

[illegible][illegible]

A. INSTALL LIGHTING FIXTURES AS SHOWN ON THE ELECTRICAL DRAWINGS. VERIFY EXACT LOCATIONS OF FIXTURES WITH ARCHITECTURAL REFLECTED CEILING PLANS. COORDINATE FIXTURE HOUSINGS AND TRIMS WITH FINISH TYPE, PRIZE REQUIREMENTS AND SPECIFICATIONS FOR CEILING TYPES.

B. ALL RECESSED LIGHTING FIXTURES SHALL BE LED.

C. ALL BULBS ARE DIMMABLE LED.

D. NUMBER OF BULBS DETERMINED BY FIXTURE CHOSEN BY CUSTOMER.

E. I-CRATED RECESSED LIGHT FIXTURES SHALL BE SEALED AT HOUSING/INTERIOR FINISH AND LABELED TO INDICATE

F. 2.0 CFM LEAKAGE AT 75% PA. (2018 VA ENERGY CODE) 20% LAMPS IN PERMANENT FIXTURES OR 75% PERMANENT FIXTURES SHALL BE USE HIGH EFFIC LAMPS. (2018 VA ENERGY CODE)

[illegible]

DUPLEX RECEPTACLES FOR HALL AND FLOOR CONVENIENCE OUTLETS SHALL BE 2 POLE, 3 WIRE, GROUND, 15 AMPERE, NEMA CONFIGURATION 5-20R, COLOR BY ARCHITECT.
ALL RECEPTACLES SHALL BE TAMPER RESISTANT.
DUPLEX 6P RECEPTACLE SHALL BE 2 POLE, 3 WIRE, GROUND, 30 AMPERE, NEMA CONFIGURATION 5-20R, COLOR BY ARCHITECT.
SINGLE POLE SWITCHES AND 3-WAY SWITCHES SHALL BE SPECIFICATION GRADE, COLOR BY ARCHITECT. DEVICE SHALL BE MOUNTED UNDER COMMON COVERPLATE WHERE MULTIPLE DEVICES ARE INDICATED.
A GFCI DETECTOR SHALL BE INSTALLED ACCORDING TO NFPA 72.
AC-BATTERY: THESE SHOULD CONFORM TO THE NFPA 72, SECTION 34.6 ALARMS HAVE TWO POWER SUPPLIES (20- VOLT AC FOR THE PRIMARY SOURCE OF POWER AND BATTERY BACKUP FOR THE SECONDARY SOURCE).

A. ALL BRANCH CIRCUIT CONDUCTORS SHALL BE COPPER UNLESS OTHERWISE NOTED. ALL #0 AND LARGER SHALL BE STRANDED.

B. ALL #0 AND SMALLER SHALL BE SOLID.

C. VOLTAGE RATING OF INSULATION SHALL BE 600 VOLTS.

D. FACTORY COLOR CODING FOR WIRE SHALL BE AS FOLLOWS: 120/208V - BLACK, RED, BLUE AND WHITE, FOR PHASES A, B AND C RESPECTIVELY. GROUND WIRE(S) SHALL BE GREEN.

E. LEAVE WIRE SUFFICIENTLY LONG TO PERMIT MAKING FINAL CONNECTIONS.

F. LIGHTING AND POWER WIRING FOR CIRCUITS LESS THAN 100 FEET SHALL BE #12 AWG, UNLESS NOTED. WIRE SIZES SHALL BE #10 FOR CIRCUITS GREATER THAN 100 FEET.

A. TYPE NM CABLE SHALL BE PERMITTED PER NFPA-70 ARTICLE 334.10. ALL OTHER LOCATIONS SHALL USE TYPE MC AS A SUBSTITUTE FOR CONDUIT.

A. ALL OUTLET BOXES SHALL BE PLASTIC RATED FOR RESIDENTIAL USE.

B. OUTLET BOXES FOR RECEPTACLES AND SWITCHES IN DRY HALL PARTITION SHALL BE 4 SQUARE, BY 1/2 MINIMUM DEPTH AND SHALL BE FITTED WITH DOWEL COVERS OF DEPTH EQUAL TO THE DRY HALL THICKNESS.

C. SECTIONAL BOXES ARE NOT ACCEPTABLE.

D. SET BOXES BOXES AND TRUE WITH BUILDING FINISH. ERECT HALL TO SWITCH OUTLETS IN ADVANCE OF DRYING.

E. LOCATIONS INDICATED FOR LOCAL HALL SWITCHES ARE SUBJECT TO MODIFICATIONS, AT OR NEAR DOORS INSTALL SWITCHES TO BE USED FOR NEIGHBORING HALLS.

F. LOCATION INDICATED FOR LOCAL HALL SWITCHES, CONTROLLERS, EMERGENCY STOP BUTTONS, RECEPTACLE, ETC. ARE SUBJECT TO MODIFICATIONS.

G. LOCATIONS INDICATED FOR FINISHED FLOOR TO CENTERLINE OF BREAK OR BREAK AS PER ELECTRICAL DRAWINGS. EXCEPTIONS: AT JUNCTION OF DIFFERENT HALL MATERIALS HOLDING OR BREAK IN HALL SURFACE IN VIOLATION OF CODE REQUIREMENTS.

A. GROUND ALL CONDUITS, CABINETS, MOTORS, PANELS, AND OTHER EXPOSED NON-CURRENT CARRYING METAL PARTS OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ALL PROVISIONS OF THE NATIONAL ELECTRICAL CODE, OR LOCAL CODES THAT MAY APPLY.

A. ALL PENETRATIONS THROUGH FIRE RATED WALLS, FLOORS OR PARTITIONS SHALL BE SEALED TO PREVENT THE SPREAD OF SMOKE AND FIRE THROUGH THEM. THE FIRE RATINGS OF THE PENETRATION SEAL SHALL BE AT LEAST THAT OF THE FLOOR OR WALL INTO WHICH IT IS INSTALLED BY ARTICLE 1300-2 OF THE NATIONAL ELECTRICAL CODE.

B. THE FOAM SEALANT SHALL MEET ALL OF THE FIRE TEST AND HOUSE STREAM TEST REQUIREMENTS OF ASTM E-119-13 AND SHALL BE UL CLASSIFIED AS A WALL OPENING PROTECTIVE DEVICE, AS MANUFACTURED BY CHASE TECHNOLOGY CORPORATION, OR APPROVED EQUIVALENT.

B. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ONLY POWER WIRING WITH DISCONNECTS AS SHOWN IN ELECTRICAL DRAWINGS.

A. UPON COMPLETION OF ALL ELECTRICAL WORK, CONTRACTOR SHALL TEST FOR GROUNDS AND SHORTS, TO ENSURE PROPER OPERATION OF ELECTRICAL EQUIPMENT.

B. GUARANTEE FOR TWO YEARS AFTER FINAL ACCEPTANCE BY OWNER OF ALL WORKSMANSHIP AND MATERIALS FURNISHED.

C. SMOKE DETECTOR TEST SHOULD BE DONE IN ACCORDANCE WITH NFPA-72.

LIGHTING FIXTURE SCHEDULE						
SYMBOL	FIXTURE DESCRIPTION	VOLTS	WALTS	AMPS	MANUFACTURER	REMARKS
⬢	8'x12' DOWN LIGHT, WHITE PAINTED FLANGE, 90° DOWN DRIVING, 4500 DEEP BEAM HEAD	CEILING	NO	12.9	PROGRESS LIGHTING FIXTURES	--- P8000071-20-30C --- OR EQUIVALENT APPROVED BY OWNER
⬢	KEYLIGH CANDLE HOATED OVERHEAD LIGHT BULB	SURFACE CEILING	NO	17	SPECIFIED BY OWNER FIXTURES	--- OR EQUIVALENT APPROVED BY OWNER
⬢	EXTERIOR HALL MOUNT LIGHT BULB	SURFACE FLOOR	NO	17	PROGRESS LIGHTING FIXTURES	L0436623 P8010-18 OR EQUIVALENT APPROVED BY OWNER
⬢	NO.20 TO CEILING BOWL GLASS LED LAMPS	SURFACE FLOOR	NO	30	PROGRESS LIGHTING FIXTURES	L0436184 P8000-001 OR EQUIVALENT APPROVED BY OWNER
⬢	RECEDANT LIGHTING LED LAMPS	SURFACE CEILING	NO	100	PROGRESS LIGHTING FIXTURES	L1432658 P8000-001 OR EQUIVALENT APPROVED BY OWNER
⬢	LIGHT FIXTURE - UNDER GRANT LED LIGHT	SURFACE FLOOR	NO	7	PROGRESS LIGHTING FIXTURES	L0034854 P8000-001 OR EQUIVALENT APPROVED BY OWNER

1. ALL LIGHT FIXTURES SHALL BE SUPPORTED IN ACCORDANCE WITH NEC ARTICLE 410.

2. SPECIFIED LIGHTING FIXTURES SHALL BE USED AS A BASIS OF DESIGN. ARCHITECT/OWNER SHALL APPROVE EXACT LIGHTING FIXTURE PACKAGE PRIOR TO BID SUBMITTAL.

3. EXISTING FIXTURES SHALL BE REMOVED AND THE REASONED RATES FOR THE REMOVAL, RATED HOURS OR PROVIDED WITH FIXTURES, TESTING, ASSEMBLY, WIRING BY THE CONTRACTOR SHALL BE SUBMITTED FOR APPROVAL.

4. ALL NEW LIGHT FIXTURES SHALL BE EQUIPPED WITH ENERGY SAVING DEVICES.

AIG AMPERESS INTERRUPTING CURRENT
AFF/ARF ABOVE FINISHED FLOOR/
ABOVE RAISED FLOOR
ARCH ARCHITECT/ARCHITECTURAL
AT AMPERE TRIP
AF AMPERE FRAME
C CONDUIT
CB CIRCUIT BREAKER
CCT CIRCUIT
EC EMPTY CONDUIT
EMT ELECTRICAL METALLIC TUBING
EX EXISTING
F FUSED
FFL FINISHED FLOOR
FLR FLOOR

[illegible]

Ethel Ave. Custom
Home

Project Number	174
----------------	-----

Date	Issue Date
------	------------

Drawn By	Author
----------	--------

Checked By	Checker
------------	---------

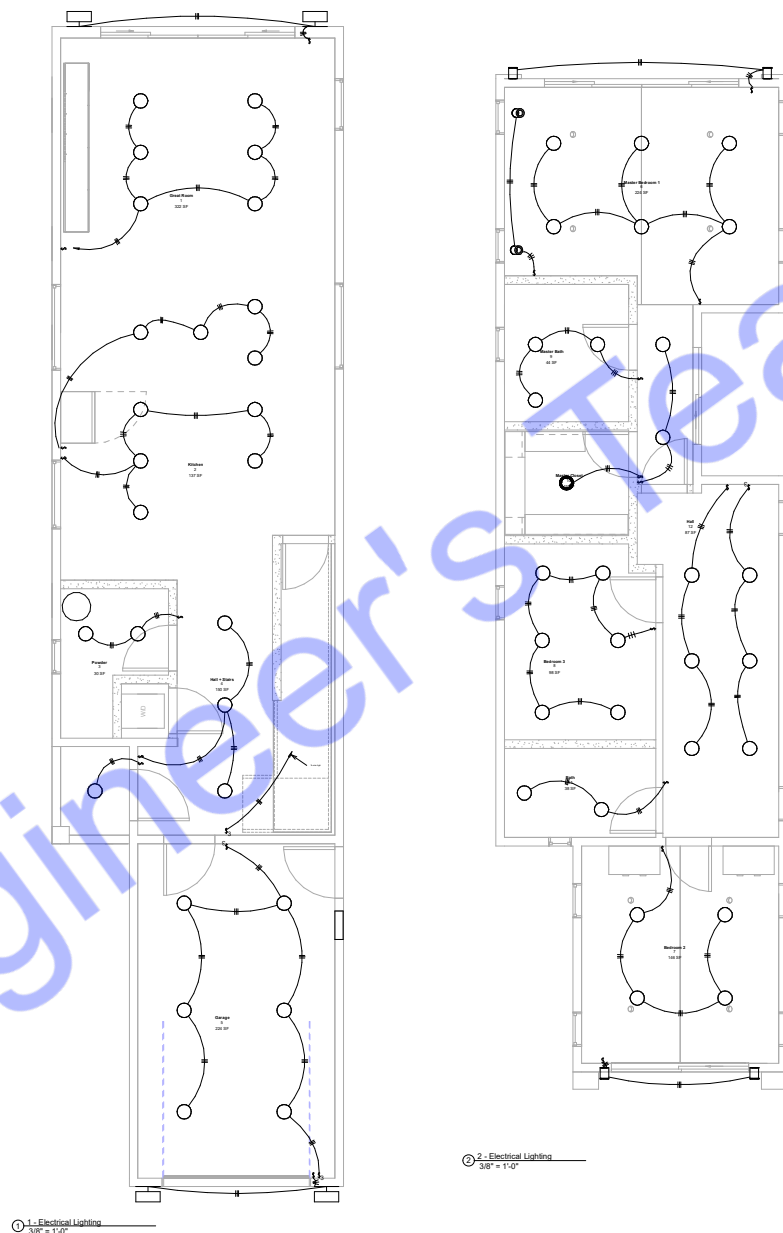
E0001

Scale $1\frac{1}{2}'' = 1'-0''$

This Electrical Lighting Plan has been developed in strict adherence to all applicable and current codes, standards, and regulations enforced by the City of Los Angeles and the State of California as of January 1, 2023. The following codes and regulations have been thoroughly reviewed and applied to ensure full compliance:

- All lighting fixtures, controls, wiring methods, and related components specified in this plan are selected and designed to meet or exceed the requirements set forth in the aforementioned codes. This includes compliance with energy efficiency standards, safety protocols, and sustainability measures.

This Electrical Lighting Plan is intended to ensure a safe, efficient, and code-compliant electrical system for the property located at 4708 Ethel Avenue, Sherman Oaks, CA 91423.



ELECTRICAL LEGEND	
	20W CEILING MOUNT LED LIGHT
	20W HANGING LED LIGHT
	SMOKE DETECTOR
	20W LED LIGHT FAN
	40W LED LIGHT 23W
	ONE WAY SWITCH 220V
	TWO WAY SWITCH 220V
	MALFUNCTION OUTLET 220V
	GPO OUTLET 220V
	10W WALL MOUNTED LED LIGHT
	80W CEILING FAN 220V
	SUB DISTRIBUTION BOARD
	MAIN DISTRIBUTION BOARD
	40W BATHROOM EXHAUST FAN
	CALLING BELL
	ELECTRIC WIRE

○ Electrical Legend
1/8" = 1'-0"



www.engrteam.com

Consultant	Engr Al Amin
Address	OFFICE 24A 182-184 HIGH STREET NORTH AREA 1/1, EAST HAM LONDON UNITED KINGDOM E6 2JA
Email	support@engrteam.com
Phone	
Website	www.engrteam.com

[illegible]

Ethel Ave. Custom
Home

Electrical Lighting Plan

Project Number	174
Date	Issue Date
Drawn By	Author
Checked By	Checker
E0002	
Scale	As indicated

1. Code Compliance:
This Electrical Power Plan has been developed in full compliance with the following codes and standards:

2023 Los Angeles County Electrical Code – Title 27,
incorporating local amendments to the 2022 CEC, effective
January 1, 2023.

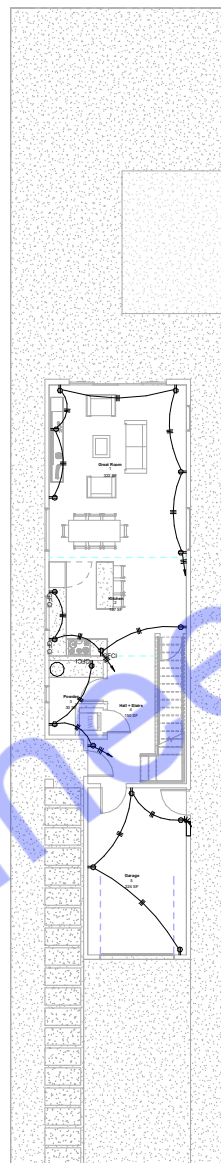
Local Amendments:
The plan adheres to specific Los Angeles County amendments, including:

Continuous Inspection of Aluminum Wiring (Article 310.121): Aluminum conductors No. 6 or smaller used for branch circuits require continuous inspection by an independent testing agency approved by the Building Official.

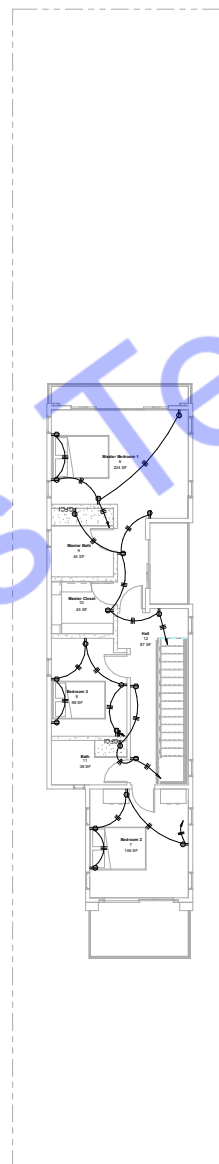
The design complies with the 2022 California Energy Code (Title 24, Part 6), including requirements for multilevel lighting controls in applicable areas.

All electrical components and systems specified in this plan are approved under the California, USA Product Approval Codes, ensuring compliance with state and local regulations.

While the 2025 California Electrical Code is scheduled for publication on July 1, 2025, with an effective date of January 1, 2026, this plan is based on codes currently in effect as of June 2025. Should any updates become applicable prior to project completion, necessary adjustments will be made to maintain compliance.



① 1 - Electrical Power
3/16" = 1'-0"



② 2 - Electrical Power
3/16" = 1'-0"

ELECTRICAL LEGEND	
	200# CEILING MOUNT LED LIGHT
	200# HANGING LED LIGHT
	SMOKE DETECTOR
	200# LED TUBE LIGHT 1x4'
	40W LED LIGHT 2'x4'
	ONE WAY SWITCH 220V
	TWO WAY SWITCH 220V
	MULTI SOCKET OUTLET 220V
	GFC OUTLET 220V
	100 WALL MOUNTED LED LIGHT
	80W CEILING FAN 220V
	SUB DISTRIBUTION BOARD
	MAIN DISTRIBUTION BOARD
	40W BATHROOM EXHAUST FAN
	CILING BELL
	ELECTRIC WIRE

Electrical Legend
1/8" = 1'-0"



www.engrteam.com

Consultant Engr Al Amin
Address OFFICE 24A 182-184
HIGH STREET NORTH
AREA 1/1, EAST HAM
LONDON
UNITED KINGDOM E6 2JA
Email support@engrteam.com
Phone
Website www.engrteam.com

[illegible]

Ethel Ave. Custom
Home

Electrical Power Plan

Checked By	Author
	Checker

E0003

Scale	As indicated
-------	--------------

1. A LISTED INTERSYSTEM BONDING TERMINATION PROVIDING THE REQUIRED NUMBER OF TERMINALS (MINIMUM OF THREE) FOR CONNECTING OTHER BUILDING SYSTEMS TO THE GROUNDING SYSTEM OF THE ELECTRICAL POWER SUPPLY (NEC230.94).

1. A LISTED INTERSYSTEM BONDING TERMINATION PROVIDING THE REQUIRED NUMBER OF TERMINALS (MINIMUM OF THREE) FOR CONNECTING OTHER BUILDING SYSTEMS TO THE GROUNDING SYSTEM OF THE ELECTRICAL POWER SUPPLY (NEC230.94).

1. ALL METAL STRUCTS ENCLOSED ANY SERVICE SHALL BE FITTED WITH A "BONDING BUSINGS".
2. ALL METAL STRUCTS ENCLOSED ANY GROUNDING ELECTRODE CONDUCTOR SHALL BE FITTED WITH A "BONDING BUSINGS" AT EACH END.
3. PROVIDE GROUNDING ELECTRODE PER NEC. GROUNDING SHALL BE IN THE FORM OF A 20'-0" x 1/2" COPPER CLAD GROUND ROD LAID AT LEAST 2' OFF THE BOTTOM OF A CONCRETE FOOTING. SECURE THE GROUND ROD TO THE REBAR WITH STEEL TIE WRAPS. IF THE REBAR BEING USED IN THE FOOTING IS SMALLER THAN 1/2" (M4), USE 30' OF BARE

1. ALL METAL STRUCTS ENCLOSED ANY SERVICE SHALL BE FITTED WITH A "BONDING BUSINGS".
2. ALL METAL STRUCTS ENCLOSED ANY GROUNDING ELECTRODE CONDUCTOR SHALL BE FITTED WITH A "BONDING BUSINGS" AT EACH END.
3. PROVIDE GROUNDING ELECTRODE PER NEC. GROUNDING SHALL BE IN THE FORM OF A 20'-0" x 1/2" COPPER CLAD GROUND ROD LAID AT LEAST 2' OFF THE BOTTOM OF A CONCRETE FOOTING. SECURE THE GROUND ROD TO THE REBAR WITH STEEL TIE WRAPS. IF THE REBAR BEING USED IN THE FOOTING IS SMALLER THAN 1/2" (M4), USE 30' OF BARE

SOLID #4 COPPER WIRE IN PLACE OF THE
GROUND ROD. IN REMODEL PROJECTS
THAT WILL NOT HAVE NEW FOOTINGS
INSTALLED, THIS SUPPLEMENTAL
ELECTRODE SHALL BE PER NOTE #4
BELOW OR OTHER ELECTRODE PER NEG
250.52.

4. FOR CONNECTION TO COLD WATER MAIN,
CONNECT WITHIN 5 FT. OF CONTACT OF
EARTH.

5. IF STRUCTURAL STEEL MEMBER OR
REBARs ARE AVAILABLE, BOND IT TO
THE SERVICE USING A UL LISTED
IRREVERSIBLE CLAMP OR WELDING LUG.
6. PROVIDE A INTERSYSTEM BONDING
TERMINATION PER NEG 250.44.

INTERSYSTEM BONDING TERMINATION SHALL:

- 6.1. BE ACCESSIBLE FOR CONNECTION AND INSPECTION.
- 6.2. CONSIST OF A SET OF TERMINALS (LISTED AS GROUNDINGS AND BONDING EQUIPMENT) WITH THE CAPACITY OF NOT LESS THAN THREE INTERSYSTEM BONDING CONDUCTORS.
- 6.3. BE SECURELY MOUNTED AND ELECTRICALLY CONNECTED TO SERVICE EQUIPMENT, METER ENCLOSURE, OR EXPOSED NON METALLIC SERVICE RACEWAY, OR BE MOUNTED ON ONE OF THESE ENCLOSURES AND BE CONNECTED TO THE ENCLOSURE OR GROUNDING

ELECTRODE CONDUCTOR WITH A MINIMUM
#6 CU CONDUCTOR.

6.4. BE SECURELY MOUNTED TO THE BUILDING'S DISCONNECTING MEANS, OR BE MOUNTED AT THE DISCONNECTING MEANS AND BE CONNECTED TO THE METALLIC ENCLOSURE OR GROUNDING ELECTRODE CONDUCTOR WITH A MINIMUM #6 CU CONDUCTOR.

7. ALL BRANCH CIRCUIT AND FEEDER CONDUITS ARE TO HAVE AN INSULATED EQUIPMENT GROUNDING CONDUCTOR REGARDLESS OF THE CONDUIT MATERIAL.

8. WHEN THE SERVICE CONSISTS OF MULTIPLE DISCONNECTING MEANS IN SEPARATE ENCLOSURES, CONNECT A TAP

CONDUCTOR FROM THE MAIN GROUNDING ELECTRODE CONDUCTOR TO EACH DISCONNECTING MEANS, SIZE THIS TAP BASED ON THE LARGEST SERVICE CONDUCTOR IN THAT SERVICE DISCONNECT ENCLOSURE.

9. #6 COPPER GROUNDING ELECTRODE CONDUCTOR.

10. INSTALL #6 CU TO TWO 3/8" Ø MIN. GROUND RODS AS SHOWN.

11. #4 COPPER GROUNDING ELECTRODE CONDUCTOR.

12. COPPER GROUNDING ELECTRODE CONDUCTOR, PROVIDE #6 COPPER.



○ Electrical Installation
1 1/2" = 1'-0"



Consultant Engr Al Amin
Address OFFICE 24A 182-184
HIGH STREET NORTH
AREA 1/1, EAST HAM
LONDON
UNITED KINGDOM E6 2JA
Email support@engrteam.com
Phone
Website www.engrteam.com

[illegible]

Owner
Ethel Ave. Custom Home

Electrical Installation Details

Project Number	174
----------------	-----

Date	Issue Date
------	------------

Drawn By	Author
----------	--------

Checked By	Checker
------------	---------

50005

F0005

Code	4	4.00H	41.00
------	---	-------	-------

1. ALL WORK SHALL CONFORM TO VRC 2018, VECC 2018, AND LOCAL RULES AND REGULATIONS.

- SHOP DRAWINGS**

- EQUIPMENT

- #### 4. AIR HANDLING UNITS:

- ## PIPING

- ## PIPING SPECIALTIES

- ## INSULATION

- ▼

- DUCTWORK

- #### LEAKAGE TESTING

- ### TEMPERATURE CONTROL

- BUILDING ENVELOPE AIR LEAKAGE

- ### REFRIGERANT PIPING INSULATION

- #### ABBREVIATIONS

- ABV ABOVE
ACF AIR-CONDITIONED FLOOR
AHU AIR HANDLING UNIT
ALT ALTERNATE
BAL BALANCE
BDD BACK DRAFT DAMPER
BLV BLUVE
CB COMBUSTION AIR
CLD CEILING DUCT
CM CUBIC FEET PER MINUTE
CLD CEILING
CEL CEILING REGISTER
CON CONDENSING UNIT
DN DOWN
EA EXHAUST AIR
E/F EXHAUST FAN
FRZ FREEZING
ERV EXHAUST AIR PRESSURE
FV FRESH VENT
FLR FLOOR REGISTER
HP HOT / FRESH
HWH HIGH SIDE WALK IN
HWH HIGH SIDE WALK IN AND AIR CONDITIONING
INS INSULATION
INT INTERIOR
LD LOW SIDE WALK
LW LOW SIDE WALK
LW LOW SIDE WALK PER HOUR
MAU MAKE UP AIR
MAU MAKE UP AIR
OAT OUTDOOR AIR TEMPERATURE
O/D OUTDOOR DISCHARGE
OPT OPTIONAL
P POWER INSULATION
R-8 R-8 INSULATION
R-8 R-8 INSULATION
REF REFRIGERANT LINE
REF REFRIGERANT LINE
RM ROOM RETURN
R/R ROOM RETURN
R/V REGISTER
BA BURNER AIR
TD TRANSFER DUCT
TDR THERMISTOR
TV TURNING VANE
VOLUME CAP
WC WALK CAP
WME WEIR MEASUREMENT

	THERMOSTAT		VOLUME DAMPER
	EXHAUST FAN		BAROMETRIC OR BYPASS DAMPER
	LIGHT EXHAUST FAN		MOTOR OPERATED ZONE DAMPER
	BIA REGISTER UP OR OVAL ROOF WALL STATIC		RETURN DUCT SECTIONS
	FLOOR REGISTER		SUPPLY DUCT SECTIONS
	CEILING REGISTER		DISTRIBUTION BOX
	OPTIONAL BIA FLOOR REGISTER		RECTANGULAR METAL DUCTWORK
	OPTIONAL CEILING REGISTER		INSULATED RECTANGULAR DUCTWORK
	TRANSFER AIR COMBUSTION FAN GRILLE		INSULATED FLEX DUCTWORK
	LOW BID METAL BIA OR HORIZONTAL WALL BIA REGISTER		FLEX DUCTWORK
	LSW OR TWO WAY AIR GRILLE		INSULATED R/F FLEX DUCTWORK
	TWO WAY AIR REGISTER OR AIR REGISTER		RUCT & FLEX SUPPLY DUCT
	BACK FLOW DAMPER		
	REFRIGERANT PIPING		



Consultant Address	Engr Al Amin OFFICE 24A 182-184 HIGH STREET NORTH AREA 1/1, EAST HAM LONDON UNITED KINGDOM E6 2JA
Email Phone Website	support@engrteam.com www.engrteam.com

[illegible]

Ethel Ave. Custom Home
Mechanical General Note

110001

H0001

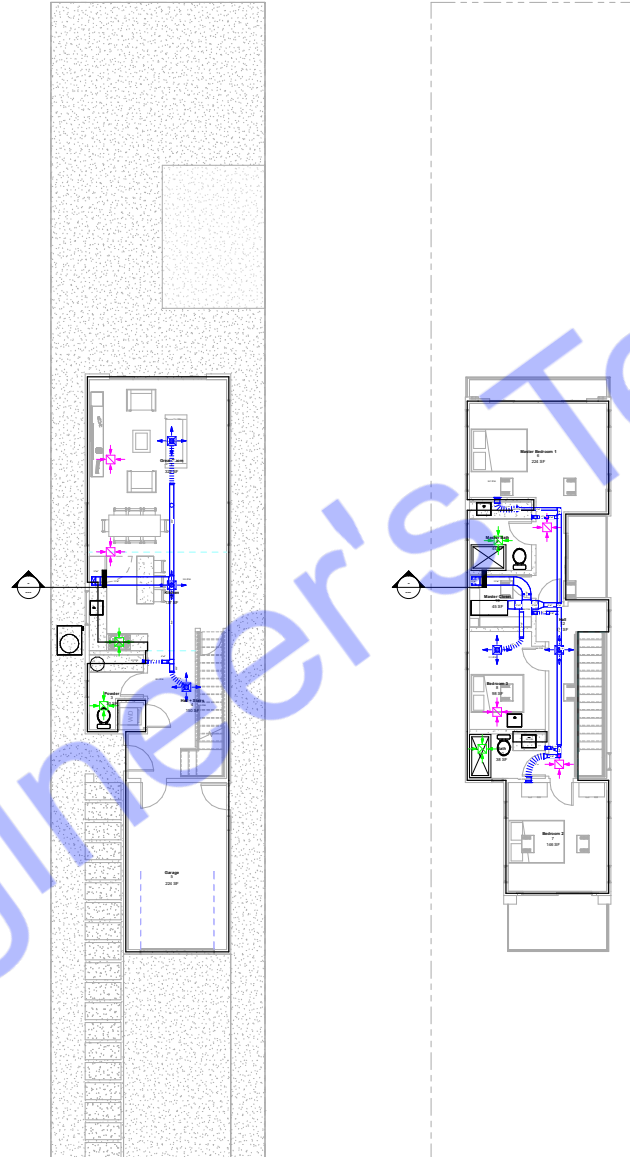
Scale $1\frac{1}{2}" = 1'-0"$

11/6/2025 1:30:32 AM

This HVAC Layout Plan has been developed in strict adherence to the latest applicable codes, regulations, and standards governing mechanical systems in California, USA, specifically for the project located at 4708 Ethel Avenue, Sherman Oaks, CA 91423. The design ensures compliance with the following:

- All HVAC equipment and components specified in this plan are approved for use in California, USA, and meet or exceed the performance and safety standards set forth by the aforementioned codes and regulations.

○ Exhaust Fan Schedule
1/4" = 1'-0"



① 1 - Mech
3/16" = 1'-0"

② $\frac{2 - \text{Mech}}{3/16''} = 1'-0''$

Mechanical Legends	
	AIR HANDLING UNIT
	OUTDOOR CONDENSER
	SUPPLY AIR DIFFUSER
	EXHAUST AIR DIFFUSER
	KITCHEN CHIMNEY
	EXHAUST FAN
	SUPPLY AIR DUCT

HVAC Legend
1/4" = 1'-0"



www.engrteam.com

Consultant	Engr Al Amin
Address	OFFICE 24A 182-184 HIGH STREET NORTH AREA 1/1, EAST HAM LONDON UNITED KINGDOM E6 2JA
Email	support@engrteam.com
Phone	
Website	www.engrteam.com

[illegible]

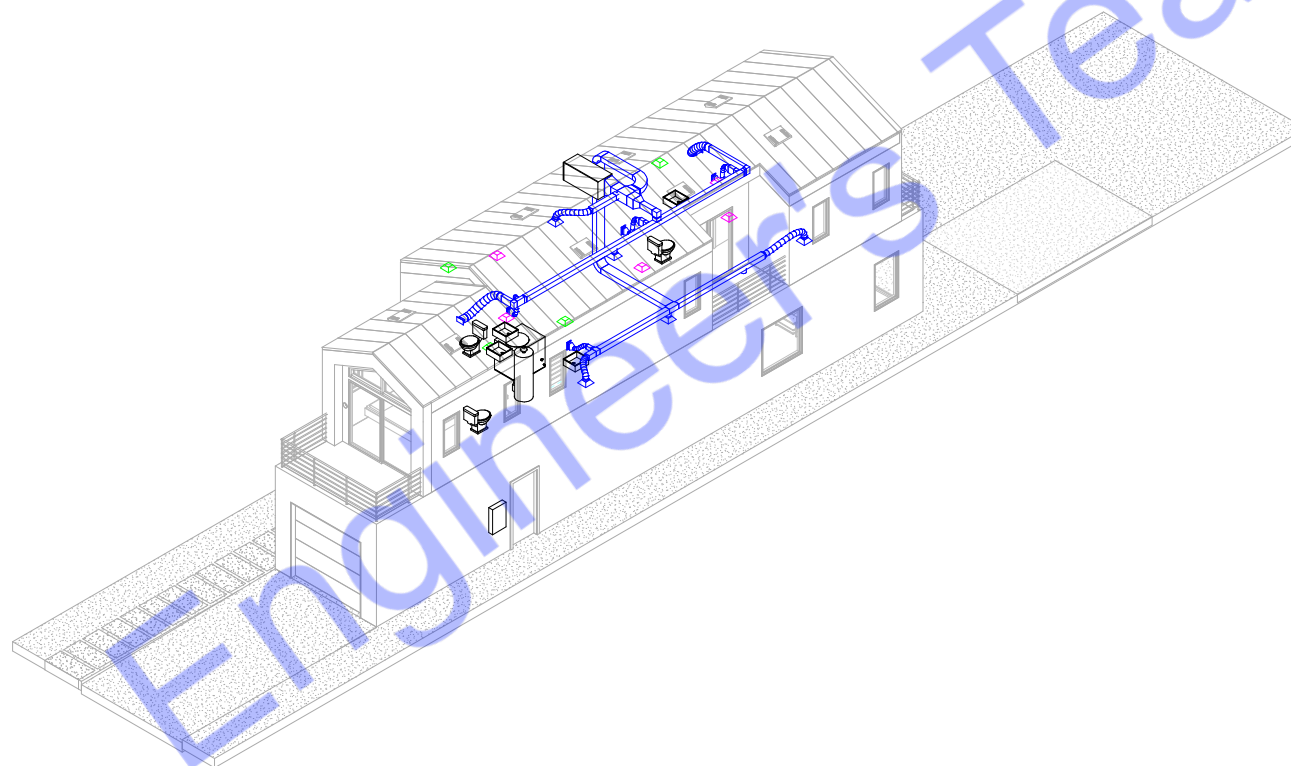
H/VAC P/Lan

H0002

Scale	As indicated
-------	--------------



Consultant Address	Engr Al Amin OFFICE 24A 182-184 HIGH STREET NORTH AREA 1/1, EAST HAM LONDON UNITED KINGDOM E6 2JA
Email	support@engrteam.com
Phone	
Website	www.engrteam.com



① 3D HVAC

[illegible]

Owner

Ethel Ave. Custom
Home

Isometric HVAC PLan

Project Number	174
----------------	-----

Date	Issue Date
------	------------

Drawn By	Author
----------	--------

Drawn By	Author
Checked By	Checker

H0003

Scale

TRANSITIONS

Diagram 1: A horizontal duct transition from 30/12 to 12/12. It features a diffuser on the left and a transition section in the middle. Labels: 30/12, 18/12, 12/12, DIFFUSER, TRANSITION.

Diagram 2: A horizontal duct transition from 30/12 to 12/12. It features a diffuser on the left, a gas safety section in the middle, and a transition section on the right. Labels: 30/12, 18/12, 12/12, DIFFUSER, GAS SAFETY, TRANSITION.

MAIN BRANCH TAKE-OFFS

Diagram 3: A vertical duct with a horizontal branch. The main duct is 30/12, the branch is 18/12, and the continuation is 20/12. A splitter damper is located at the branch point. Labels: 30/12, 18/12, 20/12, SPLITTER DAMPER.

Diagram 4: A vertical duct with a horizontal branch. The main duct is 30/12, the branch is 18/12, and the continuation is 20/12. Labels: 30/12, 18/12, 20/12.

RISERS

Diagram 5: A horizontal duct riser. It shows a section labeled 'RISE' with dimensions 36/24, 36/24, and 24/36 ON. A label '36/36' is at the end. Labels: RISE, 36/24, 24/36 ON, 36/36.

Diagram 6: A horizontal duct riser. It shows a section labeled 'R' (Rise) and 'D' (Drop) with dimensions 36/24, 24/36 ON, and 36/24. Labels: R = RISE, D = DROP, 36/24, 24/36 ON, 36/24.

SIDEWALL REGISTERS

Diagram 7: A horizontal duct with an air extractor and a sidewall grille. The duct is 30/12, the air extractor is 24/12, and the sidewall grille is 24/12. Labels: 30/12, 24/12, AIR EXTRACTOR, SIDEWALL GRILLE.

Diagram 8: A horizontal duct with a sidewall grille. The duct is 36/12, the sidewall grille is 24/12, and the continuation is 24/12. Labels: 36/12, 24/12, SIDEWALL GRILLE.

DUCT CROSSOVERS

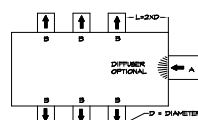
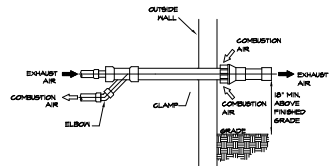
Diagram 9: A duct crossover with an elbow and turning vanes. The duct runs underneath. Labels: THIS DUCT RUN UNDERNEATH, ELBOW WITH TURNING VANES.

Diagram 10: A duct crossover with the duct run underneath. Labels: THIS DUCT RUN UNDERNEATH.

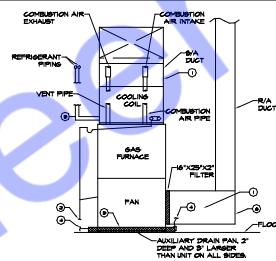
SUB-BRANCH TAP AND TEE

Diagram 11: A sub-branch tap and tee. The main duct is 30/12, the branch is 18/12, and the continuation is 12/8. The sub-branch tap is labeled 'SUB-BRANCH TAP (1000 CFM MAX.)'. Labels: 30/12, 18/12, 12/8, SUB-BRANCH TAP (1000 CFM MAX.), 12/8.

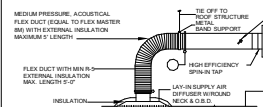
Diagram 12: A sub-branch tap and tee. The main duct is 30/12, the branch is 18/12, and the continuation is 12/8. The sub-branch tap is labeled 'SUB-BRANCH TAP (1000 CFM MAX.)'. Labels: 30/12, 18/12, 12/8, SUB-BRANCH TAP (1000 CFM MAX.), 12/8.



- NOTES:**
1. ENTRANCE (A) HAS A DIFFUSER FITTING THAT RECOVERS VELOCITY PRESSURES AND PREVENTS SWIRLS (OPTIONAL)
 2. STRAIGHT APPROACH (A) AND STRAIGHT EXITS (B)
 3. 3" SLOTTED OPENING ON SIDE (NO TOP OR BOTTOM EXITS)
 4. EXIT OPENING AT LEAST TWO DIAMETERS FROM ENTRANCE (C)
 5. MAKE BOX AS SMALL AS POSSIBLE BY COMPLYING WITH:
 $L = 2 \times D$



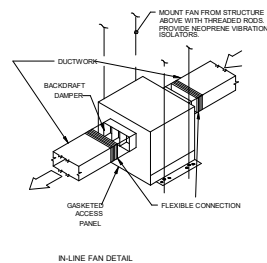
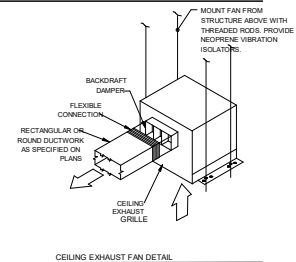
- ① INTERNALLY LINER SUPPLY AND RETURN STEEL METAL PLUMBS THAT EXTENDS TO FEET ON EITHER SIDE OF AA1, FULL SIZE OF UNIT GROUND.
- ② 8/4" COORDINATE DRAIN LINE, ROUTE BEHIND RA, DUCT AND DOWN TO FLOOR DRAIN TRAP FOR CONDENSATE IF UNIT HAS NO INTERNAL TRAP.
- ③ INSTALL REFRIGERANT PIPING FOR MANUFACTURER'S RECOMMENDATIONS AND CODE REQUIREMENTS.
- ④ PROVIDE EMERGENCY DRAIN PAN WITH FLAT SLOPE BELOW THE AAU TO DISCHARGE AAU PRIOR TO O-BLOCKING OF THE PAN. PROVIDE SECONDARY 8/4" CPVC COORDINATE DRAIN LINE FOR THE EMERGENCY DRAIN PAN THAT DRAINAGE INTO ADJACENT HVAC DRAIN.
- ⑤ EMERGENCY DRAIN PAN, A MINIMUM DEPTH OF 1" AND FOOTPRINT NOT LESS THAN 18" LARGER THAN THE AAU. EMERGENCY DRAIN PAN SHALL BE MADE OF CORROSION-RESISTANT MATERIAL, NOT MINIMUM THICKNESS AS DEFINED BY CODE REQUIREMENTS.
- ⑥ RETURN PLUMBING TO MATCH THE SIZE OF UNIT'S RETURN OPENING.



The diagram illustrates the components and installation of a wall-mounted air conditioning unit. Key parts labeled include:

- EXTERIOR WALL CONSTRUCTION:** METAL OR WOOD STUDS WITH INSULATION.
- AIR FLOW:** Indicated by arrows showing air entering and leaving the unit.
- REFRIGERANT LINES:** Lines connecting the unit to the indoor system.
- PLASTIC WALL SLEEVE WITH CHROME SOUTHERN:** A sleeve used for mounting the unit on the exterior wall.
- RIGHT GLASS:** A glass panel on the right side of the unit.
- DRIVE:** The motor drive for the fan.
- NEOPRENE PAD:** A pad used for sealing the unit to the wall.
- 4" THICK CONCRETE HOUSEKEEPING PAD:** A pad used for sealing the unit to the wall.
- FILTER DRIVE:** The drive mechanism for the air filter.
- REFRIGERANT VALVE (TYPICAL):** A valve used for refrigerant control.
- MAINTAIN SERVICE CLEARANCE AROUND UNIT:** A note indicating the required clearance around the unit.
- AIR COOLED CONDENSING UNIT:** The main body of the air conditioning unit.

OUTSIDE AIR CONDITIONER



www.engrteam.com

Consultant Engr Al Amin
Address OFFICE 24A, 182-184
HIGH STREET NORTH
AREA 1/1, EAST HAM
LONDON
UNITED KINGDOM E6 2JA
Email support@engrteam.com
Phone
Website www.engrteam.com

[illegible]

Owner

Ethel Ave. Custom
Home

HVAC Installation Details

Project Number	174
----------------	-----

Date	Issue Date
------	------------

Drawn By	Author
----------	--------

Checked By	Author
Checker	

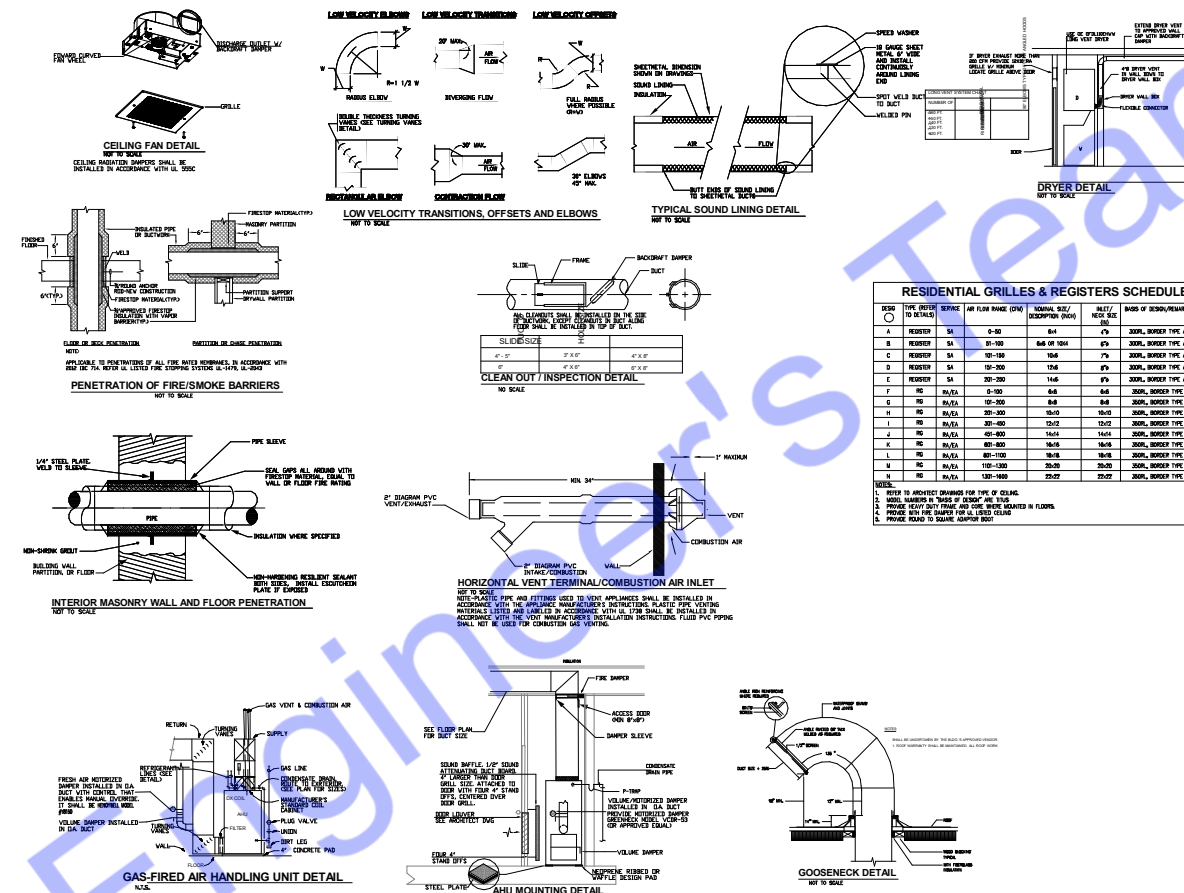
H0004

Scale	1 1/2" = 1'-0"
-------	----------------



www.enrteam.com

Consultant: Engr. Al Amin
Address: OFFICE 24A, 182-184,
HIGH STREET NORTH
AREA 1/1, EAST HAM
LONDON
UNITED KINGDOM E6 2JA
Email: support@enrteam.com
Phone: www.enrteam.com
Website: www.enrteam.com



1/4" = 1'-0"

Owner
Ethel Ave. Custom Home

HVAC Installation Details

Project Number 174
Date Issue Date
Drawn By Author
Checked By Checker

H0005

Scale 1/4" = 1'-0"

04/02/2025 1:30:02 PM

I. BASIC MATERIALS & METHODS

- PERFORM SYSTEM TESTS PRIOR TO COVERING UP ANY PIPING, IN ACCORDANCE WITH THE REQUIREMENTS OF THE SPECIFICATION. DISCOVERED DEFECTS MUST BE CORRECTED IMMEDIATELY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING MATERIALS AND THE SYSTEM RE-TESTED, PASSED AND FLUSHED. IN THE EVENT OF A LEAK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF THE LEAK AND THE SYSTEM SHALL BE RE-TESTED, PASSED AND FLUSHED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING MATERIALS AND THE SYSTEM RE-TESTED, PASSED AND FLUSHED. IN THE EVENT OF A LEAK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF THE LEAK AND THE SYSTEM SHALL BE RE-TESTED, PASSED AND FLUSHED.
- WATER PIPING SYSTEM MATERIALS**
1. WATER PIPING UNDERGROUND - COPPER, ALTERNATIVE - SHALL BE TENDROP PE-40 HIGH DENSITY POLYETHYLENE WATER SERVICE TUBING.
2. WATER PIPING IN GRADE - COPPER, ALTERNATIVE - SHALL BE TENDROP PE-40 HIGH DENSITY POLYETHYLENE WATER SERVICE TUBING.
3. WATER PIPING ABOVE GRADE - CPVC OR PEX TUB. SOLDER JOINT CONNECTIONS SHALL PROVIDE INSULATING VENTS, CAPTOL, OR FACTORY MANUFACTURED JOINTS.
4. GATE VALVES - PROVIDE LINE SIZE BRASS OR BRONZE BODY. RATED FOR 125 PSI BRACK WATER PRESSURE, GRADE, NEARLY 100% RELIABILITY.
5. GLOBE BODIES - PROVIDE BRASS OR BRONZE CASINGS WITH BRONZE INTERIOR PARTS. REPLACEABLE SEAT AND PISTON ASSEMBLY. HOSE END CONNECTIONS SHALL BE PROVIDED AND INSTALLED AS SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING MATERIALS AND THE SYSTEM RE-TESTED, PASSED AND FLUSHED. IN THE EVENT OF A LEAK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF THE LEAK AND THE SYSTEM SHALL BE RE-TESTED, PASSED AND FLUSHED.
6. DISINFECTION - THE COMPLETE PIPING SYSTEMS SHALL BE DISINFECTED IN ACCORDANCE WITH THE CODE THEN FLUSHED WITH WATER TO REMOVE DISINFECTANT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING MATERIALS AND THE SYSTEM RE-TESTED, PASSED AND FLUSHED. IN THE EVENT OF A LEAK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF THE LEAK AND THE SYSTEM SHALL BE RE-TESTED, PASSED AND FLUSHED.

SYMBOL	DESCRIPTION
	DOWNSPOUT GOLD WATER
	DOWNSPOUT HOT WATER
	SANITARY, SOIL OR WASTE PIPE
	VENT PIPE
	GAS
	RAIN WATER/STORM WATER
	CONNECT TO EXISTING
	T-RAP
	BACK FLOW PREVENTER
	SHOCK ARRESTOR
	VACUUM BREAKER
	PIPE CAP OR PLUG
	PIPE CONTINUES
	STOP VALVE
	UNION
	ELBOW DOWN
	ELBOW UP
	INDIRECT DRAIN
	FLOOR DRAIN
	HUB DRAIN
	HOSE DRESS
	SHOULDER
	WATER PRESSURE REDUCING VALVE
	BACKFLOW VALVE
	GAS PRESSURE REGULATOR

A/C	ABOVE CEILING
A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
A.A.V.	AIR ADMITTANCE VALVE
B	BELOW FINISH UNIT
B.F.	BELOW FINISHED FLOOR
B.F.F.	BELOW FINISHED FLOOR
C	CATCH PREVENTOR
C.F.	CUBIC FEET PER HOUR
C.D.	CLEAN OUT
C.W.	COLD WATER
E.T.	EXPANSION TANK
F.D.	FLOOR DRAIN
G.D.	GARBAGE DISPOSAL
H.B.	HOLE DIB
H.D.	HUB DRIN
H.W.	HOT WATER
M.B.	BTU PER HOUR
M.P.V.	PRESSURE REDUCING VALVE
S.A.	SAFETY
S.A.A.	SAFETY ARRESTOR
T.D.L.	TOTAL DEVELOPED LENGTH
T.F.	TRAP FRIER
V.	VENT
V.T.R.	VENT THROUGH ROOF

1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL PLUMBING APPLIANCES. REFER TO RISER DIAGRAMS FOR PIPE SIZES, FITTINGS, ACCESSORIES NOT SHOWN ON PLANS.
2. CONTRACTOR SHALL COORDINATE LOCATION OF PIPING PENETRATION THROUGH SLAB AND ROUTING OF SANITARY PIPING BELOW FLOOR WITH DUCTWORK AND PIPING LOCATED IN CEILING SPACE OF FLOOR BELOW.

DRAWING	TITLE
P000	PLUMBING GENERAL NOTES, SYMBOLS & ABBREVIATIONS
P100	PLUMBING SANITARY, WATER & VENT PLUMBING PLAN
P101	FIRST FLOOR SANITARY, WATER & VENT PLUMBING PLAN
P102	SECOND FLOOR SANITARY, WATER & VENT PLUMBING PLAN
P103	ROOF SANITARY, WATER & VENT PLUMBING PLAN
P200	BASEMENT FLOOR DOMESTIC WATER & NATURAL GAS PLUMBING PLAN
P201	FIRST FLOOR DOMESTIC WATER & NATURAL GAS PLUMBING PLAN
P202	SECOND FLOOR DOMESTIC WATER & NATURAL GAS PLUMBING PLAN
P300	SANITARY, WATER & VENT ROOF DIAGRAM
P400	DOMESTIC WATER ROOF DIAGRAM
P100	NATURAL GAS ROOF DIAGRAM
P600	PLUMBING SCHEDULES



Consultant Address Engr Al Amin
OFFICE 24A 182-184
HIGH STREET NORTH
AREA 1/1, EAST HAM
LONDON
UNITED KINGDOM E6 2JA
Email support@engrteam.com
Phone
Website www.engrteam.com

[illegible]

Ethel Ave. Custom
Home

Plumbing General Note

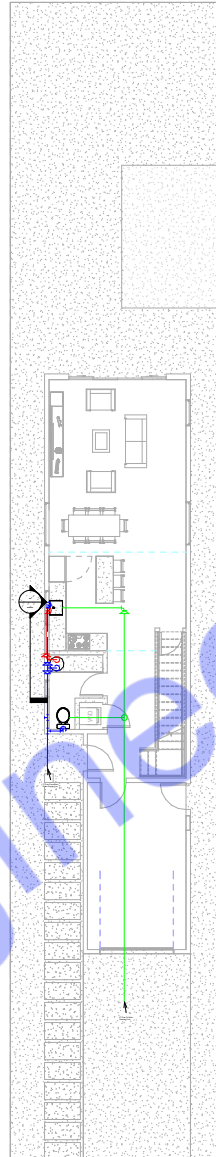
Project Number	174
Date	Issue Date
Drawn By	Author
Checked By	Checker

P0001

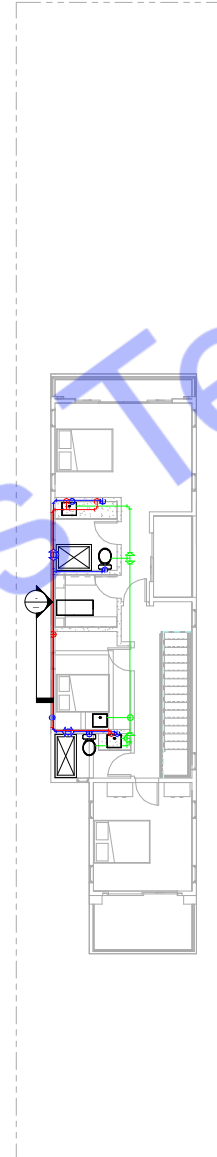
Scale $1\frac{1}{2}'' = 1'-0''$

This plumbing layout plan has been meticulously developed in strict adherence to all applicable codes, standards, and regulations governing plumbing systems within the jurisdiction of Sherman Oaks, Los Angeles, California. The design ensures full compliance with the following:

- This plan is prepared to facilitate a safe, efficient, and code-compliant plumbing system for the specified property, aligning with all current regulatory requirements as of the date of this document.



① 1 - Plumbing
3/16" = 1'-0"



② 2 - Plumbing
3/16" = 1'-0"

PLUMBING LEGEND	
	BALL VALVE (BV)
	GATE VALVE (GV)
	MIXING VALVE (MV)
	FLOOR CLEAN OUT (FCO)
	FLOOR DRAIN (FD)
	HUB DRAIN (HD)
	FLOOR SINK (FS)
	PIPE TURNING UP
	PIPE TURNING DOWN
	EXISTING PIPE
	NEW PIPE
LINES TYPE LEGEND	
	COLD WATER LINE (CW)
	HOT WATER LINE (HW)
	SEWER LINE (S)
	GAS LINE (G)

PLUMBING LEGEND
1/4" = 1'-0"



www.engrteam.com

Consultant Address	Engr Al Amin OFFICE 24A 182-184 HIGH STREET NORTH AREA 1/1, EAST HAM LONDON UNITED KINGDOM E6 2JA
Email	support@engrteam.com
Phone	
Website	www.engrteam.com

[illegible]

Ethel Ave. Custom
Home

Plumbing Plan

Project Number	174
----------------	-----

Date	Issue Date
------	------------

Drawn By	Author
----------	--------

Checked By	Checker
------------	---------

P0002

Scale	As indicated
-------	--------------



Consultant Address	Engr Al Amin OFFICE 24A 182-184 HIGH STREET NORTH AREA 1/1, EAST HAM LONDON UNITED KINGDOM E6 2JA
Email	support@engrteam.com
Phone	
Website	www.engrteam.com

[illegible]

Owner

Ethel Ave. Custom
Home

Isometric Plumbing Plan

Project Number	174
----------------	-----

Date	Issue Date
------	------------

Drawn By	Issue Date
Author	

Drawn By	Author
Checked By	Checker

P0003

Scale



Consultant Address	Engr Al Amin OFFICE 24A 182-184 HIGH STREET NORTH AREA 1/1, EAST HAM LONDON UNITED KINGDOM E6 2JA
Email	support@engrteam.com
Phone	
Website	www.engrteam.com

[illegible]

Owner

Ethel Ave. Custom
Home

Plumbing Installation Details

Project Number	174
----------------	-----

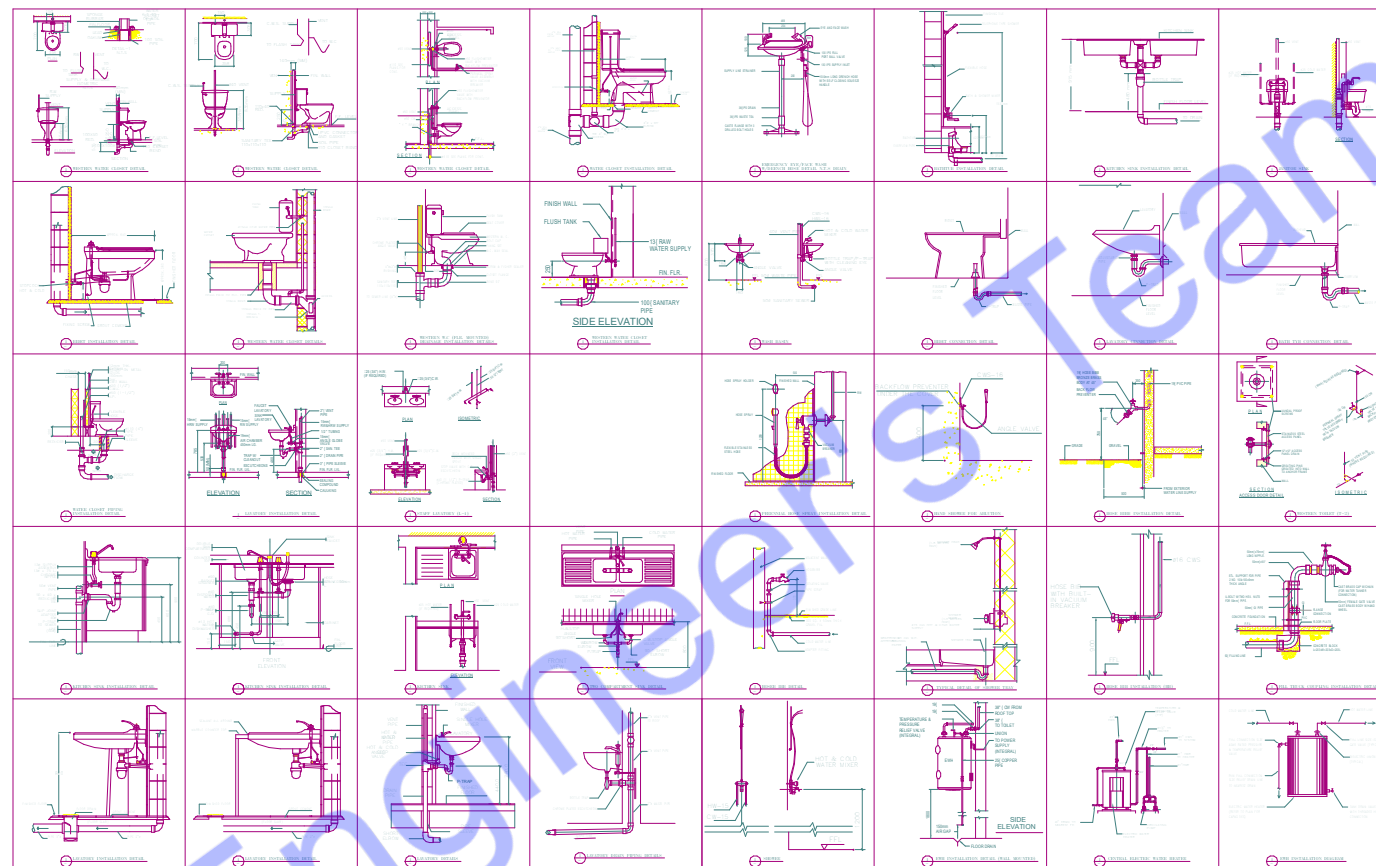
Date	Issue Date
------	------------

Drawn By	Issue Date
Author	

Drawn By	Author
Checked By	Checker

P0004

Scale $1/8" = 1'-0"$



○ Plumbing Installation Details
1/8" = 1'-0"



Consultant Address	Engr Al Amin OFFICE 24A 182-184 HIGH STREET NORTH AREA 1/1, EAST HAM LONDON UNITED KINGDOM E6 2JA
Email	support@engrteam.com
Phone	
Website	www.engrteam.com

[illegible]

Owner

Ethel Ave. Custom
Home

Plumbing Installation Details

Project Number	174
----------------	-----

Date	Issue Date
------	------------

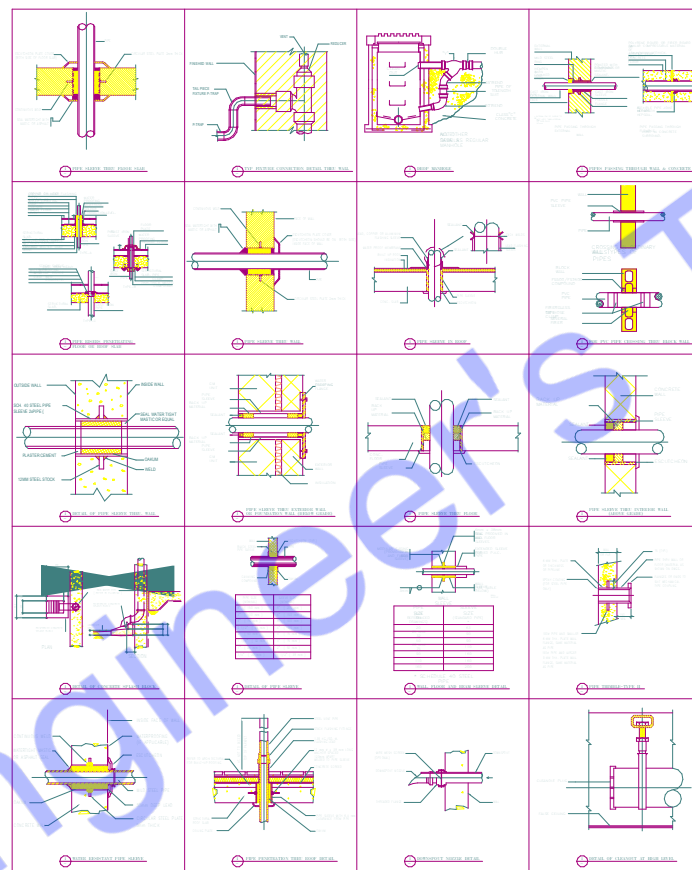
Drawn By	Issue Date
Author	

Drawn By	Author
Checked By	Checker

P0005

Scale $1/8" = 1'-0"$

-	
.	



○ Plumbing Installation Details-2
1/8" = 1'-0"



Designed By Engr. Al Amin (MEP Engineer | Director - Engineer's Team LTD)

 support@engrteam.com

 <https://engrteam.com>

OUR SERVICES:

- MEP Plan Services
- HVAC Layout Plan
- Electrical Engineering Services
- Plumbing Engineering Services
- Fire protection & Security systems
- Specialized services

INFORMATION:

- Studio
- Contact Us
- Gift cards
- Privacy Policy
- Refund Policy
- Delivery Policy