

1. TRENCHING:
JOINT TRENCH UG STANDARD S5453
SPECIFICATION FOR TRENCHING BY APPLICANT, GAS OPERATIONS FORM (75-94)
2. CONDUIT:
UNDERGROUND CONDUITS, UG DWG. 062288
3. ENCLOSURES:
SECONDARY BOXES FOR ELECTRIC UNDERGROUND, UG DWG. 028028
CABLE SUPPORT FOR UNDERGROUND USE, UG DWG 028077
PRIMARY ELECTRIC UNDERGROUND EQUIPMENT ENCLOSURES, UG DWG. 062000
4. CABLE:
CABLES FOR UNDERGROUND DISTRIBUTION, UG DWG. 039955
5. SPICES AND TERMINATIONS:
WIRE TAP SPICE FOR 600V INSULATED CABLES, UG DWG. 036640
PREMOLDED PERM. 200A SPICES FOR PRIMARY UG CABLE, UG DWG. 039081
CABLE END CAPS, UG DWG. 048640
SPICES FOR 600V CONDUIT, UG DWG. 051034
PREMOLDED 600A SPICES FOR 600V CABLES, UG DWG. 053732
INSTALLATION OF 200 AND 600 AMP SPICES, UG DWG. 060809
PREMOLDED 200A TERMINATIONS FOR PRIMARY UG CABLE, UG DWG. 053514
TERMINATIONS FOR 600V CABLES, UG DWGS. 041841 & 043502
600A SEPARABLE INSULATED CONNECTORS, UG DWG. 051071
6. SWITCHES AND TRANSFORMERS:
INSTALLATION OF DEAD BREAK PRIMARY JUNCTION, UG DWG. 035380
INSTALLATION OF 200A & 300A S/S SECTIONALIZING SWITCHES, UG DWG. 039999
INSTALLATION OF 600A S/S SECTIONALIZING SWITCHES, UG DWG. 050000
PAD MOUNTED LOAD BREAK SWITCHES & FUSES, UG DWGS. 053318 & 061043
INSTALLATION OF S/S FUSED SWITCHES, UG DWG. 054686
INSTALLATION OF 0-2 S PHASE S/S TRANSFORMER, UG DWG. 039830
INSTALLATION OF 1-2 S PHASE S/S TRANSFORMERS, UG DWGS. 042761, 042770, 042771, 042772, 042773, 042774, 042775, 042776, 042777, 042778, 042779, 042780, 042781, 042782, 042783, 042784, 042785, 042786, 042787, 042788, 042789, 042790, 042791, 042792, 042793, 042794, 042795, 042796, 042797, 042798, 042799, 042800, 042801, 042802, 042803, 042804, 042805, 042806, 042807, 042808, 042809, 042810, 042811, 042812, 042813, 042814, 042815, 042816, 042817, 042818, 042819, 042820, 042821, 042822, 042823, 042824, 042825, 042826, 042827, 042828, 042829, 042830, 042831, 042832, 042833, 042834, 042835, 042836, 042837, 042838, 042839, 042840, 042841, 042842, 042843, 042844, 042845, 042846, 042847, 042848, 042849, 042850, 042851, 042852, 042853, 042854, 042855, 042856, 042857, 042858, 042859, 042860, 042861, 042862, 042863, 042864, 042865, 042866, 042867, 042868, 042869, 042870, 042871, 042872, 042873, 042874, 042875, 042876, 042877, 042878, 042879, 042880, 042881, 042882, 042883, 042884, 042885, 042886, 042887, 042888, 042889, 042890, 042891, 042892, 042893, 042894, 042895, 042896, 042897, 042898, 042899, 042900, 042901, 042902, 042903, 042904, 042905, 042906, 042907, 042908, 042909, 042910, 042911, 042912, 042913, 042914, 042915, 042916, 042917, 042918, 042919, 042920, 042921, 042922, 042923, 042924, 042925, 042926, 042927, 042928, 042929, 042930, 042931, 042932, 042933, 042934, 042935, 042936, 042937, 042938, 042939, 042940, 042941, 042942, 042943, 042944, 042945, 042946, 042947, 042948, 042949, 042950, 042951, 042952, 042953, 042954, 042955, 042956, 042957, 042958, 042959, 042960, 042961, 042962, 042963, 042964, 042965, 042966, 042967, 042968, 042969, 042970, 042971, 042972, 042973, 042974, 042975, 042976, 042977, 042978, 042979, 042980, 042981, 042982, 042983, 042984, 042985, 042986, 042987, 042988, 042989, 042990, 042991, 042992, 042993, 042994, 042995, 042996, 042997, 042998, 042999, 043000, 043001, 043002, 043003, 043004, 043005, 043006, 043007, 043008, 043009, 043010, 043011, 043012, 043013, 043014, 043015, 043016, 043017, 043018, 043019, 043020, 043021, 043022, 043023, 043024, 043025, 043026, 043027, 043028, 043029, 043030, 043031, 043032, 043033, 043034, 043035, 043036, 043037, 043038, 043039, 043040, 043041, 043042, 043043, 043044, 043045, 043046, 043047, 043048, 043049, 043050, 043051, 043052, 043053, 043054, 043055, 043056, 043057, 043058, 043059, 043060, 043061, 043062, 043063, 043064, 043065, 043066, 043067, 043068, 043069, 043070, 043071, 043072, 043073, 043074, 043075, 043076, 043077, 043078, 043079, 043080, 043081, 043082, 043083, 043084, 043085, 043086, 043087, 043088, 043089, 043090, 043091, 043092, 043093, 043094, 043095, 043096, 043097, 043098, 043099, 043100, 043101, 043102, 043103, 043104, 043105, 043106, 043107, 043108, 043109, 043110, 043111, 043112, 043113, 043114, 043115, 043116, 043117, 043118, 043119, 043120, 043121, 043122, 043123, 043124, 043125, 043126, 043127, 043128, 043129, 043130, 043131, 043132, 043133, 043134, 043135, 043136, 043137, 043138, 043139, 043140, 043141, 043142, 043143, 043144, 043145, 043146, 043147, 043148, 043149, 043150, 043151, 043152, 043153, 043154, 043155, 043156, 043157, 043158, 043159, 043160, 043161, 043162, 043163, 043164, 043165, 043166, 043167, 043168, 043169, 043170, 043171, 043172, 043173, 043174, 043175, 043176, 043177, 043178, 043179, 043180, 043181, 043182, 043183, 043184, 043185, 043186, 043187, 0

**MUST BE CONSIDERED A 'UTILITY' AS DEFINED IN UTILITY STANDARD S5453, "JOINT TRENCH,"
NOTES 4, 5, 7, AND 13 ARE LOCATED IN UTILITY STANDARD S5453, EXHIBIT B, "JOINT TRENCH
CONFIGURATIONS AND OCCUPANCY GUIDE."*

***FOR EXCEPTIONS, REFER TO G.O. 128 RULE, SECTION B, ITEMS (1) AND (2)*

VICINITY MAP
NOT TO SCALE

TRENCH SECTIONS	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
GAS	X	X	X	X		X	X			X	X	X	X	X	X		X			X			
TELEPHONE	X	X	X	X		X	X			X	X	X	X	X	X								
CABLE T.V.	X	X	X	X	X	X	X			X	X	X	X	X	X		X	X					
ELECTRIC SEC.	X	X	X	X		X	X			X	X	X	X	X	X								X
ELECTRIC PRI.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X								

RICHARD BRANN DR.

CONTRACTOR TO COORDINATE TIE-INS

EX. JT

"A1" 7'

"H1" 8'

"L" 43'

"T" 27'

"W" 15'

GAS METER LOCATION
690 MBTU

ELECTRIC SWITCHGEAR
2500 AMP PANEL

TELCOM MPOE LOCATION

#31
RICHARD BRANN DR.
CAL VISTA
31 RICHARD BRANN DRIVE

SECTION "H1"

	LF TOTAL
8	LF TOTAL
0	LF PWMT

NOTES:

- FIELD ADJUST SERVICE XING EXISTING FACILITIES (TYPICAL)
- FIELD ADJUST SPICE BOX LOCATIONS TO DRIVEWAYS AND EXISTING TRENCHES (TYPICAL)
- TRANSITION TO VAULTS (TYPICAL)
- INCIDENTAL TRENCHING TO EXISTING TRENCHES (TYPICAL). CONTRACTOR TO PROVIDE FOR CONDUIT RACKS (TYPICAL).
- OFFSET SPICE BOXES TO EXISTING TRENCHES TO CONDUIT AS NEEDED (TYPICAL)
- ALL PG&E SPICE BOXES TO BE 26" IN DEPTH (TYPICAL)

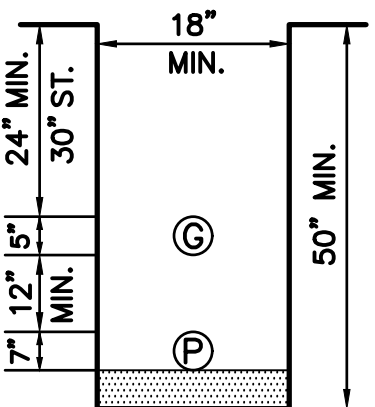
TABLE OF REQUIREMENTS

FINISHED GRADE	SELECT BACKFILL 1/2" OR LESS	SPEC. 90 MATERIALS
NOT TO EXCEED 5' UNLESS PG&E INSPECTOR. IN NO CASE GAS PIPE BE INSTALLED AT DEPTH GREATER THAN 10' UNLESS PG&E SENIOR GAS ENGINEER.		

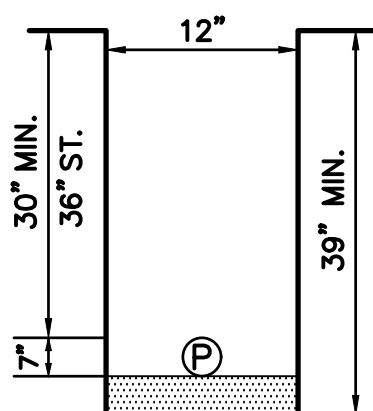
FOR CLARITY - SOME BOXES MAY BE AT LARGER SIZE THAN SHOWN AT CLEAR OF DRIVEWAYS AND

Diagram of a 30" ST. section. The total height is 56" MIN. The top 24" MIN. section contains labels (T), (C), and (G). Below this is a section with labels (P) and (G). The bottom section is divided into four horizontal segments with heights of 5", 6", 5", and 7" from top to bottom. A note points to the (G) label: "SEE NOTE #7".

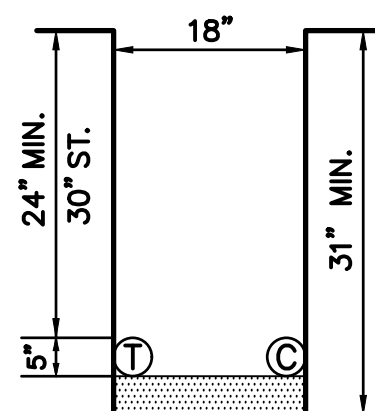
<u>7</u>	LF	DIRT
<u>0</u>	LF	PVMT



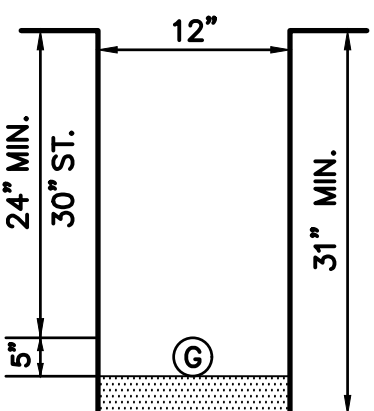
<u>7</u>	LF	TOTAL
<u>0</u>	LF	PVMT



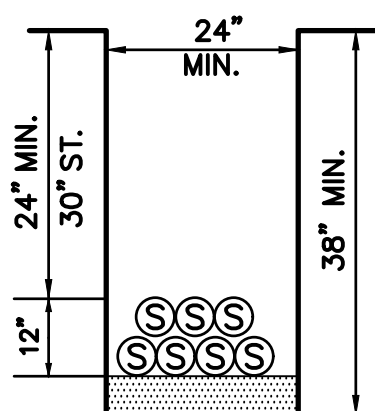
<u>8</u>	LF	TOTAL
<u>0</u>	LF	PVMT



<u>43</u>	LF	TOTAL
<u>0</u>	LF	PVMT



<u>27</u>	LF	DIRT
<u>0</u>	LF	PVMT

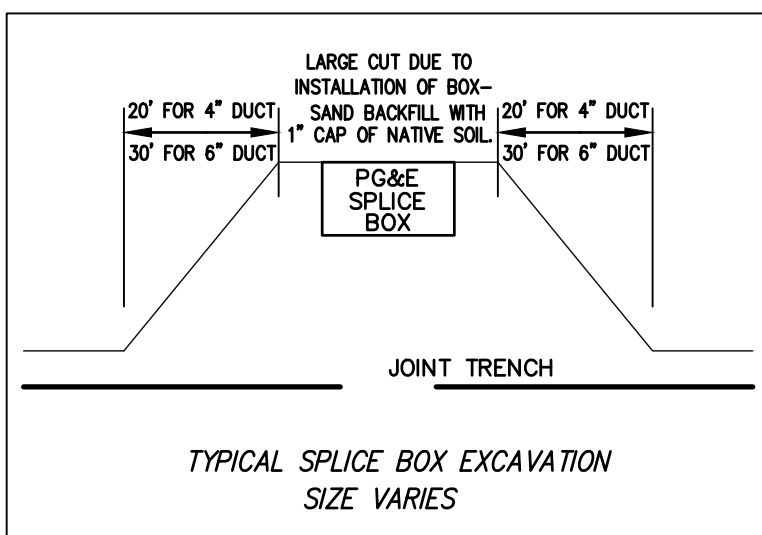


15	LF	DIRT
0	LF	PVMT

1. Trench sections are shown schematically and indicate areas of occupancy only; they do not reflect size or quantity of facilities to be installed.
2. Trench footages per section are approximate, sections are designed to accommodate all required facilities as indicated on each trench participant's construction drawings.
3. The contractor shall verify trench footages for accuracy prior to excavation and take necessary precaution crossing water and sewer facilities.
4. The contractor shall refer to the composite, conduit, and/or each respective utility's installation plan for the necessary conduit cable and/or pipe to be installed in this project.
5. Type "M2" trench shall be installed after curb and gutter installation. Contractor shall coordinate additional move-ins necessary to complete the services to the dwelling units with the developer, all agencies and the utility companies. The cost of these moves shall be included in the contractor's unit price for trenching.
6. The average trench depths shown are based on the minimum utility company requirements for depth and separation. Contractor shall adjust trench width & depth as required to adequately clear existing underground facilities & maintain minimum utility clearances. (see min. cover & clearance table)
7. Per UO S5453, exhibit B, separation between gas facilities and electric facilities may be reduced to 6" when crossing. Also, when communication ducts are installed, a minimum of 12" radial separation shall be maintained from gas facilities although, when 4" diameter or smaller gas pipe is installed, with mutual agreement only, the separation may be reduced to 6".
8. Contractor shall use sand bedding and shading as required by the utility companies. All trench sections shown herein include a 4 inch thick bedding layer.

1. FIELD ADJUST SERVICE XING TO MINIMIZE INTERFERENCE WITH EXISTING FACILITIES (TYPICAL).
2. FIELD ADJUST SPLICE BOXES TO KEEP CLEAR OF SIDEWALK, DRIVEWAYS AND EXISTING FACILITIES (TYPICAL).
3. TRANSITION TO VAULTS FROM TRENCH NOT SHOWN.
4. INCIDENTAL TRENCHING TO SPLICE BOXES NOT SHOWN (TYPICAL). CONTRACTOR TO PROVIDE ADDITIONAL TRENCHING AS REQUIRED FOR CONDUIT ROUTING TO SPLICE BOXES AND CABINETS (TYPICAL).
5. OFFSET SPLICE BOXES TO ROUTE TELEPHONE/ FIBER OPTIC CONDUIT AS NEEDED (TYPICAL).
6. ALL PG&E SPLICE BOXES ADJACENT TO TRANSFORMER SHALL BE 26" IN DEPTH (TYPICAL).

7. DUE TO UNCERTAINTIES OF THE EXACT LOCATION OF EXISTING FACILITIES, FIELD LOCATING OF PROPOSED FACILITIES MAY BE REQUIRED. CONFIRM WITH VARIOUS UTILITIES FOR EXACT PLACEMENT.
8. EDGE OF SPICE BOXES & PEDESTALS SHALL BE 5' FROM EDGE OF F.H. AND 3' FROM STREET LIGHT (TYP.) CONTRACTOR TO AVOID DISTURBING F.H. THRUST BLOCK.
9. MAINTAIN 3' CLEAR & LEVEL AREA AROUND PRIMARY SPICE BOXES & XFMRs.
10. COORDINATE TIE-IN WITH UTILITY COMPANY AS REQUIRED.
11. RESPECTIVE UTILITY TO OBTAIN CITY OR COUNTY APPROVAL OF ALL ABOVE GROUND EQUIPMENT.
12. FIELD LOCATE JOINT TRENCH FACILITIES TO KEEP CLEAR OF SERVICE LATERALS. SERVICE LATERALS TO BE ROUTED TO AVOID SPICE BOX.
(ADDITIONAL P.U.E MAY BE REQUIRED.)



DESIGN CHANGE COMPONENT:
ANY CHANGES IN THE GAS DESIGN
MUST BE APPROVED BY THE GAS ADE,
NAME: _____
NUMBER: _____

P.G.& E. SKETCH BY DEVELOPER

GAS PM #35066903

ELEC PM #35066439

NOT. #11499391C

SYMBOL	DESCRIPTION
	BELL HOLE
	PAD-MOUNT TRANSFORMER
	4"x6"-6"x5" PRIMARY ENCLOSURE
	13"x24"x18" COMCAST SPLICE BOX
	36"x60"x36" AT&T SPLICE BOX
	EX. PM 19
	EXIST. TRENCH (as shown)
	PROP. TRENCH (distribution)
	PROP. TRENCH (services)
	S.D., S.S., & WATERLINES

SYMBOL













[illegible]