CONDUIT–CABLE

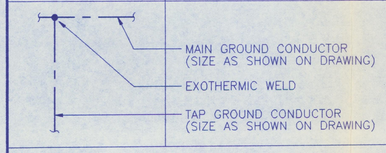
SYMBOL FOR PLAN OR ELEVATION	DESCRIPTION
XXXXXX	EXISTING INSTALLATION TO BE REMOVED
— — — — —	UNDERGROUND CONDUIT AND CABLE, MINIMUM 2'–0" BELOW GRADE
—— C ——	NEW OVERHEAD POWER LINE, 13.8kV (SIZED AS SHOWN ON PLAN DRAWING)
—— C —— / —— E ——	EXISTING OVERHEAD POWER LINE
—— DB ——▶ / — — — ▶	UNDERGROUND HOME RUN, DIRECT BURIAL CABLE OR CONDUIT AND CABLE
O E701	EXISTING POWER POLE #E701
O NP101	NEW POWER POLE #NP101
⊢— DB —⊣	DIRECT BURIAL CABLE

LIGHTING

SYMBOL FOR PLAN OR ELEVATION	DESCRIPTION
—— SL ——	EXISTING OVERHEAD SERIES LIGHTING CIRCUIT 2.4kV STREET LIGHTING (SIZED AS SHOWN ON PLAN DRAWING).
—— SL ——	NEW OVERHEAD SERIES LIGHTING CIRCUIT 2.4kV STREET LIGHTING (SIZED AS SHOWN ON PLAN DRAWING).
✲	EXISTING 2400V STREET LIGHTING
⚠	EXISTING LIGHTING TRANSFORMER
(A–B)	NEW LIGHTING FIXTURE 180W LOW PRESSURE SODIUM 480V WITH INTEGRAL PHOTO–ELECTRIC CELL MOUNTED ON 30'–0" STEEL POLE PHASE–TO–PHASE CIRCUITING
W (A–B)	NEW LIGHTING FIXTURE SAME AS ABOVE EXCEPT MOUNTED ON 40'–0" WOOD POLE PHASE–TO–PHASE CIRCUITING

GROUNDING

SYMBOL FOR PLAN OR ELEVATION	DESCRIPTION
— - —	GROUNDING CONDUCTOR
⊗	GROUND WELL
⊗	GROUND ROD 5/8" X 8' GALVANIZED STEEL



SINGLE LINE

SYMBOL FOR PLAN OR ELEVATION	DESCRIPTION
100A	FUSED SWITCH RATING AS NOTED
40E	POWER FUSE, TYPE 40E
VS	SELECTOR SWITCH VS:VOLTMETER, AS:AMMETER
V	METER, V:VOLTMETER, A:AMMETER kWH:KILOWATT–HOUR METER
600A	AIR INTERRUPTER SWITCH, 600A
800AF 800AT	AIR CIRCUIT BREAKER, 800A AF = AMPS FRAME AT = AMPS TRIP
800:5	CURRENT TRANSFORMER, 800:5 RATIO
14.4/.12kV	POTENTIAL TRANSFORMER, 14400:120 RATIO
13.8/.48kV 1000kVA	POWER TRANSFORMER, 13.8/.48kV WYE, 1000kVA
LA	LIGHTNING ARRESTER
H2 / P5	CABLE CALLOUT AREA DESIGNATION, LOCATION OR POWER SOURCE POWER CABLE NUMBER
GFP	GROUND FAULT PROTECTOR
	GROUND SWITCH
OAB	INDICATES CONSTRUCTION POWER FEEDER AND LOADS INSTALLED UNDER SEPARATE CONTRACT.
ROADWAY LIGHTING	INDICATES CONSTRUCTION POWER FEEDER AND LOADS INSTALLED UNDER THIS CONTRACT.

MISCELLANEOUS

SYMBOL FOR PLAN OR ELEVATION	DESCRIPTION
A / 122122 / 1	SECTION CALLOUT INDICATES SECTION A DENOTES DRAWING NUMBER ON WHICH SECTION IS SHOWN SHEET NUMBER (IF MORE THAN 1)
SECTION A / SCALE: 122118 / 1	SECTION TITLE SECTION IDENTIFICATION LETTER DENOTES DRAWING NUMBER ON WHICH SECTION IS CUT SHEET NUMBER (IF MORE THAN 1)
1 / 122053 / 1	DETAIL CALLOUT DETAIL NUMBER DRAWING NUMBER ON WHICH DETAIL IS SHOWN SHEET NUMBER (IF MORE THAN 1)
DETAIL 1 / SCALE: 122054 / 1	DETAIL TITLE DETAIL NUMBER DRAWING NUMBER ON WHICH DETAIL IS CALLED OUT SHEET NUMBER (IF MORE THAN 1)
G01 122123–1	ASSEMBLY CALLOUT SHEET NUMBER (IF MORE THAN 1) DRAWING NUMBER ON WHICH ASSEMBLY IS SHOWN ASSEMBLY NUMBER
—— ⊘ —— ⊘ ——	EXISTING POST AND SIGN
—— X —— X ——	EXISTING FENCE
—— /// —— /// ——	NEW FENCE

THE SELLER SHALL VERIFY CONDITIONS AT THE JOB SITE PRIOR TO STARTING CONSTRUCTION AND THE ENGINEER SHALL BE NOTIFIED, IN WRITING, OF ANY DISCREPANCIES OR INCONSISTENCIES.

HORIZONTAL AND VERTICAL CONTROL IS BASED ON THE EXISTING HANFORD PLANT 200E AREA SYSTEM. THE PROJECT BENCHMARKS TO BE USED IN THE CONSTRUCTION OF THE HANFORD WASTE VITRIFICATION PLANT ARE LISTED IN THE TABLE BELOW.

BENCHMARK NAME	DESCRIPTION	HANFORD 200E AREA DATUM	
		COORDINATES	ELEVATION
2E–50	BRASS CAP SET IN CONCRETE	N 42499.94 W 55599.84	706.09
2E–51	BRASS CAP SET IN CONCRETE	N 43897.51 W 56725.52	698.61
2E–52	BRASS CAP SET IN CONCRETE	N 40950.18 W 56725.10	713.50

THE COORDINATES AND ELEVATIONS SHOWN FOR THESE BENCHMARKS ARE BASED ON THE SURVEY DATA REPORT PREPARED BY KAISER ENGINEERS, TITLED "HANFORD WASTE VITRIFICATION PLANT", DATED 9–15–89 (FILE NUMBER 2ESW–039)

ABBREVIATIONS

AC	ALTERNATING CURRENT
ACSR	ALUMINUM CABLE STEEL REINFORCED
AMP	AMPERES
APPR OR APPROX	APPROXIMATE
ASSY	ASSEMBLY
AWG	AMERICAN WIRE GAUGE
BLDG	BUILDING
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CHEM	CHEMICAL
CONN	CONNECTION(S)
CMR	CONTACT MAINTENANCE ROOM
COORD	COORDINATE
CU	COPPER
DBE	DESIGN BASIS EARTHQUAKE
DC	DIRECT CURRENT
DIA	DIAMETER
DISTR	DISTRIBUTION
DWG	DRAWING
E	EAST
ELEC	ELECTRICAL
EL OR ELEV	ELEVATION
EOT	EDGE OF TRENCH
EX	EXAMPLE
FAB	FABRICATION
FIN	FINISH
FLR	FLOOR
FT	FOOT OR FEET
GALV	GALVANIZED
GEN	GENERATOR
GFE	GOVERNMENT FURNISHED EQUIPMENT (SUPPLIED BY BUYER)
GND	GROUND
GNDG	GROUNDING
HP	HORSEPOWER
HZ	CYCLES PER SECOND
INSTR	INSTRUMENTATION
JB	JUNCTION BOX
kcmil	THOUSAND CIRCULAR MILS
KO	KNOCKOUT
kW	KILOWATT
kV	KILOVOLT
kVA	KILOVOLT–AMPERE
LTG	LIGHTING
MECH	MECHANICAL
MRB	MANIPULATOR REPAIR BUILDING
MAX	MAXIMUM
MIN	MINIMUM
N	NORTH
NEC	NATIONAL ELECTRICAL CODE
NIC	NOT IN CONTRACT
NO.	NUMBER
OAB	OPERATIONS ANNEX BUILDING
OC/REB	OPERATIONS CONTROL/REGULATED ENTRANCE BUILDING
PB	PULL BOX
PLCS	PLACES
PNL	PANEL
PVC	POLYVINYL CHLORIDE
PWR	POWER
REF	REFERENCE
REQ'D	REQUIRED
RSG	RIGID STEEL GALVANIZED
S&R	SHIPPING AND RECEIVING
SC	SAFETY CLASS
SCH	SCHEDULE
SHT	SHEET
SP	SPARE
SPEC	SPECIFICATION
STR	STRANDED
SWGR	SWITCHGEAR
SWX	SANITARY WATER MANIFOLD
TBD	TO BE DETERMINED
TYP	TYPICAL
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
V	VOLTS
VIT	VITRIFICATION
WHSE	WAREHOUSE
WHT	WASTE HOLDING TANK
WPS	WASTE PROCESSING STATION
XFMR	TRANSFORMER

GENERAL NOTES:

1. MINIMUM COVER REQUIREMENTS FOR DIRECT BURIAL CABLE SHALL BE AS FOLLOWS:
   600V. OR LESS=2'–0"
   OVER 600V.=2'–6"
2. AT RAILROAD CROSSINGS, THE TOP OF CONDUIT SHALL BE A MINIMUM OF 47 INCHES BELOW BOTTOM OF RAILS.
3. WHERE THE EXISTING WORK AREA IS OVERLAID WITH 4 INCHES OF CRUSHED ROCK SURFACING, REMOVE AS REQUIRED FOR BELOW GRADE WORK AND REPLACE UPON COMPLETION OF INSTALLATION.
4. EXCAVATION AND BACKFILL REQUIRED FOR THE INSTALLATION OF THE DIRECT BURIED CABLE SHALL BE PERFORMED IN ACCORDANCE WITH SPECIFICATION SECTION 02220. FOR CONCRETE CONSTRUCTION SEE SPECIFICATION SECTION 03300.
5. THE EXISTING UTILITIES AND ITEMS LOCATED IN THE PLANS ARE SHOWN IN AN APPROXIMATE MANNER ONLY. THE LOCATIONS OF EXISTING UTILITY LINES SHOWN HAVE BEEN PROVIDED BY THE OWNER BASED ON EXISTING AS–BUILT DRAWINGS. THE SELLER SHALL TAKE NECESSARY MEASURES TO PREVENT DAMAGING THE EXISTING UTILITY LINES, ASSOCIATED APPURTENANCES AND ALL OTHER ITEMS NOT TO BE DEMOLISHED.
6. FOR ELECTRICAL INSTALLATION, SEE SPECIFICATION SECTION 16100. FOR ELECTRICAL MATERIAL AND DEVICES, SEE SPECIFICATION SECTION 16110. FOR ELECTRICAL TESTING, SEE SPECIFICATION SECTION 16905.

START 0017965

DEC 1991 RECEIVED EDMC

REV. NO.	DATE	REVISION DESCRIPTION	APPROVAL INITIALS
0	12-19-91	APPROVED FOR CONSTRUCTION	

CADFILE B122107A CADCODE 2B:IBM:ACD2:10.C2:SS

ENGINEERING RELEASE
REV. ____ DATE ____
ERO ____

SIGNATURE	DATE
PROJ. DIR.	12/9/91
Q.A. ENGR.	12/12/91
INDEPENDENT SAFETY	12/12/91
PROJECT FWD ENGINEER	12-12-91
ENGINEERING MGR.	12-12-91
SUPERVISOR	12-11-91
DESIGN ENGINEER	12-11-91
CHECKED	12-11-91
DRAWN M.KHOURI	

DWG. NO.	DRAWING TITLE
REFERENCE DRAWINGS	
NEXT USED ON	

CLASSIFICATION	BY
NONE	NOT REQ'D

U.S.DEPARTMENT OF ENERGY
Richland Operations Office
DE – AC06–86RL10838

FLUOR DANIEL, INC. DEC 20 1991
ADVANCED TECHNOLOGY DIVISION

ELECTRICAL GENERAL NOTES AND SYMBOLS

PROJECT TITLE: HANFORD WASTE VITRIFICATION PLANT

PROJECT	FLUOR CONTRACT NO.	CWBS NO.
B–595	8457	A170

SCALE	BLDG. NO.	INDEX NO.
NONE		

DRAWING NUMBER	SHEET	OF	REV.
H–2–122107	1	1	0

3 OF 17

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