



Ministry of Higher Education and Scientific Research
University of Salahaddin
College of Engineering
Architectural department



Section, Elevation and electricity

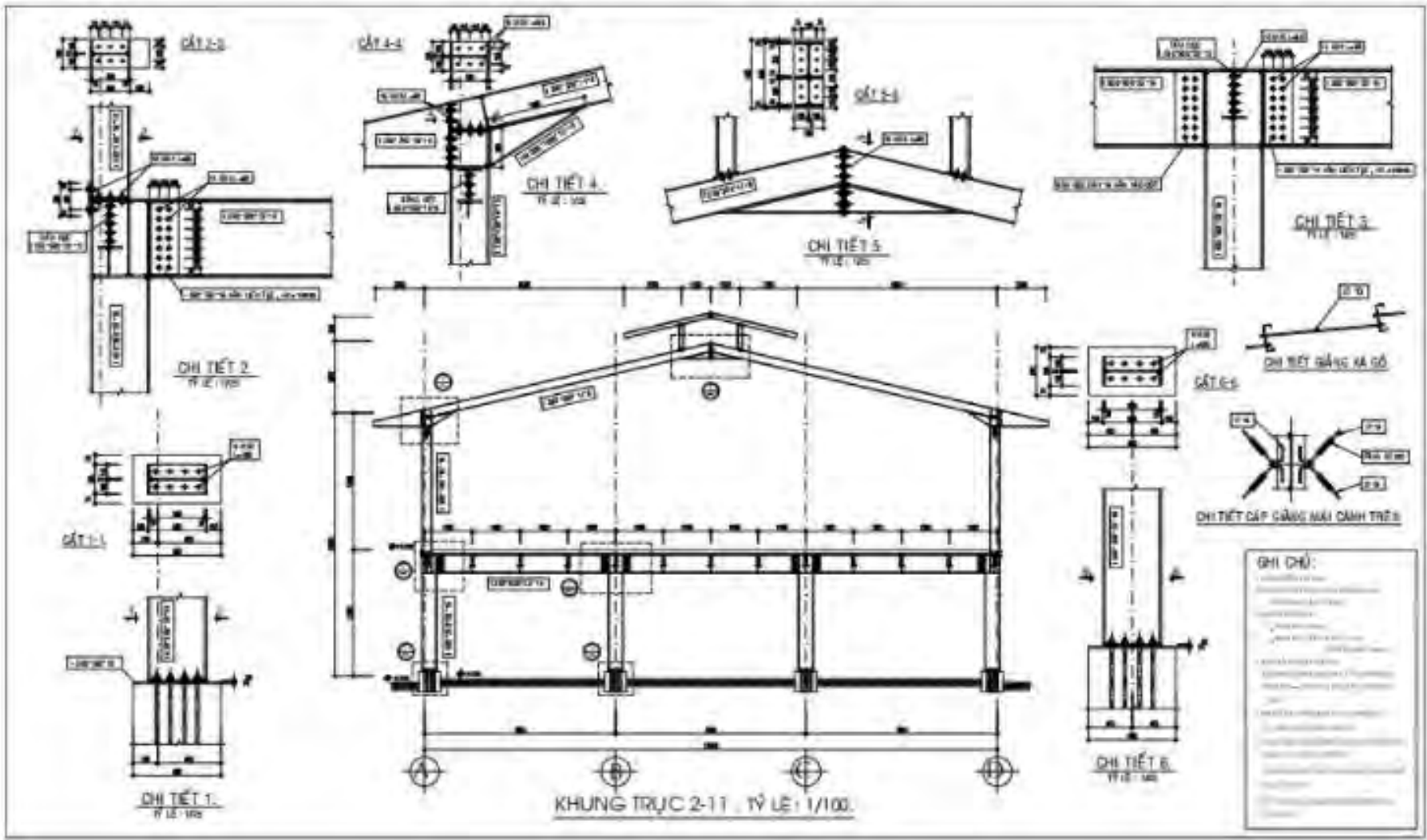
Lect. By: assist. Lect. Sakar Yousif

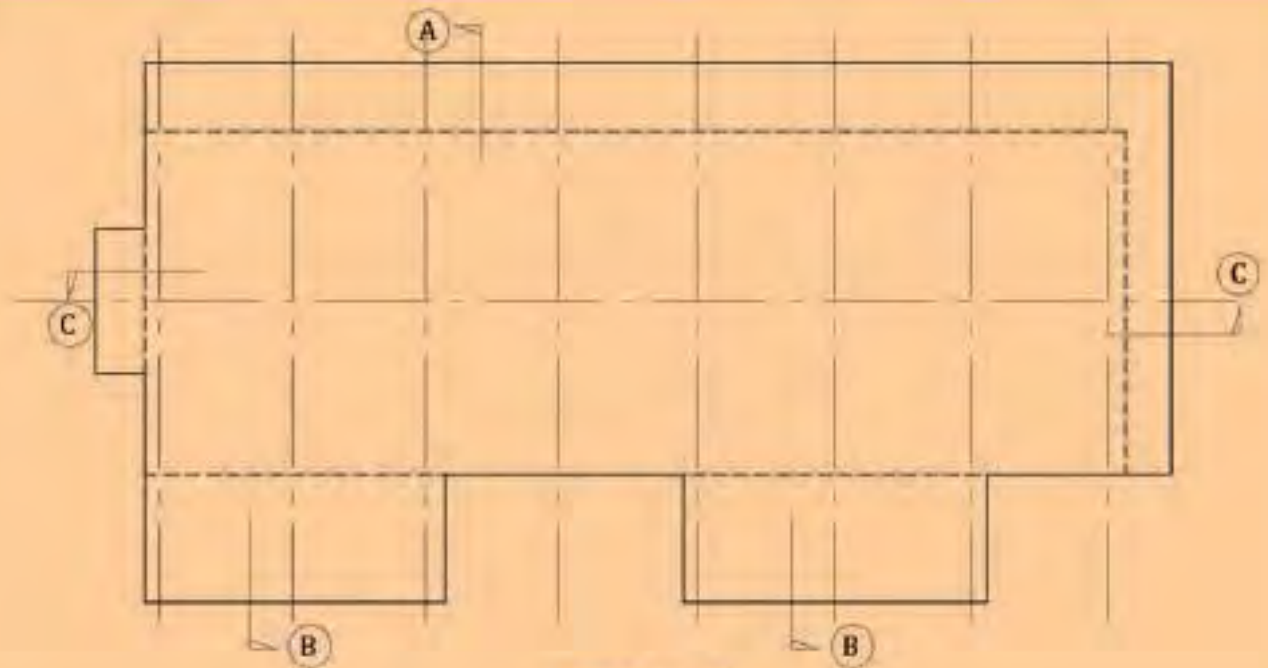
2.4.2023

Contents

- Section drawings
- Elevation drawings
- Electricity distribution

Section drawings

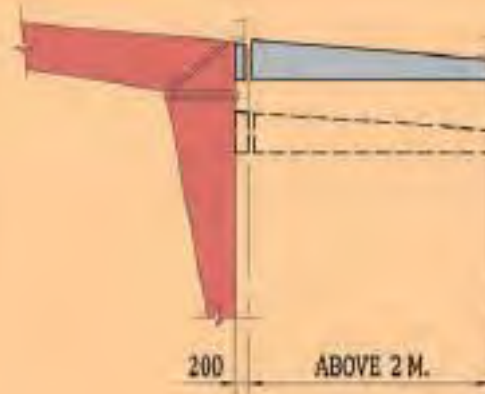




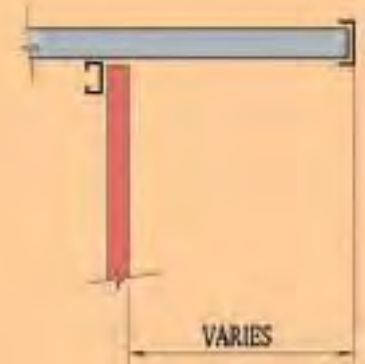
ROOF PLAN



SECTION A



SECTION B



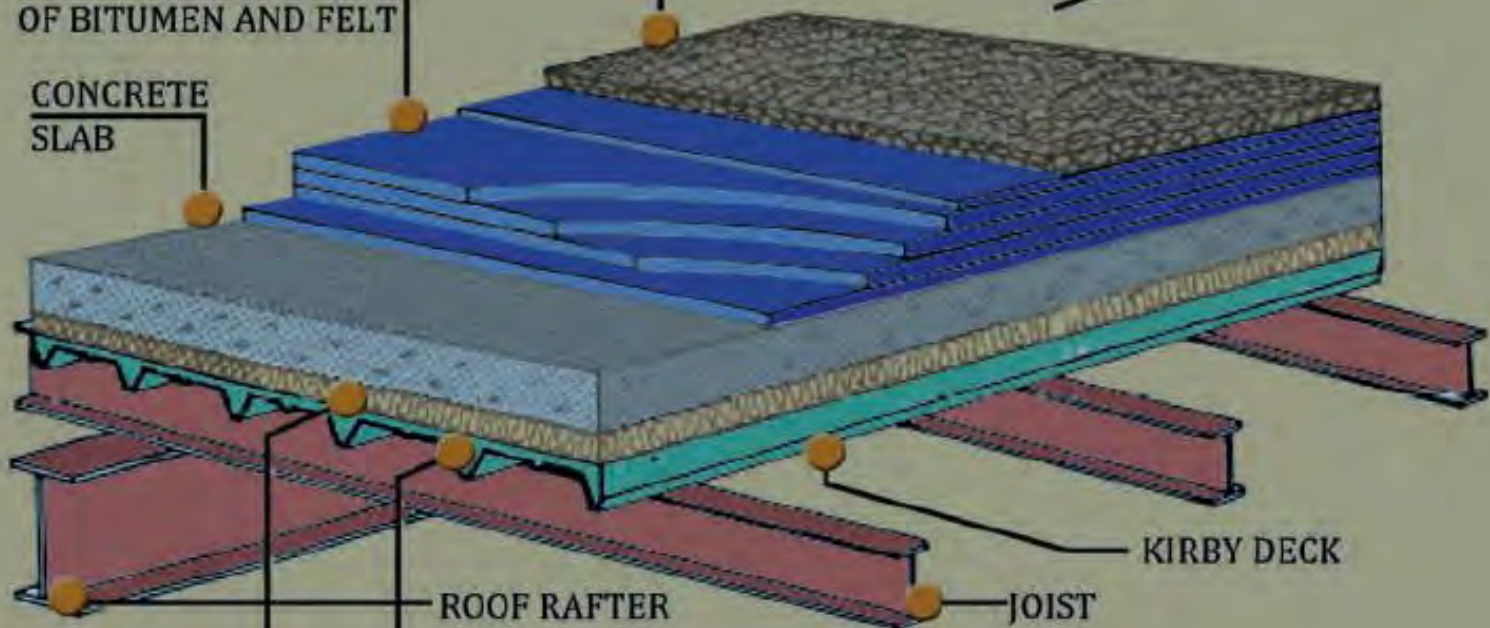
SECTION C

GRAVEL OR SLAG EMBEDDED
IN POURING OF BITUMEN

ALTERNATIVE LAYERS
OF BITUMEN AND FELT

CONCRETE
SLAB

SLOPE 0 - 0.25:10



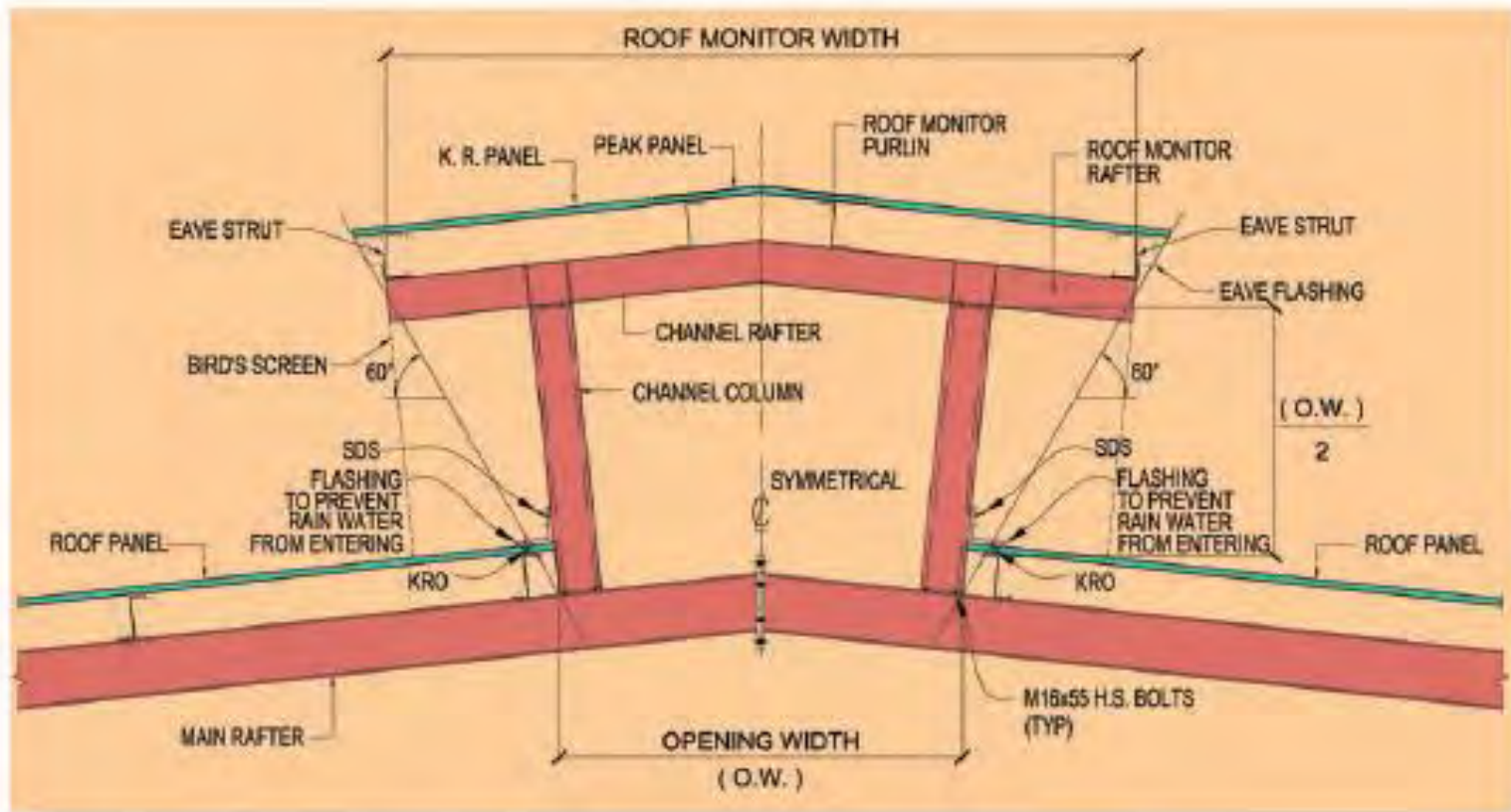
KIRBY DECK

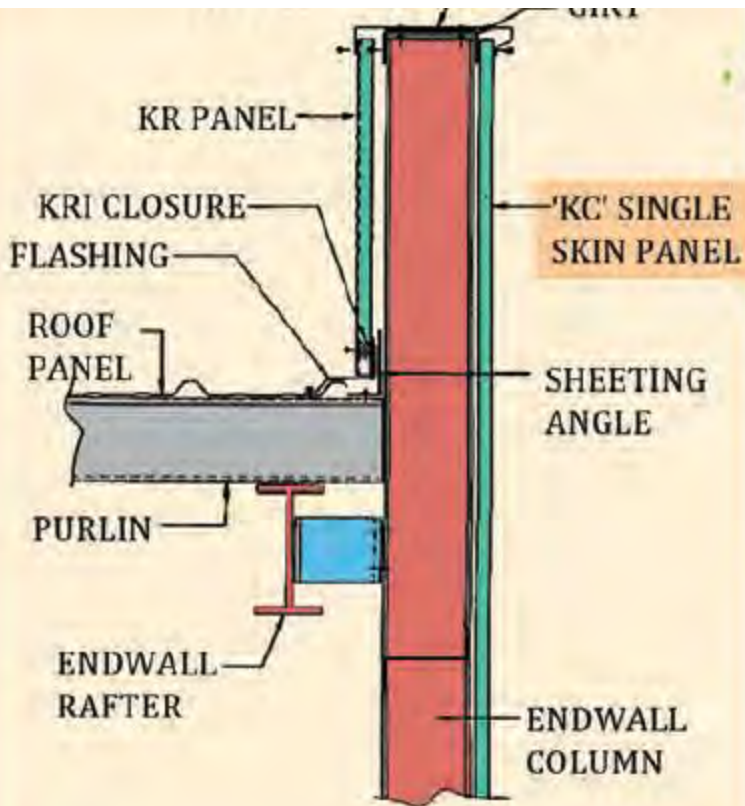
ROOF RAFTER

JOIST

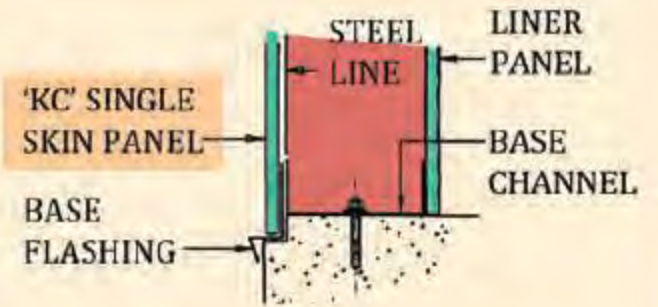
INSULATION
OPTIONAL

VAPOUR BARRIER
(OPTIONAL)

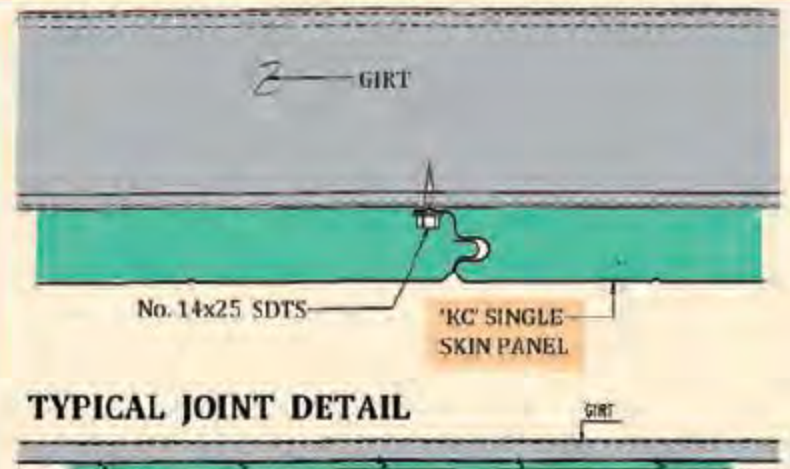




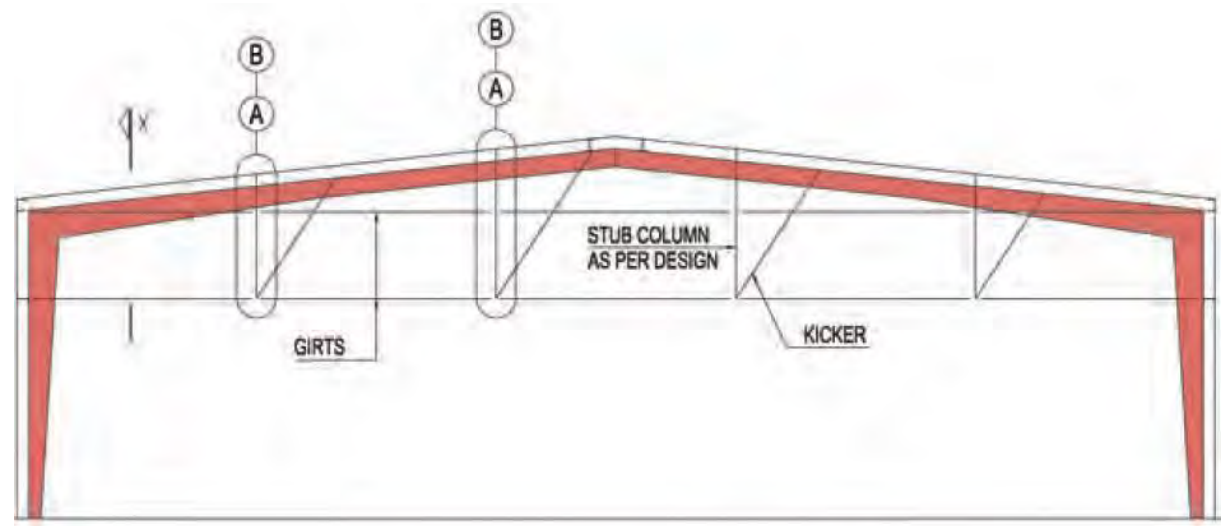
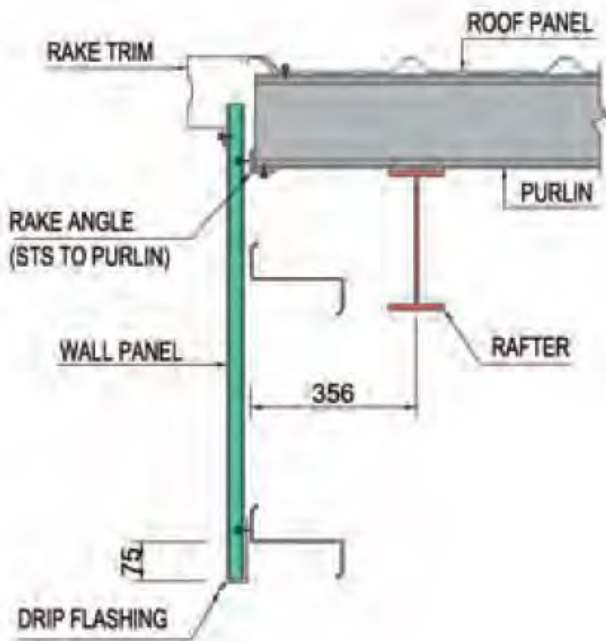
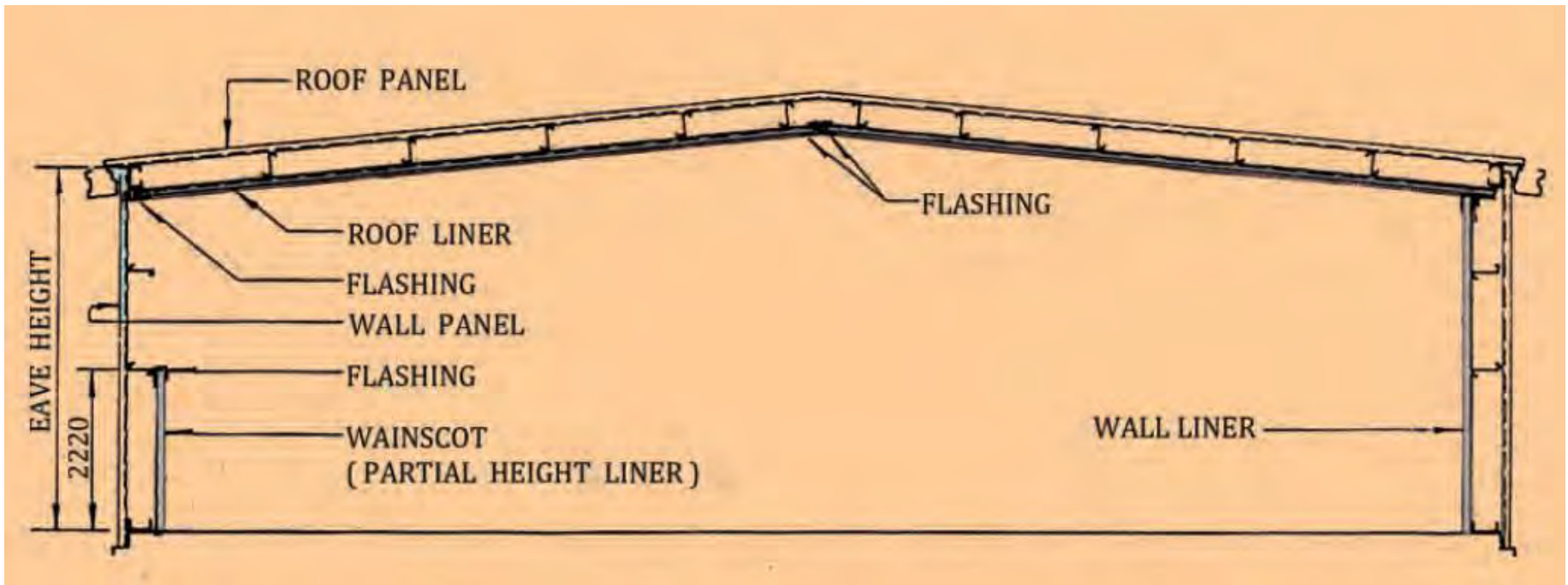
SECTION AT ENDWALL



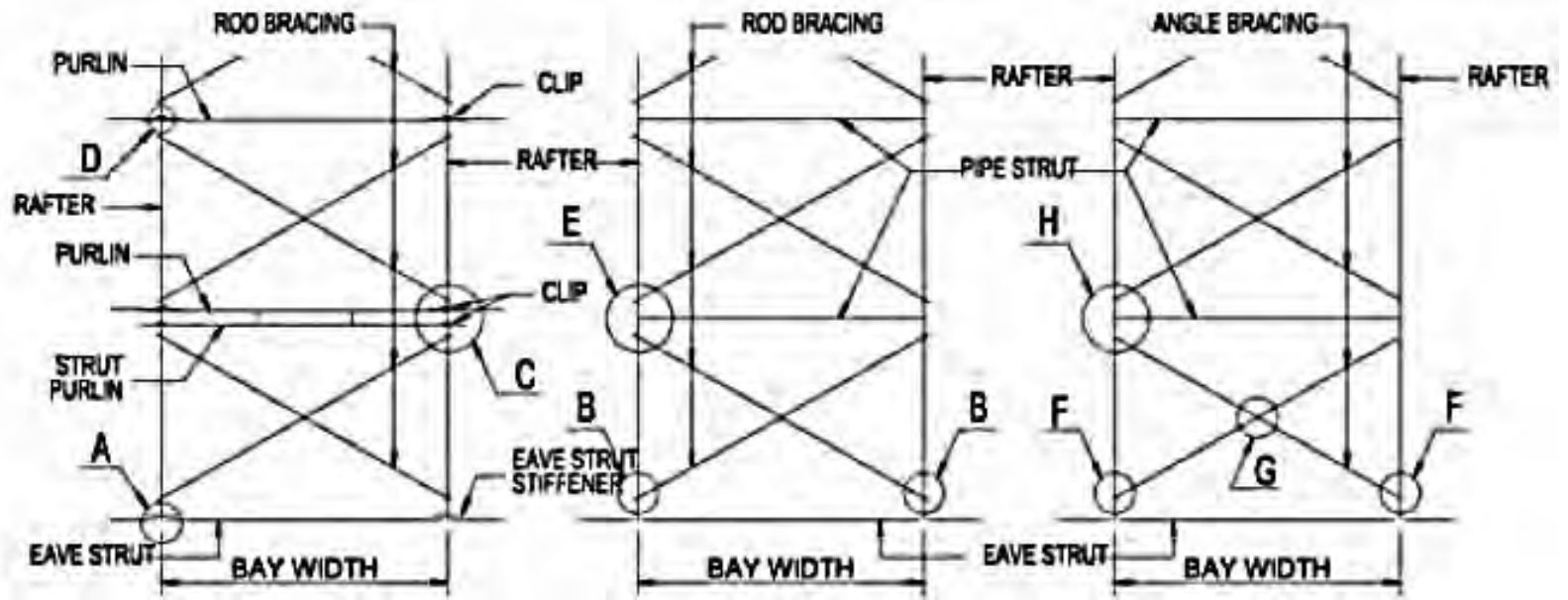
DETAIL AT BASE



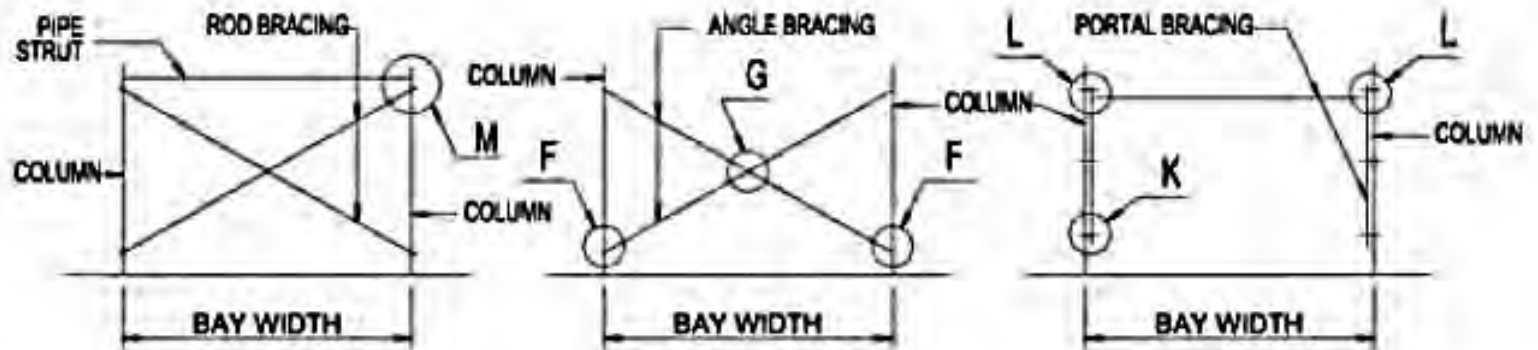
TYPICAL JOINT DETAIL



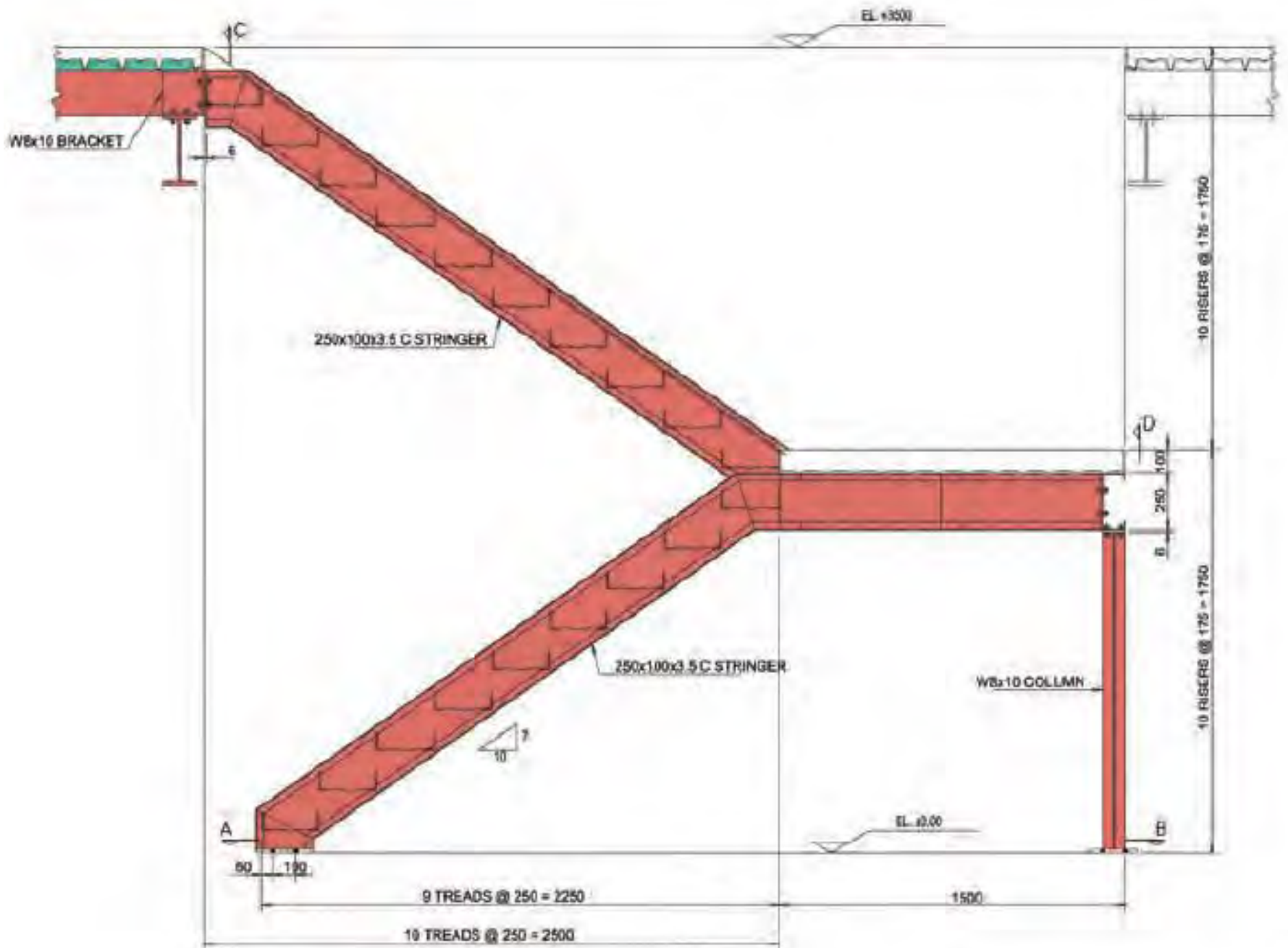
ENDWALL FRAMING ELEVATION
 (PARTIALLY OPEN WITH STUB COLUMNS & KICKERS)



BRACINGS AT ROOF

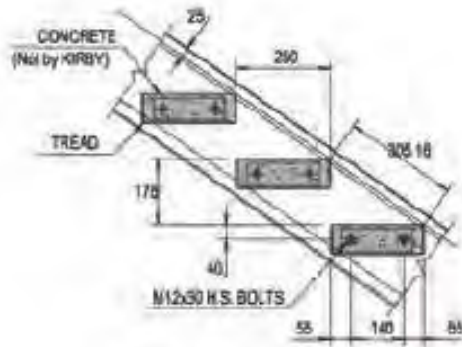


BRACINGS AT SIDEWALL

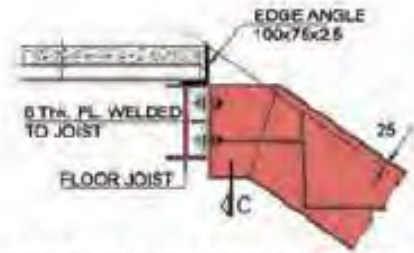


ELEVATION

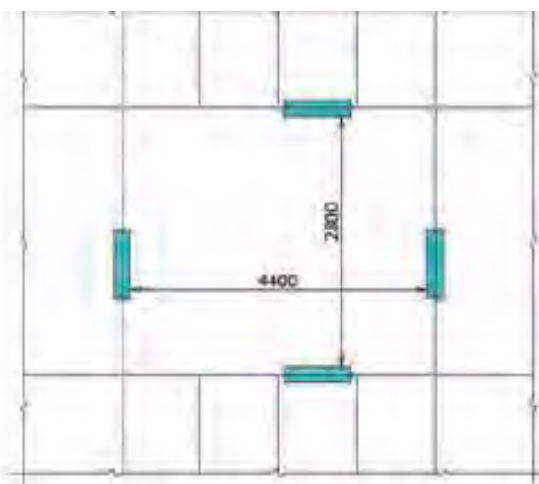
ELEVATION



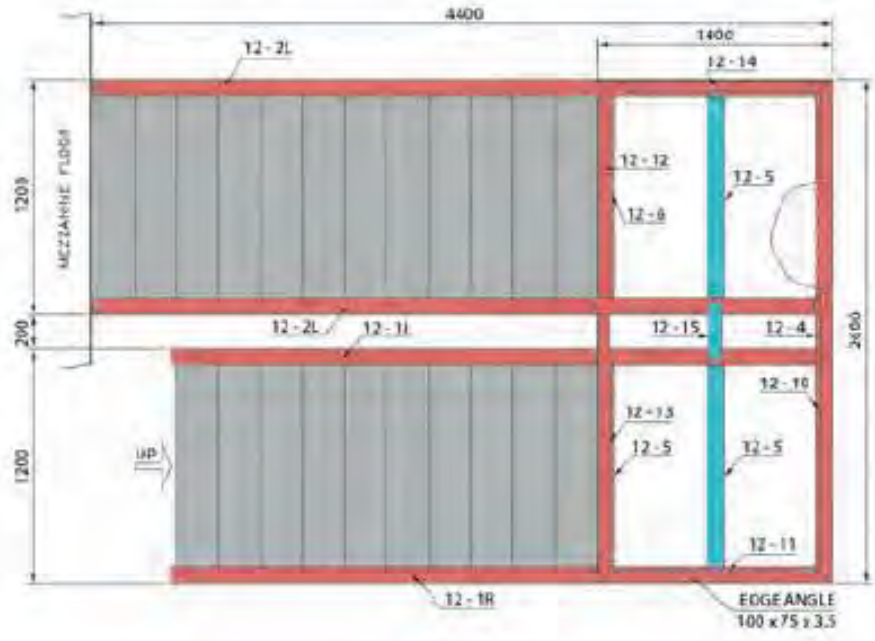
TYPICAL TREAD DETAIL



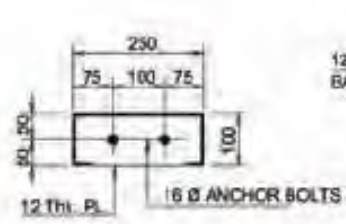
CONNECTION TO MEZZANINE FLOOR JOIST



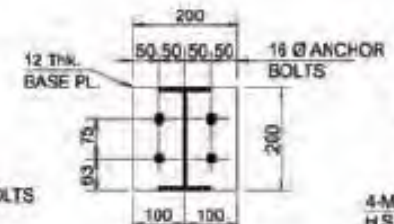
FRAMED OPENING FOR STAIRS



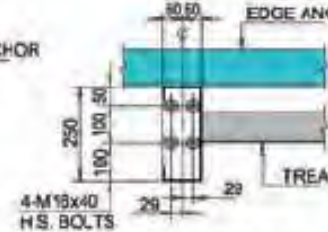
PLAN



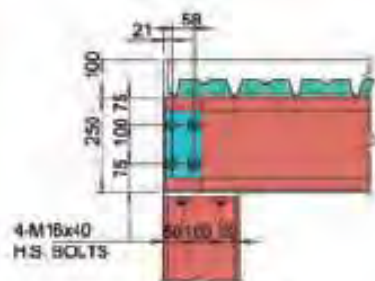
SECTION - A



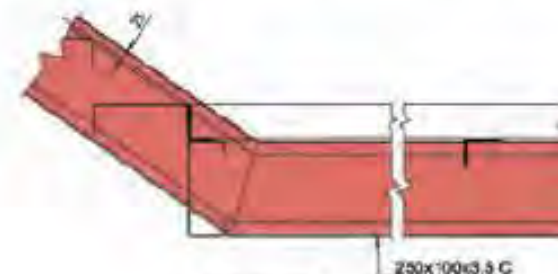
SECTION - B



SECTION - C

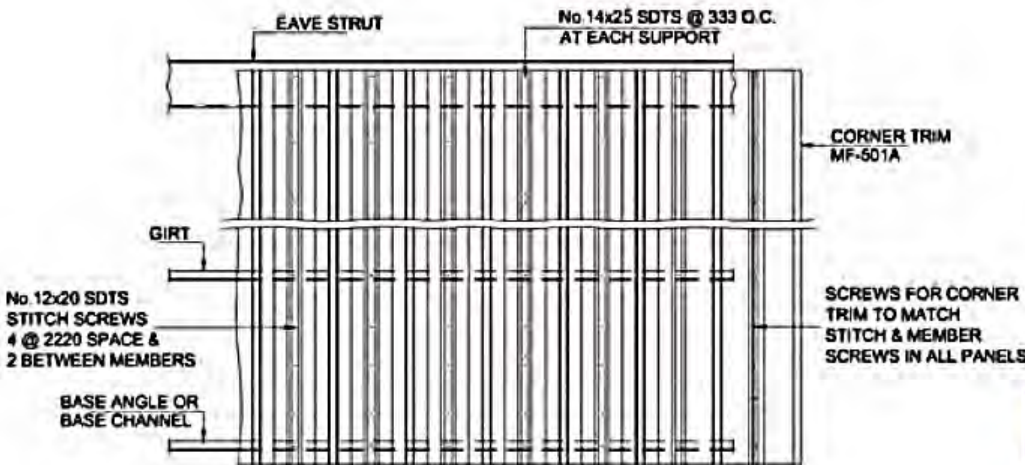
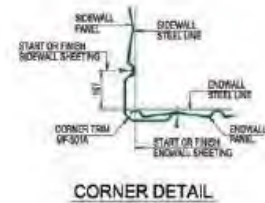
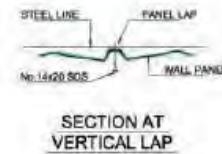
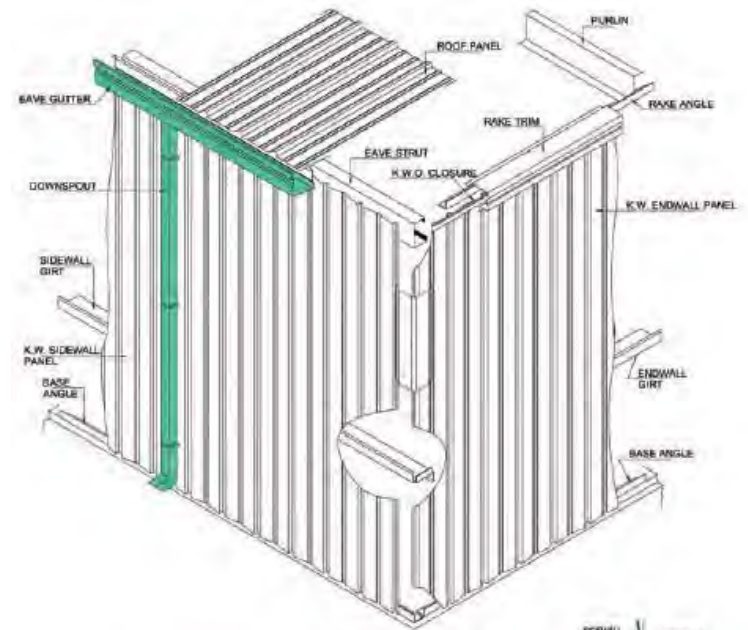


VIEW - D



SECTION - E

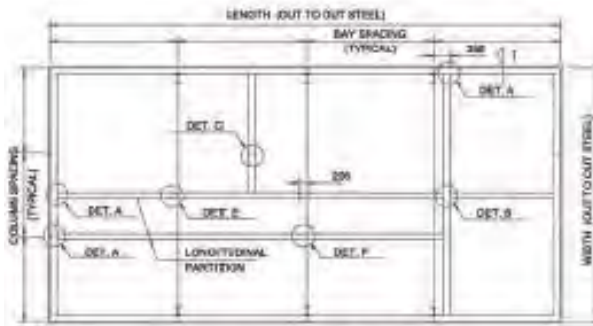
Elevation drawings



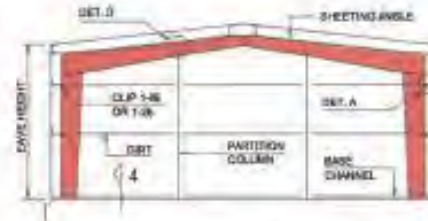
K.W. WALL PANEL FASTENER LAYOUT

SDS I SOTS TABLE

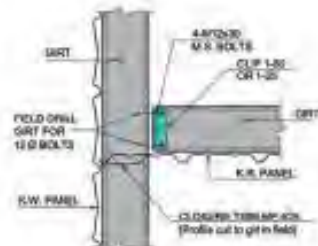
| INSULATION SIZE | PANEL TO STRUCTURE | PANEL TO PANEL |
|-----------------|--------------------|----------------|
| 0 to 60 | No. 14 x 25 | No. 12 x 20 |
| 75 to 100 | No. 14 x 50 | No. 12 x 20 |
| 110 to 150 | No. 14 x 76 | No. 12 x 20 |



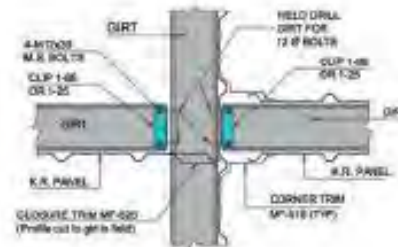
PARTITION WALL PLAN



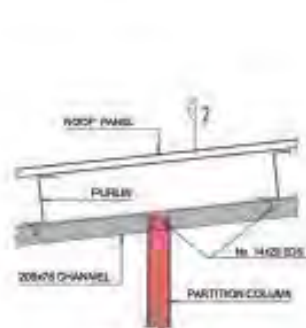
SECTION -1 (TRANSVERSE PARTITION)



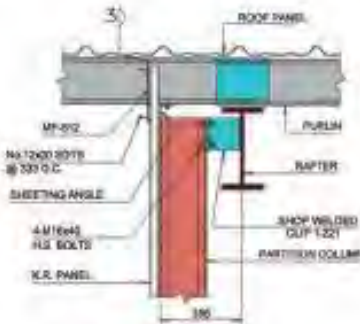
DETAIL 'A'
PLAN SHOWING PARTITION GIRT CONNECTION & CLOSURE FLASHING



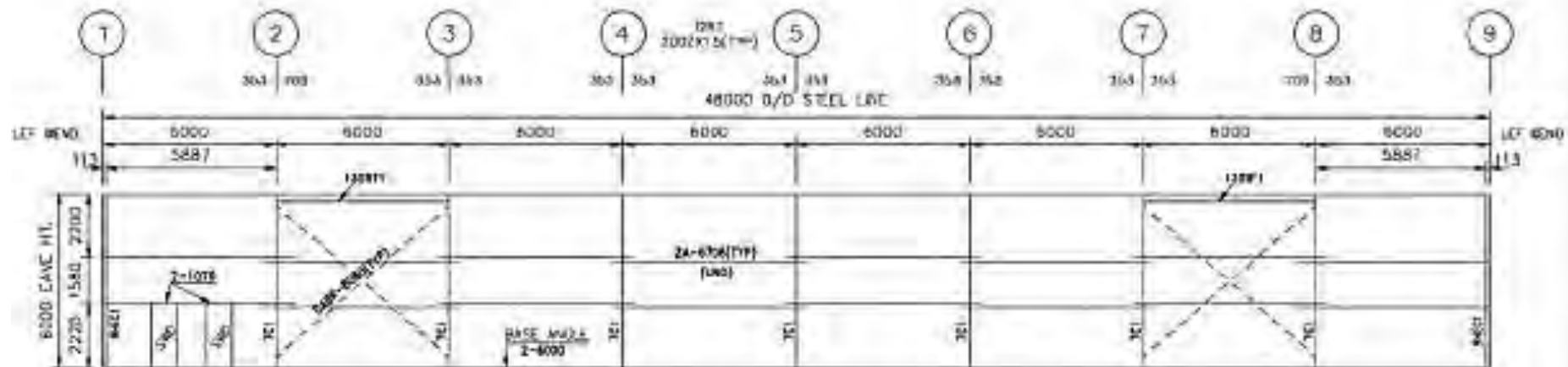
DETAIL 'B'
PLAN SHOWING INTERSECTION OF TRANSVERSE & LONGITUDINAL PARTITION WALLS



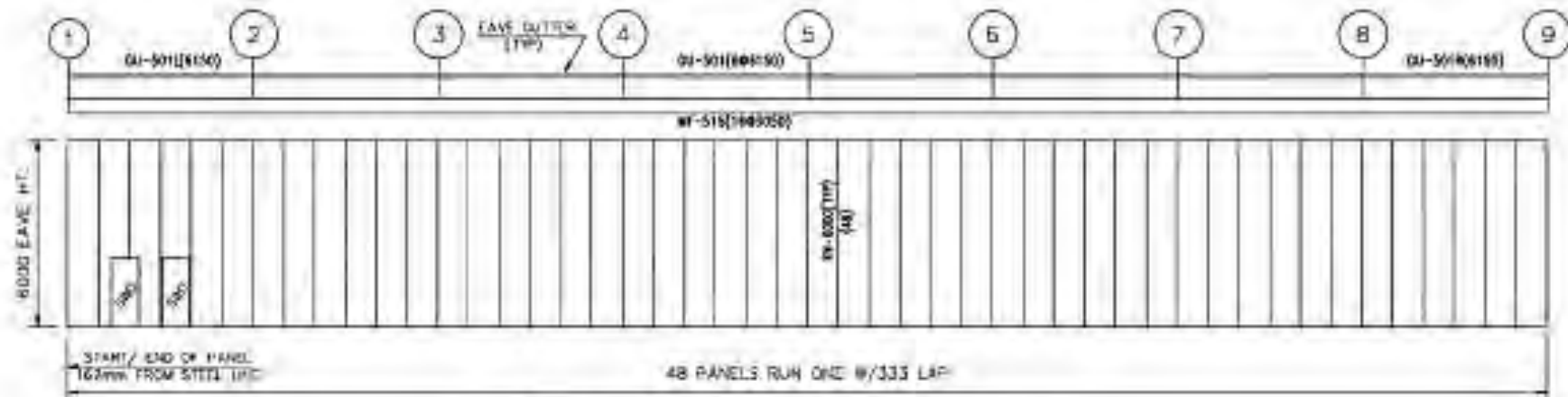
DETAIL 'C'
TRANSVERSE SECTION SHOWING COLUMN & GIRT CONNECTION AT ROOF BETWEEN TWO FRAMES



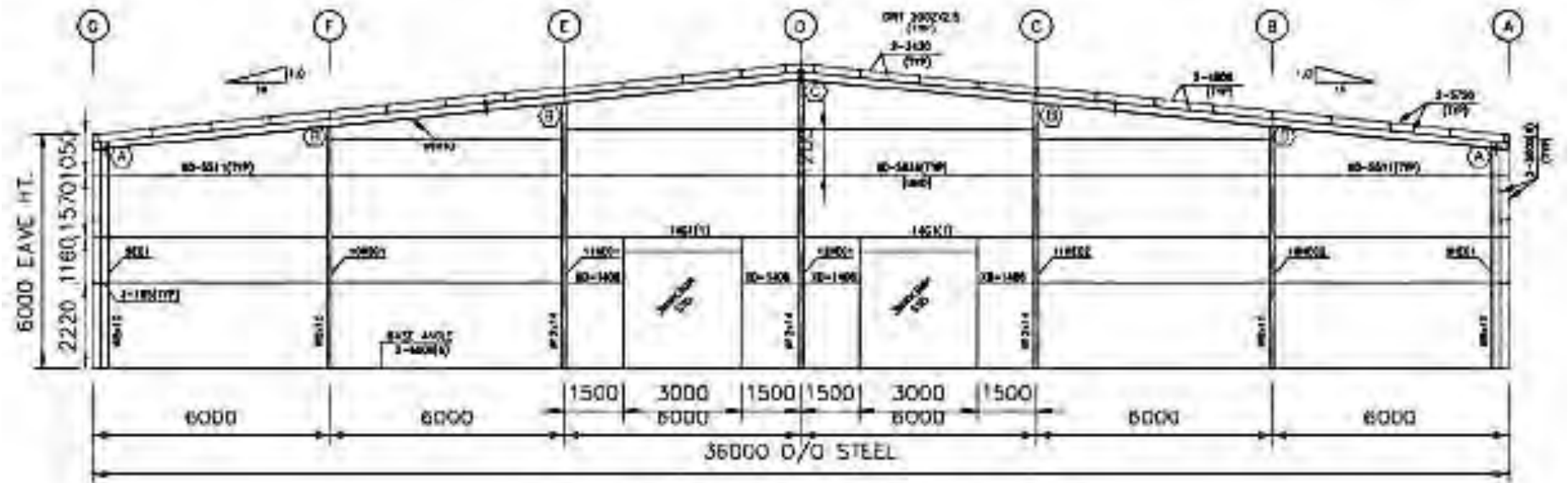
DETAIL 'D'
LONGITUDINAL SECTION SHOWING PARTITION COLUMN CONNECTION TO RAFTER & FLASHING AT ROOF



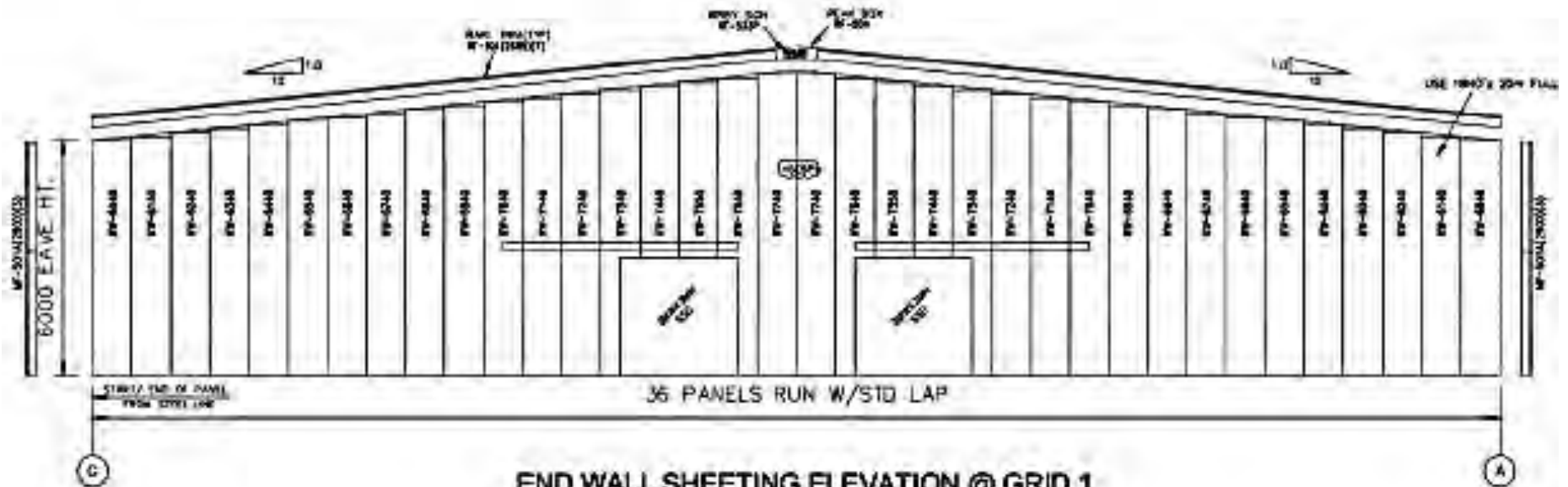
SIDE WALL FRAMING ELEVATION @ GL A (AS DRAWN)
SIDE WALL FRAMING ELEVATION @ GL G (OPP HAND)
S.W.D @ GL-A ONLY



SIDE WALL SHEETING ELEVATION @ GL A (AS DRAWN)
SIDE WALL SHEETING ELEVATION @ GL G (OPP HAND)
S.W.D @ GL-A ONLY

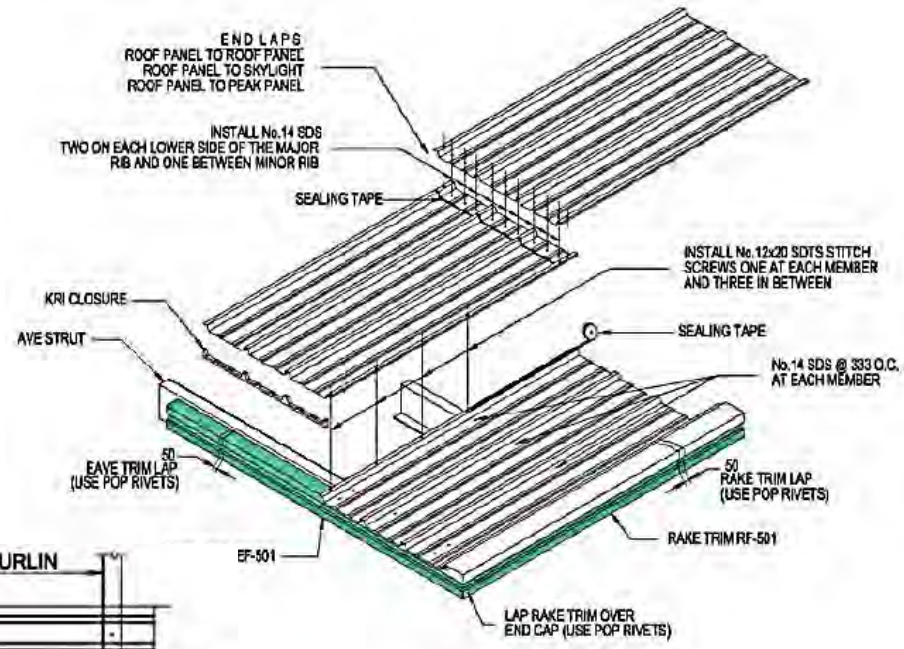


END WALL FRAMING ELEVATION @ GRID 1

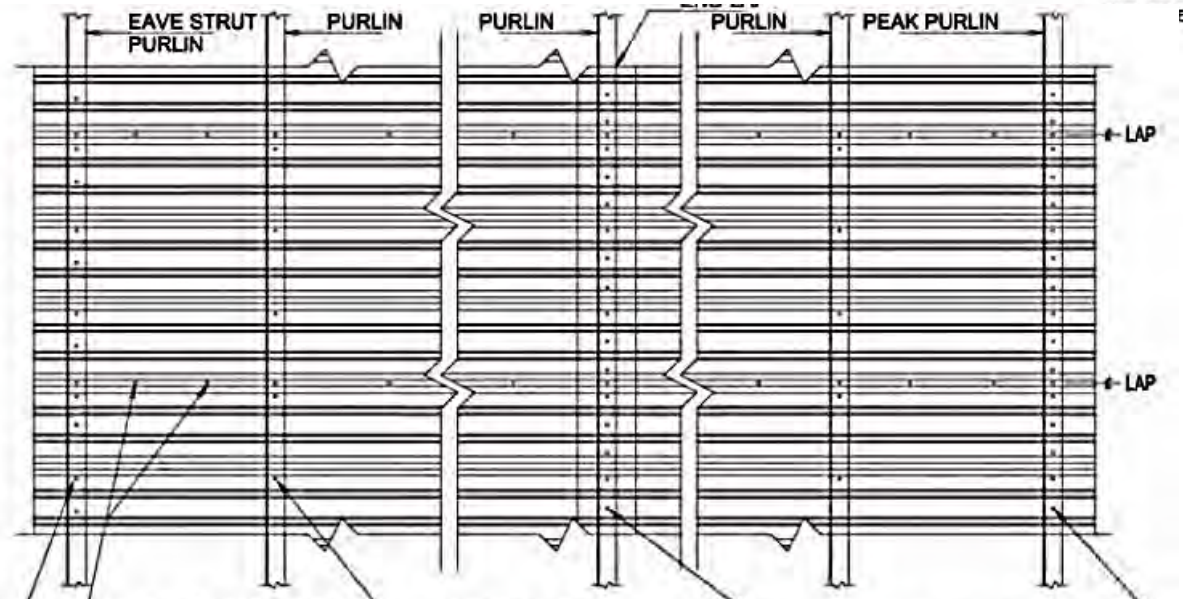


END WALL SHEETING ELEVATION @ GRID 1

USE INSULATION 13 ROLLS



ROOF PANEL INSTALLATION



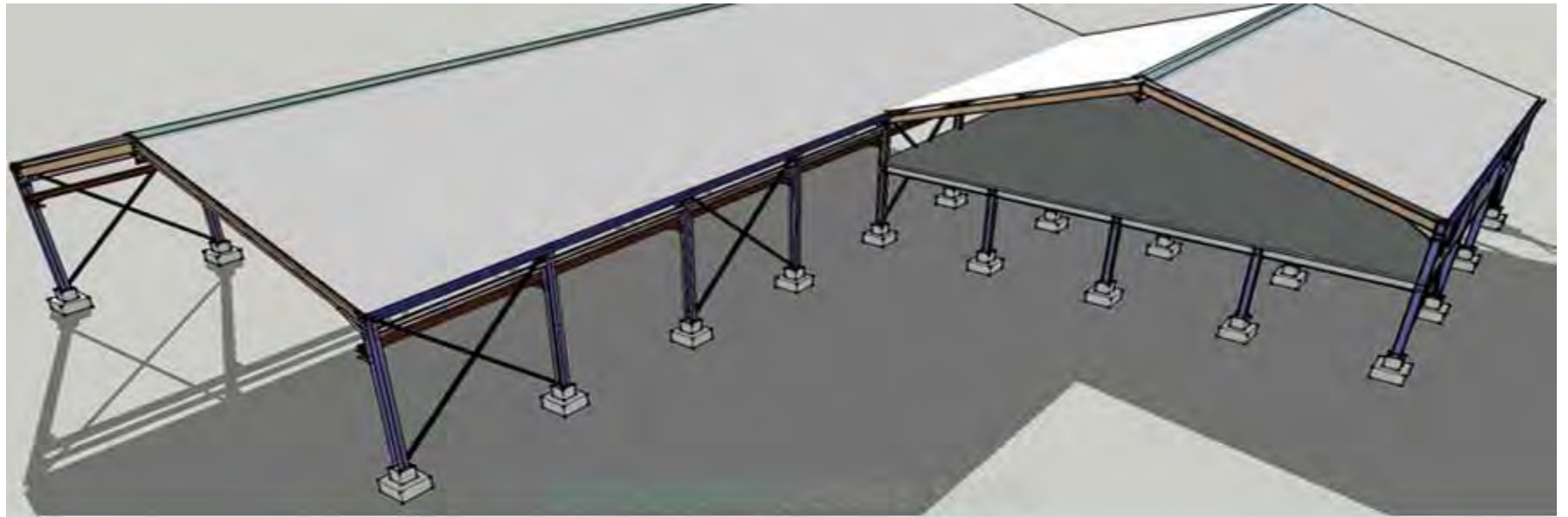
No. 12x20 SDTS STITCH SCREWS
ONE AT EACH SUPPORT AND
AT 300 O.C. (MAX.) IN BETWEEN

No. 14 SDS @ 333 O.C.
AT EACH INTERMEDIATE PURLIN

No. 14 SDS AT
166 O.C.

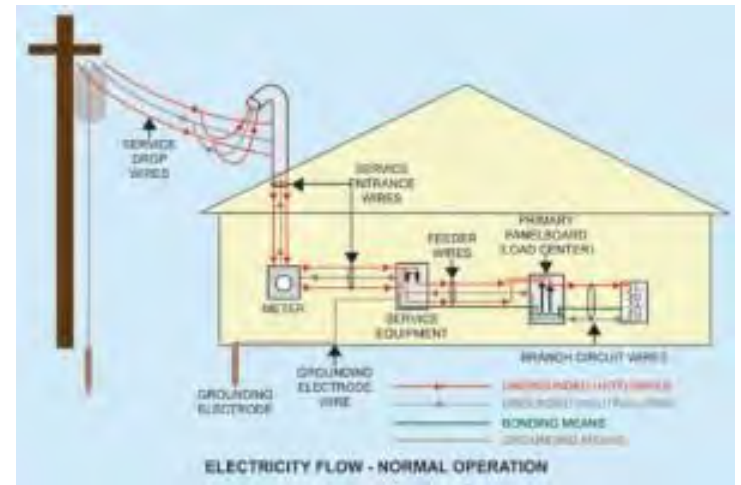
No. 14 SDS 2 ON EACH LOWER
SIDE OF THE MAJOR RIB AND
ONE BETWEEN MINOR RIBS

ROOF PANEL FASTENER LAYOUT



Electricity distribution

An integral part of any set of drawings for the construction of a building is the wiring plan or layout. Several standards apply to this type of design and graphical presentation.



Electrical and Telecom

| | | | | | | | |
|------------------|-----------------------|-------------------|---------------------|-----------------|------------------|-------------------|------------------|
| | | | | | | | |
| Water tap | Lum. ceiling mount | Encl ceiling lum | Wall light | Circuit breaker | Multi-light bar | Light bar | Downlight |
| | | | | | | | |
| Outdoor lighting | Singleplex receptacle | Duplex receptacle | Fourplex receptacle | Batten fluores | Distribution box | Modular fluores | Office fluores |
| | | | | | | | |
| Pull-cord switch | Emerg. light | Emerg. sign | Switches | Dimmer switch | Socket outlet | Socket outlet 2 | Telephone outlet |
| | | | | | | | |
| Stereo outlet | Ceiling fan | Ceiling fan 2 | Combinati... fan | Service panels | Thermostat | Air conditioni... | Hold open unit |
| | | | | | | | |
| Detector | Fire alarm | Monitor | Alarm | Doorbell | Smoke detector | Call | Tel |
| | | | | | | | |
| Main control | Ground | Line | Wire | Cut line | Cut line 2 | | |

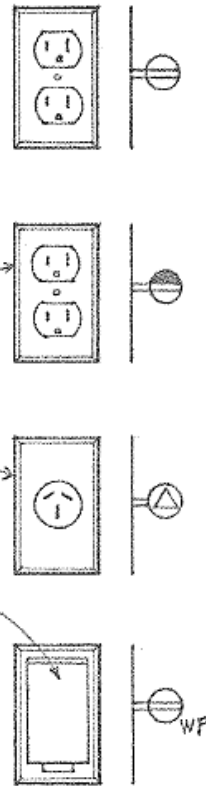
Lighting

| | | | | | | | |
|---------------------------------------|------------------|-----------------|----------------------|------------------------|-----------------|------------------------|-------------------------|
| | | | | | | | |
| Luminaire ceiling | Encl ceiling lum | Wall light | Downlight | Outdoor lighting | Multi-light bar | Batten fluores | Modular fluores |
| | | | | | | | |
| Emerg. light | Emerg. sign | Light | Ceiling Light Outlet | Recessed ceiling light | Ceiling fan | Weatherpr... landscape | Ceiling light with pull |
| | | | | | | | |
| Emergency battery unit | spotlight | Exit sign | Light | Roadway light | Twin lights | Light | Lights |
| | | | | | | | |
| Integrated Light | Night Light | Louvers | | | | | |
| Registers Grills and Diffusers | | | | | | | |
| | | | | | | | |
| Supply diffuser | Return diffuser | Grille diffuser | Linear diffuser | Troffer diffuser | Grille (side) | | |

Electricity distribution

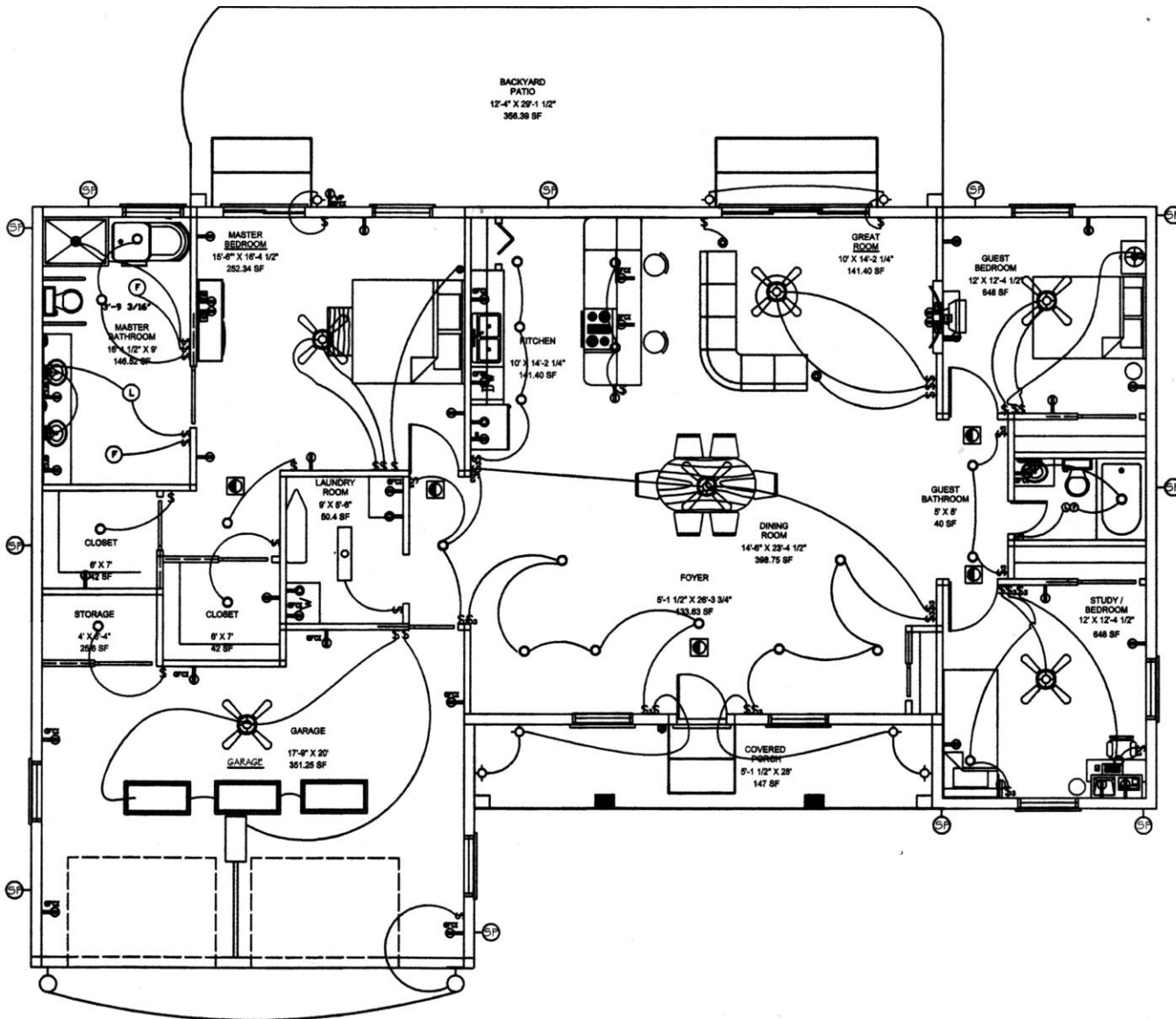
Receptacles

- Duplex receptacles, also called *convenience outlets*, are usually mounted on a wall and house one or more receptacles for portable lamps or appliances.
- Split-wired receptacles contain one outlet that is always energized and a second outlet that is controlled by a wall switch.
- Special receptacles designed to serve a specific type of appliance will be polarized and have a specific configuration so that only attachments from that appliance will fit the receptacle.
- Outdoor receptacles should have a water-resistant cover.
- In all wet locations, receptacles should be protected by a ground fault interrupter (GFI).



| | | | |
|--|------------------------|--|---------------------------|
| | • Panelboard, recessed | | • Fluorescent fixture |
| | • Panelboard, surface | | • Ceiling incandescent |
| | • Power panel | | • Wall incandescent |
| | • Lighting panel | | • Track light |
| | • Transformer | | • Recessed light |
| | • Generator | | • Exit light outlet |
| | • Motor | | • Special purpose outlet |
| | • Disconnect switch | | • Television outlet |
| | • Single-pole switch | | • Chime |
| | • Three-way switch | | • Pushbutton |
| | • Switched receptacle | | • Fan receptacle |
| | • Dimmer switch | | • Junction box |
| | • Duplex outlet | | • Underfloor junction box |
| | • Floor duplex outlet | | • Thermostat |
| | • Telephone outlet | | • Computer data outlet |

Typical Electrical Plan Symbols



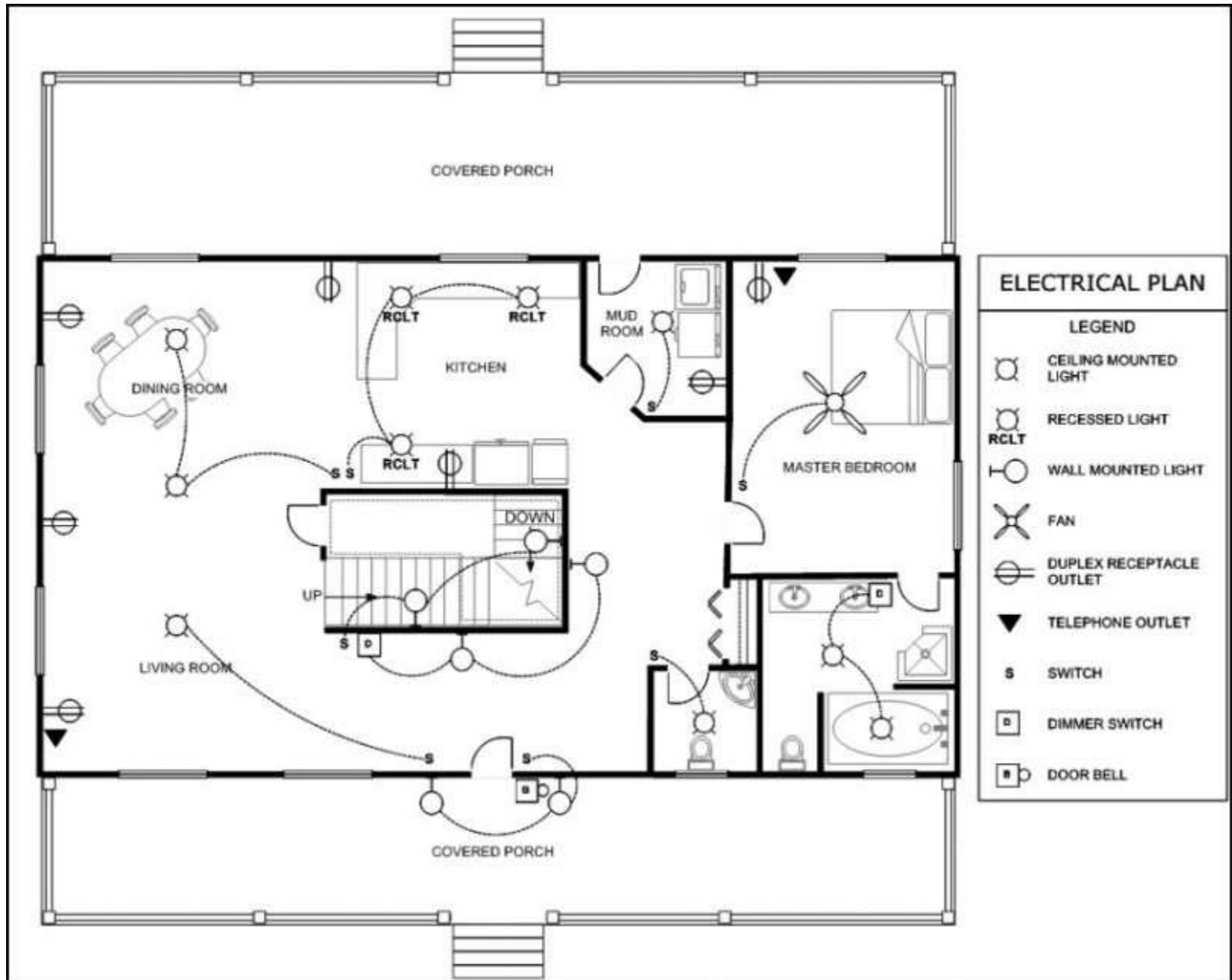
| LEGEND | |
|--------|----------------------------------|
| | WALL MOUNTED LIGHT |
| | FLUORESCENT LIGHT |
| | OVERHEAD LIGHT |
| | JUNCTION BOX |
| | SPECIAL RECEPTACLE |
| | DUPLEX RECEPTACLE, 125V, 20A |
| | DUPLEX RECEPTACLE, SPLIT WIRED |
| | WATERPROOF |
| | GFCI |
| | GROUND FAULT CIRCUIT INTERRUPTER |
| | SINGLE POLE SWITCH |
| | 3 WAY SWITCH |
| | TV CONNECTION |
| | EXHAUST FAN |
| | SMOKE DETECTOR |
| | CEILING FAN |
| | LIGHTING |
| | FLUORESCENT LAMP |
| | DOOR BELL |
| | SINGLE PHONE LINE OUTLET |
| | SOLAR POWERED |
| | FLOOR PLUG |

KARA HUNTZINGER
 PER.4
 1-8-07

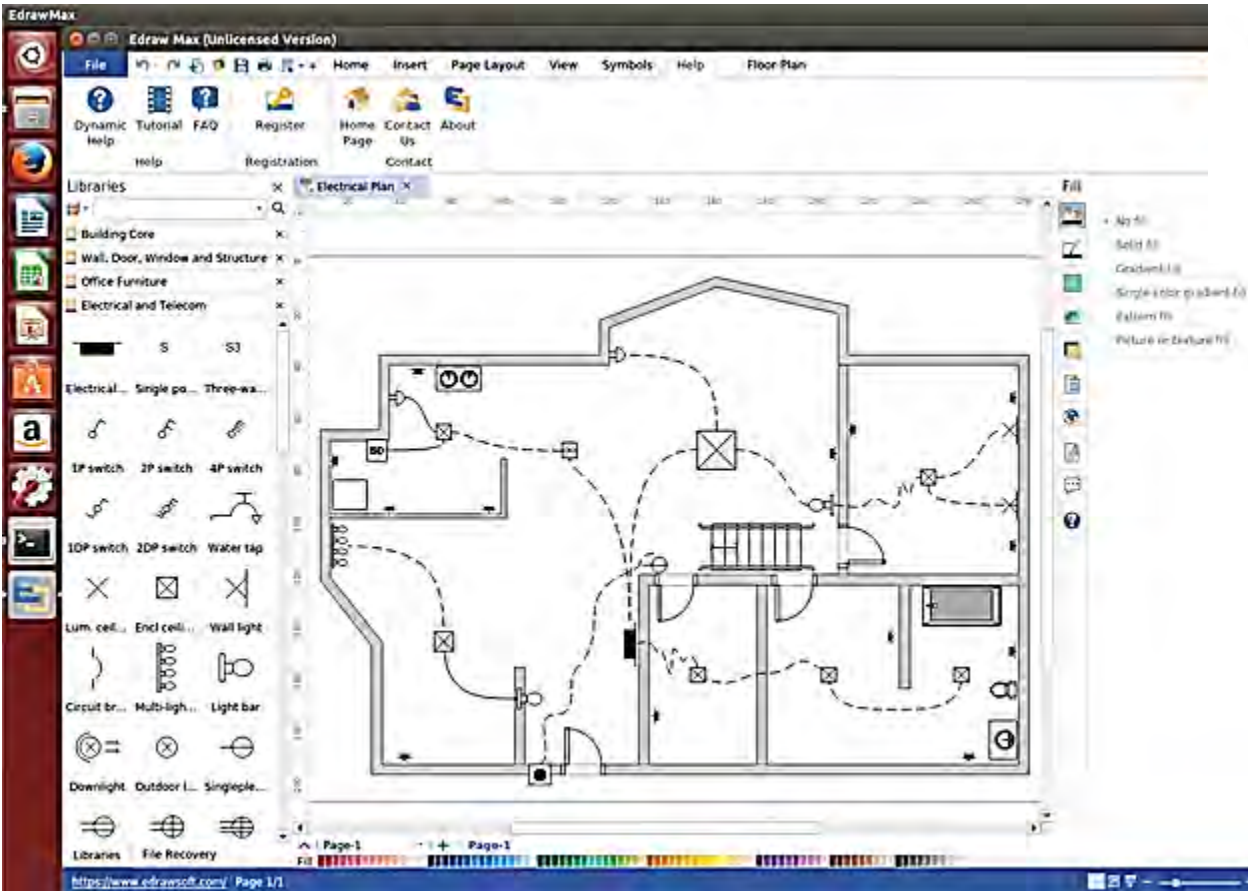
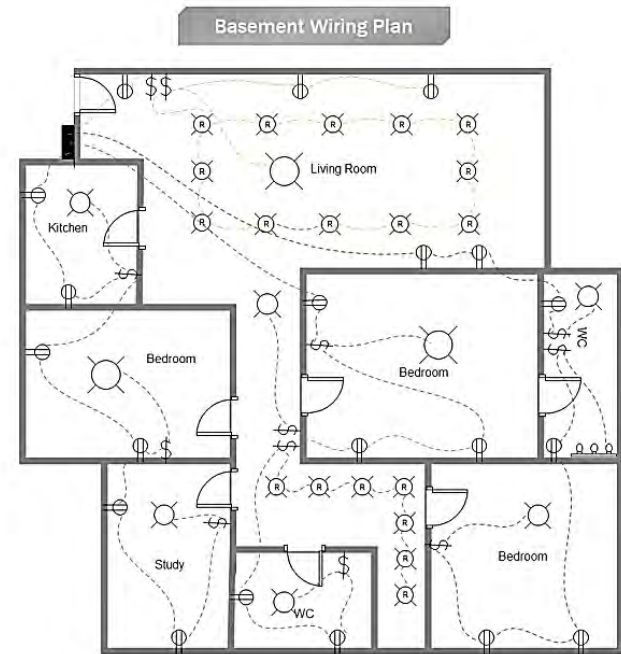
1 ELECTRICAL PLAN
 E 5.0 SCALE: 1/4" = 1'-0"



























































Electricity distribution



Electricity distribution



Electricity distribution

| | | | | | | | | | |
|---|---------------------------------|---|---|---|--|---|------------------------------|---|------------------------------------|
|  | Audio Amplifier |  | Duplex Ground Fault Interrupter |  | Special-purpose Outlet |  | Lamp Holder |  | Television outlet |
|  | Single Outlet and Switch |  | Split Wired Duplex Outlet |  | Duplex Special-purpose Outlet |  | Lamp holder with pull switch |  | Floor TV Outlet |
|  | Emergency Circuit Single Outlet |  | 240v Outlet |  | Special-purpose connection or provision for connection |  | Pull Switch |  | TV Feed |
|  | Duplex Convenience Outlet |  | Floor Mounted Outlet |  | Multi-outlet Assembly |  | Vapor discharge lamp outlet |  | Weatherproof TV Outlet |
|  | Emergency Circuit Duplex Outlet |  | Floor Special-purpose Outlet |  | Data/voice, Power Floor Mounted Outlet |  | Exit Light Outlet |  | TV and Phone Outlet |
|  | Weatherproof Convenience Outlet |  | Heavy Duty Outlet |  | Clock Hanger Outlet, Mounted |  | Floor Receptacle |  | Door Phone Outlet |
|  | Range Outlet |  | Heavy Duty Outlet with Convenience Outlet |  | Blanked Outlet |  | Telephone outlet |  | Fax Outlet |
|  | Switch and Convenience Outlet |  | Triplex Outlet |  | Drop Outlet |  | Floor Phone Outlet |  | Fiber Outlet |
|  | Radio and Convenience Outlet |  | Split Wired Triplex Outlet |  | Electrical Outlet |  | Wall Phone Outlet |  | Multi-Purpose Outlet |
|  | Radio Outlet |  | Quadruplex Outlet |  | Fan Outlet |  | Weatherproof Phone Outlet |  | Local Area Network Outlet |
|  | Dedicated Duplex Outlet |  | Emergency Circuit Quadruplex Outlet |  | Junction Box |  | Phone Feed |  | Wall Mounted Data Outlet |
| | | | | | |  | Computer Data Outlet |  | Wall Mounted Data/Telephone Outlet |