

PG&E APPLICANT DESIGN APPROVAL  
 PG&E Plan Check does not release the Applicant from responsibility to construct the facilities according to PG&E Standards. In the event of a conflict during construction, PG&E Standards take precedence.  
 Gas ADE: Erik Kvist Desk Phone: 925-270-2282  
 Approval Signature: Erik Kvist  
 Date: 4/1/20

**APPLICABLE P.G.+ E. STANDARDS, STANDARD PRACTICES AND DRAWINGS.**

- TRENCHING:**  
 JOINT TRENCH UO STANDARD S5453  
 SPECIFICATION FOR TRENCHING BY APPLICANT, GAS OPERATIONS FORM (75-94)
- CONDUIT:**  
 UNDERGROUND CONDUITS, UG DWG. 062288
- 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
- CABLE:**  
 CABLES FOR UNDERGROUND DISTRIBUTION, UG DWG. 039955
- SPICES AND TERMINATIONS:**  
 MULTI-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 CONDUITS, UG DWG. 051034  
 PREMOLDED 600A SPICES FOR PRIMARY UG CABLES, UG DWG. 053732  
 INSTALLATION OF 200 AND 600 AMP SPICES, UG DWG. 060809  
 PREMOLDED 200A TERMINATIONS FOR PRIMARY UG CABLE, UG DWG. 035314  
 TERMINATIONS FOR 15KV & 22KV CABLES, UG DWGS. 041584 & 043902  
 600A SEPARABLE INSULATED CONNECTORS, UG DWG. 051071
- SWITCHES AND TRANSFORMERS:**  
 INSTALLATION OF DEAD BREAK PRIMARY JUNCTION, UG DWG. 035380  
 INSTALLATION OF 200A & 300A S/S SECTIONALIZING SWITCHES, UG DWG. 039954  
 INSTALLATION OF 600A 3-PHASE S/S SECTIONALIZING SWITCHES, UG DWG. 050859  
 PAD MOUNTED LOAD BREAK SWITCHES & FUSES, UG DWGS. 053318 & 061043  
 INSTALLATION OF S/S FUSED SWITCHES, UG DWG. 054686  
 INSTALLATION OF UG 3 PHASE S/S TRANSFORMER, UG DWG. 039830  
 LOW PROFILE 1 PHASE PAD MOUNTED TRANSFORMERS, UG DWGS. 042761, 042762, 042763  
 3 PHASE PAD MTD TRANSFORMERS, UG DWGS. 043816, 043817, 043818, 045290, 045291, 045292  
 LOCATION, CLEARANCES & PROTECTION FOR P.M. & S/S EQUIPMENT, UG DWG. 051122  
 INSTALLATION OF HORIZONTAL 1 PHASE S/S TRANSFORMERS, UG DWG. 060578  
 APPL. & INSTAL. OF UG CIRCUIT FAULT INDICATORS, UG DWG. 061983  
 1 PHASE PAD FRONT PAD MOUNTED TRANSFORMER, UG DWGS. 064307, 064308, 064309  
 LANDSCAPE SCREEN FOR PAD MOUNTED TRANSFORMERS, UG DWG. 063422
- ELECTRIC SERVICES:**  
 0-600V UG TERMINATIONS, UG DWG. 058817  
 0-600V RESIDENTIAL UG SERVICE, UG DWG. 063927  
 0-600V COMMERCIAL UG SERVICE, UG DWG. 063928
- GAS PIPE:**  
 PLASTIC PIPE DIRECT BURIAL CONSTRUCTION, GAS STD. A-90  
 LOCATION WIRE INSTALLATION FOR D.B. PLASTIC, GAS STD. A-90.2  
 SPECIFICATIONS & STANDARDS FOR PLASTIC PIPE, GAS STD. A-93  
 HEAT FUSION JOINING OF PLASTIC PIPE, GAS STD. D-21
- FITTINGS:**  
 PLASTIC FITTINGS, GAS STD. B-90, B-90.1, B-90.2, B-90.3, B-91, B-91.2
- VALVES:**  
 METER VALVES, GAS STD. F-80  
 PLASTIC VALVE LIST, GAS STD. F-90
- CATHODIC PROTECTION:**  
 WIRE SPICES, GAS STD. O-12  
 INSTALLATION OF ANODES, GAS STD. O-13.1
- GAS SERVICES:**  
 PLASTIC SERVICE INSTALLATION, GAS STD. A-90  
 RISER ASSEMBLY, GAS STD. A-91

OTHER STANDARDS, STANDARD PRACTICES AND DRAWINGS MAY APPLY. REFER TO THE LATEST ELECTRIC UNDERGROUND CONSTRUCTION STANDARDS, GAS T & D CONSTRUCTION STANDARDS OR THE ELECTRIC AND GAS SERVICE REQUIREMENTS MANUAL (GREEN BOOK).

**SUBSTRUCTURE VERIFICATION STAMP**

**DEVELOPER**  
 PLEASE NOTE AND SIGN

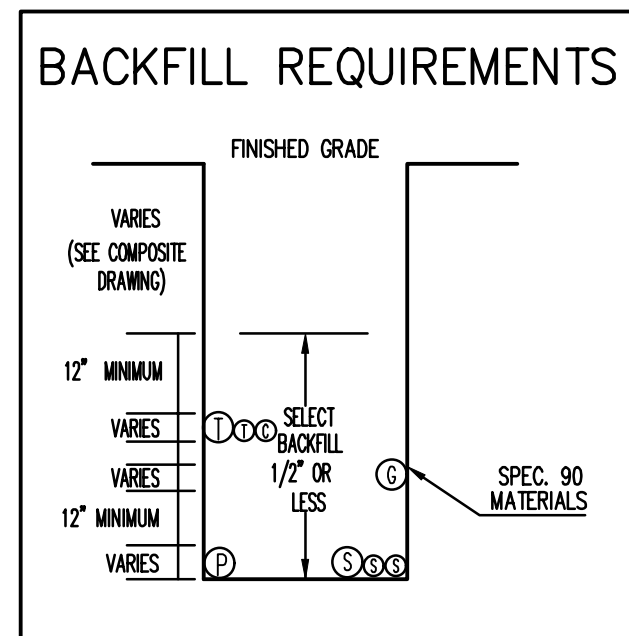
ALL PG&E ENCLOSURES AND BOXES HAVE BEEN SET TO GRADE ACCORDING TO GRADE STAKES PROVIDED BY DEVELOPER'S ENGINEER. ALL COSTS TO RELOCATE OR RE-ADJUST BOXES AT A LATER DATE WILL BE BILLED TO THE DEVELOPER. PLEASE HAVE YOUR JOB SUPT. VERIFY THE CORRECT GRADE OF ALL ENCLOSURES AND BOXES, AND SIGN AND DATE DRAWING.

THANK YOU

SIGNED: \_\_\_\_\_  
 DATE: \_\_\_\_\_

**NOTES**

- Trench sections are shown schematically and indicate areas of occupancy only, they do not reflect size or quantity of facilities to be installed.
- Trench footages per section are approximate, sections are designed to accommodate all required facilities as indicated on each trench participant's construction drawings.
- The contractor shall verify trench footages for accuracy prior to excavation and take necessary precaution crossing water and sewer facilities.
- 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.
- 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 move-ins shall be included in the contractor's unit price for trenching.
- 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)
- 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".
- Contractor shall use sand bedding and shading as required by the utility companies. All trench sections shown hereon include a 4 inch thick bedding layer.



**DESIGN CHANGE COMPONENT:**  
 ANY CHANGES IN THE GAS DESIGN MUST BE APPROVED BY THE GAS ADE.  
 NAME: \_\_\_\_\_  
 NUMBER: \_\_\_\_\_

**GAS NOTE:**  
 TRENCH DEPTH NOT TO EXCEED 5' UNLESS APPROVED BY PG&E INSPECTOR. IN NO CASE SHOULD PLASTIC GAS PIPE BE INSTALLED AT A DEPTH GREATER THAN 10' UNLESS APPROVED BY PG&E SENIOR GAS ENGINEER.

**MINIMUM SEPARATION AND CLEARANCE REQUIREMENTS (INCHES)**

UTILITY		G	DUCT	DB	C	S	P	SL
G	GAS SEE NOTES 4, 7, & 13	—	12"	12"	12"	6"	12"	6"
T	TELEPHONE (DUCT)	12"	—	1"	1"	12"	12"	12"
T	TELEPHONE (DIRECT BURY)	12"	1"	—	1"	12"	12"	12"
C	CATV	12"	1"	1"	—	12"	12"	12"
S	ELECTRIC SECONDARY	6"	12"	12"	12"	1.5"	3"	1.5"
P	ELECTRIC PRIMARY	12"	12"	12"	12"	3"	3"	3"
SL	STREETLIGHT SEE NOTE 5	6"	12"	12"	12"	1.5"	3"	1.5"
FE*	FOREIGN ELECTRIC (SOURCES NON-PG&E*) SEE NOTE 5	12"	12"	12"	12"	12"	12"	12"

\*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)

**P.G.& E. SKETCH BY DEVELOPER**

GAS PM #35112731

ELEC PM #35112862

NOT. #116473530

**JOINT TRENCH OCCUPANCY GUIDE**

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	X	X	X	X	X	X	X	X	X
TELEPHONE	X	X	X	X	X	X	X	X	X	X	X	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	X	X	X	X	X	X	X	X
ELECTRIC SEC.	X	X	X	X	X	X	X	X	X	X	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	X	X	X	X	X	X	X	X

**THE SYMBOLS BELOW INDICATE SCHEMATIC AREAS OF OCCUPANCY:**  
 (G) GAS MAIN AND SERVICE (S) ELECTRIC SECONDARY AND SERVICE (P) IRRIGATION (PRIVATE)  
 (T) ELECTRIC PRIMARY (C) CABLE TV (SL) WAVE  
 (SL) STREET LIGHT (PRIVATE) (T) TELEPHONE (ST) = MINIMUM COVER IN STREET AREAS

**SUNSHINE DESIGN**  
 AN UCCO CO.  
 UTILITY DESIGN ENGINEERS  
 AND CONSULTANTS  
 926 CAMPUCIA, STE B  
 FORTYFIVE, CA 92504  
 (707) 425-5858  
 FAX: (707) 425-5854

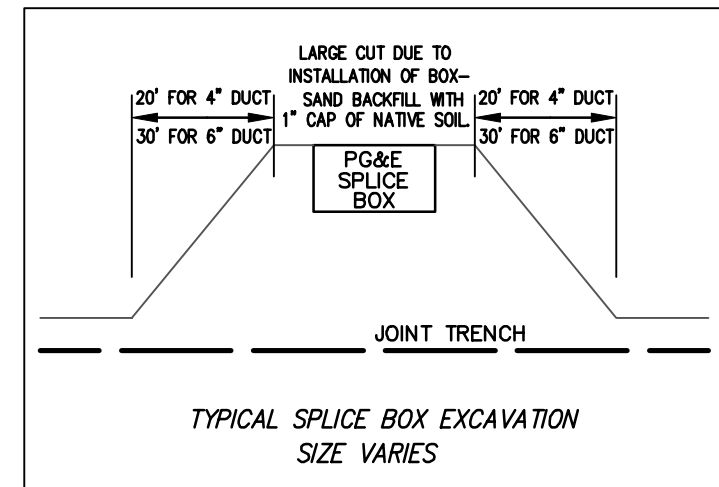
**DETAIL SHEET**  
 1728 SAN LUIS ROAD  
 THE ADDRESS COMPANY  
 WALNUT CREEK  
 CALIFORNIA

DESIGNED: DL  
 CHECKED: SA  
 SCALE: NONE  
 DATE: 9/25/19  
 JOB NO. 933-18-D  
 SHEET NO. JT1  
 OF 2

NO.	REVISIONS	BY	DATE	APPROVAL

**NOTES:**

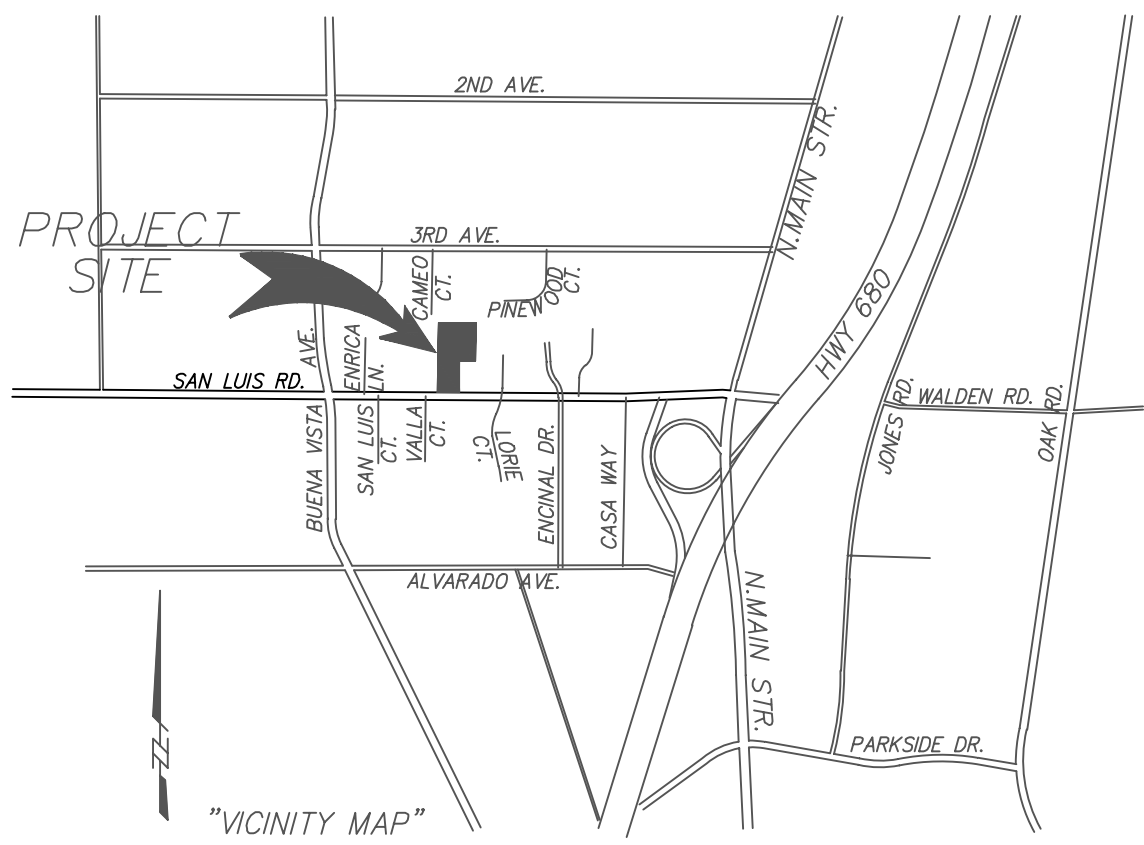
- FIELD ADJUST SERVICE XING TO MINIMIZE INTERFERENCE WITH EXISTING FACILITIES (TYPICAL).
- FIELD ADJUST SPLICE BOXES TO KEEP CLEAR OF SIDEWALK, DRIVEWAYS AND EXISTING FACILITIES (TYPICAL).
- TRANSITION TO VAULTS FROM TRENCH NOT SHOWN.
- INCIDENTAL TRENCHING TO SPLICE BOXES NOT SHOWN (TYPICAL). CONTRACTOR TO PROVIDE ADDITIONAL TRENCHING AS REQUIRED FOR CONDUIT ROUTING TO SPLICE BOXES AND CABINETS (TYPICAL).
- OFFSET SPLICE BOXES TO ROUTE TELEPHONE/ FIBER OPTIC CONDUIT AS NEEDED (TYPICAL).
- ALL PG&E SPLICE BOXES ADJACENT TO TRANSFORMER SHALL BE 26" IN DEPTH (TYPICAL).
- 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.
- EDGE OF SPLICE BOXES & PEDESTALS SHALL BE 5' FROM EDGE OF F.H. AND 3' FROM STREET LIGHT (TYP.) CONTRACTOR TO AVOID DISTURBING F.H. THRUST BLOCK.
- MAINTAIN 3' CLEAR & LEVEL AREA AROUND PRIMARY SPLICE BOXES & XFMRs.
- COORDINATE TIE-IN WITH UTILITY COMPANY AS REQUIRED.
- RESPECTIVE UTILITY TO OBTAIN CITY OR COUNTY APPROVAL OF ALL ABOVE GROUND EQUIPMENT.
- FIELD LOCATE JOINT TRENCH FACILITIES TO KEEP CLEAR OF SERVICE LATERALS. SERVICE LATERALS TO BE ROUTED TO AVOID SPLICE BOX. (ADDITIONAL P.U.E MAY BE REQUIRED.)



FOR CLARITY - SOME BOXES/PEDESTALS ARE SHOWN AT LARGER SIZE THAN ACTUAL. FIELD ADJUST TO KEEP CLEAR OF DRIVEWAYS AND OTHER UTILITIES. (TYP)

**LEGEND**

SYMBOL	DESCRIPTION	
---	EXIST. TRENCH / CABLE (as shown)	
---	PROP. TRENCH (distribution)	
---	PROP. TRENCH (services)	
---	S.D.S.S. & WATERLINES	
INSTALL	EXISTING	DESCRIPTION
○	○	BELL HOLE
□	□	SUB-SURFACE TX IN 4'x6'-6'x6' ENCLOSURE
○	○	17'x30" SECONDARY SPLICE BOX
○	○	RISER
○	○	OUT-OUT
○	○	JOINT POLE
○	○	24'x36" COMCAST SPLICE BOX
○	○	24'x36'x36" AT&T SPLICE BOX
○	○	17'x30" WAVE SPLICE BOX
○	○	STATE #3-1/2 STREETLIGHT PULL BOX
○	○	113W LED STREETLIGHT
○	○	70W LED STREETLIGHT

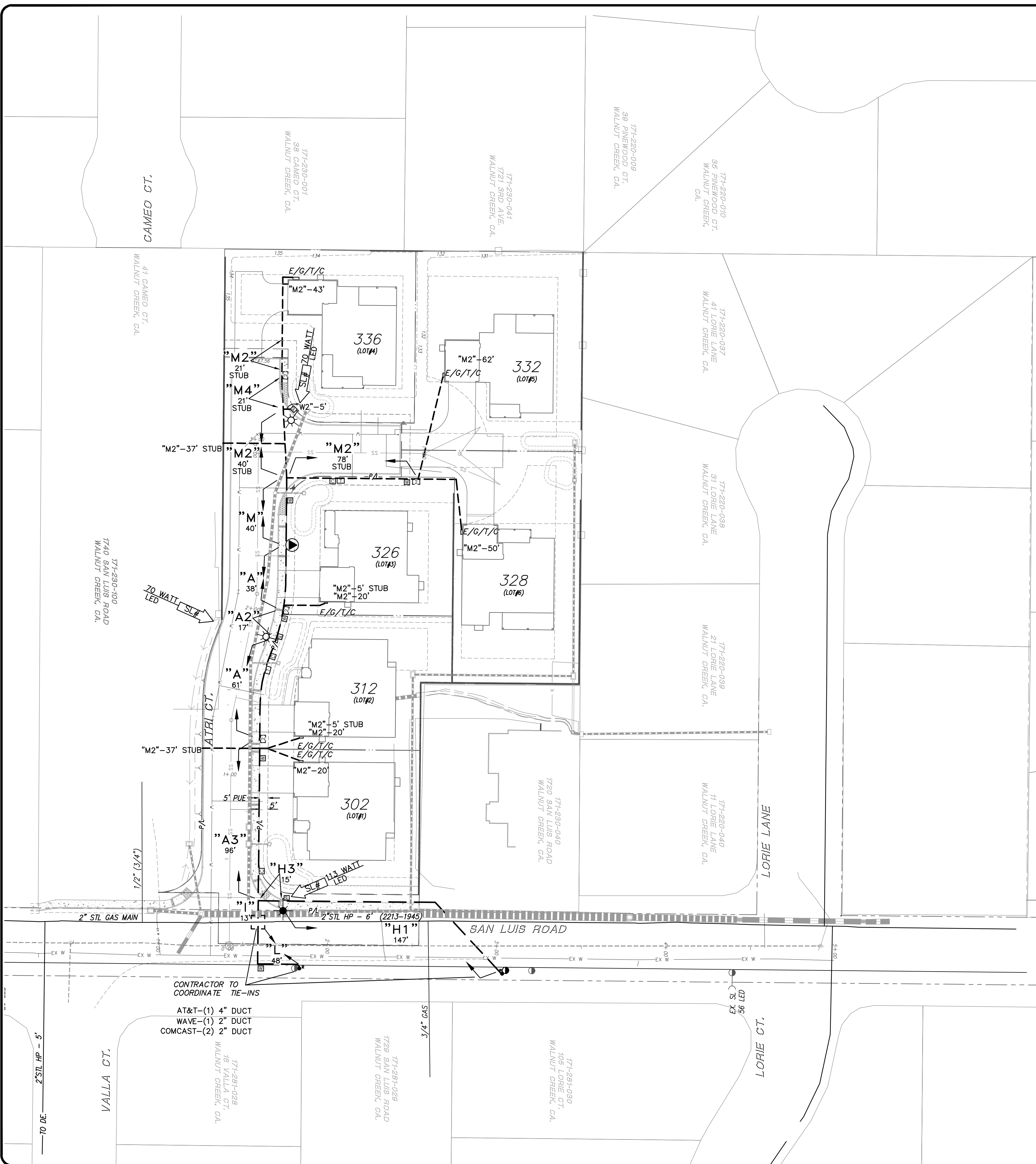
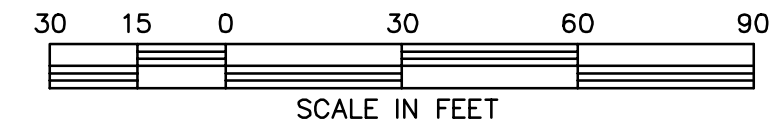


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<b>SUNSHINE DESIGN</b> AN IJCC CO. UTILITY DESIGN ENGINEERS AND CONSULTANTS 956 CAMPUCULA, STE B FARMFIELD, CA 94544 (970) 425-5658 FAX: (970) 425-5484																			
<b>JOINT TRENCH COMPOSITE</b> 1728 SAN LUIS ROAD THE ADDRESS COMPANY CALIFORNIA WALNUT CREEK																			
DESIGNED: DL																			
CHECKED: SA																			
SCALE: 1"=30'																			
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JOB NO. 933-18-D																			
SHEET NO. JT2																			
OF 2																			