CONSTRUCTION NOTES:

Unless otherwise specified on the working drawing which forms a part of the specification, the Contractor/Developer shall furnish the following items at no cost to the Edison Company.

Southern California Edison Company has attempted to correctly show all existing utilities and substructures in the vicinity of the work, but does not guarantee there are no other substructures in the area.
Failure of SCE to show all substructures in their correct location will not be a basis for a claim for extra work, and the contractor shall be responsible for all damages to substructures whether shown or not.

1. FOR GENERAL SPECIFICATIONS SEE UGS GI 001.

2. CONDUIT:
   a. Minimum cover in street or parkway is 30" below gutter grade, unless noted otherwise.
   b. Minimum cover on private property is 30" below finished grade, unless noted otherwise.
   c. Contractor is to furnish and install approved conduit to Edison specifications per UGS CD 100.1, 110 AND 120.
   d. For the type of conduit for this job, See UGS CD 110.1.
   e. Install all risers per UGS CD 160, 161, 162 and 170.
   f. Cap all mainline conduits per UGS CD 148 and service conduits per UGS CD 150.
   g. Install blank conduit plugs in all conduits terminating into Vaults, Manhole's, PMH's, SDE's & all cap locations, per UGS CD 180.1 & UGS CD 180.2
   h. Install pull rope in all conduit runs. Pull rope to be at least 3/8" polypropylene rope, braided or twisted. For specifications, approved makes, and suppliers, see UGS GI 040.
   i. All conduit must be mandreled with the approved mandrel UGS CD 197.

3. CONDUIT RADIUS REQUIREMENTS:
   a: The minimum radius for bends are:
      36" for conduits 3" in diameter or smaller
      48" for conduits 4" and 5" in diameter
      60" for 6" diameter conduit
   b: The minimum radius for all sweeps of all mainline conduits is 12'-6" (unless noted otherwise).

4. EXCAVATION AND BACKFILL:
   a. Work area shall be cleared and rough graded to within four inches of final grade prior to installation of Edison conduit or structures.
   b. All excavations shall be in accordance with the California State Construction Safety Orders (when applicable), Edison specifications, and all governing local ordinances.
   c. Each trench to be a uniform depth below final grade prior to installation of Edison conduit or structures.
   d. Backfill shall be provided by the Contractor for all excavations and shall include crushed rock, concrete, and/or imported backfill, when required.
   e. Backfill with a MINIMUM of one sack per yard sand cement slurry around and over vaults and manholes per UGS GI 030, section 6.4 and around PMH's within one foot of finished grade, per UGS SS 590.1.
   f. Backfill, per Edison specifications, shall immediately follow conduit or substructure installation. At no time shall conduit be left exposed over 24 hours.
   g. No rocks are allowed within 12 inches of direct-buried cables or any conduit without concrete encasement. Native backfill capable of passing through a one-half inch mesh screen shall be considered to be "rock free". If existing backfill does not pass through a 1/2" screen, place imported sand 3" below and 12" above Edison cables. After this point, no rocks larger than 12" diameter are permitted.
   h. All backfill shall be compacted to meet or exceed local ordinances or other requirements. It shall be placed in a manner that will not damage the conduit or substructure or allow future subsidence of the trench or structures.

5. PAVING:
   Repaving, where required, shall be placed in such a manner that interference with traffic, including pedestrian traffic, will be kept to a minimum. The Contractor shall establish a program of repaving acceptable to the Municipality, County, or other authority having jurisdiction and which is acceptable to Edison.

6. STRUCTURES:
   a. All substructures shall be constructed or installed to Edison specifications.
   b. Install protection barriers per UGS MS 830 when required in areas exposed to traffic, per Edison Inspector.
   c. All conduit lines and concrete floored substructures shall be water tight.
   d. All grounding materials shall be furnished and installed by the Contractor.

7. RETAINING WALLS:
   When required, retaining walls shall be provided by the Developer. Walls are required wherever grade rises more than 18 inches above the structure or 24" above the pad surface at a distance of 5 feet from the same, or in areas subject to erosion. Design and installation must comply with local building ordinances. Refer to Edison Inspector for typical space requirements.

8. PERMITS:
   All permits necessary for excavation shall be provided by the Contractor/Developer.

9. ACCESS:
   Heavy truck access shall be maintained to equipment locations. Structures must be clear of all appurtenances that would obstruct the loading or unloading of equipment.

10. SERVICES:
    a. Meters and services shall comply with Edison Electrical Services Requirements.
    b. Wiring must be in accordance with applicable local ordinances and approved by local Inspection Authorities.

11. LOCATION:
    a. The location of excavations and structures for Edison shall be as shown on the working drawing. No deviation from the planned locations will be permitted unless approved by the Edison Inspector. See UGS GI 001, section 2.2.
    b. Actual location of obstructions, storm drains, and/or other foreign utilities to be the responsibility of the Contractor. See UGS GI 001, section 2.3.

12. Contractor is to verify location and widths of all sidewalks and driveways prior to street light installation. See UGS CD 175.1, UGS CD 175.2 and UGS CD 175.3.

13. SURVEY:
    Surveying of street improvements, property corners, lot lines, finished grade, etc., necessary for the installation of underground facilities must be completed and markers or stakes placed prior to the start of the installation. In addition, Developer shall maintain the markers during the installation and inspection by Edison. Grade and property line stakes must show any offset measurements.

14. COORDINATION AND SUPERVISION:
    The Developer shall provide supervision over and coordination among the various contractors working within the development in order to prevent damage to Edison facilities. He is responsible for the cost of repairs, replacement, relocation, or other corrections to Edison facilities made necessary by his failure to provide supervision or to otherwise comply with these specifications.

15. TELEPHONE AND OTHER UTILITY REQUIREMENTS:
    The drawing prepared for this job may also cover the facilities to be installed for the telephone company and/or other utility. Any questions concerning details of their installation should be referred to the company concerned.

16. OWNERSHIP:
    Developer is to deed to the Edison Company all structures shown hereon except those shown as customer owned.

17. WARRANTY:
    Applicants expressly represent and warrant that all work performed and all material used in meeting Applicants' obligations herein are free from defects in workmanship and are in conformity with Southern California Edison Company's requirements. This warranty shall commence upon receipt by Applicants of Company's final acceptance and shall expire one year from that date. Applicants agree to promptly correct to the Company's satisfaction and that of any governmental agency having jurisdiction and at Applicant's expense any breach of this warranty which may become apparent through inspection or operation of underground electric system by Company during this warranty period.

18. INSPECTION:
    Inspection is required during the construction period. A 48 hour advance notice of intent to start construction is required from the contractor to the Southern California Edison Company. Standards of Edison construction requirements are available upon request.

Duct and Structure Inspector: WALLY — Phone: 805–826–9941

Cabling Construction Coordinator: COORDINATOR — Phone: COORDPHONE

D05: Rev. 07/21/16

CUSTOMER–OWNED CONDUIT MATERIAL* AND CONCRETE ENCASEMENT ARE TO BE INSTALLED IN ACCORDANCE WITH EDISON ELECTRICAL SERVICE REQUIREMENTS.

*SUBJECT TO APPROVAL BY LOCAL INSPECTION AUTHORITIES

D14: Rev. 01/85

Applicants expressly represent and warrant that all work performed and all material used in meeting Applicants' obligations herein are free from defects in workmanship and are in conformity with Southern California Edison Company's requirements. This warranty shall commence upon receipt by Applicants of the Company's final acceptance and shall expire one year from that date. Applicants agree to promptly correct to the Company's satisfaction and that of any governmental agency having jurisdiction and at Applicants' expense any breach of this warranty which may become apparent through inspection or operation of underground electric system by the Company during this warranty period.

WARNING

THE EXCAVATOR MUST TAKE ALL STEPS NECESSARY TO AVOID CONTACT WITH UNDERGROUND FACILITIES WHICH MAY RESULT IN INJURY TO PERSONS OR DAMAGE TO FACILITIES IN THE AREA. THE INDICATED LOCATIONS OF EDISON UNDERGROUND FACILITIES, AS PROVIDED, ARE BELIEVED TO BE ACCURATE, HOWEVER, THE FINAL DETERMINATION OF EXACT LOCATIONS AND THE COST OF REPAIR TO DAMAGED FACILITIES IS THE RESPONSIBILITY OF THE EXCAVATOR.

CONDUIT RADIUS REQUIREMENTS:

A: The minimum radius for bends are:
   36" for conduits 3" in diameter or smaller
   48" for conduits 4" and 5" in diameter
   60" for 6" diameter conduit
B: The minimum radius for sweeps are:
   36" for conduits 3" in diameter or smaller
   12'–6" for conduits 4" in diameter and larger, unless otherwise noted.

NOTE:

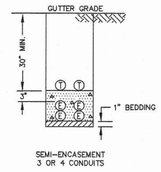
ALL ELECTRICAL DUCTS AND STRUCTURES WILL CONFORM TO GENERAL ORDER #128 (RULES FOR CONSTRUCTION OF UNDERGROUND ELECTRICAL SUPPLY AND COMMUNICATION PRESCRIBED BY THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA, JANUARY 2006).

CONNECTING TO EXISTING SCE STRUCTURES

- Per SCE requirements, customers are not allowed to enter, intercept or tie–in to existing SCE facilities; e.g. structures, equipment, multi–conduit runs/banks, or conductors. These facilities may be energized and the work will only be performed by SCE. Contact the appropriate SCE inspector to schedule an appointment. Customers may connect to an existing conduit stub without a SCE inspector present.
- Multi–conduit runs/banks are runs of conduit in close proximity to each other and other SCE facilities. A conduit stub is a single empty conduit stub that is not in close proximity to other SCE owned facilities. Refer to the work order map for details.
- Per CPUC/SCE's Rule 15 B.1.A and Rule 16 D.1.A., the customer will provide all necessary excavations (with the exception of excavation under pads and primary splice boxes), material (including conduit and structures) and encasement, to be utilized in the intercept/tie–in process.
- The customer must adhere to all applicable Cal–OSHA, local, city, state and federal regulations, (including, but not limited to, all necessary shoring and traffic control in place to perform the intercept/tie–in work by SCE's underground civil contractor(s)).
- Intercept/tie–in work must be coordinated with SCE's civil contractors through the Division Inspector/P–Spec to limit exposure of excavation(s). Customer is responsible for securing excavation(s).

D08: 11/13/18

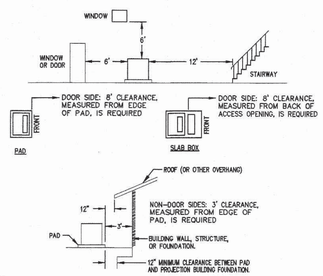
TYPICAL CONDUIT BANK SECTION JOINT WITH CATV & TELE SEE UGS CD 120



SEMI–ENCASEMENT 3 OR 4 CONDUITS

D73–3: Rev. 09/23/09

MINIMUM CLEARANCES FOR PADMOUNTED TRANSFORMERS SEE DDS–3, 3–40

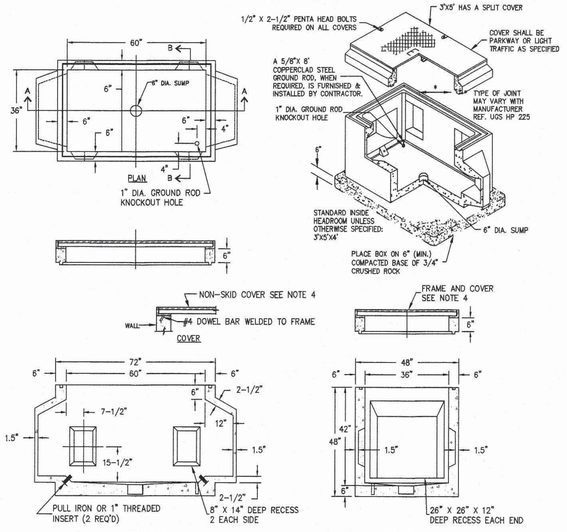


NOTES:

1. AN 8' MINIMUM CLEARANCE IS REQUIRED ON DOOR SIDE OF TRANSFORMER FOR OPERATION. THIS AREA MUST REMAIN CLEAR OF ALL OBSTRUCTIONS INCLUDING, BUT NOT LIMITED TO, SHRUBS, TREES, GATES, FENCES, WALLS, SIGNS AND POLES.
2. PAD–MOUNTED TRANSFORMERS SHALL NOT BE LOCATED IN FRONT OF DOORS, STAIRWAYS, BENEATH WINDOWS THAT CAN BE OPENED, OR WHERE THEY WILL OBSTRUCT THE VISION OF VEHICULAR TRAFFIC
3. PAD–MOUNTED TRANSFORMERS SHALL BE LOCATED AT LEAST THE MINIMUM DISTANCE AWAY FROM BUILDINGS OR OTHER STRUCTURES TO ENSURE ADEQUATE SPACE FOR OPERATING, TO MINIMIZE VIBRATION HUMS, AND TO MEET FIRE SAFETY REQUIREMENTS.
4. A CLEAR PASSAGEWAY OF 12 FEET MINIMUM SHALL BE AVAILABLE AT ALL TIMES, IMMEDIATELY ADJACENT TO ONE SIDE OF THE TRANSFORMER TO PROVIDE AN ACCESSIBLE ROADWAY FOR TRANSFORMER MAINTENANCE. THIS PASSAGEWAY SHALL BE DESIGNED TO MEET H–20 (20–TON) CONSTRUCTION.
5. TRANSFORMER STRUCTURES WILL NORMALLY BE INSTALLED ONLY IN NONTRAFFIC AREAS. TRANSFORMER PROTECTION IS REQUIRED WHEN COMPANY EQUIPMENT IS EXPOSED TO TRAFFIC. THIS PROTECTION MAY BE IN THE FORM OF BARRIERS, BARRICADES, OR CURBS. A CURB MUST HAVE A MINIMUM HEIGHT OF 6 INCHES AND BE AT LEAST 6 INCHES THICK AND ITS FRONT FACE LOCATED 60 INCHES MINIMUM FROM THE EQUIPMENT FOUNDATION.

D54: Rev. 05/14/12

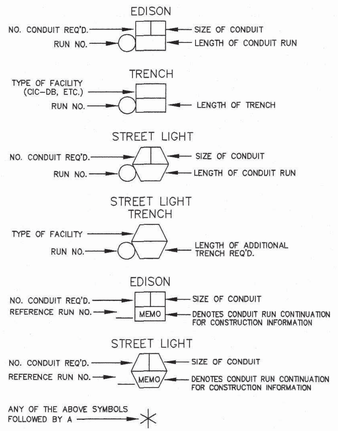
PULL BOX 3' X 5' PRECAST CONCRETE SEE UGS HP 225



NOTE(S):
1. REINFORCEMENT:
   H20–S BRIDGE LOADING.
2. CONCRETE:
   CONCRETE SHALL BE CLASS "A" WITH 28–DAY COMPRESSIVE STRENGTH OF 3,000 PSI (MINIMUM). SLIGHT TAPER (3/4" IN DEPTH OF PULL BOX) AND 1" CHAMFER ON ALL INSIDE CORNERS PERMITTED FOR EASE OF FORMING.
3. INSTALLATION:
   PULL BOX SHALL BE PLACED ON 6" (MINIMUM) COMPACTED ROCK OR SAND BASE TO ENSURE UNIFORM DISTRIBUTION OF SOIL PRESSURE IN FLOOR. MINIMUM EXCAVATION FOR PULL BOX SHALL BE 52" X 97" X DEPTH TO SUIT JOB.
4. COVERS:
   SEE FC 612 AND FC 618 FOR PULL BOX COVERS.
5. GRADE RINGS:
   INSTALLING CONTRACTOR SHALL PROVIDE GRADE RINGS (6" MINIMUM) AS NECESSARY IN ORDER TO MAINTAIN COVER OVER CONDUITS PER SCE SPECIFICATIONS OR PERMIT AGENCY SPECIFICATIONS, WHICHEVER IS GREATER.
6. PULL IRONS AND EYES:
   SEE AC 729 OR PULL IRONS AND AC 720 FOR PULL EYES.

D53C: Rev. 02/12/21

LEGEND OF CONDUIT SYMBOLS (CONVENTIONAL U. G.)



DENOTES THE FOLLOWING:

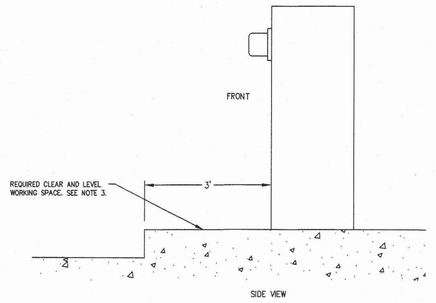
DB CONDUIT WITHOUT ENCASEMENT IS ACCEPTABLE FOR PORTIONS OF TRENCH WITH ONLY ONE OR TWO CONDUITS

SEMI–ENCASEMENT IS REQUIRED FOR PORTIONS OF TRENCH WITH ONLY THREE OR FOUR CONDUITS

FULL ENCASEMENT IS REQUIRED FOR MORE THAN FOUR CONDUITS

D18: Rev. 5/08/2006

PANEL CLEARANCE UNDERGROUND SERVICE CONNECTIONS 0–600 VOLTS SEE ESR 3–16



NOTES:

1. A MINIMUM OF THREE (3) FEET OF CLEAR, LEVEL WORK SPACE IS REQUIRED IN FRONT OF ALL TERMINATION, METERING, AND SERVICE EQUIPMENT.
2. SEE ESR–5 FOR METER–MOUNTING HEIGHT REQUIREMENTS. METER MOUNTING HEIGHT WILL BE MEASURED FROM THE STANDING AND WORKING SPACE TO THE CENTERLINE OF THE METER(S).
3. WHEN SERVICE EQUIPMENT IS INSTALLED ON AN ELEVATED PORTION OF THE FLOOR/GROUND, OR HOUSEKEEPING PAD, THE PAD SHALL BE FLUSH WITH AND EXTEND A MINIMUM OF THREE (3) FEET. THIS IS MEASURED FROM THE FRONT OF THE SERVICE EQUIPMENT OR THE OUTER DOOR(S) OF THE SWITCHBOARD NEMA 3R ENCLOSURE WHEN INSTALLED. IN NO CASE SHALL THE MAXIMUM METER HEIGHT OF SIX (6) FEET THREE (3) INCHES BE EXCEEDED.
4. TO MAINTAIN A SAFE, CLEAR, AND LEVEL WORKING AREA IN FRONT OF NEW OR EXISTING METER AND SERVICE EQUIPMENT, A CONCRETE SLAB OR OTHER SUITABLE PERMANENT HARD SURFACE, ACCEPTABLE TO THE COMPANY, MUST BE USED.
5. FOR SWITCHBOARDS ABOVE 600V, FIVE–FOOT MINIMUM OF CLEAR AND LEVEL STANDING AND WORKING SPACE IS REQUIRED IN THE FRONT, REAR, AND SIDE OF ANY SECTION WHERE SUCH PART SUPPORTS OR PROVIDES ACCESS TO METERING, TESTING EQUIPMENT, OR SERVICE CABLE TERMINATION SECTIONS.

18.12 PROTECTIVE BARRIERS FOR SERVICE EQUIPMENT

BARRIER POSTS ARE USED TO PROTECT THE METER AND SERVICE EQUIPMENT, AS WELL AS PERSONNEL, FROM VEHICULAR CONTACT, AND TO PROHIBIT ENCROACHMENT INTO THE WORKING SPACE. (FOR EXAMPLE: LOADING ZONES, DRIVEWAYS, CONGESTED AREAS, OFF STREET PARKING, AND SO ON). THE CUSTOMER SHALL PROVIDE AND INSTALL "NON–REMOVABLE" BARRIERS TO PROVIDE THE PROPER SAFE WORKING CLEARANCES WHERE THE WORKSPACE IS EXPOSED TO VEHICULAR OR OTHER HAZARDOUS CONDITIONS. METERS WILL NOT BE SET UNTIL THE BARRIERS HAVE BEEN INSTALLED.

D99: 10/26/20

LIST OF MATERIALS [EDISON CO.]

NOTES:
1. Footage quantities are approximate.
2. Where reference is to an item not detailed, see separate description list.
3. This list provides a summary of major items.

SEE UGS SECTION INDEX FOR REFERENCE DRAWINGS

QUAN.	UNIT	DESCRIPTION	SIZE	ITEM NO.	REF DWG.	REV. DATE:

CONCRETE PRODUCTS

Precast concrete item complete with neck. Cover and inserts may be obtained from any of the following listed and approved manufacturers:

JENSEN PRECAST
14221 San Bernardino Ave., Fontana, Calif. 92335
Phone: (909) 350–4111
(800) 257–6100

OLDCASTLE PRECAST
10650 Hemlock Ave., Fontana, Calif. 92337
Phone: (909) 428–3700
(800) 626–3860

FOR HANDHOLE AND PULLBOX MANUFACTURERS SEE UGS HP 200.

D82: Rev. 01/23/09

PAD FOR SURFACE–MOUNTED TRANSFORMER SEE UGS SS 504

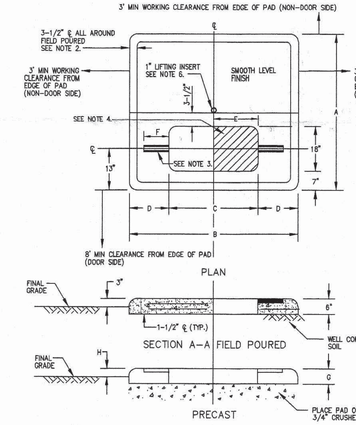


TABLE SS 504–1: Surface–Mounted Transformer Pads–Dimensions

Transformer	Pad Dimensions (in)								Weight (lb)	SAP
	A	B	C	D	E	F	G	H		
1ø 25 KVA–167 KVA 3ø	54	48	26	11	12	6	4	2	750	10118012
3ø 75 KVA–500 KVA SW and Fuse	72	94	50	22	22	14	6	3	3,200	10118013

Note(s):
1. Concrete to be 3,000 psi (minimum) at 28 days.
2. Reinforcing steel to be No. 4 bars installed in a double net. Perimeter bars to be continuous (6" minimum lap or weld).
3. Hold–down brackets to be P–3200 series unistrut (or equal).
4. Primary cables must be installed in shaded area of drawing above as far to the right as possible on single phase transformers only. On three–phase transformers primary cables must be installed in the unshaded area of drawing above as far left as possible.
5. See AC 701 for pad–mounted transformer/capacitor grounding requirements and AC 703 for approved grounding materials.
6. 1–inch listing insert to be located at center of gravity on precast pads.
7. See SS 500 for approved manufacturers.
8. The three–phase transformer shall only be used on a pad when four or fewer services are to be installed. A slab box should be used when more than four services will be installed.
9. Use a thin layer of redi–crete (or equivalent) for rodent and weed control or where transformer does not fully cover opening in pad.
10. A 17" x 30" x 15" plastic handhole (SAP 10117726) shall be inverted and installed under the cable opening of the pad. This will provide adequate cable slack for operation of the load–break elbows on single phase transformers only.

D43: Rev. 10/26/20

DISTRICT: 49 – SANTA BARBARA		PROJ. MGR. Smead, Lucas Charles PHONE		PLANNER Smead, Lucas Charles PHONE 805–683–5202		DESIGNER Ferguson, Hailey N.
PROJECT NO. 2353764	SERVICE REQUEST 3245025	MSR NO. 200205492		PRODUCT–1 1979497–LINE EXTENSION		ASSOC DESGN
CIRCUIT / VOLTAGE SEACLIFF 16KV		GPS		PRODUCT–2 1971262–REMOVE IDLE FACILITIES		ASSOC DESGN
SUB / PG NO. CARPINTERIA		CIRCUIT CODE 16040		PRODUCT–3		ASSOC DESGN
INVENTORY MAP KU–7008–H2		J.P.A. NO.		PROPOSED CONSTRUCTION (LOCATION) CUSTOMER DECAL PAGE 1010 BEGA WAY CARPINTERIA CA 93013		
4/25/22	VALENZUELA		FERGUSON			
TYPE	DATE	APPROVED BY	CHECKED BY	DRAWN BY	PAX #	SHEET 2 of 2
Southern California Edison Company						DESIGN\DRWG NO. 1482436_0.01

FILE NAME:1482436_0.01.DWG SAVE DATE:5/31/2022 12:06 AM SAVED BY:FERGUSON