ACCORDANCE WITH SECTION 130.1 A, REGARDLESS OF THE SENSOR'S STATUS□
6: **AREAS WHERE PARTIAL ON/OFF OCCUPANT SENSING CONTROLS ARE REQUIRED** IN ADDITION TO COMPLYING WITH SECTION 130.1 C 1:
A: IN AISLE WAYS AND OPEN AREAS IN WAREHOUSES, LIGHTING SHALL BE CONTROLLED WITH OCCUPANT SENSING CONTROLS THAT AUTOMATICALLY REDUCE LIGHTING POWER BY AT LEAST 50 PERCENT WHEN THE AREAS ARE UNOCCUPIED. THE OCCUPANT SENSING CONTROLS SHALL BE CAPABLE OF AUTOMATICALLY TURNING THE LIGHTING BY 50% ONLY IN THE SEPARATELY CONTROLLED SPACE, AND SHALL NOT CONTROL LIGHTING BEYOND THE AISLE WAY BEING CONTROLLED BY THE SENSOR□
E□CEPTION TO SECTION 130.1(C)6A: WHEN METAL HALIDE LIGHTING OR HIGH PRESSURE SODIUM LIGHTING IS INSTALLED IN WAREHOUSE OCCUPANT SENSING CONTROLS SHALL REDUCE LIGHTING POWER BY AT LEAST 40 PERCENT□
B: IN LIBRARY BOOK STACK AISLES 10 FEET OR LONGER THAT ARE ACCESSIBLE FROM ONLY ONE END, AND LIBRARY BOOK STACK AISLES 20 FEET OR LONGER THAT ARE ACCESSIBLE FROM BOTH ENDS, LIGHTING SHALL BE CONTROLLED WITH OCCUPANT SENSING CONTROLS THAT AUTOMATICALLY REDUCE LIGHTING POWER BY AT LEAST 50 PERCENT WHEN THE AREAS ARE UNOCCUPIED. THE OCCUPANT SENSING CONTROLS SHALL INDEPENDENTLY CONTROL LIGHTING IN EACH AISLE WAY, AND SHALL NOT CONTROL LIGHTING BEYOND THE AISLE WAY BEING CONTROLLED BY THE SENSOR□
E□CEPTION 1 TO SECTION 130.1(C)6B: LIGHTING IN CORRIDORS AND STAIRWELLS SHALL BE CONTROLLED BY OCCUPANT SENSING CONTROLS THAT AUTOMATICALLY REDUCE LIGHTING POWER BY AT LEAST 50 PERCENT WHEN THE SPACE IS UNOCCUPIED. THE OCCUPANT SENSING CONTROLS SHALL BE CAPABLE OF AUTOMATICALLY TURNING THE LIGHTING FULLY ON ONLY IN THE SEPARATELY CONTROLLED SPACE, AND SHALL BE AUTOMATICALLY ACTIVATED FROM ALL DESIGNED PATHS OF EGRESS□
E□CEPTION 2 TO SECTION 130.1(C)6B: OCCUPANT SENSING CONTROLS ARE REQUIRED INSTEAD OF COMPLYING WITH SECTION 130.1 C 1:
A: LIGHTING IN STAIRWELLS AND COMMON AREA CORRIDORS THAT PROVIDE ACCESS TO GUESTROOMS AND DWELLING UNITS OF HIGH-RISE RESIDENTIAL BUILDINGS AND HOTEL/MOTELS SHALL BE CONTROLLED WITH OCCUPANT SENSING CONTROLS THAT AUTOMATICALLY REDUCE LIGHTING POWER BY AT LEAST 50 PERCENT WHEN THE AREAS ARE UNOCCUPIED. THE OCCUPANT SENSING CONTROLS SHALL BE CAPABLE OF AUTOMATICALLY TURNING THE LIGHTING FULLY ON ONLY IN THE SEPARATELY CONTROLLED SPACE, AND SHALL BE AUTOMATICALLY ACTIVATED FROM ALL DESIGNED PATHS OF EGRESS□
7: **AREAS WHERE PARTIAL ON/OFF OCCUPANT SENSING CONTROLS ARE REQUIRED** INSTEAD OF COMPLYING WITH SECTION 130.1 C 1:
A: LIGHTING IN AISLEWAYS AND COMMON AREA CORRIDORS THAT PROVIDE ACCESS TO GUESTROOMS AND DWELLING UNITS OF HIGH-RISE RESIDENTIAL BUILDINGS AND HOTEL/MOTELS SHALL BE CONTROLLED WITH OCCUPANT SENSING CONTROLS THAT AUTOMATICALLY REDUCE LIGHTING POWER BY AT LEAST 50 PERCENT WHEN THE AREAS ARE UNOCCUPIED. THE OCCUPANT SENSING CONTROLS SHALL BE CAPABLE OF AUTOMATICALLY TURNING THE LIGHTING FULLY ON ONLY IN THE SEPARATELY CONTROLLED SPACE, AND SHALL BE AUTOMATICALLY ACTIVATED FROM ALL DESIGNED PATHS OF EGRESS□
B: IN ENCLOSED SPACES SUCH AS OFFICES, CONFERENCE ROOMS, CLASSROOMS, RESTROOMS, STORAGE ROOMS, AND SIMILAR SPACES, LIGHTING SHALL BE CONTROLLED WITH OCCUPANT SENSING CONTROLS THAT AUTOMATICALLY REDUCE LIGHTING POWER BY AT LEAST 50 PERCENT□
C: LIGHTING INSTALLED IN CORRIDORS AND STAIRWELLS SHALL BE CONTROLLED BY OCCUPANT SENSING CONTROLS THAT AUTOMATICALLY REDUCE THE LIGHTING POWER IN EACH SPACE BY AT LEAST 50 PERCENT WHEN THE SPACE IS UNOCCUPIED. THE OCCUPANT SENSING CONTROLS SHALL BE CAPABLE OF AUTOMATICALLY TURNING THE LIGHTING FULLY ON ONLY IN THE SEPARATELY CONTROLLED SPACE, AND SHALL BE AUTOMATICALLY ACTIVATED FROM ALL DESIGNED PATHS OF EGRESS□
AREAS WHERE PARTIAL ON/OFF OCCUPANT SENSING CONTROLS ARE REQUIRED INSTEAD OF COMPLYING WITH SECTION 130.1 C 1:
A: IN STAIRWELLS AND COMMON AREA CORRIDORS THAT PROVIDE ACCESS TO GUESTROOMS AND DWELLING UNITS OF HIGH-RISE RESIDENTIAL BUILDINGS AND HOTEL/MOTELS SHALL BE CONTROLLED WITH OCCUPANT SENSING CONTROLS THAT AUTOMATICALLY REDUCE LIGHTING POWER BY AT LEAST 50 PERCENT WHEN THE AREAS ARE UNOCCUPIED. THE OCCUPANT SENSING CONTROLS SHALL BE CAPABLE OF AUTOMATICALLY TURNING THE LIGHTING FULLY ON ONLY IN THE SEPARATELY CONTROLLED SPACE, AND SHALL BE AUTOMATICALLY ACTIVATED FROM ALL DESIGNED PATHS OF EGRESS□
B: IN ENCLOSED SPACES SUCH AS OFFICES, CONFERENCE ROOMS, CLASSROOMS, RESTROOMS, STORAGE ROOMS, AND SIMILAR SPACES, LIGHTING SHALL BE CONTROLLED WITH OCCUPANT SENSING CONTROLS THAT AUTOMATICALLY REDUCE LIGHTING POWER BY AT LEAST 50 PERCENT□
C: LIGHTING INSTALLED IN CORRIDORS AND STAIRWELLS SHALL BE CONTROLLED BY OCCUPANT SENSING CONTROLS THAT AUTOMATICALLY REDUCE THE LIGHTING POWER IN EACH SPACE BY AT LEAST 50 PERCENT WHEN THE SPACE IS UNOCCUPIED. THE OCCUPANT SENSING CONTROLS SHALL BE CAPABLE OF AUTOMATICALLY TURNING THE LIGHTING FULLY ON ONLY IN THE SEPARATELY CONTROLLED SPACE, AND SHALL BE AUTOMATICALLY ACTIVATED FROM ALL DESIGNED PATHS OF EGRESS□
AREAS WHERE PARTIAL ON/OFF OCCUPANT SENSING CONTROLS ARE REQUIRED INSTEAD OF COMPLYING WITH SECTION 130.1 C 1:
A: IN LIBRARY BOOK STACK AISLES 10 FEET OR LONGER THAT ARE ACCESSIBLE FROM ONLY ONE END, AND LIBRARY BOOK STACK AISLES 20 FEET OR LONGER THAT ARE ACCESSIBLE FROM BOTH ENDS, LIGHTING SHALL BE CONTROLLED WITH OCCUPANT SENSING CONTROLS THAT AUTOMATICALLY REDUCE LIGHTING POWER BY AT LEAST 50 PERCENT WHEN THE AREAS ARE UNOCCUPIED. THE OCCUPANT SENSING CONTROLS SHALL INDEPENDENTLY CONTROL LIGHTING IN EACH AISLE WAY, AND SHALL NOT CONTROL LIGHTING BEYOND THE AISLE WAY BEING CONTROLLED BY THE SENSOR□
E□CEPTION 1 TO SECTION 130.1(C)6A: IN AISLE WAYS AND OPEN AREAS IN WAREHOUSES IN WHICH THE INSTALLED LIGHTING POWER IS 80 PERCENT OR LESS OF THE VALUE ALLOWED UNDER THE AREA CATEGORY METHOD, OCCUPANT SENSING CONTROLS SHALL REDUCE LIGHTING POWER BY AT LEAST 40 PERCENT□
B: IN PARKING GARAGES, PARKING AREAS AND LOADING AND UNLOADING AREAS, GENERAL LIGHTING SHALL BE CONTROLLED BY OCCUPANT SENSING CONTROLS HAVING AT LEAST ONE CONTROL STEP BETWEEN 20 PERCENT AND 50 PERCENT OF DESIGN LIGHTING POWER NO MORE THAN 500 WATTS OF RATED LIGHTING POWER SHALL BE CONTROLLED TOGETHER AS A SINGLE ZONE□
A REASONABLY UNIFORM LEVEL OF ILLUMINANCE SHALL BE PROVIDED IN ACCORDANCE WITH THE APPLICABLE RE□UIREMENTS IN TABLE 130.1-A. THE OCCUPANT SENSING CONTROLS SHALL BE CAPABLE OF AUTOMATICALLY TURNING THE LIGHTING FULLY ON ONLY IN THE SEPARATELY CONTROLLED SPACE, AND SHALL BE AUTOMATICALLY ACTIVATED FROM ALL DESIGNED PATHS OF EGRESS□
E□CEPTION TO SECTION 130.1(C)7: IN GARAGES, PARKING AREAS AND LOADING AND UNLOADING AREAS, GENERAL LIGHTING SHALL BE CONTROLLED BY OCCUPANT SENSING CONTROLS PROVIDED THEY DO NOT OVERRIDE THE FUNCTIONALITY OF CONTROLS INSTALLED IN ACCORDANCE WITH SECTION 130.1 A 1, 2, OR 4 ;
4: SEPARATELY CONTROLLED LIGHTING SYSTEMS: IN ADDITION TO THE RE□UIREMENTS IN SECTION 130.1 A 1, 2, AND 3:
A: GENERAL LIG

NON-RESIDENTAIL ELECTRICAL CALCULATIONS

	ELECTRICAL SERVICE #1 - HOUSE METER							ELECTRICAL SERVICE #3 - HOUSE METER							RETAIL SERVICE						
	QTY	UNIT	LOAD	UNIT	SUBTOTAL	DEMAND	TOTAL (VA)	QTY	UNIT	LOAD	UNIT	SUBTOTAL	DEMAND	TOTAL (VA)	QTY	UNIT	LOAD	UNIT	SUBTOTAL	DEMAND	TOTAL (VA)
AMENITY AREA LTG	4000	sqft @	1.0	VA/sqft	4000	1.25	5000	1385	sqft @	1.0	VA/sqft	1385	1.25	1731	0	sqft @	1.0	VA/sqft	0	1.25	0
AMENITY POWER	4000	sqft @	3.0	VA/sqft	12000	1.00	12000	1385	sqft @	3.0	VA/sqft	4155	1.00	4155	0	sqft @	3.0	VA/sqft	0	1.00	0
AMENITY HVAC	10	tons @	2000	VA/ton	20000	1.00	20000	5	tons @	2000	VA/ton	10000	1.00	10000	0	tons @	2000	VA/ton	0	1.00	0
RETAIL LTG	0	sqft @	1.0	VA/sqft	0	1.25	0	0	sqft @	1.0	VA/sqft	0	1.25	0	4618	sqft @	1.0	VA/sqft	4618	1.25	5773
RETAIL POWER	0	sqft @	20.0	VA/sqft	0	1.25	0	0	sqft @	20.0	VA/sqft	0	1.25	0	4618	sqft @	15.0	VA/sqft	69270	1.25	86588
RETAIL HVAC	0	tons @	2500	VA/ton	0	1.00	0	0	tons @	2500	VA/ton	0	1.00	0	10	tons @	2500	VA/ton	25000	1.00	25000
COMMON CORRIDOR LTG	9290	sqft @	0.6	VA/sqft	5574	1.25	6968	9290	sqft @	0.6	VA/sqft	5574	1.25	6968	0	sqft @	0.6	VA/sqft	0	1.25	0
PARKING GARAGE LTG	32573	sqft @	0.4	VA/sqft	13029	1.25	16287	32573	sqft @	0.4	VA/sqft	13029	1.25	16287	0	sqft @	0.4	VA/sqft	0	1.25	0
SITE LIGHTING	1	ea @	1500	VA/ea	1500	1.00	1500	1	ea @	1500	VA/ea	1500	1.00	1500	0	ea @	1500	VA/ea	0	1.00	0
DEDICATED COOKING	1	ea @	9600	VA/ea	9600	1.00	9600	1	ea @	9600	VA/ea	9600	1.00	9600	0	ea @	9600	VA/ea	0	1.00	0
SIGNAGE	1	ea @	1500	VA/ea	1500	1.25	1875	1	ea @	1500	VA/ea	1500	1.25	1875	0	ea @	1500	VA/ea	0	1.25	0
DEDICATED CKTS	5	ea @	1500	VA/ea	7500	1.00	7500	5	ea @	1500	VA/ea	7500	1.00	7500	0	ea @	1500	VA/ea	0	1.00	0
APARTMENT SUPPLY FAN	0	ea @	3960	VA/ea	0	1.00	0	0	ea @	3960	VA/ea	0	1.00	0	0	ea @	3960	VA/ea	0	1.00	0
DRYER	0	ea @	1500	VA/ea	0	1.00	0	0	ea @	1500	VA/ea	0	1.00	0	0	ea @	1500	VA/ea	0	1.00	0
GARAGE EXHAUST/SUPPLY FAN	4	ea @	22356	VA/ea	89424	1.00	89424	2	ea @	22356	VA/ea	44712	1.00	44712	0	ea @	11592	VA/ea	0	1.00	0
MRL ELEVATOR (27 KVA)	2	ea @	27000	VA/ea	54000	1.00	54000	1	ea @	27000	VA/ea	27000	1.00	27000	0	ea @	27000	VA/ea	0	1.00	0
FIRE PUMP	1	ea @	43200	VA/ea	43200	1.00	43200	0	ea @	43200	VA/ea	0	1.00	0	0	ea @	43200	VA/ea	0	1.00	0
DOMESTIC WATER PUMP	2	ea @	9108	VA/ea	18216	1.00	18216	0	ea @	9108	VA/ea	0	1.00	0	0	ea @	9108	VA/ea	0	1.00	0
CAR STACKER (4 KW)	0	ea @	4000	VA/ea	0	1.00	0	0	ea @	4000	VA/ea	0	1.00	0	0	ea @	4000	VA/ea	0	1.00	0
EV CHARGERS (7.2 KW)	15	ea @	7200	VA/ea	108000	1.25	135000	15	ea @	7200	VA/ea	108000	1.25	135000	0	ea @	7200	VA/ea	0	1.25	0
OTHER LOAD					0	1.00	0					0	1.00	0					0	1.00	0
CONNECTED LOAD (VA) :			420569							266327							117360				
FUTURE CAPACITY (25%) (VA) :			42057							26633							11736				
NET CALCULATED LOAD (VA) :			462626							292960							129096				
NET CALCULATED LOAD (AMPS): 120/208V, 3 PHASE, 4 WIRE			**1285**							**814**							**359**				
OVERCURRENT PROTECTION:			**TBD**							**TBD**							**800A/3P**				

DWELLING UNIT ELECTRICAL CALCULATIONS
BASIC CALCULATIONS PER NEC 220

	GENERAL LIGHTING LOAD								APPLIANCES					HVAC				
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O			
UNIT TYPE	DWELLING SQFT	GENERAL LIGHTING LOAD (A*3VA/SQFT)	SMALL APPLIANCE LOAD 2-WIRE 20A CIRCUITS @ 1500VA/EA	LAUNDRY	SUBTOTAL (B+C+D)	3000VA @ 100%	REMAINDER AT 35% (E - F) @ 35%	NET LOAD (F+G)	DISHWASHER	MICROWAVE OVEN	GARBAGE DISPOSAL	STACKED WASHER + DRYER (ELECTRIC DRYER)	APPLIANCE DEMAND (4 OR MORE) (I+J+K+L) @ 75%	HEAT PUMP	AIR HANDLER	NET CALCULATED LOAD (VA) (H+M+N+O)	NET CALCULATED LOAD @ 208V, 1PH, 3W, (AMPS)	TENANT MAIN CIRCUIT BREAKER SIZE
A	480	1440	3000	1500	5940	3000	1029	4029	1200	1500	1080	5000	6585	2454.4	2902	15970	77	100A/2P
AL	632	1896	3000	1500	6396	3000	1189	4189	1200	1500	1080	5000	6585	2454.4	2902	16130	78	100A/2P
B	750	2250	3000	1500	6750	3000	1313	4313	1200	1500	1080	5000	6585	2454.4	2902	16254	78	100A/2P
BL	950	2850	3000	1500	7350	3000	1523	4523	1200	1500	1080	5000	6585	2454.4	2902	16464	79	100A/2P
C	1200	3600	3000	1500	8100	3000	1785	4785	1200	1500	1080	5000	6585	2953.6	2902	17226	83	100A/2P
CL	1250	3750	3000	1500	8250	3000	1838	4838	1200	1500	1080	5000	6585	2953.6	4074	18450	89	100A/2P

RESIDENTAIL BUILDING ELECTRICAL CALCULATIONS
OPTIONAL CALCULATIONS PER NEC 220.82

				ELECTRICAL SERVICE #1				ELECTRICAL SERVICE #2								ELECTRICAL SERVICE #3			
				SECTION A				SECTION B				SECTION C				TOTAL				SECTION D			
UNIT TYPE	LIGHTING /SMALL APPLIANCE	HEAT PUMP	AIR HANDLER	UNIT QUANTITY	CALCULATED LOAD LIGHTING /SMALL APPLIANCE	CALCULATED LOAD HEAT PUMPS	CALCULATED AIR HANDLERS	UNIT QUANTITY	CALCULATED LOAD LIGHTING /SMALL APPLIANCE	CALCULATED LOAD HEAT PUMPS	CALCULATED AIR HANDLERS	UNIT QUANTITY	CALCULATED LOAD LIGHTING /SMALL APPLIANCE	CALCULATED LOAD HEAT PUMPS	CALCULATED AIR HANDLERS	UNIT QUANTITY	CALCULATED LOAD LIGHTING /SMALL APPLIANCE	CALCULATED LOAD HEAT PUMPS	CALCULATED AIR HANDLERS	UNIT QUANTITY	CALCULATED LOAD LIGHTING /SMALL APPLIANCE	CALCULATED LOAD HEAT PUMPS	CALCULATED AIR HANDLERS
A	4440	2454	2902	16	71040	39270	46432	20	88800	49088	58040	4	17760	9818	11608	24	106560	58906	69648	12	53280	29453	34824
AL	4896	2454	2902	3	14688	7363	8706	5	24480	12272	14510	1	4896	2454	2902	6	29376	14726	17412	3	14688	7363	8706
B	5250	2454	2902	26	136500	63814	75452	16	84000	39270	46432	21	110250	51542	60942	37	194250	90813	107374	28	147000	68723	81256
BL	5850	2454	2902	4	23400	9818	11608	4	23400	9818	11608	4	23400	9818	11608	8	46800	19635	23216	7	40950	17181	20314
C	6600	2954	2902	8	52800	23629	23216	12	79200	35443	34824	12	79200	35443	34824	24	158400	70886	69648	9	59400	26582	26118
CL	6750	2954	4074	2	13500	5907	8148	3	20250	8861	12222	3	20250	8861	12222	6	40500	17722	24444	1	6750	2954	4074
			SUBTOTAL:		311928	149802	173562		320130	154752	177636		255756	117936	134106		575886	272688	311742		322068	152256	175292
UNIT NET CALCULATED LOAD (LIGHTING + HVAC):					**635292**				**652518**				**507798**				**1160316**				**649616**		
				QUANTITY	LOAD		CALCULATED LOAD	QUANTITY	LOAD		CALCULATED LOAD	QUANTITY	LOAD		CALCULATED LOAD	QUANTITY	LOAD		CALCULATED LOAD	QUANTITY	LOAD		CALCULATED LOAD
LAUNDRY				59	1500		88500	60	1500		90000	45	1500		67500	105	1500		157500	60	1500		90000
DISHWASHER				59	1200		70800	60	1200		72000	45	1200		54000	105	1200		126000	60	1200		72000
MICROWAVE OVEN				59	1000		59000	60	1000		60000	45	1000		45000	105	1000		105000	60	1000		60000
GARBAGE DISPOSAL				59	1080		63720	60	1080		64800	45	1080		48600	105	1080		113400	60	1080		64800
STACKED WASHER/DRYER				59	5000		295000	60	5000		300000	45	5000		225000	105	5000		525000	60	5000		300000
SIMULATED COOKING LOAD				59	8000		472000	60	8000		480000	45	8000		360000	105	8000		840000	60	8000		480000
UNIT NET CALCULATED LOAD (LIGHTING + HVAC):					635292				652518				507798				1160316				649616		
BUILDING SUBTOTAL (VA):					1684312				1719318				1307898				3027216				1716416		
DEMAND FACTOR (TABLE 220.84):					24%				24%				27%				23%				24%		
BUILDING NET CALCULATED LOAD (VA)					404235				412636				353132				696260				411940		
BUILDING NET CALCULATED LOAD (AMPS): 208Y/120V, 3 PHASE, 4 WIRE					**1123**				**1146**				**981**				**1934**				**1144**		
METER SECTION OVERCURRENT PROTECTION					**1200A/3P**				**1200A/3P**				**1200A/3P**								**1200A/3P**		
SERVICE SIZE (AMPS): 208Y/120V, 3 PHASE, 4 WIRE					**2500A SERVICE**												**2000A SERVICE**				**2500A SERVICE**		

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19TH & HARRISON STREET

Oakland, CA

NO	ISSUE	DATE
1	PLAN CHECK RESPONSE #1 /GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

ARCHITECT'S STAMP

APPROVAL

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CONSULTANT

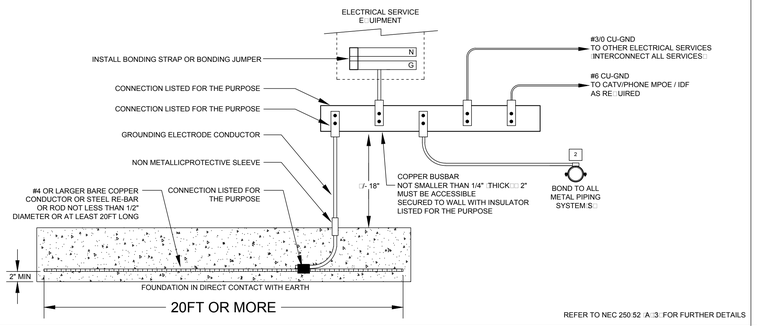
ELECTRICAL CALCULATIONS

PROJECT NO: 6-059
DATE: 05/12/17

SHEET NO:

E0.02

ADDENDUM #1



REFER TO NEC 250.52 □A□3□ FOR FURTHER DETAILS

CONCRETE ENCASED ELECTRODE | 4

FEEDER SCHEDULE									
ID	# FEEDERS □PARALLEL RUNS□□	CURRENT CARRYING CONDUCTORS			GROUND CONDUCTOR			CONDUIT SIZE OR CABLE TYPE □	RATING □AMPS□
		□TY	SIZE	MATERIAL	□TY	SIZE	MATERIAL		
1		REFER TO FEEDER SCHEDULE DETAIL 2 / E0.07							
2	4	4	750 k□□ I□	AL	1	400	AL	4"	1540 A
3	5	4	750 k□□ I□	AL	1	500	AL	4"	1925 A
4		3	#2	CU	1	#8	CU	1□5"	115 A
5		3	#3/0	CU	1	#6	CU	2"	200 A
6	2	4	#3/0	CU	1	#6	CU	2"	400 A
7		4	#1	AL	1	#6	AL	1□5"	100 A
8		4	250 k□□ I□	AL	1	#4	AL	2□5"	205A
9		4	#2/0	AL	1	#4	AL	2"	135 A
10		2	#4	CU	1	#6	CU	1□5"	85 A
11									
12									
13									

SINGLE LINE DIAGRAM FEEDER SCHEDULE | 3

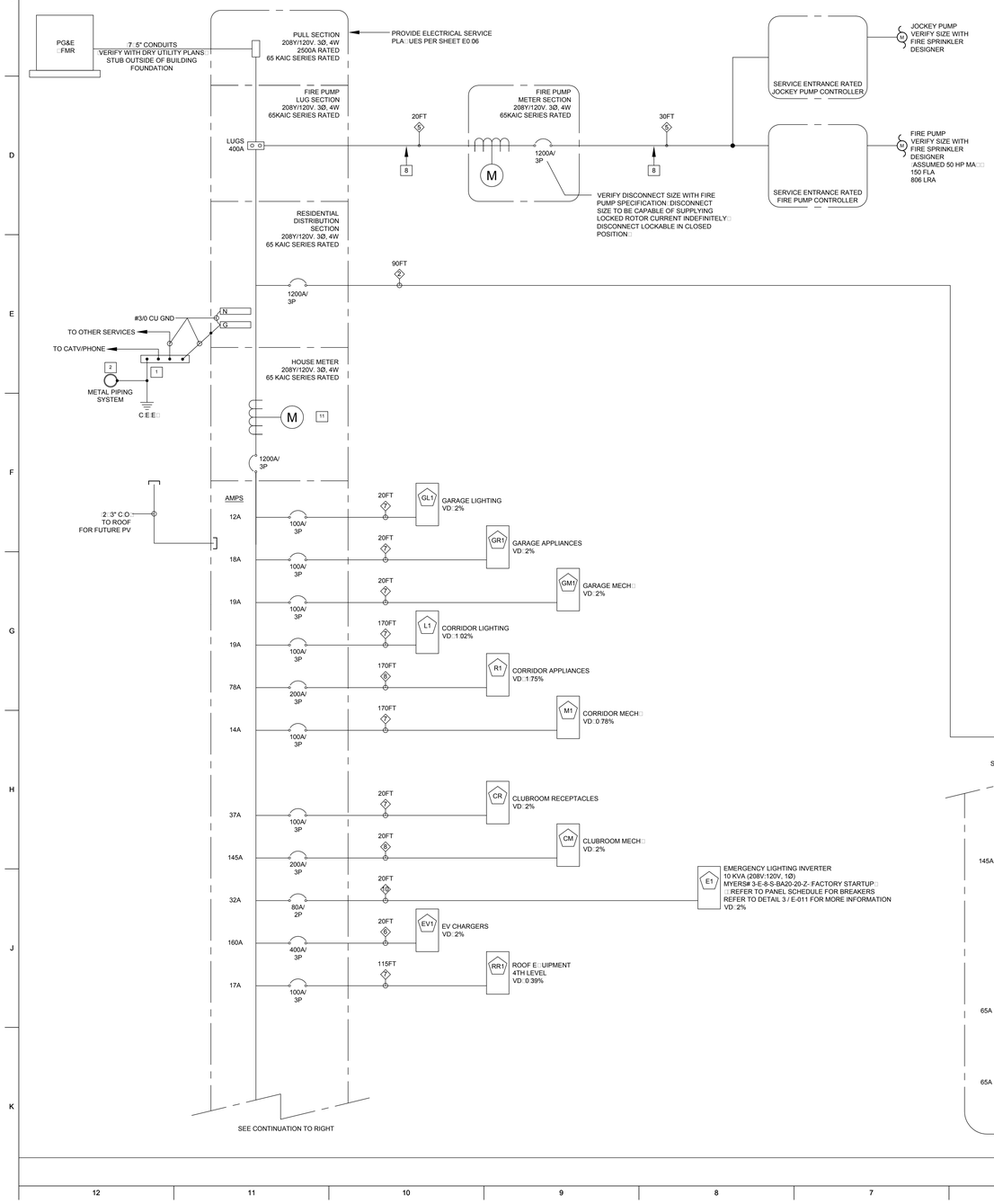
1. REFER TO CONCRETE ENCASED ELECTRODE DETAIL ON THIS SHEET
2. BOND TO ALL METALLIC PIPING SYSTEMS □IE□ COLD WATER, GAS, ETC□□ BOND TO COLD WATER METAL PIPE WITHIN THE FIRST 5FT OF ENTERING THE BUILDING IF CONNECTION IS MADE INSIDE THE BUILDING
3. RESIDENTIAL LOADCENTER - TYPE □□P BREAKERS □10 KAIC□□ MANUFACTURER TO PAINT UNIT LOADCENTER WHITE□
4. HOUSE PANELBOARD - TYPE □□P BREAKERS □10 KAIC□□
5. REFER TO UNIT LOAD CALCULATIONS ON SHEET E0□2 FOR TENANT MAIN SIZES□□ PROPERLY LABEL ALL TENANT MAIN CIRCUIT BREAKERS
6. FUSIBLE DISCONNECT SWITCH - 200A/3P RATED FUSE AS INDICATED ON SHOP DRAWINGS□□ VERIFY ELEVATOR POWER RE□□UIREMENTS WITH ELEVATOR SHOP DRAWINGS□□ CONTACT ENGINEER IF SUBMITTED E□□UIPMENT DIFFERS FROM WHAT IS SHOWN□□
7. NOT USED
8. FEEDER TO BE RUN OUTSIDE BUILDING OR ENCASED IN 2" OF CONCRETE PER NEC 695
9. 125A/3P FUSIBLE DISCONNECT SWITCH VFD CONTROLLER BY MECHANICAL CONTRACTOR□ COORDINATE WORK AS RE□□UIRED□□
10. ESTIMATED ELEVATOR LOAD□ PROVIDE FUSIBLE DISCONNECT AS RE□□UIRED□□ VERIFY E□ACT LOAD, OVERCURRENT PROTECTION, AND WIRE SIZE WITH ELEVATOR CUTSHEETS□□ INSTALL FUSES AS RECOMMENDED IN ELEVATOR SHOP DRAWINGS□□ PROVIDE SPARE SET OF FUSES IN ELEVATOR E□□UIPMENT ROOM□□
11. PROVIDE SEPARATE METER TO ALLOW FOR THE MEASUREMENT OF□ INSTANTANEOUS kW DEMAND, HISTORICAL PEAK DEMAND, AND RESETTABLE KWH IN THE CASE UTILITY METER DOES NOT PROVIDE THE ABOVE LISTED FUNCTIONS□□
12. 800A/3P FUSIBLE DISCONNECT SWITCH□□ LOCKABLE IN CLOSET POSITION□□

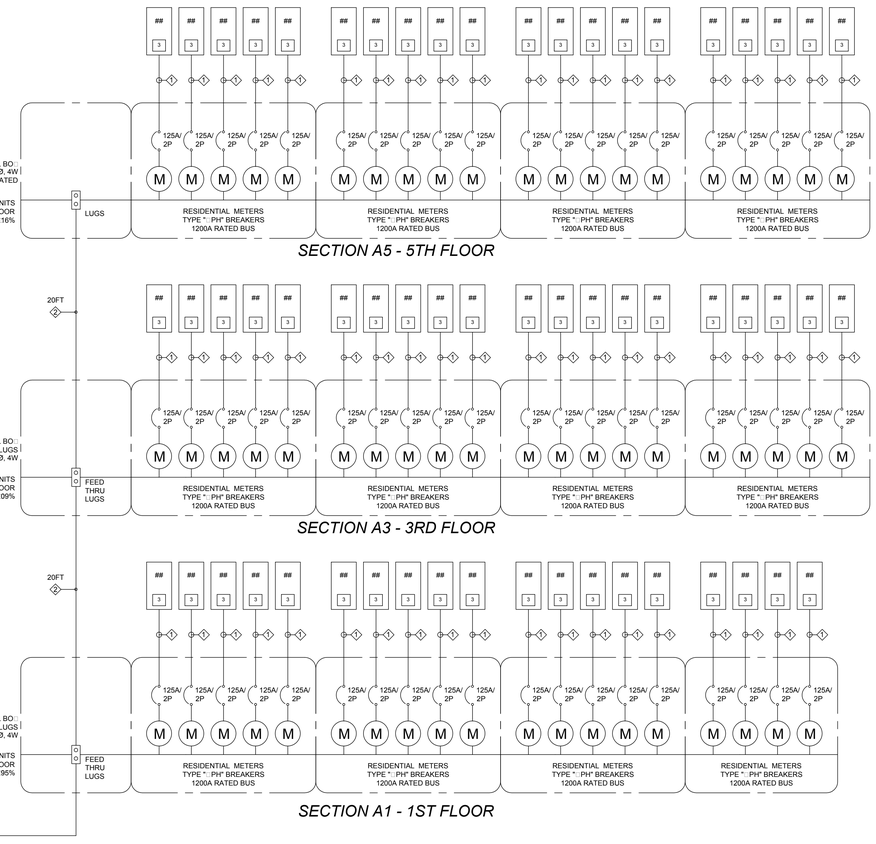
SINGLE LINE DIAGRAM KEYNOTES | 2

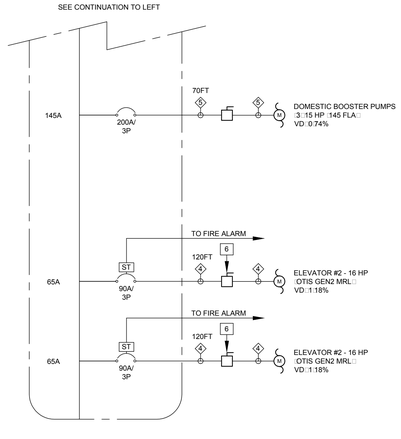
1. ELECTRICAL E□□UIPMENT BASED ON **SIEMENS**□□ CONTRACTOR TO VERIFY ALL E□□UIPMENT CLEARANCE PRIOR TO ORDERING E□□UIPMENT□□
2. SE CABLE TO BE USED IN TYPE V CONSTRUCTION□ WOOD FRAME□ ABOVE GROUND DRY LOCATIONS ONLY□ WHEN SE CABLE IS INSTALLED IN CONTACT WITH INSULATION, THE 60°C TEMPERATURE RATING MUST BE USED NEC 338□10□B□4□a□□
3. ALL E□□UIPMENT TO BE LISTED BY A RECOGNIZED TESTING AGENCY□ TERMINALS TO BE RATED FOR ALUMINUM AND COPPER WIRE□□
4. IF SYSTEM IS SERIES RATED, ALL COMPONENTS MUST BE FROM THE SAME MANUFACTURER□ LISTED BREAKER COMBINATIONS SHALL BE AVAILABLE TO TO THE AUTHORITY HAVING JURISDICTION UPON RE□□UEST□□
5. INSTALL E□□UIPMENT PER MANUFACTURER'S INSTRUCTIONS AND SPECIFICATIONS □IE□ LUG TOR□□UE, MINIMUM WIRE BENDING RADIUS, BONDING, GROUNDING, ETC□□
6. THE MA□IMUM AVAILABLE FAULT CURRENT IS BASED ON WORST CASE FAULT CURRENT PUBLISHED BY THE UTILITY COMPANY□ CONTRACTOR TO OBTAIN FAULT CURRENT LETTER FROM UTILITY COMPANY FOR EACH SERVICE□ IF AVAILABLE FAULT CURRENT IS HIGHER THAN SHOWN IN THE DRAWINGS, CONTACT ELECTRICAL ENGINEER IMMEDIATELY□□
7. CONTRACTOR TO PROVIDE OVERSIZED TERMINAL BO□ ES, ADJUSTABLE TRIP BREAKERS □IF RE□□UIRED□□ AND LOAD CENTER LUGS TO TERMINATE CABLES AS INDICATED IN THE DRAWINGS TO COMPENSATE FOR VOLTAGE DROP□□
8. CONTRACTOR TO PROVIDE LABEL AT SERVICE DISCONNECT SWITCH SPECIFYING THE MA□IMUM AVAILABLE FAULT CURRENT AND DATE ENERGIZED AS SHOWN BELOW□ NEC 110□24□□

WARNING
ARC FLASH & SHOCK HAZARD
APPROPRIATE PPE RE□□UIRED
MA□IMUM AVAILABLE FAULT CURRENT:
XX,XXX AMPS
DATE: □/□/□□
SERIES RATED SYSTEM: REPLACE COMPONENTS WITH IDENTIFIED REPLACEMENTS ONLY□□

SINGLE LINE DIAGRAM NOTES | 1







ESTIMATED BUILDING LOAD □AMPS□□	
150	FIRE PUMP
1123	RESIDENTIAL LOAD
807	ESTIMATED HOUSE LOAD
2080	TOTAL SERVICE FEEDER SIZE 2500AMP RATED PULL SECTION

WEST ELECTRICAL SERVICE SINGLE LINE DIAGRAM - 59 RESIDENTIAL UNITS + 1 HOUSE METER + 1 FIRE PUMP METER | 5

CANDELA ENGINEERING INCORPORATED
LIGHTING DESIGN | ELECTRICAL ENGINEERING
25635 Calle La Fuente
San Juan Capistrano, CA 92675
Ph. 949.201.1333
candelaengineering.com

19TH & HARRISON STREET

Oakland, CA

NO□	ISSUE	DATE
1	PLAN CHECK RESPONSE #1 /GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

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CONSULTANT

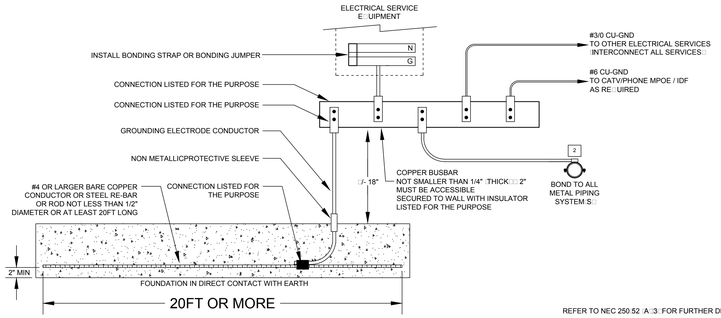
WEST ELECTRICAL SERVICE SINGLE LINE DIAGRAM

PROJECT NO: □6-059
DATE: 05/12/17

SHEET NO:

E0.03

ADDENDUM #1



REFER TO NEC 250.52 □A□3□ FOR FURTHER DETAILS

CONCRETE ENCASED ELECTRODE | 4

FEEDER SCHEDULE									
ID	# FEEDERS □PARALLEL RUNS□	CURRENT CARRYING CONDUCTORS			GROUND CONDUCTOR			CONDUIT SIZE OR CABLE TYPE □	RATING □AMPS□
		□TY	SIZE	MATERIAL	□TY	SIZE	MATERIAL		
1		REFER TO FEEDER SCHEDULE DETAIL 2 / E0.07							
2	4	4	750 k□□ I	AL	1	400	AL	4"	1540 A
3	5	4	750 k□□ I	AL	1	500	AL	4"	1925 A
4		3	#2	CU	1	#8	CU	1□5"	115 A
5		3	#3/0	CU	1	#6	CU	2"	200 A
6	2	4	#3/0	CU	1	#6	CU	2"	400 A
7		4	#1	AL	1	#6	AL	1□5"	100 A
8		4	250 k□□ I	AL	1	#4	AL	2□5"	205A
9		4	#2/0	AL	1	#4	AL	2"	135 A
10		2	#4	CU	1	#6	CU	1□5"	85 A
11									
12									
13									

SINGLE LINE DIAGRAM FEEDER SCHEDULE | 3

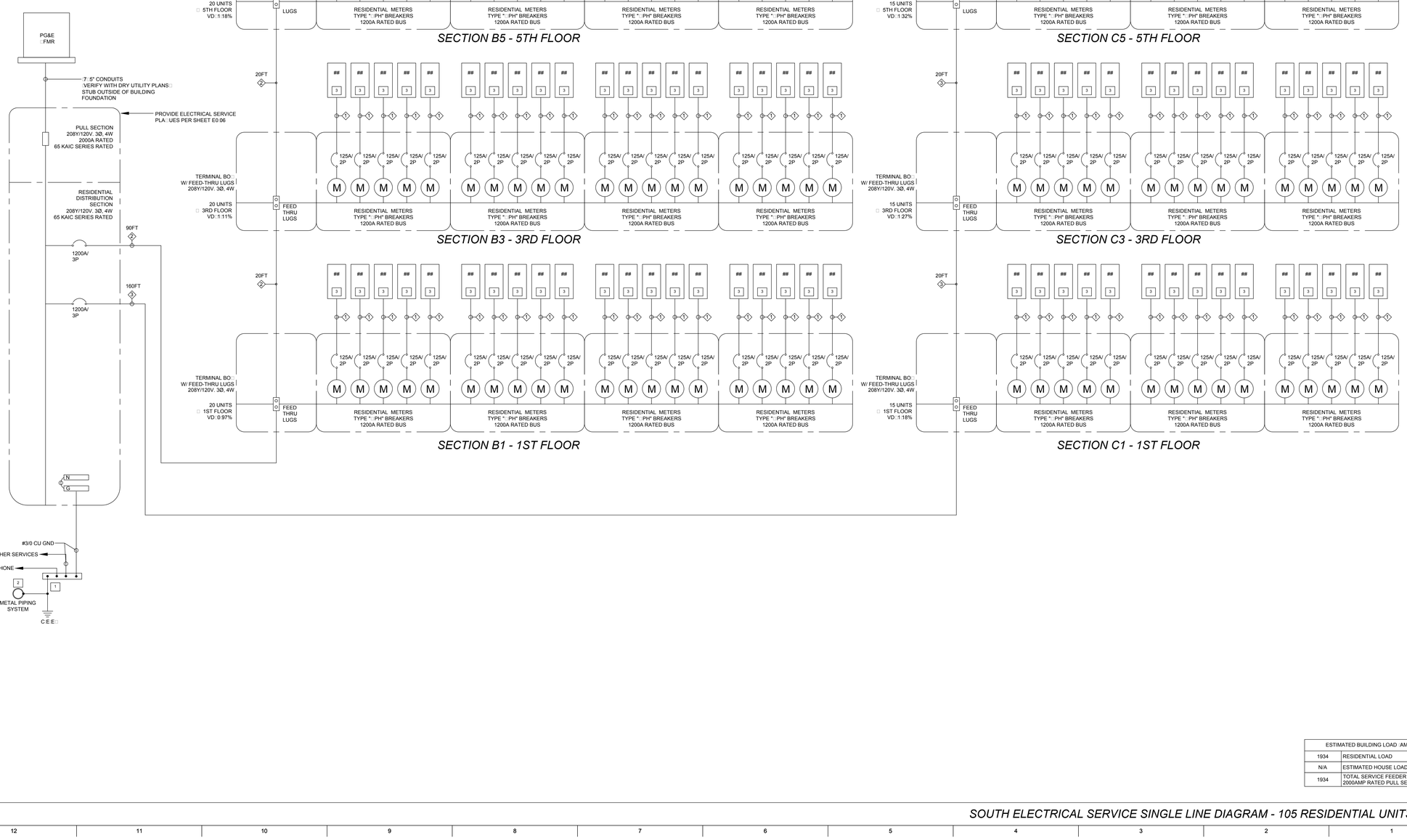
1. REFER TO CONCRETE ENCASED ELECTRODE DETAIL ON THIS SHEET
2. BOND TO ALL METALLIC PIPING SYSTEMS □I E□COLD WATER, GAS, ETC□□ BOND TO COLD WATER METAL PIPE WITHIN THE FIRST 5FT OF ENTERING THE BUILDING IF CONNECTION IS MADE INSIDE THE BUILDING
3. RESIDENTIAL LOADCENTER - TYPE □□P BREAKERS □10 KAIC□ MANUFACTURER TO PAINT UNIT LOADCENTER WHITE□
4. HOUSE PANELBOARD - TYPE □□P BREAKERS □10 KAIC□
5. REFER TO UNIT LOAD CALCULATIONS ON SHEET E0□2 FOR TENANT MAIN SIZES□□ PROPERLY LABEL ALL TENANT MAIN CIRCUIT BREAKERS
6. FUSIBLE DISCONNECT SWITCH - 200A/3P RATED FUSE AS INDICATED ON SHOP DRAWINGS□□ VERIFY ELEVATOR POWER RE□□UIREMENTS WITH ELEVATOR SHOP DRAWINGS□ CONTACT ENGINEER IF SUBMITTED E□□UIPMENT DIFFERS FROM WHAT IS SHOWN□
7. NOT USED
8. FEEDER TO BE RUN OUTSIDE BUILDING OR ENCASED IN 2" OF CONCRETE PER NEC 695
9. 125A/3P FUSIBLE DISCONNECT SWITCH VFD CONTROLLER BY MECHANICAL CONTRACTOR□COORDINATE WORK AS RE□□UIRED□□
10. ESTIMATED ELEVATOR LOAD□PROVIDE FUSIBLE DISCONNECT AS RE□□UIRED□□ VERIFY E□ACT LOAD, OVERCURRENT PROTECTION, AND WIRE SIZE WITH ELEVATOR CUTSHEETS□□ INSTALL FUSES AS RECOMMENDED IN ELEVATOR SHOP DRAWINGS□□ PROVIDE SPARE SET OF FUSES IN ELEVATOR E□□UIPMENT ROOM□□
11. PROVIDE SEPARATE METER TO ALLOW FOR THE MEASUREMENT OF□ INSTANTANEOUS kW DEMAND, HISTORICAL PEAK DEMAND, AND RESETTABLE KWH IN THE CASE UTILITY METER DOES NOT PROVIDE THE ABOVE LISTED FUNCTIONS□□
12. 800A/3P FUSIBLE DISCONNECT SWITCH□ LOCKABLE IN CLOSET POSITION□□

SINGLE LINE DIAGRAM KEYNOTES | 2

1. ELECTRICAL E□□UIPMENT BASED ON **SIEMENS**□□ CONTRACTOR TO VERIFY ALL E□□UIPMENT CLEARANCE PRIOR TO ORDERING E□□UIPMENT□□
2. SE CABLE TO BE USED IN TYPE V CONSTRUCTION□WOOD FRAME□ABOVE GROUND DRY LOCATIONS ONLY, WHEN SE CABLE IS INSTALLED IN CONTACT WITH INSULATION, THE 60°C TEMPERATURE RATING MUST BE USED NEC 338.10□B□4□a□□
3. ALL E□□UIPMENT TO BE LISTED BY A RECOGNIZED TESTING AGENCY□TERMINALS TO BE RATED FOR ALUMINUM AND COPPER WIRE□□
4. IF SYSTEM IS SERIES RATED, ALL COMPONENTS MUST BE FROM THE SAME MANUFACTURER□LISTED BREAKER COMBINATIONS SHALL BE AVAILABLE TO TO THE AUTHORITY HAVING JURISDICTION UPON RE□□UEST□□
5. INSTALL E□□UIPMENT PER MANUFACTURER'S INSTRUCTIONS AND SPECIFICATIONS □E□LUG TOR□□UE, MINIMUM WIRE BENDING RADIUS, BONDING, GROUNDING, ETC□□
6. THE MA□IMUM AVAILABLE FAULT CURRENT IS BASED ON WORST CASE FAULT CURRENT PUBLISHED BY THE UTILITY COMPANY□CONTRACTOR TO OBTAIN FAULT CURRENT LETTER FROM UTILITY COMPANY FOR EACH SERVICE□IF AVAILABLE FAULT CURRENT IS HIGHER THAN SHOWN IN THE DRAWINGS, CONTACT ELECTRICAL ENGINEER IMMEDIATELY□□
7. CONTRACTOR TO PROVIDE OVERSIZED TERMINAL BO□ES, ADJUSTABLE TRIP BREAKERS□IF RE□□UIRED□□AND LOAD CENTER LUGS TO TERMINATE CABLES AS INDICATED IN THE DRAWINGS TO COMPENSATE FOR VOLTAGE DROP□□
8. CONTRACTOR TO PROVIDE LABEL AT SERVICE DISCONNECT SWITCH SPECIFYING THE MA□IMUM AVAILABLE FAULT CURRENT AND DATE ENERGIZED AS SHOWN BELOW□NEC 110.24□□

WARNING
ARC FLASH & SHOCK HAZARD
APPROPRIATE PPE RE□□UIRED
MA□IMUM AVAILABLE FAULT CURRENT:
XX,XXX AMPS
DATE: □/□/□□
SERIES RATED SYSTEM: REPLACE COMPONENTS WITH IDENTIFIED REPLACEMENTS ONLY□□

SINGLE LINE DIAGRAM NOTES | 1



ESTIMATED BUILDING LOAD □AMPS□□	
1934	RESIDENTIAL LOAD
N/A	ESTIMATED HOUSE LOAD
1934	TOTAL SERVICE FEEDER SIZE 2 2000AMP RATED PULL SECTION

SOUTH ELECTRICAL SERVICE SINGLE LINE DIAGRAM - 105 RESIDENTIAL UNITS | 5

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25635 Calle La Fuente
San Juan Capistrano, CA 92675
Ph. 949.201.1333
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19TH & HARRISON STREET

Oakland, CA

NO□	ISSUE	DATE
1	PLAN CHECK RESPONSE #1 /GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

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CONSULTANT

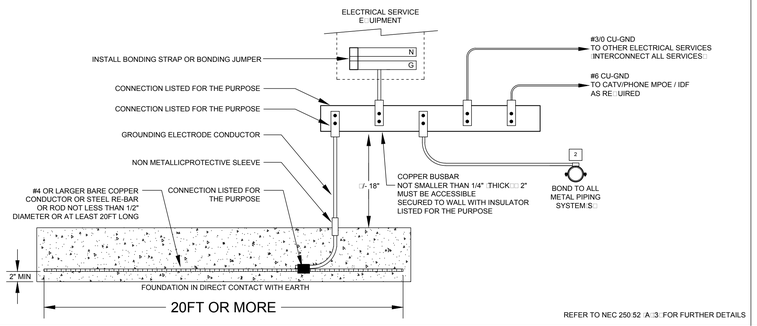
SOUTH ELECTRICAL SERVICE SINGLE LINE DIAGRAM

PROJECT NO: □6-059
DATE: 05/12/17

SHEET NO:

E0.04

ADDENDUM #1



REFER TO NEC 250.52 □A□3□ FOR FURTHER DETAILS

CONCRETE ENCASED ELECTRODE 4

FEEDER SCHEDULE									
ID	# FEEDERS □PARALLEL RUNS□□	CURRENT CARRYING CONDUCTORS			GROUND CONDUCTOR			CONDUIT SIZE OR CABLE TYPE □	RATING □AMPS□
		□TY	SIZE	MATERIAL	□TY	SIZE	MATERIAL		
1		REFER TO FEEDER SCHEDULE DETAIL 2 / E0.07							
2	4	4	750 k□□ I	AL	1	400	AL	4"	1540 A
3	5	4	750 k□□ I	AL	1	500	AL	4"	1925 A
4		3	#2	CU	1	#8	CU	1□5"	115 A
5		3	#3/0	CU	1	#6	CU	2"	200 A
6	2	4	#3/0	CU	1	#6	CU	2"	400 A
7		4	#1	AL	1	#6	AL	1□5"	100 A
8		4	250 k□□ I	AL	1	#4	AL	2□5"	205A
9		4	#2/0	AL	1	#4	AL	2"	135 A
10		2	#4	CU	1	#6	CU	1□5"	85 A
11									
12									
13									

SINGLE LINE DIAGRAM FEEDER SCHEDULE 3

1. REFER TO CONCRETE ENCASED ELECTRODE DETAIL ON THIS SHEET
2. BOND TO ALL METALLIC PIPING SYSTEMS □E□ COLD WATER, GAS, ETC□□ BOND TO COLD WATER METAL PIPE WITHIN THE FIRST 5FT OF ENTERING THE BUILDING IF CONNECTION IS MADE INSIDE THE BUILDING
3. RESIDENTIAL LOADCENTER - TYPE □□P BREAKERS □10 KAIC□□ MANUFACTURER TO PAINT UNIT LOADCENTER WHITE□□
4. HOUSE PANELBOARD - TYPE □□P BREAKERS □10 KAIC□□
5. REFER TO UNIT LOAD CALCULATIONS ON SHEET E0□2 FOR TENANT MAIN SIZES□□ PROPERLY LABEL ALL TENANT MAIN CIRCUIT BREAKERS
6. FUSIBLE DISCONNECT SWITCH - 200A/3P RATED FUSE AS INDICATED ON SHOP DRAWINGS□□ VERIFY ELEVATOR POWER RE□□UIREMENTS WITH ELEVATOR SHOP DRAWINGS□□ CONTACT ENGINEER IF SUBMITTED E□□UIPMENT DIFFERS FROM WHAT IS SHOWN□□
7. NOT USED
8. FEEDER TO BE RUN OUTSIDE BUILDING OR ENCASED IN 2" OF CONCRETE PER NEC 695
9. 125A/3P FUSIBLE DISCONNECT SWITCH VFD CONTROLLER BY MECHANICAL CONTRACTOR□ COORDINATE WORK AS RE□□UIRED□□
10. ESTIMATED ELEVATOR LOAD□ PROVIDE FUSIBLE DISCONNECT AS RE□□UIRED□□ VERIFY E□ ACT LOAD, OVERCURRENT PROTECTION, AND WIRE SIZE WITH ELEVATOR CUTSHEETS□□ INSTALL FUSES AS RECOMMENDED IN ELEVATOR SHOP DRAWINGS□□ PROVIDE SPARE SET OF FUSES IN ELEVATOR E□□UIPMENT ROOM□□
11. PROVIDE SEPARATE METER TO ALLOW FOR THE MEASUREMENT OF□ INSTANTANEOUS kW DEMAND, HISTORICAL PEAK DEMAND, AND RESETTABLE KWH IN THE CASE UTILITY METER DOES NOT PROVIDE THE ABOVE LISTED FUNCTIONS□□
12. 800A/3P FUSIBLE DISCONNECT SWITCH□□ LOCKABLE IN CLOSET POSITION□□

SINGLE LINE DIAGRAM KEYNOTES 2

1. ELECTRICAL E□□UIPMENT BASED ON **SIEMENS**□□ CONTRACTOR TO VERIFY ALL E□□UIPMENT CLEARANCE PRIOR TO ORDERING E□□UIPMENT□□
2. SE CABLE TO BE USED IN TYPE V CONSTRUCTION□WOOD FRAME□ABOVE GROUND DRY LOCATIONS ONLY, WHEN SE CABLE IS INSTALLED IN CONTACT WITH INSULATION, THE 60°C TEMPERATURE RATING MUST BE USED NEC 338□10□B□4□a□□
3. ALL E□□UIPMENT TO BE LISTED BY A RECOGNIZED TESTING AGENCY□TERMINALS TO BE RATED FOR ALUMINUM AND COPPER WIRE□□
4. IF SYSTEM IS SERIES RATED, ALL COMPONENTS MUST BE FROM THE SAME MANUFACTURER□LISTED BREAKER COMBINATIONS SHALL BE AVAILABLE TO TO THE AUTHORITY HAVING JURISDICTION UPON RE□□UEST□□
5. INSTALL E□□UIPMENT PER MANUFACTURER'S INSTRUCTIONS AND SPECIFICATIONS □E□ LUG TOR□□UE, MINIMUM WIRE BENDING RADIUS, BONDING, GROUNDING, ETC□□
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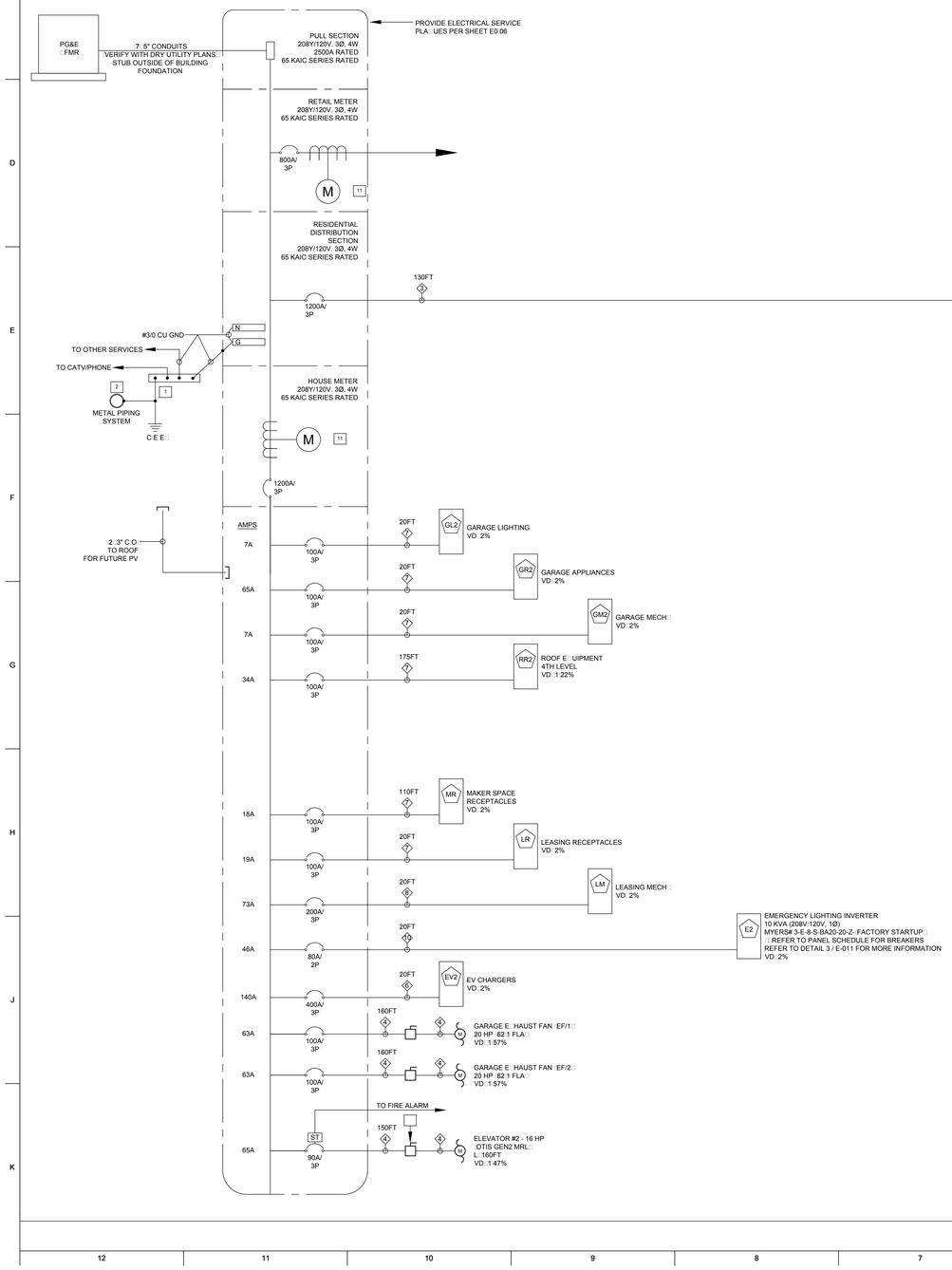
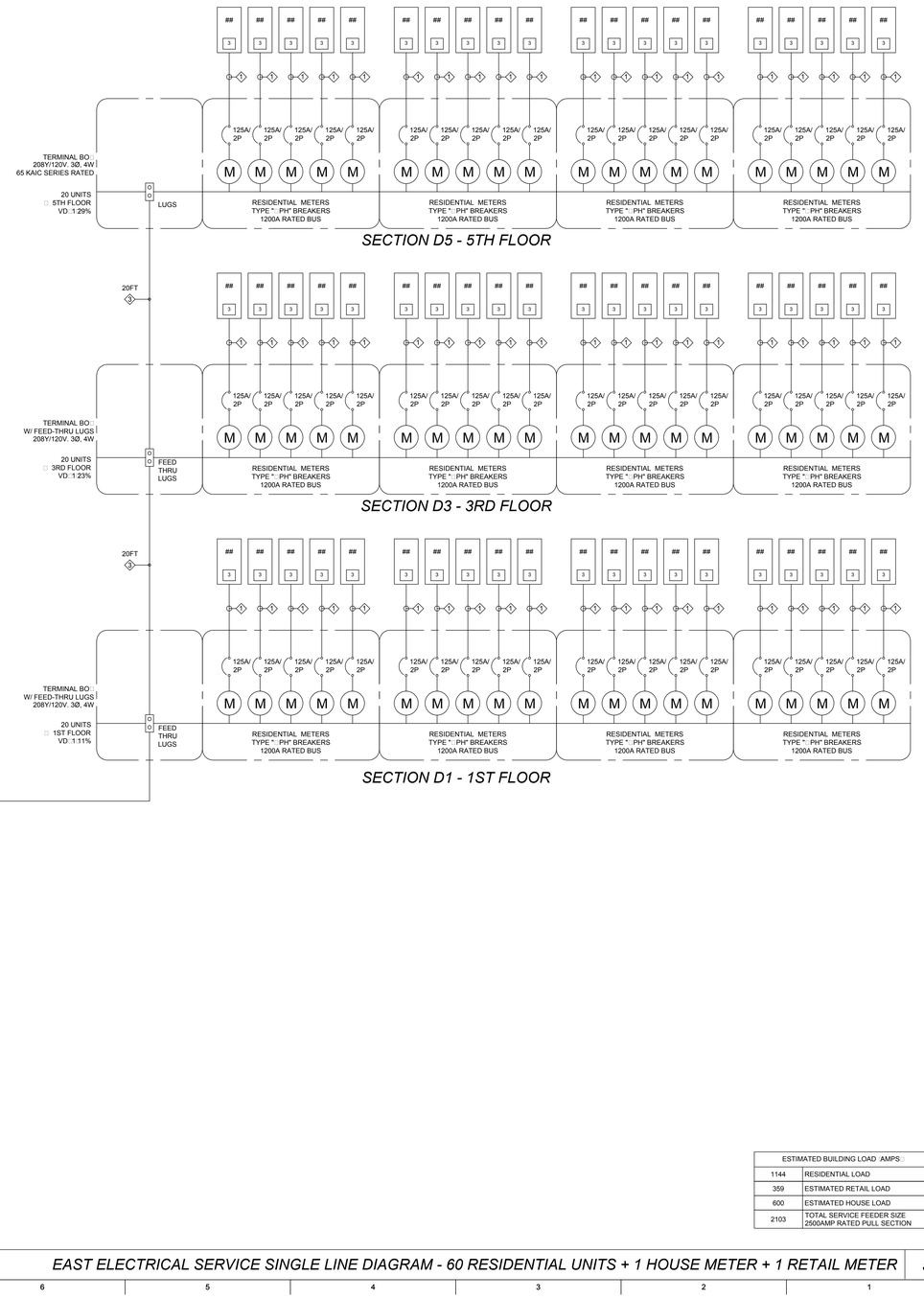
8. CONTRACTOR TO PROVIDE LABEL AT SERVICE DISCONNECT SWITCH SPECIFYING THE MA□IMUM AVAILABLE FAULT CURRENT AND DATE ENERGIZED AS SHOWN BELOW□NEC 110□24□□

WARNING
ARC FLASH & SHOCK HAZARD
APPROPRIATE PPE RE□□UIRED
MA□IMUM AVAILABLE FAULT CURRENT:
XX,XXX AMPS
DATE: □/□/□□
SERIES RATED SYSTEM: REPLACE COMPONENTS WITH IDENTIFIED REPLACEMENTS ONLY□□

SINGLE LINE DIAGRAM NOTES 1





ESTIMATED BUILDING LOAD □AMPS□□	
1144	RESIDENTIAL LOAD
359	ESTIMATED RETAIL LOAD
600	ESTIMATED HOUSE LOAD
2103	TOTAL SERVICE FEEDER SIZE 2500AMP RATED PULL SECTION

EAST ELECTRICAL SERVICE SINGLE LINE DIAGRAM - 60 RESIDENTIAL UNITS + 1 HOUSE METER + 1 RETAIL METER 5

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Oakland, CA

NO□	ISSUE	DATE
1	PLAN CHECK RESPONSE #1 /GMP	03/15/17
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3	ADDENDUM #1	05/12/17

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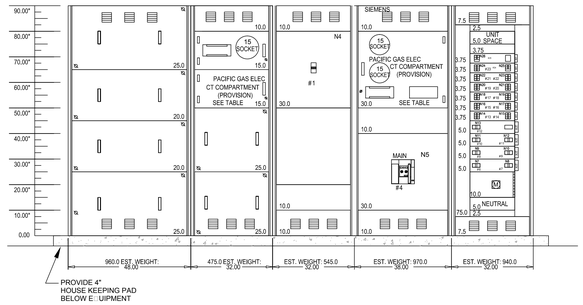
EAST ELECTRICAL SERVICE SINGLE LINE DIAGRAM

PROJECT NO: □6-059
DATE: 05/12/17

SHEET NO:

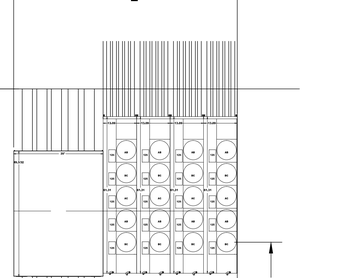
E0.05

ADDENDUM #1



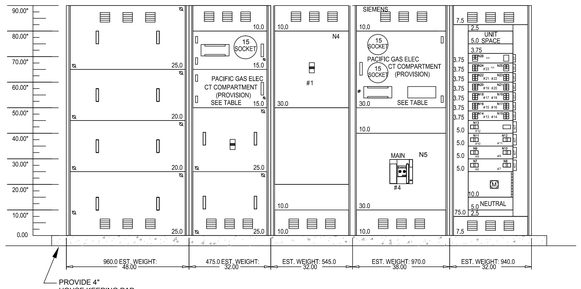
SCALE: 1/2" = 1'-0"

ELECTRICAL SERVICE #1 EQUIPMENT ELEVATION | 4



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

ELECTRICAL SERVICE #2 EQUIPMENT ELEVATION | 5

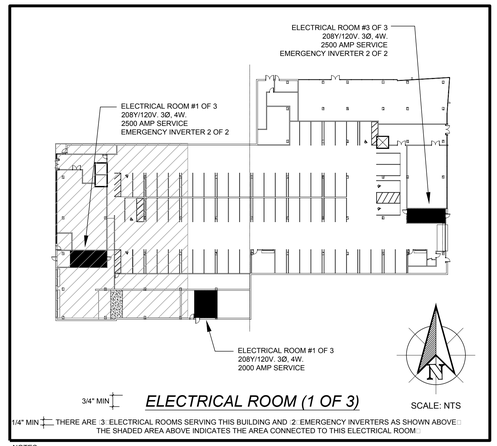


SCALE: 1/2" = 1'-0"

RESIDENTIAL METER SECTION A ELEVATION | 6

SCALE: NONE

TY[PICAL RESIDENTIAL METER SECTION | 7



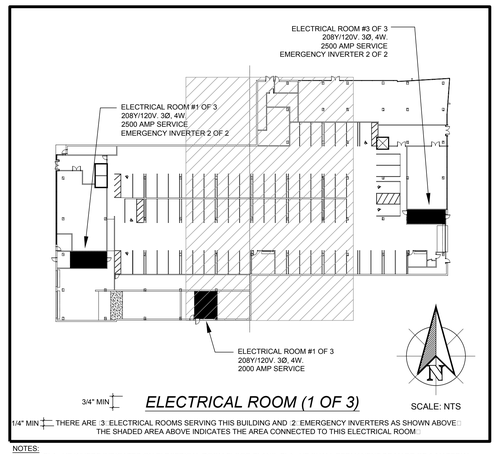
3/4" MIN. *ELECTRICAL ROOM (1 OF 3)* SCALE: NTS

1/4" MIN. THERE ARE □3□ ELECTRICAL ROOMS SERVING THIS BUILDING AND □2□ EMERGENCY INVERTERS AS SHOWN ABOVE□□ THE SHADED AREA ABOVE INDICATES THE AREA CONNECTED TO THIS ELECTRICAL ROOM□□

NOTES:
INSTALL PLA□UE WHERE INDICATED ON ELECTRICAL ROOM FLOOR PLANS□PLA□UE SHALL PERMANENT BE MADE OF A MATERIAL SUFFICIENT IN DURABILITY TO WITHSTAND THE ENVIRONMENT IN WHICH THE SERVICE DISCONNECTING MEANS IS INSTALLED□□ PLA□UE SHALL BE ATTACHED TO E□UIPMENT WITH PERMANENT EPO□□Y□NEC 230.2 E□□

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

WEST ELECTRICAL ROOM PLAQUE | 1



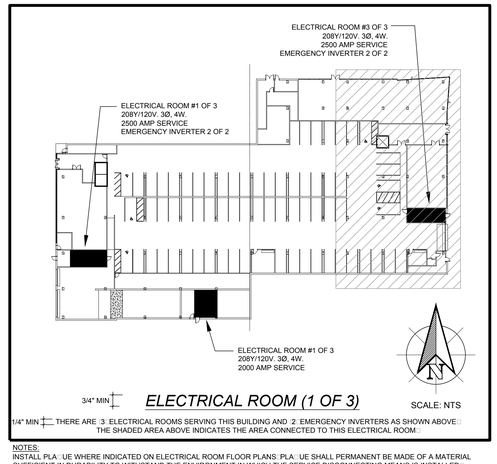
3/4" MIN. *ELECTRICAL ROOM (1 OF 3)* SCALE: NTS

1/4" MIN. THERE ARE □3□ ELECTRICAL ROOMS SERVING THIS BUILDING AND □2□ EMERGENCY INVERTERS AS SHOWN ABOVE□□ THE SHADED AREA ABOVE INDICATES THE AREA CONNECTED TO THIS ELECTRICAL ROOM□□

NOTES:
INSTALL PLA□UE WHERE INDICATED ON ELECTRICAL ROOM FLOOR PLANS□PLA□UE SHALL PERMANENT BE MADE OF A MATERIAL SUFFICIENT IN DURABILITY TO WITHSTAND THE ENVIRONMENT IN WHICH THE SERVICE DISCONNECTING MEANS IS INSTALLED□□ PLA□UE SHALL BE ATTACHED TO E□UIPMENT WITH PERMANENT EPO□□Y□NEC 230.2 E□□

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

SOUTH ELECTRICAL ROOM PLAQUE | 2



3/4" MIN. *ELECTRICAL ROOM (1 OF 3)* SCALE: NTS

1/4" MIN. THERE ARE □3□ ELECTRICAL ROOMS SERVING THIS BUILDING AND □2□ EMERGENCY INVERTERS AS SHOWN ABOVE□□ THE SHADED AREA ABOVE INDICATES THE AREA CONNECTED TO THIS ELECTRICAL ROOM□□

NOTES:
INSTALL PLA□UE WHERE INDICATED ON ELECTRICAL ROOM FLOOR PLANS□PLA□UE SHALL PERMANENT BE MADE OF A MATERIAL SUFFICIENT IN DURABILITY TO WITHSTAND THE ENVIRONMENT IN WHICH THE SERVICE DISCONNECTING MEANS IS INSTALLED□□ PLA□UE SHALL BE ATTACHED TO E□UIPMENT WITH PERMANENT EPO□□Y□NEC 230.2 E□□

WEST ELECTRICAL ROOM PLAQUE | 3

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Oakland, CA

NO□	ISSUE	DATE
1	PLAN CHECK RESPONSE #1 /GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

ARCHITECT'S STAMP APPROVAL

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CONSULTANT

ELECTRICAL ROOM PLA□UES AND E□UIPMENT ELEVATIONS

PROJECT NO: □6-059
DATE: 05/12/17

SHEET NO:

E0.06

ADDENDUM #1

CONTRACTOR TO MEASURE APPRO□IMATE DISTANCE FROM REMOTE METER SECTION TO UNIT PANEL AND INSTALL CONDUCTORS AS INDICATED IN FEEDER TABLES□
UNIT FEEDER SHALL HAVE THE MINIMUM GROUND SIZE AS INDICATED IN E□UIPMENT GROUNDING CONDUCTOR TABLE BELOW□

UNIT FEEDER LENGTHS BASED ON A MA□IMUM OF 3% VOLTAGE DROP AT THE UNIT PANEL FROM THE MAIN ELECTRICAL SERVICE□

ALUMINUM SER CABLE
TYPE "SE" CABLE STYLE R□TO BE INSTALLED ABOVE GROUND IN TYPE III, IV, AND V CONSTRUCTION □WOOD FRAME□ AS PERMITTED PER NEC 338 AND LOCAL ORDINANCES□
MAY BE INSTALLED IN TYPE I AND I CONSTRUCTION WHEN INSTALLED IN RACEWAYS PER NEC 334□10 □5□

WHERE INSTALLED IN THERMAL INSULATION, THE AMPACITY OF SE CABLE SHALL BE IN ACCORDANCE WITH THE 60°C (140°F) CONDUCTOR TEMPERATURE RATING.

- FOR 100A TENANT MAINS SER CABLE FEEDERS IN DIRECT CONTACT WITH INSULATION MINIMUM CONDUCTOR SIZE IS **#1/0 AWG**
- FOR 125A TENANT MAINS SER CABLE FEEDERS IN DIRECT CONTACT WITH INSULATION MINIMUM CONDUCTOR SIZE IS **#3/0 AWG**

ALUMINUM MC CABLE
TO BE INSTALLED ABOVE GROUND IN TYPE I AND II CONSTRUCTION □NO COMBUSTIBLE□ AS PERMITTED PER NEC 330 AND LOCAL ORDINANCES□

VOLTAGE DROP □ CABLE IMPEDANCE Z□□ □ CIRCUIT LENGTH 1000FT □ UNIT LOAD □ PHASE MULTIPLIER

VOLTAGE DROP □ 1000FT

CIRCUIT LENGTH □ CABLE IMPEDANCE Z□□ □ UNIT LOAD □ PHASE MULTIPLIER

□3% MA□

MA□ CIRCUIT LENGTH □ (VOLTAGE DROP TO REMOTE METER SECTION □ VOLTAGE DROP TO UNIT PANEL) □ 1000FT

CABLE IMPEDANCE Z□□ □ UNIT LOAD □ PHASE MULTIPLIER

□ IF CABLE SIZE E□CEEDS MA□IMUM LUG SIZE FOR STANDARD TENANT LOADCENTER, PROVIDE OVERSIZED LUG LOADCENTER □e□ SIEMENS# SL3040L1200650 □r □□ lar□□

CONTRACTOR TO MEASURE APPRO□IMATE CONDUCTOR LENGTH FROM METER TO UNIT PANEL AND INSTALL CONDUCTOR SIZE AS SHOWN ABOVE□

MINIMUM GROUND CONDUCTOR SIZE □ALUMINUM CONDUCTORS□

CONDUCTOR DUE TO VOLTAGE DROP	MULTIPLIER	RE□□IRED GND SIZE CIRCULAR MILS	GND CONDUCTOR CIRCULAR MILS	MINIMUM GROUND CONDUCTOR SIZE:
#1 AL	1.0000	26240	26240	#6 AL
#1/0 AL	1.261151	33093	41740	#4 AL
#2/0 AL	1.591320	41756	41740	#4 AL
#3/0 AL	2.005726	52630	52633	#3 AL
#4/0 AL	2.528632	66351	66369	#2 AL
250 KCMIL	3.188668	83671	83690	#1 AL
300 KCMIL	3.767330	98855	105531	#1/0 AL
350 KCMIL	4.520796	118626	133072	#2/0 AL
400 KCMIL	5.274262	138397	167800	#3/0 AL

Sections D1

UNITS: A & AL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 106 FT	(3) #1 AL SER
107 - 134 FT	(3) #1/0 AL SER
135 - 160 FT	(3) #2/0 AL SER
161 - 196 FT	(3) #3/0 AL SER
197 - 232 FT	(3) #4/0 AL SER
233 - 272 FT	(3) 250 KCMIL SER
273 - 311 FT	(3) 300 KCMIL SER
312 - 350 FT	(3) 350 KCMIL SER
351 - 387 FT	(3) 400 KCMIL SER

UNITS: B & BL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 105 FT	(3) #1 AL SER
106 - 132 FT	(3) #1/0 AL SER
133 - 157 FT	(3) #2/0 AL SER
158 - 193 FT	(3) #3/0 AL SER
194 - 228 FT	(3) #4/0 AL SER
229 - 267 FT	(3) 250 KCMIL SER
268 - 306 FT	(3) 300 KCMIL SER
307 - 344 FT	(3) 350 KCMIL SER
345 - 380 FT	(3) 400 KCMIL SER

UNITS: C

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 99 FT	(3) #1 AL SER
100 - 125 FT	(3) #1/0 AL SER
126 - 148 FT	(3) #2/0 AL SER
149 - 183 FT	(3) #3/0 AL SER
184 - 216 FT	(3) #4/0 AL SER
217 - 253 FT	(3) 250 KCMIL SER
254 - 290 FT	(3) 300 KCMIL SER
291 - 325 FT	(3) 350 KCMIL SER
326 - 360 FT	(3) 400 KCMIL SER

UNITS: CL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 92 FT	(3) #1 AL SER
93 - 116 FT	(3) #1/0 AL SER
117 - 138 FT	(3) #2/0 AL SER
139 - 170 FT	(3) #3/0 AL SER
171 - 201 FT	(3) #4/0 AL SER
202 - 235 FT	(3) 250 KCMIL SER
236 - 270 FT	(3) 300 KCMIL SER
271 - 303 FT	(3) 350 KCMIL SER
304 - 335 FT	(3) 400 KCMIL SER

Sections D3

UNITS: A & AL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 100 FT	(3) #1 AL SER
101 - 126 FT	(3) #1/0 AL SER
127 - 150 FT	(3) #2/0 AL SER
151 - 185 FT	(3) #3/0 AL SER
186 - 218 FT	(3) #4/0 AL SER
219 - 255 FT	(3) 250 KCMIL SER
256 - 293 FT	(3) 300 KCMIL SER
294 - 329 FT	(3) 350 KCMIL SER
330 - 363 FT	(3) 400 KCMIL SER

UNITS: B & BL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 98 FT	(3) #1 AL SER
99 - 124 FT	(3) #1/0 AL SER
125 - 147 FT	(3) #2/0 AL SER
148 - 181 FT	(3) #3/0 AL SER
182 - 214 FT	(3) #4/0 AL SER
215 - 251 FT	(3) 250 KCMIL SER
252 - 287 FT	(3) 300 KCMIL SER
288 - 323 FT	(3) 350 KCMIL SER
324 - 357 FT	(3) 400 KCMIL SER

UNITS: C

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 93 FT	(3) #1 AL SER
94 - 117 FT	(3) #1/0 AL SER
118 - 139 FT	(3) #2/0 AL SER
140 - 171 FT	(3) #3/0 AL SER
172 - 202 FT	(3) #4/0 AL SER
203 - 237 FT	(3) 250 KCMIL SER
238 - 271 FT	(3) 300 KCMIL SER
272 - 305 FT	(3) 350 KCMIL SER
306 - 337 FT	(3) 400 KCMIL SER

UNITS: CL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 87 FT	(3) #1 AL SER
88 - 109 FT	(3) #1/0 AL SER
110 - 130 FT	(3) #2/0 AL SER
131 - 160 FT	(3) #3/0 AL SER
161 - 189 FT	(3) #4/0 AL SER
190 - 221 FT	(3) 250 KCMIL SER
222 - 253 FT	(3) 300 KCMIL SER
254 - 284 FT	(3) 350 KCMIL SER
285 - 315 FT	(3) 400 KCMIL SER

Sections D5

UNITS: A & AL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL MC
1 - 97 FT	(3) #1 AL MC
98 - 122 FT	(3) #1/0 AL MC
123 - 145 FT	(3) #2/0 AL MC
146 - 179 FT	(3) #3/0 AL MC
180 - 211 FT	(3) #4/0 AL MC
212 - 247 FT	(3) 250 KCMIL MC
248 - 283 FT	(3) 300 KCMIL MC++
284 - 318 FT	(3) 350 KCMIL MC++
319 - 352 FT	(3) 400 KCMIL MC++

UNITS: B & BL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL MC
1 - 95 FT	(3) #1 AL MC
96 - 120 FT	(3) #1/0 AL MC
121 - 143 FT	(3) #2/0 AL MC
144 - 175 FT	(3) #3/0 AL MC
176 - 207 FT	(3) #4/0 AL MC
208 - 243 FT	(3) 250 KCMIL MC
244 - 278 FT	(3) 300 KCMIL MC++
279 - 312 FT	(3) 350 KCMIL MC++
313 - 346 FT	(3) 400 KCMIL MC++

UNITS: C

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL MC
1 - 90 FT	(3) #1 AL MC
91 - 113 FT	(3) #1/0 AL MC
114 - 135 FT	(3) #2/0 AL MC
136 - 166 FT	(3) #3/0 AL MC
167 - 196 FT	(3) #4/0 AL MC
197 - 229 FT	(3) 250 KCMIL MC
230 - 263 FT	(3) 300 KCMIL MC++
264 - 295 FT	(3) 350 KCMIL MC++
296 - 326 FT	(3) 400 KCMIL MC++

UNITS: CL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL MC
1 - 84 FT	(3) #1 AL MC
85 - 106 FT	(3) #1/0 AL MC
107 - 126 FT	(3) #2/0 AL MC
127 - 155 FT	(3) #3/0 AL MC
156 - 183 FT	(3) #4/0 AL MC
184 - 214 FT	(3) 250 KCMIL MC
215 - 245 FT	(3) 300 KCMIL MC++
246 - 275 FT	(3) 350 KCMIL MC++
276 - 304 FT	(3) 400 KCMIL MC++

Sections C1

UNITS: A & AL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 103 FT	(3) #1 AL SER
104 - 130 FT	(3) #1/0 AL SER
131 - 154 FT	(3) #2/0 AL SER
155 - 190 FT	(3) #3/0 AL SER
191 - 225 FT	(3) #4/0 AL SER
226 - 263 FT	(3) 250 KCMIL SER
264 - 301 FT	(3) 300 KCMIL SER
302 - 338 FT	(3) 350 KCMIL SER
339 - 374 FT	(3) 400 KCMIL SER

UNITS: B & BL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 101 FT	(3) #1 AL SER
102 - 128 FT	(3) #1/0 AL SER
129 - 152 FT	(3) #2/0 AL SER
153 - 187 FT	(3) #3/0 AL SER
188 - 221 FT	(3) #4/0 AL SER
222 - 258 FT	(3) 250 KCMIL SER
259 - 296 FT	(3) 300 KCMIL SER
297 - 332 FT	(3) 350 KCMIL SER
333 - 368 FT	(3) 400 KCMIL SER

UNITS: C

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 95 FT	(3) #1 AL SER
96 - 121 FT	(3) #1/0 AL SER
122 - 143 FT	(3) #2/0 AL SER
144 - 176 FT	(3) #3/0 AL SER
177 - 208 FT	(3) #4/0 AL SER
209 - 244 FT	(3) 250 KCMIL SER
245 - 279 FT	(3) 300 KCMIL SER
280 - 314 FT	(3) 350 KCMIL SER
315 - 347 FT	(3) 400 KCMIL SER

UNITS: CL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 89 FT	(3) #1 AL SER
90 - 113 FT	(3) #1/0 AL SER
114 - 134 FT	(3) #2/0 AL SER
135 - 164 FT	(3) #3/0 AL SER
165 - 194 FT	(3) #4/0 AL SER
195 - 227 FT	(3) 250 KCMIL SER
228 - 261 FT	(3) 300 KCMIL SER
262 - 293 FT	(3) 350 KCMIL SER
294 - 324 FT	(3) 400 KCMIL SER

Sections C3

UNITS: A & AL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 97 FT	(3) #1 AL SER
98 - 123 FT	(3) #1/0 AL SER
124 - 146 FT	(3) #2/0 AL SER
147 - 180 FT	(3) #3/0 AL SER
181 - 212 FT	(3) #4/0 AL SER
213 - 249 FT	(3) 250 KCMIL SER
250 - 285 FT	(3) 300 KCMIL SER
286 - 320 FT	(3) 350 KCMIL SER
321 - 354 FT	(3) 400 KCMIL SER

UNITS: B & BL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 96 FT	(3) #1 AL SER
97 - 121 FT	(3) #1/0 AL SER
122 - 144 FT	(3) #2/0 AL SER
145 - 177 FT	(3) #3/0 AL SER
178 - 209 FT	(3) #4/0 AL SER
210 - 244 FT	(3) 250 KCMIL SER
245 - 280 FT	(3) 300 KCMIL SER
281 - 315 FT	(3) 350 KCMIL SER
316 - 348 FT	(3) 400 KCMIL SER

UNITS: C

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 90 FT	(3) #1 AL SER
91 - 114 FT	(3) #1/0 AL SER
115 - 135 FT	(3) #2/0 AL SER
136 - 167 FT	(3) #3/0 AL SER
168 - 197 FT	(3) #4/0 AL SER
198 - 231 FT	(3) 250 KCMIL SER
232 - 264 FT	(3) 300 KCMIL SER
265 - 297 FT	(3) 350 KCMIL SER
298 - 328 FT	(3) 400 KCMIL SER

UNITS: CL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 84 FT	(3) #1 AL SER
85 - 106 FT	(3) #1/0 AL SER
107 - 126 FT	(3) #2/0 AL SER
127 - 156 FT	(3) #3/0 AL SER
157 - 184 FT	(3) #4/0 AL SER
185 - 215 FT	(3) 250 KCMIL SER
216 - 247 FT	(3) 300 KCMIL SER
248 - 277 FT	(3) 350 KCMIL SER
278 - 307 FT	(3) 400 KCMIL SER

Sections C5

UNITS: A & AL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 95 FT	(3) #1 AL SER
96 - 120 FT	(3) #1/0 AL SER
121 - 142 FT	(3) #2/0 AL SER
143 - 175 FT	(3) #3/0 AL SER
176 - 206 FT	(3) #4/0 AL SER
207 - 242 FT	(3) 250 KCMIL SER
243 - 277 FT	(3) 300 KCMIL SER
278 - 311 FT	(3) 350 KCMIL SER
312 - 344 FT	(3) 400 KCMIL SER

UNITS: B & BL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 93 FT	(3) #1 AL SER
94 - 117 FT	(3) #1/0 AL SER
118 - 139 FT	(3) #2/0 AL SER
140 - 172 FT	(3) #3/0 AL SER
173 - 203 FT	(3) #4/0 AL SER
204 - 237 FT	(3) 250 KCMIL SER
238 - 272 FT	(3) 300 KCMIL SER
273 - 306 FT	(3) 350 KCMIL SER
307 - 338 FT	(3) 400 KCMIL SER

UNITS: C

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 88 FT	(3) #1 AL SER
89 - 111 FT	(3) #1/0 AL SER
112 - 132 FT	(3) #2/0 AL SER
133 - 162 FT	(3) #3/0 AL SER
163 - 191 FT	(3) #4/0 AL SER
192 - 224 FT	(3) 250 KCMIL SER
225 - 257 FT	(3) 300 KCMIL SER
258 - 288 FT	(3) 350 KCMIL SER
289 - 319 FT	(3) 400 KCMIL SER

UNITS: CL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 82 FT	(3) #1 AL SER
83 - 103 FT	(3) #1/0 AL SER
104 - 123 FT	(3) #2/0 AL SER
124 - 151 FT	(3) #3/0 AL SER
152 - 179 FT	(3) #4/0 AL SER
180 - 209 FT	(3) 250 KCMIL SER
210 - 240 FT	(3) 300 KCMIL SER
241 - 269 FT	(3) 350 KCMIL SER
270 - 298 FT	(3) 400 KCMIL SER

Sections A1 + B1

UNITS: A & AL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 115 FT	(3) #1 AL SER
116 - 145 FT	(3) #1/0 AL SER
146 - 172 FT	(3) #2/0 AL SER
173 - 212 FT	(3) #3/0 AL SER
213 - 250 FT	(3) #4/0 AL SER
251 - 293 FT	(3) 250 KCMIL SER
294 - 336 FT	(3) 300 KCMIL SER
337 - 377 FT	(3) 350 KCMIL SER
378 - 417 FT	(3) 400 KCMIL SER

UNITS: B & BL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 113 FT	(3) #1 AL SER
114 - 142 FT	(3) #1/0 AL SER
143 - 169 FT	(3) #2/0 AL SER
170 - 208 FT	(3) #3/0 AL SER
209 - 246 FT	(3) #4/0 AL SER
247 - 288 FT	(3) 250 KCMIL SER
289 - 330 FT	(3) 300 KCMIL SER
331 - 371 FT	(3) 350 KCMIL SER
372 - 410 FT	(3) 400 KCMIL SER

UNITS: C

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 106 FT	(3) #1 AL SER
107 - 134 FT	(3) #1/0 AL SER
135 - 160 FT	(3) #2/0 AL SER
161 - 197 FT	(3) #3/0 AL SER
198 - 232 FT	(3) #4/0 AL SER
233 - 272 FT	(3) 250 KCMIL SER
273 - 312 FT	(3) 300 KCMIL SER
313 - 350 FT	(3) 350 KCMIL SER
351 - 387 FT	(3) 400 KCMIL SER

UNITS: CL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 99 FT	(3) #1 AL SER
100 - 126 FT	(3) #1/0 AL SER
127 - 149 FT	(3) #2/0 AL SER
150 - 183 FT	(3) #3/0 AL SER
184 - 217 FT	(3) #4/0 AL SER
218 - 254 FT	(3) 250 KCMIL SER
255 - 291 FT	(3) 300 KCMIL SER
292 - 327 FT	(3) 350 KCMIL SER
328 - 361 FT	(3) 400 KCMIL SER

Sections A3 + B3

UNITS: A & AL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 107 FT	(3) #1 AL SER
108 - 135 FT	(3) #1/0 AL SER
136 - 160 FT	(3) #2/0 AL SER
161 - 197 FT	(3) #3/0 AL SER
198 - 233 FT	(3) #4/0 AL SER
234 - 272 FT	(3) 250 KCMIL SER
273 - 312 FT	(3) 300 KCMIL SER
313 - 351 FT	(3) 350 KCMIL SER
352 - 388 FT	(3) 400 KCMIL SER

UNITS: B & BL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 105 FT	(3) #1 AL SER
106 - 132 FT	(3) #1/0 AL SER
133 - 157 FT	(3) #2/0 AL SER
158 - 194 FT	(3) #3/0 AL SER
195 - 229 FT	(3) #4/0 AL SER
230 - 268 FT	(3) 250 KCMIL SER
269 - 307 FT	(3) 300 KCMIL SER
308 - 345 FT	(3) 350 KCMIL SER
346 - 381 FT	(3) 400 KCMIL SER

UNITS: C

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 99 FT	(3) #1 AL SER
100 - 125 FT	(3) #1/0 AL SER
126 - 148 FT	(3) #2/0 AL SER
149 - 183 FT	(3) #3/0 AL SER
184 - 216 FT	(3) #4/0 AL SER
217 - 253 FT	(3) 250 KCMIL SER
254 - 290 FT	(3) 300 KCMIL SER
291 - 325 FT	(3) 350 KCMIL SER
326 - 360 FT	(3) 400 KCMIL SER

UNITS: CL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 92 FT	(3) #1 AL SER
93 - 117 FT	(3) #1/0 AL SER
118 - 139 FT	(3) #2/0 AL SER
140 - 171 FT	(3) #3/0 AL SER
172 - 202 FT	(3) #4/0 AL SER
203 - 236 FT	(3) 250 KCMIL SER
237 - 270 FT	(3) 300 KCMIL SER
271 - 304 FT	(3) 350 KCMIL SER
305 - 336 FT	(3) 400 KCMIL SER

Sections A5 + B5

UNITS: A & AL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 103 FT	(3) #1 AL SER
104 - 130 FT	(3) #1/0 AL SER
131 - 154 FT	(3) #2/0 AL SER
155 - 190 FT	(3) #3/0 AL SER
191 - 224 FT	(3) #4/0 AL SER
225 - 262 FT	(3) 250 KCMIL SER
263 - 300 FT	(3) 300 KCMIL SER
301 - 338 FT	(3) 350 KCMIL SER
339 - 373 FT	(3) 400 KCMIL SER

UNITS: B & BL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 101 FT	(3) #1 AL SER
102 - 127 FT	(3) #1/0 AL SER
128 - 151 FT	(3) #2/0 AL SER
152 - 186 FT	(3) #3/0 AL SER
187 - 220 FT	(3) #4/0 AL SER
221 - 258 FT	(3) 250 KCMIL SER
259 - 295 FT	(3) 300 KCMIL SER
296 - 332 FT	(3) 350 KCMIL SER
333 - 367 FT	(3) 400 KCMIL SER

UNITS: C

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 95 FT	(3) #1 AL SER
96 - 120 FT	(3) #1/0 AL SER
121 - 143 FT	(3) #2/0 AL SER
144 - 176 FT	(3) #3/0 AL SER
177 - 208 FT	(3) #4/0 AL SER
209 - 243 FT	(3) 250 KCMIL SER
244 - 279 FT	(3) 300 KCMIL SER
280 - 313 FT	(3) 350 KCMIL SER
314 - 346 FT	(3) 400 KCMIL SER

UNITS: CL

CABLE LENGTH	CABLE SIZE & QTY
N / A	(3) #2 AL SER
1 - 89 FT	(3) #1 AL SER
90 - 112 FT	(3) #1/0 AL SER
113 - 133 FT	(3) #2/0 AL SER
134 - 164 FT	(3) #3/0 AL SER
165 - 194 FT	(3) #4/0 AL SER
195 - 227 FT	(3) 250 KCMIL SER
228 - 260 FT	(3) 300 KCMIL SER
261 - 292 FT	(3) 350 KCMIL SER
293 - 323 FT	(3) 400 KCMIL SER

PANEL SCHEDULE - UNIT: A

MOUNTING: RECESSED | VOLTAGE: 120/208 | BUS RATING: 150A
TYPE: LOADCENTER | PHASE: 1 | AIC: 10 KAIC (TYPE "HOM") - 100KAIC SERIES RATED
ENCLOSURE : NEMA 1 | WIRES: 3 | DISTIBUTION: 24/24
MAIN: LUGS

CKT	DESCRIPTION	TRIP	NOTE	A	B	DESCRIPTION	NOTE	TRIP	CKT
1	GENERAL LTG - SLEEPING AREA / SMOKE DETECTORS	15A	1	948	948	GENERAL LTG - BATHROOM/ ENTRY	1	15A	2
3	BATHROOM PLUGS	20A			180	1500 KITCHEN/DINING RECEPT	1	20A	4
5	LAUNDRY RECEPT	20A		1500	1500	KITCHEN RECEPT		20A	6
7	STACKED WASHER/DRYER	30A/2P			2500	1200 DISHWASHER		20A	8
9	208V.			2500	1080	GARBAGE DISPOSAL		20A	10
11	AIR HANDLER	20A/2P	2		1451	1500 MICROWAVE		20A	12
13	208V.			1451	0				14
15	HEAT PUMP	20A/2P	2		1227	0			16
17	208V.			1227	0				18
19					0	0			20
21				0	0				22
23					0	0			24
	VOLT AMPS PER LINE:								
	SUBTOTAL KVA:					KVA @ 125% (LCL)			
	REFER TO RESIDENTIAL DWELLING CALCULATIONS FOR CALCULATED LOAD								

NOTES:
1 - COMBINATION TYPE AFCI CIRCUIT BREAKER
2 - VERIFY MECHANICAL LOAD AND ELECTRICAL REQUIREMENTS WITH THE ACTUAL EQUIPMENT IN THE FIELD.

PANEL SCHEDULE - UNIT: B & AL

MOUNTING: RECESSED | VOLTAGE: 120/208 | BUS RATING: 150A
TYPE: LOADCENTER | PHASE: 1 | AIC: 10 KAIC (TYPE "HOM") - 100KAIC SERIES RATED
ENCLOSURE : NEMA 1 | WIRES: 3 | DISTIBUTION: 24/24
MAIN: LUGS

CKT	DESCRIPTION	TRIP	NOTE	A	B	DESCRIPTION	NOTE	TRIP	CKT
1	GENERAL LTG - BEDROOM/ SMOKE DETECTORS	15A	1	750	750	GENERAL LTG - KITCHEN / LIVING	1	15A	2
3	BATHROOM PLUGS	20A			180	750 GENERAL LTG - ENTRY / LOFT	1	15A	4
5	LAUNDRY RECEPT	20A		1500	1500	KITCHEN / DINING RECEPT	1	20A	6
7	STACKED WASHER/DRYER	30A/2P			2500	1500 KITCHEN RECEPT		20A	8
9	208V.			2500	1200	DISHWASHER		20A	10
11	AIR HANDLER	20A/2P	2		1451	1080 GARBAGE DISPOSAL		20A	12
13	208V.			1451	1500	MICROWAVE		20A	14
15	HEAT PUMP	**A/2P	2		1227	0			16
17	208V.			1227	0				18
19					0	0			20
21				0	0				22
23					0	0			24
	VOLT AMPS PER LINE:								
	SUBTOTAL KVA:					KVA @ 125% (LCL)			
	REFER TO RESIDENTIAL DWELLING CALCULATIONS FOR CALCULATED LOAD								

NOTES:
1 - COMBINATION TYPE AFCI CIRCUIT BREAKER
2 - VERIFY MECHANICAL LOAD AND ELECTRICAL REQUIREMENTS WITH THE ACTUAL EQUIPMENT IN THE FIELD.
** - INSTALL: 20A/2P BREAKER @ UNIT TYPES B OR 25A/2P BREAKER @ UNIT TYPE AL

PANEL SCHEDULE - UNIT: C & BL (EXCEPT C6)

MOUNTING: RECESSED | VOLTAGE: 120/208 | BUS RATING: 150A
TYPE: LOADCENTER | PHASE: 1 | AIC: 10 KAIC (TYPE "HOM") - 100KAIC SERIES RATED
ENCLOSURE : NEMA 1 | WIRES: 3 | DISTIBUTION: 24/24
MAIN: LUGS

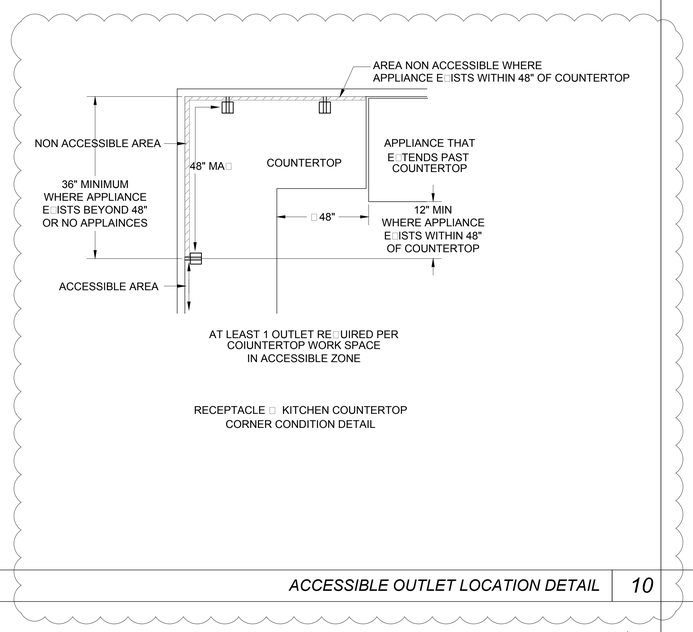
CKT	DESCRIPTION	TRIP	NOTE	A	B	DESCRIPTION	NOTE	TRIP	CKT
1	GENERAL LTG - M BED / SMOKE DETECTORS	15A	1	750	750	GENERAL LTG - BED 2 / LOFT	1	15A	2
3	GENERAL LTG - KITCHEN / LIVING ROOM	15A	1		750	750 GENERAL LTG - ENTRY / OTHER	1	15A	4
5	BATHROOM PLUGS	20A		360	1500	KITCHEN / DINING RECEPT	1	20A	6
7	LAUNDRY RECEPT	20A			1500	1500 KITCHEN RECEPT		20A	8
9	STACKED WASHER/DRYER	30A/2P		2500	1200	DISHWASHER		20A	10
11	208V.				2500	1080 GARBAGE DISPOSAL		20A	12
13	AIR HANDLER	20A/2P	2	1451	1500	MICROWAVE		20A	14
15	208V.				1451	0			16
17	HEAT PUMP	25A/2P	2	1227	0				18
19	208V.				1227	0			20
21				0	0				22
23					0	0			24
	VOLT AMPS PER LINE:								
	SUBTOTAL KVA:					KVA @ 125% (LCL)			
	REFER TO RESIDENTIAL DWELLING CALCULATIONS FOR CALCULATED LOAD								

NOTES:
1 - COMBINATION TYPE AFCI CIRCUIT BREAKER
2 - VERIFY MECHANICAL LOAD AND ELECTRICAL REQUIREMENTS WITH THE ACTUAL EQUIPMENT IN THE FIELD

PANEL SCHEDULE - UNIT: C6 ONLY

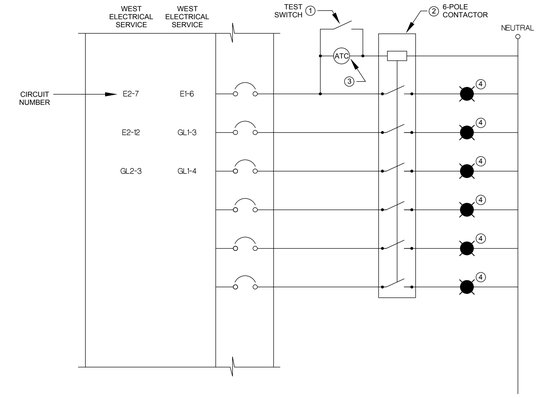
MOUNTING: RECESSED | VOLTAGE: 120/208 | BUS RATING: 150A
TYPE: LOADCENTER | PHASE: 1 | AIC: 10 KAIC (TYPE "HOM") - 100KAIC SERIES RATED
ENCLOSURE : NEMA 1 | WIRES: 3 | DISTIBUTION: 24/24
MAIN: LUGS

CKT	DESCRIPTION	TRIP	NOTE	A	B	DESCRIPTION	NOTE	TRIP	CKT
1	GENERAL LTG - M BED / SMOKE DETECTORS	15A	1	750	750	GENERAL LTG - BED 2	1	15A	2
3	GENERAL LTG - KITCHEN / LIVING	15A	1		750	750 GENERAL LTG - ENTRY / OTHER	1	15A	4
5	BATHROOM PLUGS	20A		360	1500	KITCHEN / DINING RECEPT	1	20A	6
7	LAUNDRY RECEPT	20A			1500	1500 KITCHEN RECEPT		20A	8
9	STACKED WASHER/DRYER	30A/2P		2500	1200	DISHWASHER		20A	10
11	208V.				2500	1080 GARBAGE DISPOSAL		20A	12
13	AIR HANDLER	20A/2P	2	1451	1500	MICROWAVE		20A	14
15	208V.				1451	0			16
17	HEAT PUMP	30A/2P	2	1227	0				18
19	208V.				1227	0			20
21				0	0			



RECEPTACLE □ KITCHEN COUNTERTOP CORNER CONDITION DETAIL

ACCESSIBLE OUTLET LOCATION DETAIL | 10



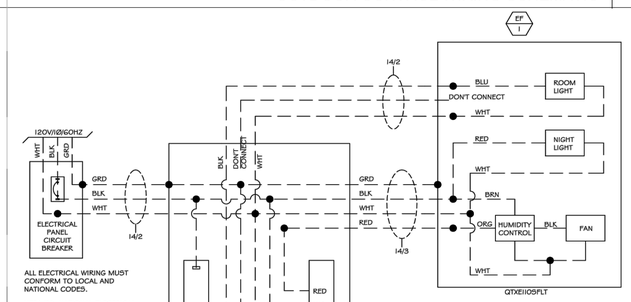
① LIGHTING TEST SWITCH TO BYPASS PHOTOCELL□ STANDARD TOGGLE SWITCH

② 6-POLE LIGHTING CONTACTOR, 20A .MIN.; 120V COIL IN NEMA 1 ENCLOSURE S□UARE-D# 8903-LG60-V02 OR E□UAL

③ ASTRONOMICAL TIME CLOCK & AUTOMATIC SCHEDULING CONTROL INTERMATIC# ET8015C OR APPROVED E□UAL

④ OUTDOOR LIGHTING ON AND OFF BY TIME CLOCK .DUSK - DAWN□

OUTDOOR CONTROL WIRING SCHEMATIC | 8



ALL ELECTRICAL WIRING MUST CONFORM TO LOCAL AND NATIONAL CODES.

NFPA 70, NATIONAL ELECTRICAL CODE, ARTICLE 430, PART IX ALLOWS FOR CIRCUIT BREAKER TO BE USED AS DISCONNECT MEANS FOR MODEL QTXEII05 FAN. ALL PERTINENT REQUIREMENTS MUST BE IMPLEMENTED.

CIRCUIT BREAKER SHOULD BE LOCAL, LOCKABLE AND FAN MANUFACTURER RECOMMENDS SEPARATE FROM BATHROOM LIGHTS, OUTLETS OR ANY OTHER LOADS FOR BEST PERFORMANCE, CLEANING AND MAINTENANCE SAFETY. MULTIPLE BATH FANS SHOULD BE PLACED ON SAME SEPARATE CIRCUIT.

NOTES:

1. QTXEII05FLT FAN WITH HUMIDITY CONTROL IS ALWAYS ACTIVE.
2. SMARTSENSE CONTROL PROVIDES INTERMITTENT VENTILATION PER ASHRAE 62.2 AND ABILITY TO MANUALLY TURN FAN ON/OFF**.
3. CIRCUIT BREAKER IS DISCONNECT.

** (FAN CANNOT BE MANUALLY TURNED OFF WITH SMARTSENSE CONTROL IF HUMIDITY CONTROL TURNED IT ON.)

CONTROL INSTALLATION:

1) 110 CFM FANS MUST USE SMSCII0 CONTROL.
2) USE MINIMUM 75 DEGREES CELSIUS RATED ELECTRICAL WIRING CABLE.
3) THE CONTROLS INSTALL LIKE NORMAL SWITCHES EXCEPT FOR THE NEED OF A NEUTRAL WIRE. RUN THE NEUTRAL WIRE TO EACH WALL CONTROL LOCATION.
4) SPECIFY THE INSTALLATION OF DEEP J-BOXES IN ALL LOCATIONS WHERE THE COMMUNICATING CONTROLS WILL BE USED. USE BOXES THAT HAVE 18 CU. IN. MINIMUM VOLUME AND ARE AT LEAST 1-1/2 IN. DEEP.
5) ALL CONTROLS AND COUPLER MUST BE GROUNDED.

HOW TO LINK SMARTSENSE SYSTEM:

1) UNLESS ANOTHER CONTROL IS DESIGNATED AND CLEARLY MARKED ON FRAME OR UNDER DECORATIVE PLATE, GO TO MASTER BATHROOM CONTROL.
2) PUT MASTER CONTROL IN PROGRAM MODE; PRESS AND HOLD SET BUTTON FOR 3-SECONDS (A BEEP SHOULD BE HEARD) THEN RELEASE IT.
3) LED SHOULD BE TURNING ON AND OFF EVERY SECOND (SLOW-BLINK); IF IT ISN'T THEN REPEAT STEP 2.
4) GO TO FIRST CONTROL TO LINK AS A SLAVE.
5) PRESS AND HOLD SET BUTTON FOR 3-SECONDS (A BEEP SHOULD BE HEARD) THEN RELEASE IT.
6) FAN AND LED SHOULD TURN ON AFTER SLAVE'S SET BUTTON IS RELEASED. NOTE: AT SAME TIME SLAVE TURNS ON, MASTER FAN TURNS ON.
7) PRESS SLAVE'S OFF PADDLE TO MANUALLY TURN FAN OFF.
8) IF THERE ARE MORE SLAVE INSTALLATIONS THEN GO TO NEXT CONTROL AND REPEAT STEPS 5 THROUGH 8; OTHERWISE CONTINUE WITH NEXT STEP.
9) WHEN ALL SLAVES ARE LINKED, EXIT MASTER PROGRAM MODE; GO TO MASTER CONTROL, PRESS AND RELEASE SET BUTTON.
10) MASTER LED WILL FAST-BLINK TO INDICATE SYSTEM LEVEL AND THEN REMAIN ON STEADY, SINCE FAN IS ON. THIS ACTION CONFIRMS PROGRAM MODE EXIT.
11) PRESS AND RELEASE MASTER'S OFF PADDLE TO TURN OFF LED AND FAN.

HOW TO SET THE SYSTEM LEVEL:

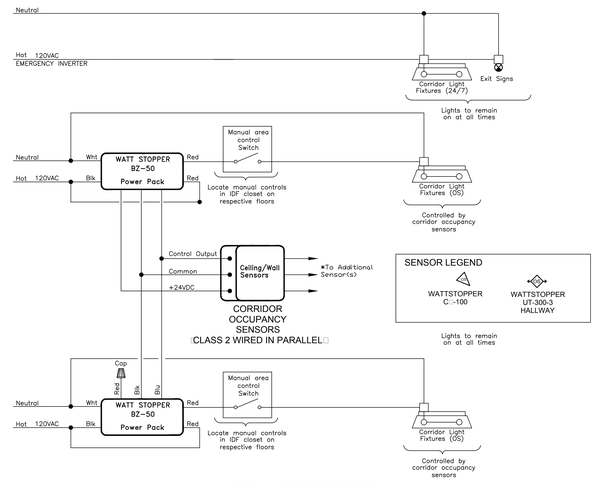
1) PUT MASTER CONTROL IN PROGRAM MODE; PRESS AND HOLD SET BUTTON FOR 3-SECONDS (A BEEP SHOULD BE HEARD) THEN RELEASE IT.
2) LED SHOULD BE TURNING ON AND OFF EVERY SECOND (SLOW-BLINK); IF IT IS NOT THEN REPEAT STEP 1.
3) PRESS THE TOP OF THE MASTER CONTROL'S PADDLE ONCE TO SET AT 45 CFM.
   PRESS THE TOP OF THE MASTER CONTROL'S PADDLE TWICE TO SET AT 60 CFM.
   PRESS THE TOP OF THE MASTER CONTROL'S PADDLE THREE TIMES TO SET AT 75 CFM.
   PRESS THE TOP OF THE MASTER CONTROL'S PADDLE FOUR TIMES TO SET AT 90 CFM.
4) EXIT PROGRAM MODE; PRESS AND RELEASE SET BUTTON. THERE WILL BE AN APPROXIMATELY 2 HOUR DELAY BEFORE THE BROAN SMARTSENSE PROGRAM BEGINS RUNNING.
5) AFTER EXITING PROGRAM MODE, LED WILL FAST-BLINK A NUMBER OF TIMES. LED WILL FAST-BLINK THE SAME NUMBER OF TIMES IN THREE SETS WITH A SLIGHT PAUSE IN BETWEEN EACH SET.
6) COUNT NUMBER OF TIMES LED FAST-BLINKS IN A SET.
7) COMPARE NUMBER OF TIMES LED FAST-BLINKS IN A SET TO NUMBER FOR SYSTEM LEVEL IN TABLE B OF MANUF. INSTALLATION INSTRUCTIONS.
8) IF THEY ARE THE SAME THEN SYSTEM LEVEL IS SET ACCORDINGLY; OTHERWISE, RE-ADJUST SYSTEM LEVEL STARTING WITH STEP 1.

SHOWN FOR REFERENCE ONLY□
SEE MECHANICAL PLANS

UNIT EXHAUST FAN / LIGHT CONTROL DETAIL | 9

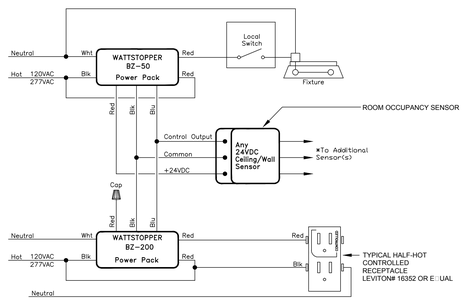
OPERATION NOTE:
PROVIDE OCCUPANCY SENSORS AS INDICATED ON THE BUILDING PLANS : OCCUPANCY SENSORS TO CONTROL ENTIRE NON-EMERGECNY CIRCUITS INDICATED ON THE RESPECTIVE BUILDING FLOOR. PROVIDE ADDITIONAL POWER PACKS AS RE□UIRED TO SUPPORT THE NUMBER OF SENSORS IF RE□UIRED FOR THE CIRCUIT.
EMERGENCY CIRCUITS TO BE ILLUMINATED AT ALL TIMES

REFER TO BUILDING PLANS FOR SENSOR LOCATIONS□□
INTERCONNECT SENSORS IN PARALLEL PER MANUFACTURER'S INSTRUCTIONS□



TYPICAL 4 CIRCUITS PER FLOOR

CORRIDOR OCCUPANCY SENSOR WIRING DIAGRAM | 1



CONTROLLED RECEPTACLE WIRING DIAGRAM | 2

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19TH & HARRISON STREET

Oakland, CA

NO□	ISSUE	DATE
1	PLAN CHECK RESPONSE #1 /GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

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CONSULTANT

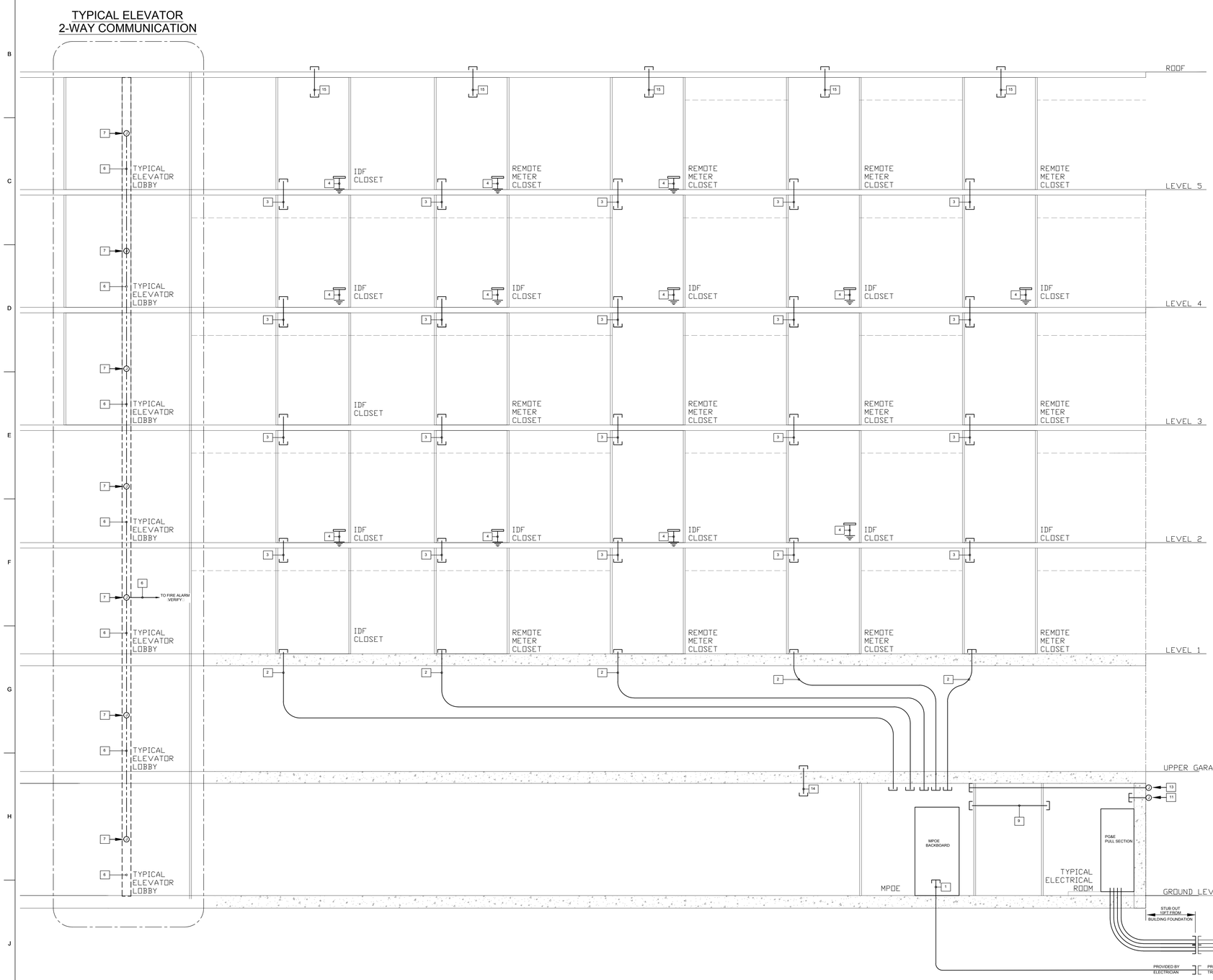
LIGHTING CONTROLS AND DETAILS

PROJECT NO: □6-059
DATE: 05/12/17

SHEET NO:

E0.08

ADDENDUM #1



ELECTRICAL KEY NOTES

1. PROVIDE AND INSTALL (4) 4-INCH CONDUITS TO SUPPORT SERVICE PROVIDER CONNECTIVITY. STUB CONDUITS OUTSIDE OF BUILDING FOUNDATION.
2. REFER TO LOW VOLTAGE PLANS SEE SHEET LV-301
3. REFER TO LOW VOLTAGE PLANS SEE SHEET LV-301 PROVIDE ADDITIONAL 3" CONDUIT TO ROOF FOR PG&E COMMUNICATIONS.
4. PROVIDE COMMUNICATIONS GROUND BLOCK AND #6 CU TO MAIN BUILDING GROUND
5. TELECOM VAULT POINT OF CONNECTION TO SERVICE PROVIDER. REFER TO DRY UTILITY PLANS FOR POINT OF CONNECTION.
6. PROVIDE AND INSTALL (1) 3/4-INCH CONDUIT TO SUPPORT 2-WAY COMMUNICATION DEVICE.
7. PROVIDE JUNCTION BO. FOR 2-WAY COMMUNICATIONS CALL BO. REFER TO FLOOR PLANS FOR LOCATION.
8. 2-HOUR RATED WALL ARCHITECT TO PROVIDE.
9. PROVIDE AND INSTALL (1) 1 1/2-INCH CONDUIT TO SUPPORT PG&E SMART METERING SYSTEM.
10. PROVIDE AND INSTALL (1) 2-INCH CONDUIT TO SUPPORT PG&E SMART METERING SYSTEM.
11. TERMINATE CONDUIT 8FT. (MIN.) - 10FT. MA. ON OUTSIDE OF BUILDING PER PG&E RE. UIREMENTS. SEE DETAIL 5 / E0.2
12. PROVIDE 3/4" (4' (8' PLYWOOD BACKBOARD.
13. PROVIDE 1" C.O. FOR EV CHARGER COMMUNICATION
14. PROVIDE (2) 1" SLEEVES FOR FIRST RESPONDER SYSTEM VERIFY LOCATION & QTY.
15. PROVIDE AND INSTALL (4) 3-INCH WITH WEATHERPROOF CAP FOR FUTURE SATELLITE & PG&E CONDUIT.
16. PROVIDE (2) 2 INCH CONDUIT LOOP FOR FUTURE CELLULAR BOOSTER SYSTEM

CONDUIT RISER DIAGRAM | *1*

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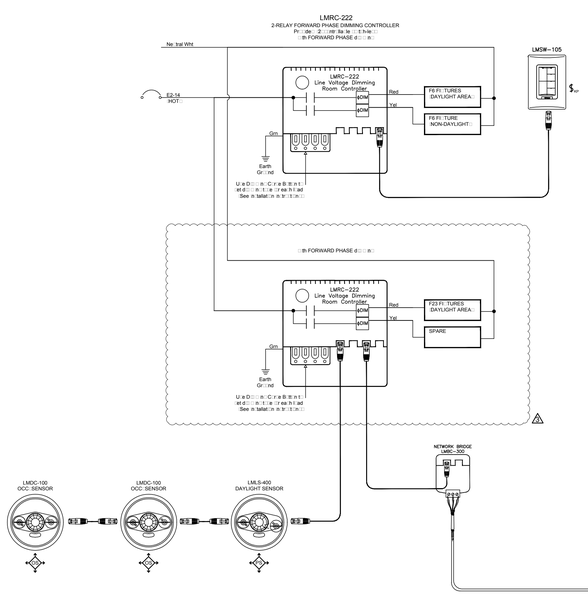
LOW VOLTAGE CONDUIT RISER DIAGRAM

PROJECT NO: 6-059
DATE: 05/12/17

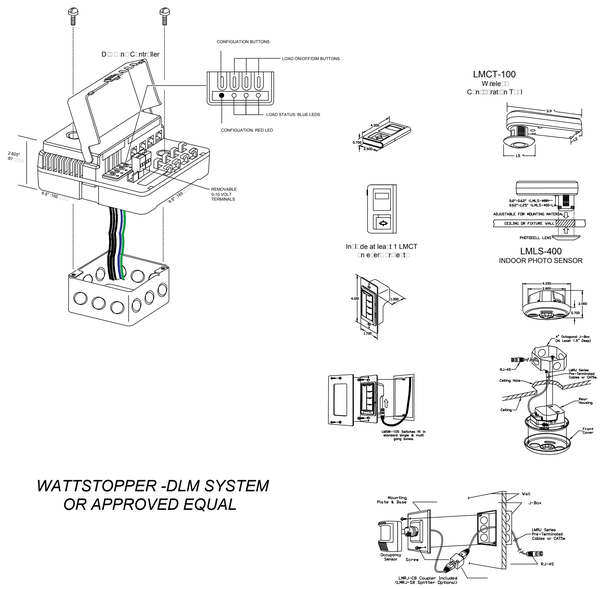
SHEET NO:

E0.09

ADDENDUM #1

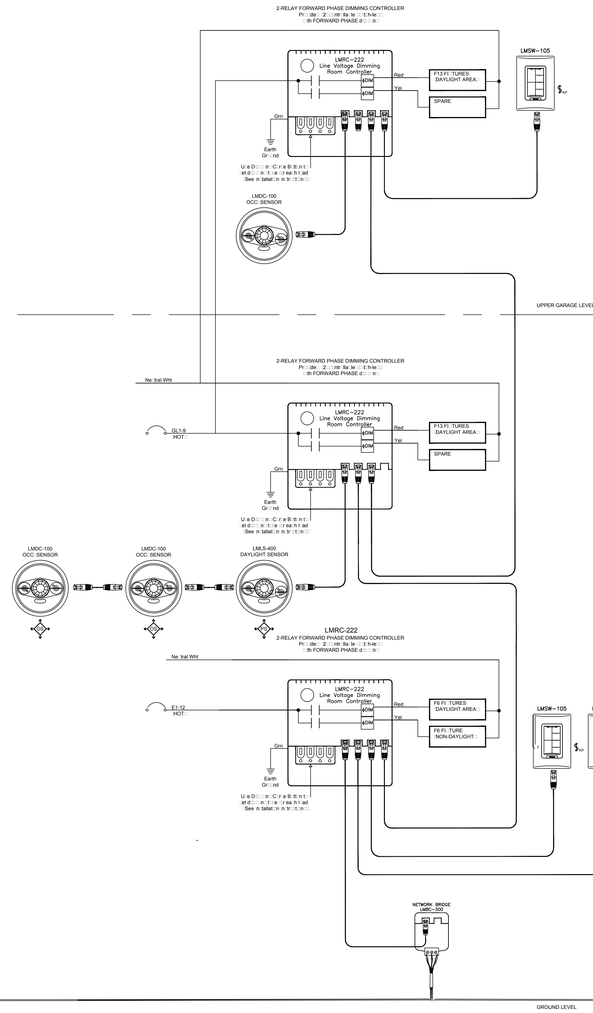


MAKER SPACE DIGITAL LIGHTING CONTROL | 2

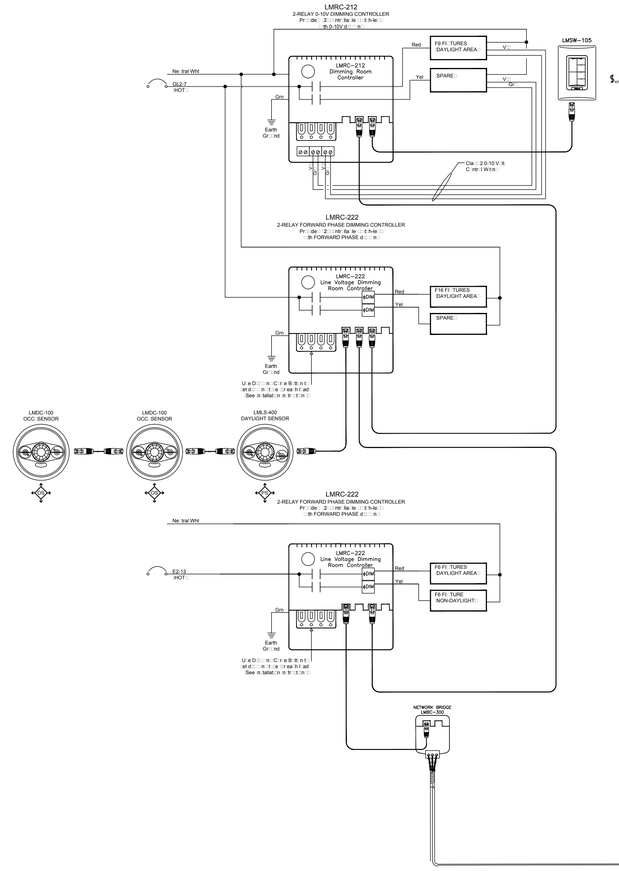


WATTSTOPPER -DLM SYSTEM OR APPROVED EQUAL

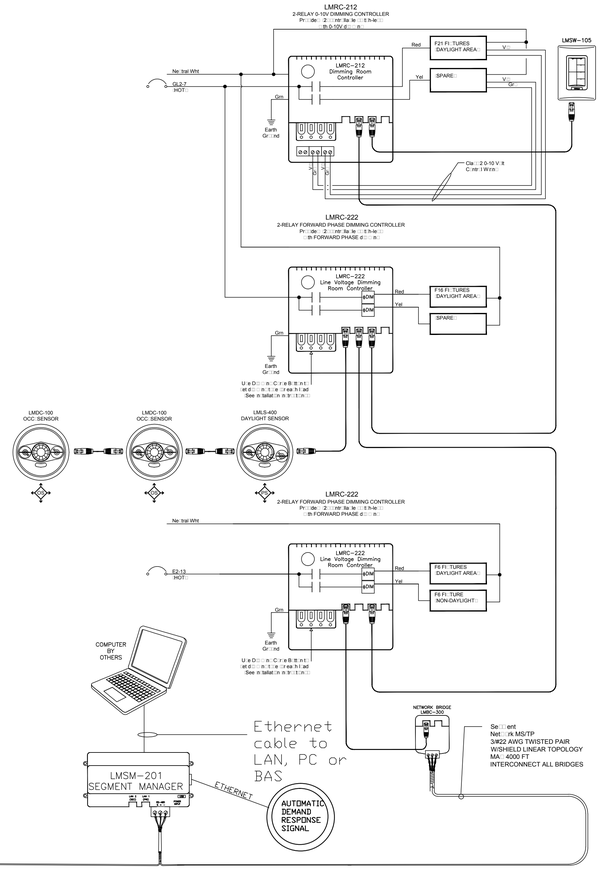
DIGITAL LIGHTING CONTROL DETAIL DRAWING | 0



LOUNGE / CO-WORKING AREA DIGITAL LIGHTING CONTROL | 3



FITNESS AREA DIGITAL | 4



LEASING AREA DIGITAL LIGHTING CONTROL | 1

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DIGITAL LIGHTING CONTROL DETAILS

PROJECT NO: 16-059

DATE: 05/12/17

SHEET NO:

E0.10

ADDENDUM #1

Branch Panel: L1

Location: TRASH 100T
Supply From:
Mounting: RECESSED
Enclosure: Type 1

Volts: 208V 3PH
Phases: 3
Wires: 4

A.I.C. Rating: 10,000
Mains Type: MLO
Mains Rating: 100 A
MCB Rating:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	Lighting - 1st Flr Corridor (OS)	20 A	1	375 VA	310 VA		1	20 A	Lighting - 1st Flr Corridor (OS)	2
3	Lighting - 1st Flr Corridor (OS)	20 A	1		163 VA	395 VA	1	20 A	Lighting - 1st Flr Corridor (OS)	4
5	Lighting - 2nd Flr Corridor (OS)	20 A	1			227 VA	375 VA	1	20 A	Lighting - 2nd Flr Corridor (OS)	6
7	Lighting - 2nd Flr Corridor (OS)	20 A	1	323 VA	181 VA			1	20 A	Lighting - 2nd Flr Corridor (OS)	8
9	Lighting - 3rd Flr Corridor (OS)	20 A	1		181 VA	323 VA		1	20 A	Lighting - 3rd Flr Corridor (OS)	10
11	Lighting - 3rd Flr Corridor (OS)	20 A	1			227 VA	375 VA	1	20 A	Lighting - 3rd Flr Corridor (OS)	12
13	Lighting - 4th Flr Corridor (OS)	20 A	1	323 VA	181 VA			1	20 A	Lighting - 4th Flr Corridor (OS)	14
15	Lighting - 4th Flr Corridor (OS)	20 A	1		227 VA	375 VA		1	20 A	Lighting - 4th Flr Corridor (OS)	16
17	Lighting - 5th Flr Corridor (OS)	20 A	1			323 VA	181 VA	1	20 A	Lighting - 5th Flr Corridor (OS)	18
19	Lighting - 5th Flr Corridor (OS)	20 A	1	375 VA	227 VA			1	20 A	Lighting - 5th Flr Corridor (OS)	20
21											22
23											24
25											26
27											28
29											30
31											32
33											34
35											36
37											38
39											40
41											42
				Total Load:	2296 VA	1665 VA	1710 VA				
				Total Amps:	19 A	14 A	14 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	7054 VA	100.00%	7054 VA		
				Total Conn. Load:	7054 VA
				Total Est. Demand:	7054 VA
				Total Conn. Current:	20 A
				Total Est. Demand Current:	20 A

Notes:
(OS) - Circuit Controlled by occupancy sensor refer to detail 1 / E0.08 for wiring schematic

Branch Panel: GL1

Location: ELECTRICAL 171
Supply From:
Mounting: Surface
Enclosure: Type 1

Volts: 208V 3PH
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type: MLO
Mains Rating: 200 A
MCB Rating:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	Lighting - Garage	20 A	1	880 VA	900 VA		1	20 A	Lighting - Lower garage storage rooms	2
3	Exterior Lighting - North Alley (TC)	20 A	1			110 VA	157 VA	1	20 A	Exterior Lighting - Webster St (TC)	4
5	Lighting - UPPER Garage	20 A	1				704 VA	600 VA	1	20 A	Lighting - Garage	6
7	Lighting - Upper Garage Boiler / Bike	20 A	1	420 VA	826 VA				1	20 A	Lighting - Lobby (OS)	8
9	Lighting - Lounge (DLM)	20 A	1			559 VA	807 VA		1	20 A	Lighting - Fintess (DLM)	10
11	Lighting - Upper Garage Lobby (OS)	20 A	1				318 VA	500 VA	1	20 A	Building Signange (TC)	12
13	Building Signange (TC)	20 A	1	500 VA	500 VA				1	20 A	Power	14
15											16
17											18
19											20
21											22
23											24
25											26
27											28
29											30
31											32
33											34
35											36
37											38
39											40
41											42
				Total Load:	4026 VA	1633 VA	2122 VA				
				Total Amps:	34 A	14 A	18 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	3953 VA	100.00%	3953 VA		
Other	198 VA	125.00%	248 VA	**Total Conn. Load:**	7811 VA
Power	1500 VA	100.00%	1500 VA	**Total Est. Demand:**	8401 VA
Lighting - Garage	2160 VA	125.00%	2700 VA	**Total Conn. Current:**	22 A
				Total Est. Demand Current:	23 A

Notes:
(TC) - CONTROLLED BY TIME CLOCK. REFER TO DETAIL 8 / E0.08 FOR OUTDOOR CONTROL WIRING SCHEMATIC.
(GTC) - CONTROLLED BY 7-DAY TIME CLOCK (INDEPENDENT FROM OUTDOOR LIGHITNG CONTROLS).
(DLC) - CONTROLLED BY DIGITAL LIGHTING CONTROL SYSTEM. SEE SHEET E0.10
(OS) - Circuit Controlled by occupancy sensor refer to detail 1 / E0.08 for wiring schematic

Branch Panel: R1

Location: TRASH 100T
Supply From:
Mounting: Recessed
Enclosure: Type 1

Volts: 208V 3PH
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type: MLO
Mains Rating: 200 A
MCB Rating:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	Receptacle - CORRIDOR	20 A	1	900 VA	900 VA		1	20 A	Receptacle - CORRIDOR	2
3	Receptacle - CORRIDOR	20 A	1		900 VA	900 VA	1	20 A	Receptacle - CORRIDOR	4
5	Receptacle - CORRIDOR	20 A	1			900 VA	900 VA	1	20 A	Receptacle - CORRIDOR	6
7	Receptacle - COURTYARD	20 A	1	900 VA	1000...			1	20 A	Receptacle - COURTYARD	8
9	Receptacle - COURTYARD	20 A	1		1800...	180 VA		1	20 A	Receptacle - FIRE ALARM	10
11	Receptacle - FIRE ALARM	20 A	1			180 VA	180 VA	1	20 A	Receptacle - FIRE ALARM	12
13	Receptacle - FIRE ALARM	20 A	1	180 VA	180 VA			1	20 A	Receptacle - FIRE ALARM	14
15	Receptacle - FIRE ALARM	20 A	1		180 VA	180 VA		1	20 A	Receptacle - FIRE ALARM	16
17	Receptacle - FIRE ALARM	20 A	1			180 VA	180 VA	1	20 A	Receptacle - FIRE ALARM	18
19	Receptacle - FIRE ALARM	20 A	1	180 VA	540 VA			1	20 A	Receptacle - Roof A/C	20
21	Receptacle - IDF - 2ND	20 A	1			360 VA	360 VA	1	20 A	Receptacle - 4th IDF	22
23	Receptacle - 2nd Flr IDF	20 A	1				360 VA	960 VA	1	20 A	Power - Elevator Smoke Curtain	24
25	Receptacle - Roof A/C	20 A	1	540 VA	960 VA				1	20 A	Power - Elevator Smoke Curtain	26
27	Power - PATIO HEATER	30 A	2		2000...	1440...			1	20 A	Power - Elevator Smoke Curtain	28
29	--	--	--				2000...	1440...	1	20 A	Power - Elevator Smoke Curtain	30
31	Power - PATIO HEATER	30 A	2	2000...	1440...				1	20 A	Power - Elevator Smoke Curtain	32
33	--	--	--		2000...	960 VA			1	20 A	Power - Elevator Smoke Curtain	34
35												36
37												38
39												40
41												42
				Total Load:	9720 VA	11260 VA	7280 VA				
				Total Amps:	84 A	97 A	61 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	15300 VA	100.00%	15300 VA		
				Total Conn. Load:	28260 VA
				Total Est. Demand:	26780 VA
				Total Conn. Current:	78 A
				Total Est. Demand Current:	74 A

Notes:

Branch Panel: GR1

Location: ELECTRICAL 171
Supply From:
Mounting: Surface
Enclosure: Type 1

Volts: 208V 3PH
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type: MLO
Mains Rating: 200 A
MCB Rating:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	Receptacle - MPOE	20 A	1	180 VA	180 VA		1	20 A	Receptacle - MPOE	2
3	Receptacle - MPOE DAS SYSTEM	20 A	1			180 VA	360 VA	1	20 A	Receptacle - ELECTRICAL / UTILITY	4
5	GATE MOTOR	20 A	1				1176...	1176...	1	20 A	GATE MOTOR	6
7	WATER HEATER	20 A	1	600 VA	0 VA				1	20 A	WATER HEATER	8
9	CIRCULATION PUMP	20 A	1			0 VA	180 VA		1	20 A	Receptacle - Boiler Room	10
11	IRRIGATION CONTROLLER	20 A	1				200 VA	298 VA	1	20 A	ELEVATOR CONTROL ROOM	12
13	ELEVATOR CART LIGHT	20 A	1	200 VA	180 VA				1	20 A	Receptacle - FIRE ALARM	14
15	Receptacle - FIRE ALARM	20 A	1		180 VA	180 VA			1	20 A	Receptacle - MPOE	16
17	Receptacle - 2WAY COMMUNICAITONS	20 A	1				180 VA	396 VA	1	20 A	ELEVATOR PIT 1A	18
19												20
21												22
23												24
25												26
27												28
29												30
31												32
33												34
35												36
37												38
39												40
41												42
				Total Load:	1340 VA	1080 VA	3425 VA				
				Total Amps:	12 A	9 A	29 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	60 VA	100.00%	60 VA		
Lighting	180 VA	100.00%	180 VA	**Total Conn. Load:**	5852 VA
Motor	2352 VA	100.00%	2352 VA	**Total Est. Demand:**	5927 VA
Other	300 VA	125.00%	375 VA	**Total Conn. Current:**	16 A
Power	800 VA	100.00%	800 VA	**Total Est. Demand Current:**	16 A

Notes:

Branch Panel: M1

Location: TRASH 100T
Supply From:
Mounting: Recessed
Enclosure: Type 1

Volts: 208V 3PH
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type: MLO
Mains Rating: 100 A
MCB Rating:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	CORRIDOR EF/3	20 A	3	444 VA	232 VA		1	20 A	EF/3 (ROOF)	2
3	--	--	--		444 VA	232 VA	1	20 A	SF/2 (ROOF)	4
5	--	--	--			444 VA	444 VA	3	20 A	CORRIDOR EXHAUST FAN EF/3	6
7	CORRIDOR EF/3	20 A	3	444 VA	444 VA			--	--	--	8
9	--	--	--		444 VA	444 VA		--	--	--	10
11	--	--	--			444 VA	250 VA	1	20 A	Corridor SFD	12
13	Corridor SFD	20 A	1	250 VA	250 VA			1	20 A	CORRIDOR SFD	14
15											16
17											18
19											20
21											22
23											24
25											26
27											28
29											30
31											32
33											34
35											36
37											38
39											40
41											42
				Total Load:	2064 VA	1564 VA	1582 VA				
				Total Amps:	17 A	13 A	13 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	5210 VA	100.00%	5210 VA		
				Total Conn. Load:	5210 VA
				Total Est. Demand:	5210 VA
				Total Conn. Current:	14 A
				Total Est. Demand Current:	14 A

Notes:

Branch Panel: GM1

Location: ELECTRICAL 171
Supply From:
Mounting: Surface
Enclosure: Type 1

Volts: 208V 3PH
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type: MLO
Mains Rating: 200 A
MCB Rating:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	ELECTRICAL ROOM HVAC	30 A	2	1179...	180 VA		1	20 A	HVAC - Storage Rooms	2
3	--	--	--		1179...	60 VA	1	20 A	HVAC - booster pump room	4
5	HVAC-MPOE	30 A	2			1179...	60 VA	1	20 A	HVAC - Bike Storage	6
7	--	--	--	1179...	576 VA			3	20 A	GARAGE EF/6 (1HP)	8
9	FIRE PUMP ROOM HEATER	20 A	3		1667...	576 VA		--	--	--	10
11	--	--	--			1667...	576 VA	--	--	--	12
13	--	--	--	1667...	200 VA			1	20 A	Condensate Pumps	14
15	TOILET EWH/1	30 A	2		2080...	2080...		2	30 A	TOILET ROOM 110 - EWH/1	16
17	--	--	--				2080...	2080...	--	--	--	18
19	LOUNGE SINK - EWH/1	30 A	2	2080...							20
21	--	--	--		2080...						22
23											24
25											26
27											28
29											30
31											32
33											34
35											36
37											38
39											40
41											42
				Total Load:	7060 VA	9721 VA	7641 VA				
				Total Amps:	59 A	82 A	64 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	300 VA	100.00%	300 VA		
Power	24123 VA	100.00%	24123 VA	**Total Conn. Load:**	24423 VA
				Total Est. Demand:	24423 VA
				Total Conn. Current:	68 A
				Total Est. Demand Current:	68 A

Notes:

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19TH & HARRISON

Oakland, CA

NO.	ISSUE	DATE
1	PLAN CHECK RESPONSE #1/GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

APPROVAL

CONSULTANT

WEST SERVICE PANEL SCHEDULES

PROJECT NO: X6-059
DATE: 05/12/17

SHEET NO:

E1.01

ADDENDUM #1

Emergency... E1

Location: ELECTRICAL 171 | **Volts:** 120V 1PH | **A.I.C. Rating:**
Supply From: | **Phases:** 1 | **Mains Type:**
Mounting: | **Wires:** 2 | **Mains Rating:**
Enclosure: | **MCB Rating:** 125 A

CKT	Circuit Description	# of Poles	Trip Rating	Load	Remarks
1	Lighting - Stair #1	1	20 A	451 VA	
2	Lighting - Ground Level Garage	1	20 A	854 VA	
3	Electrical Room	1	20 A	593 VA	
4	FIRE PUMP ROOM	1	20 A	118 VA	
5	Lighting - 1st Floor Corrdior	1	20 A	260 VA	
6	Exterior Lighting - Courtyard (TC)	1	20 A	712 VA	
7	Lighting - 2nd Flr Corridor	1	20 A	197 VA	
8	Lighting - 3rd Flr Corridor	1	20 A	197 VA	
9	Lighting - 4th Flr Corridor	1	20 A	197 VA	
10	Lighting - 5th Flr Corridor	1	20 A	197 VA	
11	Lighting - Lobby	1	20 A	179 VA	
12	Lighting - Ground Co-working (DLC)	1	20 A	261 VA	
13	Other	1	20 A	86 VA	
14					
15					
16					
17					
18					
19					
20					
				4549 VA	
				38 A	

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	60 VA	100.00%	60 VA		
Lighting	2146 VA	100.00%	2146 VA	**Total Conn. Load:**	4549 VA
Other	22 VA	125.00%	28 VA	**Total Est. Demand:**	4871 VA
Power	560 VA	100.00%	560 VA	**Total Conn. Current:**	38 A
				Total Est. Demand Current:	41 A

Notes:
(TC) - CONTROLLED BY TIME CLOCK. REFER TO DETAIL 8 / E0.08 FOR OUTDOOR CONTROL WIRING SCHEMATIC.
(GTC) - CONTROLLED BY 7-DAY TIME CLOCK (INDEPENDENT FROM OUTDOOR LIGHITNG CONTROLS).
(DLC) - CONTROLLED BY DIGITAL LIGHTING CONTROL SYSTEM. SEE SHEET E0.10
(OS) - Circuit Controlled by occupancy sensor refer to detail 1 / E0.08 for wiring schematic

Branch Panel: EV1

Location: ELECTRICAL 171 | **Volts:** 208V 3PH | **A.I.C. Rating:** 10,000
Supply From: | **Phases:** 3 | **Mains Type:** LUGS
Mounting: Surface | **Wires:** 4 | **Mains Rating:** 400 A
Enclosure: Type 1 | **MCB Rating:**

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	EV CHARGER	40 A	2	3600...	3600...		2	40 A	EV CHARGER	2
3	--	--	--		3600...	3600...	--	--	--	4
5						3600...	2	40 A	EV CHARGER	6
7	EV CHARGER	40 A	2	3600...	3600...		--	--	--	8
9	--	--	--		3600...	3600...	2	40 A	EV CHARGER	10
11	EV CHARGER	40 A	2			3600...	3600...	--	--	12
13	--	--	--	3600...						14
15	EV CHARGER	40 A	2		3600...	3600...	2	40 A	EV CHARGER	16
17	--	--	--			3600...	3600...	--	--	18
19										20
21										22
23										24
25										26
27										28
29										30
31										32
33										34
35										36
37										38
39										40
41										42
				Total Load: 18000 VA	21600 VA	18000 VA				
				Total Amps: 150 A	180 A	150 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	57600 VA	100.00%	57600 VA		
				Total Conn. Load:	57600 VA
				Total Est. Demand:	57600 VA
				Total Conn. Current:	160 A
				Total Est. Demand Current:	160 A

Notes:

Branch Panel: CR

Location: ELECTRICAL 171 | **Volts:** 208V 3PH | **A.I.C. Rating:**
Supply From: | **Phases:** 3 | **Mains Type:** MLO
Mounting: Surface | **Wires:** 4 | **Mains Rating:** 100 A
Enclosure: Type 1 | **MCB Rating:**

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	DIGITAL BOY RECEPTACLE	20 A	1	180 VA	180 VA		1	20 A	DIGITAL BOY RECEPTACLE	2
3	DIGITAL BOY RECEPTACLE	20 A	1			180 VA	180 VA	1	20 A	DIGITAL BOY RECEPTACLE	4
5	Receptacle - AUDIO	20 A	1					180 VA	540 VA	1	20 A	FITNESS MEDIA WALL	6
7	Receptacle - Parcel Pending	20 A	1	180 VA	720 VA					1	20 A	Receptacle	8
9	Receptacle - Multi-purpose 112	20 A	1			1080...	1260...			1	20 A	Receptacle - Lounge	10
11	Receptacle - Lounge Kitchen	20 A	1					360 VA	540 VA	1	20 A	Receptacle - Lounge Kitchen	12
13	Receptacle - Lounge Kitchen G.D.	20 A	1	180 VA	720 VA					1	20 A	Receptacle - Lounge	14
15	Receptacle	20 A	1			1200...	1200...			1	20 A	Receptacle	16
17	Receptacle	20 A	1					1200...	900 VA	1	20 A	Receptacle - Fitness Equipment	18
19	Receptacle - Bottle filler (GFCI)	20 A	1	180 VA	900 VA					1	20 A	Receptacle - Fitness	20
21	Receptacle - Elevator Lobby	20 A	1			720 VA	180 VA			1	20 A	Receptacle - copier	22
23	Receptacle - Server (spare)	20 A	1					360 VA	180 VA	1	20 A	Receptacle - Coffee Machine	24
25	Receptacle - Co-Working	20 A	1	1440...	1440...					1	20 A	Receptacle - Co-Working	26
27	Other	20 A	1			83 VA							28
29													30
31													32
33													34
35													36
37													38
39													40
41													42
				Total Load: 6120 VA		6083 VA		4260 VA					
				Total Amps: 53 A		53 A		36 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	83 VA	100.00%	83 VA		
Other	0 VA	0.00%	0 VA	**Total Conn. Load:**	16463 VA
				Total Est. Demand:	13273 VA
				Total Conn. Current:	46 A
				Total Est. Demand Current:	37 A

Notes:

Branch Panel: RR1

Location: | **Volts:** 208V 3PH | **A.I.C. Rating:**
Supply From: WEST | **Phases:** 3 | **Mains Type:** MLO
Mounting: Surface | **Wires:** 4 | **Mains Rating:** 100 A
Enclosure: Type 1 | **MCB Rating:**

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	Receptacle - Building Maintenance	30 A	2	750 VA	750 VA		2	30 A	Receptacle - Building Maintenance	2
3	--	--	--			750 VA	750 VA	--	--	4
5	Receptacle - Building Maintenance	30 A	2					750 VA	900 VA	1	20 A	Receptacle - Roof A/C	6
7	--	--	--	750 VA	360 VA			1	20 A	Receptacle - IDF 2ND	8
9						360 VA			1	20 A	Receptacle - IDF 4TH	10
11													12
13													14
15													16
17													18
19													20
21													22
23													24
25													26
27													28
29													30
31													32
33													34
35													36
37													38
39													40
41													42
				Total Load: 2610 VA		1860 VA		1650 VA					
				Total Amps: 22 A		16 A		14 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
				Total Conn. Load:	6120 VA
				Total Est. Demand:	6120 VA
				Total Conn. Current:	17 A
				Total Est. Demand Current:	17 A

Notes:

Branch Panel: CM

Location: ELECTRICAL 171 | **Volts:** 208V 3PH | **A.I.C. Rating:** 65,000
Supply From: | **Phases:** 3 | **Mains Type:** MLO
Mounting: Surface | **Wires:** 4 | **Mains Rating:** 200 A
Enclosure: Type 1 | **MCB Rating:**

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	LOBBY - SFC/2	15 A	2	420 VA	1704...		2	25 A	LOBBY - SHP/2 (R)	2
3	--	--	--			420 VA	1704...	--	--	4
5	LOUNGE - SFC/4	15 A	2					900 VA	3840...	2	50 A	LOUNGE - SHP/4 (R)	6
7	--	--	--	900 VA	3840...					--	--	--	8
9	LOUNGE - SFC/4	15 A	2			900 VA	3840...			2	50 A	LOUNGE - SHP/4 (R)	10
11	--	--	--					900 VA	3840...	--	--	--	12
13	LOUNGE - SFC/1	15 A	2	420 VA	1416...					2	20 A	LOUNGE - SHP/1 (R)	14
15	--	--	--			420 VA	1416...			--	--	--	16
17	FITNESS - SFC/3	20 A	2					900 VA	3024...	2	40 A	FITNESS - SHP/3 (R)	18
19	--	--	--	900 VA	3024...					--	--	--	20
21	FITNESS SFC/3	15 A	2			900 VA	3024...			2	40 A	FITNESS - SHP/3 (R)	22
23	--	--	--					900 VA	3024...	--	--	--	24
25	CO-WORKING - SFC/1	15 A	2	420 VA	1416...					2	20 A	CO-WORKING - SHP/1 (R)	26
27	--	--	--			420 VA	1416...			--	--	--	28
29	CONDENSATION PUMP & SUPPLY FAN	20 A	1					180 VA	2040...	2	30 A	SERVER - MS/1 (R)	30
31	CONDENSATE PUMP + SUPPLY FANS	20 A	1	180 VA	2040...					--	--	--	32
33	CONDENSATE PUMP / SUPPLY FAN	20 A	1			680 VA	180 VA			1	20 A	CONDENSATE PUMP / SUPPLY FAN	34
35	CONDENSATE PUMP / SUPPLY FAN	20 A	1					180 VA	680 VA	1	20 A		36
37													38
39													40
41													42
				Total Load: 16680 VA		15320 VA		20408 VA					
				Total Amps: 141 A		128 A		172 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	14800 VA	100.00%	14800 VA		
Spare	36528 VA	100.00%	36528 VA	**Total Conn. Load:**	52408 VA
				Total Est. Demand:	52408 VA
				Total Conn. Current:	145 A
				Total Est. Demand Current:	145 A

Notes:
(R) - EQUIPMENT LOCATED ON ROOF. REFER TO HVAC PLANS FOR EQUIPMENT LOCATION. PROVIDE FUSIBLE DISCONNECT SWITCH AT ROOF EQUIPMENT AS REQUIRED.

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Oakland, CA

NO.	ISSUE	DATE
1	PLAN CHECK RESPONSE #1/GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

APPROVAL

CONSULTANT

WEST SERVICE PANEL SCHEDULES

PROJECT NO: X6-059
DATE: 05/12/17

SHEET NO:

E1.12

ADDENDUM #1

Branch Panel: MR

Location: MAKERS SPACE 264
Supply From:
Mounting: Recessed
Enclosure: Type 1

Volts: 208V 3PH
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type: MLO
Mains Rating: 100 A
MCB Rating:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	Receptacle	20 A	1	180 VA	180 VA		1	20 A	Receptacle	2
3	Receptacle	20 A	1		180 VA	180 VA	1	20 A	Receptacle	4
5	Receptacle	20 A	1			180 VA 360 VA	1	20 A	Receptacle	6
7	Receptacle	20 A	1	360 VA	360 VA		1	20 A	Receptacle	8
9	Receptacle	20 A	1		360 VA	540 VA	1	20 A	Receptacle	10
11	Receptacle	20 A	1			360 VA 540 VA	1	20 A	Receptacle	12
13	Receptacle	20 A	1	360 VA	540 VA		1	20 A	Receptacle	14
15	Receptacle	20 A	1		540 VA					16
17						180 VA	1	20 A	Receptacle - Dog Spa	18
19	Receptacle - Dog Spa	20 A	1	180 VA	900 VA		1	20 A	Receptacle - dog spa	20
21										22
23										24
25										26
27										28
29										30
31										32
33										34
35										36
37										38
39										40
41										42
			Total Load:	3060 VA	1800 VA	1620 VA				
			Total Amps:	26 A	15 A	14 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
				Total Conn. Load:	6480 VA
				Total Est. Demand:	6480 VA
				Total Conn. Current:	18 A
				Total Est. Demand Current:	18 A

Notes:

Branch Panel: GL2

Location:
Supply From:
Mounting: Surface
Enclosure: Type 1

Volts: 208V 3PH
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type: MLO
Mains Rating: 200 A
MCB Rating:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	Lighting - Garage groud level	20 A	1	661 VA	597 VA		1	20 A	Lighting - Ground Level Storage	2
3	Exterior Lighting - Harrison St (TC)	20 A	1		53 VA	640 VA	1	20 A	Lighting - Garage	4
5	Lighting - Upper Garage Fan Room	20 A	1			296 VA 394 VA	1	20 A	Lighting - Offices	6
7	Lighting - Leasing (DLC)	20 A	1	1260...	500 VA		1	20 A	GREEN WALL FEATURE (GTC)	8
9	Lighting - Elevator Lobby (OS)	20 A	1		1004...	500 VA	1	20 A	Building Signange (TC)	10
11	Lighting - Public Art (TC)	20 A	1			96 VA 1027...	1	20 A	Lighting - Multipurpose	12
13	Lighting - Dog Spa	20 A	1	150 VA	1000...		1	20 A	Building Signange (TC)	14
15	Building Signange (TC)	20 A	1		500 VA	500 VA	1	20 A	Building Signange (TC)	16
17	Power	20 A	1			500 VA 500 VA	1	20 A	Building Signange (TC)	18
19										20
21										22
23										24
25										26
27										28
29										30
31										32
33										34
35										36
37										38
39										40
41										42
			Total Load:	4168 VA	3197 VA	2813 VA				
			Total Amps:	35 A	27 A	23 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	60 VA	100.00%	60 VA		
Lighting	4725 VA	100.00%	4725 VA	**Total Conn. Load:**	10205 VA
Other	0 VA	0.00%	0 VA	**Total Est. Demand:**	10515 VA
Power	4000 VA	100.00%	4000 VA	**Total Conn. Current:**	28 A
Lighting - Garage	1240 VA	125.00%	1550 VA	**Total Est. Demand Current:**	29 A

Notes:
(TC) - CONTROLLED BY TIME CLOCK. REFER TO DETAIL 8 / E0.08 FOR OUTDOOR CONTROL WIRING SCHEMATIC.
(GTC) - CONTROLLED BY 7-DAY TIME CLOCK (INDEPENDENT FROM OUTDOOR LIGHITNG CONTROLS).
(DLC) - CONTROLLED BY DIGITAL LIGHTING CONTROL SYSTEM. SEE SHEET E0.10
(OS) - Circuit Controlled by occupancy sensor refer to detail 1 / E0.08 for wiring schematic

Branch Panel: LR

Location:
Supply From:
Mounting: Surface
Enclosure: Type 1

Volts: 208V 3PH
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type: MLO
Mains Rating: 200 A
MCB Rating:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	DIGITAL BOY RECEPT	20 A	1	180 VA	180 VA		1	20 A	DIGITAL BOY RECEPTACLE	2
3	LEASING MEDIA WALL FANS	20 A	1		720 VA	180 VA	1	20 A	LEASING MEDIA WALL POWER	4
5	LEASING MEDIA WALL POWER	20 A	1			180 VA 180 VA	1	20 A	Receptacle - Audio	6
7	Receptacle - POE SYSTEM	20 A	1	180 VA	180 VA		1	20 A	Receptacle - ACP	8
9	Receptacle - IAP	20 A	1		180 VA	180 VA	1	20 A	Receptacle - WIFI	10
11	Receptacle - LEASING	20 A	1			1080... 540 VA	1	20 A	Receptacle	12
13	Receptacle - REFRIGERATOR	20 A	1	180 VA	180 VA		1	20 A	Receptacle - WORK RM G.D.	14
15	Receptacle - WORK ROM	20 A	1		540 VA	900 VA	1	20 A	Receptacle - WORK RM	16
17	Receptacle - KEYTRACK	20 A	1			180 VA 540 VA	1	20 A	Receptacle - OFFICE 104	18
19	Receptacle - ELEVATOR LOBBY	20 A	1	360 VA						20
21										22
23										24
25										26
27										28
29										30
31										32
33										34
35										36
37										38
39										40
41										42
			Total Load:	1440 VA	2700 VA	2700 VA				
			Total Amps:	12 A	24 A	24 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
				Total Conn. Load:	6840 VA
				Total Est. Demand:	6840 VA
				Total Conn. Current:	19 A
				Total Est. Demand Current:	19 A

Notes:

Branch Panel: GR2

Location:
Supply From:
Mounting: Surface
Enclosure: Type 1

Volts: 208V 3PH
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type: MLO
Mains Rating: 200 A
MCB Rating:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	trash room gate motor	20 A	1	1176...	1176...		1	20 A	Gate Motor	2
3	Retail Trash Gate Motor	20 A	1		1176...	356 VA	1	20 A	Retail Trash Room	4
5	C.O. Control Panel	20 A	1			500 VA 540 VA	1	20 A	Receptacle - Ground Storage	6
7	Receptacle	20 A	1	540 VA	238 VA		1	20 A	Elevator Pit	8
9	Trash Room	20 A	1		653 VA	2100...	3	35 A	TRASH COMPACTOR (5HP)	10
11	Trash Compactor (5HP)	35 A	3			2100... 2100...	--	--	--	12
13	--	--	--	2100...	2100...		--	--	--	14
15	--	--	--		2100...	500 VA	1	20 A	C.O. Control panel	16
17	TRASH SFD	20 A	1			1450...				18
19										20
21										22
23										24
25										26
27										28
29										30
31										32
33										34
35										36
37										38
39										40
41										42
			Total Load:	7330 VA	6885 VA	6690 VA				
			Total Amps:	61 A	58 A	56 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	60 VA	100.00%	60 VA		
Lighting	660 VA	100.00%	660 VA	**Total Conn. Load:**	20918 VA
Motor	16128 VA	100.00%	16128 VA	**Total Est. Demand:**	20918 VA
Other	0 VA	0.00%	0 VA	**Total Conn. Current:**	58 A
Power	2450 VA	100.00%	2450 VA	**Total Est. Demand Current:**	58 A

Notes:

Branch Panel: LM

Location:
Supply From:
Mounting: Surface
Enclosure: Type 1

Volts: 208V 3PH
Phases: 3
Wires: 4

A.I.C. Rating: 65,000
Mains Type: MLO
Mains Rating: 200 A
MCB Rating:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	CORRDIOR - SFC/1	15 A	2	420 VA	1416...		2	20 A	CORRDIOR - SHP/1 (R)	2
3	--	--	--		420 VA	1416...	--	--	--	4
5	LOBBY - SFC/4	15 A	2			900 VA 3840...	2	50 A	LOBBY - SHP/4 (R)	6
7	--	--	--	900 VA	3840...		--	--	--	8
9	CONDENSATE PUMP / SUPPLY FAN	20 A	1		180 VA	2040...	2	30 A	SERVER - MS/1 (R)	10
11	CONDENSATE PUMP / SUPPLY FAN	20 A	1			180 VA 2040...	--	--	--	12
13	CONDENSATION PUMP	20 A	1	500 VA	2080...		2	30 A	BATHROOM EWH/1	14
15	WORK ROOM - EWH/1	30 A	2		2080...	2080...	--	--	--	16
17	--	--	--			2080...				18
19										20
21										22
23										24
25										26
27										28
29										30
31										32
33										34
35										36
37										38
39										40
41										42
			Total Load:	9156 VA	8216 VA	9040 VA				
			Total Amps:	77 A	68 A	76 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	15540 VA	100.00%	15540 VA		
Spare	10512 VA	100.00%	10512 VA	**Total Conn. Load:**	26412 VA
				Total Est. Demand:	26412 VA
				Total Conn. Current:	73 A
				Total Est. Demand Current:	73 A

Notes:
(R) - EQUIPMENT LOCATED ON ROOF. REFER TO HVAC PLANS FOR EQUIPMENT LOCATION. PROVIDE FUSIBLE DISCONNECT SWITCH AT ROOF EQUIPMENT AS REQUIRED.

Branch Panel: GM2

Location:
Supply From:
Mounting: Surface
Enclosure: Type 1

Volts: 208V 3PH
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type: MLO
Mains Rating: 200 A
MCB Rating:

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT
1	ELECTRICAL ROOM HVAC	30 A	2	1179...	516 VA		2	15 A	DOG SPA - SFC/5	2
3	--	--	--		1179...	516 VA	--	--	--	4
5	DOG WASH - SHP/5	20 A	2			1416... 200 VA	1	20 A	Condensate Pump	6
7	--	--	--	1416...						8
9										10
11										12
13										14
15										16
17										18
19										20
21										22
23										24
25										26
27										28
29										30
31										32
33										34
35										36
37										38
39										40
41										42
			Total Load:	3111 VA	1695 VA	1616 VA				
			Total Amps:	26 A	14 A	13 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	2832 VA	100.00%	2832 VA		
Power	3589 VA	100.00%	3589 VA	**Total Conn. Load:**	6421 VA
				Total Est. Demand:	6421 VA
				Total Conn. Current:	18 A
				Total Est. Demand Current:	18 A

Notes:

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19TH & HARRISON

Oakland, CA

NO.	ISSUE	DATE
1	PLAN CHECK RESPONSE #1/GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

APPROVAL

CONSULTANT

EAST SERVICE PANEL SCHEDULES

PROJECT NO: X6-059
DATE: 05/12/17

SHEET NO:

E1.13

ADDENDUM #1

Emergency... E2

Location:
Supply From:
Mounting:
Enclosure:

Volts: 120V 1PH
Phases: 1
Wires: 2

A.I.C. Rating:
Mains Type:
Mains Rating:
MCB Rating: 125 A

CKT	Circuit Description	# of Poles	Trip Rating	Load	Remarks
1	Lighting - Stair #3	1	20 A	500 VA	
2	Lighting - Stair #2	1	20 A	410 VA	
3	Lighting - Ground Level Garage	1	20 A	709 VA	
4	Electrical Room Lighting	1	20 A	355 VA	
5	Lighting - Upper Garage	1	20 A	749 VA	
6	Lighting - 1st Flr Corridor	1	20 A	196 VA	
7	Exterior Lighting - Courtyard (TC)	1	20 A	394 VA	
8	Lighting - 2nd Flr Corridor	1	20 A	180 VA	
9	Lighting - 3rd Flr Corridor	1	20 A	180 VA	
10	Lighting - 4th Flr Corridor	1	20 A	180 VA	
11	Lighting - 5th Flr Corridor	1	20 A	180 VA	
12	Exterior Lighting - Roof Deck (TC)	1	20 A	650 VA	
13	Lighting - Leasing (DLC)	1	20 A	444 VA	
14	Lighting - Maker Space (DLC)	1	20 A	493 VA	
15					
16					
17					
18					
19					
20					
				5919 VA	
				49 A	

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	2477 VA	100.00%	2477 VA		
Other	154 VA	125.00%	193 VA	**Total Conn. Load:**	5919 VA
Power	320 VA	100.00%	320 VA	**Total Est. Demand:**	6533 VA
				Total Conn. Current:	49 A
				Total Est. Demand Current:	54 A

Notes:
(TC) - CONTROLLED BY TIME CLOCK. REFER TO DETAIL 8 / E0.08 FOR OUTDOOR CONTROL WIRING SCHEMATIC.
(GTC) - CONTROLLED BY 7-DAY TIME CLOCK (INDEPENDENT FROM OUTDOOR LIGHITNG CONTROLS).
(DLC) - CONTROLLED BY DIGITAL LIGHTING CONTROL SYSTEM. SEE SHEET E0.10
(OS) - Circuit Controlled by occupancy sensor refer to detail 1 / E0.08 for wiring schematic

Branch Panel: EV2

Location:
Supply From:
Mounting: Surface
Enclosure: Type 1

Volts: 208V 3PH
Phases: 3
Wires: 4

A.I.C. Rating: 10,000
Mains Type: LUGS
Mains Rating: 400 A
MCB Rating:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	EV CHARGER	40 A	2	3600...	3600...					2	40 A	EV CHARGER	2
3	--	--	--			3600...	3600...			--	--	--	4
5								3600...		2	40 A	EV CHARGER	6
7	EV CHARGER	40 A	2	3600...	3600...					--	--	--	8
9	--	--	--			3600...	3600...			2	40 A	EV CHARGER	10
11	EV CHARGER	40 A	2					3600...	3600...	--	--	--	12
13	--	--	--	3600...									14
15	EV CHARGER	40 A	2			3600...							16
17	--	--	--					3600...					18
19													20
21													22
23													24
25													26
27													28
29													30
31													32
33													34
35													36
37													38
39													40
41													42
			Total Load:	18000 VA		18000 VA		14400 VA					
			Total Amps:	155 A		155 A		120 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	50400 VA	100.00%	50400 VA		
				Total Conn. Load:	50400 VA
				Total Est. Demand:	50400 VA
				Total Conn. Current:	140 A
				Total Est. Demand Current:	140 A

Notes:

Branch Panel: RR2

Location:
Supply From: EAST
Mounting: Surface
Enclosure: Type 1

Volts: 208V 3PH
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type: MLO
Mains Rating: 100 A
MCB Rating:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Receptacle - Building Maintenance	30 A	2	750 VA	750 VA					2	30 A	Receptacle - Building Maintenance	2
3	--	--	--			750 VA	750 VA			--	--	--	4
5	Receptacle - Building Maintenance	30 A	2					750 VA	750 VA	2	30 A	Receptacle - Building Maintenance	6
7	--	--	--	750 VA	750 VA					--	--	--	8
9	Receptacle - Building Maintenance	30 A	2			750 VA	750 VA			2	30 A	Receptacle - Building Maintenance	10
11	--	--	--					750 VA	750 VA	--	--	--	12
13	ELEVATOR MACHINE ROOM	20 A	1	298 VA	1400...					1	20 A	Receptacle - Roof Deck	14
15	ELEVATOR CART LIGHT	20 A	1			100 VA	720 VA			1	20 A	Receptacle - Roof A/C	16
17	Receptacle - Roof A/C	20 A	1					540 VA	360 VA	1	20 A	Receptacle - IDF 4TH	18
19	Receptacle - IDF 2ND	20 A	1	360 VA									20
21	Power	20 A	1			500 VA							22
23													24
25													26
27													28
29													30
31													32
33													34
35													36
37													38
39													40
41													42
			Total Load:	5058 VA		4320 VA		3900 VA					
			Total Amps:	43 A		37 A		33 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	60 VA	100.00%	60 VA		
Lighting	60 VA	100.00%	60 VA	**Total Conn. Load:**	13280 VA
Other	100 VA	125.00%	125 VA	**Total Est. Demand:**	12275 VA
Power	1000 VA	100.00%	1000 VA	**Total Conn. Current:**	37 A
				Total Est. Demand Current:	34 A

Notes:

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19TH & HARRISON

Oakland, CA

NO.	ISSUE	DATE
1	PLAN CHECK RESPONSE #1/GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

APPROVAL

CONSULTANT

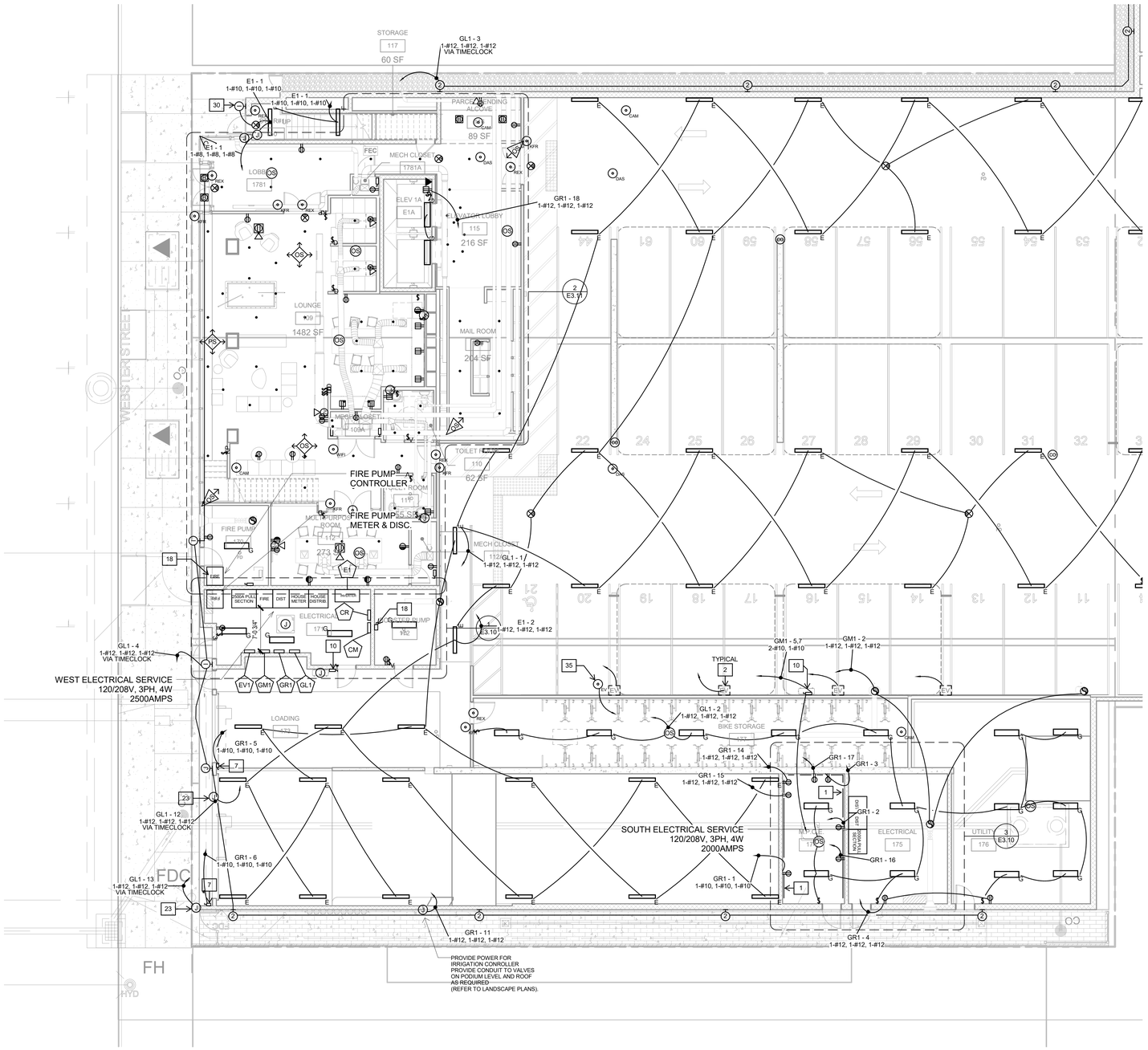
EAST SERVICE PANEL SCHEDULES

PROJECT NO: X6-059
DATE: 05/12/17

SHEET NO:

E1.14

ADDENDUM #1



GROUND FLOOR PLAN - WEST | 1

1/8" = 1'-0"

LIGHTING FIXTURES

- DECORATIVE FLUORESCENT UNIT ENTRY WALL LIGHT
- LED RECESSED DOWNLIGHT IN CORRIDOR NON-EMERGENCY CONNECTED TO CORRIDOR OCCUPANCY SENSORS (SEE SHEET E0.10) NON-EMERGENCY CIRCUIT TO TURN OFF WHEN NO MOTION IS DETECTED.
- E — LED SURFACE MOUNT IN PARKING GARAGE WITH INTEGRAL BI-LEVEL MOTION SENSOR SENSOR 50% OFF WHEN NO MOTION DETECTED
- F — LED SURFACE MOUNT IN STAIR WITH INTEGRAL BI-LEVEL MOTION SENSOR 50% OFF WHEN NO MOTION DETECTED
- G — FLUORESCENT SURFACE MOUNT IN STORAGE / UTILITY AREA CONTROLLED BY WALL VACANACY SENSOR SWITCH.
- LARGE DECORATIVE FLUORESCENT WALL LIGHT WET LOCATION
- SMALL DECORATIVE FLUORESCENT WALL LIGHT WET LOCATION
- LED WALL PACK WITH INTEGRAL MOTION SENSOR
- Z — LED DECORATIVE WALL LIGHT AT ROOF DECK
- B## — LIGHT FIXTURE ID REFER TO LIGHTING FIXTURE SCHEDULE

LOW VOLTAGE DEVICES

SHOWN FOR REFERENCE ONLY.
REFER TO PLANS BY HCI FOR POWER AND CONDUIT REQUIREMENTS.
PROVIDE ALL CONDUITS AND BOXES AS REQUIRED.

- CR = CARD READER
  CAM = CAMERA
  DAS = DISTRIBUTED ANTENNA SYSTEM
  REX = REQUEST TO EXIT
  TR = TRANSPONDER READER
  KFR = KEY FOB READER
  PROVIDE BOX AND CONDUIT AS REQUIRED TO SECURITY CLOSET, SERVER, OR MPOE.
- 2W — 2-WAY COMMUNICATION
  PROVIDE BOX AND CONDUIT AS REQUIRED.
- SHADE — LOW VOLTAGE WINDOW SHADE MOTOR (VERIFY HEIGHT & LOCATION).
  PROVIDE 1/2" CONDUIT TO SHADE MOTOR CONTROLLER.
- DB — PROVIDE CONDUIT AS NOTED TO SERVER ROOM FOR DIGITAL BOY EQUIPMENT. REFER TO DIGITAL BOY PLANS FOR EXACT LOCATION AND REQUIREMENTS.
- CO — CARBON MONOXIDE SENSOR MOUNTED @ +5'-0"
  PROVIDE 3/4" CONDUIT ONLY TO C.O. CONTROL PANEL

ELECTRICAL DEVICE LEGEND

- $ — SINGLE POLE SWITCH
- $V — MANUAL ON - AUTOMATIC OFF "VACANCY" SENSOR SWITCH
- DUPLEX RECEPTACLE
- CONTROLLED HALF-HOT RECEPTACLE (INSTALL GROUND PIN UP) CONNECT TO LOCAL LIGHTING OCCUPANCY SENSOR IN INDICATED ROOM.
- GFCI PROTECTED RECEPTACLE
- WP — GFCI PROTECTED RECEPTACLE W/ WEATHERPROOF COVER
- ELECTRICAL PANEL
- ##### — ELECTRICAL PANEL IDENTIFICATION
- DISCONNECT SWITCH
- EXIT SIGN
- OS — CEILING MOUNTED OCCUPANCY SENSOR. CONTROLS LIGHTS AND CONTROLLED RECEPTACLES IN INDICATED ROOM
- OS — DIGITAL CEILING MOUNTED OCCUPANCY SENSOR. CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010
- PS — DIGITAL CEILING MOUNTED PHOTO SENSOR CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010
- OS — DIGITAL CORNER MOUNTED OCCUPANCY SENSOR. MOUNT AT +/- 10'-0" AFF CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010

KEY NOTES

1	PROVIDE 3/4" X 4' X 8' FIRE RETARDANT PAINTED PLYWOOD BACKBOARD FOR MOUNTING LOW VOLTAGE EQUIPMENT. PROVIDE TELECOMMUNICATIONS GROUND BUSBAR AND #6 CU GND BONDED TO MAIN ELECTRICAL GROUND.
2	FUTURE WALL MOUNTED EV CHARGER. PROVIDE 4" SQ. BOX MOUNTED AT +18" AFF (VERIFY). 1" C.O. TO EV PANEL, AND PULL ROPE FOR FUTURE CONDUCTOR INSTALLATION.
7	GATE MOTOR DISCONNECT SWITCH. COORDIANTE WORK WITH GATE CONTRACTOR.
10	CONDENSING UNIT DISCONNECT SWITCH MOUNT @ +24" AFF FUSIBLE DISCONNECT (NEMA 3-R RATED) FUSE AS INDICATED ON NAMEPLATE OF INSTALLED EQUIPMENT INSTALL LIQUIDTIGHT FLEX AND THHN/THWN-2 FROM DISCONNECT TO HVAC EQUIPMENT. REFER TO PANEL SCHEDULE FOR WIRE SIZE. REFER TO HVAC PLANS FOR UNIT ASSIGNMENTS.
13	TRASH CHUTE DISCONNECT SWITCH, STUB POWER UP AS REQUIRED. REFER TO TRASH CHUTE SHOP DRAWINGS.
18	BOOSTER PUMP DISCONNECT, (3) 15HP DOMESTIC BOOSTER PUMP PBP-1. PROVIDE 200A/3P DISCONNECT SWITCH.
23	FUTURE SIGNAGE POWER. VERIFY REQUIREMENTS.
30	PROVIDE PHOTOCELL MOUNTED AT +8'-0" ADJACENT TO LIGHT FIXTURE TO CONTROL EXTERIOR LIGHT AT EGRESS POINT CONNECTED TO EMERGENCY INVERTER.
36	GARAGE C.O. DETECTOR AUDIO/VISUAL ALARM (VERIFY LOCATION AND HEIGHT).

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Ph. 949.201.1333
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19TH & HARRISON

Oakland, CA

NO.	ISSUE	DATE
1	PLAN CHECK RESPONSE #1/GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

APPROVAL

CONSULTANT

GROUND FLOOR PLAN-WEST

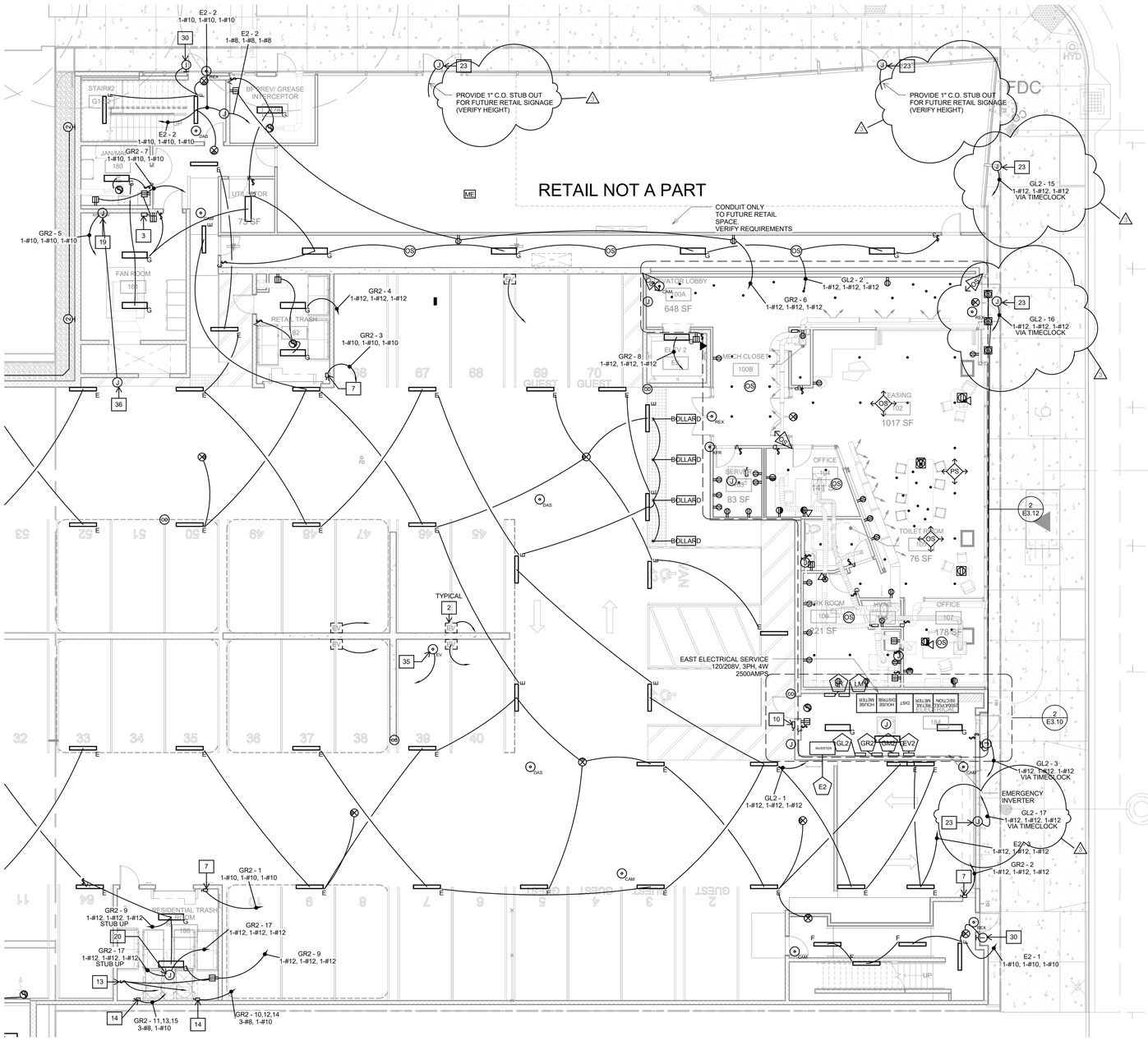
PROJECT NO: X6-059

DATE: 05/12/17

SHEET NO:

E2.01A

ADDENDUM #1



LIGHTING FIXTURES

- DECORATIVE FLUORESCENT UNIT ENTRY WALL LIGHT
- LED RECESSED DOWNLIGHT IN CORRIDOR NON-EMERGENCY CONNECTED TO CORRIDOR OCCUPANCY SENSORS (SEE SHEET E0.10) NON-EMERGENCY CIRCUIT TO TURN OFF WHEN NO MOTION IS DETECTED.
- E — LED SURFACE MOUNT IN PARKING GARAGE WITH INTEGRAL BI-LEVEL MOTION SENSOR SENSOR 50% OFF WHEN NO MOTION DETECTED
- F — LED SURFACE MOUNT IN STAIR WITH INTEGRAL BI-LEVEL MOTION SENSOR 50% OFF WHEN NO MOTION DETECTED
- G — FLUORESCENT SURFACE MOUNT IN STORAGE / UTILITY AREA CONTROLLED BY WALL VACANACY SENSOR SWITCH.
- LARGE DECORATIVE FLUORESCENT WALL LIGHT WET LOCATION
- SMALL DECORATIVE FLUORESCENT WALL LIGHT WET LOCATION
- Z — LED WALL PACK WITH INTEGRAL MOTION SENSOR
- LED DECORATIVE WALL LIGHT AT ROOF DECK
- B## — LIGHT FIXTURE ID REFER TO LIGHTING FIXTURE SCHEDULE

LOW VOLTAGE DEVICES

SHOWN FOR REFERENCE ONLY.
REFER TO PLANS BY HCI FOR POWER AND CONDUIT REQUIREMENTS.
PROVIDE ALL CONDUITS AND BOXES AS REQUIRED.

- CR = CARD READER
  CAM = CAMERA
  DAS = DISTRIBUTED ANTENNA SYSTEM
  REX = REQUEST TO EXIT
  TR = TRANSPONDER READER
  KFR = KEY FOB READER
  PROVIDE BOX AND CONDUIT AS REQUIRED TO SECURITY CLOSET, SERVER, OR MPOE.
- 2W — 2-WAY COMMUNICATION
  PROVIDE BOX AND CONDUIT AS REQUIRED.
- SHADE — LOW VOLTAGE WINDOW SHADE MOTOR (VERIFY HEIGHT & LOCATION).
  PROVIDE 1/2" CONDUIT TO SHADE MOTOR CONTROLLER.
- DB — PROVIDE CONDUIT AS NOTED TO SERVER ROOM FOR DIGITAL BOY EQUIPMENT. REFER TO DIGITAL BOY PLANS FOR EXACT LOCATION AND REQUIREMENTS.
- CO — CARBON MONOXIDE SENSOR MOUNTED @ +5'-0"
  PROVIDE 3/4" CONDUIT ONLY TO C.O. CONTROL PANEL

ELECTRICAL DEVICE LEGEND

- $ — SINGLE POLE SWITCH
- $V — MANUAL ON - AUTOMATIC OFF "VACANCY" SENSOR SWITCH
- DUPLEX RECEPTACLE
- CONTROLLED HALF-HOT RECEPTACLE (INSTALL GROUND PIN UP) CONNECT TO LOCAL LIGHTING OCCUPANCY SENSOR IN INDICATED ROOM.
- GFCI PROTECTED RECEPTACLE
- WP — GFCI PROTECTED RECEPTACLE W/ WEATHERPROOF COVER
- ELECTRICAL PANEL
- ##### — ELECTRICAL PANEL IDENTIFICATION
- DISCONNECT SWITCH
- EXIT SIGN
- OS — CEILING MOUNTED OCCUPANCY SENSOR. CONTROLS LIGHTS AND CONTROLLED RECEPTACLES IN INDICATED ROOM
- OS — DIGITAL CEILING MOUNTED OCCUPANCY SENSOR. CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010
- PS — DIGITAL CEILING MOUNTED PHOTO SENSOR CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010
- OS — DIGITAL CORNER MOUNTED OCCUPANCY SENSOR. MOUNT AT +/- 10'-0" AFF CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010

KEY NOTES

2	FUTURE WALL MOUNTED EV CHARGER. PROVIDE 4" SQ. BOX MOUNTED AT +18" AFF (VERIFY), 1" C.O. TO EV PANEL, AND PULL ROPE FOR FUTURE CONDUCTOR INSTALLATION.
3	GARAGE EXHAUST FAN (20 HP) W/ VFD. PROVIDE 100A/3P DISCONNECT SWITCH W/ FUSES AS INDICATED ON MOTOR NAMEPLATE AND ALL REQUIRED EQUIPMENT PER MECHANICAL SCHEMATIC. REFER TO SINGLE LINE DIAGRAM.
7	GATE MOTOR DISCONNECT SWITCH. COORDIANTE WORK WITH GATE CONTRACTOR.
10	CONDENSING UNIT DISCONNECT SWITCH MOUNT @ +24" AFF FUSIBLE DISCONNECT (NEMA 3-R RATED) FUSE AS INDICATED ON NAMEPLATE OF INSTALLED EQUIPMENT INSTALL LIQUIDTIGHT FLEX AND THHN/THWN-2 FROM DISCONNECT TO HVAC EQUIPMENT. REFER TO PANEL SCHEDULE FOR WIRE SIZE. REFER TO HVAC PLANS FOR UNIT ASSIGNMENTS.
13	TRASH CHUTE DISCONNECT SWITCH. STUB POWER UP AS REQUIRED. REFER TO TRASH CHUTE SHOP DRAWINGS.
14	TRASH COMPACTOR DISCONNECT SWITCH.
19	C.O. CONTROL PANEL / RELAY. REFER TO HVAC PLANS FOR NETWORK WIRING SCHEMATIC.
20	SMOKE FIRE DAMPER PER HVAC PLANS. COORDINATE WORK WITH HVAC.
23	FUTURE SIGNAGE POWER. VERIFY REQUIREMENTS.
30	PROVIDE PHOTOCELL MOUNTED AT +8'-0" ADJACENT TO LIGHT FIXTURE TO CONTROL EXTERIOR LIGHT AT EGRESS POINT CONNECTED TO EMERGENCY INVERTER.
35	PROVIDE 4" SQ BOX, 1" CONDUIT, AND PULL ROPE TO MPOE FOR FUTURE CELL BOOSTER ANTENNA (EV CHARGER COMMUNICATION). LABEL CONDUIT @ MPOE FOR FUTURE USE.
36	GARAGE C.O. DETECTOR AUDIO/VISUAL ALARM (VERIFY LOCATION AND HEIGHT).

GROUND FLOOR PLAN - EAST 1
1/8" = 1'-0"

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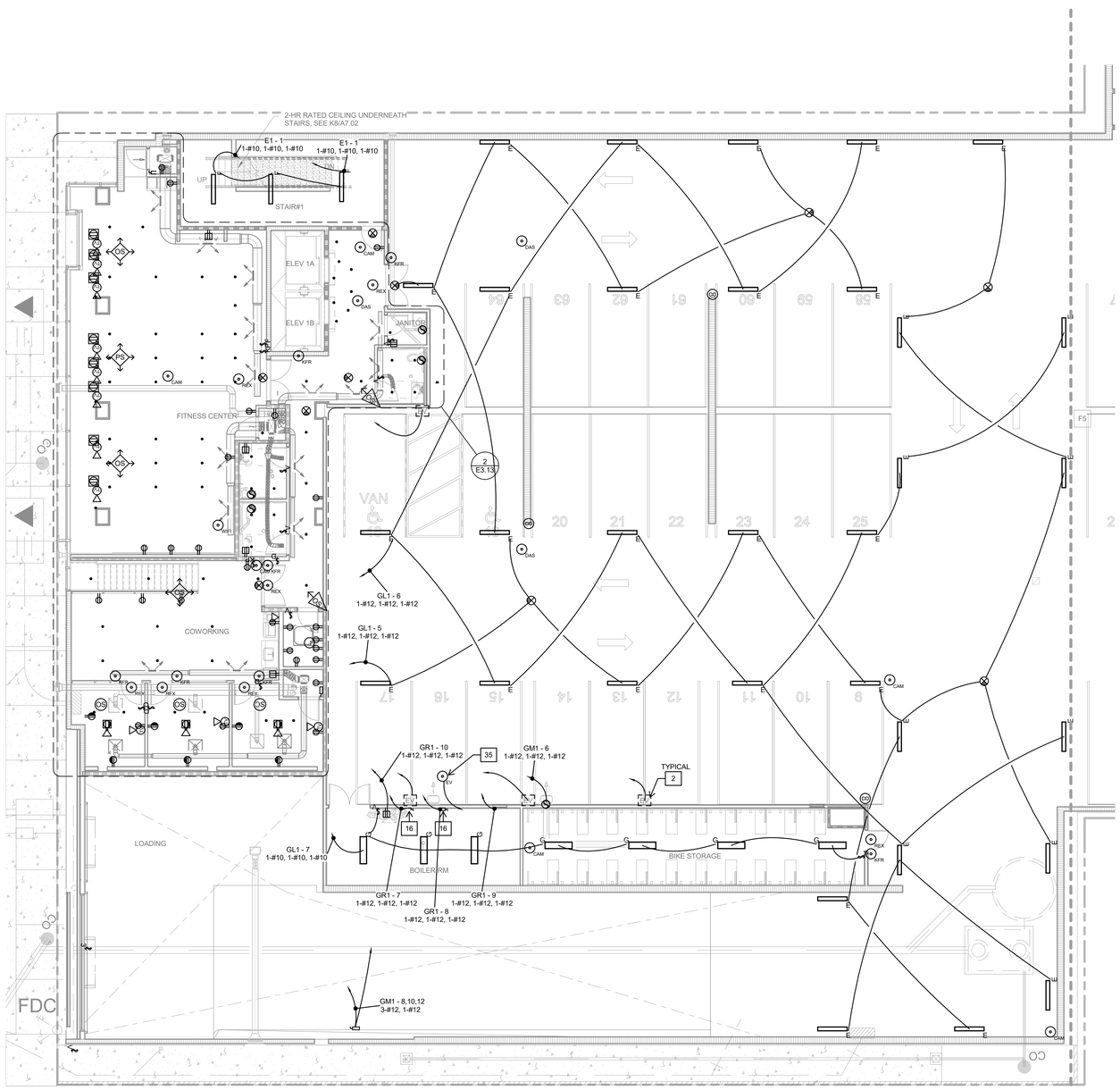

FH

UPPER GARAGE PLAN - WEST
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APPROVAL

CONSULTANT

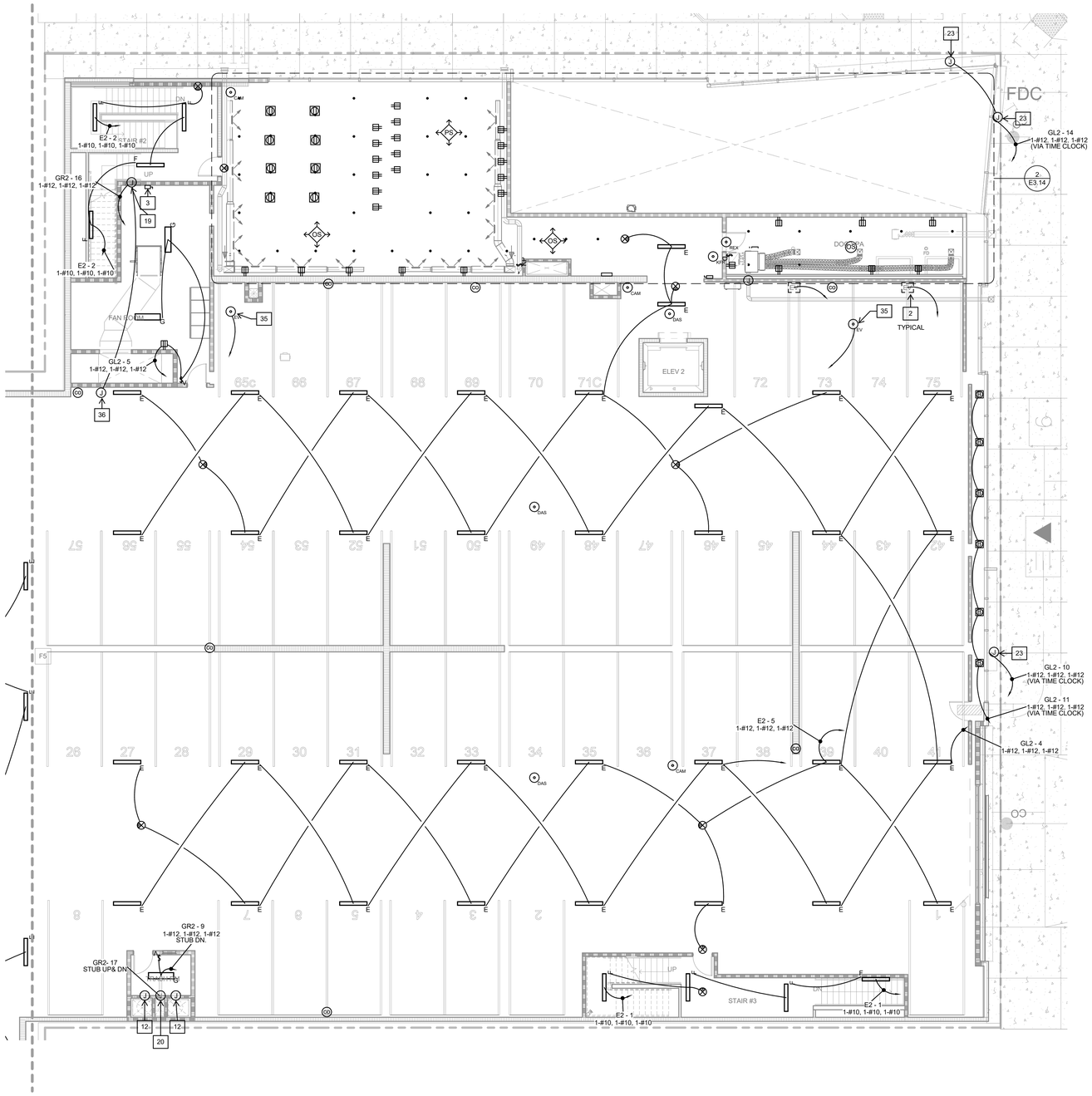
UPPER GARAGE PLAN-WEST

PROJECT NO: X6-059
DATE: 05/12/17

SHEET NO:

E2.02A

ADDENDUM #1



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1/8" = 1'-0"

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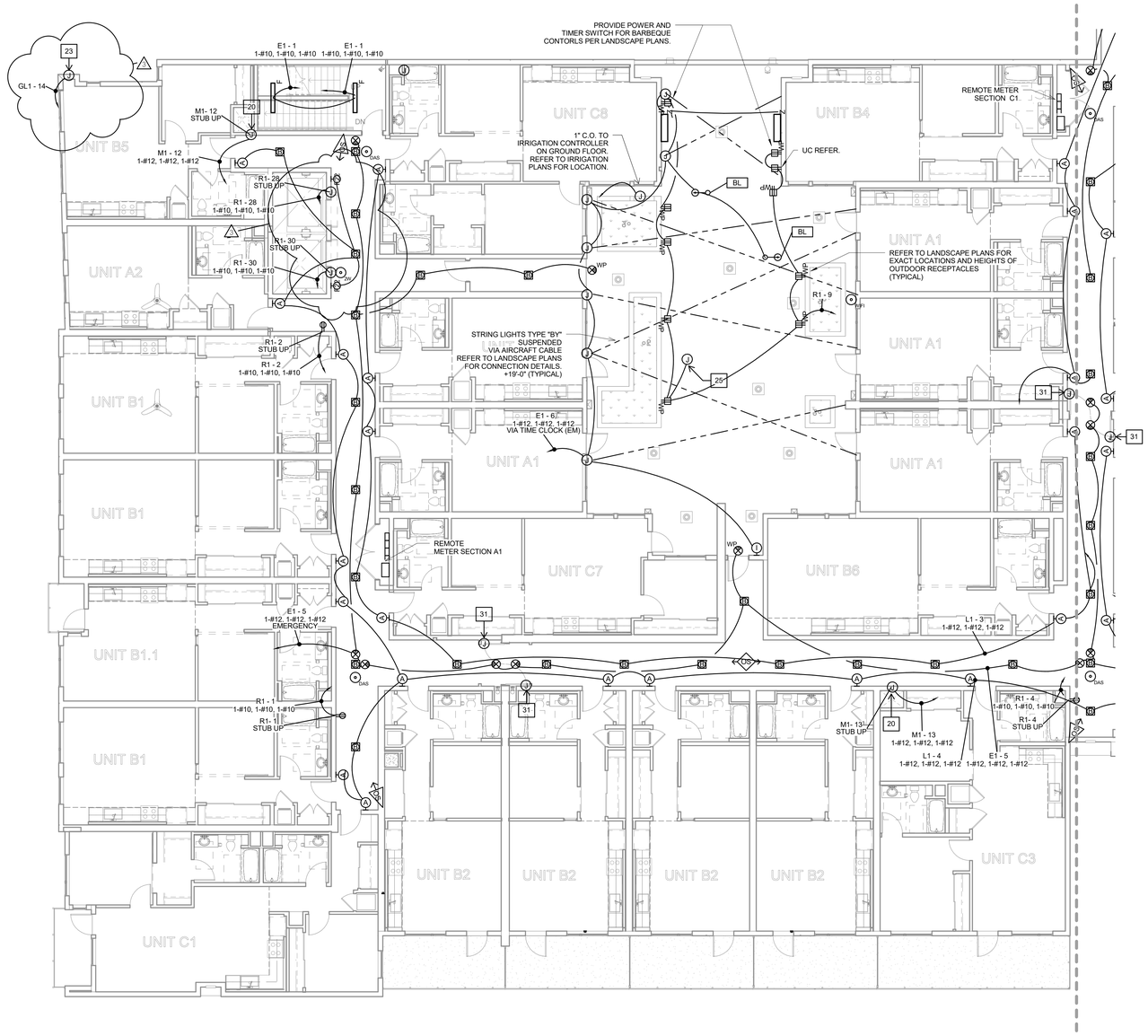

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23	FUTURE SIGNAGE POWER. VERIFY REQUIREMENTS.
25	FIREPLACE IGNITOR POWER. PROVIDE TIMER SWITCH AS REQUIRED. COORDIANTE WORK WITH FIREPLACE INSTALLER. VERIFY CONTROL LOCATION WITH LANDSCAPE PLANS.
31	FIRE DOOR HOLDER.

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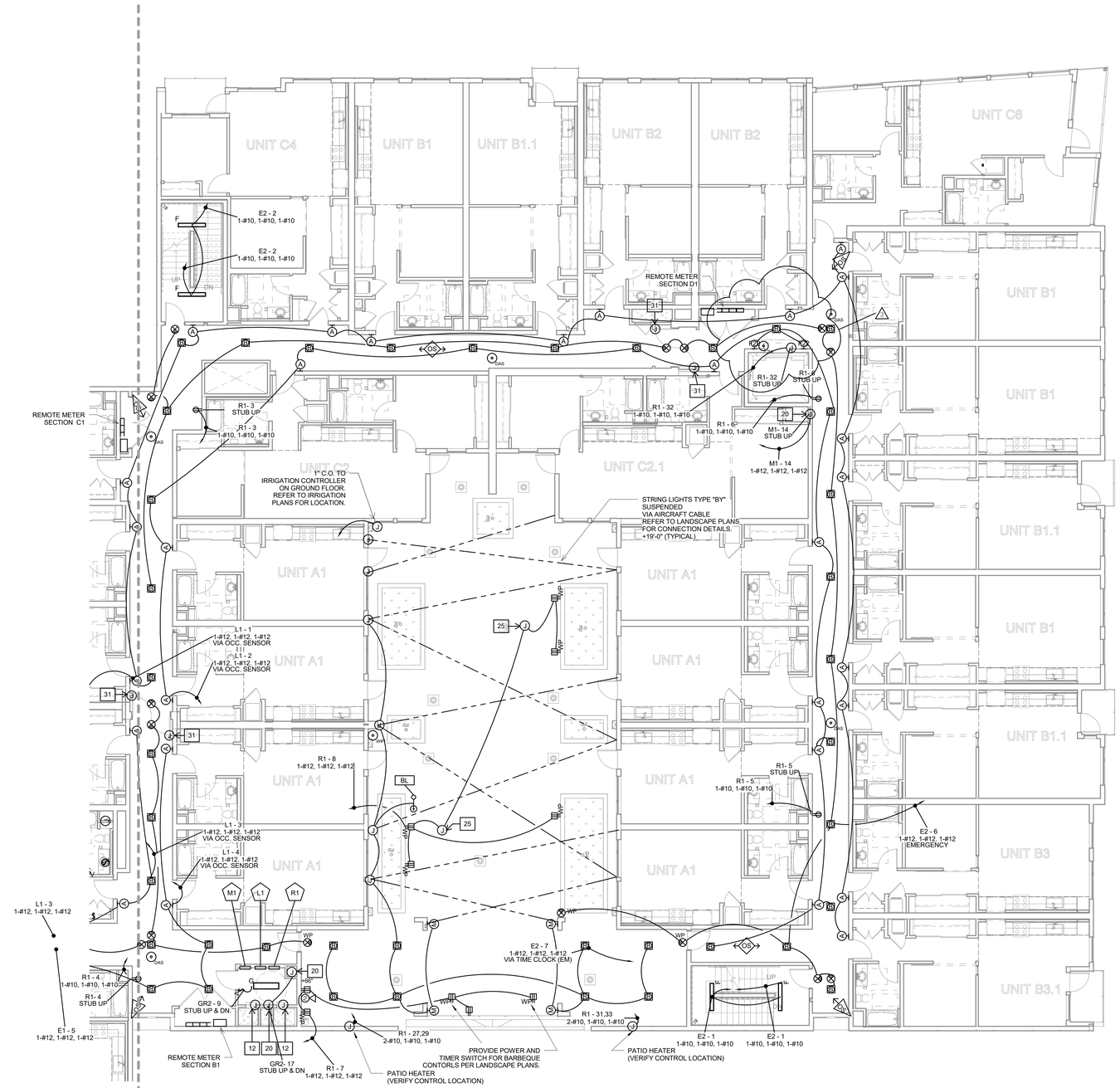

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12	TRASH CHUTE POWER. STUB POWER UP AND DOWN AS REQUIRED. REFER TO TRASH CHUTE SHOP DRAWINGS.
20	SMOKE FIRE DAMPER PER HVAC PLANS. COORDINATE WORK WITH HVAC.
25	FIREPLACE IGNITOR POWER. PROVIDE TIMER SWITCH AS REQUIRED. COORDIANTE WORK WITH FIREPLACE INSTALLER. VERIFY CONTROL LOCATION WITH LANDSCAPE PLANS.
31	FIRE DOOR HOLDER.

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19TH & HARRISON

Oakland, CA

NO.	ISSUE	DATE
1	PLAN CHECK RESPONSE #1/GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

APPROVAL

CONSULTANT

1ST FLOOR PLAN-EAST

PROJECT NO: X6-059
DATE: 05/12/17

SHEET NO:

E2.03B

ADDENDUM #1

SECOND FLOOR PLAN - WEST
1/8" = 1'-0" 1

LIGHTING FIXTURES

- DECORATIVE FLUORESCENT UNIT ENTRY WALL LIGHT
- LED RECESSED DOWNLIGHT IN CORRIDOR NON-EMERGENCY CONNECTED TO CORRIDOR OCCUPANCY SENSORS (SEE SHEET E0.10) NON-EMERGENCY CIRCUIT TO TURN OFF WHEN NO MOTION IS DETECTED.
- E — LED SURFACE MOUNT IN PARKING GARAGE WITH INTEGRAL BI-LEVEL MOTION SENSOR SENSOR 50% OFF WHEN NO MOTION DETECTED
- F — LED SURFACE MOUNT IN STAIR WITH INTEGRAL BI-LEVEL MOTION SENSOR 50% OFF WHEN NO MOTION DETECTED
- G — FLUORESCENT SURFACE MOUNT IN STORAGE / UTILITY AREA CONTROLLED BY WALL VACANACY SENSOR SWITCH.
- LARGE DECORATIVE FLUORESCENT WALL LIGHT WET LOCATION
- SMALL DECORATIVE FLUORESCENT WALL LIGHT WET LOCATION
- LED WALL PACK WITH INTEGRAL MOTION SENSOR
- Z — LED DECORATIVE WALL LIGHT AT ROOF DECK
- B## — LIGHT FIXTURE ID REFER TO LIGHTING FIXTURE SCHEDULE

LOW VOLTAGE DEVICES

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REFER TO PLANS BY HCI FOR POWER AND CONDUIT REQUIREMENTS.
PROVIDE ALL CONDUITS AND BOXES AS REQUIRED.

- CR — CR = CARD READER, CAM = CAMERA, DAS = DISTRIBUTED ANTENNA SYSTEM, REX = REQUEST TO EXIT, TR = TRANSPONDER READER, KFR = KEY FOB READER. PROVIDE BOX AND CONDUIT AS REQUIRED TO SECURITY CLOSET, SERVER, OR MPOE.
- 2W — 2-WAY COMMUNICATION. PROVIDE BOX AND CONDUIT AS REQUIRED.
- SHADE — LOW VOLTAGE WINDOW SHADE MOTOR (VERIFY HEIGHT & LOCATION). PROVIDE 1/2" CONDUIT TO SHADE MOTOR CONTROLLER.
- DB — PROVIDE CONDUIT AS NOTED TO SERVER ROOM FOR DIGITAL BOY EQUIPMENT. REFER TO DIGITAL BOY PLANS FOR EXACT LOCATION AND REQUIREMENTS.
- CO — CARBON MONOXIDE SENSOR MOUNTED @ +5'-0". PROVIDE 3/4" CONDUIT ONLY TO C.O. CONTROL PANEL

ELECTRICAL DEVICE LEGEND

- SINGLE POLE SWITCH
- $V — MANUAL ON - AUTOMATIC OFF "VACANCY" SENSOR SWITCH
- DUPLEX RECEPTACLE
- CONTROLLED HALF-HOT RECEPTACLE (INSTALL GROUND PIN UP) CONNECT TO LOCAL LIGHTING OCCUPANCY SENSOR IN INDICATED ROOM.
- GFCI PROTECTED RECEPTACLE
- WP — GFCI PROTECTED RECEPTACLE W/ WEATHERPROOF COVER
- ELECTRICAL PANEL
- ##### — ELECTRICAL PANEL IDENTIFICATION
- DISCONNECT SWITCH
- EXIT SIGN
- OS — CEILING MOUNTED OCCUPANCY SENSOR. CONTROLS LIGHTS AND CONTROLLED RECEPTACLES IN INDICATED ROOM
- DOS — DIGITAL CEILING MOUNTED OCCUPANCY SENSOR. CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010
- DPS — DIGITAL CEILING MOUNTED PHOTO SENSOR. CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010
- DOC — DIGITAL CORNER MOUNTED OCCUPANCY SENSOR. MOUNT AT +/- 10'-0" AFF CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010

KEY NOTES

1	PROVIDE 3/4" X 4' X 8' FIRE RETARDANT PAINTED PLYWOOD BACKBOARD FOR MOUNTING LOW VOLTAGE EQUIPMENT. PROVIDE TELECOMMUNICATIONS GROUND BUSBAR AND #6 CU GND BONDED TO MAIN ELECTRICAL GROUND.
20	SMOKE FIRE DAMPER PER HVAC PLANS. COORDINATE WORK WITH HVAC.
31	FIRE DOOR HOLDER.

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19TH & HARRISON

Oakland, CA

NO.	ISSUE	DATE
1	PLAN CHECK RESPONSE #1/GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

APPROVAL

CONSULTANT

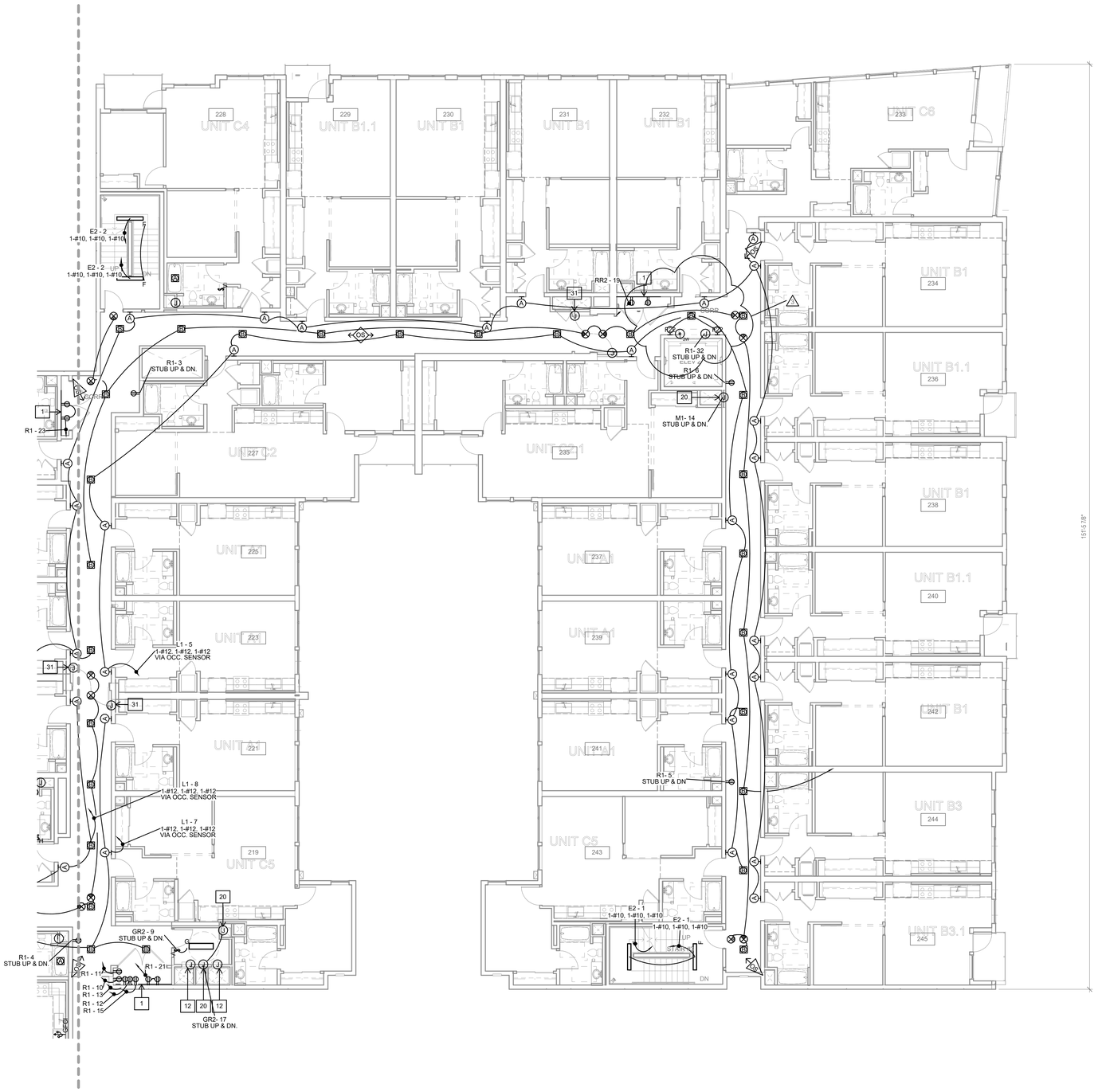
2ND FLOOR PLAN-WEST

PROJECT NO: X6-059
DATE: 05/12/17

SHEET NO:

E2.04A

ADDENDUM #1



SECOND FLOOR PLAN - EAST 1
1/8" = 1'-0"

LIGHTING FIXTURES

- DECORATIVE FLUORESCENT UNIT ENTRY WALL LIGHT
- LED RECESSED DOWNLIGHT IN CORRIDOR NON-EMERGENCY CONNECTED TO CORRIDOR OCCUPANCY SENSORS (SEE SHEET E0.10) NON-EMERGENCY CIRCUIT TO TURN OFF WHEN NO MOTION IS DETECTED.
- E — LED SURFACE MOUNT IN PARKING GARAGE WITH INTEGRAL BI-LEVEL MOTION SENSOR SENSOR 50% OFF WHEN NO MOTION DETECTED
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- G — FLUORESCENT SURFACE MOUNT IN STORAGE / UTILITY AREA CONTROLLED BY WALL VACANACY SENSOR SWITCH.
- LARGE DECORATIVE FLUORESCENT WALL LIGHT WET LOCATION
- SMALL DECORATIVE FLUORESCENT WALL LIGHT WET LOCATION
- LED WALL PACK WITH INTEGRAL MOTION SENSOR
- Z — LED DECORATIVE WALL LIGHT AT ROOF DECK
- B## — LIGHT FIXTURE ID REFER TO LIGHTING FIXTURE SCHEDULE

LOW VOLTAGE DEVICES

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PROVIDE ALL CONDUITS AND BOXES AS REQUIRED.

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  CAM = CAMERA
  DAS = DISTRIBUTED ANTENNA SYSTEM
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  KFR = KEY FOB READER
  PROVIDE BOX AND CONDUIT AS REQUIRED TO SECURITY CLOSET, SERVER, OR MPOE.
- 2W — 2-WAY COMMUNICATION
  PROVIDE BOX AND CONDUIT AS REQUIRED.
- SHADE — LOW VOLTAGE WINDOW SHADE MOTOR (VERIFY HEIGHT & LOCATION).
  PROVIDE 1/2" CONDUIT TO SHADE MOTOR CONTROLLER.
- DB — PROVIDE CONDUIT AS NOTED TO SERVER ROOM FOR DIGITAL BOY EQUIPMENT. REFER TO DIGITAL BOY PLANS FOR EXACT LOCATION AND REQUIREMENTS.
- CO — CARBON MONOXIDE SENSOR MOUNTED @ +5'-0"
  PROVIDE 3/4" CONDUIT ONLY TO C.O. CONTROL PANEL

ELECTRICAL DEVICE LEGEND

- $ — SINGLE POLE SWITCH
- $V — MANUAL ON - AUTOMATIC OFF "VACANCY" SENSOR SWITCH
- DUPLEX RECEPTACLE
- CONTROLLED HALF-HOT RECEPTACLE (INSTALL GROUND PIN UP) CONNECT TO LOCAL LIGHTING OCCUPANCY SENSOR IN INDICATED ROOM.
- GFCI PROTECTED RECEPTACLE
- WP — GFCI PROTECTED RECEPTACLE W/ WEATHERPROOF COVER
- ELECTRICAL PANEL
- ##### — ELECTRICAL PANEL IDENTIFICATION
- DISCONNECT SWITCH
- EXIT SIGN
- OS — CEILING MOUNTED OCCUPANCY SENSOR. CONTROLS LIGHTS AND CONTROLLED RECEPTACLES IN INDICATED ROOM
- OS — DIGITAL CEILING MOUNTED OCCUPANCY SENSOR. CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010
- PS — DIGITAL CEILING MOUNTED PHOTO SENSOR CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010
- OS — DIGITAL CORNER MOUNTED OCCUPANCY SENSOR. MOUNT AT +/- 10'-0" AFF CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010

KEY NOTES

1	PROVIDE 3/4" X 4' X 8' FIRE RETARDANT PAINTED PLYWOOD BACKBOARD FOR MOUNTING LOW VOLTAGE EQUIPMENT. PROVIDE TELECOMMUNICATIONS GROUND BUSBAR AND #6 CU GND BONDED TO MAIN ELECTRICAL GROUND.
12	TRASH CHUTE POWER. STUB POWER UP AND DOWN AS REQUIRED. REFER TO TRASH CHUTE SHOP DRAWINGS.
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19TH & HARRISON

Oakland, CA

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1	PLAN CHECK RESPONSE #1/GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

APPROVAL

CONSULTANT

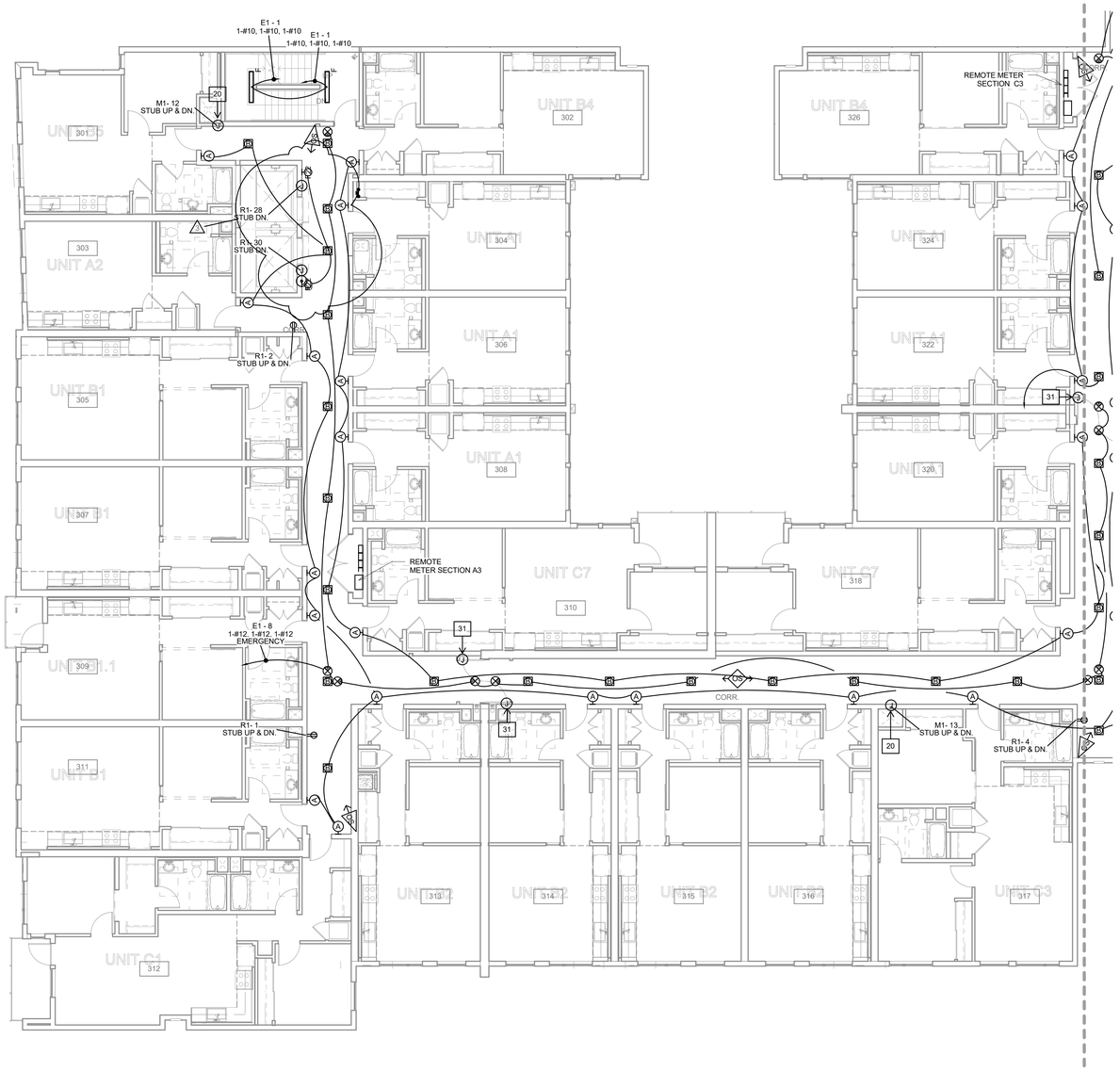
2ND FLOOR PLAN-EAST

PROJECT NO: X6-059
DATE: 05/12/17

SHEET NO:

E2.04B

ADDENDUM #1



THIRD FLOOR PLAN - WEST
1/8" = 1'-0"

1

LIGHTING FIXTURES

- DECORATIVE FLUORESCENT UNIT ENTRY WALL LIGHT
- LED RECESSED DOWNLIGHT IN CORRIDOR NON-EMERGENCY CONNECTED TO CORRIDOR OCCUPANCY SENSORS (SEE SHEET E0.10) NON-EMERGENCY CIRCUIT TO TURN OFF WHEN NO MOTION IS DETECTED.
- E — LED SURFACE MOUNT IN PARKING GARAGE WITH INTEGRAL BI-LEVEL MOTION SENSOR SENSOR 50% OFF WHEN NO MOTION DETECTED
- F — LED SURFACE MOUNT IN STAIR WITH INTEGRAL BI-LEVEL MOTION SENSOR 50% OFF WHEN NO MOTION DETECTED
- G — FLUORESCENT SURFACE MOUNT IN STORAGE / UTILITY AREA CONTROLLED BY WALL VACANCY SENSOR SWITCH.
- LARGE DECORATIVE FLUORESCENT WALL LIGHT WET LOCATION
- SMALL DECORATIVE FLUORESCENT WALL LIGHT WET LOCATION
- LED WALL PACK WITH INTEGRAL MOTION SENSOR
- Z — LED DECORATIVE WALL LIGHT AT ROOF DECK
- B## — LIGHT FIXTURE ID REFER TO LIGHTING FIXTURE SCHEDULE

LOW VOLTAGE DEVICES

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- 2W — 2-WAY COMMUNICATION. PROVIDE BOX AND CONDUIT AS REQUIRED.
- SHADE — LOW VOLTAGE WINDOW SHADE MOTOR (VERIFY HEIGHT & LOCATION). PROVIDE 1/2" CONDUIT TO SHADE MOTOR CONTROLLER.
- DB — PROVIDE CONDUIT AS NOTED TO SERVER ROOM FOR DIGITAL BOY EQUIPMENT. REFER TO DIGITAL BOY PLANS FOR EXACT LOCATION AND REQUIREMENTS.
- CO — CARBON MONOXIDE SENSOR MOUNTED @ +5'-0". PROVIDE 3/4" CONDUIT ONLY TO C.O. CONTROL PANEL

ELECTRICAL DEVICE LEGEND

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- GFCI PROTECTED RECEPTACLE
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- ELECTRICAL PANEL
- ##### — ELECTRICAL PANEL IDENTIFICATION
- DISCONNECT SWITCH
- EXIT SIGN
- OS — CEILING MOUNTED OCCUPANCY SENSOR. CONTROLS LIGHTS AND CONTROLLED RECEPTACLES IN INDICATED ROOM
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- DPS — DIGITAL CEILING MOUNTED PHOTO SENSOR. CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010
- DCO — DIGITAL CORNER MOUNTED OCCUPANCY SENSOR. MOUNT AT +/- 10'-0" AFF. CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010

KEY NOTES

20	SMOKE FIRE DAMPER PER HVAC PLANS. COORDINATE WORK WITH HVAC.
31	FIRE DOOR HOLDER.

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19TH & HARRISON

Oakland, CA

NO.	ISSUE	DATE
1	PLAN CHECK RESPONSE #1/GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

APPROVAL

CONSULTANT

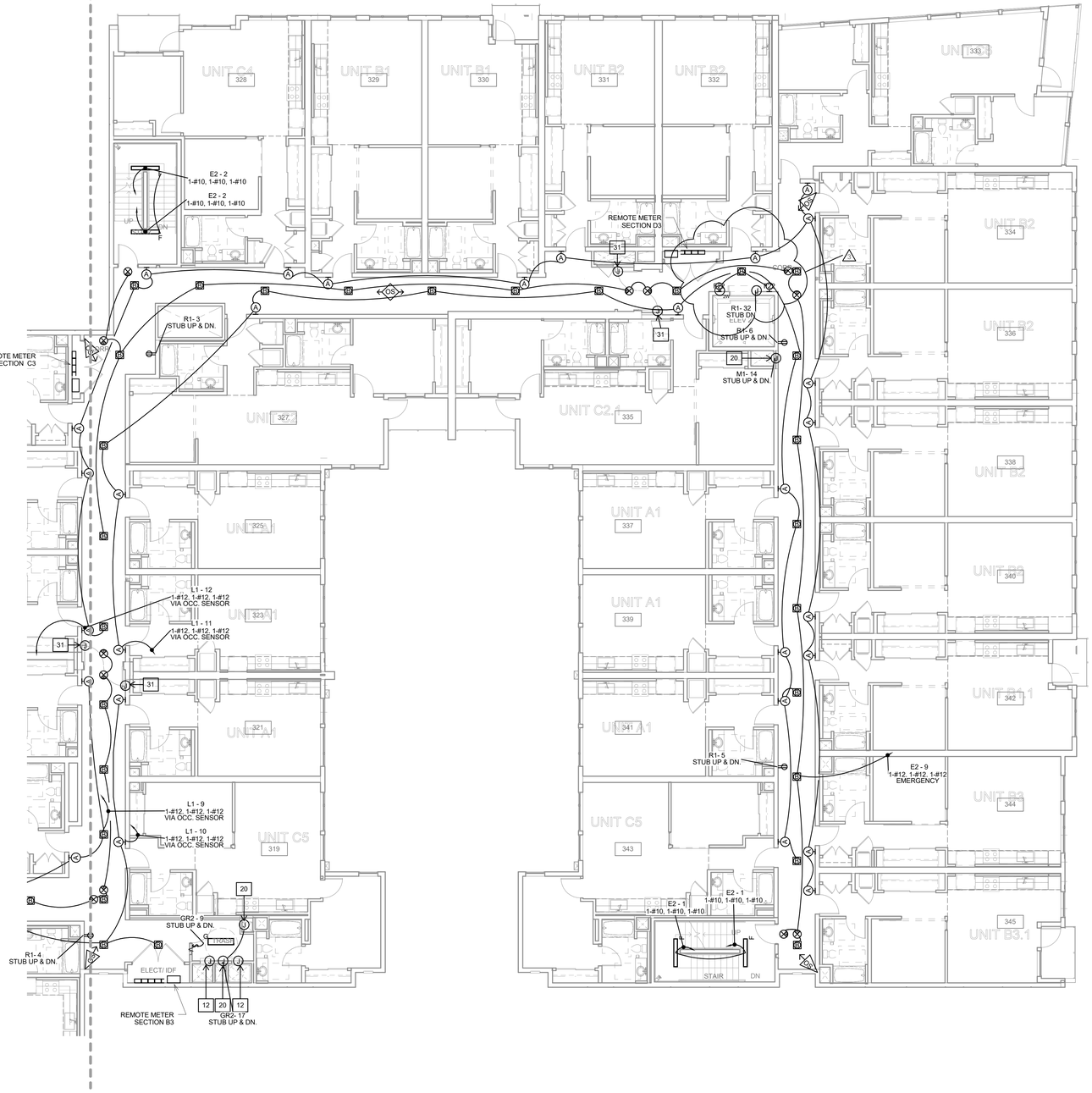
3RD FLOOR PLAN-WEST

PROJECT NO: X6-059
DATE: 05/12/17

SHEET NO:

E2.05A

ADDENDUM #1



THIRD FLOOR PLAN - EAST
1/8" = 1'-0"

1

LIGHTING FIXTURES

- DECORATIVE FLUORESCENT UNIT ENTRY WALL LIGHT
- LED RECESSED DOWNLIGHT IN CORRIDOR NON-EMERGENCY CONNECTED TO CORRIDOR OCCUPANCY SENSORS (SEE SHEET E0.10) NON-EMERGENCY CIRCUIT TO TURN OFF WHEN NO MOTION IS DETECTED.
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- LED WALL PACK WITH INTEGRAL MOTION SENSOR
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LOW VOLTAGE DEVICES

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- AW — 2-WAY COMMUNICATION; PROVIDE BOX AND CONDUIT AS REQUIRED.
- SHADE — LOW VOLTAGE WINDOW SHADE MOTOR (VERIFY HEIGHT & LOCATION). PROVIDE 1/2" CONDUIT TO SHADE MOTOR CONTROLLER.
- DB — PROVIDE CONDUIT AS NOTED TO SERVER ROOM FOR DIGITAL BOY EQUIPMENT. REFER TO DIGITAL BOY PLANS FOR EXACT LOCATION AND REQUIREMENTS.
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ELECTRICAL DEVICE LEGEND

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- ELECTRICAL PANEL
- ##### — ELECTRICAL PANEL IDENTIFICATION
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- PS — DIGITAL CEILING MOUNTED PHOTO SENSOR CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010
- PIR — DIGITAL CORNER MOUNTED OCCUPANCY SENSOR. MOUNT AT +/- 10'-0" AFF CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010

KEY NOTES

12	TRASH CHUTE POWER. STUB POWER UP AND DOWN AS REQUIRED. REFER TO TRASH CHUTE SHOP DRAWINGS.
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19TH & HARRISON

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1	PLAN CHECK RESPONSE #1/GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

APPROVAL

CONSULTANT

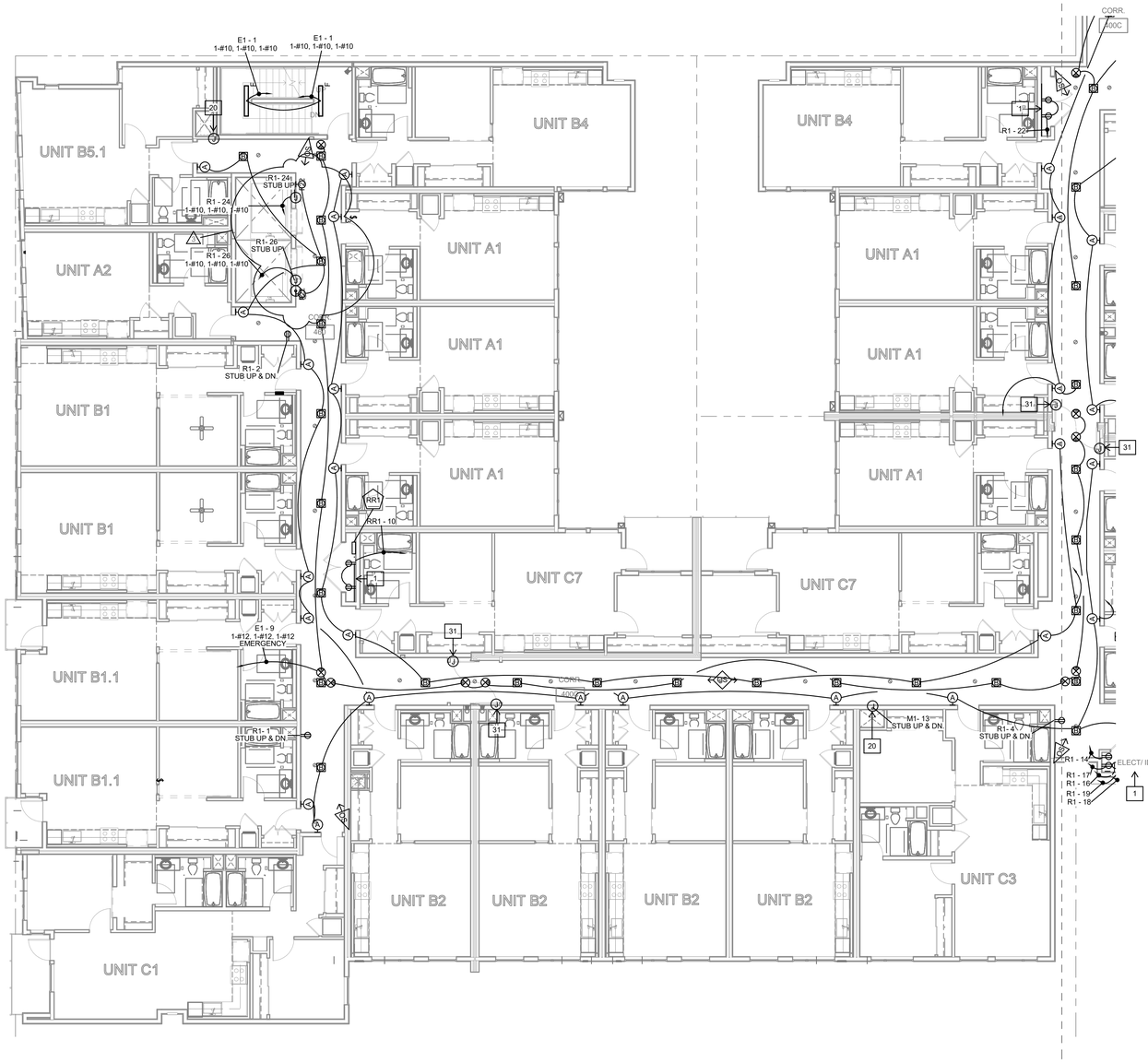
3RD FLOOR PLAN-EAST

PROJECT NO: X6-059
DATE: 05/12/17

SHEET NO:

E2.05B

ADDENDUM #1



FOURTH FLOOR PLAN - WEST
1/8" = 1'-0"

1

LIGHTING FIXTURES

- DECORATIVE FLUORESCENT UNIT ENTRY WALL LIGHT
- LED RECESSED DOWNLIGHT IN CORRIDOR NON-EMERGENCY CONNECTED TO CORRIDOR OCCUPANCY SENSORS (SEE SHEET E0.10) NON-EMERGENCY CIRCUIT TO TURN OFF WHEN NO MOTION IS DETECTED.
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LOW VOLTAGE DEVICES

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- SHADE — LOW VOLTAGE WINDOW SHADE MOTOR (VERIFY HEIGHT & LOCATION). PROVIDE 1/2" CONDUIT TO SHADE MOTOR CONTROLLER.
- DS — PROVIDE CONDUIT AS NOTED TO SERVER ROOM FOR DIGITAL BOY EQUIPMENT. REFER TO DIGITAL BOY PLANS FOR EXACT LOCATION AND REQUIREMENTS.
- CO — CARBON MONOXIDE SENSOR MOUNTED @ +5'-0". PROVIDE 3/4" CONDUIT ONLY TO C.O. CONTROL PANEL

ELECTRICAL DEVICE LEGEND

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- ##### — ELECTRICAL PANEL IDENTIFICATION
- DISCONNECT SWITCH
- EXIT SIGN
- OS — CEILING MOUNTED OCCUPANCY SENSOR. CONTROLS LIGHTS AND CONTROLLED RECEPTACLES IN INDICATED ROOM
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- PS — DIGITAL CEILING MOUNTED PHOTO SENSOR CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010
- OS — DIGITAL CORNER MOUNTED OCCUPANCY SENSOR. MOUNT AT +/- 10'-0" AFF CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010

KEY NOTES

1	PROVIDE 3/4" X 4' X 8' FIRE RETARDANT PAINTED PLYWOOD BACKBOARD FOR MOUNTING LOW VOLTAGE EQUIPMENT. PROVIDE TELECOMMUNICATIONS GROUND BUSBAR AND #6 CU GND BONDED TO MAIN ELECTRICAL GROUND.
20	SMOKE FIRE DAMPER PER HVAC PLANS. COORDINATE WORK WITH HVAC.
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19TH & HARRISON

Oakland, CA

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1	PLAN CHECK RESPONSE #1/GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

APPROVAL

CONSULTANT

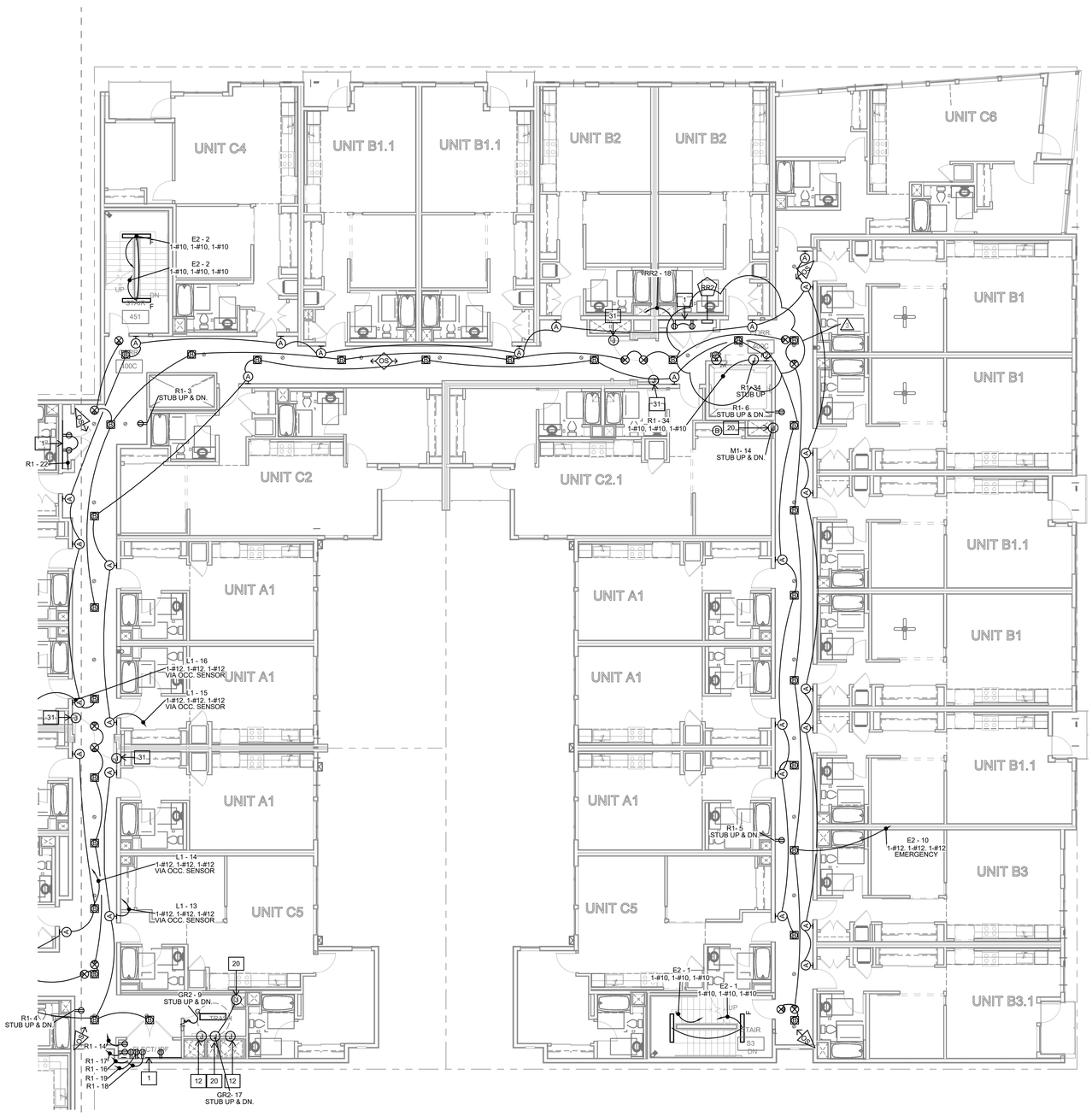
4TH FLOOR PLAN-WEST

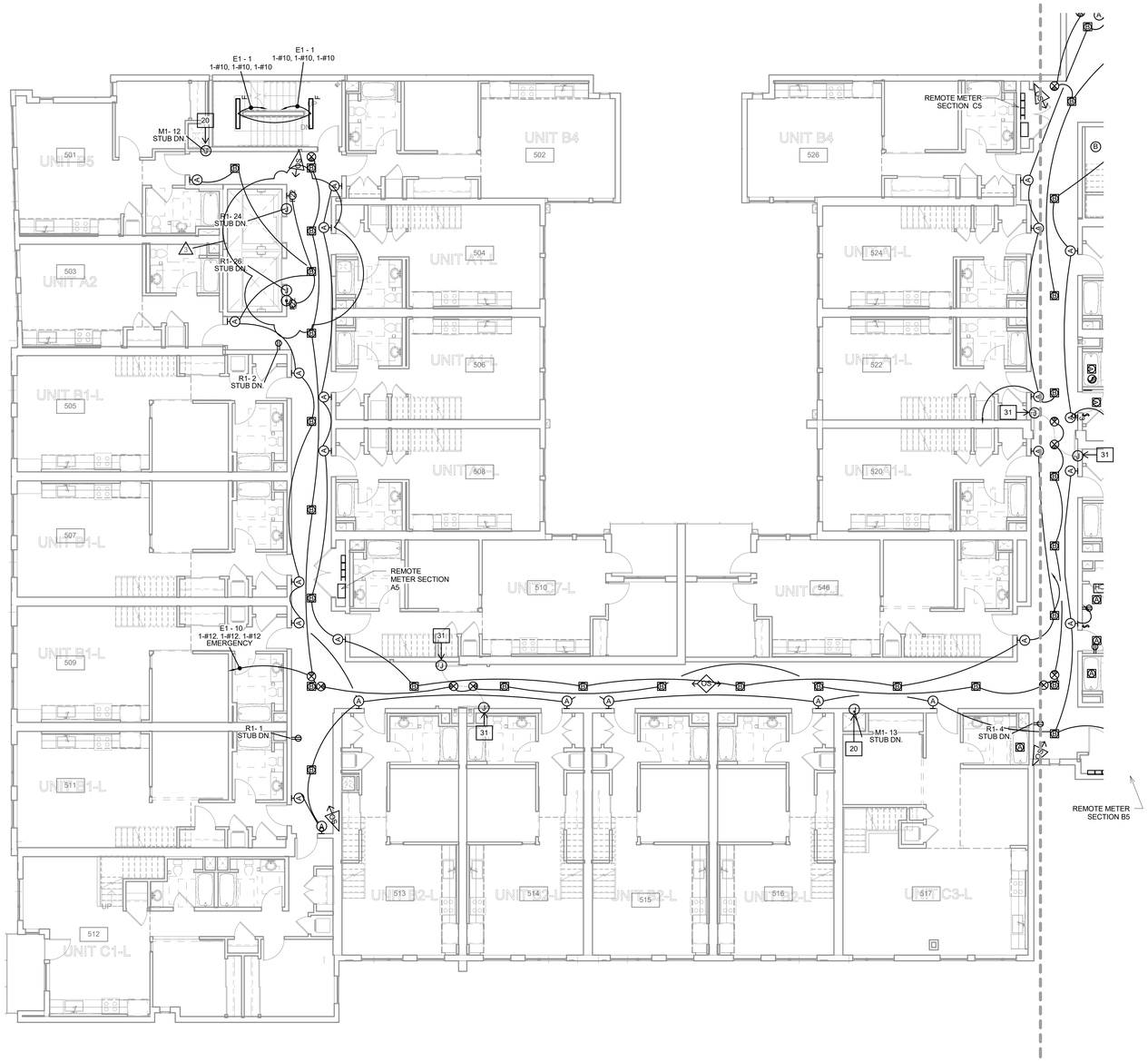
PROJECT NO: X6-059
DATE: 05/12/17

SHEET NO:

E2.06A

ADDENDUM #1


UNIT C4
UNIT B1.1
UNIT B1.1
UNIT B2
UNIT B2
UNIT C6
UNIT B1
UNIT B1
UNIT B1.1
UNIT B1
UNIT B1.1
UNIT B3
UNIT B3.1
UNIT C2
UNIT C2.1
UNIT A1
UNIT A1
UNIT A1
UNIT A1
UNIT A1
UNIT C5
UNIT C5
E2 - 2
1-#10, 1-#10, 1-#10
E2 - 2
1-#10, 1-#10, 1-#10
451
400C
R1 - 3
STUB UP & DN.
R1 - 22
R1 - 4
STUB UP & DN.
L1 - 16
1-#12, 1-#12, 1-#12
VIA OCC. SENSOR
L1 - 15
1-#12, 1-#12, 1-#12
VIA OCC. SENSOR
L1 - 14
1-#12, 1-#12, 1-#12
VIA OCC. SENSOR
L1 - 13
1-#12, 1-#12, 1-#12
VIA OCC. SENSOR
R1 - 14
R1 - 17
R1 - 16
R1 - 19
R1 - 18
LOW VOLTAGE PANEL
GR2 - 9
STUB UP & DN.
GR2- 17
STUB UP & DN.
RRR2 - 18
BR2
R1 - 34
STUB UP
R1- 6
STUB UP & DN.
R1 - 34
1-#10, 1-#10, 1-#10
M1- 14
STUB UP & DN.
R1- 5
STUB UP & DN.
E2 - 10
1-#12, 1-#12, 1-#12
EMERGENCY
E2 - 1
1-#10, 1-#10, 1-#10
E2 - 1
1-#10, 1-#10, 1-#10
STAIR
S3
DN
UP
OS
OS
OS



FIFTH FLOOR PLAN - WEST
1/8" = 1'-0"

1

LIGHTING FIXTURES

- DECORATIVE FLUORESCENT UNIT ENTRY WALL LIGHT
- LED RECESSED DOWNLIGHT IN CORRIDOR NON-EMERGENCY CONNECTED TO CORRIDOR OCCUPANCY SENSORS (SEE SHEET E0.10) NON-EMERGENCY CIRCUIT TO TURN OFF WHEN NO MOTION IS DETECTED.
- E — LED SURFACE MOUNT IN PARKING GARAGE WITH INTEGRAL BI-LEVEL MOTION SENSOR SENSOR 50% OFF WHEN NO MOTION DETECTED
- F — LED SURFACE MOUNT IN STAIR WITH INTEGRAL BI-LEVEL MOTION SENSOR 50% OFF WHEN NO MOTION DETECTED
- G — FLUORESCENT SURFACE MOUNT IN STORAGE / UTILITY AREA CONTROLLED BY WALL VACANACY SENSOR SWITCH.
- LARGE DECORATIVE FLUORESCENT WALL LIGHT WET LOCATION
- SMALL DECORATIVE FLUORESCENT WALL LIGHT WET LOCATION
- Z — LED WALL PACK WITH INTEGRAL MOTION SENSOR
- LED DECORATIVE WALL LIGHT AT ROOF DECK
- B## — LIGHT FIXTURE ID REFER TO LIGHTING FIXTURE SCHEDULE

LOW VOLTAGE DEVICES

SHOWN FOR REFERENCE ONLY.
REFER TO PLANS BY HCI FOR POWER AND CONDUIT REQUIREMENTS.
PROVIDE ALL CONDUITS AND BOXES AS REQUIRED.

- CR — CR = CARD READER, CAM = CAMERA, DAS = DISTRIBUTED ANTENNA SYSTEM, REX = REQUEST TO EXIT, TR = TRANSPONDER READER, KFR = KEY FOB READER. PROVIDE BOX AND CONDUIT AS REQUIRED TO SECURITY CLOSET, SERVER, OR MPOE.
- 2W — 2-WAY COMMUNICATION. PROVIDE BOX AND CONDUIT AS REQUIRED.
- SHADE — LOW VOLTAGE WINDOW SHADE MOTOR (VERIFY HEIGHT & LOCATION). PROVIDE 1/2" CONDUIT TO SHADE MOTOR CONTROLLER.
- DB — PROVIDE CONDUIT AS NOTED TO SERVER ROOM FOR DIGITAL BOY EQUIPMENT. REFER TO DIGITAL BOY PLANS FOR EXACT LOCATION AND REQUIREMENTS.
- CO — CARBON MONOXIDE SENSOR MOUNTED @ +5'-0". PROVIDE 3/4" CONDUIT ONLY TO C.O. CONTROL PANEL

ELECTRICAL DEVICE LEGEND

- $ — SINGLE POLE SWITCH
- $V — MANUAL ON - AUTOMATIC OFF "VACANCY" SENSOR SWITCH
- DUPLEX RECEPTACLE
- CONTROLLED HALF-HOT RECEPTACLE (INSTALL GROUND PIN UP) CONNECT TO LOCAL LIGHTING OCCUPANCY SENSOR IN INDICATED ROOM.
- GFCI PROTECTED RECEPTACLE
- WP — GFCI PROTECTED RECEPTACLE W/ WEATHERPROOF COVER
- ELECTRICAL PANEL
- ##### — ELECTRICAL PANEL IDENTIFICATION
- DISCONNECT SWITCH
- EXIT SIGN
- OS — CEILING MOUNTED OCCUPANCY SENSOR. CONTROLS LIGHTS AND CONTROLLED RECEPTACLES IN INDICATED ROOM
- OS — DIGITAL CEILING MOUNTED OCCUPANCY SENSOR. CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010
- PS — DIGITAL CEILING MOUNTED PHOTO SENSOR CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010
- OS — DIGITAL CORNER MOUNTED OCCUPANCY SENSOR. MOUNT AT +/- 10'-0" AFF CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010

KEY NOTES

20	SMOKE FIRE DAMPER PER HVAC PLANS. COORDINATE WORK WITH HVAC.
31	FIRE DOOR HOLDER.

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19TH & HARRISON

Oakland, CA

NO.	ISSUE	DATE
1	PLAN CHECK RESPONSE #1/GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

APPROVAL

CONSULTANT

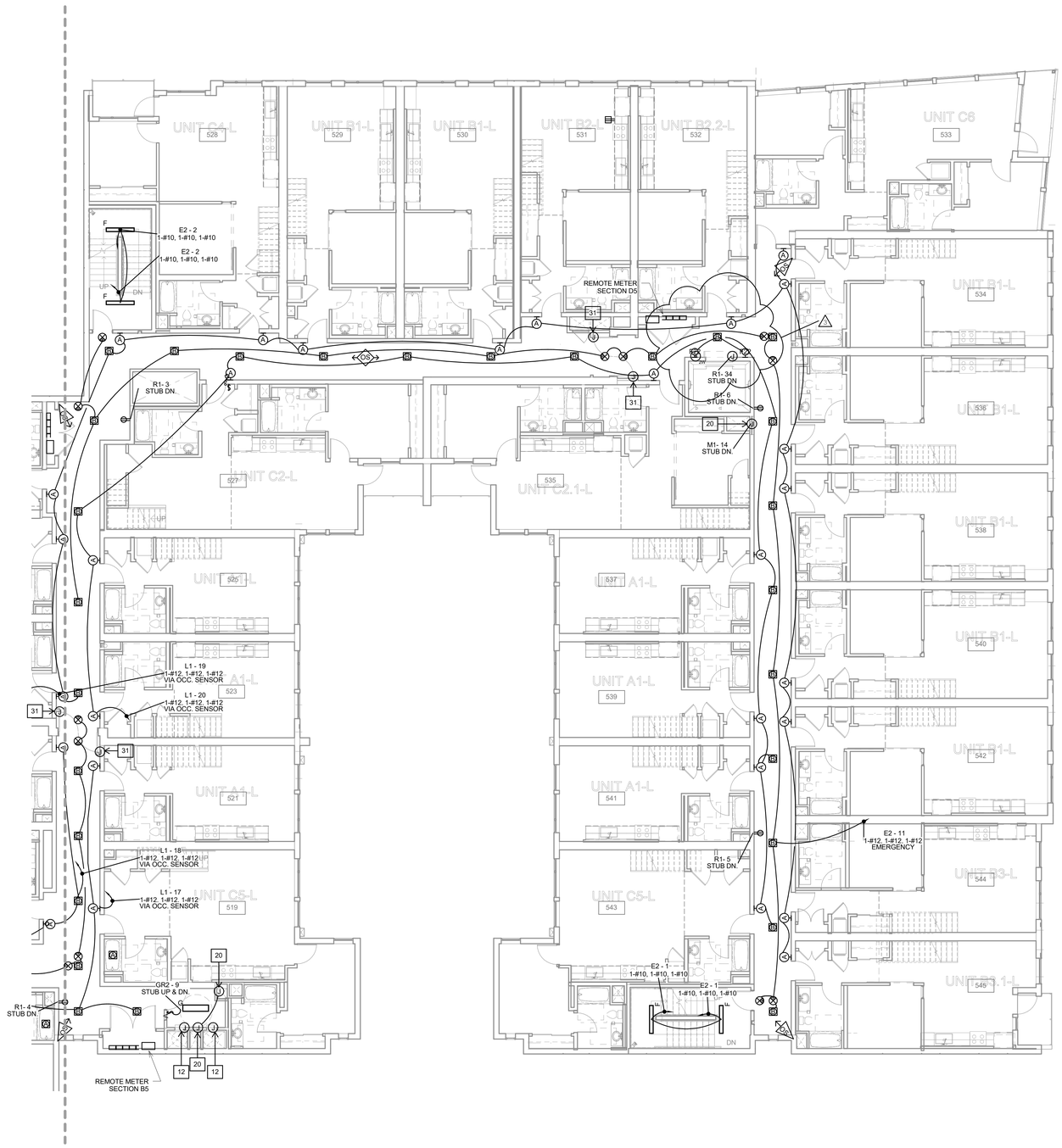
5TH FLOOR PLAN-WEST

PROJECT NO: X6-059
DATE: 05/12/17

SHEET NO:

E2.07A

ADDENDUM #1



FIFTH FLOOR PLAN - EAST 1

1/8" = 1'-0"

LIGHTING FIXTURES

- DECORATIVE FLUORESCENT UNIT ENTRY WALL LIGHT
- LED RECESSED DOWNLIGHT IN CORRIDOR NON-EMERGENCY CONNECTED TO CORRIDOR OCCUPANCY SENSORS (SEE SHEET E0.10) NON-EMERGENCY CIRCUIT TO TURN OFF WHEN NO MOTION IS DETECTED.
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- LARGE DECORATIVE FLUORESCENT WALL LIGHT WET LOCATION
- SMALL DECORATIVE FLUORESCENT WALL LIGHT WET LOCATION
- Z — LED WALL PACK WITH INTEGRAL MOTION SENSOR
- LED DECORATIVE WALL LIGHT AT ROOF DECK
- B## — LIGHT FIXTURE ID REFER TO LIGHTING FIXTURE SCHEDULE

LOW VOLTAGE DEVICES

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- 2W — 2-WAY COMMUNICATION. PROVIDE BOX AND CONDUIT AS REQUIRED.
- SHADE — LOW VOLTAGE WINDOW SHADE MOTOR (VERIFY HEIGHT & LOCATION). PROVIDE 1/2" CONDUIT TO SHADE MOTOR CONTROLLER.
- DS — PROVIDE CONDUIT AS NOTED TO SERVER ROOM FOR DIGITAL BOY EQUIPMENT. REFER TO DIGITAL BOY PLANS FOR EXACT LOCATION AND REQUIREMENTS.
- CO — CARBON MONOXIDE SENSOR MOUNTED @ +5'-0". PROVIDE 3/4" CONDUIT ONLY TO C.O. CONTROL PANEL

ELECTRICAL DEVICE LEGEND

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- ELECTRICAL PANEL
- ##### — ELECTRICAL PANEL IDENTIFICATION
- DISCONNECT SWITCH
- EXIT SIGN
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- DPS — DIGITAL CEILING MOUNTED PHOTO SENSOR. CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010
- DOC — DIGITAL CORNER MOUNTED OCCUPANCY SENSOR. MOUNT AT +/- 10'-0" AFF. CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010

KEY NOTES

12	TRASH CHUTE POWER. STUB POWER UP AND DOWN AS REQUIRED. REFER TO TRASH CHUTE SHOP DRAWINGS.
20	SMOKE FIRE DAMPER PER HVAC PLANS. COORDINATE WORK WITH HVAC.
31	FIRE DOOR HOLDER.

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19TH & HARRISON

Oakland, CA

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1	PLAN CHECK RESPONSE #1/GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

APPROVAL

CONSULTANT

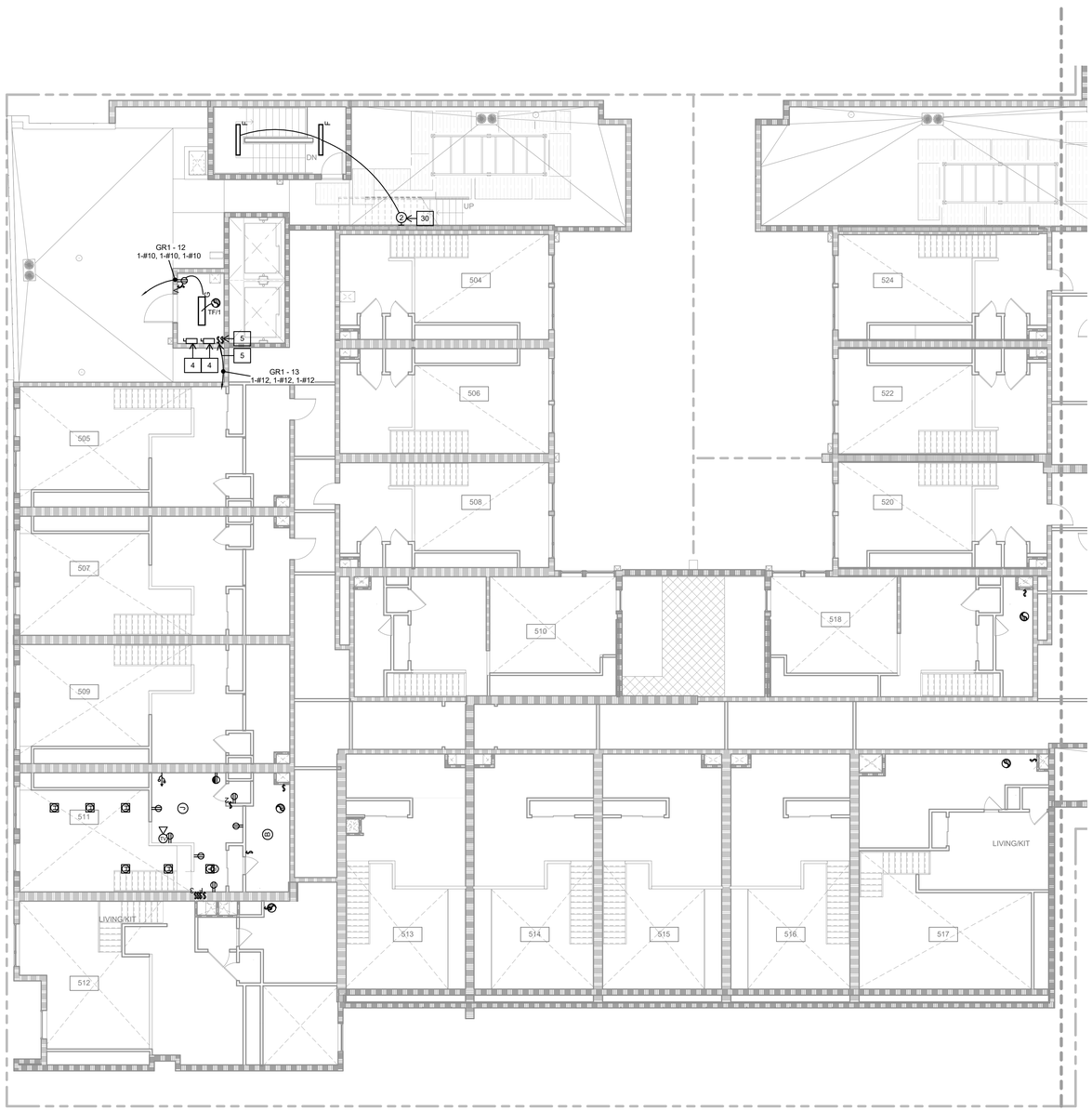
5TH FLOOR PLAN-EAST

PROJECT NO: X6-059
DATE: 05/12/17

SHEET NO:

E2.07B

ADDENDUM #1



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

LIGHTING FIXTURES

- DECORATIVE FLUORESCENT UNIT ENTRY WALL LIGHT
- LED RECESSED DOWNLIGHT IN CORRIDOR NON-EMERGENCY CONNECTED TO CORRIDOR OCCUPANCY SENSORS (SEE SHEET E0.10) NON-EMERGENCY CIRCUIT TO TURN OFF WHEN NO MOTION IS DETECTED.
- E — LED SURFACE MOUNT IN PARKING GARAGE WITH INTEGRAL BI-LEVEL MOTION SENSOR SENSOR 50% OFF WHEN NO MOTION DETECTED
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- SMALL DECORATIVE FLUORESCENT WALL LIGHT WET LOCATION
- LED WALL PACK WITH INTEGRAL MOTION SENSOR
- Z — LED DECORATIVE WALL LIGHT AT ROOF DECK
- B## — LIGHT FIXTURE ID REFER TO LIGHTING FIXTURE SCHEDULE

LOW VOLTAGE DEVICES

SHOWN FOR REFERENCE ONLY.
REFER TO PLANS BY HCI FOR POWER AND CONDUIT REQUIREMENTS.
PROVIDE ALL CONDUITS AND BOXES AS REQUIRED.

- CR = CARD READER
  CAM = CAMERA
  DAS = DISTRIBUTED ANTENNA SYSTEM
  REX = REQUEST TO EXIT
  TR = TRANSPONDER READER
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  PROVIDE BOX AND CONDUIT AS REQUIRED TO SECURITY CLOSET, SERVER, OR MPOE.
- 2W — 2-WAY COMMUNICATION
  PROVIDE BOX AND CONDUIT AS REQUIRED.
- SHADE — LOW VOLTAGE WINDOW SHADE MOTOR (VERIFY HEIGHT & LOCATION).
  PROVIDE 1/2" CONDUIT TO SHADE MOTOR CONTROLLER.
- DB — PROVIDE CONDUIT AS NOTED TO SERVER ROOM FOR DIGITAL BOY EQUIPMENT. REFER TO DIGITAL BOY PLANS FOR EXACT LOCATION AND REQUIREMENTS.
- CO — CARBON MONOXIDE SENSOR MOUNTED @ +5'-0"
  PROVIDE 3/4" CONDUIT ONLY TO C.O. CONTROL PANEL

ELECTRICAL DEVICE LEGEND

- SINGLE POLE SWITCH
- V — MANUAL ON - AUTOMATIC OFF "VACANCY" SENSOR SWITCH
- DUPLEX RECEPTACLE
- CONTROLLED HALF-HOT RECEPTACLE (INSTALL GROUND PIN UP) CONNECT TO LOCAL LIGHTING OCCUPANCY SENSOR IN INDICATED ROOM.
- GFCI PROTECTED RECEPTACLE
- WP — GFCI PROTECTED RECEPTACLE W/ WEATHERPROOF COVER
- ELECTRICAL PANEL
- ##### — ELECTRICAL PANEL IDENTIFICATION
- DISCONNECT SWITCH
- EXIT SIGN
- OS — CEILING MOUNTED OCCUPANCY SENSOR. CONTROLS LIGHTS AND CONTROLLED RECEPTACLES IN INDICATED ROOM
- DOS — DIGITAL CEILING MOUNTED OCCUPANCY SENSOR. CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010
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- DCS — DIGITAL CORNER MOUNTED OCCUPANCY SENSOR. MOUNT AT +/- 10'-0" AFF CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010

KEY NOTES

4	ELEVATOR DISCONNECT SWITCH. REFER TO SINGLE LINE DIAGRAM FOR WIRING AND DISCONNECT SIZE.
5	ELEVATOR CART LIGHT DISCONNECT SWITCH.
30	PROVIDE PHOTOCELL MOUNTED AT +8'-0" ADJACENT TO LIGHT FIXTURE TO CONTROL EXTERIOR LIGHT AT EGRESS POINT CONNECTED TO EMERGENCY INVERTER.

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19TH & HARRISON

Oakland, CA

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1	PLAN CHECK RESPONSE #1/GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

APPROVAL

CONSULTANT

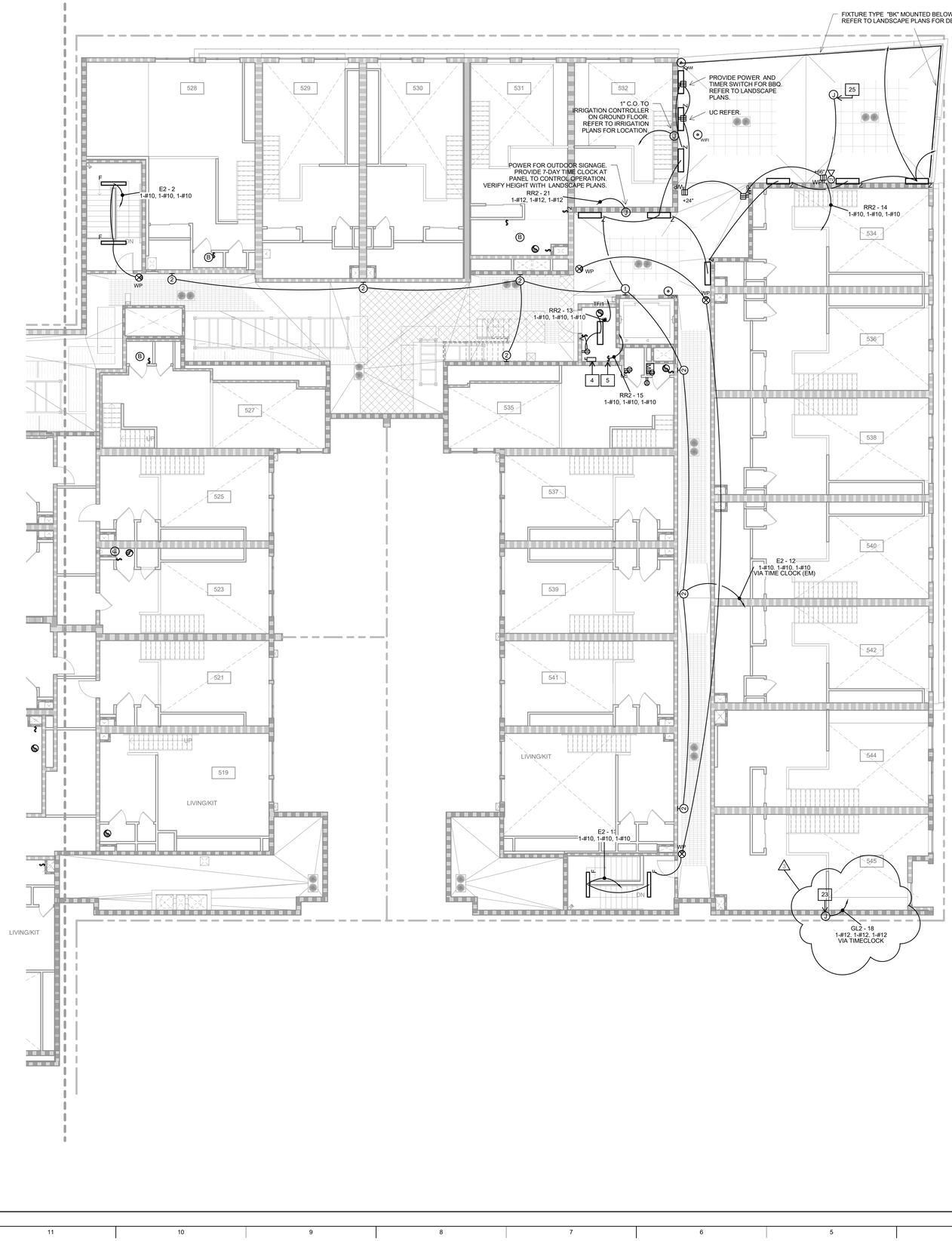
MEZZANINE/LOWER ROOF LEVEL PLAN - WEST

PROJECT NO: X6-059
DATE: 05/12/17

SHEET NO:

E2.08A

ADDENDUM #1



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

LIGHTING FIXTURES

- DECORATIVE FLUORESCENT UNIT ENTRY WALL LIGHT
- LED RECESSED DOWNLIGHT IN CORRIDOR NON-EMERGENCY CONNECTED TO CORRIDOR OCCUPANCY SENSORS (SEE SHEET E0.10) NON-EMERGENCY CIRCUIT TO TURN OFF WHEN NO MOTION IS DETECTED.
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- LED DECORATIVE WALL LIGHT AT ROOF DECK
- B## — LIGHT FIXTURE ID REFER TO LIGHTING FIXTURE SCHEDULE

LOW VOLTAGE DEVICES

SHOWN FOR REFERENCE ONLY.
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PROVIDE ALL CONDUITS AND BOXES AS REQUIRED.

- J — CR = CARD READER; CAM = CAMERA; DAS = DISTRIBUTED ANTENNA SYSTEM; REX = REQUEST TO EXIT; TR = TRANSPONDER READER; KFR = KEY FOB READER. PROVIDE BOX AND CONDUIT AS REQUIRED TO SECURITY CLOSET, SERVER, OR MPOE.
- 2W — 2-WAY COMMUNICATION. PROVIDE BOX AND CONDUIT AS REQUIRED.
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- DB — PROVIDE CONDUIT AS NOTED TO SERVER ROOM FOR DIGITAL BOY EQUIPMENT. REFER TO DIGITAL BOY PLANS FOR EXACT LOCATION AND REQUIREMENTS.
- CO — CARBON MONOXIDE SENSOR MOUNTED @ +5'-0". PROVIDE 3/4" CONDUIT ONLY TO C.O. CONTROL PANEL

ELECTRICAL DEVICE LEGEND

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- DUPLEX RECEPTACLE
- CONTROLLED HALF-HOT RECEPTACLE (INSTALL GROUND PIN UP) CONNECT TO LOCAL LIGHTING OCCUPANCY SENSOR IN INDICATED ROOM.
- GFCI PROTECTED RECEPTACLE
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- ELECTRICAL PANEL
- ##### — ELECTRICAL PANEL IDENTIFICATION
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- EXIT SIGN
- OS — CEILING MOUNTED OCCUPANCY SENSOR. CONTROLS LIGHTS AND CONTROLLED RECEPTACLES IN INDICATED ROOM
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- PS — DIGITAL CEILING MOUNTED PHOTO SENSOR CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010
- OS — DIGITAL CORNER MOUNTED OCCUPANCY SENSOR. MOUNT AT +/- 10'-0" AFF CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010

KEY NOTES

4	ELEVATOR DISCONNECT SWITCH. REFER TO SINGLE LINE DIAGRAM FOR WIRING AND DISCONNECT SIZE.
5	ELEVATOR CART LIGHT DISCONNECT SWITCH.
23	FUTURE SIGNAGE POWER. VERIFY REQUIREMENTS.
25	FIREPLACE IGNITOR POWER. PROVIDE TIMER SWITCH AS REQUIRED. COORDIANTE WORK WITH FIREPLACE INSTALLER. VERIFY CONTROL LOCATION WITH LANDSCAPE PLANS.

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19TH & HARRISON

Oakland, CA

NO.	ISSUE	DATE
1	PLAN CHECK RESPONSE #1/GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

APPROVAL

CONSULTANT

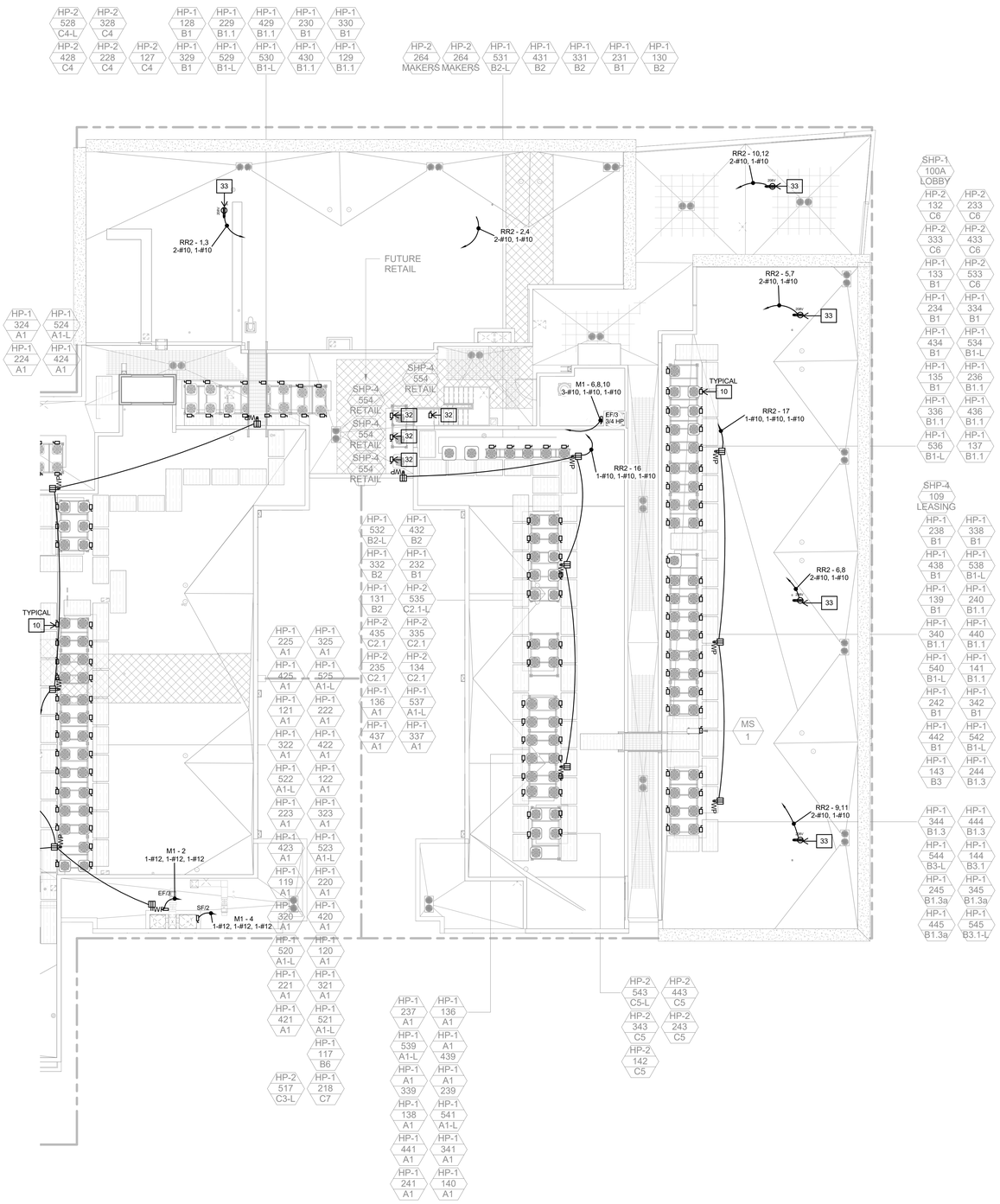
MEZZANINE/LOWER ROOF LEVEL PLAN - EAST

PROJECT NO: X6-059
DATE: 05/12/17

SHEET NO:

E2.08B

ADDENDUM #1



ROOF PLAN - WEST
1" = 10'-0" 1

LIGHTING FIXTURES

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- EXIT SIGN
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KEY NOTES

10	CONDENSING UNIT DISCONNECT SWITCH MOUNT @ +24" AFF FUSIBLE DISCONNECT (NEMA 3-R RATED) FUSE AS INDICATED ON NAMEPLATE OF INSTALLED EQUIPMENT INSTALL LIQUIDTIGHT FLEX AND THHN/THWN-2 FROM DISCONNECT TO HVAC EQUIPMENT. REFER TO PANEL SCHEDULE FOR WIRE SIZE. REFER TO HVAC PLANS FOR UNIT ASSIGNMENTS.
32	FUTURE RETAIL CONDENSING UNIT LOCATION. PROVIDE 2" C.O. TO FUTURE RETAIL SPACE FOR FUTURE USE.
33	WEATHERPROOF POWER SUPPLY OUTLETS DEDICATED TO POWERED PLATFORM. 208V, 1PH, 60HZ, 30A WITH 3% MAX. VOLTAGE DROP AT FULL LOAD. USE HUBBEL TWIST LOCK AND PROVIDE CABLE STRAIN RELIEF EYE-BOLT CAPABLE OF WITHSTANDING 100LBS ADJACENT TO EACH OUTLET. POWER TO BE LOCATED NO MORE THAN 50' FROM ANY DROP LOCATION. (TYP.)

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19TH & HARRISON

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2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

APPROVAL

CONSULTANT

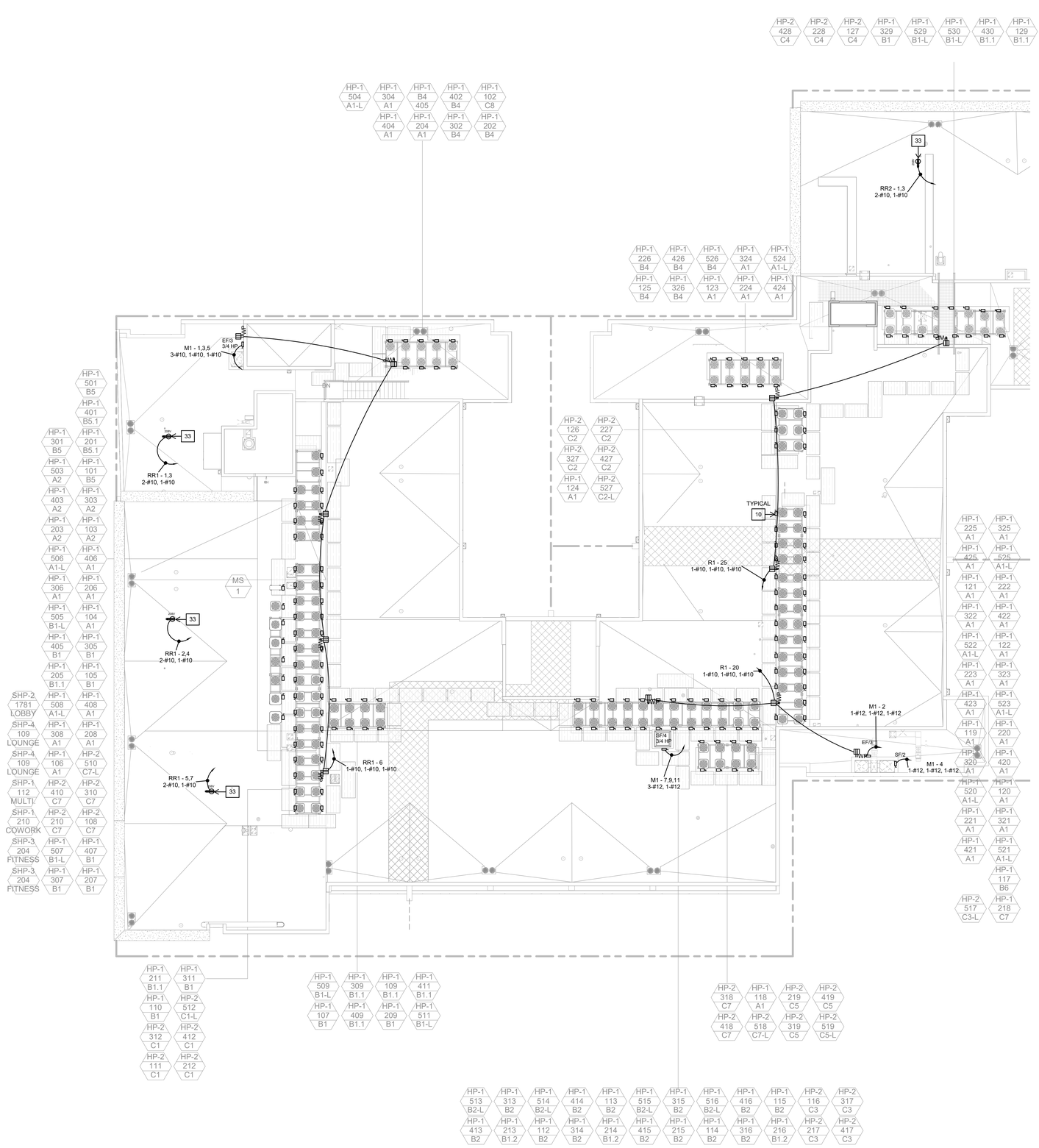
UPPER ROOF PLAN - WEST

PROJECT NO: X6-059
DATE: 05/12/17

SHEET NO:

E2.09A

ADDENDUM #1



ROOF PLAN - EAST
1" = 10'-0" | 1

LIGHTING FIXTURES

- DECORATIVE FLUORESCENT UNIT ENTRY WALL LIGHT
- LED RECESSED DOWNLIGHT IN CORRIDOR NON-EMERGENCY CONNECTED TO CORRIDOR OCCUPANCY SENSORS (SEE SHEET E0.10) NON-EMERGENCY CIRCUIT TO TURN OFF WHEN NO MOTION IS DETECTED.
- E — LED SURFACE MOUNT IN PARKING GARAGE WITH INTEGRAL BI-LEVEL MOTION SENSOR SENSOR 50% OFF WHEN NO MOTION DETECTED
- F — LED SURFACE MOUNT IN STAIR WITH INTEGRAL BI-LEVEL MOTION SENSOR 50% OFF WHEN NO MOTION DETECTED
- G — FLUORESCENT SURFACE MOUNT IN STORAGE / UTILITY AREA CONTROLLED BY WALL VACANACY SENSOR SWITCH.
- LARGE DECORATIVE FLUORESCENT WALL LIGHT WET LOCATION
- SMALL DECORATIVE FLUORESCENT WALL LIGHT WET LOCATION
- LED WALL PACK WITH INTEGRAL MOTION SENSOR
- Z — LED DECORATIVE WALL LIGHT AT ROOF DECK
- B## — LIGHT FIXTURE ID REFER TO LIGHTING FIXTURE SCHEDULE

LOW VOLTAGE DEVICES

SHOWN FOR REFERENCE ONLY.
REFER TO PLANS BY HCI FOR POWER AND CONDUIT REQUIREMENTS.
PROVIDE ALL CONDUITS AND BOXES AS REQUIRED.

- CR / CAM / DAS / REX / TR / KFR — CR = CARD READER; CAM = CAMERA; DAS = DISTRIBUTED ANTENNA SYSTEM; REX = REQUEST TO EXIT; TR = TRANSPONDER READER; KFR = KEY FOB READER. PROVIDE BOX AND CONDUIT AS REQUIRED TO SECURITY CLOSET, SERVER, OR MPOE.
- 2W — 2-WAY COMMUNICATION. PROVIDE BOX AND CONDUIT AS REQUIRED.
- SHADE — LOW VOLTAGE WINDOW SHADE MOTOR (VERIFY HEIGHT & LOCATION). PROVIDE 1/2" CONDUIT TO SHADE MOTOR CONTROLLER.
- DB — PROVIDE CONDUIT AS NOTED TO SERVER ROOM FOR DIGITAL BOY EQUIPMENT. REFER TO DIGITAL BOY PLANS FOR EXACT LOCATION AND REQUIREMENTS.
- CO — CARBON MONOXIDE SENSOR MOUNTED @ +5'-0". PROVIDE 3/4" CONDUIT ONLY TO C.O. CONTROL PANEL

ELECTRICAL DEVICE LEGEND

- $ — SINGLE POLE SWITCH
- $V — MANUAL ON - AUTOMATIC OFF "VACANCY" SENSOR SWITCH
- DUPLEX RECEPTACLE
- CONTROLLED HALF-HOT RECEPTACLE (INSTALL GROUND PIN UP) CONNECT TO LOCAL LIGHTING OCCUPANCY SENSOR IN INDICATED ROOM.
- GFCI PROTECTED RECEPTACLE
- WP — GFCI PROTECTED RECEPTACLE W/ WEATHERPROOF COVER
- ELECTRICAL PANEL
- #### — ELECTRICAL PANEL IDENTIFICATION
- DISCONNECT SWITCH
- EXIT SIGN
- OS — CEILING MOUNTED OCCUPANCY SENSOR. CONTROLS LIGHTS AND CONTROLLED RECEPTACLES IN INDICATED ROOM
- OS — DIGITAL CEILING MOUNTED OCCUPANCY SENSOR. CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010
- PS — DIGITAL CEILING MOUNTED PHOTO SENSOR CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010
- OS — DIGITAL CORNER MOUNTED OCCUPANCY SENSOR. MOUNT AT +/- 10'-0" AFF CONNECTED TO DIGITAL LIGHTING CONTROL UNIT REFER TO SHEET E-010

KEY NOTES

10	CONDENSING UNIT DISCONNECT SWITCH MOUNT @ +24" AFF FUSIBLE DISCONNECT (NEMA 3-R RATED) FUSE AS INDICATED ON NAMEPLATE OF INSTALLED EQUIPMENT INSTALL LIQUIDTIGHT FLEX AND THHN/THWN-2 FROM DISCONNECT TO HVAC EQUIPMENT. REFER TO PANEL SCHEDULE FOR WIRE SIZE. REFER TO HVAC PLANS FOR UNIT ASSIGNMENTS.
33	WEATHERPROOF POWER SUPPLY OUTLETS DEDICATED TO POWERED PLATFORM. 208V, 1PH, 60HZ, 30A WITH 3% MAX. VOLTAGE DROP AT FULL LOAD. USE HUBBEL TWIST LOCK AND PROVIDE CABLE STRAIN RELIEF EYE-BOLT CAPABLE OF WITHSTANDING 100LBS ADJACENT TO EACH OUTLET. POWER TO BE LOCATED NO MORE THAN 50' FROM ANY DROP LOCATION. (TYP.)

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19TH & HARRISON

Oakland, CA

NO.	ISSUE	DATE
1	PLAN CHECK RESPONSE #1/GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

APPROVAL

CONSULTANT

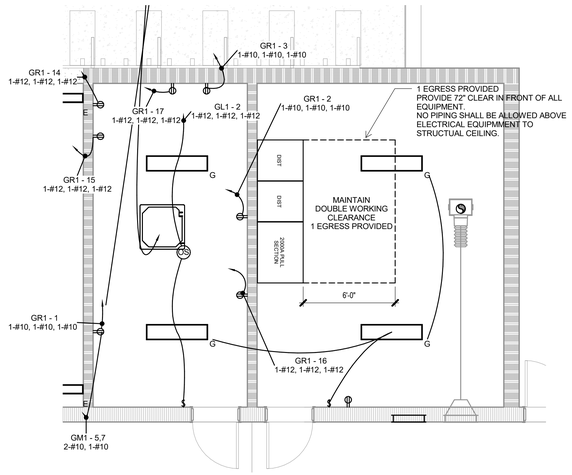
UPPER ROOF PLAN - EAST

PROJECT NO: X6-059
DATE: 05/12/17

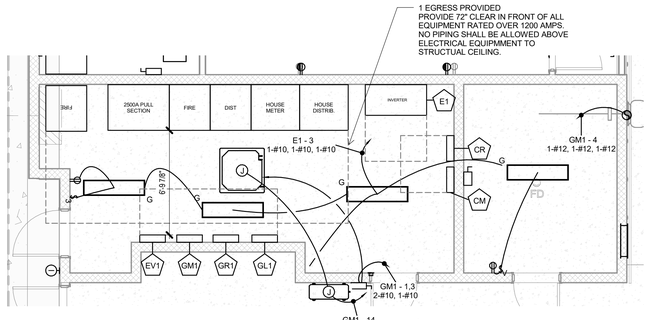
SHEET NO:

E2.09B

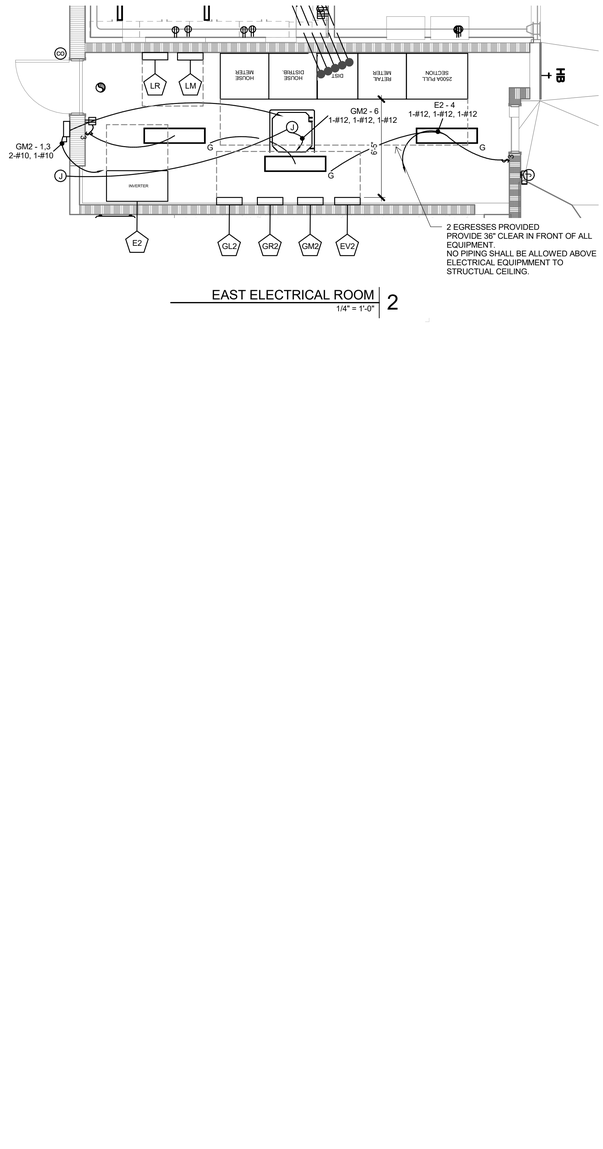
ADDENDUM #1



SOUTH ELECTRICAL ROOM | 3
1/4" = 1'-0"



WEST ELECTRICAL ROOM | 1
1/4" = 1'-0"



EAST ELECTRICAL ROOM | 2
1/4" = 1'-0"

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3	ADDENDUM #1	05/12/17

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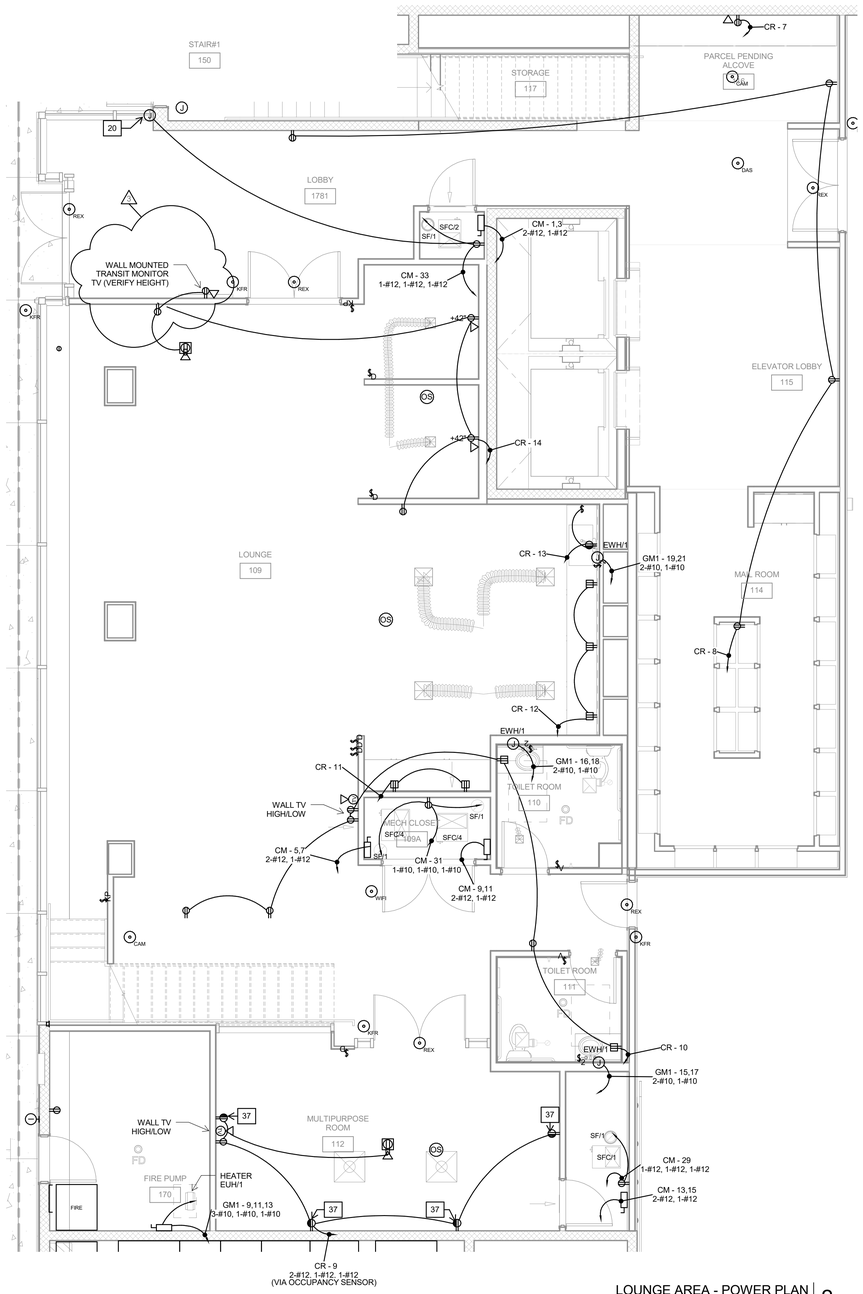
ELECTRICAL ENLARGEMENTS

PROJECT NO: X6-059
DATE: 05/12/17

SHEET NO:

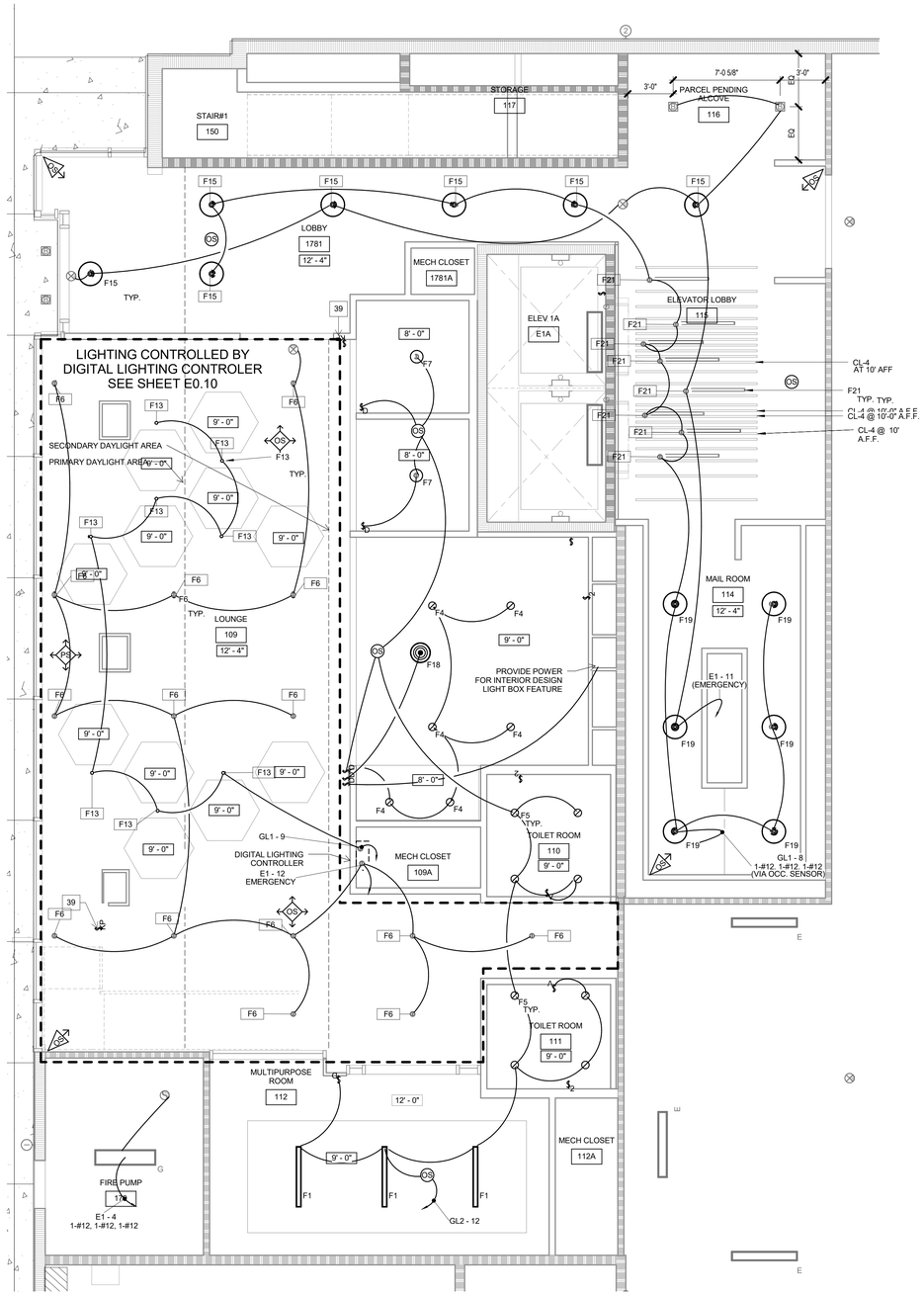
E3.10

ADDENDUM #1



LOUNGE AREA - POWER PLAN | 2

1/4" = 1'-0"



LOUNGE - LIGHTING PLANS | 1

1/4" = 1'-0"

KEYNOTES

20	SMOKE FIRE DAMPER PER HVAC PLANS. COORDINATE WORK WITH HVAC.
37	HALF-HOT RECEPTACLE MARKED "CONTROLLED" (LEVITON# 16352 OR EQUAL). CONNECT TO LOCAL OCCUPANCY SENSOR PER DETAIL 2 / E0.08
39	DIGITAL LIGHTING CONTROL KEYPAD. SEE SHEET E0.10.

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ELECTRICAL ENLARGEMENTS LOUNGE AREA

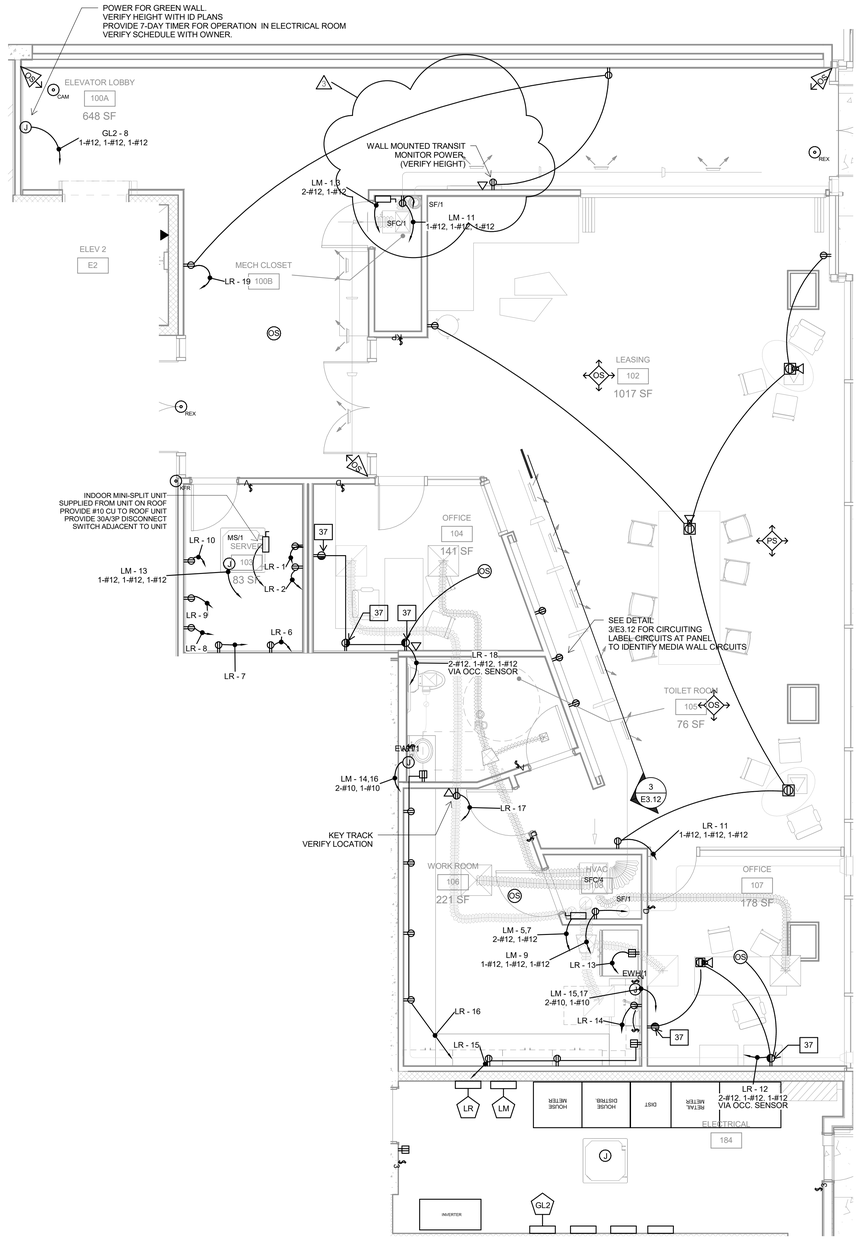
PROJECT NO: X6-059

DATE: 05/12/17

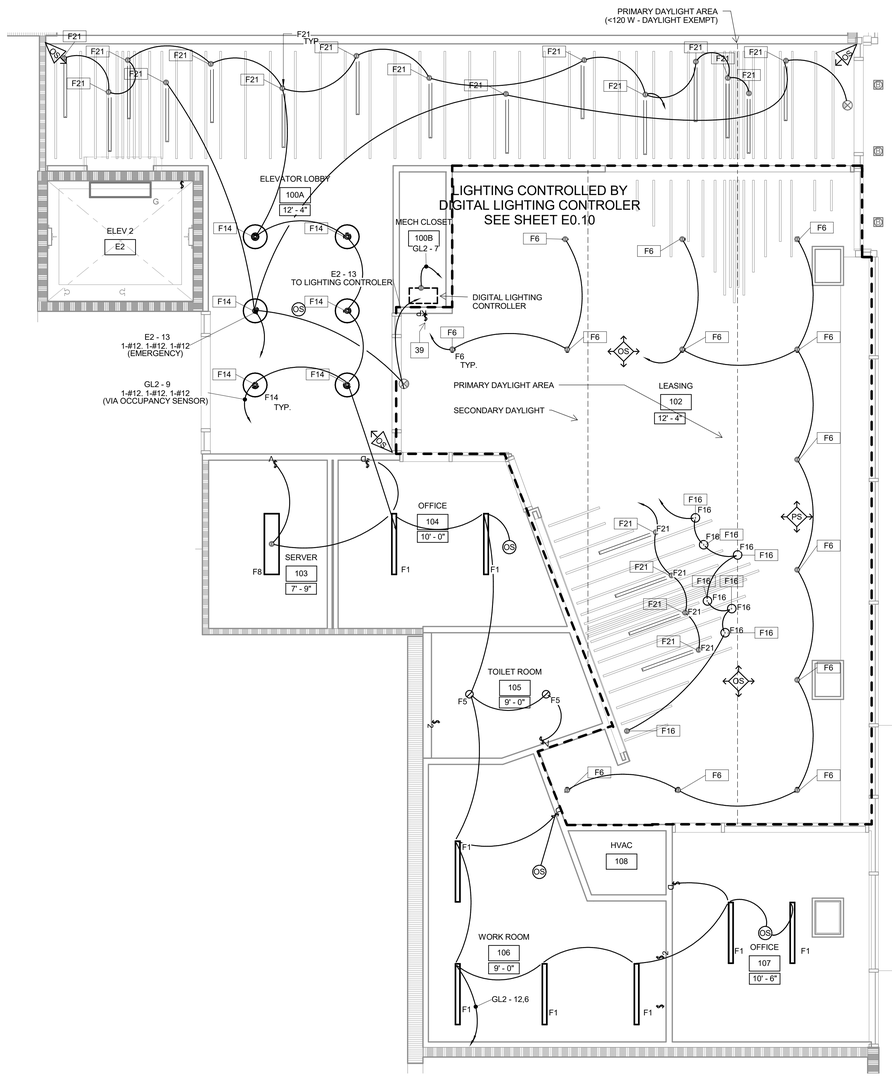
SHEET NO:

E3.11

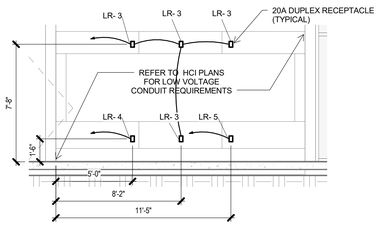
ADDENDUM #1



LEASING AREA - POWER PLAN 2
1/4" = 1'-0"



LEASING - LIGHTING PLANS 1
1/4" = 1'-0"



LEASING MEDIA WALL ELEVATION 3
1/4" = 1'-0"

KEYNOTES

37	HALF-HOT RECEPTACLE MARKED "CONTROLLED" (LEVITON# 16352 OR EQUAL). CONNECT TO LOCAL OCCUPANCY SENSOR PER DETAIL 2 / E0.08
39	DIGITAL LIGHTING CONTROL KEYPAD. SEE SHEET E0.10.

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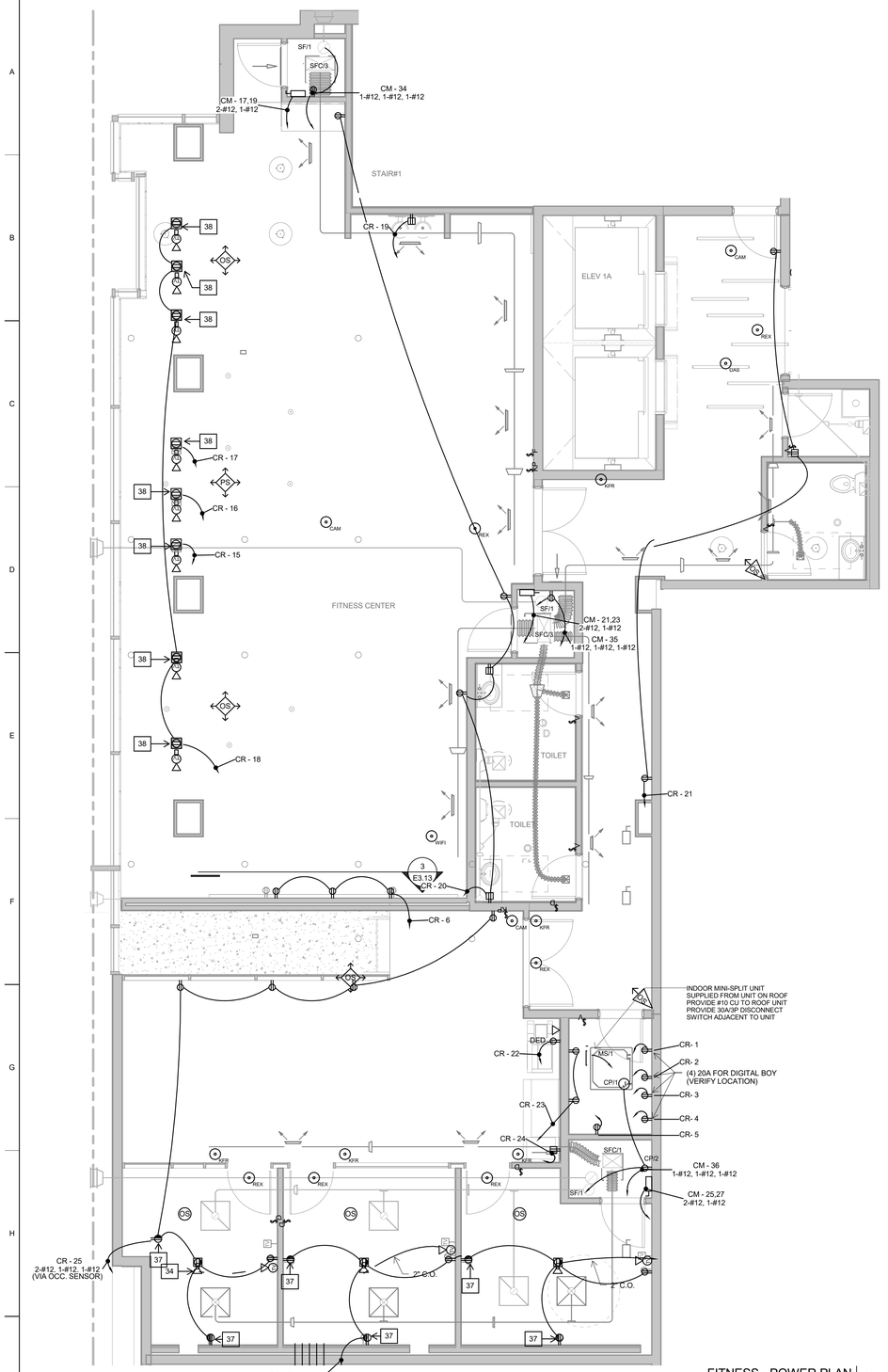
ELECTRICAL ENLARGEMENTS LEASING

PROJECT NO: X6-059
DATE: 05/12/17

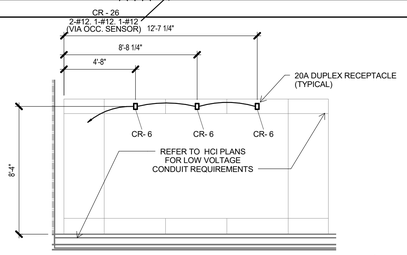
SHEET NO:

E3.12

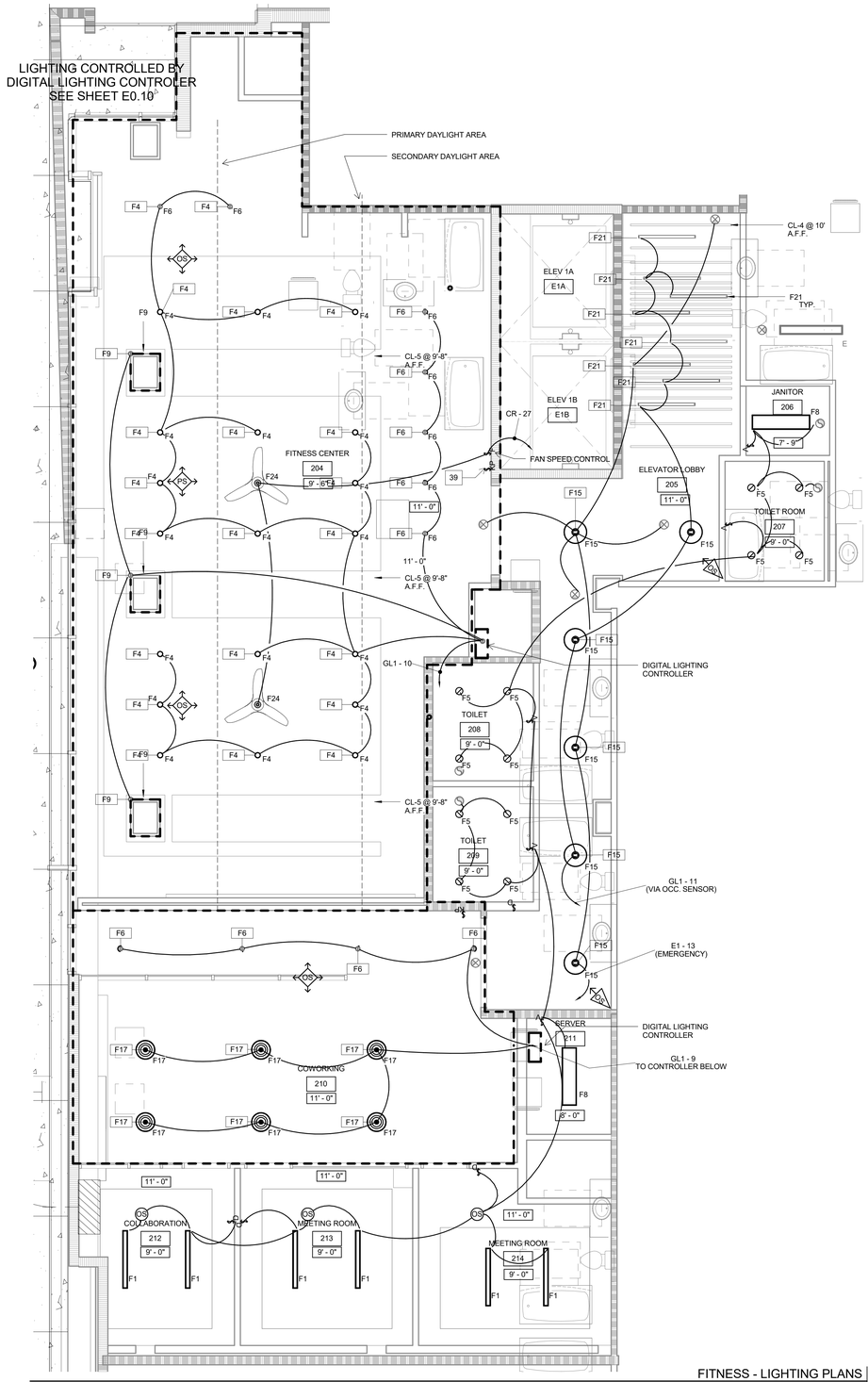
ADDENDUM #1



FITNESS - POWER PLAN 2
1/4" = 1'-0"



FITNESS MOTIVATION WALL ELEVATION 3
1/4" = 1'-0"



FITNESS - LIGHTING PLANS 1
1/4" = 1'-0"

34	PROVIDE 2" CONDUIT ONLY TO WALL TV LOCATION FOR HDMI.
37	HALF-HOT RECEPTACLE MARKED "CONTROLLED" (LEVITON# 16352 OR EQUAL). CONNECT TO LOCAL OCCUPANCY SENSOR PER DETAIL 2 / E0.08
38	FITNESS MULTI-SERVICE FLOOR OUTLET. WIREMOLD# RFB2 SERIES. REFER TO INTERIOR / FITNESS DRAWINGS FOR EXACT LOCATIONS.
39	DIGITAL LIGHTING CONTROL KEYPAD. SEE SHEET E0.10.

AMENITY SPACES STILL UNDER
INTERIOR DESIGN DEVELOPMENT

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ELECTRICAL ENLARGMENTS FITNESS

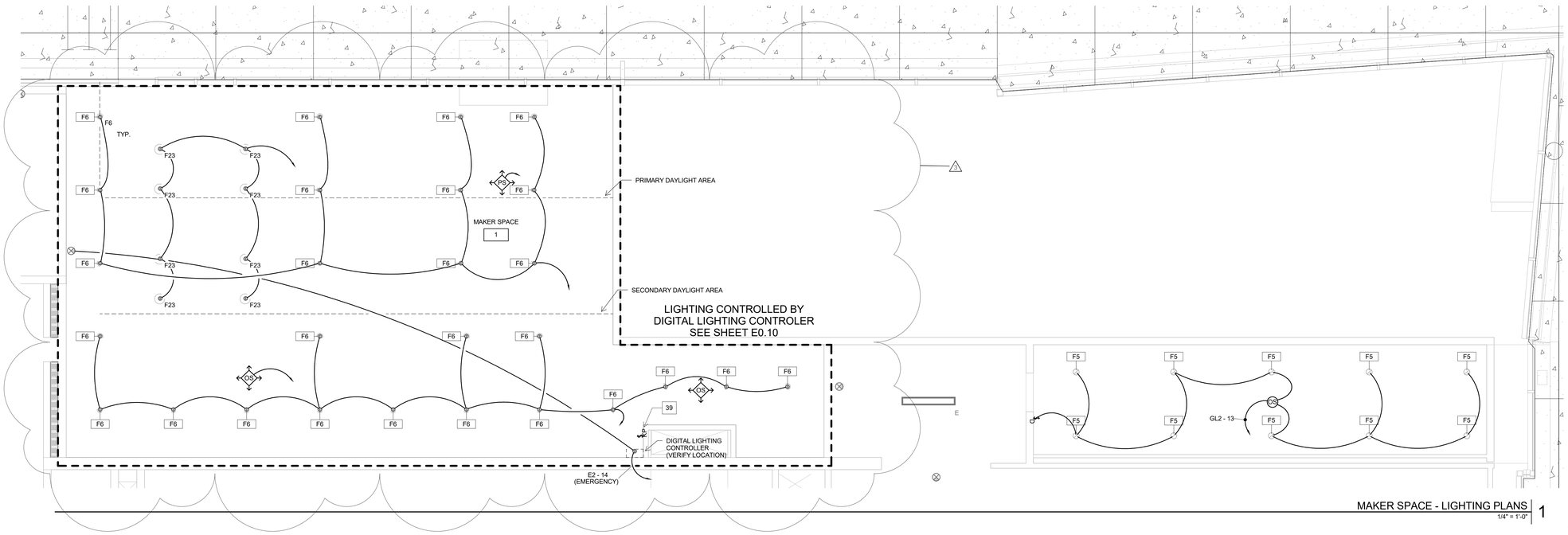
PROJECT NO: X6-059

DATE: 05/12/17

SHEET NO:

E3.13

ADDENDUM #1



MAKER SPACE - LIGHTING PLANS 1

1/4" = 1'-0"

MAKER SPACE - POWER PLAN 2

1/4" = 1'-0"

KEYNOTES

20	SMOKE FIRE DAMPER PER HVAC PLANS. COORDINATE WORK WITH HVAC.
39	DIGITAL LIGHTING CONTROL KEYPAD. SEE SHEET E0.10.

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ELECTRICAL ENLARGEMENTS MAKER SPACE

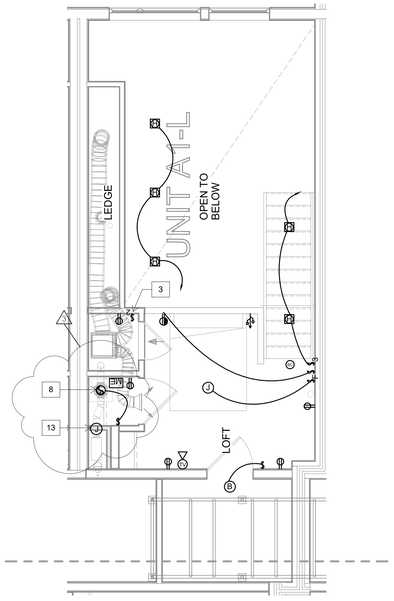
PROJECT NO: X6-059

DATE: 05/12/17

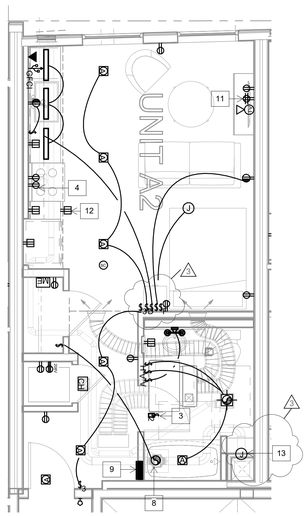
SHEET NO:

E3.14

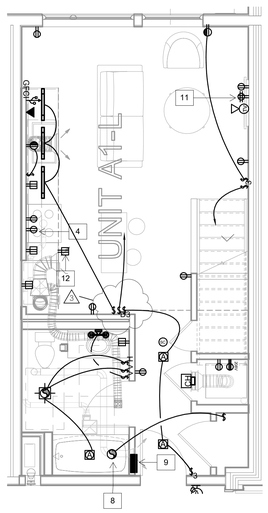
ADDENDUM #1



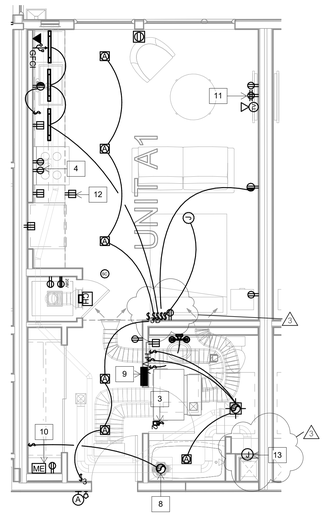
UNIT A1-L (LOFT) | 4
1/4" = 1'-0"



UNIT A2 | 2
1/4" = 1'-0"



UNIT A1-L | 3
1/4" = 1'-0"



UNIT A1 | 1
1/4" = 1'-0"

UNIT PLANS NOTES

1. INTERIOR RESIDENTIAL UNIT WIRING PERMITTED TO BE TYPE NM CABLE IN ACCORDANCE WITH NEC ARTICLE 334 AND LOCAL CODES. MINIMUM WIRING SIZE PER THE 60 DEGREE C COLUMN OF NEC TABLE 310.15(B)(16) (I.E. #14 CU FOR 15A CIRCUIT BREAKERS AND #12 CU FOR 20A CIRCUIT BREAKERS).
2. REFER TO "TYPICAL DEVICE HEIGHT INSTALLATION DETAIL" ON SHEET E0.01 FOR TYPICAL DEVICE HEIGHTS AND DETAIL 10 / E0.08 FOR REQUIRED ACCESSIBLE OUTLET LOCATION AT CORNER CONDITIONS.
3. REFER TO STATE OF CALIFORNIA MANDATORY MEASURES ON SHEET E0.01 FOR LUMINAIRE AND CONTROL REQUIREMENTS.
4. SMOKE AND CARBON MONOXIDE DETECTORS SHALL BE PERMANENTLY WIRED INTO THE UNITS AC POWER LINE AND, IF MORE THAN ONE DETECTOR IS REQUIRED TO BE INSTALLED WITHIN THE UNIT, THE DETECTORS SHALL BE WIRED SO THAT THE ACTUATION OF ONE DETECTOR WILL ACTUATE ALL THE DETECTORS IN THE UNIT. DETECTORS HAVE NO OTHER DISCONNECT OTHER THAN THAT FOR OVERCURRENT AND SHALL HAVE INTEGRAL BATTERY BACKUPS. ALL SMOKE AND CARBON MONOXIDE DETECTORS SHALL BE LISTED WITH THE STATE FIRE MARSHALL AND LOCATED A MINIMUM OF 3FT AWAY FROM A HVAC SUPPLY OR RETURN. SMOKE DETECTORS TO BE: BRK# 9120 OR EQUAL. COMBINATION SMOKE/CARBON MONOXIDE DETECTORS TO BE: BRK# SC9120B OR EQUAL.
5. PROVIDE SLOPE ADAPTERS AS REQUIRED FOR RECESSED DOWNLIGHTS FOR SLOPED CEILINGS.
6. RECESSED NONMETALLIC ELECTRICAL BOXES MAY BE USED IN RESIDENTIAL UNITS PROVIDED THAT THEIR SIZE DOES NOT EXCEED THE MAXIMUM SPECIFICATIONS OF THE SELECTED LISTED FIRE STOPPING SYSTEM TO MAINTAIN THE RATING OF THE ASSEMBLY.
7. OUTLET BOXES IN OPPOSITE FACES OF PARTY WALLS SHALL BE SEPARATED BY 16" (MINIMUM).
8. LIGHT SWITCHES SHALL BE INSTALLED ON ACTIVE SIDE OF SLIDING GLASS DOORS AND STRIKE SIDE OF HINGED DOORS.
9. REFER TO MECHANICAL PLANS FOR EXHAUST FAN SCHEDULE AND PROVIDE CONTROLS AS REQUIRED. EXHAUST FANS SHOWN NOTED AS "CONTINUOUSLY RUNNING" SHALL HAVE A DISCONNECT SWITCH (EITHER LOCAL OR REMOTE) IF REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
10. ALL 15 AND 20A BRANCH CIRCUIT THAT SUPPLY OUTLETS INSTALLED IN DWELLING UNIT FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED COMBINATION TYPE ARC-FAULT CIRCUIT INTERRUPTER.
11. ALL DWELLING UNIT 15 AND 20 AMP RECEPTACLES SHALL BE LISTED TAMPER RESISTANT RECEPTACLES.
12. ALL 15 AND 20 AMP RECEPTACLES INSTALLED IN BATHROOMS, OUTDOORS, WITHIN 6FT OF SINKS, KITCHEN COUNTERTOPS, AND GARAGES (INCLUDING GARAGE DOOR OPENER AND EQUIPMENT RECEPTACLES) SHALL BE GFCI PROTECTED.
13. VERIFY EXHAUST FAN SWITCHING REQUIREMENTS WITH MECHANICAL PLANS. WHERE HUMIDISTAT WALL SWITCHES ARE SHOWN AND EXHAUST FAN HAS AN INTEGRAL HUMIDISTAT PROVIDE SWITCHING AND WIRING PER MANUFACTURER'S INSTRUCTIONS.
14. PROVIDE NEUTRAL CONDUCTOR AT EACH SWITCH LOCATION PER NEC 404.2 (C).
15. ALL UNIT LOADCENTERS SHALL BE PAINTED WHITE BY THE MANUFACTURER

LIGHTING FIXTURE LEGEND

REFER TO SHEET E0.1 FOR SPECIFICATIONS

- LED SURFACE MOUNTED FAUX CANLIGHT
- B — SURFACE MOUNT IN WALK-IN CLOSET
- WALL LIGHT WITH INTEGRAL PHOTOCELL (WET LOCATION)
- HIGH EFFICACY BATHROOM VANITY FIXTURE ILLUMINATED MIRROR ADD ALT.
- HIGH EFFICACY DECORATIVE DINING AREA PENDENT
- EXHAUST FAN LIGHT COMBO REFER TO WIRING DIAGRAM DETAIL 9/E-0.08
- UNIT SUPPLY FAN REFER TO KEYNOTE #8
- LED UNDERCABINET LIGHT (HIGH EFFICACY) LENGTH PER PLAN CONCEAL TRANSFROMER WHERE ACCESSIBLE
- LED RECESSED CAN LIGHT AT UNIT LOFT VOLUME CEILING
- J — CEILING MOUNTED JUNCTION BOX (ADD ALTERNATE) PROVIDE BACKING FOR FUTURE CEILING FAN INSTALL WALL SWITCH BLANK INSERT AT WALL SWITCH LOCATION LEVITON 80414-W (OR EQUAL)

ELECTRICAL DEVICE LEGEND

REFER TO SHEET E0.1 FOR SPECIFICATIONS AND MOUNTING HEIGHTS

- $ — SINGLE POLE SWITCH
- $V — MANUAL ON - AUTOMATIC OFF "VACANCY" SENSOR SWITCH
- $H — SMART SENSE FAN SWITCH REFER TO DETAIL 6 / E-010
- $D — DIMMER SWITCH
- $3 — 3 WAY SWITCH
- $3d — 3 WAY DIMMER SWITCH
- $4 — 4 WAY SWITCH
- $F — CEILING FAN WALL SWTICH BLANK
- DUPLEX RECEPTACLE
- QUAD-PLEX RECEPTACLE
- SPLIT WIRED "HALF-HOT" RECEPTACLE
- FLOOR MOUNTED DUPLEX RECEPTACLE
- GFCI PROTECTED RECEPTACLE
- WP — GFCI PROTECTED RECEPTACLE W/ WEATHERPROOF COVER
- DUPLEX USB CHARGING RECEPTACLE LEVITON# T5832 OR EQUAL
- DUPLEX USB CHARGING RECEPTACLE (GFCI PROTECTED)
- 208V RECEPATCLE FOR DRYER / RANGE NEMA 14-30R @ DRYER NEMA 14-50R @ RANGE (VERIFY WITH EQUIPMENT SPECIFICATION)
- S — SMOKE DETECTOR
- SC — COMBINATION SMOKE / CARBON MONOXIDE DETECTOR
- RECESSED ELECTRICAL PANEL
- UNIT SUPPLY FAN FAN PER MECHANICAL PLANS COORDIANTE WORK WITH MECHANICAL

ELECTRICAL DEVICE LEGEND

SHOWN FOR LOCATION ONLY. REFER TO SPECIFICATIONS BY OTHER.

- TELEPHONE OUTLET
- DATA OUTLET
- TV — TELEVISION OUTLET
- PUSH-BUTTON SWITCH
- CH — DOOR BELL CHIME
- MD — MEDIA DISTRIBUTION ENCLOSURE

ELECTRICAL KEY NOTES

1. DRYER BOOSTER FANPROVIDE DISCONNECT SWTICH ADJACENT TO ACCESS PANEL AS REQUIRED. COORDINATE WORK WITH HVAC INSTALLER.
2. PROVIDE LIGHT, SWITCH, RECEPTACLE IN ATTIC.
3. PROVIDE FORCED AIR UNIT DISCONNECT SWITCH ATTACHED TO EQUIPMENT IN ATTIC. PROVIDE POWER FOR CONDENSATE PUMP IF REQUIRED. REFER TO MECHANICAL PLANS FOR REQUIREMENTS.
4. PROVIDE RECEPTACLE AT GAS RANGE @ +18" AFF PROVIDE DEDICATED RECEPTACLE FOR MICROWAVE AND HOOD @ +7'-0" AFF (VERIFY). RELOCATE MICROWAVE RECEPTACLE TO COUNTERTOP AND PROVIDE WALL SWITCH @ +44" TO TOP OF BOX FOR KITCHEN EXHAUST HOOD AT ACCESSIBLE UNITS.
5. CONDENSING UNIT DISCONNECT SWITH MOUNT @ +24" AFF 30A/2P FUSIBLE DISCONNECT (NEMA 3-R RATED) FUSE AS INDICATED ON NAMEPLATE OF INSTALLED EQUIPMENT INSTALL LIQUIDTIGHT FLEX AND THHN/THWN-2 FROM DISCONNECT TO HVAC EQUIPMENT. REFER TO PANEL SCHEDULE FOR WIRE SIZE.
6. CONDENSING UNIT DISCONNECT SWITH MOUNT @ +24" AFF 60A/2P FUSIBLE DISCONNECT (NEMA 3-R RATED) FUSE AS INDICATED ON NAMEPLATE OF INSTALLED EQUIPMENT INSTALL LIQUIDTIGHT FLEX AND THHN/THWN-2 FROM DISCONNECT TO HVAC EQUIPMENT. REFER TO PANEL SCHEDULE FOR WIRE SIZE.
7. INSTALL GARBAGE DISPOSAL "AIR SWITCH" INSINKERATOR "SINKTOP SWITCH" OR EQUAL. PROVIDE SINK WITH ADDITIONAL "KNOCKOUT" FOR PUSHBUTTON.
8. CONTINUOUSLY RUNNING EXHAUST FAN (REFER TO MECHANICAL PLANS. LABEL SWITCH: "WHOLE HOUSE FAN DISCONNECT SWITH TO REMAIN ON AT ALL TIMES. TURING FAN OFF WILL DETERIORATE INDOOR AIR QUALITY."
9. RECESSED UNIT ELECTRICAL PANEL "P#"
10. STRUCTURED MEDIA ENCLOSURE (REFER TO SPECIFICATIONS BY OTHER) PROVIDE RECEPTACLE INSIDE ENCLOSURE.
11. PROVIDE MEDIA PASS-THRU PER DETAIL 9 / E0.01
12. GFCI PROTECTED RECEPTACLE MOUNTED IN DRAWER MILLWORK. REFER TO ARCHITECTUAL PLANS FOR DETAILS.
13. SMOKE FIRE DAMPER FOR SUPPLY FAN. PROVIDE POWER AS REQUIRED.

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19TH & HARRISON

Oakland, CA

NO.	ISSUE	DATE
1	PLAN CHECK RESPONSE #1/GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

APPROVAL

CONSULTANT

UNIT PLAN TYPE A

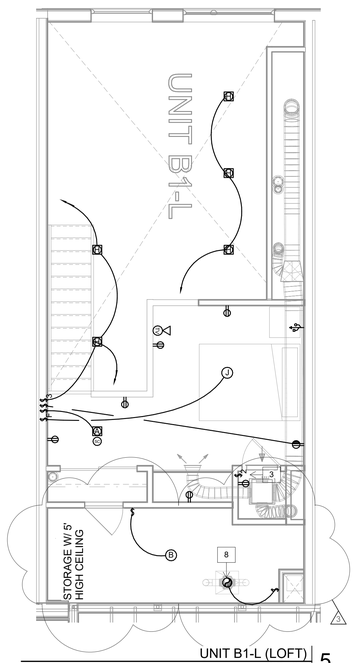
PROJECT NO: X6-059

DATE: 05/12/17

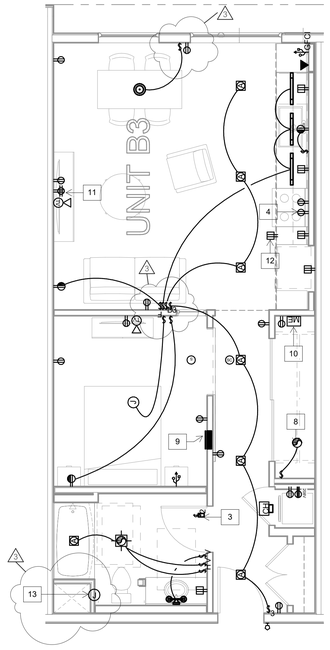
SHEET NO:

E4.1

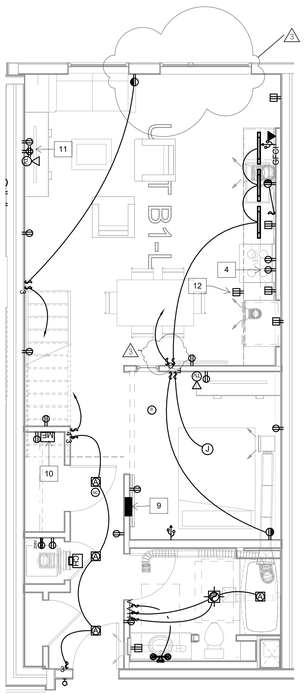
ADDENDUM #1



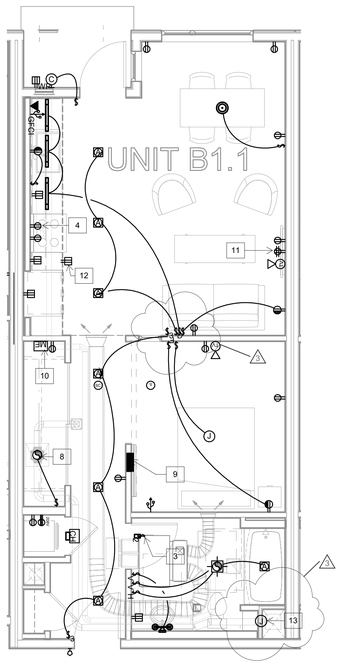
UNIT B1-L (LOFT) 5
1/4" = 1'-0"



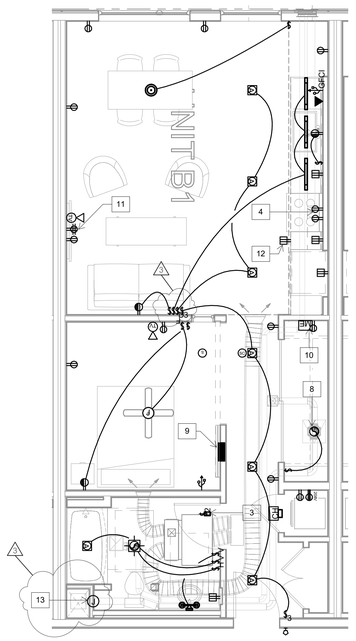
UNIT B1.3 6
1/4" = 1'-0"



UNIT B1-L 4
1/4" = 1'-0"



UNIT B1.1 2
1/4" = 1'-0"



UNIT B1 1
1/4" = 1'-0"

UNIT PLANS NOTES

1. INTERIOR RESIDENTIAL UNIT WIRING PERMITTED TO BE TYPE NM CABLE IN ACCORDANCE WITH NEC ARTICLE 334 AND LOCAL CODES. MINIMUM WIRING SIZE PER THE 60 DEGREE C COLUMN OF NEC TABLE 310.15(B)(16) I.E. #14 CU FOR 15A CIRCUIT BREAKERS AND #12 CU FOR 20A CIRCUIT BREAKERS).
2. REFER TO "TYPICAL DEVICE HEIGHT INSTALLATION DETAIL" ON SHEET E0.01 FOR TYPICAL DEVICE HEIGHTS AND DETAIL 10 / E0.08 FOR REQUIRED ACCESSIBLE OUTLET LOCATION AT CORNER CONDITIONS.
3. REFER TO STATE OF CALIFORNIA MANDATORY MEASURES ON SHEET E0.01 FOR LUMINAIRE AND CONTROL REQUIREMENTS.
4. SMOKE AND CARBON MONOXIDE DETECTORS SHALL BE PERMANENTLY WIRED INTO THE UNITS AC POWER LINE AND, IF MORE THAN ONE DETECTOR IS REQUIRED TO BE INSTALLED WITHIN THE UNIT, THE DETECTORS SHALL BE WIRED SO THAT THE ACTUATION OF ONE DETECTOR WILL ACTUATE ALL THE DETECTORS IN THE UNIT. DETECTORS HAVE NO OTHER DISCONNECT OTHER THAN THAT FOR OVERCURRENT AND SHALL HAVE INTEGRAL BATTERY BACKUPS. ALL SMOKE AND CARBON MONOXIDE DETECTORS SHALL BE LISTED WITH THE STATE FIRE MARSHALL AND LOCATED A MINIMUM OF 3FT AWAY FROM A HVAC SUPPLY OR RETURN. SMOKE DETECTORS TO BE: BRK# 9120 OR EQUAL. COMBINATION SMOKE/CARBON MONOXIDE DETECTORS TO BE: BRK# SC9120B OR EQUAL.
5. PROVIDE SLOPE ADAPTERS AS REQUIRED FOR RECESSED DOWNLIGHTS FOR SLOPED CEILINGS.
6. RECESSED NONMETALLIC ELECTRICAL BOXES MAY BE USED IN RESIDENTIAL UNITS PROVIDED THAT THEIR SIZE DOES NOT EXCEED THE MAXIMUM SPECIFICATIONS OF THE SELECTED LISTED FIRE STOPPING SYSTEM TO MAINTAIN THE RATING OF THE ASSEMBLY.
7. OUTLET BOXES IN OPPOSITE FACES OF PARTY WALLS SHALL BE SEPARATED BY 16" (MINIMUM).
8. LIGHT SWITCHES SHALL BE INSTALLED ON ACTIVE SIDE OF SLIDING GLASS DOORS AND STRIKE SIDE OF HINGED DOORS.
9. REFER TO MECHANICAL PLANS FOR EXHAUST FAN SCHEDULE AND PROVIDE CONTROLS AS REQUIRED. EXHAUST FANS SHOWN NOTED AS "CONTINUOUSLY RUNNING" SHALL HAVE A DISCONNECT SWITCH (EITHER LOCAL OR REMOTE) IF REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
10. ALL 15 AND 20A BRANCH CIRCUIT THAT SUPPLY OUTLETS INSTALLED IN DWELLING UNIT FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED COMBINATION TYPE ARC-FAULT CIRCUIT INTERRUPTER.
11. ALL DWELLING UNIT 15 AND 20 AMP RECEPTACLES SHALL BE LISTED TAMPER RESISTANT RECEPTACLES.
12. ALL 15 AND 20 AMP RECEPTACLES INSTALLED IN BATHROOMS, OUTDOORS, WITHIN 6FT OF SINKS, KITCHEN COUNTERTOPS, AND GARAGES (INCLUDING GARAGE DOOR OPENER AND EQUIPMENT RECEPTACLES) SHALL BE GFCI PROTECTED.
13. VERIFY EXHAUST FAN SWITCHING REQUIREMENTS WITH MECHANICAL PLANS. WHERE HUMIDISTAT WALL SWITCHES ARE SHOWN AND EXHAUST FAN HAS AN INTEGRAL HUMIDISTAT PROVIDE SWITCHING AND WIRING PER MANUFACTURER'S INSTRUCTIONS.
14. PROVIDE NEUTRAL CONDUCTOR AT EACH SWITCH LOCATION PER NEC 404.2 (C).
15. ALL UNIT LOADCENTERS SHALL BE PAINTED WHITE BY THE MANUFACTURER

LIGHTING FIXTURE LEGEND

REFER TO SHEET E0.1 FOR SPECIFICATIONS

- LED SURFACE MOUNTED FAUX CANLIGHT
- (B) SURFACE MOUNT IN WALK-IN CLOSET
- WALL LIGHT WITH INTEGRAL PHOTOCELL (WET LOCATION)
- HIGH EFFICACY BATHROOM VANITY FIXTURE ILLUMINATED MIRROR ADD ALT.
- HIGH EFFICACY DECORATIVE DINING AREA PENDENT
- EXHAUST FAN LIGHT COMBO REFER TO WIRING DIAGRAM DETAIL 9/E-0.08
- UNIT SUPPLY FAN REFER TO KEYNOTE #8
- LED UNDERCABINET LIGHT (HIGH EFFICACY) LENGTH PER PLAN CONCEAL TRANSFROMER WHERE ACCESSIBLE
- LED RECESSED CAN LIGHT AT UNIT LOFT VOLUME CEILING
- (J) CEILING MOUNTED JUNCTION BOX (ADD ALTERNATE) PROVIDE BACKING FOR FUTURE CEILING FAN INSTALL WALL SWITCH BLANK INSERT AT WALL SWITCH LOCATION LEVITON 80414-W (OR EQUAL)

ELECTRICAL DEVICE LEGEND

REFER TO SHEET E0.1 FOR SPECIFICATIONS AND MOUNTING HEIGHTS

- $ SINGLE POLE SWITCH
- $V MANUAL ON - AUTOMATIC OFF "VACANCY" SENSOR SWITCH
- $H SMART SENSE FAN SWITCH REFER TO DETAIL 6 / E-010
- $D DIMMER SWITCH
- $3 3 WAY SWITCH
- $3d 3 WAY DIMMER SWITCH
- $4 4 WAY SWITCH
- $F CEILING FAN WALL SWTICH BLANK
- DUPLEX RECEPTACLE
- QUAD-PLEX RECEPTACLE
- SPLIT WIRED "HALF-HOT" RECEPTACLE
- FLOOR MOUNTED DUPLEX RECEPTACLE
- GFCI PROTECTED RECEPTACLE
- WP GFCI PROTECTED RECEPTACLE W/ WEATHERPROOF COVER
- DUPLEX USB CHARGING RECEPTACLE LEVITON# T5832 OR EQUAL
- DUPLEX USB CHARGING RECEPTACLE (GFCI PROTECTED)
- 208V GFCI RECEPATCLE FOR DRYER / RANGE NEMA 14-30R @ DRYER NEMA 14-50R @ RANGE (VERIFY WITH EQUIPMENT SPECIFICATION)
- S SMOKE DETECTOR
- SC COMBINATION SMOKE / CARBON MONOXIDE DETECTOR
- RECESSED ELECTRICAL PANEL
- UNIT SUPPLY FAN FAN PER MECHANICAL PLANS COORDIANTE WORK WITH MECHANICAL

ELECTRICAL DEVICE LEGEND

SHOWN FOR LOCATION ONLY. REFER TO SPECIFICATIONS BY OTHER.

- TELEPHONE OUTLET
- DATA OUTLET
- TV TELEVISION OUTLET
- PUSH-BUTTON SWITCH
- CH DOOR BELL CHIME
- MD MEDIA DISTRIBUTION ENCLOSURE

ELECTRICAL KEY NOTES

1. DRYER BOOSTER FANPROVIDE DISCONNECT SWTICH ADJACENT TO ACCESS PANEL AS REQUIRED. COORDINATE WORK WITH HVAC INSTALLER.
2. PROVIDE LIGHT, SWITCH, RECEPTACLE IN ATTIC.
3. PROVIDE FORCED AIR UNIT DISCONNECT SWITCH ATTACHED TO EQUIPMENT IN ATTIC. PROVIDE POWER FOR CONDENSATE PUMP IF REQUIRED. REFER TO MECHANICAL PLANS FOR REQUIREMENTS.
4. PROVIDE RECEPTACLE AT GAS RANGE @ +18" AFF PROVIDE DEDICATED RECEPTACLE FOR MICROWAVE AND HOOD @ +7'-0" AFF (VERIFY). RELOCATE MICROWAVE RECEPTACLE TO COUNTERTOP AND PROVIDE WALL SWITCH @ +44" TO TOP OF BOX FOR KITCHEN EXHAUST HOOD AT ACCESSIBLE UNITS.
5. CONDENSING UNIT DISCONNECT SWITH MOUNT @ +24" AFF 30A/2P FUSIBLE DISCONNECT (NEMA 3-R RATED) FUSE AS INDICATED ON NAMEPLATE OF INSTALLED EQUIPMENT INSTALL LIQUIDTIGHT FLEX AND THHN/THWN-2 FROM DISCONNECT TO HVAC EQUIPMENT. REFER TO PANEL SCHEDULE FOR WIRE SIZE.
6. CONDENSING UNIT DISCONNECT SWITH MOUNT @ +24" AFF 60A/2P FUSIBLE DISCONNECT (NEMA 3-R RATED) FUSE AS INDICATED ON NAMEPLATE OF INSTALLED EQUIPMENT INSTALL LIQUIDTIGHT FLEX AND THHN/THWN-2 FROM DISCONNECT TO HVAC EQUIPMENT. REFER TO PANEL SCHEDULE FOR WIRE SIZE.
7. INSTALL GARBAGE DISPOSAL "AIR SWITCH" INSINKERATOR "SINKTOP SWITCH" OR EQUAL. PROVIDE SINK WITH ADDITIONAL "KNOCKOUT" FOR PUSHBUTTON.
8. CONTINUOUSLY RUNNING EXHAUST FAN (REFER TO MECHANICAL PLANS. LABEL SWITCH: "WHOLE HOUSE FAN DISCONNECT SWITH TO REMAIN ON AT ALL TIMES. TURING FAN OFF WILL DETERIORATE INDOOR AIR QUALITY."
9. RECESSED UNIT ELECTRICAL PANEL "P#"
10. STRUCTURED MEDIA ENCLOSURE (REFER TO SPECIFICATIONS BY OTHER) PROVIDE RECEPTACLE INSIDE ENCLOSURE.
11. PROVIDE MEDIA PASS-THRU PER DETAIL 9 / E0.01
12. GFCI PROTECTED RECEPTACLE MOUNTED IN DRAWER MILLWORK. REFER TO ARCHITECTUAL PLANS FOR DETAILS.
13. SMOKE FIRE DAMPER FOR SUPPLY FAN. PROVIDE POWER AS REQUIRED.

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San Juan Capistrano, CA 92675
Ph. 949.201.1333
candelaengineering.com

19TH & HARRISON

Oakland, CA

NO.	ISSUE	DATE
1	PLAN CHECK RESPONSE #1/GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

APPROVAL

CONSULTANT

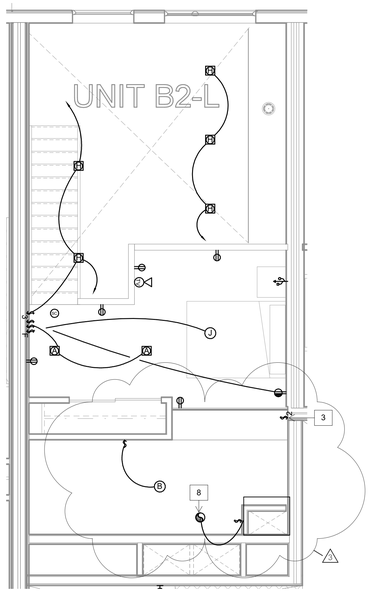
UNIT PLAN TYPE B

PROJECT NO: X6-059
DATE: 05/12/17

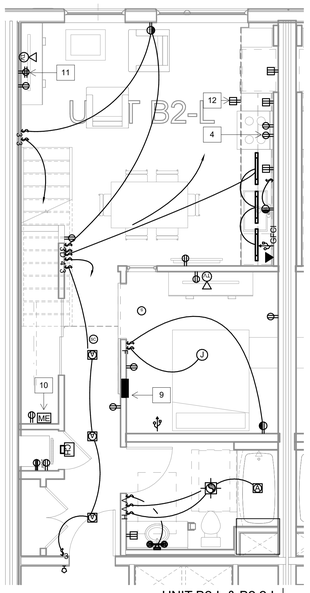
SHEET NO:

E4.2

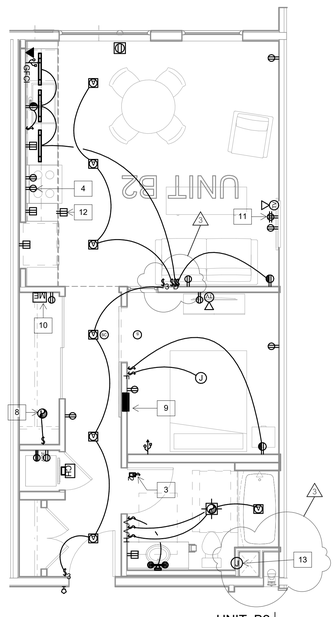
ADDENDUM #1



UNIT B2-L & B2.2-L (LOFT) | 8
1/4" = 1'-0"



UNIT B2-L & B2.2-L | 7
1/4" = 1'-0"



UNIT B2 | 1
1/4" = 1'-0"

UNIT PLANS NOTES

1. INTERIOR RESIDENTIAL UNIT WIRING PERMITTED TO BE TYPE NM CABLE IN ACCORDANCE WITH NEC ARTICLE 334 AND LOCAL CODES. MINIMUM WIRING SIZE PER THE 60 DEGREE C COLUMN OF NEC TABLE 310.15(B)(16) (I.E. #14 CU FOR 15A CIRCUIT BREAKERS AND #12 CU FOR 20A CIRCUIT BREAKERS).
2. REFER TO "TYPICAL DEVICE HEIGHT INSTALLATION DETAIL" ON SHEET E0.01 FOR TYPICAL DEVICE HEIGHTS AND DETAIL 10 / E0.08 FOR REQUIRED ACCESSIBLE OUTLET LOCATION AT CORNER CONDITIONS.
3. REFER TO STATE OF CALIFORNIA MANDATORY MEASURES ON SHEET E0.01 FOR LUMINAIRE AND CONTROL REQUIREMENTS.
4. SMOKE AND CARBON MONOXIDE DETECTORS SHALL BE PERMANENTLY WIRED INTO THE UNITS AC POWER LINE AND, IF MORE THAN ONE DETECTOR IS REQUIRED TO BE INSTALLED WITHIN THE UNIT, THE DETECTORS SHALL BE WIRED SO THAT THE ACTUATION OF ONE DETECTOR WILL ACTUATE ALL THE DETECTORS IN THE UNIT. DETECTORS HAVE NO OTHER DISCONNECT OTHER THAN THAT FOR OVERCURRENT AND SHALL HAVE INTEGRAL BATTERY BACKUPS. ALL SMOKE AND CARBON MONOXIDE DETECTORS SHALL BE LISTED WITH THE STATE FIRE MARSHALL AND LOCATED A MINIMUM OF 3FT AWAY FROM A HVAC SUPPLY OR RETURN. SMOKE DETECTORS TO BE: BRK# 9120 OR EQUAL. COMBINATION SMOKE/CARBON MONOXIDE DETECTORS TO BE: BRK# SC9120B OR EQUAL.
5. PROVIDE SLOPE ADAPTERS AS REQUIRED FOR RECESSED DOWNLIGHTS FOR SLOPED CEILINGS.
6. RECESSED NONMETALLIC ELECTRICAL BOXES MAY BE USED IN RESIDENTIAL UNITS PROVIDED THAT THEIR SIZE DOES NOT EXCEED THE MAXIMUM SPECIFICATIONS OF THE SELECTED LISTED FIRE STOPPING SYSTEM TO MAINTAIN THE RATING OF THE ASSEMBLY.
7. OUTLET BOXES IN OPPOSITE FACES OF PARTY WALLS SHALL BE SEPARATED BY 16" (MINIMUM).
8. LIGHT SWITCHES SHALL BE INSTALLED ON ACTIVE SIDE OF SLIDING GLASS DOORS AND STRIKE SIDE OF HINGED DOORS.
9. REFER TO MECHANICAL PLANS FOR EXHAUST FAN SCHEDULE AND PROVIDE CONTROLS AS REQUIRED. EXHAUST FANS SHOWN NOTED AS "CONTINUOUSLY RUNNING" SHALL HAVE A DISCONNECT SWITCH (EITHER LOCAL OR REMOTE) IF REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
10. ALL 15 AND 20A BRANCH CIRCUIT THAT SUPPLY OUTLETS INSTALLED IN DWELLING UNIT FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED COMBINATION TYPE ARC-FAULT CIRCUIT INTERRUPTER.
11. ALL DWELLING UNIT 15 AND 20 AMP RECEPTACLES SHALL BE LISTED TAMPER RESISTANT RECEPTACLES.
12. ALL 15 AND 20 AMP RECEPTACLES INSTALLED IN BATHROOMS, OUTDOORS, WITHIN 6FT OF SINKS, KITCHEN COUNTERTOPS, AND GARAGES (INCLUDING GARAGE DOOR OPENER AND EQUIPMENT RECEPTACLES) SHALL BE GFCI PROTECTED.
13. VERIFY EXHAUST FAN SWITCHING REQUIREMENTS WITH MECHANICAL PLANS. WHERE HUMIDISTAT WALL SWITCHES ARE SHOWN AND EXHAUST FAN HAS AN INTEGRAL HUMIDISTAT PROVIDE SWITCHING AND WIRING PER MANUFACTURER'S INSTRUCTIONS.
14. PROVIDE NEUTRAL CONDUCTOR AT EACH SWITCH LOCATION PER NEC 404.2 (C).
15. ALL UNIT LOADCENTERS SHALL BE PAINTED WHITE BY THE MANUFACTURER

LIGHTING FIXTURE LEGEND

REFER TO SHEET E0.1 FOR SPECIFICATIONS

- LED SURFACE MOUNTED FAUX CANLIGHT
- B — SURFACE MOUNT IN WALK-IN CLOSET
- WALL LIGHT WITH INTEGRAL PHOTOCELL (WET LOCATION)
- HIGH EFFICACY BATHROOM VANITY FIXTURE ILLUMINATED MIRROR ADD ALT.
- HIGH EFFICACY DECORATIVE DINING AREA PENDENT
- EXHAUST FAN LIGHT COMBO REFER TO WIRING DIAGRAM DETAIL 9/E-0.08
- UNIT SUPPLY FAN REFER TO KEYNOTE #8
- LED UNDERCABINET LIGHT (HIGH EFFICACY) LENGTH PER PLAN CONCEAL TRANSFROMER WHERE ACCESSIBLE
- LED RECESSED CAN LIGHT AT UNIT LOFT VOLUME CEILING
- J — CEILING MOUNTED JUNCTION BOX (ADD ALTERNATE) PROVIDE BACKING FOR FUTURE CEILING FAN INSTALL WALL SWITCH BLANK INSERT AT WALL SWITCH LOCATION LEVITON 80414-W (OR EQUAL)

ELECTRICAL DEVICE LEGEND

REFER TO SHEET E0.1 FOR SPECIFICATIONS AND MOUNTING HEIGHTS

- $ — SINGLE POLE SWITCH
- $V — MANUAL ON - AUTOMATIC OFF "VACANCY" SENSOR SWITCH
- $H — SMART SENSE FAN SWITCH REFER TO DETAIL 6 / E-010
- $D — DIMMER SWITCH
- $3 — 3 WAY SWITCH
- $3d — 3 WAY DIMMER SWITCH
- $4 — 4 WAY SWITCH
- $F — CEILING FAN WALL SWTICH BLANK
- DUPLEX RECEPTACLE
- QUAD-PLEX RECEPTACLE
- SPLIT WIRED "HALF-HOT" RECEPTACLE
- FLOOR MOUNTED DUPLEX RECEPTACLE
- GFCI PROTECTED RECEPTACLE
- WP — GFCI PROTECTED RECEPTACLE W/ WEATHERPROOF COVER
- DUPLEX USB CHARGING RECEPTACLE LEVITON# T5832 OR EQUAL
- DUPLEX USB CHARGING RECEPTACLE (GFCI PROTECTED)
- 208V RECEPATCLE FOR DRYER / RANGE NEMA 14-30R @ DRYER NEMA 14-50R @ RANGE (VERIFY WITH EQUIPMENT SPECIFICATION)
- S — SMOKE DETECTOR
- SC — COMBINATION SMOKE / CARBON MONOXIDE DETECTOR
- RECESSED ELECTRICAL PANEL
- UNIT SUPPLY FAN FAN PER MECHANICAL PLANS COORDIANTE WORK WITH MECHANICAL

ELECTRICAL DEVICE LEGEND

SHOWN FOR LOCATION ONLY. REFER TO SPECIFICATIONS BY OTHER.

- TELEPHONE OUTLET
- DATA OUTLET
- TV — TELEVISION OUTLET
- PUSH-BUTTON SWITCH
- CH — DOOR BELL CHIME
- MD — MEDIA DISTRIBUTION ENCLOSURE

ELECTRICAL KEY NOTES

1. DRYER BOOSTER FANPROVIDE DISCONNECT SWTICH ADJACENT TO ACCESS PANEL AS REQUIRED. COORDINATE WORK WITH HVAC INSTALLER.
2. PROVIDE LIGHT, SWITCH, RECEPTACLE IN ATTIC.
3. PROVIDE FORCED AIR UNIT DISCONNECT SWITCH ATTACHED TO EQUIPMENT IN ATTIC. PROVIDE POWER FOR CONDENSATE PUMP IF REQUIRED. REFER TO MECHANICAL PLANS FOR REQUIREMENTS.
4. PROVIDE RECEPTACLE AT GAS RANGE @ +18" AFF PROVIDE DEDICATED RECEPTACLE FOR MICROWAVE AND HOOD @ +7'-0" AFF (VERIFY). RELOCATE MICROWAVE RECEPTACLE TO COUNTERTOP AND PROVIDE WALL SWTICH @ +44" TO TOP OF BOX FOR KITCHEN EXHAUST HOOD AT ACCESSIBLE UNITS.
5. CONDENSING UNIT DISCONNECT SWITH MOUNT @ +24" AFF 30A/2P FUSIBLE DISCONNECT (NEMA 3-R RATED) FUSE AS INDICATED ON NAMEPLATE OF INSTALLED EQUIPMENT INSTALL LIQUIDTIGHT FLEX AND THHN/THWN-2 FROM DISCONNECT TO HVAC EQUIPMENT. REFER TO PANEL SCHEDULE FOR WIRE SIZE.
6. CONDENSING UNIT DISCONNECT SWITH MOUNT @ +24" AFF 60A/2P FUSIBLE DISCONNECT (NEMA 3-R RATED) FUSE AS INDICATED ON NAMEPLATE OF INSTALLED EQUIPMENT INSTALL LIQUIDTIGHT FLEX AND THHN/THWN-2 FROM DISCONNECT TO HVAC EQUIPMENT. REFER TO PANEL SCHEDULE FOR WIRE SIZE.
7. INSTALL GARBAGE DISPOSAL "AIR SWITCH" INSINKERATOR "SINKTOP SWITCH" OR EQUAL. PROVIDE SINK WITH ADDITIONAL "KNOCKOUT" FOR PUSHBUTTON.
8. CONTINUOUSLY RUNNING EXHAUST FAN (REFER TO MECHANICAL PLANS. LABEL SWITCH: "WHOLE HOUSE FAN DISCONNECT SWITH TO REMAIN ON AT ALL TIMES. TURING FAN OFF WILL DETERIORATE INDOOR AIR QUALITY."
9. RECESSED UNIT ELECTRICAL PANEL "P#"
10. STRUCTURED MEDIA ENCLOSURE (REFER TO SPECIFICATIONS BY OTHER) PROVIDE RECEPTACLE INSIDE ENCLOSURE.
11. PROVIDE MEDIA PASS-THRU PER DETAIL 9 / E0.01
12. GFCI PROTECTED RECEPTACLE MOUNTED IN DRAWER MILLWORK. REFER TO ARCHITECTUAL PLANS FOR DETAILS.
13. SMOKE FIRE DAMPER FOR SUPPLY FAN. PROVIDE POWER AS REQUIRED.

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19TH & HARRISON

Oakland, CA

NO.	ISSUE	DATE
1	PLAN CHECK RESPONSE #1/GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

APPROVAL

CONSULTANT

UNIT PLAN TYPE B

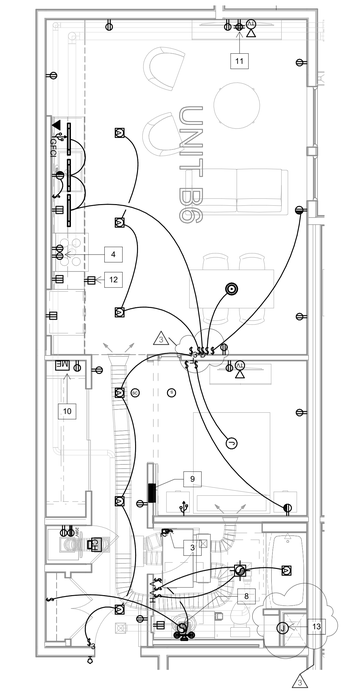
PROJECT NO: X6-059

DATE: 05/12/17

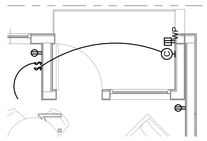
SHEET NO:

E4.3

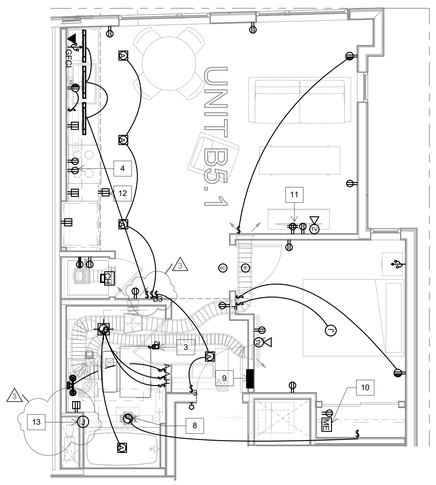
ADDENDUM #1



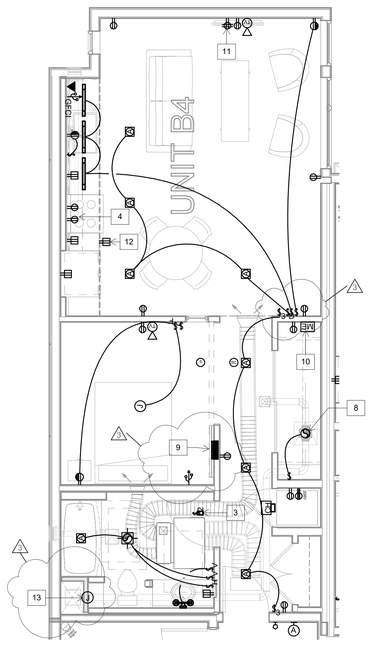
UNIT B6
1/4" = 1'-0" | 5



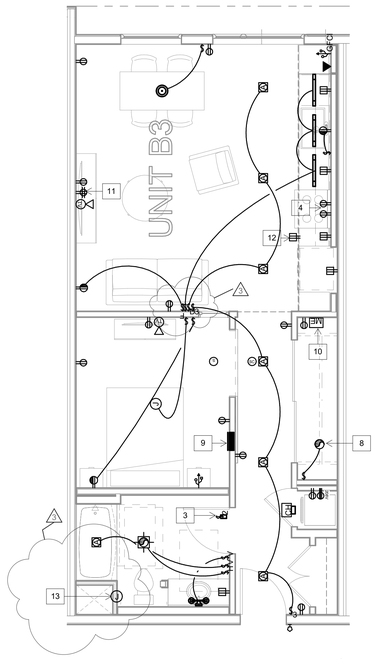
UNIT B3.1 PARTIAL
1/4" = 1'-0" | 2



UNIT B5 & B5.1
1/4" = 1'-0" | 4



UNIT B4
1/4" = 1'-0" | 3



UNIT B3
1/4" = 1'-0" | 1

UNIT PLANS NOTES

1. INTERIOR RESIDENTIAL UNIT WIRING PERMITTED TO BE TYPE NM CABLE IN ACCORDANCE WITH NEC ARTICLE 334 AND LOCAL CODES. MINIMUM WIRING SIZE PER THE 60 DEGREE C COLUMN OF NEC TABLE 310.15(B)(16) (I.E. #14 CU FOR 15A CIRCUIT BREAKERS AND #12 CU FOR 20A CIRCUIT BREAKERS).
2. REFER TO "TYPICAL DEVICE HEIGHT INSTALLATION DETAIL" ON SHEET E0.01 FOR TYPICAL DEVICE HEIGHTS AND DETAIL 10 / E0.08 FOR REQUIRED ACCESSIBLE OUTLET LOCATION AT CORNER CONDITIONS.
3. REFER TO STATE OF CALIFORNIA MANDATORY MEASURES ON SHEET E0.01 FOR LUMINAIRE AND CONTROL REQUIREMENTS.
4. SMOKE AND CARBON MONOXIDE DETECTORS SHALL BE PERMANENTLY WIRED INTO THE UNITS AC POWER LINE AND, IF MORE THAN ONE DETECTOR IS REQUIRED TO BE INSTALLED WITHIN THE UNIT, THE DETECTORS SHALL BE WIRED SO THAT THE ACTUATION OF ONE DETECTOR WILL ACTUATE ALL THE DETECTORS IN THE UNIT. DETECTORS HAVE NO OTHER DISCONNECT OTHER THAN THAT FOR OVERCURRENT AND SHALL HAVE INTEGRAL BATTERY BACKUPS. ALL SMOKE AND CARBON MONOXIDE DETECTORS SHALL BE LISTED WITH THE STATE FIRE MARSHALL AND LOCATED A MINIMUM OF 3FT AWAY FROM A HVAC SUPPLY OR RETURN. SMOKE DETECTORS TO BE: BRK# 9120 OR EQUAL. COMBINATION SMOKE/CARBON MONOXIDE DETECTORS TO BE: BRK# SC9120B OR EQUAL.
5. PROVIDE SLOPE ADAPTERS AS REQUIRED FOR RECESSED DOWNLIGHTS FOR SLOPED CEILINGS.
6. RECESSED NONMETALLIC ELECTRICAL BOXES MAY BE USED IN RESIDENTIAL UNITS PROVIDED THAT THEIR SIZE DOES NOT EXCEED THE MAXIMUM SPECIFICATIONS OF THE SELECTED LISTED FIRE STOPPING SYSTEM TO MAINTAIN THE RATING OF THE ASSEMBLY.
7. OUTLET BOXES IN OPPOSITE FACES OF PARTY WALLS SHALL BE SEPARATED BY 16" (MINIMUM).
8. LIGHT SWITCHES SHALL BE INSTALLED ON ACTIVE SIDE OF SLIDING GLASS DOORS AND STRIKE SIDE OF HINGED DOORS.
9. REFER TO MECHANICAL PLANS FOR EXHAUST FAN SCHEDULE AND PROVIDE CONTROLS AS REQUIRED. EXHAUST FANS SHOWN NOTED AS "CONTINUOUSLY RUNNING" SHALL HAVE A DISCONNECT SWITCH (EITHER LOCAL OR REMOTE) IF REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
10. ALL 15 AND 20A BRANCH CIRCUIT THAT SUPPLY OUTLETS INSTALLED IN DWELLING UNIT FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED COMBINATION TYPE ARC-FAULT CIRCUIT INTERRUPTER.
11. ALL DWELLING UNIT 15 AND 20 AMP RECEPTACLES SHALL BE LISTED TAMPER RESISTANT RECEPTACLES.
12. ALL 15 AND 20 AMP RECEPTACLES INSTALLED IN BATHROOMS, OUTDOORS, WITHIN 6FT OF SINKS, KITCHEN COUNTERTOPS, AND GARAGES (INCLUDING GARAGE DOOR OPENER AND EQUIPMENT RECEPTACLES) SHALL BE GFCI PROTECTED.
13. VERIFY EXHAUST FAN SWITCHING REQUIREMENTS WITH MECHANICAL PLANS. WHERE HUMIDISTAT WALL SWITCHES ARE SHOWN AND EXHAUST FAN HAS AN INTEGRAL HUMIDISTAT PROVIDE SWITCHING AND WIRING PER MANUFACTURER'S INSTRUCTIONS.
14. PROVIDE NEUTRAL CONDUCTOR AT EACH SWITCH LOCATION PER NEC 404.2 (C).
15. ALL UNIT LOADCENTERS SHALL BE PAINTED WHITE BY THE MANUFACTURER

LIGHTING FIXTURE LEGEND

REFER TO SHEET E0.1 FOR SPECIFICATIONS

- LED SURFACE MOUNTED FAUX CANLIGHT
- B — SURFACE MOUNT IN WALK-IN CLOSET
- WALL LIGHT WITH INTEGRAL PHOTOCELL (WET LOCATION)
- HIGH EFFICACY BATHROOM VANITY FIXTURE ILLUMINATED MIRROR ADD ALT.
- HIGH EFFICACY DECORATIVE DINING AREA PENDENT
- EXHAUST FAN LIGHT COMBO REFER TO WIRING DIAGRAM DETAIL 9/E-0.08
- UNIT SUPPLY FAN REFER TO KEYNOTE #8
- LED UNDERCABINET LIGHT (HIGH EFFICACY) LENGTH PER PLAN CONCEAL TRANSFROMER WHERE ACCESSIBLE
- LED RECESSED CAN LIGHT AT UNIT LOFT VOLUME CEILING
- J — CEILING MOUNTED JUNCTION BOX (ADD ALTERNATE) PROVIDE BACKING FOR FUTURE CEILING FAN INSTALL WALL SWITCH BLANK INSERT AT WALL SWITCH LOCATION LEVITON 80414-W (OR EQUAL)

ELECTRICAL DEVICE LEGEND

REFER TO SHEET E0.1 FOR SPECIFICATIONS AND MOUNTING HEIGHTS

- $ — SINGLE POLE SWITCH
- $V — MANUAL ON - AUTOMATIC OFF "VACANCY" SENSOR SWITCH
- $H — SMART SENSE FAN SWITCH REFER TO DETAIL 6 / E-010
- $D — DIMMER SWITCH
- $3 — 3 WAY SWITCH
- $3d — 3 WAY DIMMER SWITCH
- $4 — 4 WAY SWITCH
- $F — CEILING FAN WALL SWTICH BLANK
- DUPLEX RECEPTACLE
- QUAD-PLEX RECEPTACLE
- SPLIT WIRED "HALF-HOT" RECEPTACLE
- FLOOR MOUNTED DUPLEX RECEPTACLE
- GFCI PROTECTED RECEPTACLE
- WP — GFCI PROTECTED RECEPTACLE W/ WEATHERPROOF COVER
- DUPLEX USB CHARGING RECEPTACLE LEVITON# T5832 OR EQUAL
- DUPLEX USB CHARGING RECEPTACLE (GFCI PROTECTED)
- GFCI 208V — 208V RECEPATCLE FOR DRYER / RANGE NEMA 14-30R @ DRYER NEMA 14-50R @ RANGE (VERIFY WITH EQUIPMENT SPECIFICATION)
- S — SMOKE DETECTOR
- SC — COMBINATION SMOKE / CARBON MONOXIDE DETECTOR
- RECESSED ELECTRICAL PANEL
- UNIT SUPPLY FAN FAN PER MECHANICAL PLANS COORDIANTE WORK WITH MECHANICAL

ELECTRICAL DEVICE LEGEND

SHOWN FOR LOCATION ONLY. REFER TO SPECIFICATIONS BY OTHER.

- TELEPHONE OUTLET
- DATA OUTLET
- TV — TELEVISION OUTLET
- PUSH-BUTTON SWITCH
- DBC — DOOR BELL CHIME
- MD — MEDIA DISTRIBUTION ENCLOSURE

ELECTRICAL KEY NOTES

1. DRYER BOOSTER FANPROVIDE DISCONNECT SWTICH ADJACENT TO ACCESS PANEL AS REQUIRED. COORDINATE WORK WITH HVAC INSTALLER.
2. PROVIDE LIGHT, SWITCH, RECEPTACLE IN ATTIC.
3. PROVIDE FORCED AIR UNIT DISCONNECT SWITCH ATTACHED TO EQUIPMENT IN ATTIC. PROVIDE POWER FOR CONDENSATE PUMP IF REQUIRED. REFER TO MECHANICAL PLANS FOR REQUIREMENTS.
4. PROVIDE RECEPTACLE AT GAS RANGE @ +18" AFF PROVIDE DEDICATED RECEPTACLE FOR MICROWAVE AND HOOD @ +7'-0" AFF (VERIFY). RELOCATE MICROWAVE RECEPTACLE TO COUNTERTOP AND PROVIDE WALL SWITCH @ +44" TO TOP OF BOX FOR KITCHEN EXHAUST HOOD AT ACCESSIBLE UNITS.
5. CONDENSING UNIT DISCONNECT SWITH MOUNT @ +24" AFF 30A/2P FUSIBLE DISCONNECT (NEMA 3-R RATED) FUSE AS INDICATED ON NAMEPLATE OF INSTALLED EQUIPMENT INSTALL LIQUIDTIGHT FLEX AND THHN/THWN-2 FROM DISCONNECT TO HVAC EQUIPMENT. REFER TO PANEL SCHEDULE FOR WIRE SIZE.
6. CONDENSING UNIT DISCONNECT SWITH MOUNT @ +24" AFF 60A/2P FUSIBLE DISCONNECT (NEMA 3-R RATED) FUSE AS INDICATED ON NAMEPLATE OF INSTALLED EQUIPMENT INSTALL LIQUIDTIGHT FLEX AND THHN/THWN-2 FROM DISCONNECT TO HVAC EQUIPMENT. REFER TO PANEL SCHEDULE FOR WIRE SIZE.
7. INSTALL GARBAGE DISPOSAL "AIR SWITCH" INSINKERATOR "SINKTOP SWITCH" OR EQUAL. PROVIDE SINK WITH ADDITIONAL "KNOCKOUT" FOR PUSHBUTTON.
8. CONTINUOUSLY RUNNING EXHAUST FAN (REFER TO MECHANICAL PLANS. LABEL SWITCH: "WHOLE HOUSE FAN DISCONNECT SWITH TO REMAIN ON AT ALL TIMES. TURING FAN OFF WILL DETERIORATE INDOOR AIR QUALITY."
9. RECESSED UNIT ELECTRICAL PANEL "P#"
10. STRUCTURED MEDIA ENCLOSURE (REFER TO SPECIFICATIONS BY OTHER) PROVIDE RECEPTACLE INSIDE ENCLOSURE.
11. PROVIDE MEDIA PASS-THRU PER DETAIL 9 / E0.01
12. GFCI PROTECTED RECEPTACLE MOUNTED IN DRAWER MILLWORK. REFER TO ARCHITECTUAL PLANS FOR DETAILS.
13. SMOKE FIRE DAMPER FOR SUPPLY FAN. PROVIDE POWER AS REQUIRED.

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19TH & HARRISON

Oakland, CA

NO.	ISSUE	DATE
1	PLAN CHECK RESPONSE #1/GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

APPROVAL

CONSULTANT

UNIT PLAN TYPE B

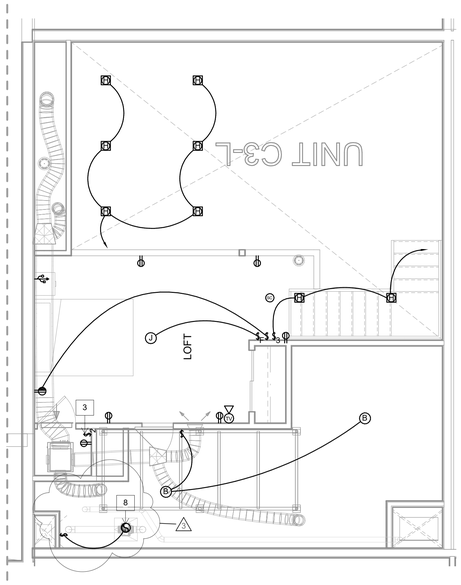
PROJECT NO: X6-059

DATE: 05/12/17

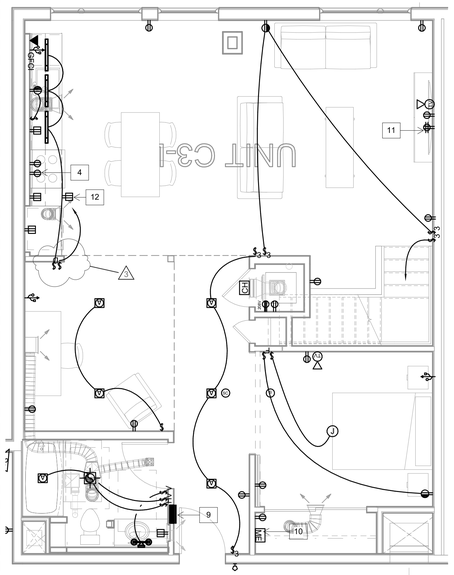
SHEET NO:

E4.4

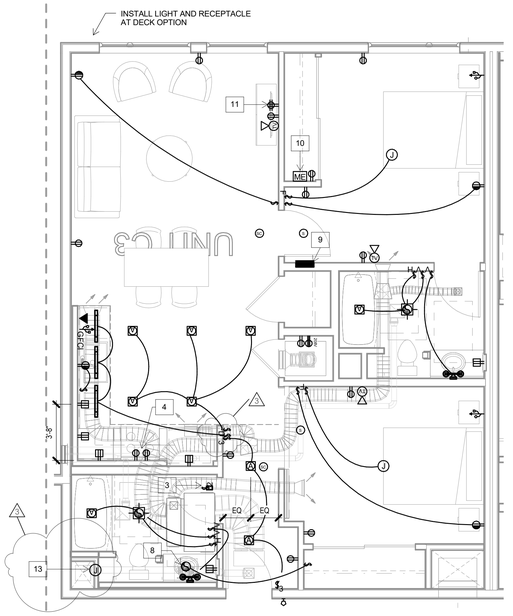
ADDENDUM #1



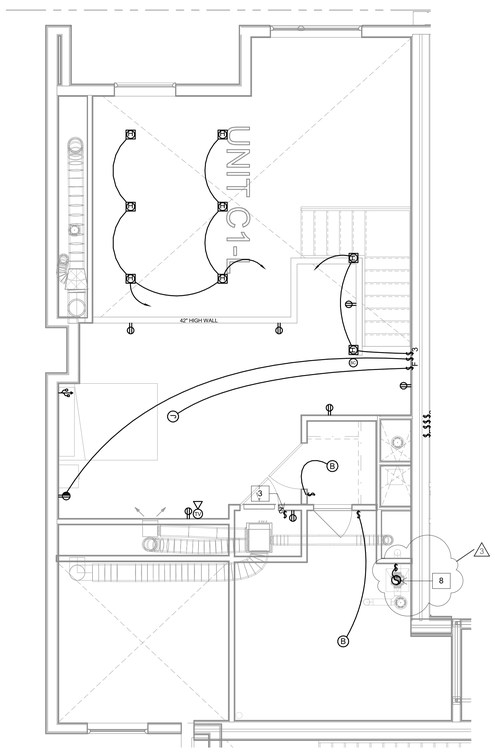
UNIT C3-L (LOFT) 6
1/4" = 1'-0"



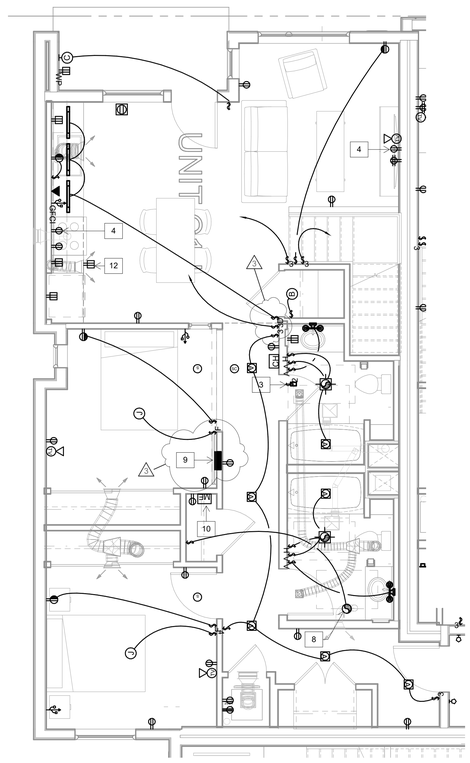
UNIT C3-L 5
1/4" = 1'-0"



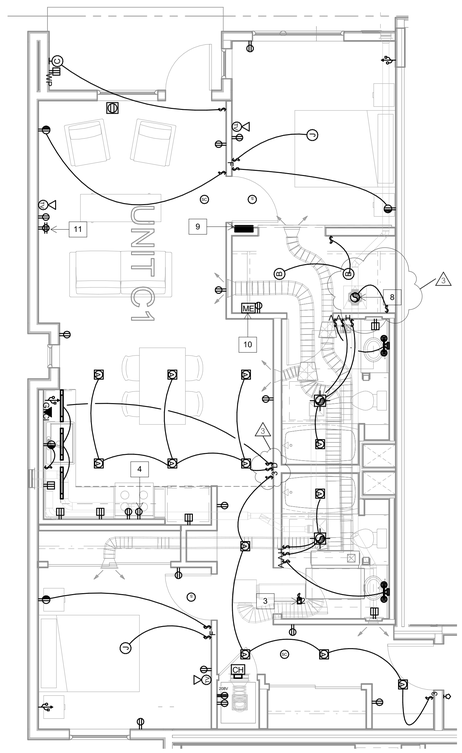
UNIT C3 4
1/4" = 1'-0"



UNIT C1-L (LOFT) 2
1/4" = 1'-0"



UNIT C1-L 3
1/4" = 1'-0"



UNIT C1 1
1/4" = 1'-0"

UNIT PLANS NOTES

1. INTERIOR RESIDENTIAL UNIT WIRING PERMITTED TO BE TYPE NM CABLE IN ACCORDANCE WITH NEC ARTICLE 334 AND LOCAL CODES. MINIMUM WIRING SIZE PER THE 60 DEGREE C COLUMN OF NEC TABLE 310.15(B)(16) (I.E. #14 CU FOR 15A CIRCUIT BREAKERS AND #12 CU FOR 20A CIRCUIT BREAKERS).
2. REFER TO "TYPICAL DEVICE HEIGHT INSTALLATION DETAIL" ON SHEET E0.01 FOR TYPICAL DEVICE HEIGHTS AND DETAIL 10 / E0.08 FOR REQUIRED ACCESSIBLE OUTLET LOCATION AT CORNER CONDITIONS.
3. REFER TO STATE OF CALIFORNIA MANDATORY MEASURES ON SHEET E0.01 FOR LUMINAIRE AND CONTROL REQUIREMENTS.
4. SMOKE AND CARBON MONOXIDE DETECTORS SHALL BE PERMANENTLY WIRED INTO THE UNITS AC POWER LINE AND, IF MORE THAN ONE DETECTOR IS REQUIRED TO BE INSTALLED WITHIN THE UNIT, THE DETECTORS SHALL BE WIRED SO THAT THE ACTUATION OF ONE DETECTOR WILL ACTUATE ALL THE DETECTORS IN THE UNIT. DETECTORS HAVE NO OTHER DISCONNECT OTHER THAN THAT FOR OVERCURRENT AND SHALL HAVE INTEGRAL BATTERY BACKUPS. ALL SMOKE AND CARBON MONOXIDE DETECTORS SHALL BE LISTED WITH THE STATE FIRE MARSHALL AND LOCATED A MINIMUM OF 3FT AWAY FROM A HVAC SUPPLY OR RETURN. SMOKE DETECTORS TO BE: BRK# 9120 OR EQUAL. COMBINATION SMOKE/CARBON MONOXIDE DETECTORS TO BE: BRK# SC9120B OR EQUAL.
5. PROVIDE SLOPE ADAPTERS AS REQUIRED FOR RECESSED DOWNLIGHTS FOR SLOPED CEILINGS.
6. RECESSED NONMETALLIC ELECTRICAL BOXES MAY BE USED IN RESIDENTIAL UNITS PROVIDED THAT THEIR SIZE DOES NOT EXCEED THE MAXIMUM SPECIFICATIONS OF THE SELECTED LISTED FIRE STOPPING SYSTEM TO MAINTAIN THE RATING OF THE ASSEMBLY.
7. OUTLET BOXES IN OPPOSITE FACES OF PARTY WALLS SHALL BE SEPARATED BY 16" (MINIMUM).
8. LIGHT SWITCHES SHALL BE INSTALLED ON ACTIVE SIDE OF SLIDING GLASS DOORS AND STRIKE SIDE OF HINGED DOORS.
9. REFER TO MECHANICAL PLANS FOR EXHAUST FAN SCHEDULE AND PROVIDE CONTROLS AS REQUIRED. EXHAUST FANS SHOWN NOTED AS "CONTINUOUSLY RUNNING" SHALL HAVE A DISCONNECT SWITCH (EITHER LOCAL OR REMOTE) IF REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
10. ALL 15 AND 20A BRANCH CIRCUIT THAT SUPPLY OUTLETS INSTALLED IN DWELLING UNIT FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED COMBINATION TYPE ARC-FAULT CIRCUIT INTERRUPTER.
11. ALL DWELLING UNIT 15 AND 20 AMP RECEPTACLES SHALL BE LISTED TAMPER RESISTANT RECEPTACLES.
12. ALL 15 AND 20 AMP RECEPTACLES INSTALLED IN BATHROOMS, OUTDOORS, WITHIN 6FT OF SINKS, KITCHEN COUNTERTOPS, AND GARAGES (INCLUDING GARAGE DOOR OPENER AND EQUIPMENT RECEPTACLES) SHALL BE GFCI PROTECTED.
13. VERIFY EXHAUST FAN SWITCHING REQUIREMENTS WITH MECHANICAL PLANS. WHERE HUMIDISTAT WALL SWITCHES ARE SHOWN AND EXHAUST FAN HAS AN INTEGRAL HUMIDISTAT PROVIDE SWITCHING AND WIRING PER MANUFACTURER'S INSTRUCTIONS.
14. PROVIDE NEUTRAL CONDUCTOR AT EACH SWITCH LOCATION PER NEC 404.2 (C).
15. ALL UNIT LOADCENTERS SHALL BE PAINTED WHITE BY THE MANUFACTURER

LIGHTING FIXTURE LEGEND

REFER TO SHEET E0.1 FOR SPECIFICATIONS

- LED SURFACE MOUNTED FAUX CANLIGHT
- (B) SURFACE MOUNT IN WALK-IN CLOSET
- WALL LIGHT WITH INTEGRAL PHOTOCELL (WET LOCATION)
- HIGH EFFICACY BATHROOM VANITY FIXTURE ILLUMINATED MIRROR ADD ALT.
- HIGH EFFICACY DECORATIVE DINING AREA PENDENT
- EXHAUST FAN LIGHT COMBO REFER TO WIRING DIAGRAM DETAIL 9/E-0.08
- UNIT SUPPLY FAN REFER TO KEYNOTE #8
- LED UNDERCABINET LIGHT (HIGH EFFICACY) LENGTH PER PLAN CONCEAL TRANSFROMER WHERE ACCESSIBLE
- LED RECESSED CAN LIGHT AT UNIT LOFT VOLUME CEILING
- (J) CEILING MOUNTED JUNCTION BOX (ADD ALTERNATE) PROVIDE BACKING FOR FUTURE CEILING FAN INSTALL WALL SWITCH BLANK INSERT AT WALL SWITCH LOCATION LEVITON 80414-W (OR EQUAL)

ELECTRICAL DEVICE LEGEND

REFER TO SHEET E0.1 FOR SPECIFICATIONS AND MOUNTING HEIGHTS

- $ SINGLE POLE SWITCH
- $V MANUAL ON - AUTOMATIC OFF "VACANCY" SENSOR SWITCH
- $H SMART SENSE FAN SWITCH REFER TO DETAIL 6 / E-010
- $D DIMMER SWITCH
- $3 3 WAY SWITCH
- $3d 3 WAY DIMMER SWITCH
- $4 4 WAY SWITCH
- $F CEILING FAN WALL SWTICH BLANK
- DUPLEX RECEPTACLE
- QUAD-PLEX RECEPTACLE
- SPLIT WIRED "HALF-HOT" RECEPTACLE
- FLOOR MOUNTED DUPLEX RECEPTACLE
- GFCI PROTECTED RECEPTACLE
- WP GFCI PROTECTED RECEPTACLE W/ WEATHERPROOF COVER
- DUPLEX USB CHARGING RECEPTACLE LEVITON# T5832 OR EQUAL
- DUPLEX USB CHARGING RECEPTACLE (GFCI PROTECTED)
- GFCI 208V RECEPATCLE FOR DRYER / RANGE NEMA 14-30R @ DRYER NEMA 14-50R @ RANGE (VERIFY WITH EQUIPMENT SPECIFICATION)
- S SMOKE DETECTOR
- SC COMBINATION SMOKE / CARBON MONOXIDE DETECTOR
- RECESSED ELECTRICAL PANEL
- UNIT SUPPLY FAN FAN PER MECHANICAL PLANS COORDIANTE WORK WITH MECHANICAL

ELECTRICAL DEVICE LEGEND

SHOWN FOR LOCATION ONLY. REFER TO SPECIFICATIONS BY OTHER.

- TELEPHONE OUTLET
- DATA OUTLET
- TV TELEVISION OUTLET
- PUSH-BUTTON SWITCH
- CH DOOR BELL CHIME
- ME MEDIA DISTRIBUTION ENCLOSURE

ELECTRICAL KEY NOTES

1. DRYER BOOSTER FANPROVIDE DISCONNECT SWTICH ADJACENT TO ACCESS PANEL AS REQUIRED. COORDINATE WORK WITH HVAC INSTALLER.
2. PROVIDE LIGHT, SWITCH, RECEPTACLE IN ATTIC.
3. PROVIDE FORCED AIR UNIT DISCONNECT SWITCH ATTACHED TO EQUIPMENT IN ATTIC. PROVIDE POWER FOR CONDENSATE PUMP IF REQUIRED. REFER TO MECHANICAL PLANS FOR REQUIREMENTS.
4. PROVIDE RECEPTACLE AT GAS RANGE @ +18" AFF PROVIDE DEDICATED RECEPTACLE FOR MICROWAVE AND HOOD @ +7'-0" AFF (VERIFY). RELOCATE MICROWAVE RECEPTACLE TO COUNTERTOP AND PROVIDE WALL SWTICH @ +44" TO TOP OF BOX FOR KITCHEN EXHAUST HOOD AT ACCESSIBLE UNITS.
5. CONDENSING UNIT DISCONNECT SWITH MOUNT @ +24" AFF 30A/2P FUSIBLE DISCONNECT (NEMA 3-R RATED) FUSE AS INDICATED ON NAMEPLATE OF INSTALLED EQUIPMENT INSTALL LIQUIDTIGHT FLEX AND THHN/THWN-2 FROM DISCONNECT TO HVAC EQUIPMENT. REFER TO PANEL SCHEDULE FOR WIRE SIZE.
6. CONDENSING UNIT DISCONNECT SWITH MOUNT @ +24" AFF 60A/2P FUSIBLE DISCONNECT (NEMA 3-R RATED) FUSE AS INDICATED ON NAMEPLATE OF INSTALLED EQUIPMENT INSTALL LIQUIDTIGHT FLEX AND THHN/THWN-2 FROM DISCONNECT TO HVAC EQUIPMENT. REFER TO PANEL SCHEDULE FOR WIRE SIZE.
7. INSTALL GARBAGE DISPOSAL "AIR SWITCH" INSINKERATOR "SINKTOP SWITCH" OR EQUAL. PROVIDE SINK WITH ADDITIONAL "KNOCKOUT" FOR PUSHBUTTON.
8. CONTINUOUSLY RUNNING EXHAUST FAN (REFER TO MECHANICAL PLANS. LABEL SWITCH: "WHOLE HOUSE FAN DISCONNECT SWITH TO REMAIN ON AT ALL TIMES. TURING FAN OFF WILL DETERIORATE INDOOR AIR QUALITY."
9. RECESSED UNIT ELECTRICAL PANEL "P#"
10. STRUCTURED MEDIA ENCLOSURE (REFER TO SPECIFICATIONS BY OTHER) PROVIDE RECEPTACLE INSIDE ENCLOSURE.
11. PROVIDE MEDIA PASS-THRU PER DETAIL 9 / E0.01
12. GFCI PROTECTED RECEPTACLE MOUNTED IN DRAWER MILLWORK. REFER TO ARCHITECTUAL PLANS FOR DETAILS.
13. SMOKE FIRE DAMPER FOR SUPPLY FAN. PROVIDE POWER AS REQUIRED.

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19TH & HARRISON

Oakland, CA

NO.	ISSUE	DATE
1	PLAN CHECK RESPONSE #1/GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

APPROVAL

CONSULTANT

UNIT PLAN TYPE C

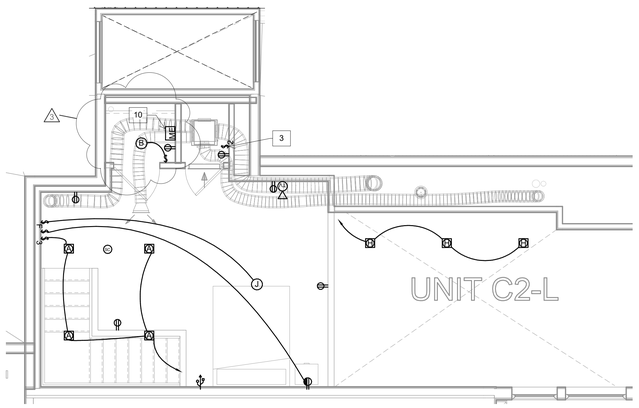
PROJECT NO: X6-059

DATE: 05/12/17

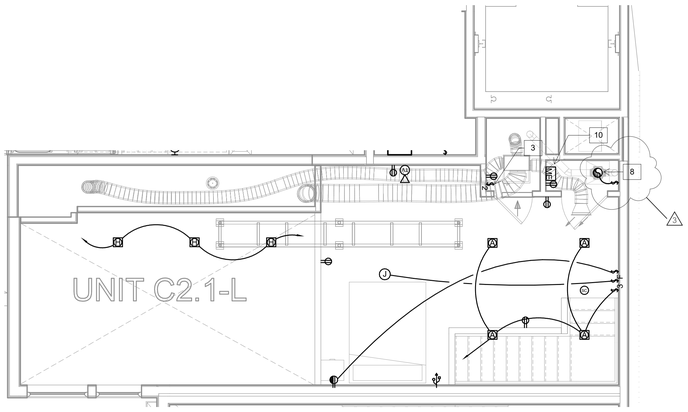
SHEET NO:

E4.5

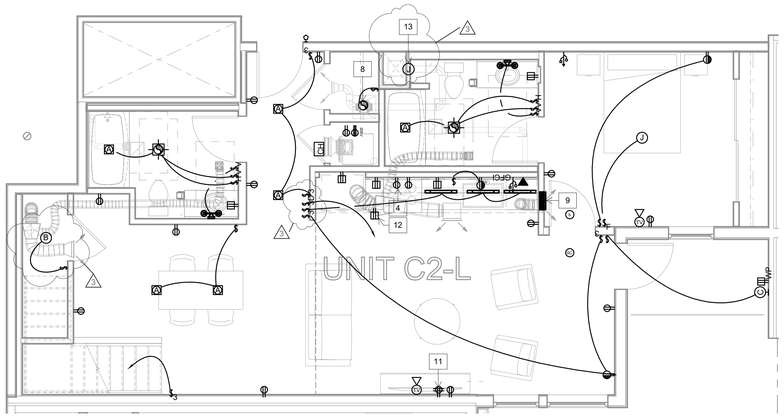
ADDENDUM #1



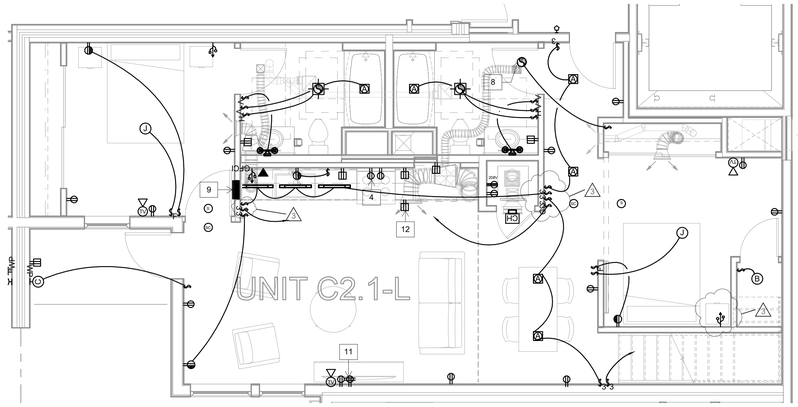
UNIT C2-L (LOFT) 4
1/4" = 1'-0"



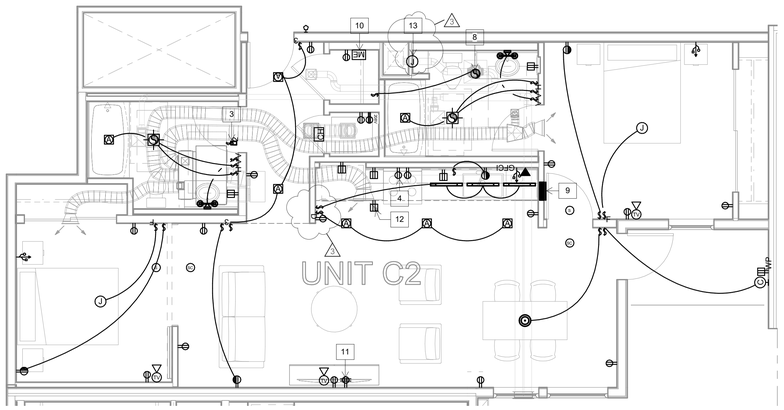
UNIT C2.1-L (LOFT) 5
1/4" = 1'-0"



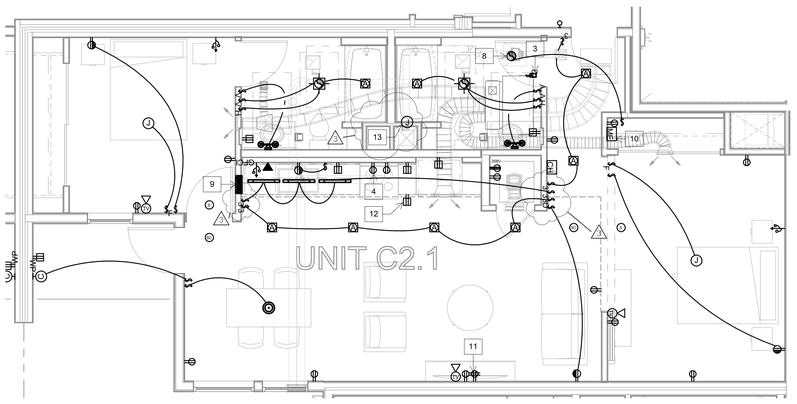
UNIT C2-L 3
1/4" = 1'-0"



UNIT C2.1-L 6
1/4" = 1'-0"



UNIT C2 1
1/4" = 1'-0"



UNIT C2.1 2
1/4" = 1'-0"

UNIT PLANS NOTES

1. INTERIOR RESIDENTIAL UNIT WIRING PERMITTED TO BE TYPE NM CABLE IN ACCORDANCE WITH NEC ARTICLE 334 AND LOCAL CODES. MINIMUM WIRING SIZE PER THE 60 DEGREE C COLUMN OF NEC TABLE 310.15(B)(16) I.E. #14 CU FOR 15A CIRCUIT BREAKERS AND #12 CU FOR 20A CIRCUIT BREAKERS).
2. REFER TO "TYPICAL DEVICE HEIGHT INSTALLATION DETAIL" ON SHEET E0.01 FOR TYPICAL DEVICE HEIGHTS AND DETAIL 10 / E0.08 FOR REQUIRED ACCESSIBLE OUTLET LOCATION AT CORNER CONDITIONS.
3. REFER TO STATE OF CALIFORNIA MANDATORY MEASURES ON SHEET E0.01 FOR LUMINAIRE AND CONTROL REQUIREMENTS.
4. SMOKE AND CARBON MONOXIDE DETECTORS SHALL BE PERMANENTLY WIRED INTO THE UNITS AC POWER LINE AND, IF MORE THAN ONE DETECTOR IS REQUIRED TO BE INSTALLED WITHIN THE UNIT, THE DETECTORS SHALL BE WIRED SO THAT THE ACTUATION OF ONE DETECTOR WILL ACTUATE ALL THE DETECTORS IN THE UNIT. DETECTORS HAVE NO OTHER DISCONNECT OTHER THAN THAT FOR OVERCURRENT AND SHALL HAVE INTEGRAL BATTERY BACKUPS. ALL SMOKE AND CARBON MONOXIDE DETECTORS SHALL BE LISTED WITH THE STATE FIRE MARSHALL AND LOCATED A MINIMUM OF 3FT AWAY FROM A HVAC SUPPLY OR RETURN. SMOKE DETECTORS TO BE: BRK# 9120 OR EQUAL. COMBINATION SMOKE/CARBON MONOXIDE DETECTORS TO BE: BRK# SC9120B OR EQUAL.
5. PROVIDE SLOPE ADAPTERS AS REQUIRED FOR RECESSED DOWNLIGHTS FOR SLOPED CEILINGS.
6. RECESSED NONMETALLIC ELECTRICAL BOXES MAY BE USED IN RESIDENTIAL UNITS PROVIDED THAT THEIR SIZE DOES NOT EXCEED THE MAXIMUM SPECIFICATIONS OF THE SELECTED LISTED FIRE STOPPING SYSTEM TO MAINTAIN THE RATING OF THE ASSEMBLY.
7. OUTLET BOXES IN OPPOSITE FACES OF PARTY WALLS SHALL BE SEPARATED BY 16" (MINIMUM).
8. LIGHT SWITCHES SHALL BE INSTALLED ON ACTIVE SIDE OF SLIDING GLASS DOORS AND STRIKE SIDE OF HINGED DOORS.
9. REFER TO MECHANICAL PLANS FOR EXHAUST FAN SCHEDULE AND PROVIDE CONTROLS AS REQUIRED. EXHAUST FANS SHOWN NOTED AS "CONTINUOUSLY RUNNING" SHALL HAVE A DISCONNECT SWITCH (EITHER LOCAL OR REMOTE) IF REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
10. ALL 15 AND 20A BRANCH CIRCUIT THAT SUPPLY OUTLETS INSTALLED IN DWELLING UNIT FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED COMBINATION TYPE ARC-FAULT CIRCUIT INTERRUPTER.
11. ALL DWELLING UNIT 15 AND 20 AMP RECEPTACLES SHALL BE LISTED TAMPER RESISTANT RECEPTACLES.
12. ALL 15 AND 20 AMP RECEPTACLES INSTALLED IN BATHROOMS, OUTDOORS, WITHIN 6FT OF SINKS, KITCHEN COUNTERTOPS, AND GARAGES (INCLUDING GARAGE DOOR OPENER AND EQUIPMENT RECEPTACLES) SHALL BE GFCI PROTECTED.
13. VERIFY EXHAUST FAN SWITCHING REQUIREMENTS WITH MECHANICAL PLANS. WHERE HUMIDISTAT WALL SWITCHES ARE SHOWN AND EXHAUST FAN HAS AN INTEGRAL HUMIDISTAT PROVIDE SWITCHING AND WIRING PER MANUFACTURER'S INSTRUCTIONS.
14. PROVIDE NEUTRAL CONDUCTOR AT EACH SWITCH LOCATION PER NEC 404.2 (C).
15. ALL UNIT LOADCENTERS SHALL BE PAINTED WHITE BY THE MANUFACTURER

LIGHTING FIXTURE LEGEND

REFER TO SHEET E0.1 FOR SPECIFICATIONS

- LED SURFACE MOUNTED FAUX CANLIGHT
- (B) SURFACE MOUNT IN WALK-IN CLOSET
- WALL LIGHT WITH INTEGRAL PHOTOCELL (WET LOCATION)
- HIGH EFFICACY BATHROOM VANITY FIXTURE ILLUMINATED MIRROR ADD ALT.
- HIGH EFFICACY DECORATIVE DINING AREA PENDENT
- EXHAUST FAN LIGHT COMBO REFER TO WIRING DIAGRAM DETAIL 9/E-0.08
- UNIT SUPPLY FAN REFER TO KEYNOTE #8
- LED UNDERCABINET LIGHT (HIGH EFFICACY) LENGTH PER PLAN CONCEAL TRANSFROMER WHERE ACCESSIBLE
- LED RECESSED CAN LIGHT AT UNIT LOFT VOLUME CEILING
- (J) CEILING MOUNTED JUNCTION BOX (ADD ALTERNATE) PROVIDE BACKING FOR FUTURE CEILING FAN INSTALL WALL SWITCH BLANK INSERT AT WALL SWITCH LOCATION LEVITON 80414-W (OR EQUAL)

ELECTRICAL DEVICE LEGEND

REFER TO SHEET E0.1 FOR SPECIFICATIONS AND MOUNTING HEIGHTS

- $ SINGLE POLE SWITCH
- $V MANUAL ON - AUTOMATIC OFF "VACANCY" SENSOR SWITCH
- $H SMART SENSE FAN SWITCH REFER TO DETAIL 6 / E-010
- $D DIMMER SWITCH
- $3 3 WAY SWITCH
- $3d 3 WAY DIMMER SWITCH
- $4 4 WAY SWITCH
- $F CEILING FAN WALL SWTICH BLANK
- DUPLEX RECEPTACLE
- QUAD-PLEX RECEPTACLE
- SPLIT WIRED "HALF-HOT" RECEPTACLE
- FLOOR MOUNTED DUPLEX RECEPTACLE
- GFCI PROTECTED RECEPTACLE
- WP GFCI PROTECTED RECEPTACLE W/ WEATHERPROOF COVER
- USB DUPLEX USB CHARGING RECEPTACLE LEVITON# T5832 OR EQUAL
- GFCI USB DUPLEX USB CHARGING RECEPTACLE (GFCI PROTECTED)
- 208V RECEPTACLE FOR DRYER / RANGE NEMA 14-30R @ DRYER NEMA 14-50R @ RANGE (VERIFY WITH EQUIPMENT SPECIFICATION)
- (S) SMOKE DETECTOR
- (SC) COMBINATION SMOKE / CARBON MONOXIDE DETECTOR
- RECESSED ELECTRICAL PANEL
- UNIT SUPPLY FAN FAN PER MECHANICAL PLANS COORDIANTE WORK WITH MECHANICAL

ELECTRICAL DEVICE LEGEND

SHOWN FOR LOCATION ONLY. REFER TO SPECIFICATIONS BY OTHER.

- TELEPHONE OUTLET
- DATA OUTLET
- (TV) TELEVISION OUTLET
- PUSH-BUTTON SWITCH
- (DB) DOOR BELL CHIME
- (MD) MEDIA DISTRIBUTION ENCLOSURE

ELECTRICAL KEY NOTES

1. DRYER BOOSTER FANPROVIDE DISCONNECT SWTICH ADJACENT TO ACCESS PANEL AS REQUIRED. COORDINATE WORK WITH HVAC INSTALLER.
2. PROVIDE LIGHT, SWITCH, RECEPTACLE IN ATTIC.
3. PROVIDE FORCED AIR UNIT DISCONNECT SWITCH ATTACHED TO EQUIPMENT IN ATTIC. PROVIDE POWER FOR CONDENSATE PUMP IF REQUIRED. REFER TO MECHANICAL PLANS FOR REQUIREMENTS.
4. PROVIDE RECEPTACLE AT GAS RANGE @ +18" AFF PROVIDE DEDICATED RECEPTACLE FOR MICROWAVE AND HOOD @ +7'-0" AFF (VERIFY). RELOCATE MICROWAVE RECEPTACLE TO COUNTERTOP AND PROVIDE WALL SWTICH @ +44" TO TOP OF BOX FOR KITCHEN EXHAUST HOOD AT ACCESSIBLE UNITS.
5. CONDENSING UNIT DISCONNECT SWITH MOUNT @ +24" AFF 30A/2P FUSIBLE DISCONNECT (NEMA 3-R RATED) FUSE AS INDICATED ON NAMEPLATE OF INSTALLED EQUIPMENT INSTALL LIQUIDTIGHT FLEX AND THHN/THWN-2 FROM DISCONNECT TO HVAC EQUIPMENT. REFER TO PANEL SCHEDULE FOR WIRE SIZE.
6. CONDENSING UNIT DISCONNECT SWITH MOUNT @ +24" AFF 60A/2P FUSIBLE DISCONNECT (NEMA 3-R RATED) FUSE AS INDICATED ON NAMEPLATE OF INSTALLED EQUIPMENT INSTALL LIQUIDTIGHT FLEX AND THHN/THWN-2 FROM DISCONNECT TO HVAC EQUIPMENT. REFER TO PANEL SCHEDULE FOR WIRE SIZE.
7. INSTALL GARBAGE DISPOSAL "AIR SWITCH" INSINKERATOR "SINKTOP SWITCH" OR EQUAL. PROVIDE SINK WITH ADDITIONAL "KNOCKOUT" FOR PUSHBUTTON.
8. CONTINUOUSLY RUNNING EXHAUST FAN (REFER TO MECHANICAL PLANS. LABEL SWITCH: "WHOLE HOUSE FAN DISCONNECT SWITH TO REMAIN ON AT ALL TIMES. TURING FAN OFF WILL DETERIORATE INDOOR AIR QUALITY."
9. RECESSED UNIT ELECTRICAL PANEL "P#"
10. STRUCTURED MEDIA ENCLOSURE (REFER TO SPECIFICATIONS BY OTHER) PROVIDE RECEPTACLE INSIDE ENCLOSURE.
11. PROVIDE MEDIA PASS-THRU PER DETAIL 9 / E0.01
12. GFCI PROTECTED RECEPTACLE MOUNTED IN DRAWER MILLWORK. REFER TO ARCHITECTUAL PLANS FOR DETAILS.
13. SMOKE FIRE DAMPER FOR SUPPLY FAN. PROVIDE POWER AS REQUIRED.

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19TH & HARRISON

Oakland, CA

NO.	ISSUE	DATE
1	PLAN CHECK RESPONSE #1/GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

APPROVAL

CONSULTANT

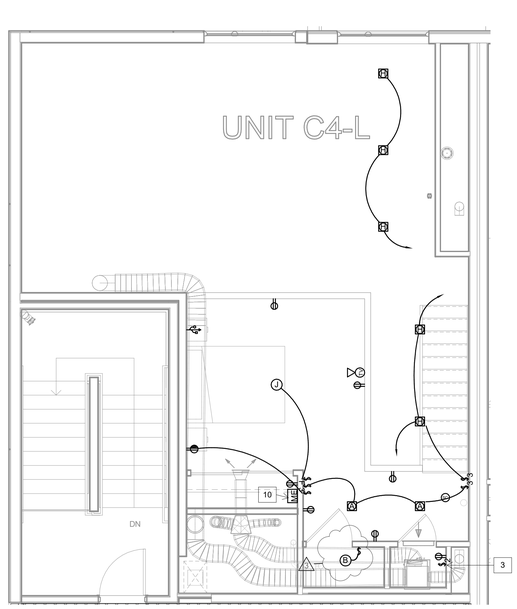
UNIT PLAN TYPE C

PROJECT NO: X6-059
DATE: 05/12/17

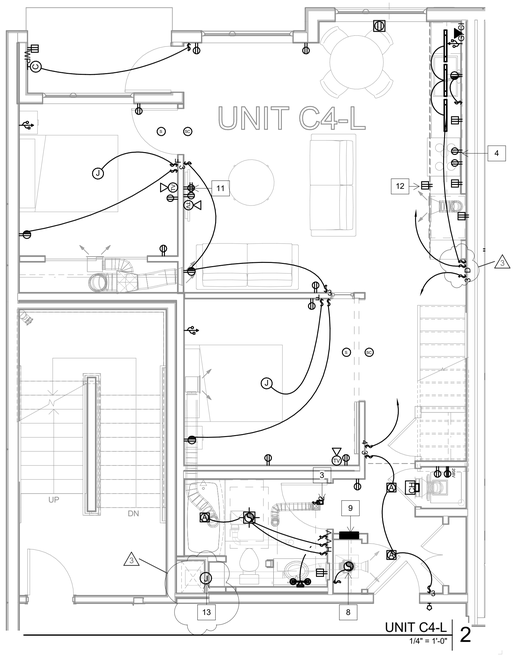
SHEET NO:

E4.6

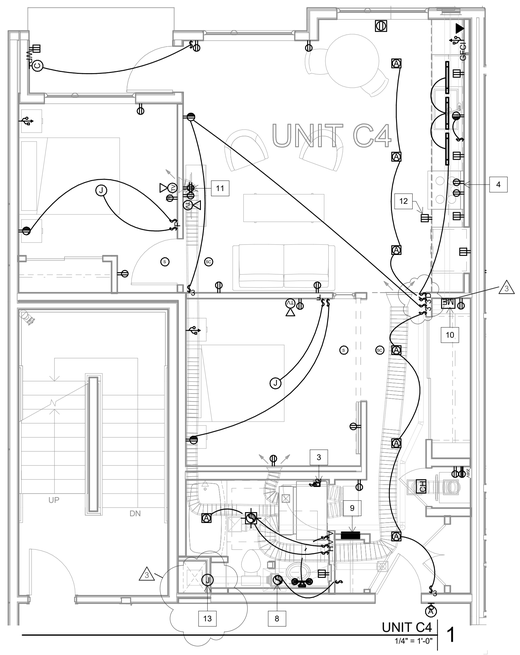
ADDENDUM #1



UNIT C4-L (LOFT) | 3
1/4" = 1'-0"



UNIT C4-L | 2
1/4" = 1'-0"



UNIT C4 | 1
1/4" = 1'-0"

UNIT PLANS NOTES

1. INTERIOR RESIDENTIAL UNIT WIRING PERMITTED TO BE TYPE NM CABLE IN ACCORDANCE WITH NEC ARTICLE 334 AND LOCAL CODES. MINIMUM WIRING SIZE PER THE 60 DEGREE C COLUMN OF NEC TABLE 310.15(B)(16) I.E. #14 CU FOR 15A CIRCUIT BREAKERS AND #12 CU FOR 20A CIRCUIT BREAKERS).
2. REFER TO "TYPICAL DEVICE HEIGHT INSTALLATION DETAIL" ON SHEET E0.01 FOR TYPICAL DEVICE HEIGHTS AND DETAIL 10 / E0.08 FOR REQUIRED ACCESSIBLE OUTLET LOCATION AT CORNER CONDITIONS.
3. REFER TO STATE OF CALIFORNIA MANDATORY MEASURES ON SHEET E0.01 FOR LUMINAIRE AND CONTROL REQUIREMENTS.
4. SMOKE AND CARBON MONOXIDE DETECTORS SHALL BE PERMANENTLY WIRED INTO THE UNITS AC POWER LINE AND, IF MORE THAN ONE DETECTOR IS REQUIRED TO BE INSTALLED WITHIN THE UNIT, THE DETECTORS SHALL BE WIRED SO THAT THE ACTUATION OF ONE DETECTOR WILL ACTUATE ALL THE DETECTORS IN THE UNIT. DETECTORS HAVE NO OTHER DISCONNECT OTHER THAN THAT FOR OVERCURRENT AND SHALL HAVE INTEGRAL BATTERY BACKUPS. ALL SMOKE AND CARBON MONOXIDE DETECTORS SHALL BE LISTED WITH THE STATE FIRE MARSHALL AND LOCATED A MINIMUM OF 3FT AWAY FROM A HVAC SUPPLY OR RETURN. SMOKE DETECTORS TO BE: BRK# 9120 OR EQUAL. COMBINATION SMOKE/CARBON MONOXIDE DETECTORS TO BE: BRK# SC9120B OR EQUAL.
5. PROVIDE SLOPE ADAPTERS AS REQUIRED FOR RECESSED DOWNLIGHTS FOR SLOPED CEILINGS.
6. RECESSED NONMETALLIC ELECTRICAL BOXES MAY BE USED IN RESIDENTIAL UNITS PROVIDED THAT THEIR SIZE DOES NOT EXCEED THE MAXIMUM SPECIFICATIONS OF THE SELECTED LISTED FIRE STOPPING SYSTEM TO MAINTAIN THE RATING OF THE ASSEMBLY.
7. OUTLET BOXES IN OPPOSITE FACES OF PARTY WALLS SHALL BE SEPARATED BY 16" (MINIMUM).
8. LIGHT SWITCHES SHALL BE INSTALLED ON ACTIVE SIDE OF SLIDING GLASS DOORS AND STRIKE SIDE OF HINGED DOORS.
9. REFER TO MECHANICAL PLANS FOR EXHAUST FAN SCHEDULE AND PROVIDE CONTROLS AS REQUIRED. EXHAUST FANS SHOWN NOTED AS "CONTINUOUSLY RUNNING" SHALL HAVE A DISCONNECT SWITCH (EITHER LOCAL OR REMOTE) IF REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
10. ALL 15 AND 20A BRANCH CIRCUIT THAT SUPPLY OUTLETS INSTALLED IN DWELLING UNIT FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED COMBINATION TYPE ARC-FAULT CIRCUIT INTERRUPTER.
11. ALL DWELLING UNIT 15 AND 20 AMP RECEPTACLES SHALL BE LISTED TAMPER RESISTANT RECEPTACLES.
12. ALL 15 AND 20 AMP RECEPTACLES INSTALLED IN BATHROOMS, OUTDOORS, WITHIN 6FT OF SINKS, KITCHEN COUNTERTOPS, AND GARAGES (INCLUDING GARAGE DOOR OPENER AND EQUIPMENT RECEPTACLES) SHALL BE GFCI PROTECTED.
13. VERIFY EXHAUST FAN SWITCHING REQUIREMENTS WITH MECHANICAL PLANS. WHERE HUMIDISTAT WALL SWITCHES ARE SHOWN AND EXHAUST FAN HAS AN INTEGRAL HUMIDISTAT PROVIDE SWITCHING AND WIRING PER MANUFACTURER'S INSTRUCTIONS.
14. PROVIDE NEUTRAL CONDUCTOR AT EACH SWITCH LOCATION PER NEC 404.2 (C).
15. ALL UNIT LOADCENTERS SHALL BE PAINTED WHITE BY THE MANUFACTURER

LIGHTING FIXTURE LEGEND

REFER TO SHEET E0.1 FOR SPECIFICATIONS

- LED SURFACE MOUNTED FAUX CANLIGHT
- (B) SURFACE MOUNT IN WALK-IN CLOSET
- WALL LIGHT WITH INTEGRAL PHOTOCELL (WET LOCATION)
- HIGH EFFICACY BATHROOM VANITY FIXTURE ILLUMINATED MIRROR ADD ALT.
- HIGH EFFICACY DECORATIVE DINING AREA PENDENT
- EXHAUST FAN LIGHT COMBO REFER TO WIRING DIAGRAM DETAIL 9/E-0.08
- UNIT SUPPLY FAN REFER TO KEYNOTE #8
- LED UNDERCABINET LIGHT (HIGH EFFICACY) LENGTH PER PLAN CONCEAL TRANSFROMER WHERE ACCESSIBLE
- LED RECESSED CAN LIGHT AT UNIT LOFT VOLUME CEILING
- (J) CEILING MOUNTED JUNCTION BOX (ADD ALTERNATE) PROVIDE BACKING FOR FUTURE CEILING FAN INSTALL WALL SWITCH BLANK INSERT AT WALL SWITCH LOCATION LEVITON 80414-W (OR EQUAL)

ELECTRICAL DEVICE LEGEND

REFER TO SHEET E0.1 FOR SPECIFICATIONS AND MOUNTING HEIGHTS

- $ SINGLE POLE SWITCH
- $V MANUAL ON - AUTOMATIC OFF "VACANCY" SENSOR SWITCH
- $H SMART SENSE FAN SWITCH REFER TO DETAIL 6 / E-010
- $D DIMMER SWITCH
- $3 3 WAY SWITCH
- $3d 3 WAY DIMMER SWITCH
- $4 4 WAY SWITCH
- $F CEILING FAN WALL SWTICH BLANK
- DUPLEX RECEPTACLE
- QUAD-PLEX RECEPTACLE
- SPLIT WIRED "HALF-HOT" RECEPTACLE
- FLOOR MOUNTED DUPLEX RECEPTACLE
- GFCI PROTECTED RECEPTACLE
- WP GFCI PROTECTED RECEPTACLE W/ WEATHERPROOF COVER
- DUPLEX USB CHARGING RECEPTACLE LEVITON# T5832 OR EQUAL
- DUPLEX USB CHARGING RECEPTACLE (GFCI PROTECTED)
- 208V GFCI RECEPTACLE FOR DRYER / RANGE NEMA 14-30R @ DRYER NEMA 14-50R @ RANGE (VERIFY WITH EQUIPMENT SPECIFICATION)
- S SMOKE DETECTOR
- SC COMBINATION SMOKE / CARBON MONOXIDE DETECTOR
- RECESSED ELECTRICAL PANEL
- UNIT SUPPLY FAN FAN PER MECHANICAL PLANS COORDIANTE WORK WITH MECHANICAL

ELECTRICAL DEVICE LEGEND

SHOWN FOR LOCATION ONLY. REFER TO SPECIFICATIONS BY OTHER.

- TELEPHONE OUTLET
- DATA OUTLET
- TV TELEVISION OUTLET
- PUSH-BUTTON SWITCH
- DBL DOOR BELL CHIME
- MEDIA DISTRIBUTION ENCLOSURE

ELECTRICAL KEY NOTES

1. DRYER BOOSTER FANPROVIDE DISCONNECT SWTICH ADJACENT TO ACCESS PANEL AS REQUIRED. COORDINATE WORK WITH HVAC INSTALLER.
2. PROVIDE LIGHT, SWITCH, RECEPTACLE IN ATTIC.
3. PROVIDE FORCED AIR UNIT DISCONNECT SWITCH ATTACHED TO EQUIPMENT IN ATTIC. PROVIDE POWER FOR CONDENSATE PUMP IF REQUIRED. REFER TO MECHANICAL PLANS FOR REQUIREMENTS.
4. PROVIDE RECEPTACLE AT GAS RANGE @ +18" AFF PROVIDE DEDICATED RECEPTACLE FOR MICROWAVE AND HOOD @ +7'-0" AFF (VERIFY). RELOCATE MICROWAVE RECEPTACLE TO COUNTERTOP AND PROVIDE WALL SWITCH @ +44" TO TOP OF BOX FOR KITCHEN EXHAUST HOOD AT ACCESSIBLE UNITS.
5. CONDENSING UNIT DISCONNECT SWITH MOUNT @ +24" AFF 30A/2P FUSIBLE DISCONNECT (NEMA 3-R RATED) FUSE AS INDICATED ON NAMEPLATE OF INSTALLED EQUIPMENT INSTALL LIQUIDTIGHT FLEX AND THHN/THWN-2 FROM DISCONNECT TO HVAC EQUIPMENT. REFER TO PANEL SCHEDULE FOR WIRE SIZE.
6. CONDENSING UNIT DISCONNECT SWITH MOUNT @ +24" AFF 60A/2P FUSIBLE DISCONNECT (NEMA 3-R RATED) FUSE AS INDICATED ON NAMEPLATE OF INSTALLED EQUIPMENT INSTALL LIQUIDTIGHT FLEX AND THHN/THWN-2 FROM DISCONNECT TO HVAC EQUIPMENT. REFER TO PANEL SCHEDULE FOR WIRE SIZE.
7. INSTALL GARBAGE DISPOSAL "AIR SWITCH" INSINKERATOR "SINKTOP SWITCH" OR EQUAL. PROVIDE SINK WITH ADDITIONAL "KNOCKOUT" FOR PUSHBUTTON.
8. CONTINUOUSLY RUNNING EXHAUST FAN (REFER TO MECHANICAL PLANS. LABEL SWITCH: "WHOLE HOUSE FAN DISCONNECT SWITH TO REMAIN ON AT ALL TIMES. TURING FAN OFF WILL DETERIORATE INDOOR AIR QUALITY."
9. RECESSED UNIT ELECTRICAL PANEL "P#"
10. STRUCTURED MEDIA ENCLOSURE (REFER TO SPECIFICATIONS BY OTHER) PROVIDE RECEPTACLE INSIDE ENCLOSURE.
11. PROVIDE MEDIA PASS-THRU PER DETAIL 9 / E0.01
12. GFCI PROTECTED RECEPTACLE MOUNTED IN DRAWER MILLWORK. REFER TO ARCHITECTUAL PLANS FOR DETAILS.
13. SMOKE FIRE DAMPER FOR SUPPLY FAN. PROVIDE POWER AS REQUIRED.

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San Juan Capistrano, CA 92675
Ph. 949.201.1333
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19TH & HARRISON

Oakland, CA

NO.	ISSUE	DATE
1	PLAN CHECK RESPONSE #1/GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

APPROVAL

CONSULTANT

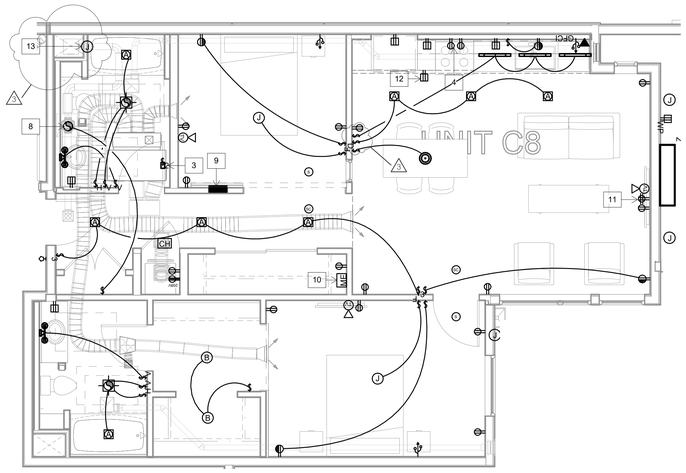
UNIT PLAN TYPE C

PROJECT NO: X6-059
DATE: 05/12/17

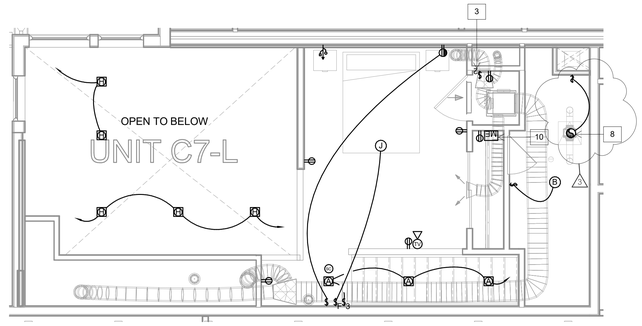
SHEET NO:

E4.7

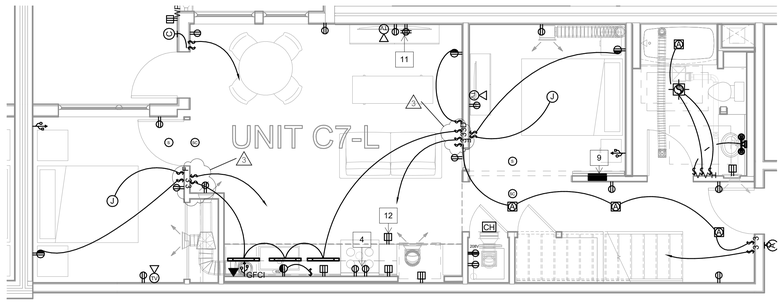
ADDENDUM #1



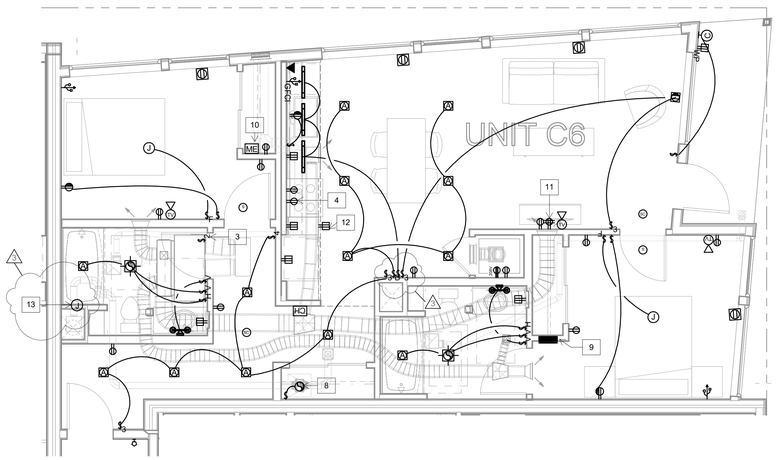
UNIT C8
1/4" = 1'-0" 5



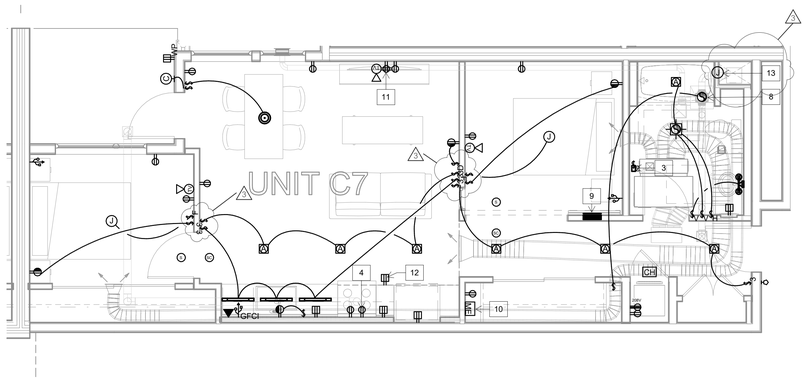
UNIT C7-L (LOFT)
1/4" = 1'-0" 3



UNIT C7-L
1/4" = 1'-0" 2



UNIT C6
1/4" = 1'-0" 4



UNIT C7
1/4" = 1'-0" 1

UNIT PLANS NOTES

1. INTERIOR RESIDENTIAL UNIT WIRING PERMITTED TO BE TYPE NM CABLE IN ACCORDANCE WITH NEC ARTICLE 334 AND LOCAL CODES. MINIMUM WIRING SIZE PER THE 60 DEGREE C COLUMN OF NEC TABLE 310.15(B)(16) I.E. #14 CU FOR 15A CIRCUIT BREAKERS AND #12 CU FOR 20A CIRCUIT BREAKERS).
2. REFER TO "TYPICAL DEVICE HEIGHT INSTALLATION DETAIL" ON SHEET E0.01 FOR TYPICAL DEVICE HEIGHTS AND DETAIL 10 / E0.08 FOR REQUIRED ACCESSIBLE OUTLET LOCATION AT CORNER CONDITIONS.
3. REFER TO STATE OF CALIFORNIA MANDATORY MEASURES ON SHEET E0.01 FOR LUMINAIRE AND CONTROL REQUIREMENTS.
4. SMOKE AND CARBON MONOXIDE DETECTORS SHALL BE PERMANENTLY WIRED INTO THE UNITS AC POWER LINE AND, IF MORE THAN ONE DETECTOR IS REQUIRED TO BE INSTALLED WITHIN THE UNIT, THE DETECTORS SHALL BE WIRED SO THAT THE ACTUATION OF ONE DETECTOR WILL ACTUATE ALL THE DETECTORS IN THE UNIT. DETECTORS HAVE NO OTHER DISCONNECT OTHER THAN THAT FOR OVERCURRENT AND SHALL HAVE INTEGRAL BATTERY BACKUPS. ALL SMOKE AND CARBON MONOXIDE DETECTORS SHALL BE LISTED WITH THE STATE FIRE MARSHALL AND LOCATED A MINIMUM OF 3FT AWAY FROM A HVAC SUPPLY OR RETURN. SMOKE DETECTORS TO BE: BRK# 9120 OR EQUAL. COMBINATION SMOKE/CARBON MONOXIDE DETECTORS TO BE: BRK# SC9120B OR EQUAL.
5. PROVIDE SLOPE ADAPTERS AS REQUIRED FOR RECESSED DOWNLIGHTS FOR SLOPED CEILINGS.
6. RECESSED NONMETALLIC ELECTRICAL BOXES MAY BE USED IN RESIDENTIAL UNITS PROVIDED THAT THEIR SIZE DOES NOT EXCEED THE MAXIMUM SPECIFICATIONS OF THE SELECTED LISTED FIRE STOPPING SYSTEM TO MAINTAIN THE RATING OF THE ASSEMBLY.
7. OUTLET BOXES IN OPPOSITE FACES OF PARTY WALLS SHALL BE SEPARATED BY 16" (MINIMUM).
8. LIGHT SWITCHES SHALL BE INSTALLED ON ACTIVE SIDE OF SLIDING GLASS DOORS AND STRIKE SIDE OF HINGED DOORS.
9. REFER TO MECHANICAL PLANS FOR EXHAUST FAN SCHEDULE AND PROVIDE CONTROLS AS REQUIRED. EXHAUST FANS SHOWN NOTED AS "CONTINUOUSLY RUNNING" SHALL HAVE A DISCONNECT SWITCH (EITHER LOCAL OR REMOTE) IF REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
10. ALL 15 AND 20A BRANCH CIRCUIT THAT SUPPLY OUTLETS INSTALLED IN DWELLING UNIT FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED COMBINATION TYPE ARC-FAULT CIRCUIT INTERRUPTER.
11. ALL DWELLING UNIT 15 AND 20 AMP RECEPTACLES SHALL BE LISTED TAMPER RESISTANT RECEPTACLES.
12. ALL 15 AND 20 AMP RECEPTACLES INSTALLED IN BATHROOMS, OUTDOORS, WITHIN 6FT OF SINKS, KITCHEN COUNTERTOPS, AND GARAGES (INCLUDING GARAGE DOOR OPENER AND EQUIPMENT RECEPTACLES) SHALL BE GFCI PROTECTED.
13. VERIFY EXHAUST FAN SWITCHING REQUIREMENTS WITH MECHANICAL PLANS. WHERE HUMIDISTAT WALL SWITCHES ARE SHOWN AND EXHAUST FAN HAS AN INTEGRAL HUMIDISTAT PROVIDE SWITCHING AND WIRING PER MANUFACTURER'S INSTRUCTIONS.
14. PROVIDE NEUTRAL CONDUCTOR AT EACH SWITCH LOCATION PER NEC 404.2 (C).
15. ALL UNIT LOADCENTERS SHALL BE PAINTED WHITE BY THE MANUFACTURER

LIGHTING FIXTURE LEGEND

REFER TO SHEET E0.1 FOR SPECIFICATIONS

- LED SURFACE MOUNTED FAUX CANLIGHT
- B — SURFACE MOUNT IN WALK-IN CLOSET
- WALL LIGHT WITH INTEGRAL PHOTOCELL (WET LOCATION)
- HIGH EFFICACY BATHROOM VANITY FIXTURE ILLUMINATED MIRROR ADD ALT.
- HIGH EFFICACY DECORATIVE DINING AREA PENDENT
- EXHAUST FAN LIGHT COMBO REFER TO WIRING DIAGRAM DETAIL 9/E-0.08
- UNIT SUPPLY FAN REFER TO KEYNOTE #8
- LED UNDERCABINET LIGHT (HIGH EFFICACY) LENGTH PER PLAN CONCEAL TRANSFROMER WHERE ACCESSIBLE
- LED RECESSED CAN LIGHT AT UNIT LOFT VOLUME CEILING
- J — CEILING MOUNTED JUNCTION BOX (ADD ALTERNATE) PROVIDE BACKING FOR FUTURE CEILING FAN INSTALL WALL SWITCH BLANK INSERT AT WALL SWITCH LOCATION LEVITON 80414-W (OR EQUAL)

ELECTRICAL DEVICE LEGEND

REFER TO SHEET E0.1 FOR SPECIFICATIONS AND MOUNTING HEIGHTS

- $ — SINGLE POLE SWITCH
- $V — MANUAL ON - AUTOMATIC OFF "VACANCY" SENSOR SWITCH
- $H — SMART SENSE FAN SWITCH REFER TO DETAIL 6 / E-010
- $D — DIMMER SWITCH
- $3 — 3 WAY SWITCH
- $3d — 3 WAY DIMMER SWITCH
- $4 — 4 WAY SWITCH
- $F — CEILING FAN WALL SWTICH BLANK
- DUPLEX RECEPTACLE
- QUAD-PLEX RECEPTACLE
- SPLIT WIRED "HALF-HOT" RECEPTACLE
- FLOOR MOUNTED DUPLEX RECEPTACLE
- GFCI PROTECTED RECEPTACLE
- WP — GFCI PROTECTED RECEPTACLE W/ WEATHERPROOF COVER
- DUPLEX USB CHARGING RECEPTACLE LEVITON# T5832 OR EQUAL
- DUPLEX USB CHARGING RECEPTACLE (GFCI PROTECTED)
- GFCI 208V — 208V RECEPATCLE FOR DRYER / RANGE NEMA 14-30R @ DRYER NEMA 14-50R @ RANGE (VERIFY WITH EQUIPMENT SPECIFICATION)
- SD — SMOKE DETECTOR
- CMD — COMBINATION SMOKE / CARBON MONOXIDE DETECTOR
- RECESSED ELECTRICAL PANEL
- UNIT SUPPLY FAN FAN PER MECHANICAL PLANS COORDIANTE WORK WITH MECHANICAL

ELECTRICAL DEVICE LEGEND

SHOWN FOR LOCATION ONLY. REFER TO SPECIFICATIONS BY OTHER.

- TELEPHONE OUTLET
- DATA OUTLET
- TV — TELEVISION OUTLET
- PUSH-BUTTON SWITCH
- CH — DOOR BELL CHIME
- MD — MEDIA DISTRIBUTION ENCLOSURE

ELECTRICAL KEY NOTES

1. DRYER BOOSTER FANPROVIDE DISCONNECT SWTICH ADJACENT TO ACCESS PANEL AS REQUIRED. COORDINATE WORK WITH HVAC INSTALLER.
2. PROVIDE LIGHT, SWITCH, RECEPTACLE IN ATTIC.
3. PROVIDE FORCED AIR UNIT DISCONNECT SWITCH ATTACHED TO EQUIPMENT IN ATTIC. PROVIDE POWER FOR CONDENSATE PUMP IF REQUIRED. REFER TO MECHANICAL PLANS FOR REQUIREMENTS.
4. PROVIDE RECEPTACLE AT GAS RANGE @ +18" AFF PROVIDE DEDICATED RECEPTACLE FOR MICROWAVE AND HOOD @ +7'-0" AFF (VERIFY). RELOCATE MICROWAVE RECEPTACLE TO COUNTERTOP AND PROVIDE WALL SWTICH @ +44" TO TOP OF BOX FOR KITCHEN EXHAUST HOOD AT ACCESSIBLE UNITS.
5. CONDENSING UNIT DISCONNECT SWITH MOUNT @ +24" AFF 30A/2P FUSIBLE DISCONNECT (NEMA 3-R RATED) FUSE AS INDICATED ON NAMEPLATE OF INSTALLED EQUIPMENT INSTALL LIQUIDTIGHT FLEX AND THHN/THWN-2 FROM DISCONNECT TO HVAC EQUIPMENT. REFER TO PANEL SCHEDULE FOR WIRE SIZE.
6. CONDENSING UNIT DISCONNECT SWITH MOUNT @ +24" AFF 60A/2P FUSIBLE DISCONNECT (NEMA 3-R RATED) FUSE AS INDICATED ON NAMEPLATE OF INSTALLED EQUIPMENT INSTALL LIQUIDTIGHT FLEX AND THHN/THWN-2 FROM DISCONNECT TO HVAC EQUIPMENT. REFER TO PANEL SCHEDULE FOR WIRE SIZE.
7. INSTALL GARBAGE DISPOSAL "AIR SWITCH" INSINKERATOR "SINKTOP SWITCH" OR EQUAL. PROVIDE SINK WITH ADDITIONAL "KNOCKOUT" FOR PUSHBUTTON.
8. CONTINUOUSLY RUNNING EXHAUST FAN (REFER TO MECHANICAL PLANS. LABEL SWITCH. "WHOLE HOUSE FAN DISCONNECT SWITH TO REMAIN ON AT ALL TIMES. TURING FAN OFF WILL DETERIORATE INDOOR AIR QUALITY."
9. RECESSED UNIT ELECTRICAL PANEL "P#"
10. STRUCTURED MEDIA ENCLOSURE (REFER TO SPECIFICATIONS BY OTHER) PROVIDE RECEPTACLE INSIDE ENCLOSURE.
11. PROVIDE MEDIA PASS-THRU PER DETAIL 9 / E0.01
12. GFCI PROTECTED RECEPTACLE MOUNTED IN DRAWER MILLWORK. REFER TO ARCHITECTUAL PLANS FOR DETAILS.
13. SMOKE FIRE DAMPER FOR SUPPLY FAN. PROVIDE POWER AS REQUIRED.

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19TH & HARRISON

Oakland, CA

NO.	ISSUE	DATE
1	PLAN CHECK RESPONSE #1/GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

APPROVAL

CONSULTANT

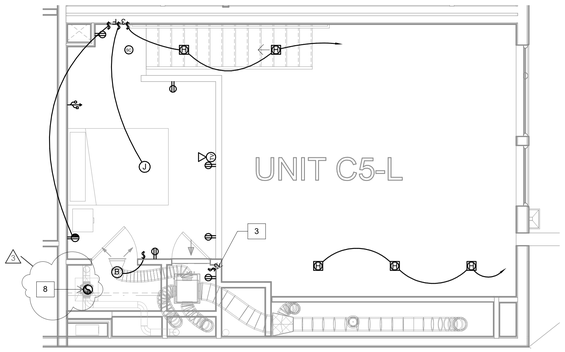
UNIT PLAN TYPE C

PROJECT NO: X6-059
DATE: 05/12/17

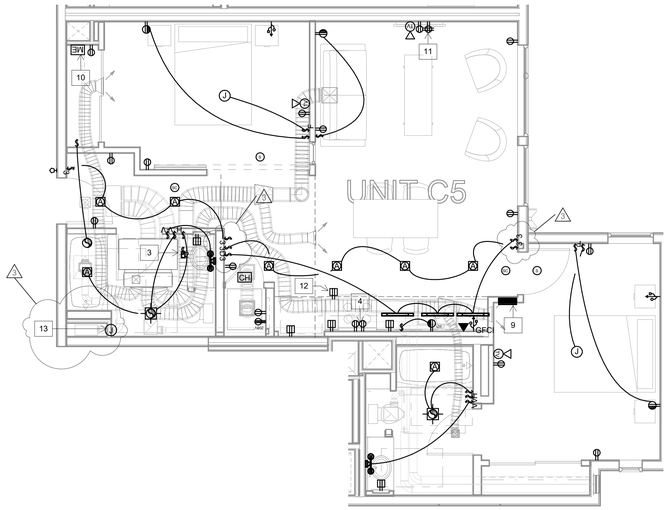
SHEET NO:

E4.8

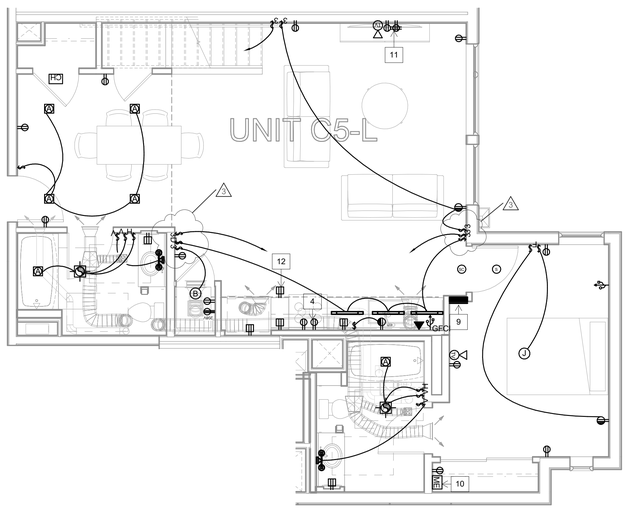
ADDENDUM #1



UNIT C5-L (LOFT) | 2
1/4" = 1'-0"



UNIT C5 | 1
1/4" = 1'-0"



UNIT C5-L | 3
1/4" = 1'-0"

UNIT PLANS NOTES

1. INTERIOR RESIDENTIAL UNIT WIRING PERMITTED TO BE TYPE NM CABLE IN ACCORDANCE WITH NEC ARTICLE 334 AND LOCAL CODES. MINIMUM WIRING SIZE PER THE 60 DEGREE C COLUMN OF NEC TABLE 310.15(B)(16) I.E. #14 CU FOR 15A CIRCUIT BREAKERS AND #12 CU FOR 20A CIRCUIT BREAKERS).
2. REFER TO "TYPICAL DEVICE HEIGHT INSTALLATION DETAIL" ON SHEET E0.01 FOR TYPICAL DEVICE HEIGHTS AND DETAIL 10 / E0.08 FOR REQUIRED ACCESSIBLE OUTLET LOCATION AT CORNER CONDITIONS.
3. REFER TO STATE OF CALIFORNIA MANDATORY MEASURES ON SHEET E0.01 FOR LUMINAIRE AND CONTROL REQUIREMENTS.
4. SMOKE AND CARBON MONOXIDE DETECTORS SHALL BE PERMANENTLY WIRED INTO THE UNITS AC POWER LINE AND, IF MORE THAN ONE DETECTOR IS REQUIRED TO BE INSTALLED WITHIN THE UNIT, THE DETECTORS SHALL BE WIRED SO THAT THE ACTUATION OF ONE DETECTOR WILL ACTUATE ALL THE DETECTORS IN THE UNIT. DETECTORS HAVE NO OTHER DISCONNECT OTHER THAN THAT FOR OVERCURRENT AND SHALL HAVE INTEGRAL BATTERY BACKUPS. ALL SMOKE AND CARBON MONOXIDE DETECTORS SHALL BE LISTED WITH THE STATE FIRE MARSHALL AND LOCATED A MINIMUM OF 3FT AWAY FROM A HVAC SUPPLY OR RETURN. SMOKE DETECTORS TO BE: BRK# 9120 OR EQUAL. COMBINATION SMOKE/CARBON MONOXIDE DETECTORS TO BE: BRK# SC9120B OR EQUAL.
5. PROVIDE SLOPE ADAPTERS AS REQUIRED FOR RECESSED DOWNLIGHTS FOR SLOPED CEILINGS.
6. RECESSED NONMETALLIC ELECTRICAL BOXES MAY BE USED IN RESIDENTIAL UNITS PROVIDED THAT THEIR SIZE DOES NOT EXCEED THE MAXIMUM SPECIFICATIONS OF THE SELECTED LISTED FIRE STOPPING SYSTEM TO MAINTAIN THE RATING OF THE ASSEMBLY.
7. OUTLET BOXES IN OPPOSITE FACES OF PARTY WALLS SHALL BE SEPARATED BY 16" (MINIMUM).
8. LIGHT SWITCHES SHALL BE INSTALLED ON ACTIVE SIDE OF SLIDING GLASS DOORS AND STRIKE SIDE OF HINGED DOORS.
9. REFER TO MECHANICAL PLANS FOR EXHAUST FAN SCHEDULE AND PROVIDE CONTROLS AS REQUIRED. EXHAUST FANS SHOWN NOTED AS "CONTINUOUSLY RUNNING" SHALL HAVE A DISCONNECT SWITCH (EITHER LOCAL OR REMOTE) IF REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
10. ALL 15 AND 20A BRANCH CIRCUIT THAT SUPPLY OUTLETS INSTALLED IN DWELLING UNIT FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED COMBINATION TYPE ARC-FAULT CIRCUIT INTERRUPTER.
11. ALL DWELLING UNIT 15 AND 20 AMP RECEPTACLES SHALL BE LISTED TAMPER RESISTANT RECEPTACLES.
12. ALL 15 AND 20 AMP RECEPTACLES INSTALLED IN BATHROOMS, OUTDOORS, WITHIN 6FT OF SINKS, KITCHEN COUNTERTOPS, AND GARAGES (INCLUDING GARAGE DOOR OPENER AND EQUIPMENT RECEPTACLES) SHALL BE GFCI PROTECTED.
13. VERIFY EXHAUST FAN SWITCHING REQUIREMENTS WITH MECHANICAL PLANS. WHERE HUMIDISTAT WALL SWITCHES ARE SHOWN AND EXHAUST FAN HAS AN INTEGRAL HUMIDISTAT PROVIDE SWITCHING AND WIRING PER MANUFACTURER'S INSTRUCTIONS.
14. PROVIDE NEUTRAL CONDUCTOR AT EACH SWITCH LOCATION PER NEC 404.2 (C).
15. ALL UNIT LOADCENTERS SHALL BE PAINTED WHITE BY THE MANUFACTURER

LIGHTING FIXTURE LEGEND

REFER TO SHEET E0.1 FOR SPECIFICATIONS

- LED SURFACE MOUNTED FAUX CANLIGHT
- (B) SURFACE MOUNT IN WALK-IN CLOSET
- WALL LIGHT WITH INTEGRAL PHOTOCELL (WET LOCATION)
- HIGH EFFICACY BATHROOM VANITY FIXTURE ILLUMINATED MIRROR ADD ALT.
- HIGH EFFICACY DECORATIVE DINING AREA PENDENT
- EXHAUST FAN LIGHT COMBO REFER TO WIRING DIAGRAM DETAIL 9/E-0.08
- UNIT SUPPLY FAN REFER TO KEYNOTE #8
- LED UNDERCABINET LIGHT (HIGH EFFICACY) LENGTH PER PLAN CONCEAL TRANSFROMER WHERE ACCESSIBLE
- LED RECESSED CAN LIGHT AT UNIT LOFT VOLUME CEILING
- (J) CEILING MOUNTED JUNCTION BOX (ADD ALTERNATE) PROVIDE BACKING FOR FUTURE CEILING FAN INSTALL WALL SWITCH BLANK INSERT AT WALL SWITCH LOCATION LEVITON 80414-W (OR EQUAL)

ELECTRICAL DEVICE LEGEND

REFER TO SHEET E0.1 FOR SPECIFICATIONS AND MOUNTING HEIGHTS

- $ SINGLE POLE SWITCH
- $V MANUAL ON - AUTOMATIC OFF "VACANCY" SENSOR SWITCH
- $H SMART SENSE FAN SWITCH REFER TO DETAIL 6 / E-010
- $D DIMMER SWITCH
- $3 3 WAY SWITCH
- $3d 3 WAY DIMMER SWITCH
- $4 4 WAY SWITCH
- $F CEILING FAN WALL SWTICH BLANK
- DUPLEX RECEPTACLE
- QUAD-PLEX RECEPTACLE
- SPLIT WIRED "HALF-HOT" RECEPTACLE
- FLOOR MOUNTED DUPLEX RECEPTACLE
- GFCI PROTECTED RECEPTACLE
- WP GFCI PROTECTED RECEPTACLE W/ WEATHERPROOF COVER
- DUPLEX USB CHARGING RECEPTACLE LEVITON# T5832 OR EQUAL
- DUPLEX USB CHARGING RECEPTACLE (GFCI PROTECTED)
- GFCI 208V RECEPATCLE FOR DRYER / RANGE NEMA 14-30R @ DRYER NEMA 14-50R @ RANGE (VERIFY WITH EQUIPMENT SPECIFICATION)
- (S) SMOKE DETECTOR
- (SC) COMBINATION SMOKE / CARBON MONOXIDE DETECTOR
- RECESSED ELECTRICAL PANEL
- UNIT SUPPLY FAN FAN PER MECHANICAL PLANS COORDANTE WORK WITH MECHANICAL

ELECTRICAL DEVICE LEGEND

SHOWN FOR LOCATION ONLY. REFER TO SPECIFICATIONS BY OTHER.

- TELEPHONE OUTLET
- DATA OUTLET
- (TV) TELEVISION OUTLET
- PUSH-BUTTON SWITCH
- CH DOOR BELL CHIME
- MD MEDIA DISTRIBUTION ENCLOSURE

ELECTRICAL KEY NOTES

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19TH & HARRISON

Oakland, CA

NO.	ISSUE	DATE
1	PLAN CHECK RESPONSE #1/GMP	03/15/17
2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

APPROVAL

CONSULTANT

UNIT PLAN TYPE C

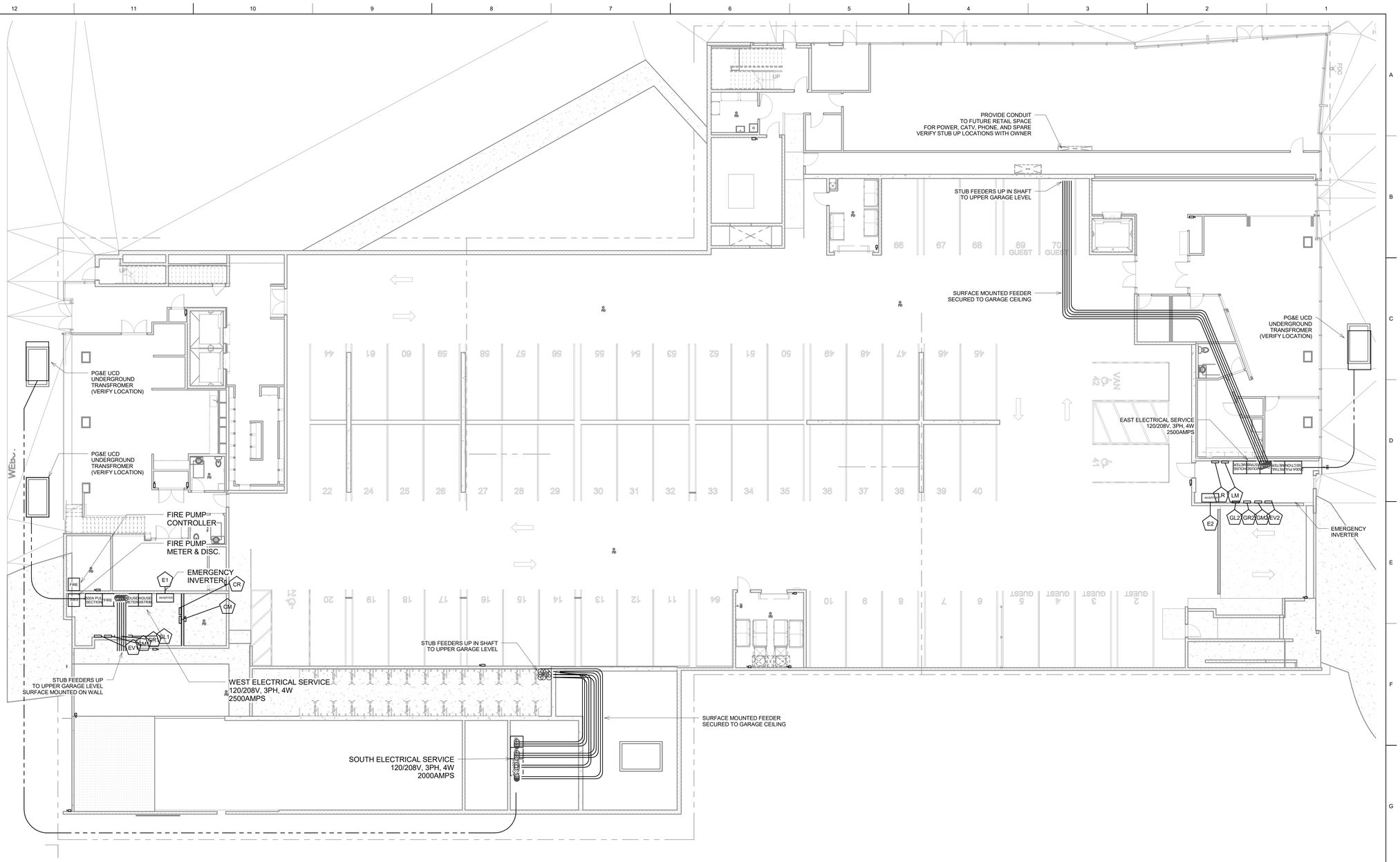
PROJECT NO: X6-059

DATE: 05/12/17

SHEET NO:

E4.9

ADDENDUM #1



LOWER GARAGE FEEDER PLAN
1" = 10'-0" | 1

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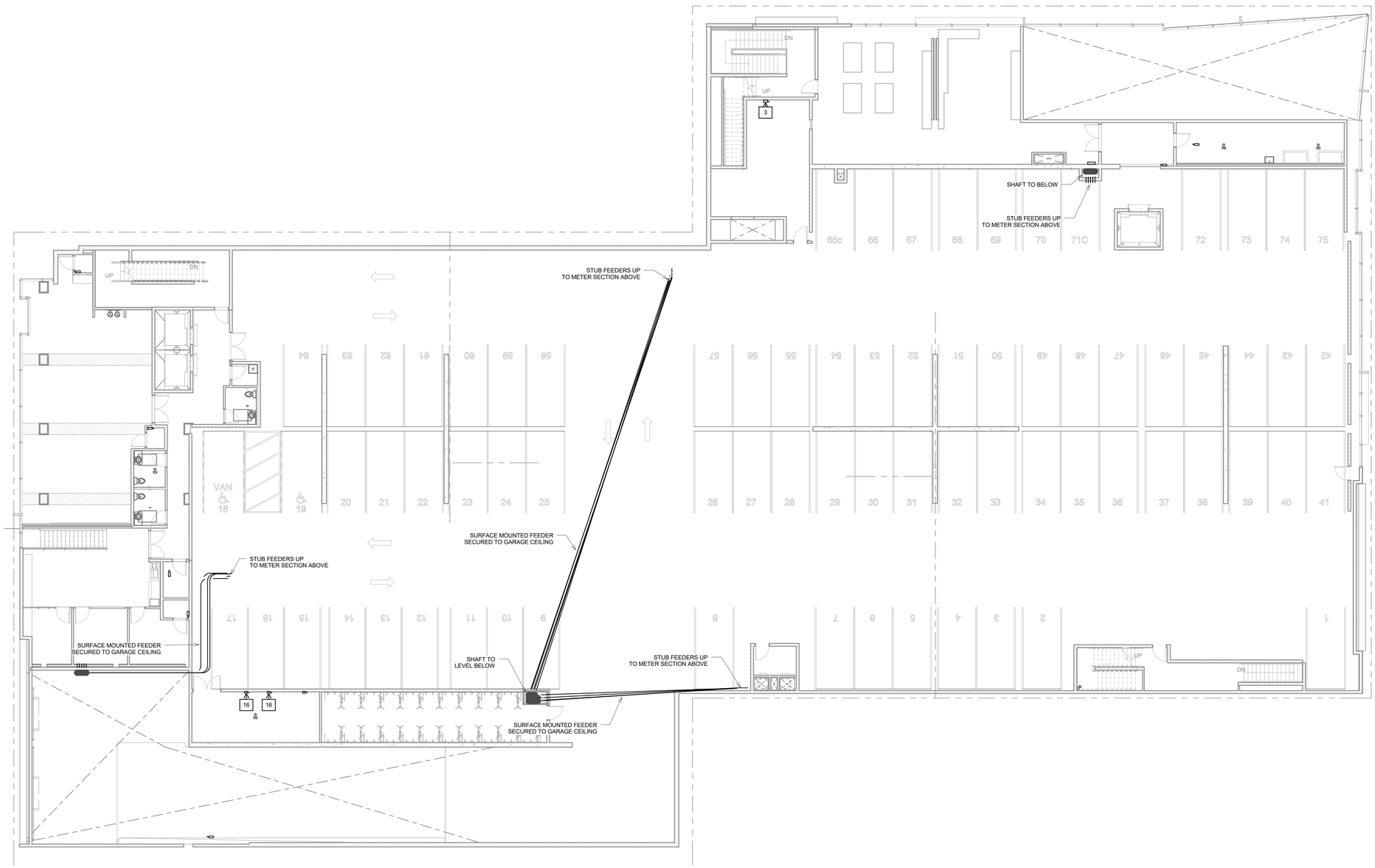
LOWER GARAGE FEEDER PLAN

PROJECT NO: X6-059
DATE: 05/12/17

SHEET NO:

E5.01

ADDENDUM #1



UPPER GARAGE FEEDER PLAN 1
1" = 10'-0"

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2	PLAN CHECK RESPONSE #2	05/12/17
3	ADDENDUM #1	05/12/17

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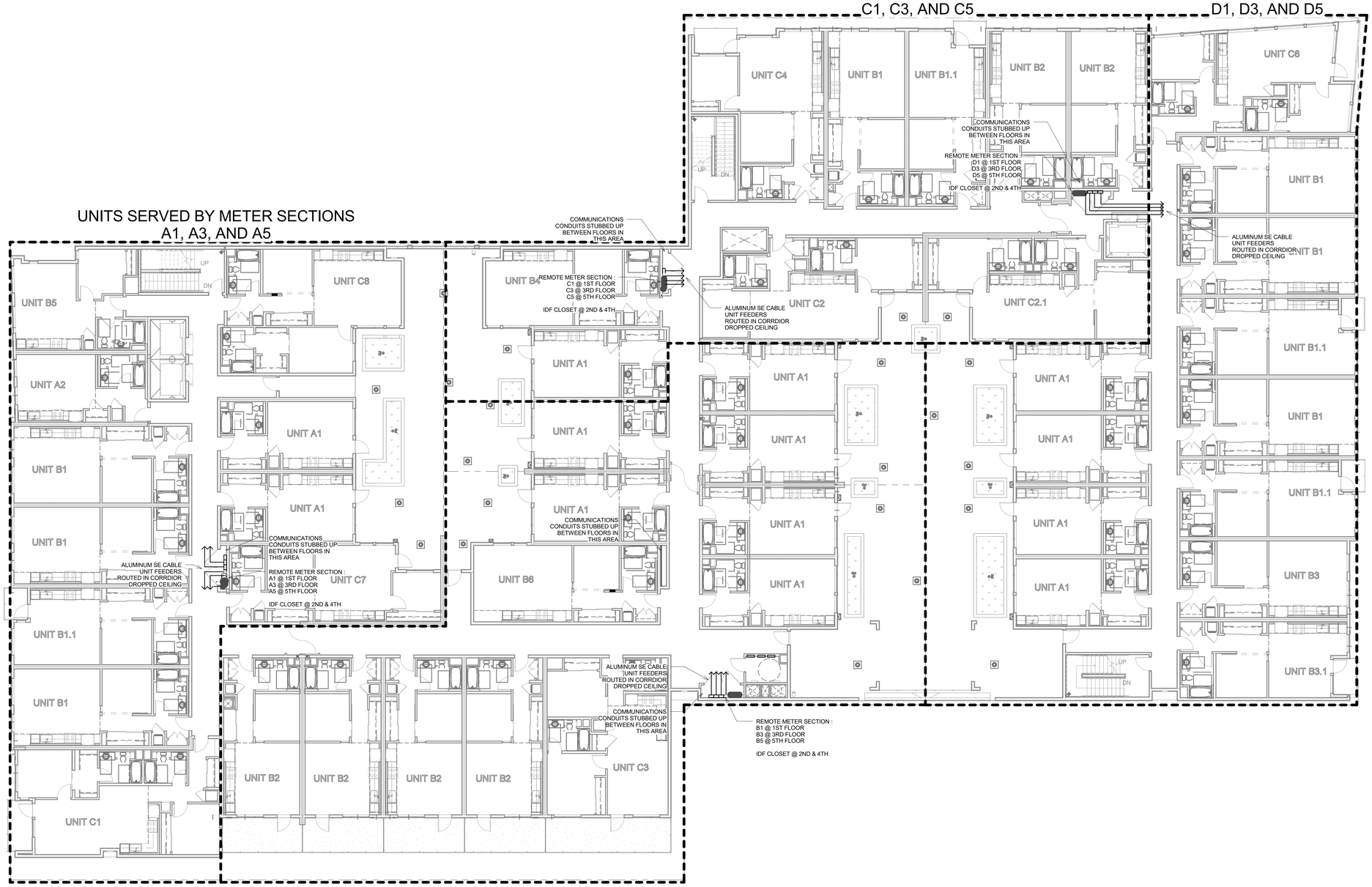
UPPER GARAGE FEEDER PLAN

PROJECT NO: X6-059
DATE: 05/12/17

SHEET NO:

E5.02

ADDENDUM #1



TYPICAL UPPER FLOOR FEEDER PLAN 1
1" = 10'-0"

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3	ADDENDUM #1	05/12/17

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TYPICAL UPPER LEVEL UNIT FEEDER PLAN

PROJECT NO: X6-059
DATE: 05/12/17

SHEET NO:

E5.03

ADDENDUM #1

STATE OF CALIFORNIA
Electrical Power Distribution
CEC-NRCC-ELC-01-E (Revised 05/15) — CALIFORNIA ENERGY COMMISSION

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Electrical Power Distribution	(Page 6 of 7)
Project Name: 19th + Harrison	Date Prepared: 3/13/2017

F. Circuit Controls for 120-Volt Receptacles

☐ Controlled 120 volt receptacles shall be provided, as required by Section 130.5(d) of the Standards.
☐ In open office areas, controlled circuit receptacles are not required if, at time of final permit, workstations are installed, and each workstation is equipped with an occupant sensing control that is permanently mounted in each workstation, and which controls a hardwired, nonresidential-rated power strip. Plug-in strips and other plug-in devices that incorporate an occupant sensor shall not be used for this exception.
☐ Receptacles that are only for the following purposes are exempt:
-Receptacles specifically for refrigerators and water dispensers in kitchenettes.
-Receptacles located a minimum of six feet above the floor that are specifically for clocks.
-Receptacles for network copiers, fax machines, A/V and data equipment other than personal computers in copy rooms.

		Field Inspector	
		Pass	Fail
		B	C
1.	At least one controlled receptacle is installed within 6 feet of each uncontrolled receptacle, or split-wired duplex receptacles are installed, that have one controlled and one uncontrolled receptacle. This applies in all of the following spaces: • Private offices, open office areas • Receptions and lobbies • Conference rooms • Kitchenettes in office spaces • Copy room	☐	☐
2.	Electric circuits serving controlled receptacles are equipped with automatic shut-OFF controls following the requirements prescribed in Section 130.1(c)1 through 5 (in many cases this will mean that the receptacles are connected to the same automatic shut-OFF system as the general lighting of the space).	☐	☐
3.	Controlled receptacles shall have a permanent marking to differentiate them from uncontrolled receptacles.	☐	☐
4.	For open office areas, controlled circuits shall be provided and marked to support installation and configuration of office furniture with receptacles that comply with Section 130.5(d) 1, 2, and 3.	☐	☐
5.	For hotel and motel guest rooms at least one-half of the 120-volt receptacles in each guest room are controlled receptacles that comply with Section 130.5(d)1, 2, and 3 (see numbers 1,2 and 3 above). Electric circuits serving controlled receptacles have captive card key controls, occupancy sensing controls, or automatic controls such that, no longer than 30 minutes after the guest room has been vacated, power is switched off.	☐	☐
6.	Plug-in strips and other plug-in devices that incorporate an occupant sensor are not used to comply with any of these requirements.	☐	☐

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Project Name: 19th + Harrison	Date Prepared: 3/13/2017

C. Disaggregation of Electrical Circuits

☐ Each newly installed switchboard, panel, and motor control center (in both existing and newly constructed buildings) is required to be disaggregated according to the requirements of Table 130.5-B, shown on the next page.
☐ Individual branch circuits, taps or disconnects that require overcurrent protection devices rated 60A or greater.
☐ As an alternative, current transformers can be added for individual branch circuits and loads throughout the building, and a permanent measurement system can be installed. In this case, disaggregated wiring would not be required as long as the metering system allows the equivalent disaggregated measurements.
☐ Fill out a separate line for each switchboard, motor control center, panelboard and subpanel.

Switchboard, motor control center, panelboard or subpanel	Electrical Service that supplies that switchboard or panel	Electrical Service Rating	Field Inspector	
			Pass	Fail
A	B	C	D	
Designation/location in building/description	Designation/location in building/description	kVA	☐	☐
West Electrical Service	GL1	432	☐	☐
West Electrical Service	GR1	432	☐	☐
West Electrical Service	GM1	432	☐	☐
West Electrical Service	L1	432	☐	☐
West Electrical Service	R1	432	☐	☐
West Electrical Service	M1	432	☐	☐
West Electrical Service	CR	432	☐	☐
West Electrical Service	CM	432	☐	☐
West Electrical Service	E1	432	☐	☐
West Electrical Service	EV1	432	☐	☐
West Electrical Service	RR1	432	☐	☐
East Electrical Service	GL2	432	☐	☐
East Electrical Service	GR2	432	☐	☐
East Electrical Service	GM2	432	☐	☐
East Electrical Service	RR2	432	☐	☐
East Electrical Service	MR	432	☐	☐
East Electrical Service	LR	432	☐	☐
East Electrical Service	LM	432	☐	☐
East Electrical Service	E2	432	☐	☐
East Electrical Service	EV2	432	☐	☐
			☐	☐
			☐	☐
			☐	☐
			☐	☐
			☐	☐
			☐	☐
			☐	☐

OR

Current transformers have been attached to individual branch circuits and loads throughout the building, and a permanent measurement system is installed that allows an equivalent degree of disaggregated measurement as required by the Standards.. ☐ ☐

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Electrical Power Distribution	(Page 2 of 7)
Project Name: 19th + Harrison	Date Prepared: 3/13/2017

B. Electrical Service Metering

☐ Each newly installed electrical service (in both existing and newly constructed buildings) is required to be metered, as set out in Table 130.5-A, which is reproduced below.
☐ Fill out a separate line for each electrical service that is connected to the building.

Electrical Service Schedule	Electrical Service Rating	Metering Capabilities (check all that are present)				Field Inspector	
		Instantaneous (at the time) kW demand	Historical peak demand (kW)	Resettable kWh	kWh per rate period	Pass	Fail
A	B	C	D	E	F	G	
Designation/location in building/description	kVA						
West Electrical Service (House Meter)	432	☑	☑	☑	☐	☐	☐
East Electrical Service (House Meter)	432	☑	☑	☑	☐	☐	☐
		☐	☐	☐	☐	☐	☐
		☐	☐	☐	☐	☐	☐
		☐	☐	☐	☐	☐	☐
		☐	☐	☐	☐	☐	☐
		☐	☐	☐	☐	☐	☐
		☐	☐	☐	☐	☐	☐
		☐	☐	☐	☐	☐	☐
		☐	☐	☐	☐	☐	☐

Table 130.5-A - MINIMUM REQUIREMENTS FOR METERING OF ELECTRICAL LOAD

Meter Rating (kVA)	50 kVA or less	More than 50kVA and less than or equal to 250 kVA	More than 250 kVA and less than or equal to 1000kVA	Services rated more than 1000kVA
Instantaneous (at the time) kW demand	Required	Required	Required	Required
Historical peak demand (kW)	Not required	Not required	Required	Required
Resettable kWh	Required	Required	Required	Required
kWh per rate period	Not required	Not required	Not required	Required

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CERTIFICATE OF COMPLIANCE	NRCC-ELC-01-E
Electrical Power Distribution	(Page 1 of 7)
Project Name: 19th + Harrison	Date Prepared: 3/13/2017

A. General Information

Project Address:		Climate Zone: 3	Conditioned Floor Area : 0 Unconditioned Floor Area : 168,470
Building Type:	☐ Nonresidential ☐ High-Rise Residential ☐ Hotel/Motel		
☐ Schools	☐ Relocatable Public Schools ☐ Conditioned Spaces ☑ Unconditioned Spaces		
Phase of Construction:	☑ New Construction ☐ Addition ☐ Alteration		

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19TH & HARRISON STREET

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ARCHITECT'S STAMP — APPROVAL

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CONSULTANT

LIGHTING TITLE 24 COMPLIANCE FORMS

PROJECT NO: □6-059
DATE: 05/12/17

SHEET NO:

ET0.01

ADDENDUM #1

STATE OF CALIFORNIA
INDOOR LIGHTING – LIGHTING CONTROLS
NRESIDENTIAL (NR)
CERTIFICATE OF COMPLIANCE — CALIFORNIA ENERGY COMMISSION — NRCC-LTI-02-E
Indoor Lighting - Lighting Controls — (Page 1 of 3)
Project Name: 19th + Harrison — Date Prepared: 3/13/2017

The NRCC-LTI-02-E shall be used to document all mandatory and prescriptive lighting controls that are applicable to the project.

Mandatory Lighting Control Declaration Statements (Indicate if the measure applies by checking yes or no below.)

YES	NO	Control Requirements
	✓	Lighting that is controlled by self-contained lighting control devices which are certified to the Energy Commission according to Title 20 Appliance Efficiency Regulations in accordance with Section 110.9.
	✓	Lighting shall be controlled by an automatic lighting control system or energy management control system in accordance with §110.9. An Installation Certificate shall be submitted in accordance with §130.4(b).
	✓	A Track Lighting Supplementary Overcurrent Protection Panel shall be installed in accordance with Section 130.4(b). An Installation Certificate shall be submitted in accordance with §130.4(b). Additionally, an Installation Certificate shall be submitted in accordance with §130.4(a).
	✓	All installed indoor lighting shall be equipped with controls that meet the applicable requirements in Section 130.1(a) through 130.1(d), as indicated in Section 130.1(e).
	✓	Lighting in all Daylit Zones shall be controlled in accordance with the requirements in Section 130.1(d) and daylit zones are shown on the plans.
	✓	Lighting power in buildings larger than 10,000 square feet shall be capable of being automatically reduced in response to a Demand Responsive Signal in accordance with Section 130.1(b).
	✓	Before an occupancy permit is granted for a newly constructed building or area, or a new lighting system serving a building, area, or site is operated for normal use, indoor lighting controls serving the building, area, or site shall be certified as meeting the Acceptance Requirements for Code Compliance in accordance with Section 130.4 (a). The controls required to meet the Acceptance Requirements include automatic daylight controls, automatic shut-OFF control, and demand responsive controls.

CA Building Energy Efficiency Standards - 2013 Nonresidential Compliance — May 2015

STATE OF CALIFORNIA
INDOOR LIGHTING – LIGHTING CONTROLS
NRESIDENTIAL (NR)
CERTIFICATE OF COMPLIANCE — CALIFORNIA ENERGY COMMISSION — NRCC-LTI-02-E
Indoor Lighting - Lighting Controls — (Page 2 of 3)
Project Name: 19th + Harrison — Date Prepared: 3/13/2017

MANDATORY AND PRESCRIPTIVE INDOOR LIGHTING CONTROL SCHEDULE and FIELD INSPECTION CHECKLIST

A separate document must be filled out for Conditioned and Unconditioned Spaces.
☐ CONDITIONED SPACES ☒ UNCONDITIONED SPACES

Lighting Control Schedule

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Location in Building	Type/ Description of Lighting Control (i.e. occupancy sensor, dimmer, automatic daylight, etc...)	# of Units	§130.1(a)	§130.1(b)	§130.1(c)	§130.1(d)	§140.6(d)	§140.6(d)2	Standards Complying With ✓ (all that apply)	Uncontrolled Watts (I x L)	PAF	Controlled Lighting	Field Inspector ✓ if acceptance Test Required	
													Pass	Fail
CORRIDOR, STORAGE, E	Occupancy Sensor	78			✓								☐	☐
MANUAL DIMMERS	Manual Dimming	4				✓							☐	☐
WALL DIMMERS	Manual Area	15				✓							☐	☐
WALL VACANCY SENSOR	Occupancy Sensor	25			✓								☐	☐
DIGITAL LIGHTING CONTI	Multi Level	4					✓						☐	☐
													☐	☐
													☐	☐
IF MULTIPLE PAGES ARE USED, ENTER SUM TOTAL OF Control Credit for all pages HERE (Sum of all Column M)									Control Credit PAGE TOTAL (Sum of Column M)					
									Control Credit for all pages (Sum of all Column M)	0				

1. §130.1(a) = Manual area controls, §130.1(b) = Multi-Level, §130.1(c) = Auto Shut-Off, §130.1(d) = Daylighting, §140.6(d) = Demand Responsive, §140.6(d)2 = Demand Responsive Credit (add total into NRCC-LTI-02-E, Page 3, also required to be filled out, signed, and submitted
2. Check Table 140.6-A for correct Factor. PAFs shall not be counted between conditioned and unconditioned spaces. As a condition to earn a PAF, an Installation Certificate is required to be filled out, signed, and submitted

CA Building Energy Efficiency Standards - 2013 Nonresidential Compliance — May 2015

STATE OF CALIFORNIA
OUTDOOR LIGHTING CONTROLS
RESIDENTIAL (NR)
CERTIFICATE OF COMPLIANCE — CALIFORNIA ENERGY COMMISSION — NRCC-LTO-02-E
Outdoor Lighting Controls — (Page 1 of 3)
Project Name: 19th + Harrison — Date Prepared: 3/13/2017

The NRCC-LTO-02-E shall be used to document all mandatory outdoor lighting controls that are applicable to the project.

Mandatory Outdoor Lighting Control Declaration Statements

Check all that apply:

☐ Lighting shall be controlled by self-contained lighting control devices which are certified to the Energy Commission according to the Title 20 Appliance Efficiency Regulations in accordance with Section 110.9.
☐ Lighting shall be controlled by an automatic lighting control system or energy management control system in accordance with §110.9. An Installation Certificate shall be submitted in accordance with §130.4(b).
☑ All lighting controls and equipment shall comply with the applicable requirements in §110.9 and shall be installed in accordance with the manufacturer's instructions in accordance with §130.4.
☐ All outdoor luminaires rated for use with lamps greater than 150 lamp watts, as defined in Section 100.1(b), shall meet the requirements in Section 110.9(b)4.
☐ All outdoor incandescent luminaires rated over 100 watts, determined in accordance with Section 130.0(k), shall be controlled by a motion sensor.
☐ All outdoor luminaires rated for use with lamps greater than 150 lamp watts, determined in accordance with Section 130.0(k), shall comply with Backlight, Uplight, and Glare (collectively referred to as "BUG") in accordance with Section 130.2(b)
☐ All installed outdoor lighting shall be controlled by a photocontrol or outdoor astronomical time-switch control in accordance with Section 130.2(c)1 and shall be circuited and independently controlled from other electrical loads by an automatic scheduling control in accordance with Section 130.2(c)2
☐ All installed outdoor lighting, where the bottom of the luminaire is mounted 24 feet or less above the ground, shall be controlled with automatic lighting controls in accordance with Section 130.2(c)3
☐ For Outdoor Sales Frontage, Outdoor Sales Lots, and Outdoor Sales Canopies lighting, an automatic lighting control in accordance with Section 130.2(c)4
☐ For Building Facade, Ornamental Hardscape and Outdoor Dining lighting, an automatic lighting control in accordance with Section 130.2(c)5
☐ Before an occupancy permit is granted for a newly constructed building or area, or a new lighting system serving a building, area, or site is operated for normal use, indoor lighting controls serving the building, area, or site shall be certified as meeting the Acceptance Requirements for Code Compliance in accordance with §130.4 (a). Outdoor lighting controls shall comply with the applicable requirements of Section 130.2(c) and Reference Nonresidential Appendix NA7.8

CA Building Energy Efficiency Standards - 2013 Nonresidential Compliance — May 2015

STATE OF CALIFORNIA
OUTDOOR LIGHTING CONTROLS
RESIDENTIAL (NR)
CERTIFICATE OF COMPLIANCE — CALIFORNIA ENERGY COMMISSION — NRCC-LTO-02-E
Outdoor Lighting Controls — (Page 2 of 3)
Project Name: 19th + Harrison — Date Prepared: 3/13/2017

MANDATORY OUTDOOR LIGHTING CONTROL SCHEDULE and FIELD INSPECTION CHECKLIST

Outdoor Lighting Control Schedule

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Location and Application of Luminaire/s being controlled	Type/ Description of Lighting Control (i.e. motion sensor, photocontrol, astronomical time-switch control, centralized time-based zone lighting control)	# of Units	§130.2(a)	§130.2(c)1	§130.2(c)2	§130.2(c)3	§130.2(c)4	§130.2(c)5	Standards Complying With ✓ (all that apply, or enter 'I' if Exempted)				Field Inspector ✓ if acceptance Test Required	
													Pass	Fail
ELECTRICAL ROOMS	Astronomical Time Switch	2		✓									☐	☐
													☐	☐
													☐	☐
													☐	☐
													☐	☐
													☐	☐
													☐	☐
													☐	☐
													☐	☐
													☐	☐

CA Building Energy Efficiency Standards - 2013 Nonresidential Compliance — May 2015

STATE OF CALIFORNIA
Electrical Power Distribution
CEC-NRCC-ELC-01-E (Revised 05/15) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ELC-01-E
Electrical Power Distribution	(Page 7 of 7)
Project Name: 19th + Harrison	Date Prepared: 3/13/2017

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name:	Documentation Author Signature:
Company: CANDELA ENGINEERING	Signature Date: 3/13/2017
Address:	CEA/ HERS Certification Identification (if applicable):
City/State/Zip:	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Brian Overley	Responsible Designer Signature: Brian Overley
Company: CANDELA Engineering	Date Signed:
Address: 25635 Calle La Fuente	License: E20627
City/State/Zip: San Juan Capistrano, CA 92675	Phone: 949.201.1333

CA Building Energy Efficiency Standards - 2013 Nonresidential Compliance — May 2015

STATE OF CALIFORNIA
INDOOR LIGHTING – LIGHTING CONTROLS
NRESIDENTIAL (NR)
CERTIFICATE OF COMPLIANCE — CALIFORNIA ENERGY COMMISSION — NRCC-LTI-02-E
Indoor Lighting - Lighting Controls — (Page 3 of 3)
Project Name: 19th + Harrison — Date Prepared: 3/13/2017

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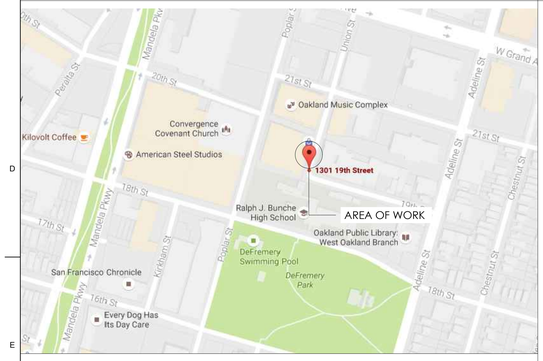
CA Building Energy Efficiency Standards - 2013 Nonresidential Compliance — May 2015

19TH AND HARRISON
OAKLAND, CA
1301 19TH STREET, OAKLAND, CA

AUDIO/VIDEO

VICINITY MAP



GENERAL NOTES:

1. ALL CORING SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR AND SECURITY CONTRACTOR.
2. ELECTRICIAN TO PROVIDE 120VAC ON DEDICATED 20 AMP CIRCUIT FOR AUDIO EQUIPMENT.
3. REFER TO ARCHITECTURAL AND LANDSCAPE DRAWINGS FOR ADDITIONAL CONDUIT AND BOXES.
4. MAXIMUM DISTANCE BETWEEN JUNCTION BOXES SHALL BE 200 FEET.
5. BACK BOXES, PULL BOXES, AND CONDUIT ARE TO BE PROVIDED BY THE ELECTRICAL CONTRACTOR. CONDUIT ROUTING SHOWN ON THESE DRAWINGS ARE FOR REFERENCE ONLY. CONDUIT ROUTES MAY REQUIRE MODIFICATION DUE TO CONSTRUCTION FIELD CONDITIONS. CONDUIT SHOULD NOT EXCEED 200 FEET BETWEEN PULL BOXES OR 180 DEGREES OF BENDS. PULL BOXES SHALL NOT BE USED IN LIEU OF A BEND.
6. ELECTRICIAN TO PROVIDE PULL STRING IN ALL CONDUITS.
7. ELECTRICIAN SHALL PROVIDE AND INSTALL CORES AND CONDUITS AS NOTED ON THE AUDIO VIDEO PLAN.
8. SURGE SUPPRESSION AND GROUNDING SHALL BE ADDED TO ALL LOW VOLTAGE, LINE VOLTAGE, CABLE, DATA AND PHONE LINES.
9. ELECTRICIAN SHALL PROVIDE EARTH GROUND WITH .5-25 OHM RESISTANCE.
10. PRODUCTS SHALL BE OF MATERIALS THAT ARE SUITABLE FOR THE ENVIRONMENT IN WHICH THEY ARE TO BE INSTALLED.
11. WORKING CLEARANCES AROUND ELECTRICAL EQUIPMENT SHALL BE MAINTAINED IN COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE ARTICLE 110. COORDINATE EQUIPMENT INSTALLATION TO MAINTAIN REQUIRED CLEARANCES.
12. LOCATIONS OF EQUIPMENT SHOWN ON THE DRAWINGS ARE FOR DIAGRAMATICAL PURPOSES ONLY. COORDINATE EXACT EQUIPMENT LOCATION AND CONNECTION REQUIREMENTS WITH THE APPROPRIATE TRADE PRIOR TO INSTALLATION.
13. FOR EXACT LOCATION OF CEILING MOUNTED AUDIO SPEAKERS, REFER TO THE ARCHITECTURAL REFLECTED CEILING PLAN AND ELECTRICAL LIGHTING PLAN. LOCATIONS OF AUDIO SPEAKERS NOT INCLUDED ON THE REFLECTED CEILING PLAN SHALL BE COORDINATED WITH THOSE ITEMS SHOWN. COORDINATION OF CEILING MOUNTED AUDIO SPEAKERS SHALL BE PRIOR TO ANY ROUGH-IN. NOTIFY ENGINEER OF ANY DISCREPANCIES.
14. THE SYMBOL LEGENDS SHOWN ON THIS SHEET ARE ALL INCLUSIVE. SYMBOLS INCLUDED IN THE LEGENDS MAY OR MAY NOT BE USED IN THESE PROJECT DRAWINGS.
15. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL SLEEVES AS REQUIRED FOR ALL LOW VOLTAGE CABLE PATHWAYS. RESTORE THE FIRE RATING OF THE SURFACE.
16. ALL OUTLETS ARE TO BE POSITIONED SECURELY IN UNIFORM WITH ADJACENT OUTLETS.
17. ALL FIRE STOPPING REQUIRED BY CODE AND INSTALLATION SHALL BE THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR.
18. ALL NECESSARY LOW VOLTAGE PERMITS AND INSPECTIONS SHALL BE THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR.
19. ALL WORK SHALL MEET OR EXCEED THE REQUIREMENTS OF ALL APPLICABLE STATUTES, ORDINANCES, RULES, CODES, REGULATIONS, DECISIONS, AND ORDERS OF ALL LOCAL, STATE AND FEDERAL AUTHORITIES HAVING JURISDICTION OVER THE CONSTRUCTION OF TELECOMMUNICATIONS CABLE SYSTEMS, INCLUDING BUT NOT LIMITED TO, APPLICABLE BUILDING CODES, FIRE CODES, AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION AND FEDERAL COMMUNICATIONS COMMISSION.

CONDUIT NOTES:

1. CONDUIT RUNS SHALL NOT CONTAIN LB'S.
2. CONDUIT RUNS SHALL NOT EXCEED 200 CONTINUOUS FEET. FOR RUNS IN EXCESS OF 200 FEET, INSERT AN ACCESSIBLE PULL BOX.
3. IF A CONDUIT REQUIRES MORE THAN TWO 90'S BENDS, THEN PROVIDE AN ACCESSIBLE PULL BOX BETWEEN SECTIONS WITH 2 BENDS OR LESS. IF A CONDUIT RUN REQUIRES A REVERSE BEND (BETWEEN 100° AND 180°, THEN INSERT AN ACCESSIBLE PULL BOX AT EACH BEND HAVING AN ANGLE FROM 100° AND 180°. IF A CONDUIT RUN REQUIRES MORE THAN TWO 90° BENDS BETWEEN PULL BOXES, THEN FOR EACH ADDITIONAL BEND EITHER DERATE THE CONDUIT CAPACITY BY 15% OR USE THE NEXT LARGER SIZE CONDUIT.
4. REAM ALL CONDUIT ENDS. FIT STUBBED CONDUITS WITH AN INSULATED BUSHING SHARP EDGES THAT MAY DAMAGE CABLE DURING INSTALLATION OR SERVICE. EQUIP ALL CONDUIT WITH PULL CORD A MINIMUM TEST RATING OF 200LBS.
5. CONTRACTOR SHALL MAINTAIN A MINIMUM BEND RADIUS OF 24" FOR ALL 2" CONDUIT RUNS UNLESS NOTED OTHERWISE.

CABLING NOTES:

1. DO NOT USE METAL STAPLES OR OTHER METHODS THAT KINK OR DEFORM CABLE JACKET. USE PLASTIC STAPLES SUCH AS THE PETER MANGONE RB CLIP GUN SYSTEM.
2. NO SPLICES ARE PERMITTED.
3. ALL EXPOSED CONNECTION HARDWARE SHALL BE PROTECTED FROM PLASTER, PAINT AND OTHER SUCH MATERIALS.
4. ALL CORING AND DRILLING THROUGH CONCRETE, BLOCK, STONE, OR OTHER IMPERVIOUS MATERIALS IS THE RESPONSIBILITY OF GENERAL CONTRACTOR.
5. ALL FIRE STOPPING AS REQUIRED BY CODE AND INSTALLATION IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR.
6. ALL LOW-VOLTAGE WIRING SHOULD BE RUN AT LEAST ONE STUD BAY APART (12" MINIMUM) FROM ANY PARALLEL HIGH-VOLTAGE WIRING, AND CROSS AT RIGHT ANGLES WHENEVER NECESSARY. WHERE THERE IS SUFFICIENT CLEARANCE TO MEET THAT REQUIREMENT, THE CABLING MUST BE ARRANGED TO PROVIDE THE MAXIMUM POSSIBLE SEPARATION, OVER AS MUCH DISTANCE AS POSSIBLE (UNDER NO CIRCUMSTANCES SHALL THE LATERAL DISTANCE BE LESS THAN 4" WITHOUT SUPPLEMENTAL SHIELDING). THE ONLY EXCEPTION IS WHERE CABLES CROSS AT RIGHT ANGLES, WHERE A 2" MINIMUM SEPARATION MUST BE MAINTAINED.
7. COORDINATE WITH THE ELECTRICAL CONTRACTOR BEFORE THE HIGH-VOLTAGE WIRING COMMENCES.
8. PROTECTING CABLING FROM DAMAGE IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR. ALL CABLING MUST BE RUN WHERE IT IS UNLIKELY TO BE DAMAGED AFTER INSTALLATION, NAIL PLATES SHOULD BE INSTALLED WHERE CABLING PASSES THROUGH WALL STUDS. WHERE STEEL FRAMING IS USED, PLASTIC BUSHINGS MUST BE INSTALLED WHERE EVER CABLES PASS THROUGH METAL STRUCTURAL MEMBERS. CABLES MUST NOT TOUCH ANY EDGES OF METAL FRAMING.
9. ALL CABLING MUST BE PROPERLY SUPPORTED AND SECURED IN A WAY THAT WILL NOT COMPRESS OR DEFORM THE CABLES.
10. ALL CABLE BENDS MUST MAINTAIN MANUFACTURES BEND RADIUS REQUIREMENTS.
11. ANY DEFECTIVE OR DAMAGED CABLING, OR ANY CABLE OR CABLE INSTALLATION THAT DOES NOT MEET THESE SPECIFICATIONS, MUST BE REPLACED. THIS WILL BE AT THE INSTALLATION CONTRACTOR'S EXPENSE, UNLESS IT IS THE RESULT OF GROSS NEGLIGENCE BY ANOTHER TRADE. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING SECURITY INSTALLATION CONTRACTOR OF ANY SUCH CABLE DAMAGE.

SHEET INDEX TABLE

SHEET NUMBER	SHEET TITLE
AV-101	COVER SHEET
AV-201	DETAILS
AV-301	RISER DIAGRAM
AV-501	GROUND FLOOR PLAN
AV-502	UPPER GARAGE FLOOR PLAN
AV-503	FIRST FLOOR PLAN
AV-504	SECOND FLOOR PLAN
AV-505	THIRD FLOOR PLAN
AV-506	FOURTH FLOOR PLAN
AV-507	FIFTH FLOOR PLAN
AV-508	MEZZANINE FLOOR PLAN
AV-509	ROOF PLAN

SYMBOLS LEGEND

SYMBOL	COUNT	DESCRIPTION
AMP-2	1	2 CHANNEL AMPLIFIER
TSP-2.8	2	2.8 Inch In-Wall Touchpanel Keypad
46" FLAT PANEL TV	1	46" FLAT PANEL TELEVISION
5.1 RCV	2	5.1 HOME THEATER RECEIVER
55" FLAT PANEL TV	5	55" FLAT PANEL TELEVISION
70" FLAT PANEL TV	1	70" FLAT PANEL TELEVISION
AMP-8	1	8 CHANNEL AMPLIFIER
CABLE	1	CABLE BOX
DSP	2	DIGITAL SIGNAL PROCESSOR
	8	DOME PLANTER SPEAKERS
HDMI EXT	1	HDMI EXTENDER
IR CTRL	1	IR Controller
NS	2	NETWORK SWITCH
S	4	RECTANGULAR SPEAKERS
S	23	ROUND SPEAKERS
SW	2	SUB WOOFER
	10	Volume Control
		120VAC ON DEDICATED 20AMP CIRCUIT WITH DUPLEX OUTLET (BY E.C.)
		120VAC ON DEDICATED 20AMP CIRCUIT WITH QUAD OUTLET (BY E.C.)

AUDIO ZONE DESIGNATIONS:

(S) # — ZONE NUMBER
— SYSTEM NUMBER

LPAS

2484 Natomas Park Drive Suite 100 Sacramento CA 95833
916 443 0335 lpasdesign.com **Architecture + Design**

19TH & HARRISON STREET

Oakland, CA

1301 19th Street, Oakland, CA

ISSUE	DATE
50% DD	07/15/16
100% DD	09/01/16
100% DD PRICING SET	10/06/16
95% CD	12/08/16
GMP	03/15/17

REV #	ISSUE	DATE

ARCHITECT'S STAMP APPROVAL

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CONSULTANT

HCI INC. STATE OF CALIFORNIA CONTRACTOR'S LICENSE FIRE LIFE SAFETY & LOW VOLTAGE SPECIALIST LICENSE #905492 Exp. 02/18

HCI Systems Inc.
FIRE / LIFE SAFETY & LOW VOLTAGE SPECIALISTS
ONTARIO ● SAN DIEGO ● IRVINE ● HAYWARD
BURBANK ● FRESNO ● SACRAMENTO

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Ontario, CA 91761

Phone: (909) 628-7773
Fax: (909) 628-7774
24-Hour Service: (877) 331-2084
Website: www.hcisystems.net

AUDIO/VIDEO COVER SHEET

PROJECT NO: 16-15254 AV
DATE: 07/05/16

SHEET NO:

AV-101

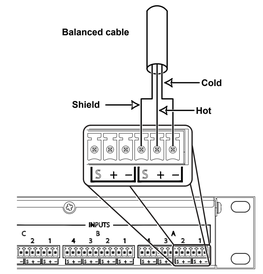
AUDIO CABLE WIRING

- ALL AUDIO AND GPIO CONNECTIONS TO THE BLU-100 ARE VIA KLIPPON PLUGGABLE TERMINAL BLOCK CONNECTORS □ALSO KNOWN AS BL, PHOENI□ OR COMBICON □12-WAY FEMALE KLIPPON CONNECTORS ARE SUPPLIED FOR MAKING THESE CONNECTIONS□

AUDIO INPUT AND OUTPUT WIRING CONVENTION

- SOUNDWEB PRODUCTS PROVIDE CABLE SHIELDING 'BACK FROM THE DESTINATION' TO ELIMINATE GROUND LOOP PROBLEMS□ THIS MEANS THAT THE SHIELD □S□ CONNECTION ON AN INPUT IS GROUNDED, WHEREAS THE SHIELD CONNECTION ON AN OUTPUT IS FLOATING □ALTHOUGH CONNECTED VIA AN INTERNAL NETWORK TO GROUND FOR EMC COMPLIANCE□□

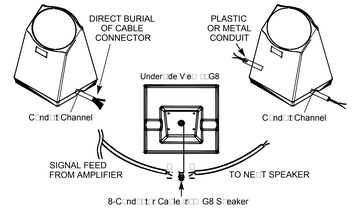
BALANCED WIRING - THE CONVENTION FOR BALANCED WIRING □2-CORE PLUS SHIELD□ IS SHOWN HERE:



BLU-100 AUDIO CABLE WIRING DETAIL - BALANCED | C

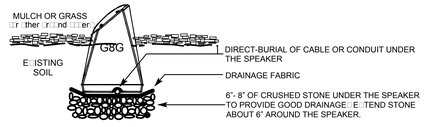
INSTALLATION OF THE G8 GARDEN SPEAKER

DIRECT BURIAL OF CABLE OR CONDUIT
DEPENDING ON THE TYPE OF INSTALLATION, DIRECT BURIAL OF THE SPEAKER CABLES FROM THE AMPLIFIER TO THE LOUDSPEAKERS MAY BE ADEQUATE, OR THE USE OF 1"- 1-1/2" ID CONDUIT MAY BE REQUIRED FOR PROTECTING THE WIRES FROM POSSIBLE PHYSICAL DAMAGE IF FUTURE E□CAVATION OR OTHER ALTERATIONS ARE ANTICIPATED IN THE AREA OF THE INSTALLATION□THE G8 CAN ACCOMMODATE EITHER METHOD, INCLUDING THE ENTRY AND E□IT CONDUITS SLIDING CONVENIENTLY UNDER THE BOTTOM OF THE SPEAKER ENCLOSURE□



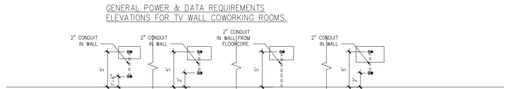
CONNECTIONS CAN BE PROTECTED USING ONE OF THE FOLLOWING METHODS:

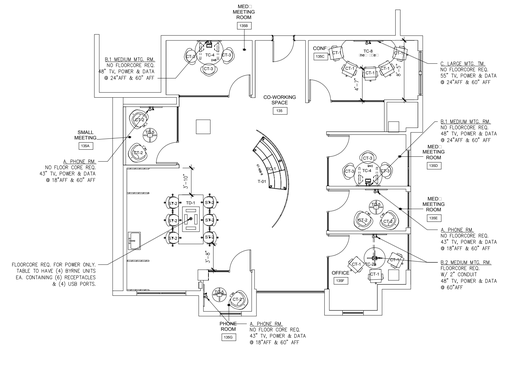
- SOLDER WIRES TOGETHER USING WATERPROOF HEAT SHRINK TUBING TO SEAL□
- USE WATERPROOF WIRE CONNECTORS□□□
- MAKE CONNECTIONS WITH IMMERSION-RESISTANT CRIMP SPLICES □RAYCHEM□□
- USE GREASE WIRE CAPS AVAILABLE FROM SEVERAL SUPPLIERS □ORBIT, TORO IRRIGATION, ETC.□□



INSTALLATION OF THE G8 GARDEN SPEAKER | B

GENERAL POWER & DATA REQUIREMENTS
ELEVATIONS FOR TV WALL COWORKING ROOMS.





CO-WORKING OFFICE TYPICALS | D

ALL WIRING SHALL BE COMPLETED PRIOR TO INSTALLATION AND THEN PLUGGED INTO THE REAR OF THE SPEAKER □WIRING IS TERMINATED AT A SNAP-LOCK INPUT CON-NECTOR□THERE ARE TWO POSITIVE AND TWO NEGATIVE TERMINALS TO ACCOMMODATE DAISY-CHAINING OF SPEAKERS IN A SYSTEM□

1□ DAISY-CHAINING - THE SNAP-LOCK INPUT CONNECTOR ALLOWS FOR EASY DAISY-CHAINING OF SPEAKERS BY PROVIDING A SEC-OND TERMINAL OF EACH POLARITY□SEE THE FIGURES TO THE RIGHT AND BELOW FOR CORRECT WIRING FOR DAISY-CHAINING OF TERMINALS□

2□ SPEAKER POLARITY - KEEP THE SAME POLARITY TERMINALS WIRED TOGETHER TO ENSURE CORRECT SPEAKER POLARITY□

2.a□ IN ORDER TO PROVIDE THE BEST POSSIBLE SOUND, ALL SPEAKERS IN A SYSTEM NEED TO BE PUSHING OUT AND PULLING IN AT THE SAME TIME□ THEREFORE ALL MUST BE WIRED WITH THE SAME POLARITY□

2.□□ IF THE CONNECTIONS TO ONE SPEAKER IN A SYSTEM ARE REVERSED FROM THE OTHERS, THAT SPEAKER'S MOVEMENT WILL BE OUT OF POLARITY WITH THE OTHER SPEAKERS. THIS RESULTS IN A LOSS OF LOW FRE□UENCY RESPONSE AND WILL EFFECT THE OVERALL PERFORMANCE OF THE SYSTEM□

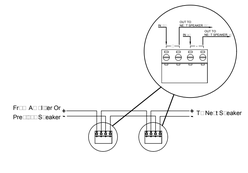
3□ TERMINAL COVERS

3.a□ THE TWO TERMINAL COVER HALVES ARE ATTACHED TO THE BACK OF THE SPEAKER USING 4 SCREWS□IT IS IMPORTANT THAT ALL 4 SCREWS BE USED TO MOUNT THE COVERS□

3.□□ A SLOT BETWEEN THE TWO HALVES ALLOWS THE WIRE TO E□IT THE SPEAKER WHILE PROTECTING THE CONNECTIONS□THE COVER'S EYELETS CAN BE USED TO ANCHOR THE WIRE USING A WIRE TIE IF DESIRED□□

3.□□ IF LOCAL CODES RE□UIRE THE USE OF A CONDUIT FOR CONNECTIONS OR STRAIN RELIEF OF THE CONNECTIONS, A KNOCKOUT CAN BE REMOVED AND A PROPER FITTING INSTALLED FOR THE PARTICULAR SITUATION□□

3.d□ EYELETS ARE PROVIDED ON THE TERMINAL COVERS TO PROVIDE A MEANS OF SECURING THE SPEAKER TO THE STRUCTURE□IT IS IMPORTANT THAT ALL 4 TERMINAL COVER SCREWS BE INSTALLED IN THIS APPLICATION□□



SPEAKER WIRING DETAILS | A

LPAS

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	100% DD	09/01/16
	100% DD PRICING SET	10/06/16
	95% CD	12/08/16
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ARCHITECT'S STAMP APPROVAL

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CONSULTANT

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AUDIO/VIDEO DETAILS

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AV-201