

HDR

HDR Engineering, Inc.



Contract Drawings For

City of Healdsburg

Magnolia Sewage Lift Station Improvements

City of Healdsburg Project No.
2006-2

Issued For Bids

HDR Engineering Project No.
10494-34038-141

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Approved By:


George Hicks, City Engineer
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5/10/06
Date


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5-9-06
Date



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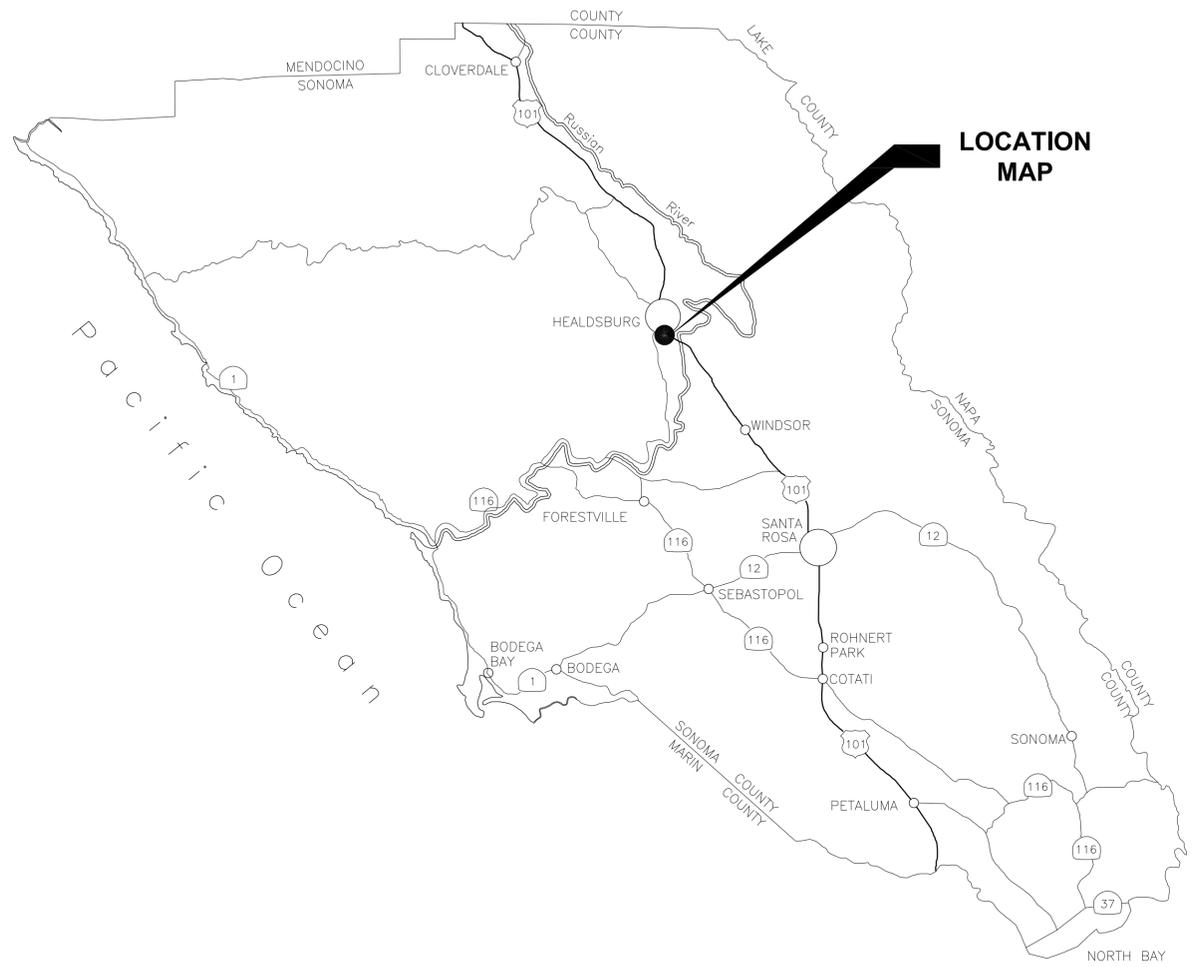
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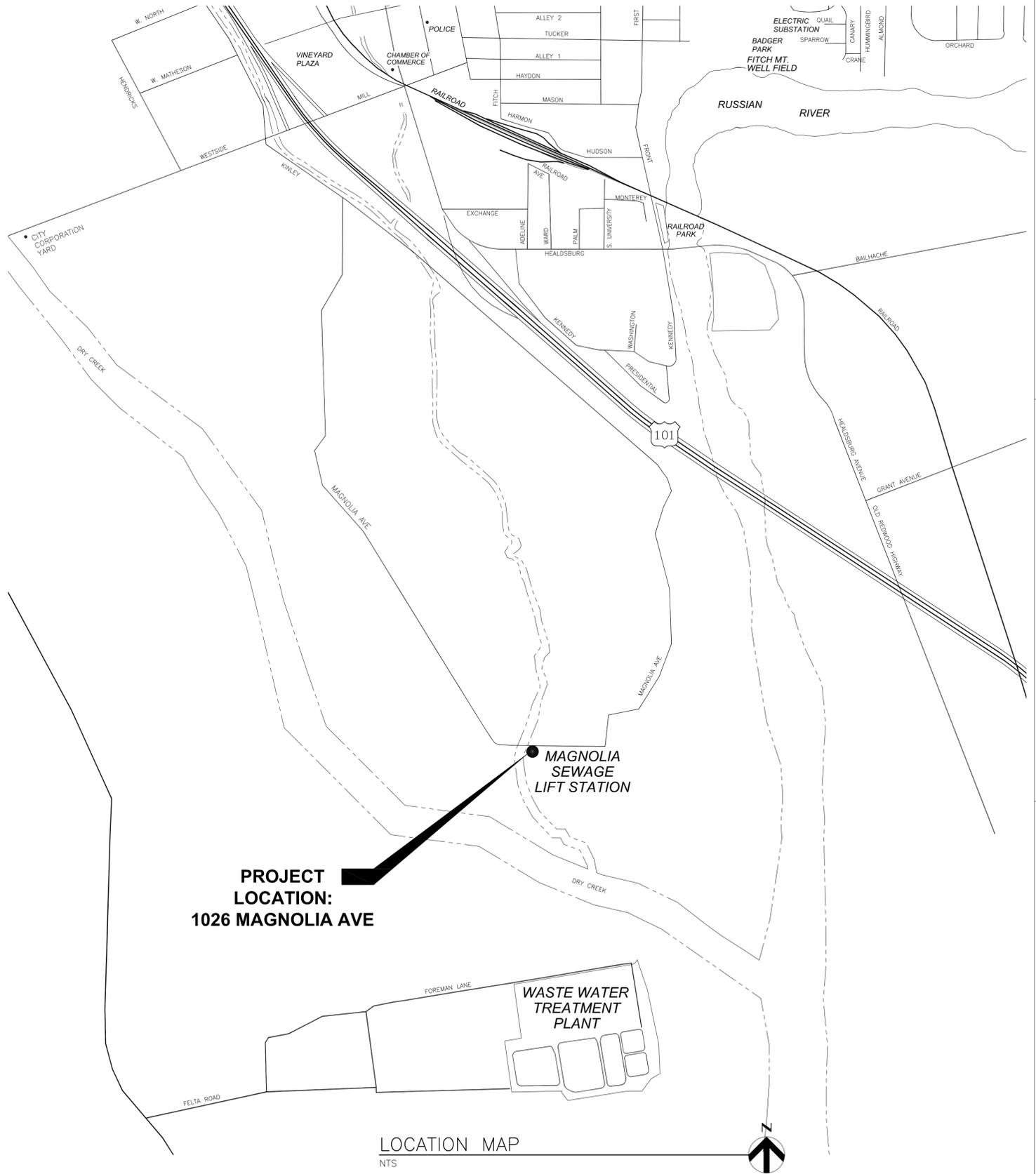
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VICINITY MAP
NTS



LOCATION MAP
NTS



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ISSUE	DATE	DESCRIPTION
A	5-11-06	ISSUED FOR BIDS

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DATE	
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VICINITY AND LOCATION MAP	
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SHEET G02	

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A/C	AIR CONDITIONING
A/E	ARCHITECT/ENGINEER
A	ARCHITECTURAL (DWG DISCIPLINE), AMP
AB	ANCHOR BOLT
ABC	AGGREGATE BASE COURSE
ABAN	ABANDON
AC	ALTERNATING CURRENT
ACK	ACKNOWLEDGE
ACP	ACOUSTIC CEILING PANEL, ASPHALTIC CONCRETE PAVEMENT
ACST	ACOUSTIC
AD	ADDENDUM, AREA DRAIN
ADDL	ADDITIONAL
ADH	ADHESIVE
ADJ	ADJUSTABLE, ADJACENT
AF	AMP FRAME, AMP FUSE
AFF	ABOVE FINISH FLOOR
AGGR	AGGREGATE
AIC	AMPS INTERRUPTING CAPACITY
ALIG	ALIGNMENT
ALUM	ALUMINUM
ALT	ALTERNATE, ALTITUDE
AM	ACOUSTICAL MATERIAL
AMB	AMBIENT
ANC	ANCHOR
AP	ACCESS PANEL
APRX	APPROXIMATE
APVD	APPROVED
ARCH	ARCHITECTURAL
ASSY	ASSEMBLY
AT	AMP TRIP
ATC	ACOUSTICAL TILE CEILING
ATM	ATMOSPHERE
AUTO	AUTOMATIC
AUX	AUXILIARY
AVE	AVENUE
AVG	AVERAGE
AWG	AMERICAN WIRE GAGE
AWT	ACOUSTICAL WALL TILE
B/B	BACK TO BACK
BAL	BALANCE
BBD	BULLETIN BOARD
BC	BASE CABINET, BOTTOM CHORD, BOLT CENTER, BOLT CIRCLE
BD	BOARD
BE	BOTH ENDS, BELL END
BF	BOTH FACES, BOTTOM FACE, BLIND FLANGE, BOARD FEET
BITUM	BITUMINOUS
BKG	BACKING
BL	BASE LINE
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BENCHMARK, BEAM
BOC	BACK OF CURB
BOD	BOTTOM OF DUCT
BOG	BOTTOM OF GRILLE
BOL	BOTTOM OF LOUVER
BOP	BOTTOM OF PIPE
BOR	BOTTOM OF REGISTER
BOT	BOTTOM
BOU	BOTTOM OF UNIT
BP	BASE PLATE
BRG	BEARING
BRGP	BEARING PLATE
BRKT	BRACKET
BS	BOTH SIDES
BTU	BRITISH THERMAL UNIT
BTW	BETWEEN
BTWLD	BUTT WELD
BU	BELL UP, BUILT UP
BUR	BUILT-UP ROOFING
BW	BOTH WAYS
BYP	BYPASS
C TO C	CENTER TO CENTER
C&G	CURB & GUTTER
C	CHANNEL SHAPE, CENTIGRADE, CONDUIT, CIVIL (DRAWING DISCIPLINE)
CAB	CABINET
CAP	CAPACITY
CAT	CATALOG
CAV	CAVITY
CB	CATCH BASIN
CCB	CONCRETE BLOCK
CCW	COUNTER CLOCKWISE
CDF	CONTROLLED DENSITY FILL
CE	CONCRETE EDGE
CER	CERAMIC
CF	CUBIC FEET (FOOT)
CFL	COUNTER FLASHING
CHFR	CHAMFER
CHBD	CHALKBOARD
CHD	CHORD
CHH	COMMUNICATION HANDHOLE
CI	CURB INLET
CIP	CAST-IN-PLACE
CIPB	CONCRETE INTERLOCKING PAVEMENT BALLAST
CIRC	CIRCULATION, CIRCULAR
CJ	CONSTRUCTION JOINT
CKT	CIRCUIT
CL	CENTERLINE, CLASS, CLOSE
CLG	CEILING
CLJ	CONTROL JOINT
CLKG	CAULKING
CLR	CLEAR

CMH	COMMUNICATION MANHOLE
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT, CONCRETE OPENING
COL	COLUMN
COM	COMMON
COMB	COMBINATION
COMM	COMMUNICATION
COMP	COMPOSITION, COMPRESSIBLE, COMPOSITE
CONC	CONCENTRIC, CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
COOR	COORDINATE
CORR	CORROSIVE, CORRUGATED
CP	CHECKER PLATE, CONTROL POINT
CPLG	COUPLING
CRG	CORROSION RESISTANT LINING
CSC	COMPRESSION SLEEVE COUPLING
CSK	COUNTERSINK
CSS	CLINIC SERVICE SINK
CT	CERAMIC TILE
CTR	CENTER
CTRL	CONTROL
CVT	CULVERT
CW	COPPER, CUBIC
CU	CLOCKWISE
CY	CUBIC YARD
d	PENNY (NAIL MEASURE)
D	DEEP, DIFFUSER
DB	DUCT BANK, DECIBEL, DRY BULB
DBA	DEFORMED BAR ANCHOR
DBL	DOUBLE
DC	DIRECT CURRENT
DEG	DEGREE
DEG C	DEGREE CENTIGRADE
DEG F	DEGREE FAHRENHEIT
DEMO	DEMOLITION
DEP	DEPRESSED
DEPT	DEPARTMENT
DET	DETAIL
DJ	DROPT INLET, DUCTILE IRON
DIA	DIAGONAL DIAGRAM
DIFF	DIFFERENTIAL, DIFFERENCE
DIM	DIMENSION
DISCH	DISCHARGE
DIST	DISTANCE, DISTRIBUTION
DIV	DIVISION
DL	DEAD LOAD
DMJ	DOUBLE MECHANICAL JOINT
DMPF	DAMP PROOFING
DN	DOWN
DO	DISSOLVED OXYGEN, DITTO
DP	DEPTH
DPDT	DOUBLE POLE, DOUBLE THROW
DPST	DOUBLE POLE, SINGLE THROW
DS	DOWN SPOUT
DT	DOUBLE TEE, DRIP TRAP ASSEMBLY
DUP	DUPLICATE
DWG	DRAWING
DWL	DOWEL
DWR	DRAWER
E	EAST, ELECTRICAL (DWG DISCIPLINE)
EA	EACH, EXHAUST AIR
EC	ELECTRICAL CONTRACTOR
ECC	ELECTRIC
ED	EQUIPMENT DRAIN
EDB	ELECTRICAL DUCT BANK
EE	EACH END
EF	EACH FACE
EFF	EFFLUENT, EFFICIENCY
EHH	ELECTRICAL HANDHOLE
EIFS	EXTERIOR INSULATION & FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELBOW, ELEVATION
ELEC	ELECTRICAL
EMBD	EMBEDDED
EMER	EMERGENCY
EMH	ELECTRICAL MANHOLE
ENCL	ENCLOSURE
ENGR	ENGINEER
ENTR	ENTRANCE
EOP	EDGE OF PAVEMENT
EQ	EQUAL
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ES	EACH SIDE, EQUAL SPACE, EMERGENCY SHOWER
ESEW	EMERGENCY SHOWER AND EYE WASH
EST	ESTIMATE
EUH	ELECTRIC UNIT HEATER
EW	EACH WAY, EMERGENCY EYE/FACE WASH
EWF	ELECTRIC WATER COOLER
EWTB	EACH WAY, EACH FACE
EXC	EACH WAY, TOP AND BOTTOM EXCAVATION
EXH	EXHAUST
EXST	EXISTING
EXP	EXPANSION, EXPOSED
EXT	EXTERIOR, EXTERNAL, EXTENSION

F&B	FACE & BYPASS
F TO F	FACE TO FACE
FAB	FABRICATE
FB	FLOOR BEAM
FBD	FIBERBOARD
FBC	FIBERGLASS
FBM	BOARD FOOT MEASURE
FBO	FURNISHED BY OWNER
FC	FLUSHING CONNECTION
FCA	FLANGED COUPLING ADAPTER
FD	FLOOR DRAIN
FDC	FLEXIBLE DUCT CONNECTION
FDTN	FOUNDATION
FDR	FEEDER
FE	FLANGED END
FEC	FIRE EXTINGUISHER CABINET
FES	FLARED END SECTION
FEXT	FIRE EXTINGUISHER
FF	FAR FACE, FACTORY FINISH, FLAT FACE
FG	FINISHED GRADE
FIG	FIGURE
FH	FIRE HYDRANT
FIN	FINISH
FJT	FLUSH JOINT
FL	FLOW, FLOW LINE
FLEX	FLEXIBLE
FLG	FLANGE
FLOR	FLUORESCENT FLOOR
FLR	FLOOR
FLS	FLASHING, FLUSH
FMS	FINISHED OPENING
FN	FENCE
FNB	FLAT ON BOTTOM
FOC	FACE OF CONCRETE, FACE OF CURB
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF STUDS
FOT	FLAT ON TOP
FPT	FEMALE PIPE THREAD
FR	FRAME
FRP	FIBERGLASS REINFORCED PLASTIC
FRTM	FIRE RETARDANT TREATED MATERIAL
FS	FLOOR SINK, FAR SIDE
FT	FEET, FOOT
FTG	FOOTING, FITTING
FUR	FURRED, FURRING
FURN	FURNITURE, FURNISH
FUT	FUTURE
FV	FACE VELOCITY
FW	FIELD WELD, FIRE WALL
FWD	FORWARD
FWE	FURNISHED WITH EQUIPMENT
FSTR	FIXTURE
G	GRILLE, GROUND, GENERAL (DWG DISCIPLINE)
GA	GAGE (METAL THICKNESS)
GAL	GALLON
GALV	GALVANIZED
GB	GRAB BAR, GRADE BREAK
GC	GROOVING COUPLING
GD	GUARD
GEN	GENERAL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFMU	GROUND FACE MASONRY UNIT
GG	GUTTER GRADE
GJ	GROOVED JOINT
GL	GLASS
GLB	GLASS BLOCK
GND	GROUND
GP	GUY POLE
GR	GRADE
GRTG	GRATING
GSB	GYPSPUM SHEATHING BOARD
GT	GREASE TRAP
GVL	GRAVEL
GWB	GYPSPUM WALLBOARD
GYP	GYPSPUM HARDBOARD
H	HIGH
HB	HIGH BIB
HBD	HARDBOARD
HC	HANDICAPPED, HOLLOW CORE, HORIZONTAL CURVE
HC	HORIZONTAL CENTERLINE
HDR	HEADER
HDW	HARDWARE
HEX	HEXAGONAL
HGR	HANGER
HH	HANDHOLE
HID	HIGH INTENSITY DISCHARGE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HIGH POINT, HORSEPOWER
HPC	HORIZONTAL POINT OF CURVATURE
HPS	HIGH PRESSURE SODIUM
HPT	HORIZONTAL POINT OF TANGENCY
HR	HOSE REEL, HOUR
HS	HEADED STUD, HIGH STRENGTH
HSS	HOLLOW STRUCTURAL SHAPE
HT	HEIGHT
HTG	HEATING
HV	HIGH VOLTAGE
HVAC	HEATING, VENTILATION & AIR CONDITIONING
HWD	HARDWOOD
HWL	HIGH WATER LEVEL
HYD	HYDRAULIC
HZ	HERTZ, CYCLES PER SECOND

I	INSTRUMENTATION (DWG DISCIPLINE)
ID	INSIDE DIAMETER, INTERIOR DIMENSION
IE	INVERT ELEVATION
IF	INSIDE FACE
IH	INTAKE HOOD
IMP	IMPACT
IN	INCH
INC	INCLUDE, INCANDESCENT
INF	INFLUENT
INSTR	INSTRUMENTATION
INSUL	INSULATION
INT	INTERIOR, INTERSECTION
INTR	INTERMEDIATE, INTERIOR
INV	INVERT
IPS	IRON PIPE SIZE
IPT	INTERNAL PIPE THREAD
IR	INNER RADIUS
IRR	IRRIGATION
ISO	ISOMETRIC
JB	JUNCTION BOX
JCT	JUNCTION
JF	JOINT FILLER
JST	JOIST
JT	JOINT
K	KIP
KB	KNEE BRACE
KCML	THOUSAND CIRCULAR MILS
KD	KNOCK DOWN
KO	KNOCK OUT
KSI	KIPS PER SQUARE INCH
L	ANGLE, LENGTH, LAVATORY
LAD	LADDER
LAM	LAMINATE
LATL	LATERAL
LB	LAG BOLT, POUND
LCTB	LIQUID CHALK AND TACK BOARD
LDG	LANDING
LDR	LEADER
LE	LIFTING EYE
LF	LINEAR FOOT
LG	LONG
LH	LEFT HAND
LIN	LINEAR
LIQ	LIQUID
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LMLU	LIQUID MARKER LECTURE UNIT
LNG	LONGITUDINAL
LOC	LOCATION
LP	LOW POINT
LPS	LOW PRESSURE SODIUM
LR	LONG RADIUS
LT	LEFT
LTD	LIMITED
LTG	LIGHTING
LTL	LITTLE
LTNG	LIGHTNING
LV	LOW VOLTAGE
LVR	LOUVER
LW	LIGHTWEIGHT
LWC	LIGHTWEIGHT CONCRETE
LWL	LOW WATER LEVEL
M	MOTOR, MECHANICAL (DWG DISCIPLINE)
MA	MIXED AIR
MACH	MACHINED
MAINT	MAINTENANCE
MAN	MANUAL
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MBR	MEMBER
MC	MECHANICAL CONTRACTOR, MECHANICAL COUPLING
MCB	METAL CORNER BEAD
MDMJ	MASONRY CONTROL JOINT
MECH	MODIFIED DOUBLE MECHANICAL JOINT
MED	MEDIUM
MFR	MANUFACTURER
MH	MANHOLE, METAL HALIDE
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
MJ	MISCELLANEOUS JOINT
MLO	MAIN LUGS ONLY
MMB	MEMBRANE
MO	MASONRY OPENING
MOD	MODULAR, MODIFY
MON	MONUMENT
MPT	MALE PIPE THREAD
MRGW	MOISTURE RESISTANT GYPSPUM WALLBOARD
MOP	MOP SINK
MS	MEAN SEA LEVEL
MSL	MOUNT
MT	MASONRY UNIT
MU	MULLION
MULL	MEDIUM VOLTAGE
MV	MONITORING WELL
MW	

N	NORTH, NEUTRAL
NA	NOT APPLICABLE
NAT	NATURAL
NC	NORMALLY CLOSED
NEG	NEGATIVE
NF	NEAR FACE, NON-FUSED
NI	NOT IN CONTRACT
NO	NORMALLY OPEN, NUMBER
NOM	NOMINAL
NPS	NOMINAL PIPE SIZE
NPT	NATIONAL PIPE THREAD
NS	NEAR SIDE
NTS	NOT TO SCALE
NWL	NORMAL WATER LEVEL
O TO O	OUT-TO-OUT
OA	OUTSIDE AIR, OVERALL
OC	ON CENTER
OCPD	OVER CURRENT PROTECTION DEVICE
OD	OUTSIDE DIAMETER
OED	OPEN END DUCT
OF	OUTSIDE FACE, OFFICE FURNISHING
OG	ORIGINAL GROUND
OH	OVERHEAD
OPNG	OPENING
OPP	OPPOSITE
OPT	OPTIONAL
OR	OUTSIDE RADIUS
ORD	OVERFLOW ROOF DRAIN
ORIG	ORIGINAL
OVFL	OVERFLOW
OVHG	OVERHANG
OZ	OUNCE
P	PAINT, PROCESS (DWG DISCIPLINE)
PA	PUBLIC ADDRESS
PAR	PARALLEL, PARAPET
PB	PANIC BAR, PULL BOX
PBD	PARTICLE BOARD
PC	POINT OF CURVE, PIECE, PRECAST
PCC	POINT OF COMPOUND CURVATURE
PCF	POUNDS PER CUBIC FOOT
PCT	PERCENT
PE	PLAIN END
PED	PEDESTAL
PEN	PENETRATION
PERF	PERFORATED
PERM	PERMANENT
PERP	PERPENDICULAR
PF	POWER FACTOR
PFMU	PREFACED MASONRY UNIT
PH	PHASE
PI	POINT OF INTERSECTION
PKG	PACKAGE
PL	PLATE, PROPERTY LINE
PLAS	PLASTER
PLAT	PLATFORM
PLBG	PLUMBING
PLF	POUNDS PER LINEAR FOOT
PNEU	PNEUMATIC
POL	POLISH
POS	POSITIVE, POSITION
PP	POLYPROPYLENE, POWER POLE
PRC	POINT OF REVERSE CURVATURE
PREF	PREFINISHED
PREFAB	PREFABRICATED
PRELIM	PRELIMINARY
PREP	PREPARE
PRES	PRESSURE
PRI	PRIMARY
PROP	PROPERTY
PROT	PROTECTION
PS	PIPE SUPPORT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAGE
PST	PRESTRESSED
PT	POINT, POINT OF TANGENCY
PTN	PARTITION
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
PWD	PLYWOOD
PWJ	PLYWOOD WEB JOIST
PZ	PIEZOMETER
Q	RATE OF FLOW
QT	QUARRY TILE
QTR	QUARTER
QTY	QUANTITY
QUAL	QUALITY

R&R	REMOVE AND REPLACE
R&S	REMOVE AND SALVAGE
R	RADIUS, REGISTER, RISER
RA	RETURN AIR
RB	RESILIENT BASE, ROCK BERM
RCPT	RECEPTACLE
RD	ROOF DRAIN
REC	RECESS
RECD	RECEIVED
RECT	RECTANGULAR
RED	REDUCER
REF	REFERENCE
REINF	REINFORCING
REM	REMOVE
REQD	REQUIRED
RESIL	RESILIENT
RET	RETAINING, RETURN
REV	REVISION, REVERSE
RF	RESILIENT FLOORING
RFG	ROOFING
RFL	REFLECTED, REFLECTOR
RGH	ROUGH
RGS	RIGID GALVANIZED STEEL
RGS-PVC	PVC COATED RGS
RH	RELIEF HOOD, RIGHT HAND, RELATIVE HUMIDITY
RL	REQUIRED LAP
RLFA	RELIEF AIR
RND	ROUND
RNG	RUNNING
RO	ROUGH OPENING
ROW	RIGHT OF WAY
RRM	REVOLUTIONS PER MINUTE
RR	RAILROAD
RSP	ROCK SLOPE PROTECTION
RT	RIGHT
RVT	RESILIENT VINYL TILE
RY	READY
S	SOUTH, SINK, STRUCTURAL (DWG DISCIPLINE)
SA	SUPPLY AIR
SAMU	SOUND ABSORBING MASONRY UNIT
SAN	SANITARY
SB	SPLASH BLOCK
SC	SOLID CORE
SCH	SCHEDULE
SCHEM	SCHEMATIC
SCN	SCREEN
SE	STEEL/ALUMINUM EDGE
SEC	SECONDARY, SECONDS
SECT	SECTION
SEP	SEPARATE
SF	SQUARE FOOT
SG	SHEET GLASS, SEALANT GROOVE
SH	SHOWER
SHT	SHEET
SHTG	SHEATHING
SIL	SILENCE
SIM	SIMILAR
SL	SLOPE
SLD	SLOTTED
SLV	SLEEVE
SMLS	SEAMLESS
SOG	SLAB ON GRADE
SP	SOUNDPROOF, STANDPIPE
SPA	SPACING
SPEC	SPECIFICATION
SPLY	SUPPLY
SPST	SINGLE POLE SINGLE THROW
SPT	SET POINT
SQ	SQUARE
SR	SHORT RADIUS
SS	SERVICE SINK
SS	STAINLESS STEEL
ST	STREET
STA	STATION
STD	STANDARD
STIF	STIFFENER
STIR	STIRRUP
STL	STEEL
STOR	STORAGE
STR	STRUCTURAL, STRAIGHT
SUB	SUBSTITUTE
SUC	SUCTION
SUSP	SUSPENDED
SY	SQUARE YARD
SYM	SYMBOL
SYMM	SYMMETRICAL
SYN	SYNTHETIC
SYS	SYSTEM
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
T	TILE, TREAD
TA	TOILET ACCESSORY, TEMPERED AIR
TAN	TANGENT
TBM	TEMPORARY BENCHMARK
TCE	TEMPORARY CONSTRUCTION EASEMENT
TEF	TROWELED EPOXY FLOORING
TEMP	TEMPORARY, TEMPERATURE
THD	THREAD
THK	THICK
THRESH	THRESHOLD
THRU	THROUGH
T	

SITE PLAN SYMBOLOGY

PIPING SYMBOLOGY

MATERIALS IN PLAN/SECTION

GENERAL SYMBOLOGY

IDENTIFICATION SYMBOLOGY

EMBANKMENT SLOPE

50.5 CONTOUR

VEGETATION

CO CLEAN OUT

MH MANHOLE

MW MONITORING WELL

PZ PIEZOMETER

CB STORM DRAIN CATCH BASIN

UV UTILITY VAULT

PP POWER POLE

TP TELEPHONE POLE

FH FIRE HYDRANT

YH-X YARD HYDRANT

X 75.5 EXISTING SPOT ELEVATION

75.8 FINISHED SPOT ELEVATION

HORIZONTAL CP-X, CONTROL POINT

BENCHMARK

TH-X IDENTIFICATION AND APPROXIMATE LOCATION OF SOIL TEST HOLE

DOWNGUY

NOTES:

1. UTILITIES THAT ARE SUSPENDED ABOVE GRADE ARE DESIGNATED BY THE PREFIX "OH".

T TELEPHONE LINE

E ELECTRIC LINE

F FIBER OPTIC

C COMMUNICATION

H HANDRAIL

P PIPELINE

L LARGE PIPELINE

P PIPELINE BENEATH CONCRETE OR STRUCTURE

R RAILROAD

D DRAINAGE FLOW

N NATURAL WATERWAY

X-X CHAIN LINK FENCE

-X-X- FIELD FENCE

P PROPERTY LINE

C CENTERLINE

RB ROCK BERM

SF SILT FENCE

SYMBOLY SHOWN IS FOR SINGLE LINE PIPING. DOUBLE LINE PIPING SYMBOLS ARE SIMILAR.

VALVES

GATE VALVE

GLOBE VALVE

BALL VALVE

CHECK VALVE

DOUBLE DISK CHECK VALVE

BALL CHECK VALVE

BUTTERFLY VALVE

DIAPHRAGM VALVE

PINCH VALVE

KNIFE GATE VALVE

PRESSURE RELIEF VALVE

PLUG VALVE

NEEDLE VALVE

PRESSURE REDUCING VALVE

AIR RELEASE / VACUUM VALVE
A = AIR RELEASE
V = VACUUM

PRESSURE REGULATING VALVE

THREE WAY BALL VALVE

THREE WAY PLUG VALVE

MISCELLANEOUS

VARIABLE AREA METER

ROTAMETER

UNION

WYE-STRAINER

FLEXIBLE HOSE OR TUBING

FLEXIBLE PIPING CONNECTION

LINE SIZE CHANGE (CONCENTRIC REDUCER)

LINE SIZE CHANGE (ECCENTRIC REDUCER)

LINE TURNING DOWN

LINE TURNING UP

BLIND FLANGE

COMPRESSION SLEEVE COUPLING

FLANGED COUPLING ADAPTER (FCA)

FLEXIBLE CONNECTION

HARNESSED MECHANICAL COUPLING

WELDED CONNECTION

WELDING NECK CONNECTION

GROOVED COUPLING

FLANGED JOINT

MECHANICAL OR PUSH ON JOINT

PVC JOINT

MISCELLANEOUS (CONTINUED)

PRESSURE GAGE (W/COCK)

TRAP

QUICK DISCONNECT CAM & GROOVE COUPLING

CAP or PLUG

INTERIOR CLEANOUT

HOSE VALVE, HOSE BIBB OR FLUSHING CONNECTION

HR-X HOSE RACK

FD-X FLOOR DRAIN

X = TYPE DESIGNATED IN SPECIFICATIONS

PIPE IN SECTION

BU BELL UP (PLAN)

BU BELL UP (SECTION OR SCHEMATIC)

D DRAIN (SECTION OR SCHEMATIC)

ATA AIR TOOL ASSEMBLY

AVS AUTOMATIC VALVE STATION

PRS PRESSURE REDUCING STATION

PLUMBING PIPING:

VT VENT (VT)

PWC POTABLE WATER, COLD (PWC)

PWH POTABLE WATER, HOT (PWH)

DEMOLITION

CONCRETE

MASONRY (CMU)

BRICK (SECTION)

ASPHALT

GRANULAR FILL

SAND

EARTH

METAL (SECTION)

GRATING (PLAN)

CHECKERED PLATE

BRICK (PLAN)

RIGID INSULATION

BATT INSULATION

WOOD - CONTINUOUS

WOOD - NON CONTINUOUS

PLYWOOD

GYPSUM BOARD

REFLECTED CEILING SYMBOLOGY

SUSPENDED GYPSUM WALLBOARD CEILING

2x4 ACOUSTICAL SUSPENDED CEILING

RECESSED LIGHT FIXTURE

1x4 FLUORESCENT LIGHT FIXTURE

2x4 FLUORESCENT LIGHT FIXTURE

4x4 FLUORESCENT LIGHT FIXTURE

SUPPLY AIR DIFFUSER/GRILLE

RETURN AIR GRILLE

FIRE WALL RATINGS

1 HOUR FIRE RATED WALL

2 HOUR FIRE RATED WALL

PLAN
1/4" = 1'-0"

SECTION CUT MARKER
SECTION LETTER
3/8" = 1'-0"

DETAIL MARKER
DETAIL NUMBER
3" = 1'-0"

SINGLE ELEVATION OR PHOTO MARKER
ELEVATION LETTER
ARROW INDICATES POINT OF VIEW ELEVATION

MULTIPLE ELEVATION OR PHOTO MARKER
ELEVATION LETTER
ARROW INDICATES POINT OF VIEW ELEVATION

ELEVATION
3" = 1'-0"

STANDARD DETAIL MARKER
KEYNOTE DESIGNATION

PIPING:

FIGURE EXAMPLE
36" PLE
LINE SIZE 36"
SERVICE PLANT EFFLUENT

EQUIPMENT TAG NUMBERS:

ALTERNATE 1
FIGURE EXAMPLE
NPWP2023
SERVICE ABBREVIATION INDICATES NON POTABLE WATER
EQUIPMENT ABBREVIATION INDICATES PUMP
BUILDING OR STRUCTURE NUMBER BUILDING 20
EQUIPMENT NUMBER PUMP 23

ALTERNATE 2
FIGURE EXAMPLE
NPWP-23
SERVICE ABBREVIATION INDICATES NON POTABLE WATER
EQUIPMENT ABBREVIATION INDICATES PUMP
BUILDING OR STRUCTURE NUMBER PUMP 23

ARCHITECTURAL:

XX-XX ROOM NUMBER

XXXX DOOR NUMBER

X COLUMN GRID LINE

X WALL TYPE

X WINDOW TYPE

L/XX LOUVER

GENERAL NOTES:

- THIS IS A STANDARD DRAWING SHOWING COMMON SYMBOLY. ALL SYMBOLS ARE NOT NECESSARILY USED ON THIS PROJECT.
- SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH DRAWING FOR USAGE.
- SEE PROJECT EQUIPMENT AND PIPING SYSTEMS DRAWING FOR SYMBOLS AND ABBREVIATIONS SPECIFIC TO THE PROJECT.

FILE: C:\P\working\SAC\rgonzalvo\dms16075\34038-00G-04.dwg
DATE: 05/11/06 10:33:05am, rgonzalvo



ISSUE	DATE	DESCRIPTION
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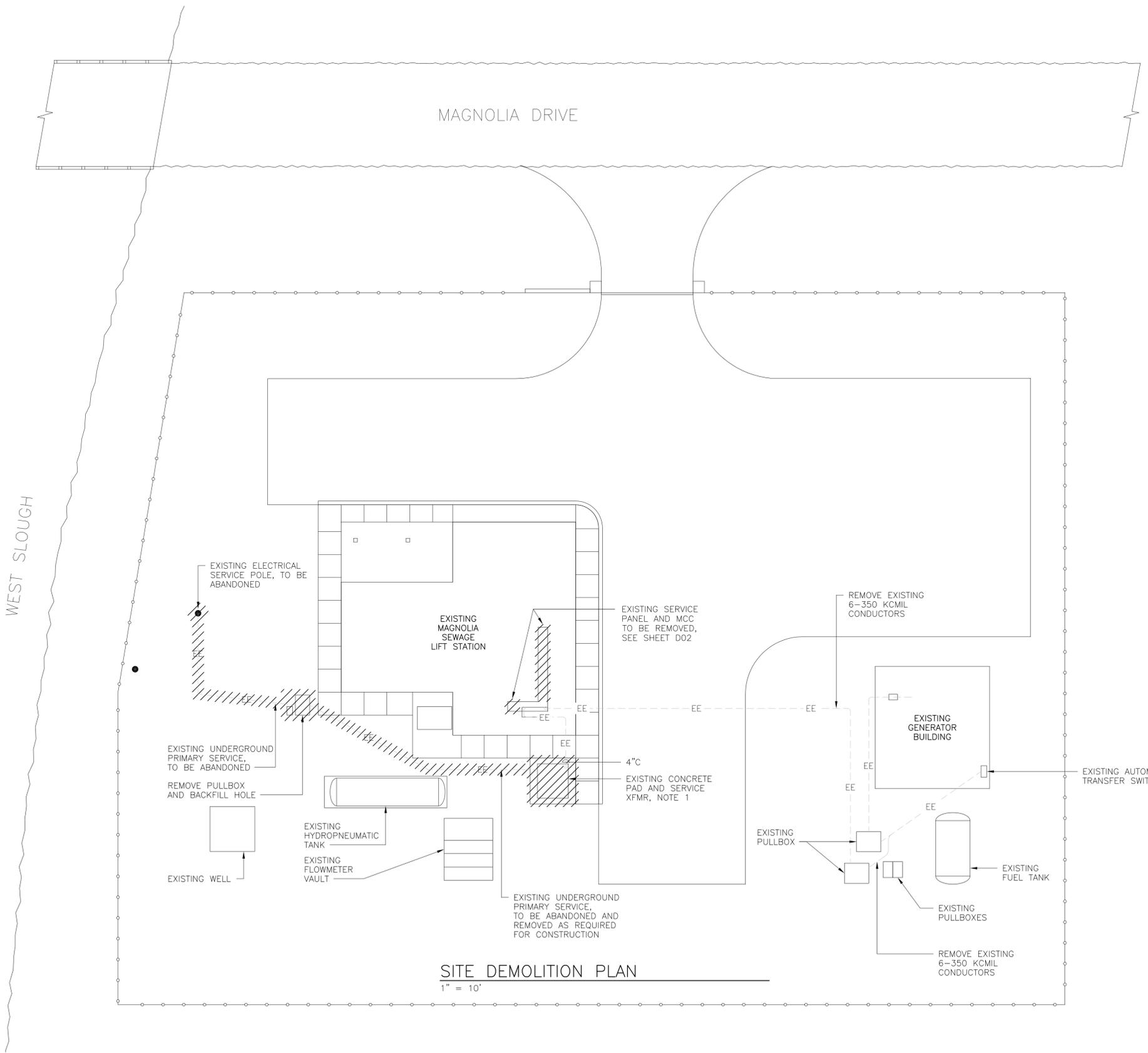
PROJECT MANAGER	WILLIAM F. ETTLICH
DESIGNED	W. ETTLICH
DESIGNED	J. YURCZYK
DRAWN	R.J. GONZALVO
CHECKED	W. ETTLICH
DATE	
PROJECT NUMBER	10494-34038



GENERAL SYMBOLS LEGEND

0 1" 2"

FILENAME	34038-00G-04.dwg	SHEET	G04
SCALE	NONE		



- NOTES:**
1. REMOVE EXISTING CONCRETE PAD AND CONDUITS. TRANSFORMER AND PRIMARY AND SECONDARY CONDUCTORS WILL BE REMOVED BY THE CITY.

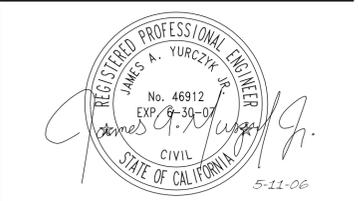
SITE DEMOLITION PLAN
1" = 10'

FILE: C:\P\working\SAC\rgonzalv\dms16075\34038-000-01.dwg
DATE: 05/11/06 10:13:56am rgonzalv



ISSUE	DATE	DESCRIPTION
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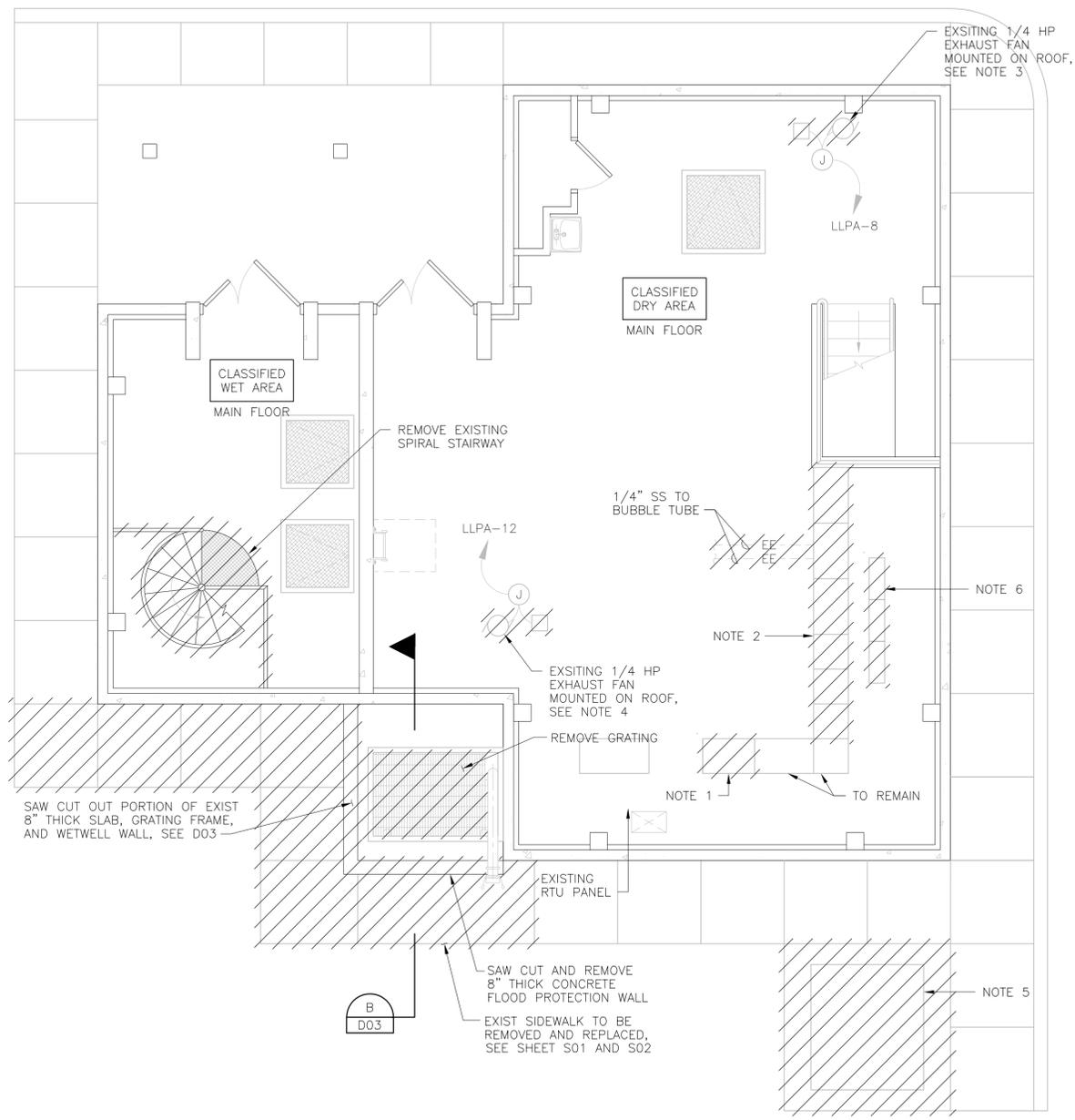
PROJECT MANAGER	WILLIAM F. ETLICH
DESIGNED	W. ETLICH
DESIGNED	J. YURCZYK
DRAWN	R.J. GONZALVO
CHECKED	J. YURCZYK
DATE	
PROJECT NUMBER	10494-34038



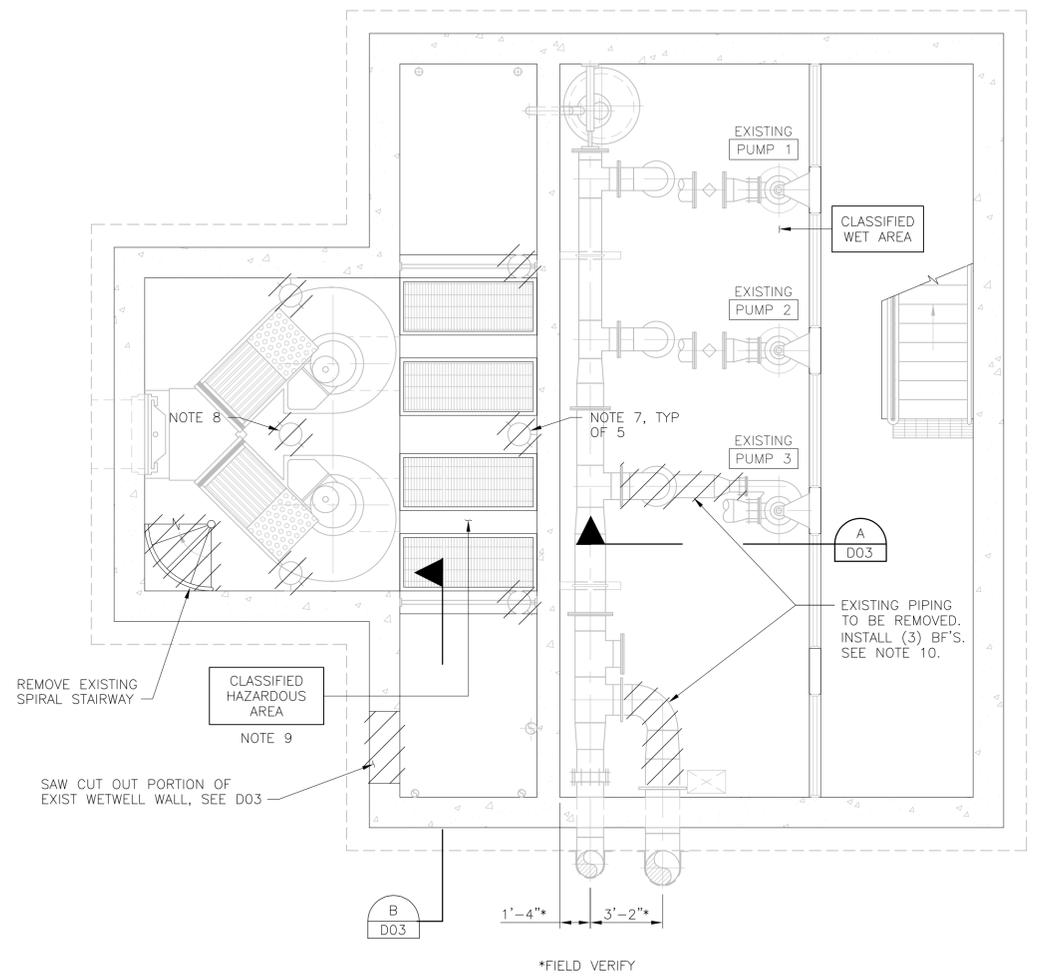
SITE DEMOLITION PLAN

0 1" 2"

FILENAME	34038-000-01.dwg	SHEET	D01
SCALE	1" = 10'		



FIRST FLOOR DEMOLITION PLAN
1/4" = 1'-0"



BASEMENT DEMOLITION PLAN
1/4" = 1'-0"

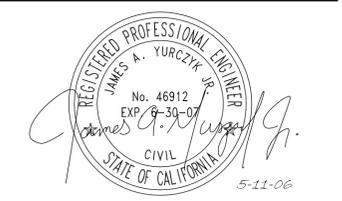
- NOTES:**
1. REMOVE EXISTING SWITCHBOARD AND REPLACE WITH A 600A, 480V, 3Ø, 4W DISTRIBUTION PANEL RATED AT 65 KAIC, SEE E4.
 2. REMOVE AND REPLACE EXISTING MCC WITH A 600A, 480V, 3Ø, 3W MCC RATED AT 65 KAIC. MATCH EXISTING FLOOR CONDUITS, SEE E4.
 3. REMOVE AND SALVAGE EXISTING GRAINGER 4H257 DRYWELL EXHAUST FAN AND RELOCATE TO EXISTING SUPPLY FAN LOCATION. PROTECT WIRING. SEE SHEET E04 FOR RELOCATION.
 4. REMOVE EXISTING SUPPLY FAN, PROTECT WIRING.
 5. REMOVE EXISTING SERVICE TRANSFORMER AND CONCRETE PAD. TRANSFORMER AND PRIMARY AND SECONDARY CONDUCTORS WILL BE REMOVED BY THE CITY.
 6. REMOVE THREE AIR COMPRESSORS AND TURN OVER TO OWNER.
 7. REMOVE EXISTING CROUSE-HINDS EV502 LIGHT FIXTURES. PROTECT WIRING.
 8. REMOVE EXISTING LIGHT FIXTURE TIE WIRES TOGETHER AND INSTALL BLANK COVER.
 9. WETWELL IS CLASS 1, DIVISION 2 HAZARDOUS AREA.
 10. CONTRACTOR SHALL COORDINATE DEMOLITION OF PIPING WITH OWNER. CITY WILL DEWATE FORCE MAIN. WORK SHALL PROCEED FROM 12 MIDNIGHT THRU 6:00 AM. FIELD VERIFY ALL EXISTING PIPE SIZES AND LOCATIONS PRIOR TO FABRICATION OF NEW PIPING.
 11. SEE SPECIFICATIONS SECTIONS 12-1.02 AND 16010 FOR CONSTRAINTS AND SEQUENCE OF CONSTRUCTION.

FILE: C:\P\working\SAC\rgonzalvo\dms16075\34038-000-02.dwg
DATE: 05/11/06 12:31:18pm, rgonzalvo



ISSUE	DATE	DESCRIPTION
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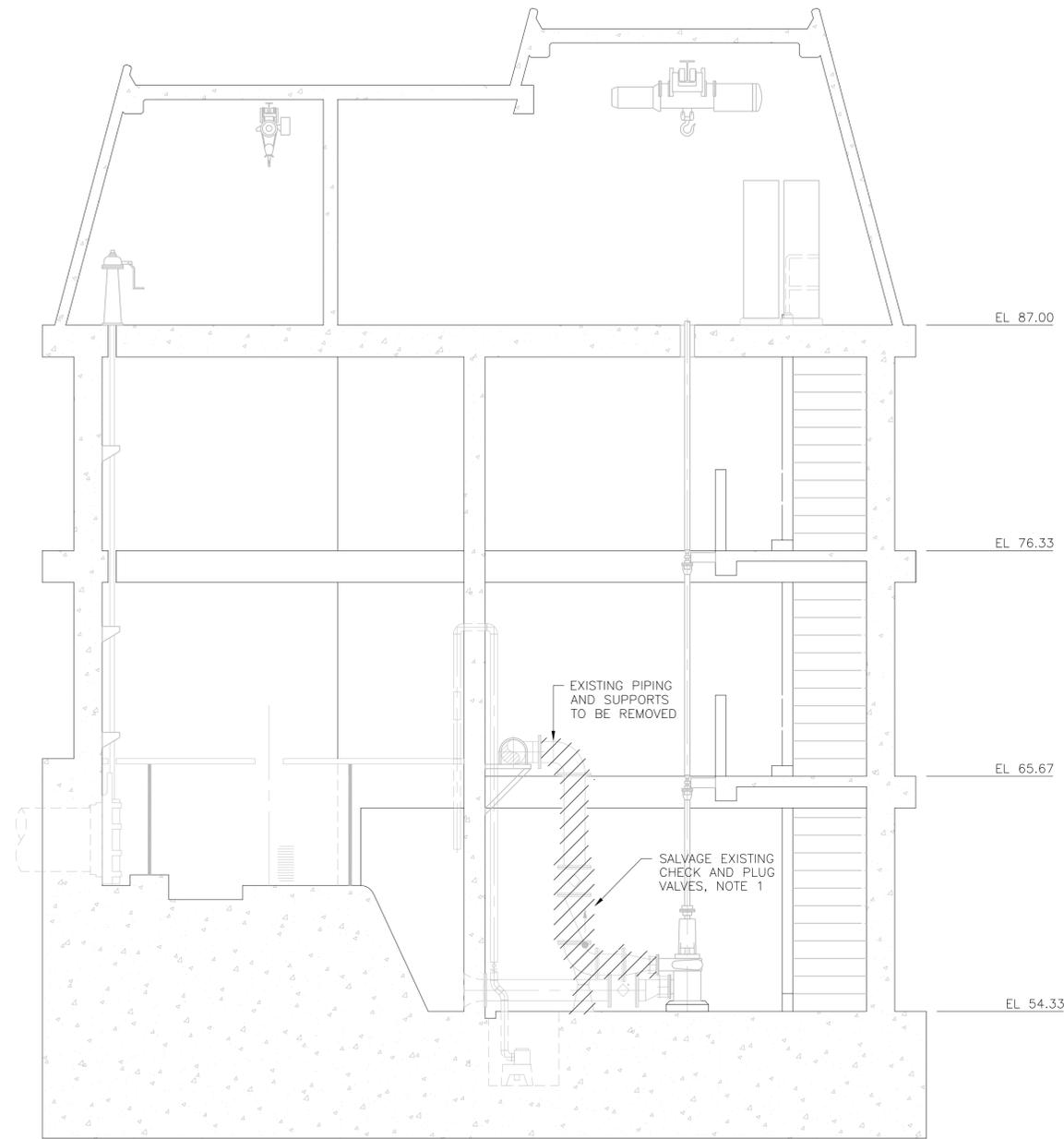
PROJECT MANAGER	WILLIAM F. ETTLICH
DESIGNED	W. ETTLICH
DESIGNED	J. YURCZYK
DRAWN	R.J. GONZALVO
CHECKED	J. YURCZYK
DATE	
PROJECT NUMBER	10494-34038



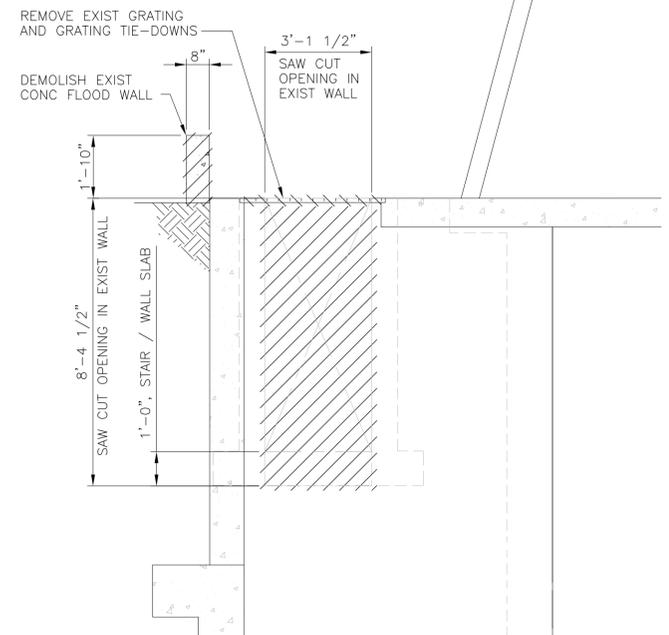
FIRST FLOOR AND BASEMENT DEMOLITION PLANS

0 1" 2"

FILENAME	34038-000-02.dwg	SHEET	D02
SCALE	1/4" = 1'-0"		



- NOTES:
- EXISTING CHECK AND PLUG VALVES TO BE RECOATED PER 09905. RECONFIGURE LEVER ARM ON CHECK VALVE PER MANUFACTURER'S RECOMMENDATIONS.



DEMOLITION SECTION
3/8" = 1'-0"

B
D01

DEMOLITION SECTION
1/4" = 1'-0"

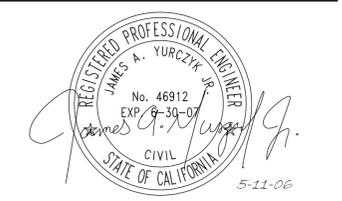
A
D02

FILE: C:\P\working\SAC\rgonzalv\dms16075\34038-000-03.dwg
DATE: 05/11/06 10:21:18am, rgonzalv



ISSUE	DATE	DESCRIPTION
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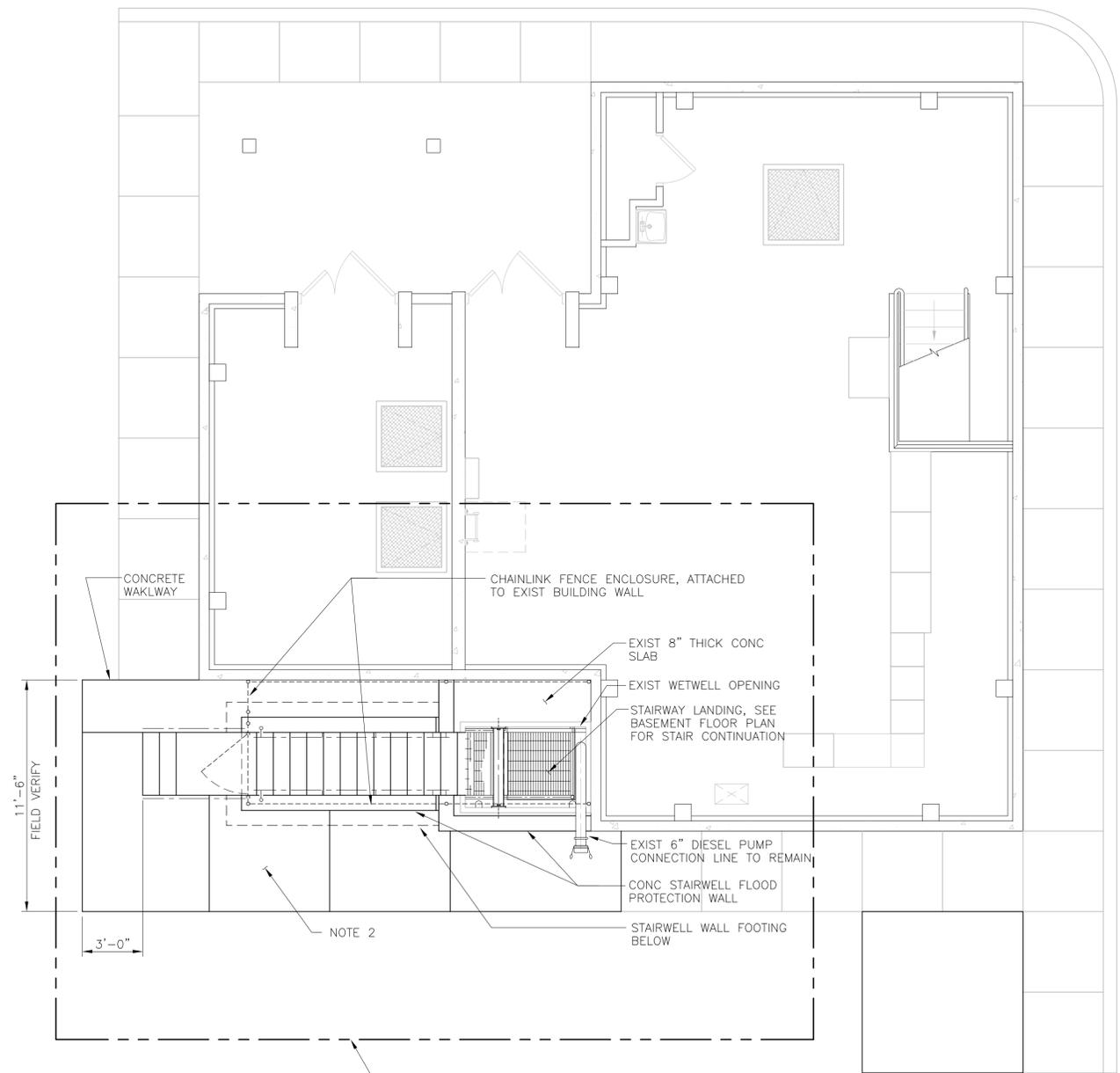
PROJECT MANAGER	WILLIAM F. ETLICH
DESIGNED	J. YURCZYK
DESIGNED	W. ETLICH
DRAWN	R.J. GONZALVO
CHECKED	J. YURCZYK
DATE	
PROJECT NUMBER	10494-34038



LIFT STATION DEMOLITION SECTIONS

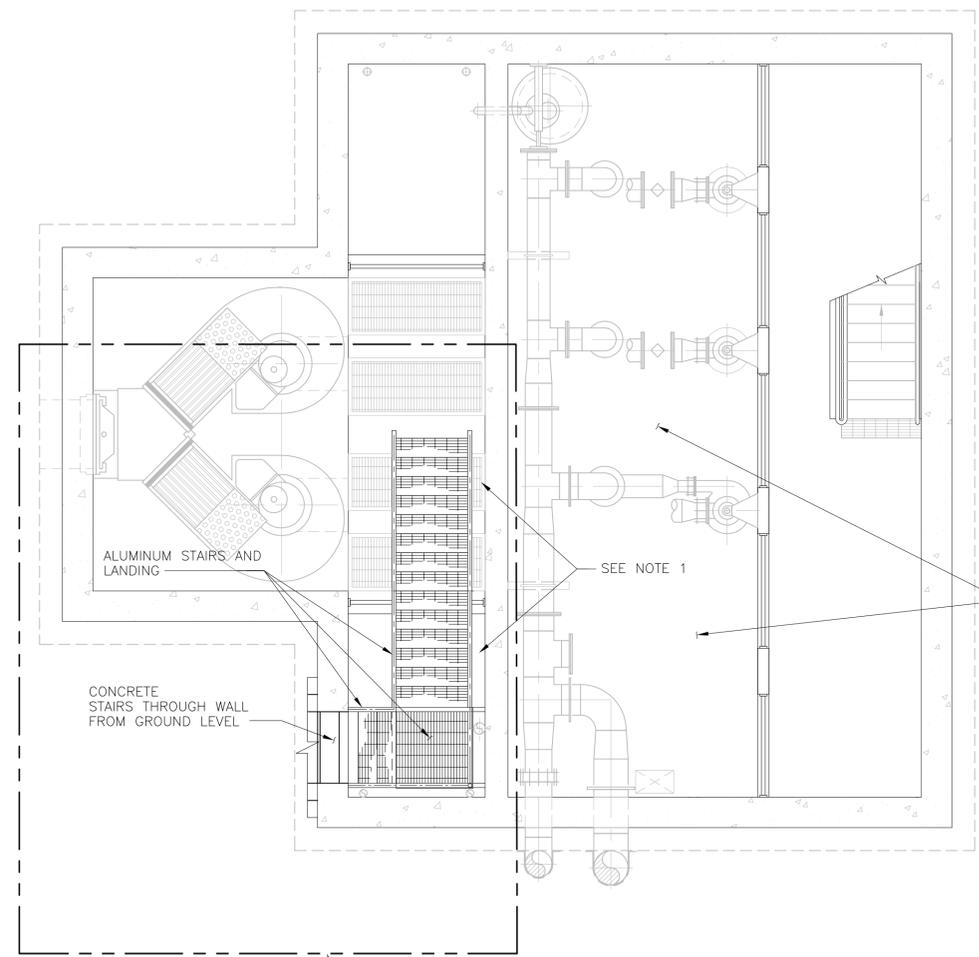
FILENAME 34038-000-03.dwg
SCALE 1/4" = 1'-0"

SHEET
D03



NOTE:
CONTRACTOR TO PROTECT THIS AREA DURING EXCAVATION
AND CONSTRUCTION AND ASSURE SITE IS SECURED
WHEN UNATTENDED DURING CONSTRUCTION.

FIRST FLOOR STRUCTURAL PLAN
ELEVATION 87.00
1/4" = 1'-0"



NOTES:

1. SEE ELECTRICAL PLAN E04 FOR LIGHT FIXTURES ALONG STAIRWAY.
2. STAIRWAY EXCAVATION CAN NOT BE DONE UNTIL NEW ELECTRICAL SERVICE IS IN OPERATION BECAUSE EXISTING PRIMARY CONDUCTORS ARE IN AREA, SEE SHEET D01.

BASEMENT STRUCTURAL PLAN
ELEVATION 70.00
1/4" = 1'-0"

FILE: C:\P\working\SAC\rgonzalv\dms16075\34038-005-01.dwg
DATE: 05/11/06 10:35:09am, rgonzalv



ISSUE	DATE	DESCRIPTION
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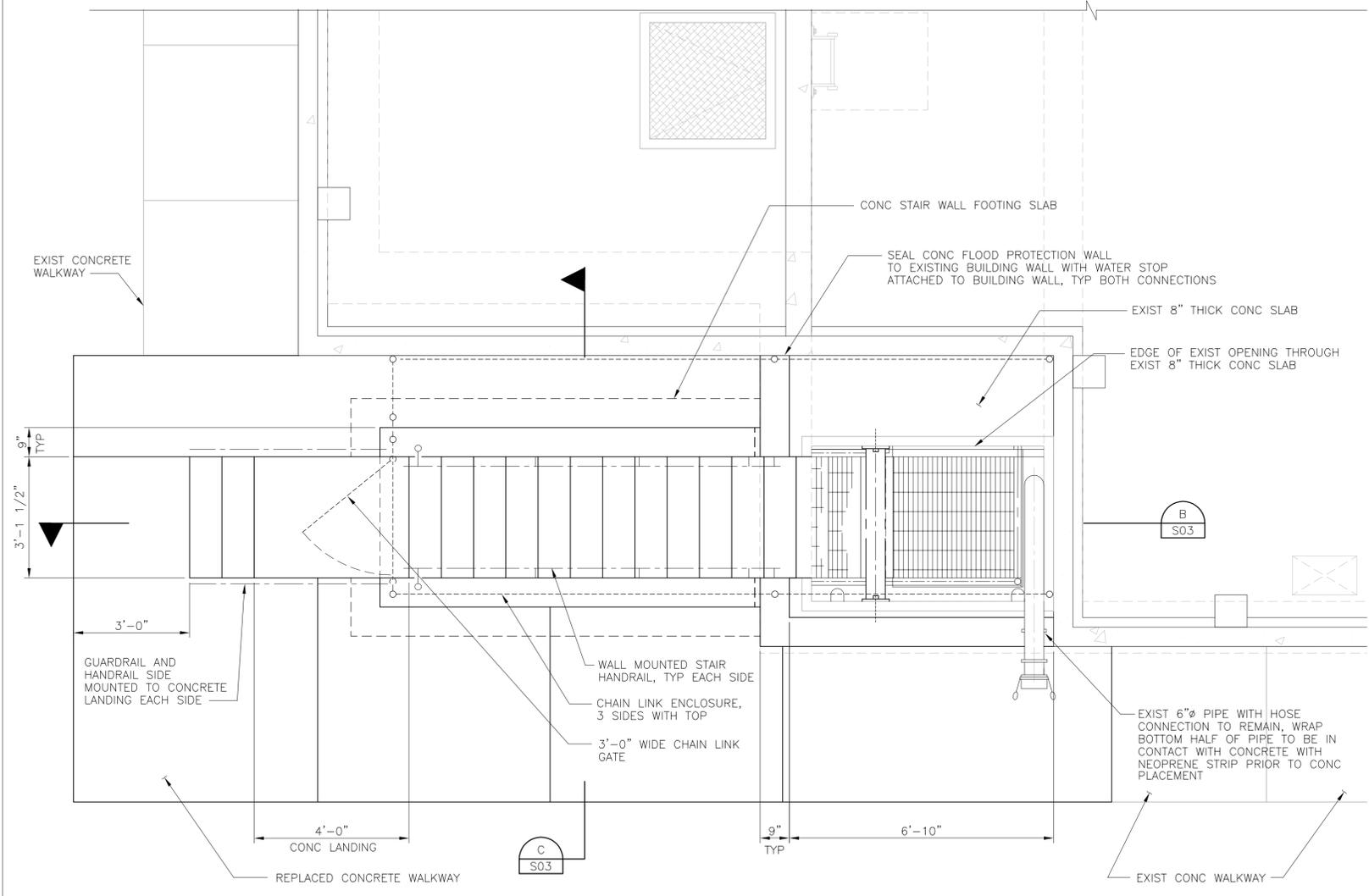
PROJECT MANAGER	WILLIAM F. ETTLICH
DESIGNED	W. ETTLICH
DESIGNED	C. OLSON
DRAWN	D. CORNELL
CHECKED	C. OLSON
DATE	
PROJECT NUMBER	10494-34038



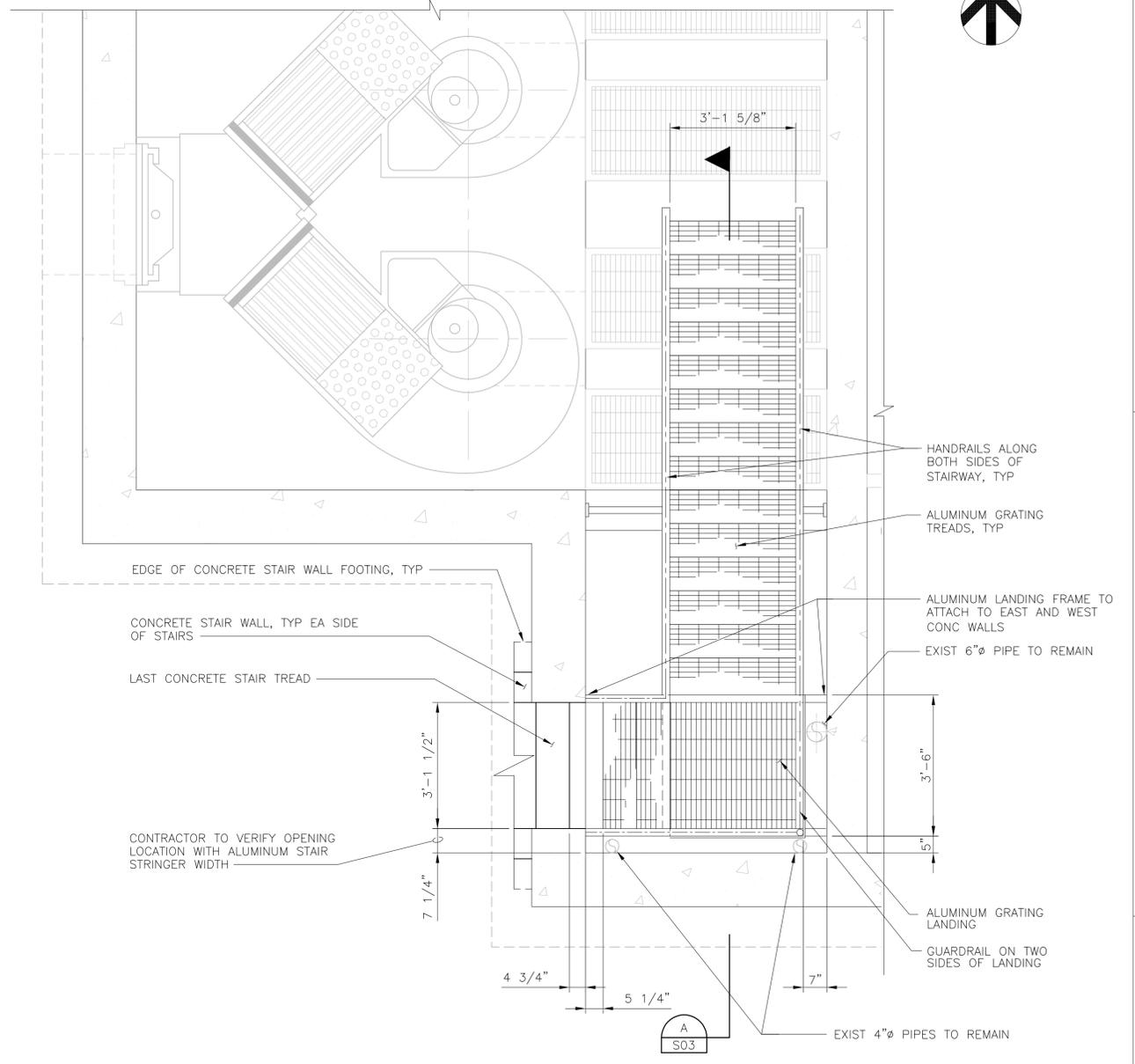
FIRST FLOOR AND BASEMENT STRUCTURAL PLANS

0 1" 2"

FILENAME	34038-00S-01.dwg	SHEET	S01
SCALE	1/4" = 1'-0"		



ENLARGED FIRST FLOOR STAIR PLAN
1/2" = 1'-0"



ENLARGED BASEMENT STAIR PLAN
1/2" = 1'-0"

- STAIR NOTES:
1. ALUMINUM STAIR TREADS, STRINGERS, LANDING, AND ATTACHMENTS TO BE DESIGNED BY MANUFACTURER. SEE SPECIFICATION SECTIONS 05505 AND 05522. CALCULATIONS DEMONSTRATING COMPLIANCE WITH THE 1997 UNIFORM BUILDING CODE FOR ALL MEMBERS AND ATTACHMENTS, MUST BE PREPARED, SEALED, AND SIGNED BY A REGISTERED CIVIL OR STRUCTURAL ENGINEER LICENSED IN THE STATE OF CALIFORNIA, AND MUST ACCOMPANY SHOP DRAWINGS.
 2. ENTIRE STAIR ASSEMBLY IS ALUMINUM UNLESS OTHERWISE NOTED. ATTACH TO CONCRETE WITH 5/8" ASTM 316 STAINLESS STEEL ADHESIVE ANCHORS.
 3. RAILING TO BE ANCHORED BY SIDE MOUNT DETAIL DESIGNED BY MANUFACTURER.
 4. COAT ALL ALUMINUM IN CONTACT WITH CONCRETE PER SPECIFICATION SECTION 09905.

FILE: C:\P\working\SAC\rgonzalv\dms16075\34038-005-02.dwg
DATE: 05/11/06 10:35:36am. rgonzalv



ISSUE	DATE	DESCRIPTION
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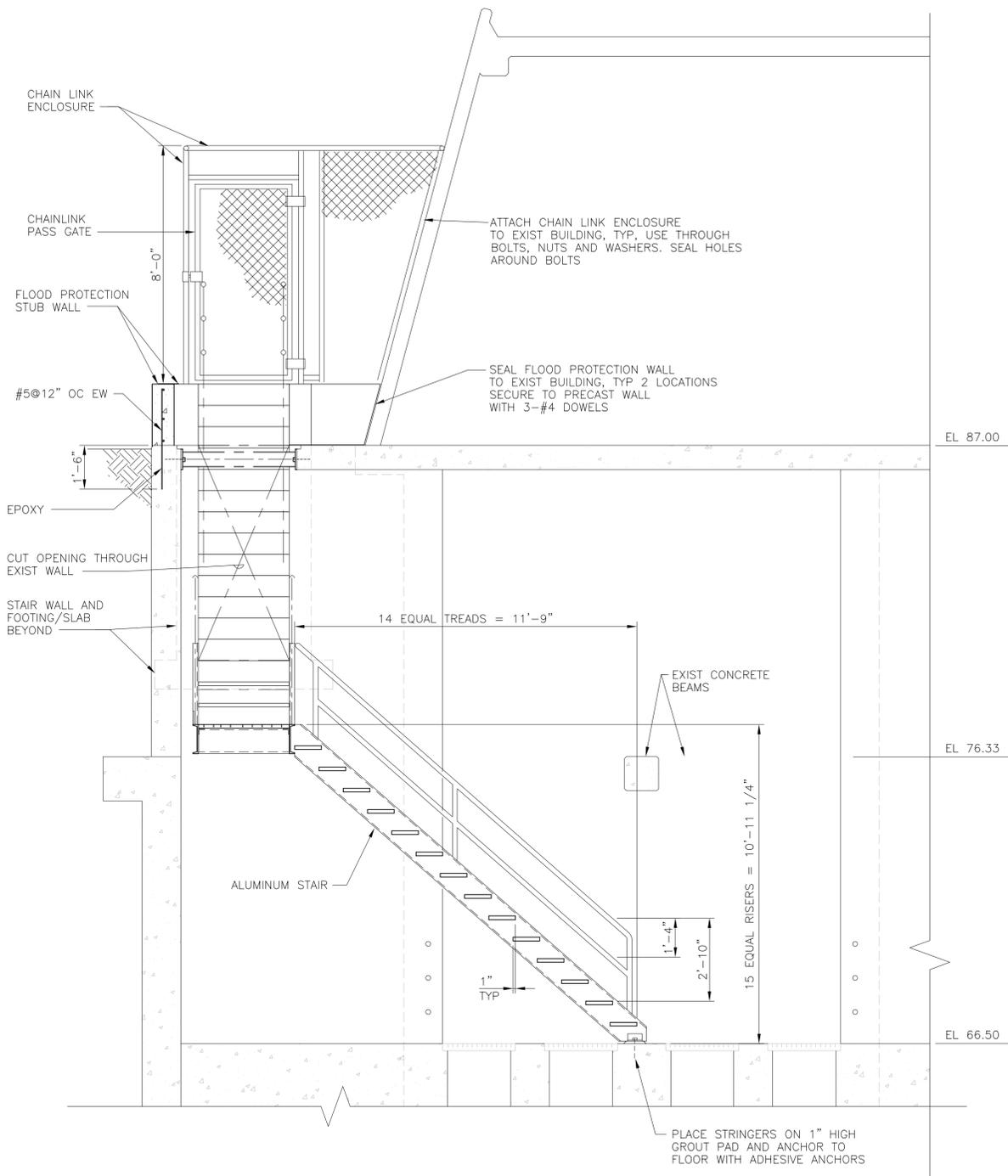
PROJECT MANAGER	WILLIAM F. ETTLICH
DESIGNED	W. ETTLICH
DESIGNED	C. OLSON
DRAWN	D. CORNELL
CHECKED	C. OLSON
DATE	
PROJECT NUMBER	10494-34038



FIRST FLOOR AND BASEMENT ENLARGED STAIR PLANS

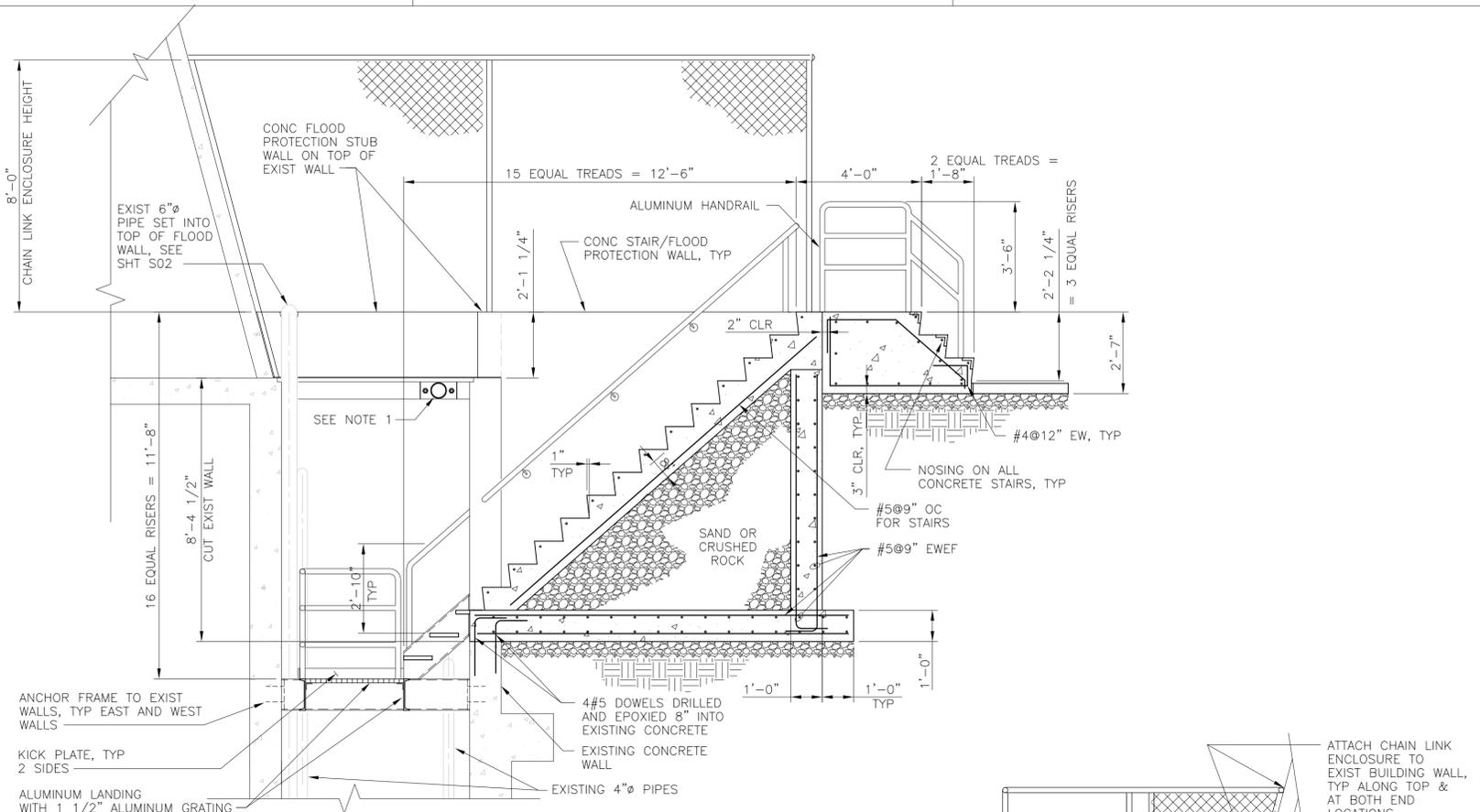
0 1" 2"

FILENAME	34038-005-02.dwg	SHEET	S02
SCALE	1/2" = 1'-0"		



SECTION
3/8" = 1'-0"

A
S02

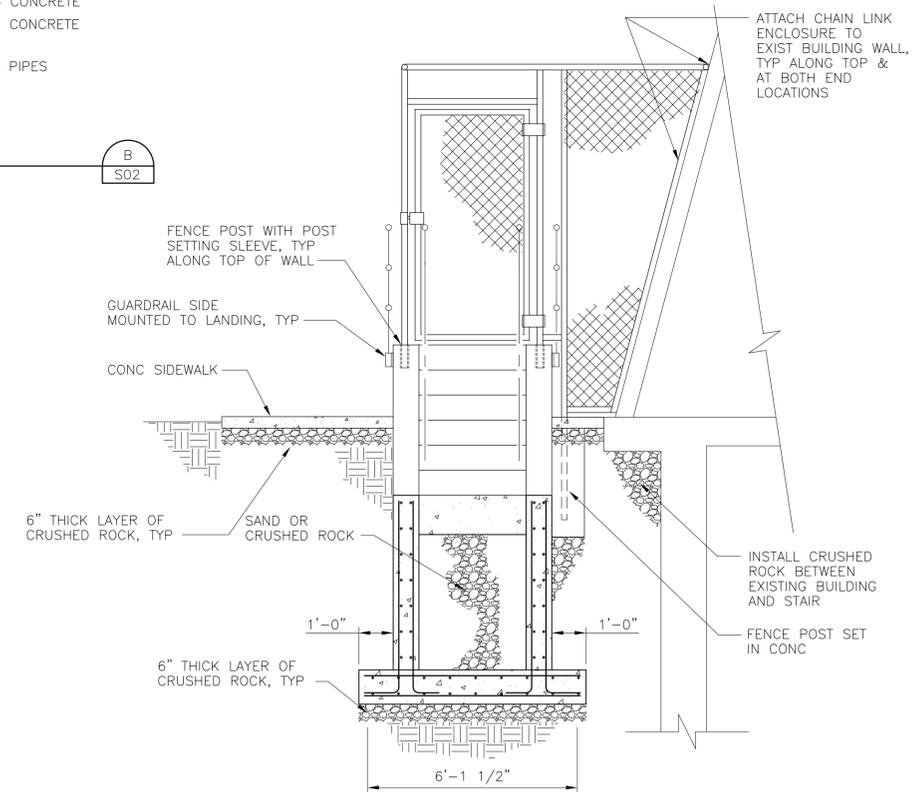


SECTION
3/8" = 1'-0"

B
S02

NOTES:

- 6" STANDARD WEIGHT STEEL PIPE BRACE ACROSS OPENING MOUNT WITH TWO 1/2"Ø CONCRETE ANCHORS THROUGH 1/4" FLANGES ON EACH END. HOT DIP GALVANIZE AFTER FABRICATION OR USE 304 STAINLESS STEEL.
- ALL STAIR ANCHORS TO BE 5/8" STAINLESS STEEL ADHESIVE ANCHORS.



SECTION
3/8" = 1'-0"

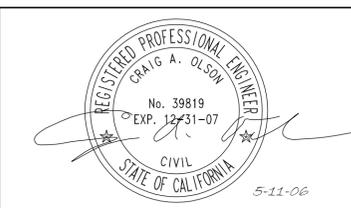
C
S02

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DATE: 05/11/06 10:36:08am, rgonzalv



ISSUE	DATE	DESCRIPTION
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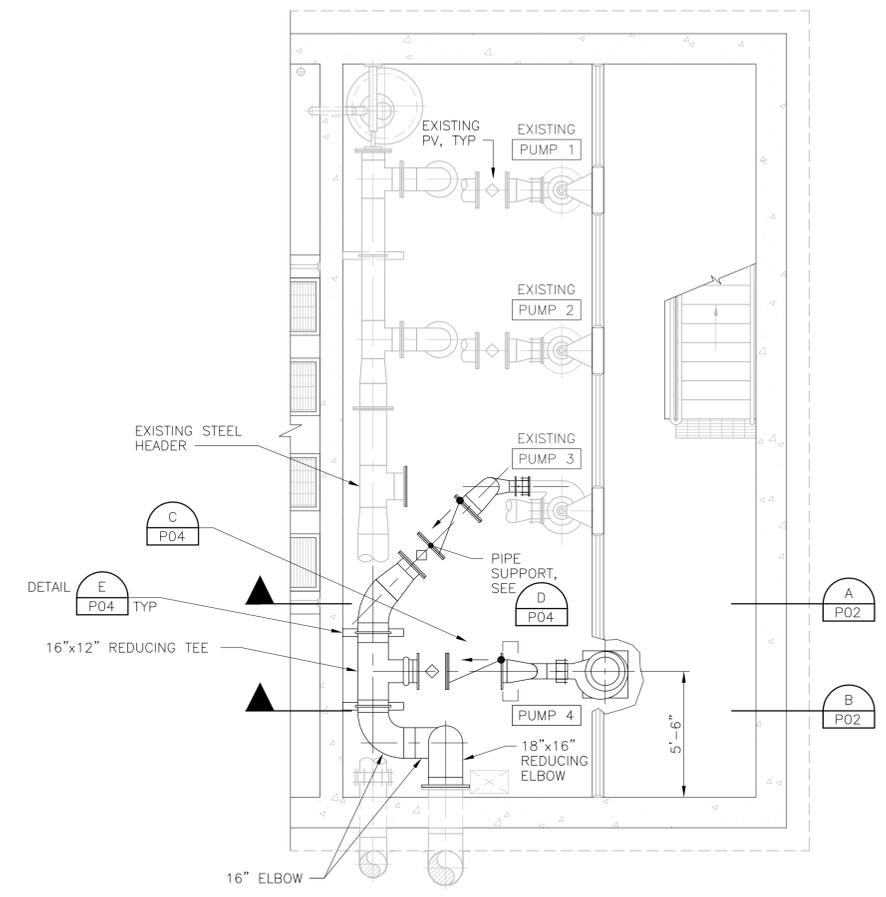
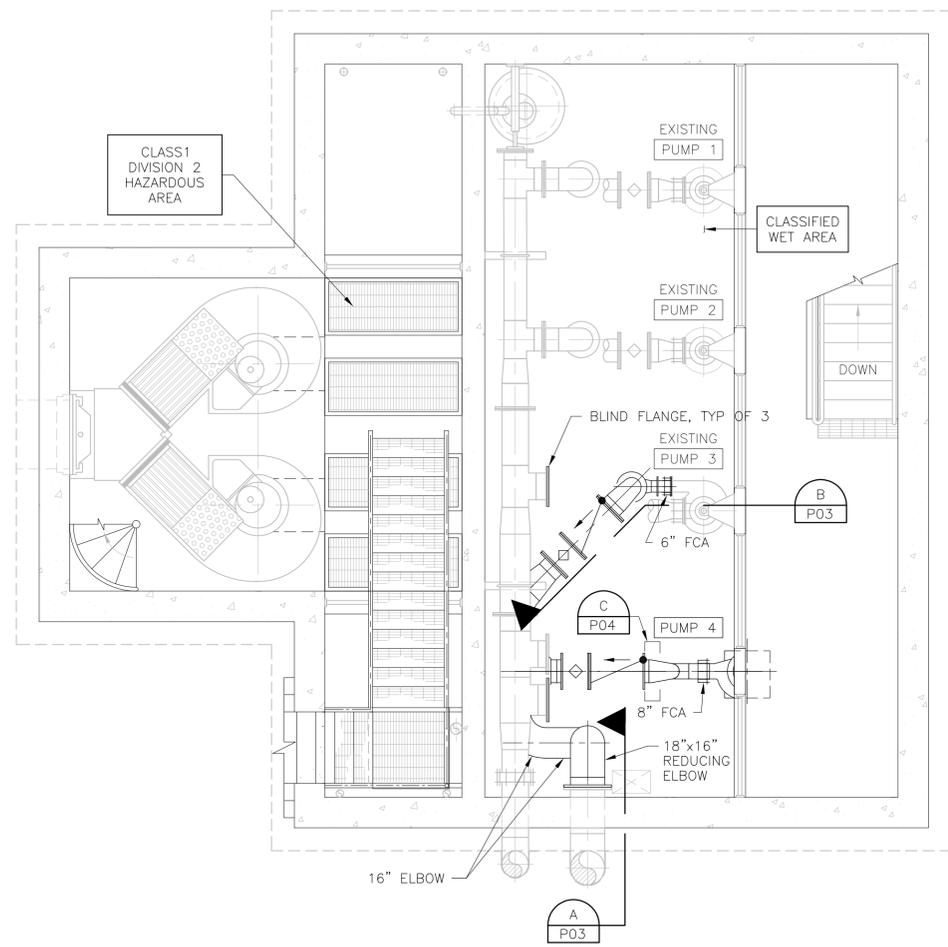
PROJECT MANAGER	WILLIAM F. ETTLICH
DESIGNED	W. ETTLICH
DESIGNED	C. OLSON
DRAWN	D. DORNELL
CHECKED	C. OLSON
DATE	
PROJECT NUMBER	10494-34038



FIRST FLOOR AND BASEMENT STAIR SECTIONS

0 1" 2"

FILENAME: 34038-00S-03.dwg
SCALE: 3/8" = 1'-0"
SHEET
S03



NOTES:
 1. SHUTDOWNS FOR HEADER CONNECTIONS TO BE COORDINATED IN ADVANCE WITH CITY. SEE SECTION 12-1.02 FOR CONSTRUCTION LIMITATIONS.

**WETWELL/DRYWELL
 PROCESS PIPING PLAN @ EL 76.33**
 1/4" = 1'-0"

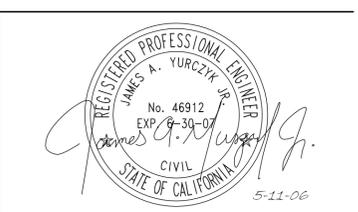
**SECTIONAL
 PROCESS PIPING PLAN @ EL 65.67**
 1/4" = 1'-0"

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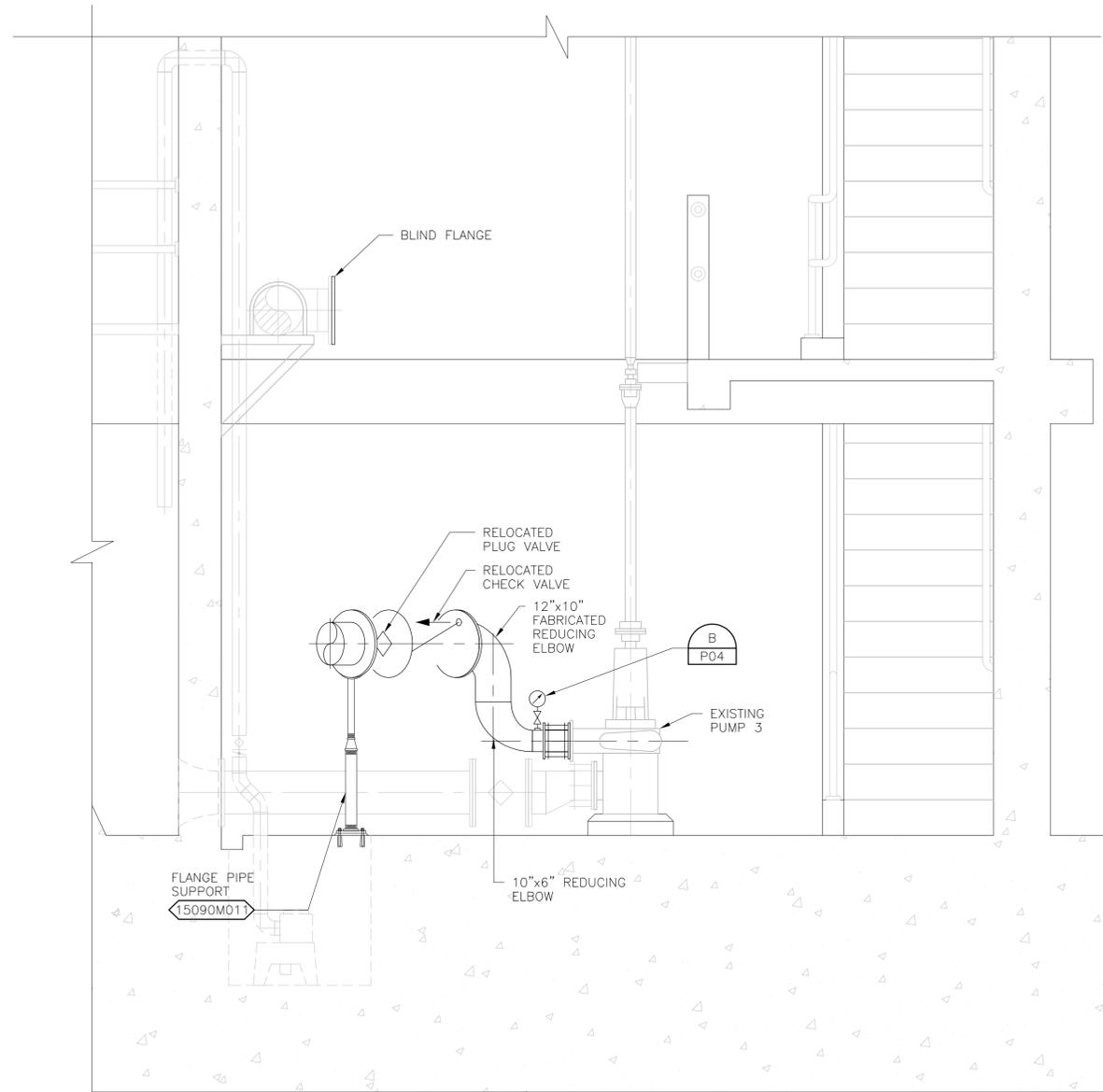


ISSUE	DATE	DESCRIPTION
A	5-11-06	ISSUED FOR BIDS

PROJECT MANAGER	WILLIAM F. ETLICH
DESIGNED	R. AGNEW
DESIGNED	J. YURCZYK
DRAWN	R. AGNEW
CHECKED	J. YURCZYK
DATE	
PROJECT NUMBER	10494-34038

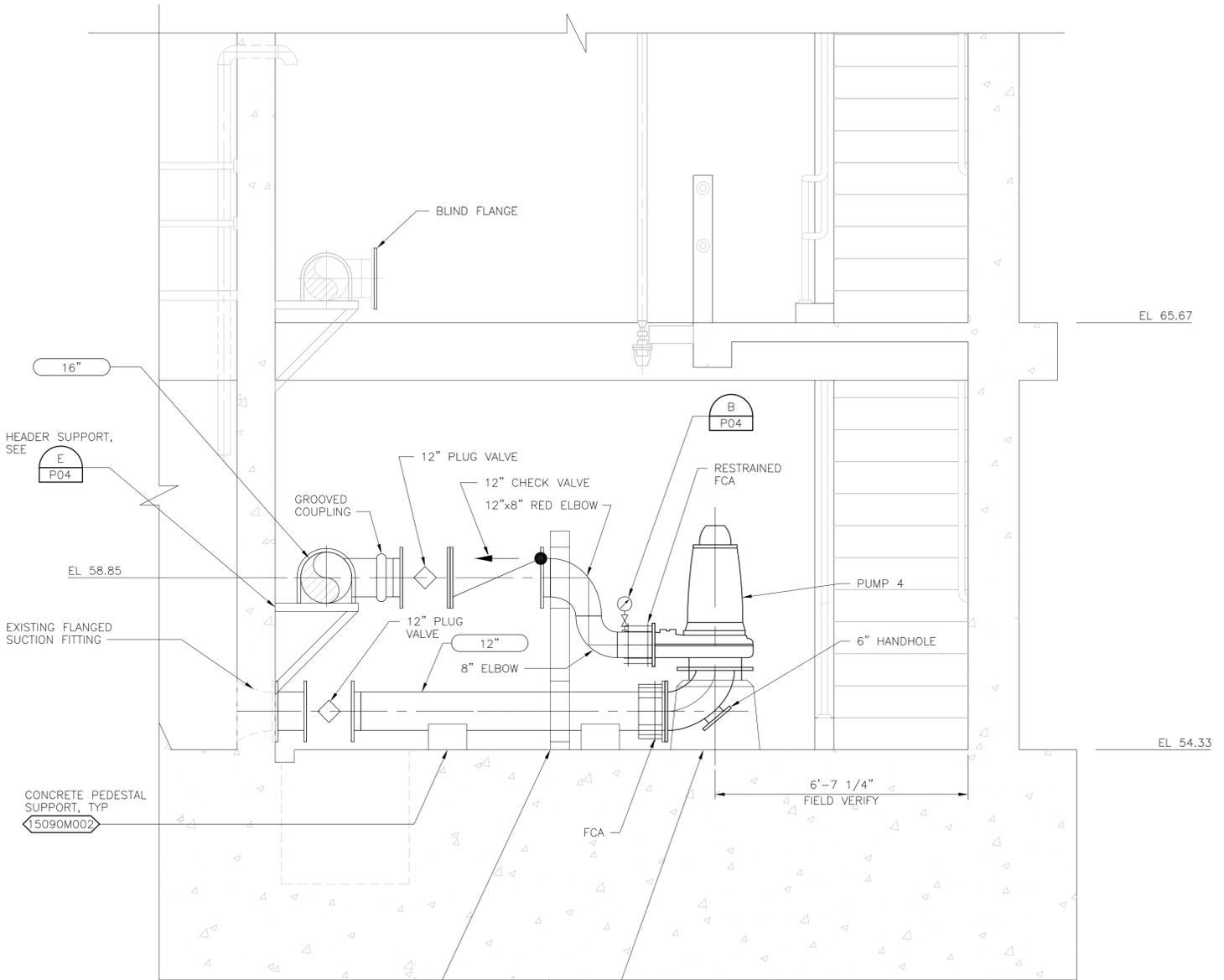


PROCESS PIPING PLANS		FILENAME 34038-00P-01.dwg SCALE 1/4" = 1'-0"	SHEET P01



PROCESS PIPING SECTION
1/2" = 1'-0"

A
P01



PROCESS PIPING SECTION
1/2" = 1'-0"

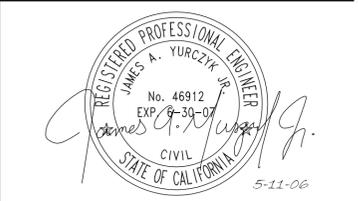
B
P01

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ISSUE	DATE	DESCRIPTION
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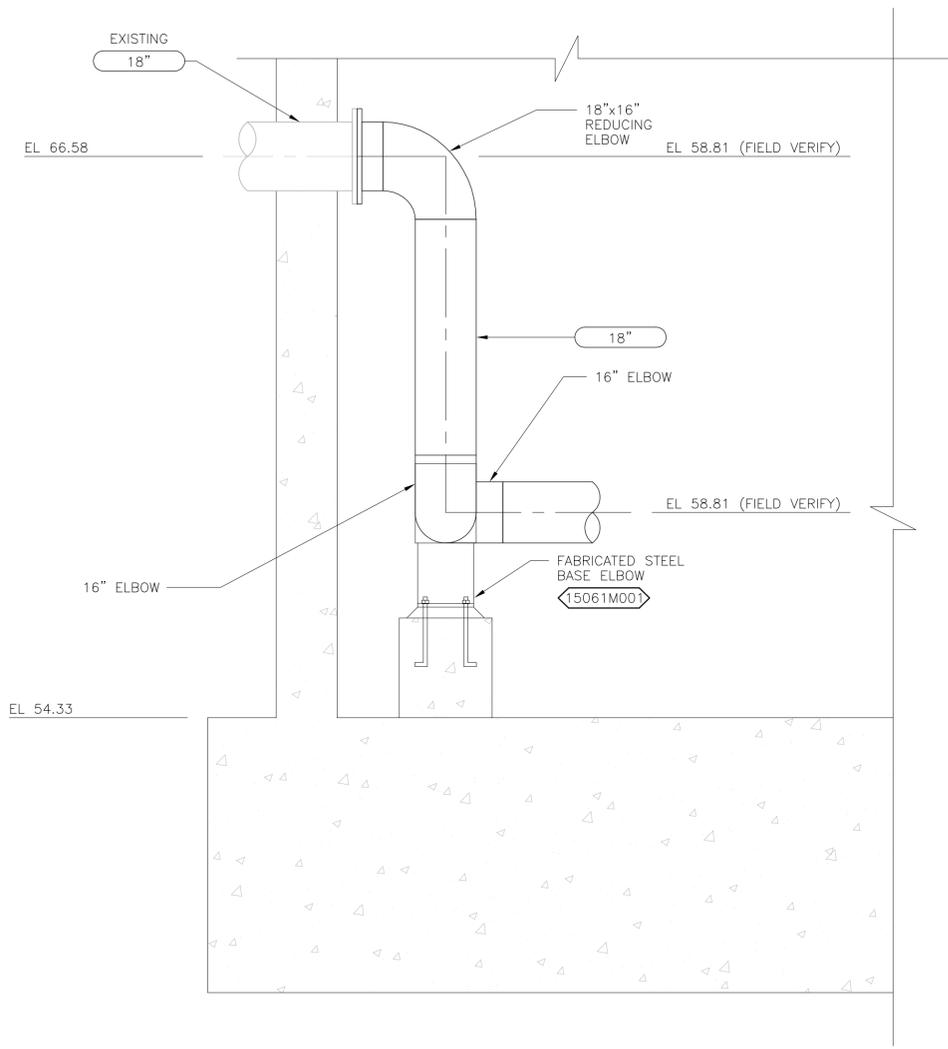
PROJECT MANAGER	WILLIAM F. ETLICH
DESIGNED	R. AGNEW
DESIGNED	J. YURCZYK
DRAWN	R. AGNEW
CHECKED	J. YURCZYK
DATE	
PROJECT NUMBER	10494-34038



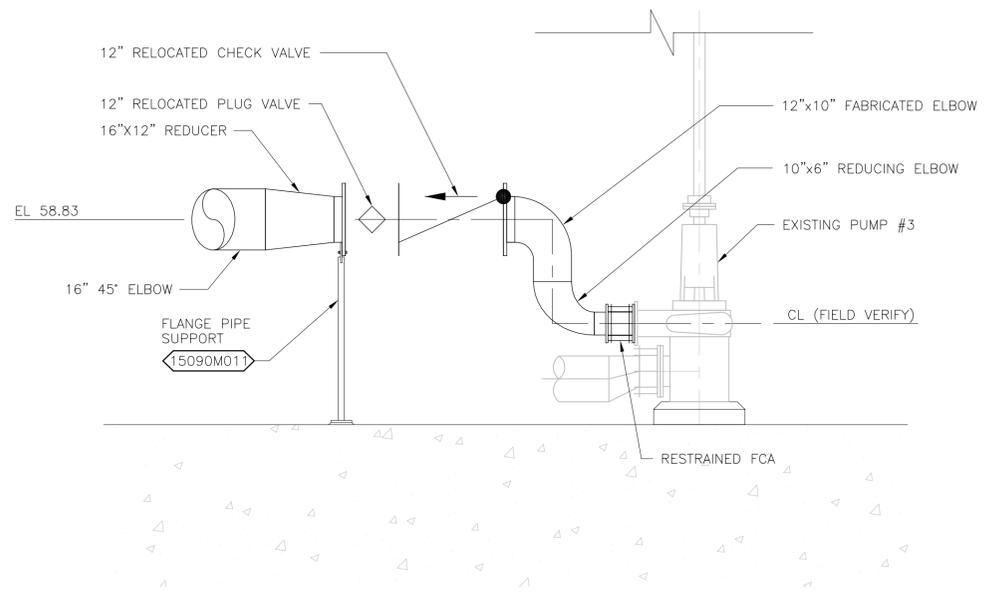
PROCESS PIPING SECTIONS I

0 1" 2"

FILENAME	34038-00P-02.dwg	SHEET	P02
SCALE	AS NOTED		



SECTION
1/4" = 1'-0"



SECTION
1/4" = 1'-0"

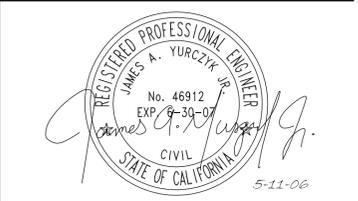


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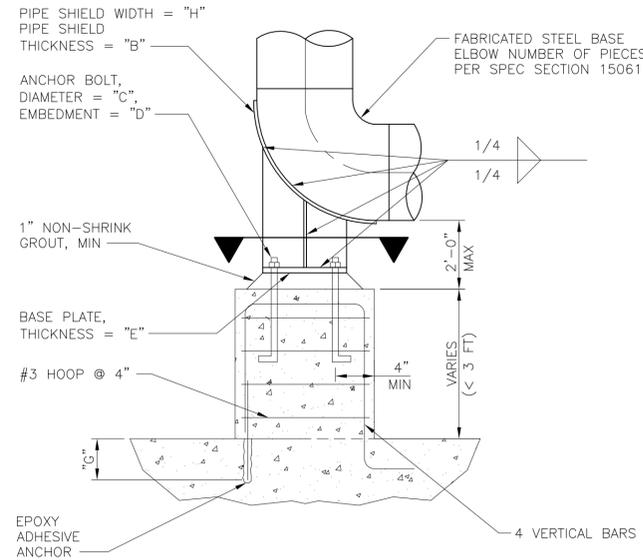
ISSUE	DATE	DESCRIPTION
A	5-11-06	ISSUED FOR BIDS

PROJECT MANAGER	WILLIAM F. ETLICH
DESIGNED	R. AGNEW
DESIGNED	J. YURCZYK
DRAWN	N. RIZZATO
CHECKED	J. YURCZYK
DATE	
PROJECT NUMBER	10494-34038

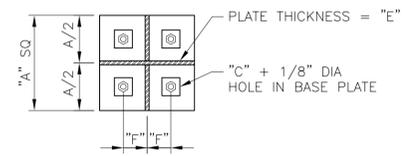


**PROCESS PIPING
SECTIONS II**

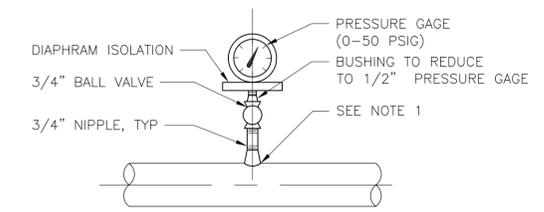
	FILENAME: 34038-00P-03.dwg SCALE: AS NOTED	SHEET P03
--	---	---------------------



PIPE SIZE	A	B	C	D	E	F	G	H
8"	6"	5/16"	1/2"	8"	1/2"	2"	5"	2"
10"	6"			8"		2"		2 1/2"
12"	8"		5/8"	10"	5/8"	2 7/8"		3"
14"	10"					3 7/8"		3 1/2"
16"	10"	3/8"				3 7/8"	7 1/2"	4"
18"	12"			12"		4 7/8"		4 1/2"



SECTION



NOTE:
 1. FOR STEEL AND STAINLESS STEEL PIPES 3" AND LARGER, AND PRESSURE VESSELS, USE THREAD-0-LET, OR EQUAL.

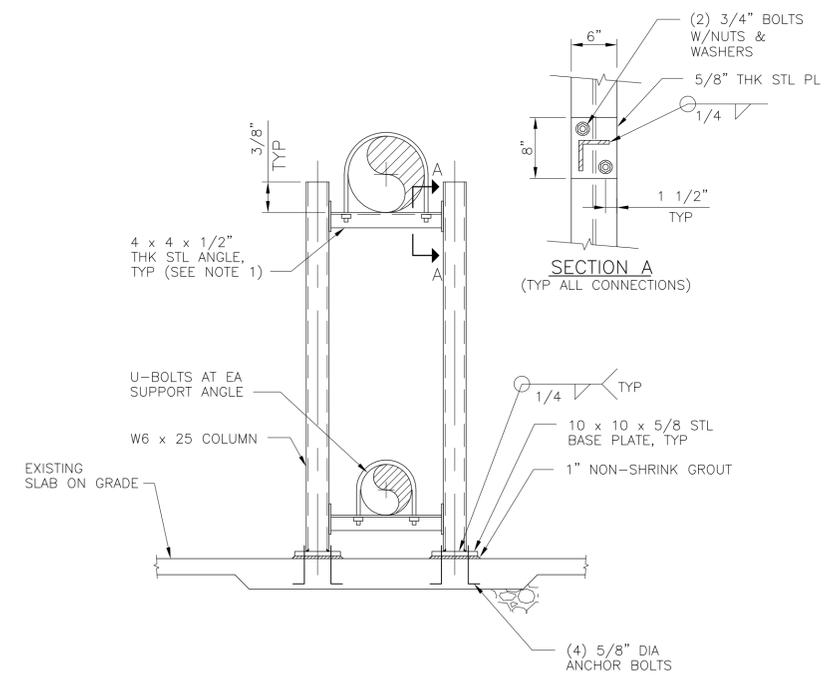
PRESSURE INDICATOR PG-3

NTS

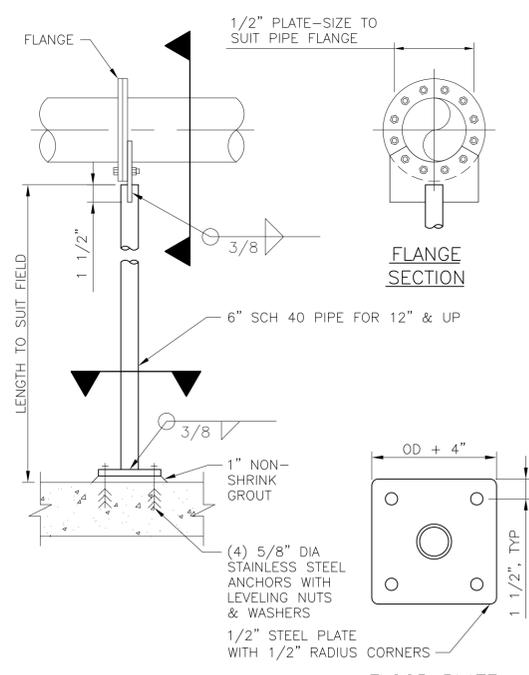
FABRICATED STEEL BASE ELBOW

NTS

15061M001



NOTES:
 1. CONTRACTOR TO ESTABLISH AND VERIFY SUPPORT ELEVATIONS IN FIELD.
 2. PIPING NUMBER/SIZES VARY, SEE FILTER AREA PLANS

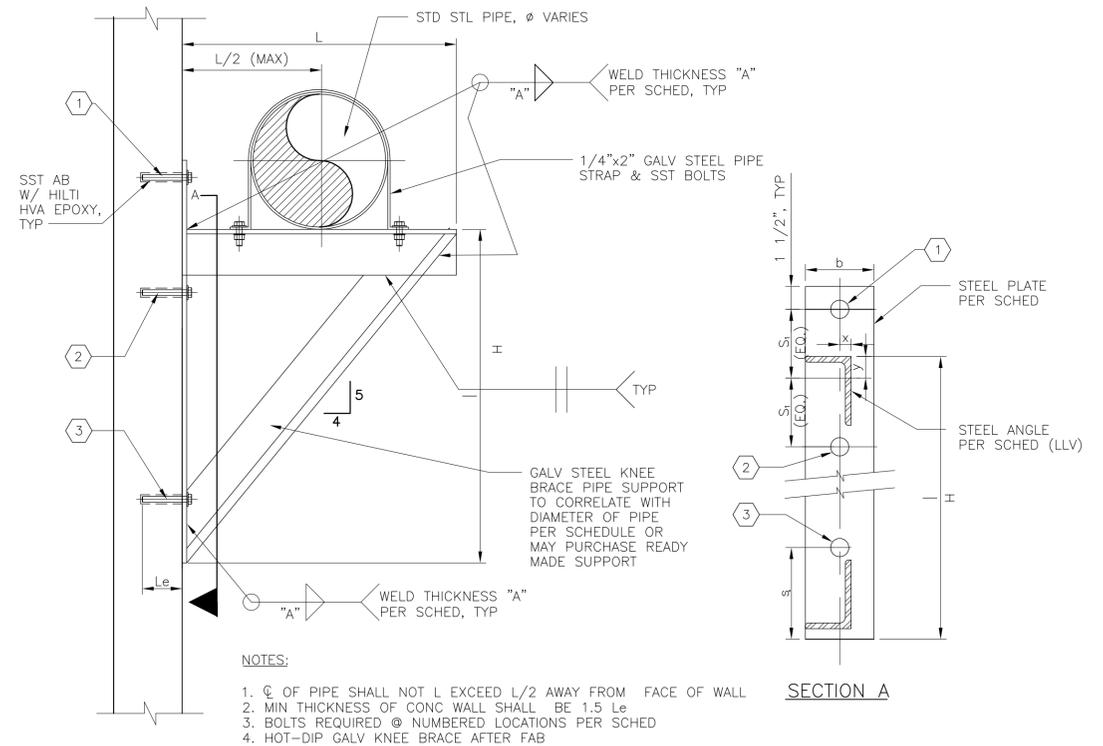


NOTE:
 1. NOT INTENDED FOR THRUST RESTRAINT.

FLANGE PIPE SUPPORT

NTS

15090M011



NOTES:
 1. Q. OF PIPE SHALL NOT EXCEED L/2 AWAY FROM FACE OF WALL
 2. MIN THICKNESS OF CONG WALL SHALL BE 1.5 Le
 3. BOLTS REQUIRED @ NUMBERED LOCATIONS PER SCHED
 4. HOT-DIP GALV KNEE BRACE AFTER FAB

PIPE ¹	KNEE BRACE PIPE SUPPORT SCHEDULE										ANCHOR BOLTS				
	KNEE BRACE SUPPORT ²		Angles ³					Plates ³			Ø (in)	Grade	Locations	L ⁴ (in)	
Ø (in)	SIZE	L (in)	H (in)	A (in)	x (in)	y (in)	t (in)	b (in)	s ₁ (in)	s ₂ (in)					s ₃ (in)
12 TO 16	L4x3x3/8	24	30	1/4	3/4	1 1/4	5/8	6	5	5	5	3/4	A304 SST	1, 2, 3	6%

1. STEEL FOR ANGLES AND PLATES SHALL BE A36 MINIMUM.
 2. EMBEDMENT LENGTH SHALL NOT VARY FROM THIS SCHEDULE.

PIPE SUPPORT FOOTING ON SLAB

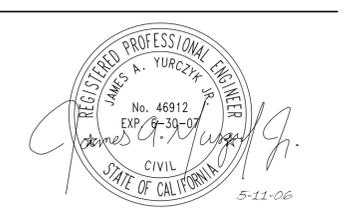
NTS

C P02



ISSUE	DATE	DESCRIPTION
A	5-11-06	ISSUED FOR BIDS

PROJECT MANAGER	WILLIAM F. ETLICH
DESIGNED	R. AGNEW
DESIGNED	J. YURCZYK
DRAWN	N. RIZZATO
CHECKED	J. YURCZYK
DATE	
PROJECT NUMBER	10494-34038



PROCESS PIPING DETAILS

0 1" 2"

FILENAME	34038-00P-04.dwg	SHEET	P04
SCALE	AS NOTED		

LOW VOLTAGE CIRCUIT BREAKER (CB).
RATINGS AND NO. OF POLES AS SHOWN.
WHEN SPECIFIC TYPE IS REQUIRED, X INDICATES TYPE.

TYPES:
MCCB - MOLDED CASE
ICCB - INSULATED CASE
LVP - LOW VOLTAGE POWER
MCP - MOTOR CIRCUIT PROTECTOR
(RATING PER CONNECTED LOAD)

SEPARATELY MOUNTED CIRCUIT BREAKER, SEE ELECTRICAL ONE LINE DIAGRAM OR SCHEDULE FOR DESCRIPTION

GROUND FAULT PROTECTION

MEDIUM VOLTAGE CIRCUIT BREAKER

FUSE, SIZE AND NUMBER OF FUSES AS NOTED

FUSED CUTOFF, CURRENT RATING, FUSE SIZE AND NUMBER OF POLES AS NOTED

FUSIBLE SWITCH, CURRENT RATING, FUSE SIZE AND QUANTITY AS NOTED

NON-FUSED SWITCH, CURRENT RATING AND NUMBER OF POLES AS NOTED

DISCONNECT OR DRAWOUT CONNECTION

MAGNETIC MOTOR STARTER AND SEPARATELY MOUNTED COMBINATION MAGNETIC MOTOR STARTER.

MOTOR CONTROLLER AND SEPARATELY MOUNTED MOTOR CONTROLLER WITH SHORT CIRCUIT PROTECTION AND DISCONNECT.

MOTOR STARTER AND CONTROLLER SUBSCRIPTS:
A - MAGNETIC STARTER NEMA SIZE
B - STARTER TYPE
NONE - FULL VOLTAGE NON-REVERSING (FVNR)
FVR - FULL VOLTAGE REVERSING
2S - TWO SPEED
RVAT - REDUCED VOLTAGE AUTO TRANSFORMER

C - CONTROL DIAGRAM OR CONTROLS SCHEDULE NUMBER (IF REQUIRED)

D - CONTROLLER TYPE
VFD - VARIABLE FREQUENCY DRIVE
SS - SOLID STATE

SEPERATLY MOUNTED COMBINATION MOTOR STARTER OR CONTROLLER, SEE ELECTRICAL ONE LINE DIAGRAM OR SCHEDULE FOR DESCRIPTION

THERMAL OVERLOAD ELEMENT

THERMAL OVERLOAD RELAY CONTACT

DISCONNECT OR SAFETY SWITCH, 30A, 3P, NON-FUSED UNLESS OTHERWISE NOTED

MOTOR WITH DESIGN HORSEPOWER (WHEN INDICATED)

GENERATOR

TRANSFER SWITCH, CURRENT RATING AND NUMBER OF POLES AS NOTED.

ATS - AUTOMATIC
MTS - MANUAL

TRANSFORMER

Δ 3 PHASE, 3 WIRE DELTA CONNECTION
Y 3 PHASE, 4 WIRE GROUNDED WYE CONNECTION

LP100 208/120V 3Ø, 4W

NON-MOTOR LOAD WITH DESIGN KVA, KW OR AMPS

CONTROL POWER TRANSFORMER (CPT)

VOLTAGE TRANSFORMER (VT OR PT)

CURRENT TRANSFORMER (CT)

UTILITY WATT-HOUR METER PER UTILITY REQUIREMENTS

DIGITAL METERING PACKAGE

RUN TIME METER

GROUND

LIGHTNING ARRESTER

LOW VOLTAGE SURGE PROTECTIVE DEVICE

ELECTRICAL CONNECTION

NO ELECTRICAL CONNECTION

SOLENOID VALVE

CONTROL/RELAY COIL, X INDICATES TYPE, Y INDICATES LOOP NO. WHEN USED

TYPES:
CR - CONTROL RELAY
DP - DEFINITE PURPOSE RELAY
LC - LIGHTING CONTACTOR
M - MOTOR STARTER
PC - PHOTO CELL
TC - TIME CLOCK
TR - TIMING RELAY

FIELD WIRING EXTERNAL TO CONTROL PANEL

INTERLOCK, X INDICATES TYPE

TYPES:
E - ELECTRICAL
M - MECHANICAL
K - KEY

3 POSITION SELECTOR SWITCH, MAINTAINED CONTACTS, UNLESS OTHERWISE NOTED, 2 POSITION SIMILAR

NORMALLY OPEN PUSHBUTTON, MOMENTARY CONTACT UNLESS OTHERWISE NOTED

NORMALLY CLOSED PUSHBUTTON, MOMENTARY CONTACT UNLESS OTHERWISE NOTED

INDICATING LIGHT, X INDICATES LENS COLOR

PUSH TO TEST INDICATING LIGHT, X INDICATES LENS COLOR

LENS COLORS:
R - RED Y - YELLOW
G - GREEN W - WHITE
B - BLUE A - AMBER

NORMALLY OPEN CONTACT (N.O.)

NORMALLY CLOSED CONTACT (N.C.)

NORMALLY OPEN TIME DELAY RELAY CONTACT, WITH TIME DELAY ON CLOSING AFTER COIL IS ENERGIZED

NORMALLY CLOSED TIME DELAY RELAY CONTACT, WITH TIME DELAY ON OPENING AFTER COIL IS ENERGIZED

NORMALLY OPEN TIME DELAY RELAY CONTACT, WITH TIME DELAY ON OPENING AFTER COIL IS DE-ENERGIZED

NORMALLY CLOSED TIME DELAY RELAY CONTACT, WITH TIME DELAY ON CLOSING AFTER COIL IS DE-ENERGIZED

NORMALLY OPEN TEMPERATURE SWITCH, CLOSE ON RISING TEMPERATURE

NORMALLY CLOSED TEMPERATURE SWITCH, OPEN ON RISING TEMPERATURE

NORMALLY OPEN FLOW SWITCH, CLOSE ON INCREASING FLOW

NORMALLY CLOSED FLOW SWITCH, OPEN ON INCREASING FLOW

NORMALLY OPEN LEVEL SWITCH, CLOSE ON RISING LEVEL

NORMALLY CLOSED LEVEL SWITCH, OPEN ON RISING LEVEL

NORMALLY OPEN PRESSURE SWITCH, CLOSE ON INCREASING PRESSURE

NORMALLY CLOSED PRESSURE SWITCH, OPEN ON INCREASING PRESSURE

NORMALLY OPEN LIMIT SWITCH, CLOSE ON REACHING LIMIT

NORMALLY CLOSED LIMIT SWITCH, OPEN ON REACHING LIMIT

TRANSFORMER

SELECTOR SWITCH

PUSHBUTTON

INSTRUMENTATION/CONTROL DEVICE

CONTROL PANEL INTEGRAL OR PROVIDED WITH ASSOCIATED EQUIPMENT

CONTROL PANEL WITH DISCONNECT SWITCH INTEGRAL OR PROVIDED WITH ASSOCIATED EQUIPMENT

JUNCTION OR PULL BOX

PANELBOARD (250V TO 600V)

PANELBOARD (LESS THAN 250V)

ELECTRICAL EQUIPMENT ENCLOSURE: SWITCHBOARD, MOTOR CONTROL CENTER, CONTROL PANEL OR OTHER EQUIPMENT AS INDICATED

SPECIAL PURPOSE RECEPTACLE AS DEFINED ON PLANS

PLUG-IN RECEPTACLE STRIP, QUANTITY AND SPACING OF RECEPTACLES AS NOTED OR SPECIFIED

TELECOMMUNICATIONS OUTLET JUNCTION BOX

QUAD-DUPLEX RECEPTACLE, TWO NEMA 5-20R UNDER COMMON COVER PLATE.

DUPLEX RECEPTACLE, NEMA 5-20R

SIMPLEX RECEPTACLE, NEMA 5-20R

SUBSCRIPTS:
X - INDICATES TYPE
GFCI - GROUND FAULT CIRCUIT INTERRUPTER
Y - INDICATES CIRCUIT NUMBER FROM PANELBOARD

PHOTOCELL

CEILING/PENDANT MOUNTED LUMINAIRE - HID, COMPACT FLUORESCENT OR INCANDESCENT

WALL MOUNTED LUMINAIRE - HID, COMPACT FLUORESCENT OR INCANDESCENT

CEILING/PENDANT MOUNTED FLUORESCENT FIXTURE

WALL MOUNTED FLUORESCENT FIXTURE

CEILING/PENDANT MOUNTED FLUORESCENT FIXTURE NORMAL/EMERGENCY

WALL MOUNTED FLUORESCENT FIXTURE NORMAL/EMERGENCY

EMERGENCY LIGHT FIXTURE, 2 ATTACHED HEADS AS SHOWN

EMERGENCY LIGHT, REMOTE MOUNTED HEAD

DOUBLE FACED CEILING OR WALL MOUNTED EXIT LIGHT, DIRECTIONAL ARROWS (IF REQUIRED) AS INDICATED ON PLANS

SINGLE FACED CEILING OR WALL MOUNTED EXIT LIGHT, DIRECTIONAL ARROWS (IF REQUIRED) AS INDICATED ON PLANS

AREA OR ROADWAY LIGHT - POLE MOUNTED

LIGHTING FIXTURE SUBSCRIPTS:
X - INDICATES FIXTURE TYPE PER LIGHTING FIXTURE SCHEDULE
Y - INDICATES CIRCUIT NUMBER FROM PANELBOARD
z - INDICATES CONTROLLING SWITCH (IF REQUIRED)

TOGGLE SWITCH

SUBSCRIPTS:
X - INDICATES TYPE
NONE NONE - SINGLE POLE
3 - THREE-WAY
4 - FOUR-WAY
HP - TOGGLE SWITCH, HORSEPOWER RATED
K - KEY SWITCH
TE - MANUAL MOTOR STARTER WITH THERMAL ELEMENT
P - PILOT LIGHT
L - LIGHTED HANDLE
Y - INDICATES CONTROLLING SWITCH (IF REQUIRED)

FIRE ALARM ANNUNCIATOR

FIRE ALARM CONTROL PANEL

FIRE ALARM MANUAL PULL STATION

FIRE ALARM CONTROL RELAY

FIRE ALARM CONTACT, FLOW SWITCH

FIRE ALARM CONTACT, TAMPER SWITCH

FIRE ALARM CONTACT, PRESSURE SWITCH

SMOKE AND DUCT DETECTOR

HEAT DETECTOR

R/C - RATE COMPENSATION
R/F - COMBINATION RATE OF RISE AND FIXED TEMP
R - RATE OF RISE
F - FIXED

ALARM BELL

ALARM HORN

ALARM FLASHING LIGHT

ALARM BELL AND FLASHING LIGHT COMBINATION UNIT

ALARM HORN AND FLASHING LIGHT COMBINATION UNIT

SUBSCRIPT:
NONE - GENERAL ALARM DEVICE
F - FIRE ALARM DEVICE

CONDUIT TURNING UP

CONDUIT TURNING DOWN

HOME RUN TO PANEL, 2 #12, 1 #12G IN 3/4" UNLESS OTHERWISE NOTED

CIRCUIT RUN BETWEEN DEVICES EXPOSED IN NON-ARCHITECTURALLY FINISHED AREAS, CONCEALED IN ARCHITECTURALLY FINISHED AREAS. CONDUIT AND CONDUCTOR SIZES SHALL BE THE SAME AS THE HOMERUN FOR THE CIRCUIT

CONDUIT RUN BETWEEN DEVICES CONCEALED IN NON-ARCHITECTURALLY FINISHED AREAS OR UNDER FLOOR SLAB. CONDUIT AND CONDUCTOR SIZES SHALL BE THE SAME AS THE HOMERUN FOR THE CIRCUIT.

CIRCUIT HASH MARKS (WHEN INDICATED), LONG, SHORT, SINGLE DOT AND DOUBLE DOT REPRESENT PHASE, NEUTRAL, EQUIPMENT GROUND AND ISOLATED EQUIPMENT GROUND RESPECTIVELY. #12 IN 3/4" CONDUIT UNLESS OTHERWISE INDICATED

CIRCUIT CONTINUATION

CONDUIT STUBBED OUT AND CAPPED

CONDUIT TAG OR CIRCUIT NUMBER - WIRE AND CONDUIT SIZE AS SPECIFIED IN CIRCUIT SCHEDULE ON THE DRAWINGS

GROUND CABLE

GROUND ROD

EXTERIOR PADMOUNTED TRANSFORMER

POLE MOUNTED TRANSFORMER

ELECTRICAL HANDHOLE OR MANHOLE
Y - MHX OR HHX WHERE X INDICATES SEQUENCE NUMBER

UNDERGROUND ELECTRICAL DUCTBANK

EXISTING UNDERGROUND ELECTRICAL DUCTBANK

GENERAL NOTES:

- THIS IS A STANDARD ELECTRICAL SYMBOLS SHEET. ALL SYMBOLS MAY NOT BE USED ON THIS PROJECT.
- IN GENERAL CONDUIT ROUTING IS NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ROUTING ALL CONDUITS INCLUDING THOSE SHOWN ON ONE-LINES AND HOME RUNS. SEE SPECIFICATIONS FOR CONDUIT INSTALLATION REQUIREMENTS. CONDUIT ROUTINGS AND STUB-UP LOCATIONS THAT ARE SHOWN ARE APPROXIMATE, EXACT ROUTINGS SHALL BE AS REQUIRED FOR EQUIPMENT FURNISHED.
- WHEN BRANCH CIRCUITS ARE NOT SHOWN ON THE PLANS THE CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUITS AND CONDUCTORS REQUIRED. CONDUIT AND CONDUCTOR SIZES SHALL BE THE SAME AS THE HOMERUN FOR THE BRANCH CIRCUIT.
- SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH DRAWING FOR USAGE.
- SEE PROJECT EQUIPMENT AND PIPING SYSTEMS DRAWING FOR SYMBOLS AND ABBREVIATIONS SPECIFIC TO THE PROJECT.
- CONDUITS SHALL BE INSTALLED IMBEDDED IN WALLS OR CONCRETE UNLESS OTHERWISE NOTED.
- WIRING TO BE 3/4" C-2#12, 1#12G UNLESS OTHERWISE NOTED.
- ALL WORK SHOWN IS TO BE UNDER THIS CONTRACT UNLESS SHOWN AS EXISTING OR OTHERWISE NOTED.

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ISSUE	DATE	DESCRIPTION
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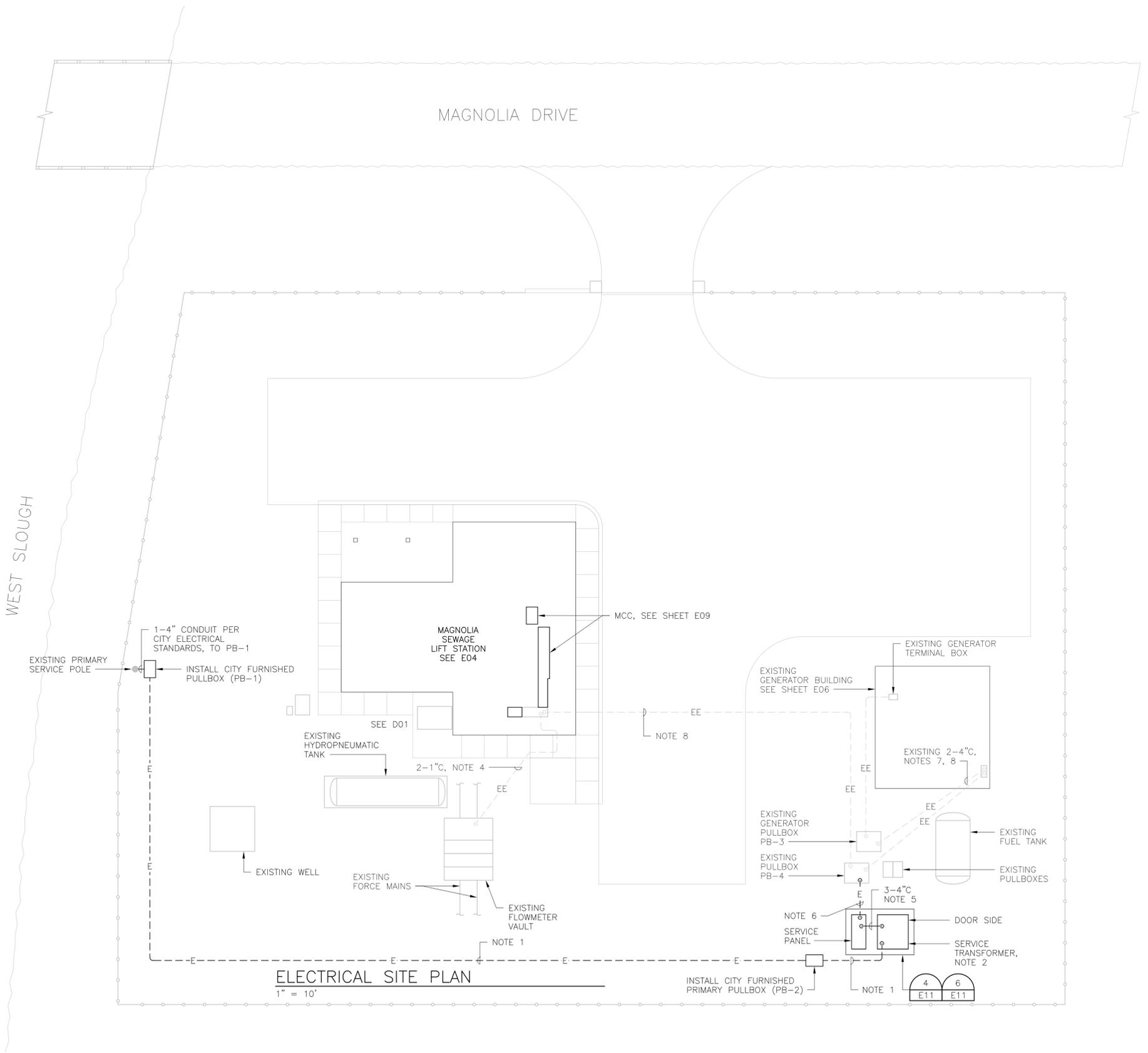
PROJECT MANAGER	WILLIAM F. ETTLICH
DESIGNED	W. ETTLICH
DESIGNED	R.J. GONZALVO
CHECKED	W. ETTLICH
DATE	
PROJECT NUMBER	10494-34038



ELECTRICAL SYMBOLS LEGEND

0 1" 2"

FILENAME	34038-00E-01.dwg	SHEET	E01
SCALE	NONE		



- NOTES:**
1. INSTALL 2-4" UNDERGROUND, SAND ENCASED PRIMARY CONDUITS FROM PULLBOX PB-1 TO SERVICE TRANSFORMER IN ACCORDANCE WITH CITY STANDARDS. CITY WILL FURNISH, INSTALL, CONNECT AND TEST THE PRIMARY CONDUCTORS.
 2. CONTRACTOR TO INSTALL TRANSFORMER PAD PER DETAIL ON SHEET E11. CITY WILL FURNISH AND INSTALL TRANSFORMER, PRIMARY CONDUCTORS AND SECONDARY CONDUCTORS. SEE SEQUENCE OF CONSTRUCTION OUTLINED IN SPEC SECTION 16010 AND CONSTRUCTION LIMITATIONS OUTLINED IN SECTION 12-1.02.
 3. PRIMARY AND SECONDARY CONDUITS TO BE SAND ENCASED, ALL OTHER UNDERGROUND CONDUIT TO BE CONCRETE ENCASED.
 4. RELOCATE EXISTING FLOWMETER TRANSMITTERS FROM EXISTING FLOWMETER VAULT. SEE SHEET E04 FOR NEW LOCATION.
 5. INSTALL 3-4" UNDERGROUND, SAND ENCASED CONDUITS IN ACCORDANCE WITH CITY STANDARDS. CITY WILL FURNISH, INSTALL, CONNECT AND TEST THE SECONDARY CONDUCTORS.
 6. 2-4"C FROM SERVICE PANEL INTO EXISTING PULLBOX. EACH WITH 3#350KCMIL, 1#3/ON, 1#1/OG TO EXISTING ATS AND CONNECT TO ATS.
 7. PULL 3#350KCMIL, 1#3/ON, 1#1/OG IN EACH OF 2 SPARE 4" CONDUITS TO ATS. CONNECT NEUTRAL TO GENERATOR NEUTRAL IN ATS AND GROUND TO ATS GROUND.
 8. PULL 3#350KCMIL FROM ATS TO DP-1 IN EACH OF 2 EXISTING 3" CONDUITS AND MAKE CONNECTIONS.

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PROJECT MANAGER	WILLIAM F. ETLICH
DESIGNED	W. ETLICH
DESIGNED	J. SMITH
DRAWN	R.J. GONZALVO
CHECKED	W. ETLICH
DATE	
PROJECT NUMBER	10494-34038

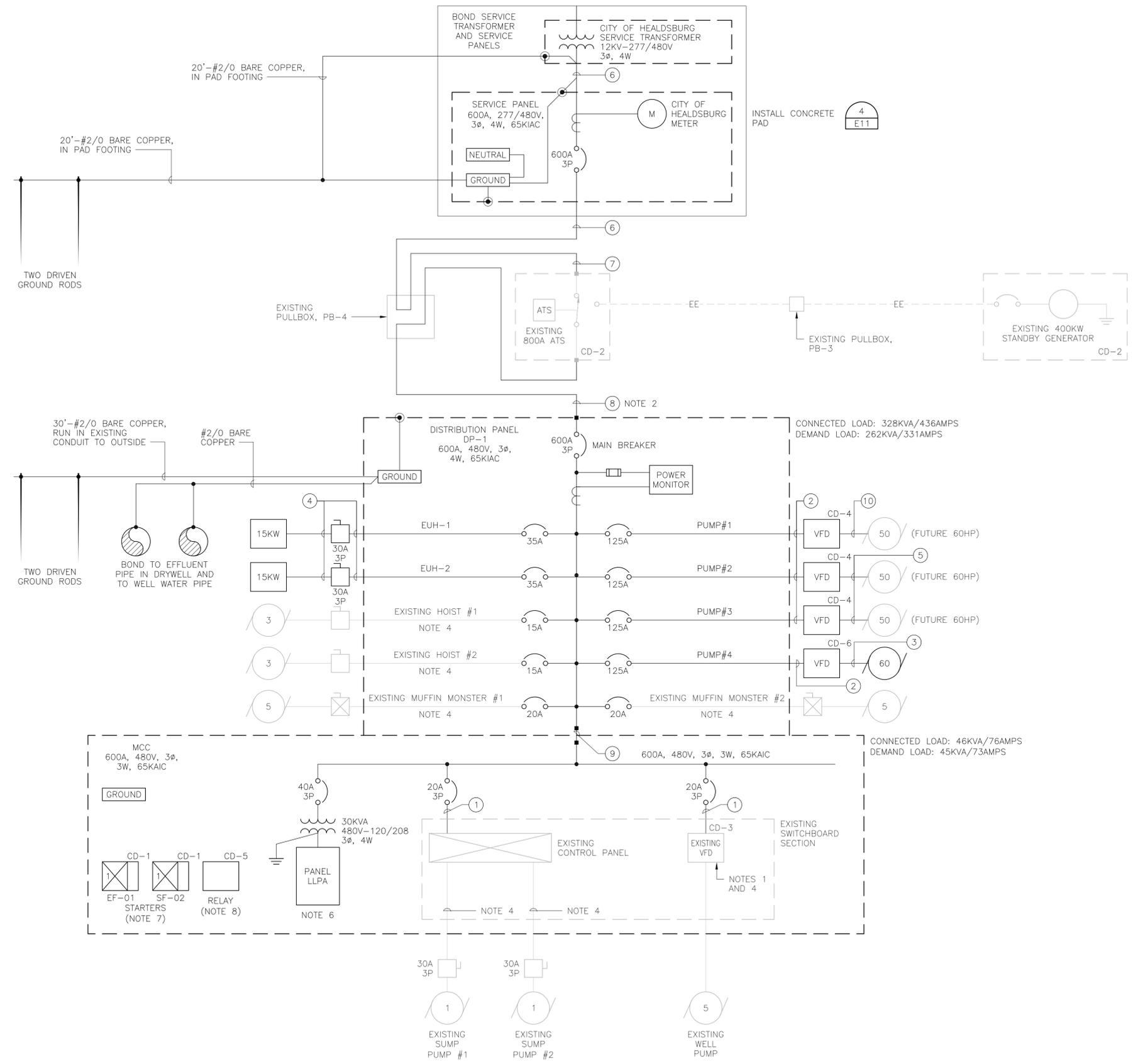


ELECTRICAL SITE PLAN

SCALE 1" = 10'

FILENAME 34038-00E-02.dwg

SHEET **E02**



NOTES:

- EXISTING VFD AND SUMP PUMP PANEL TO REMAIN IN EXISTING COMPARTMENT AND CONNECT TO BREAKER AND EXISTING POWER AND CONTROL WIRING.
- CONNECT TO DISTRIBUTION PANEL BUS.
- SEE SEQUENCE OF CONSTRUCTION, SPEC SECTION 16010.
- EXTEND EXISTING WIRES WITHIN MCC AND CONNECT TO STARTER OR BREAKER.
- PRIMARY AND SECONDARY SERVICE CONDUITS AND PULLBOXES TO BE IN ACCORDANCE WITH CITY STANDARDS.
- BEFORE REMOVAL OF SWITCHBOARD OR MCC, IDENTIFY AND MARK ALL WIRES. EXTEND EXISTING WIRES AND CONNECT TO FEEDER BREAKER, VFD'S, STARTER OR LLPA IN REPLACEMENT EQUIPMENT.
- MOUNT BOTH STARTERS IN ONE SECTION OF MCC WITH DOOR. INSTALL DOOR NAMEPLATE READING: "EF-01 AND SF-02 STARTERS (DISCONNECT IS IN LLPA)". INSTALL RUN/OFF SWITCHES ON DOOR WITH RUN/OFF LEGEND PLATE AND NAMEPLATE UNDER EACH SWITCH "EF-01" AND "SF-02".
- MOUNT PROBE RELAY IN MCC SECTION WITH NAMEPLATE READING: "DRYWELL FLOODING PROBE RELAY" ON COVER.

CONDUIT AND WIRING LEGEND

- ① 3#12, 1#12G
- ② 1 1/4"C-3#3, 1#6G
- ③ MOTOR POWER AND CONTROL CABLE, SEE E05
- ④ 3/4"C-3#10, 1#10G
- ⑤ EXISTING WIRING, NOTE 4
- ⑥ (2) 4"C-EACH WITH 3#350KCMIL, 1#3/ON, 1#1/OG
- ⑦ PULL 3#350KCMIL, 1#3/ON, 1#1/OG INTO EACH OF 2 EXISTING 4"C
- ⑧ PULL 3#350KCMIL, 1#3/ON, 1#1/OG, 12#14 INTO EACH OF 2 EXISTING 4"C
- ⑨ 2#350KCMIL/Ø, 1#1/OG
- ⑩ SEE E-09, CONNECT TO EXISTING MOTOR LEADS AND MARK

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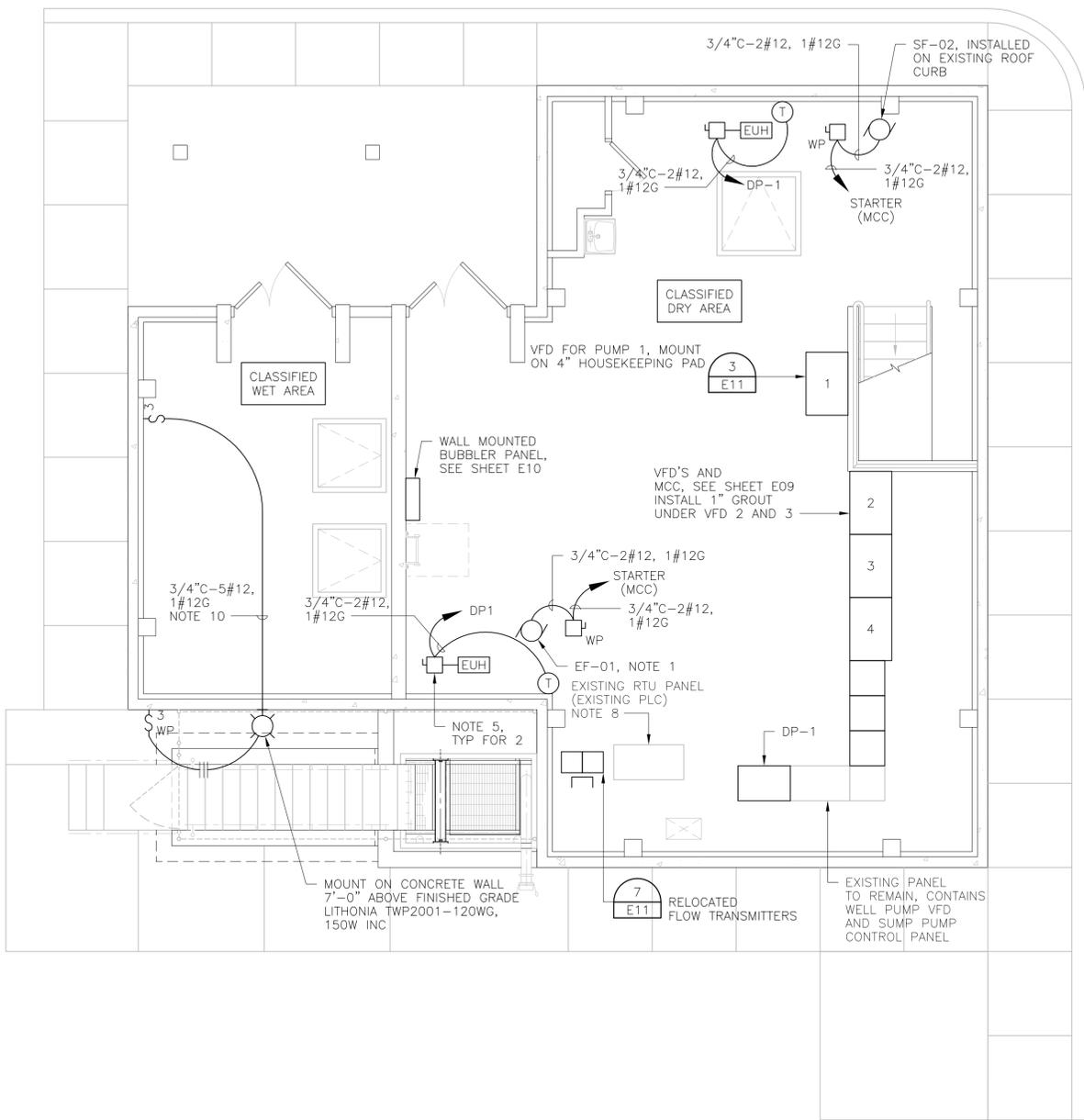
PROJECT MANAGER	WILLIAM F. ETTLICH
DESIGNED	W. ETTLICH
DESIGNED	J. SMITH
DRAWN	R.J. GONZALVO
CHECKED	W. ETTLICH
DATE	
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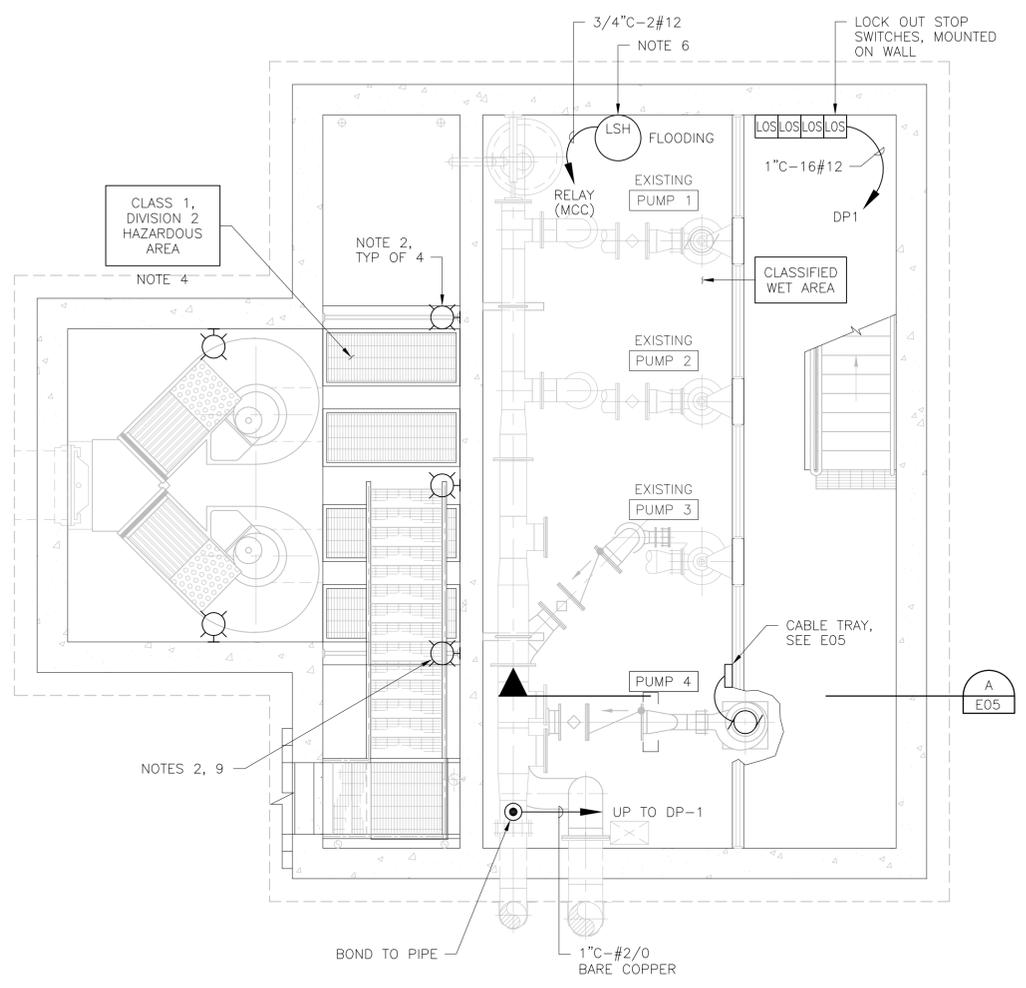
SINGLE LINE DIAGRAM

0 1" 2"

FILENAME	34038-00E-03.dwg	SHEET	E03
SCALE	NONE		



FIRST FLOOR
ELECTRICAL POWER PLAN
1/4" = 1'-0"



WETWELL/DRYWELL
ELECTRICAL POWER/LIGHTING PLAN
1/4" = 1'-0"

NOTES:

1. INSTALL GRAINGER 4HZ57 DRYWELL EXHAUST FAN ON EXISTING ROOF CURB (RELOCATED FROM PREVIOUS LOCATION, SEE SHEET D02).
2. INSTALL CROUSE-HINDS EVBX, 10 SERIES, 200W INC, 120V, WALL MOUNTED LIGHT FIXTURES. CONNECT TO EXISTING WIRING.
3. CONDUIT AND WIRE NOT SHOWN FOR LIGHTING AND ASSOCIATED SWITCH(ES). CONTRACTOR TO (RE)CONNECT WIRING TO ACCOMPLISH CIRCUITRY SHOWN.
4. WETWELL IS CLASS 1, DIVISION 1 HAZARDOUS AREA. ALL CONDUIT AND PENETRATIONS THROUGH WETWELL WALLS SHALL BE SEALED.
5. WALL MOUNT DISCONNECTS AND THERMOSTATS FOR ELECTRIC UNIT HEATERS.
6. WALL MOUNT PROBE APPROXIMATELY 6" ABOVE FLOOR.
7. EQUIPMENT CONDUIT AND WIRE SHOWN ON E03.
8. INSTALL 1" GROUT UNDER EXISTING RTU PANEL.
9. REMOVE EXISTING FIXTURE. INSTALL BOX AND EXTEND CONDUIT AND WIRE TO FIXTURE MOUNTED 15 FEET ABOVE FLOOR.
10. RUN 3/4" C-5 #12, 1#12G THROUGH CONCRETE WALL AND APPROXIMATELY 30' TO EXISTING WETWELL LIGHT SWITCH. INSTALL 3 WAY SWITCH TO REPLACE EXISTING. WIRE FOR 3 WAY CONTROL.

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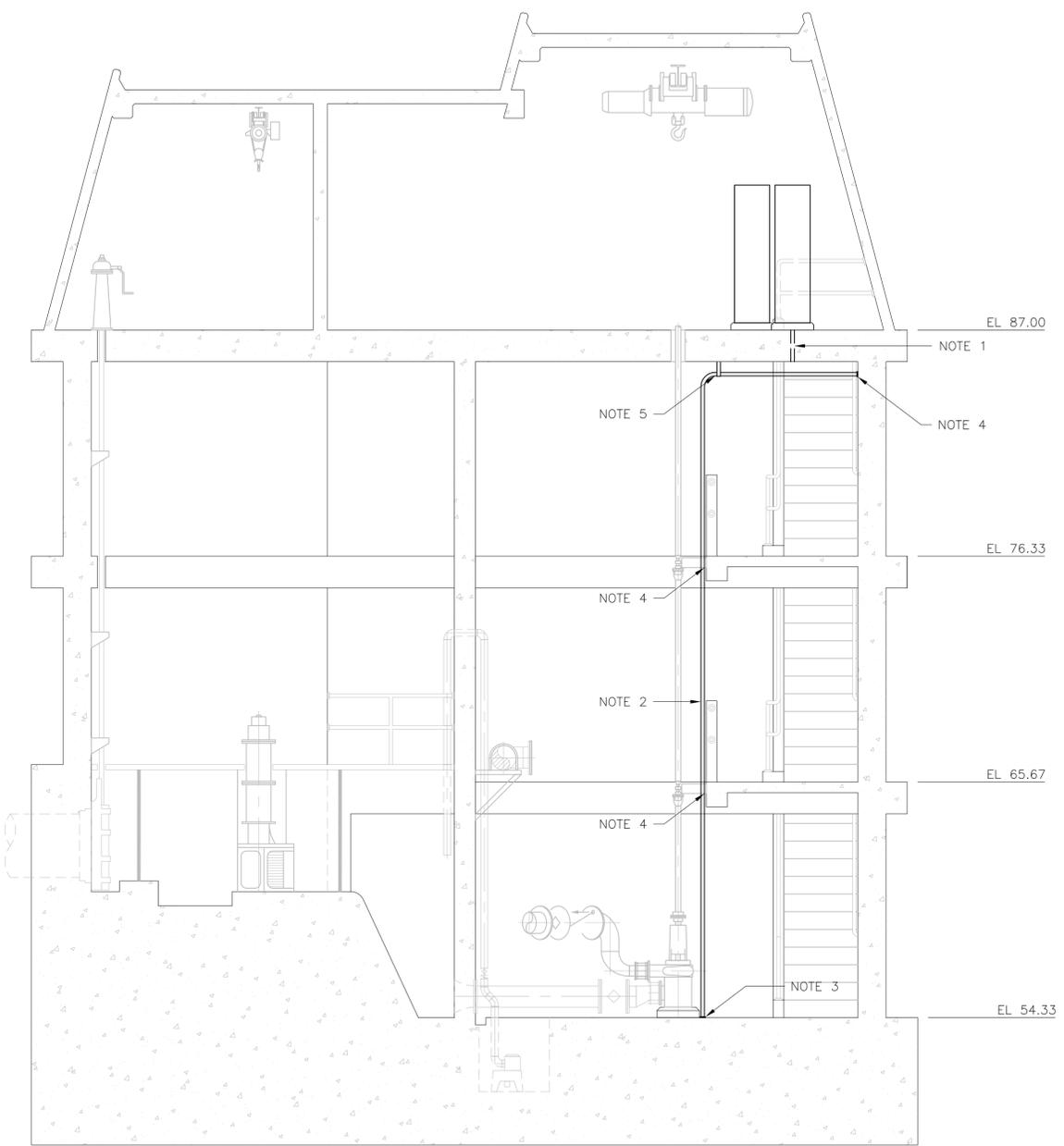
PROJECT MANAGER	WILLIAM F. ETTLICH
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DATE	
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**FIRST FLOOR AND BASEMENT
ELECTRICAL POWER PLANS**

0 1" 2"

FILENAME	34038-00E-04.dwg	SHEET	E04
SCALE	1/4" = 1'-0"		



- NOTES:**
1. CORE DRILL HOLES IN FLOOR UNDER VFD #4 FOR SUBMERSIBLE PUMP CABLES.
 2. 12" ALUMINUM LADDER TYPE CABLE TRAY, ROUTE POWER AND CONTROL ON SEPARATE SIDES UP TO VFD.
 3. ANCHOR TO FLOOR WITH (2) 1/2" CONCRETE ANCHORS WITH 2" GROUT BETWEEN FLOOR AND BOTTOM OF TRAY.
 4. ANCHOR TRAY TO CONCRETE WITH (2) 1/2" CONCRETE ANCHORS.
 5. ANCHOR TRAY TO CONCRETE DECK WITH BRACKET AND (2) 1/2" CONCRETE ANCHORS.

ELECTRICAL SECTION
1/4" = 1'-0"



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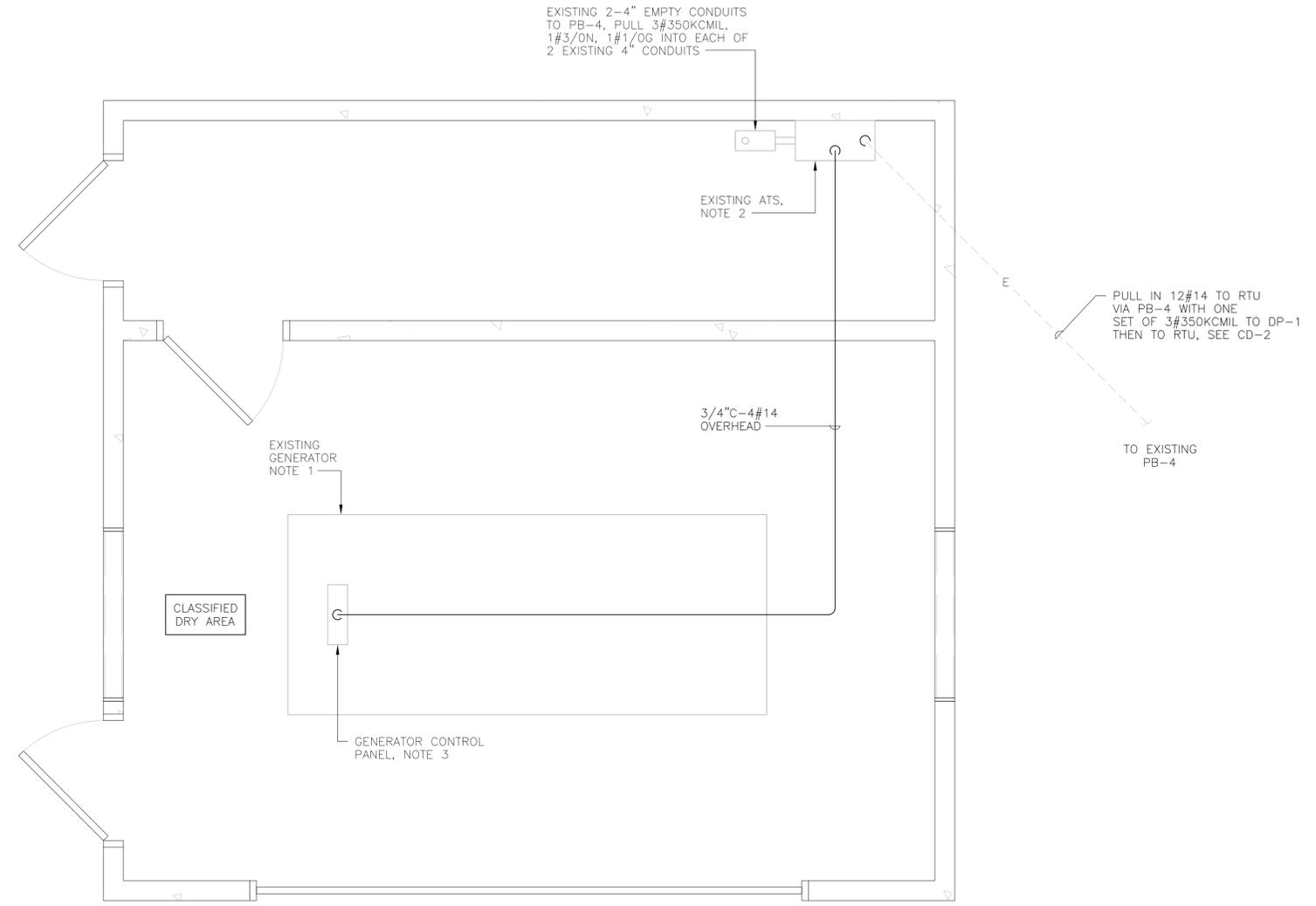
PROJECT MANAGER	WILLIAM F. ETLICH
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LIFT STATION ELECTRICAL SECTION

FILENAME	34038-00E-05.dwg
SCALE	1/4" = 1'-0"

SHEET	E05
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NOTES:

- 1. EXISTING GENERATOR IS 500KVA, 400KW.
- 2. CONNECT CONTROL WIRES TO EXISTING AUXILIARY SWITCHES ON ATS.
- 3. CONNECT CONTROL FOR EXISTING GENERATOR RUN AND COMMON FAIL CONTACTS. INSTALL RELAY IN CONTROL PANEL FOR EACH SIGNAL, SEE CD-2 ON SHEET E07.
- 4. PULL EXISTING 6#350KCMIL OUT OF EXISTING CONDUIT FROM PB-4 TO LIFT STATION. PULL IN 8#16 TO RTU.

GENERATOR BUILDING
ELECTRICAL POWER PLAN
1/2" = 1'-0"

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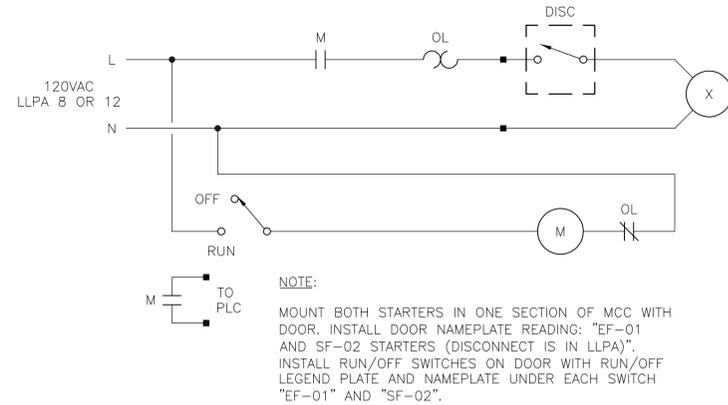


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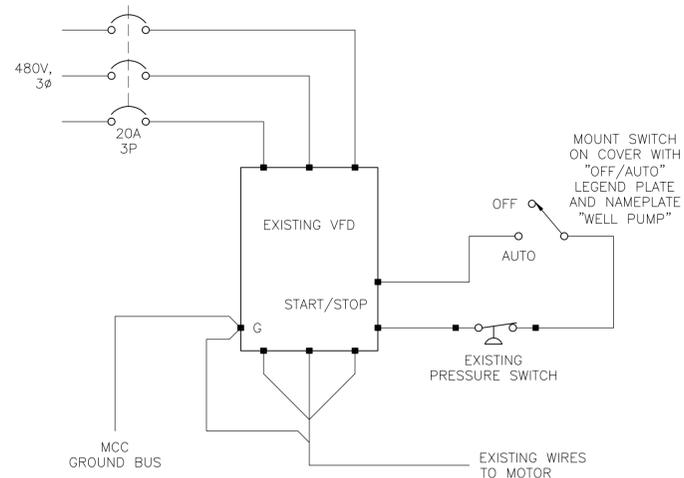


GENERATOR BUILDING ELECTRICAL POWER PLAN			FILENAME	34038-00E-06.dwg	SHEET E06
			SCALE	1/2" = 1'-0"	



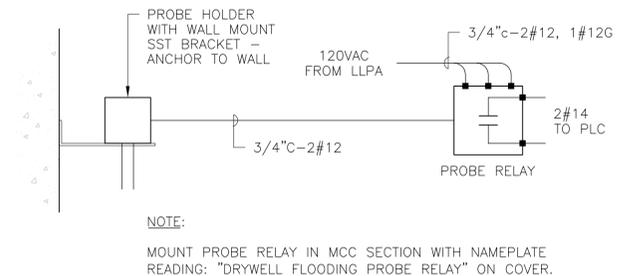
CD-1: VENTILATION FAN

TYPICAL FOR EF-01 (X=1/4HP) AND SF-02 (X=3/4HP)

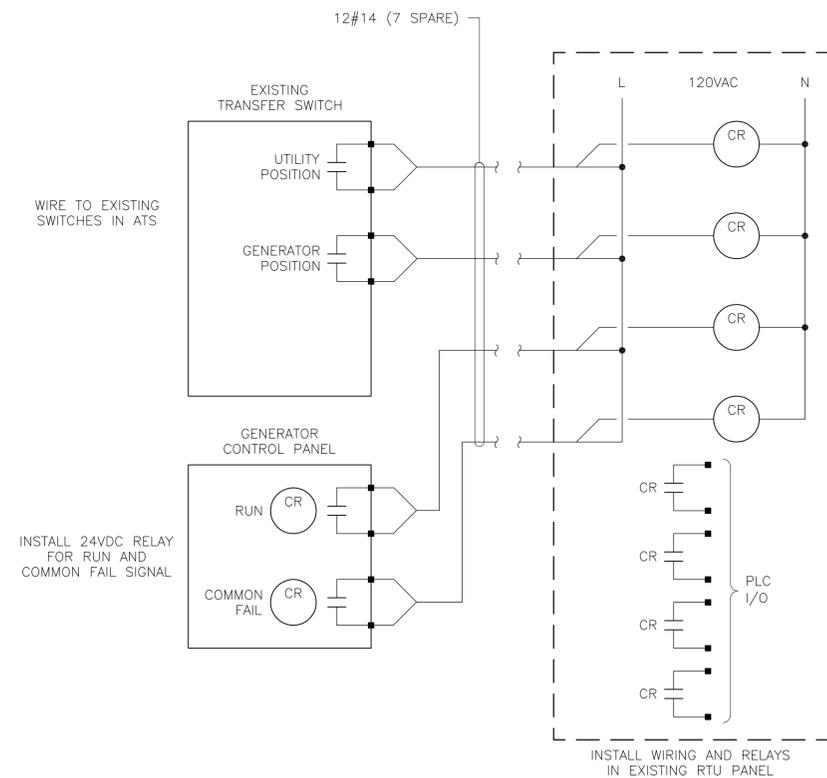


CD-3: WELL PUMP

INSTALL "WELL PUMP" NAMEPLATE ON COVER

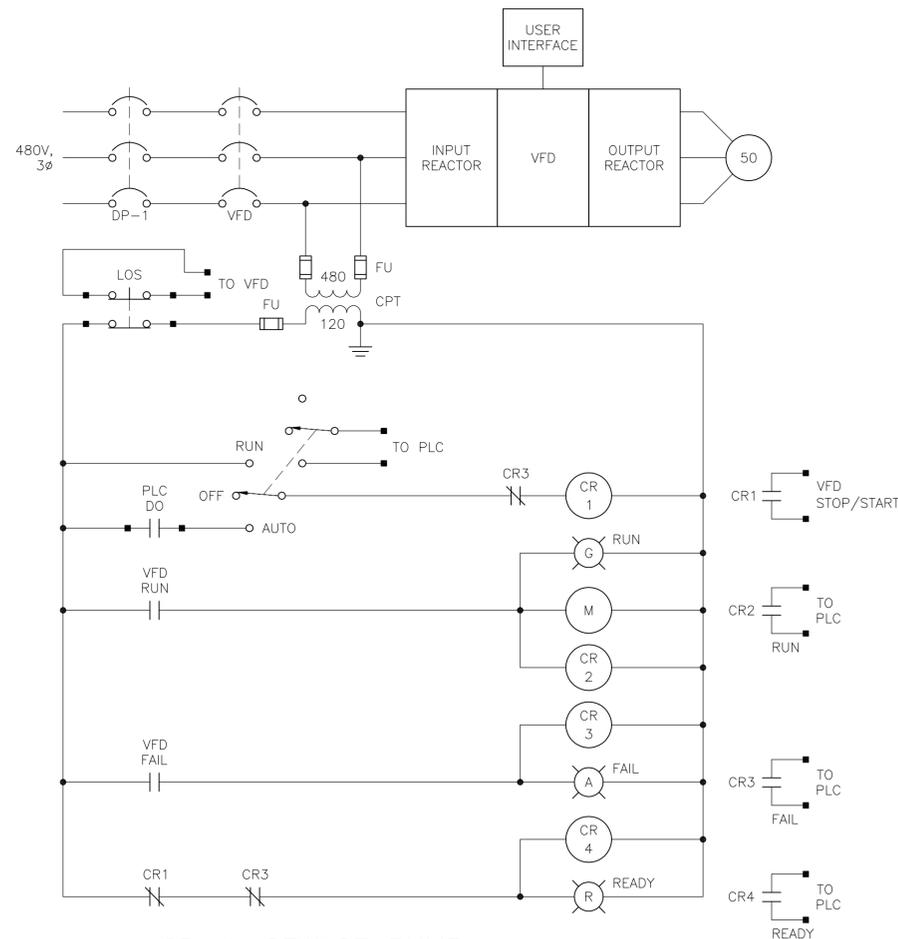


CD-5: DRYWELL FLOODING ALARM



CD-2: EXISTING STANDBY GENERATOR

GROUND AND MARK SPARE WIRES AT BOTH ENDS (ATS AND RTU)



CD-4: SEWAGE PUMP

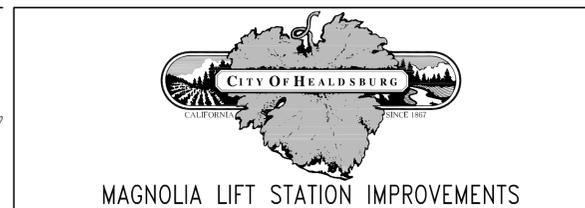
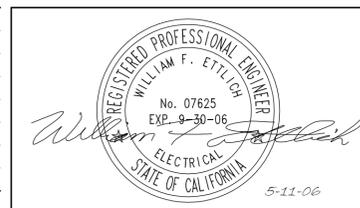
TYPICAL FOR PUMPS 1, 2 AND 3

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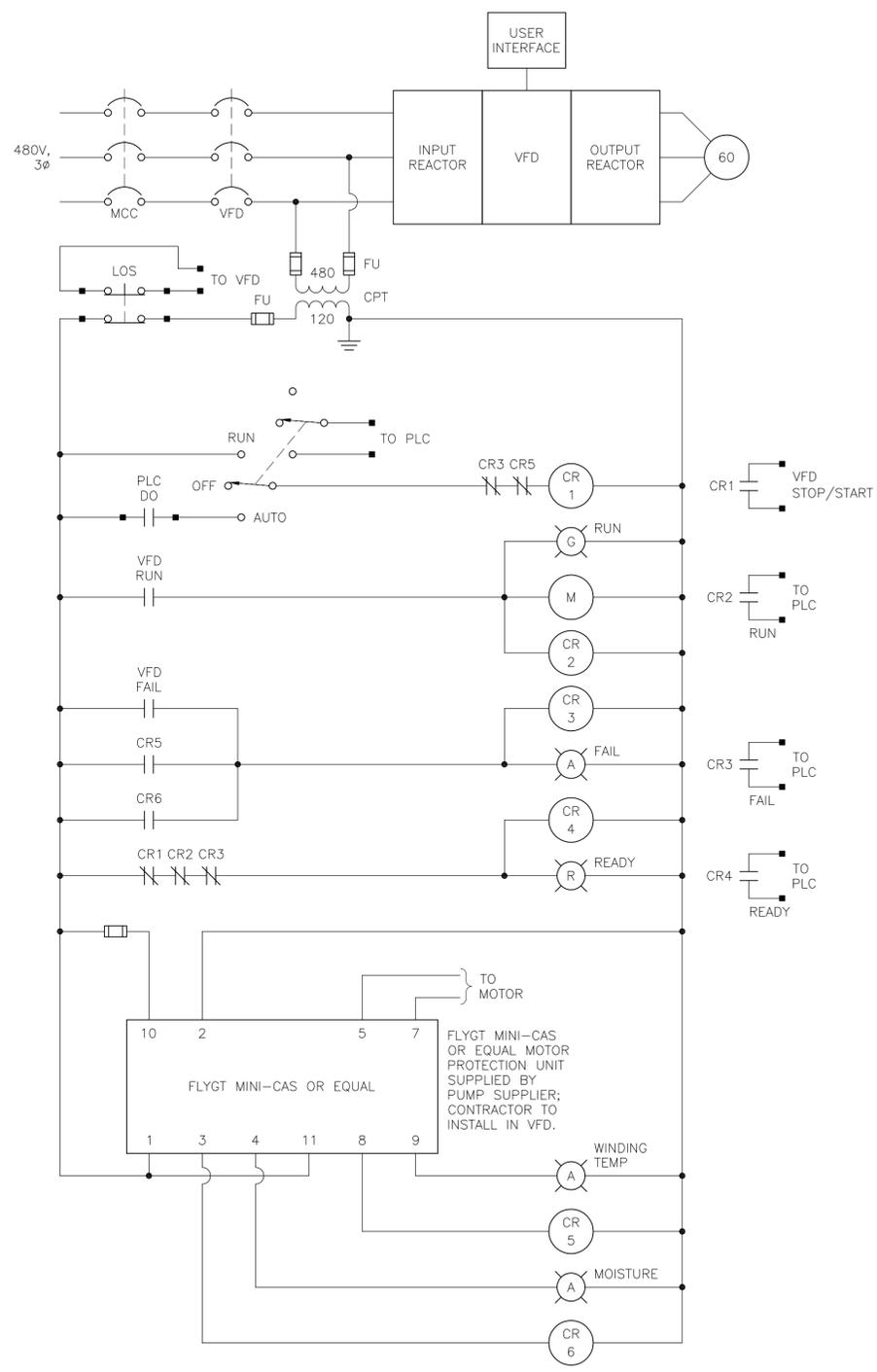
PROJECT MANAGER	WILLIAM F. ETLICH
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PROJECT NUMBER	10494-34038



CONTROL DIAGRAMS I

0 1" 2"

FILENAME	34038-00E-07.dwg	SHEET	E07
SCALE	NOT TO SCALE		



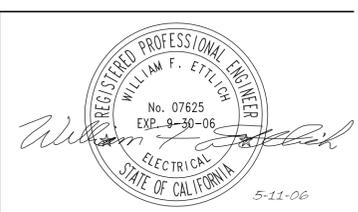
CD-6: SEWAGE PUMP
TYPICAL FOR PUMP 4

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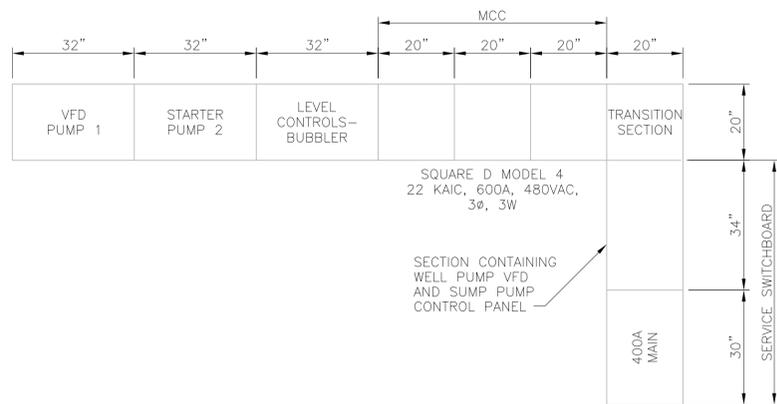


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PROJECT MANAGER	WILLIAM F. ETTLICH
DESIGNED	W. ETTLICH
DRAWN	R.-J. GONZALVO
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PROJECT NUMBER	10494-34038

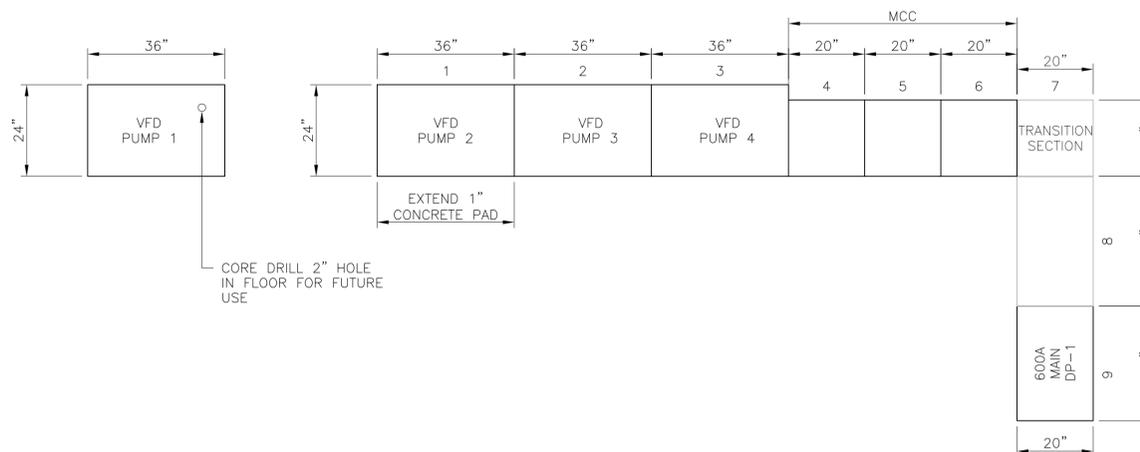


CONTROL DIAGRAMS II			FILENAME	34038-00E-08.dwg	SHEET E08
			SCALE	NOT TO SCALE	



EXISTING SWITCHBOARD AND MCC LAYOUT

1/2" = 1'-0"

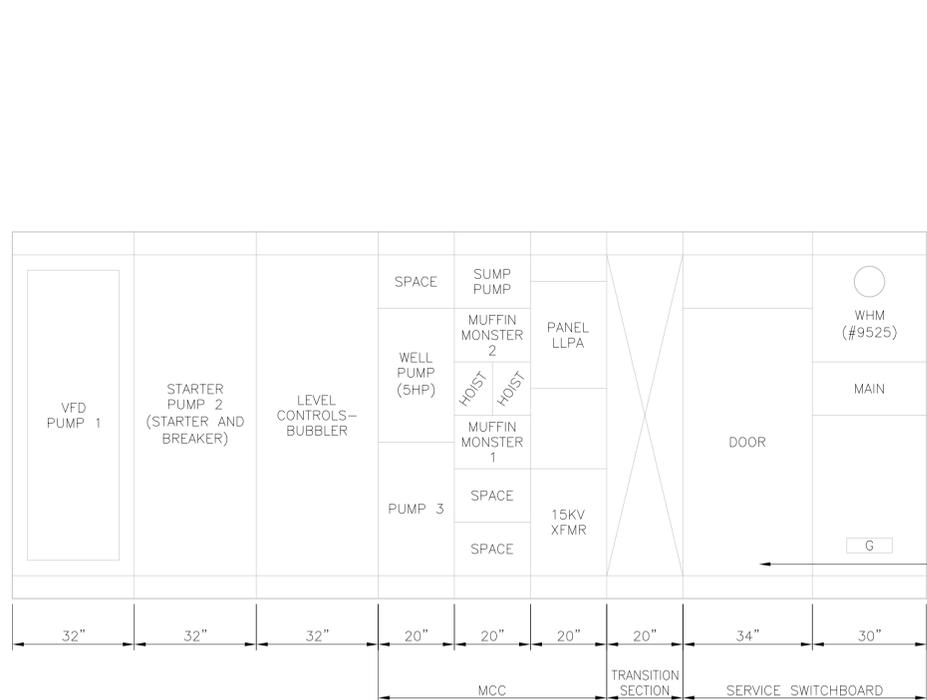


DISTRIBUTION PANEL DP-1, VFD AND MCC LAYOUT

1/2" = 1'-0"

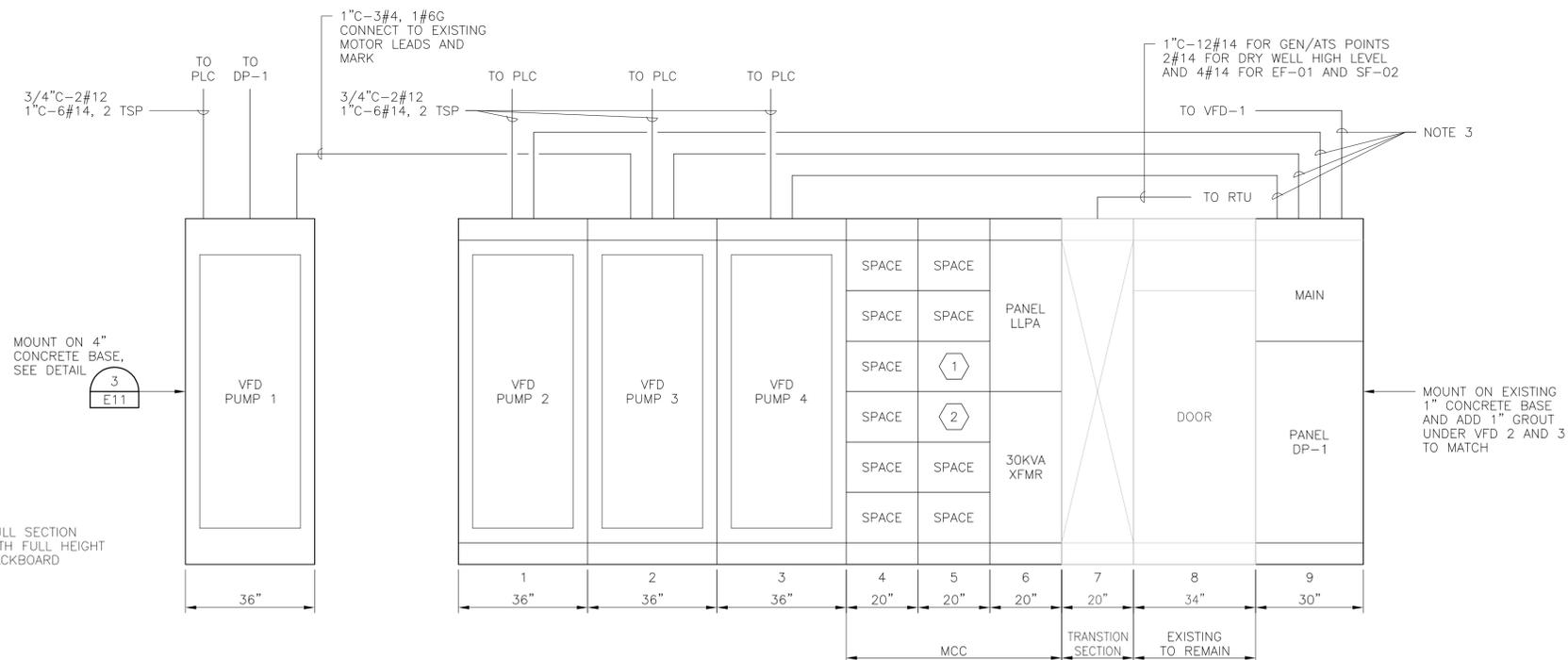
- NOTES:**
1. REMOVE AND REPLACE EXISTING SWITCHBOARD WITH A 600A, 480V, 3Ø, 3W DISTRIBUTION PANEL RATED AT 65 KAIC.
 2. REMOVE AND REPLACE EXISTING MCC WITH A 600A, 480V, 3Ø, 3W MCC RATED AT 65 KAIC. MATCH EXISTING FLOOR CONDUITS.
 3. EQUIPMENT CONDUIT AND WIRE SIZES SHOWN ON SHEET E03.

- ① EF-01 AND SF-02 STARTERS (CD-1)
- ② DRYWELL FLOODING PROBE RELAY (CD-6)



EXISTING ELEVATION

1/2" = 1'-0"



ELEVATION

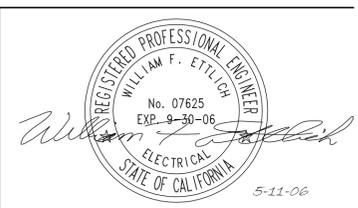
1/2" = 1'-0"

FILE: C:\P\working\SAC\rgonzalvo\dms16075\34038-00E-09.dwg DATE: 05/11/06 10:28:13am, rgonzalvo



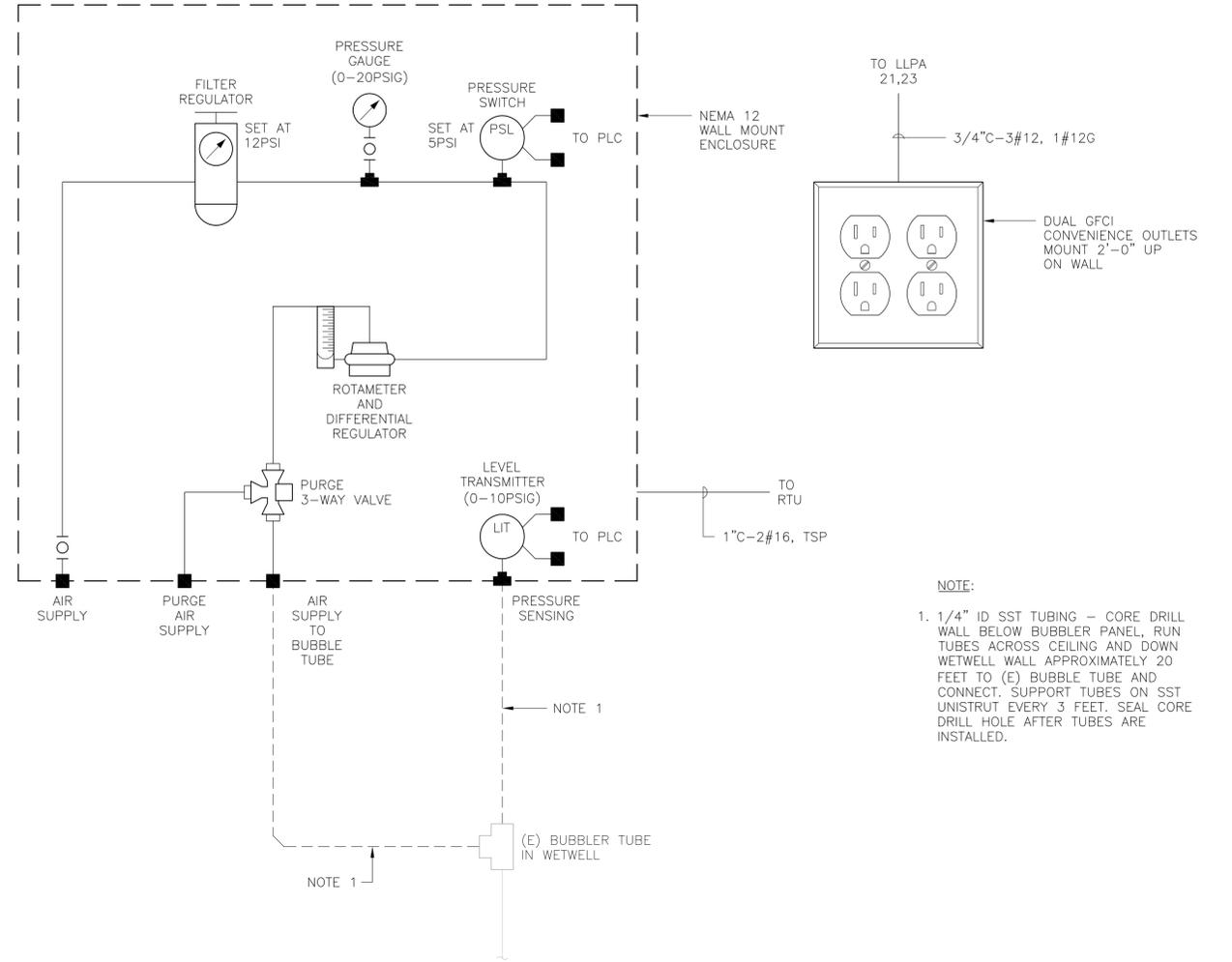
ISSUE	DATE	DESCRIPTION
A	5-11-06	ISSUED FOR BIDS

PROJECT MANAGER	WILLIAM F. ETTLICH
DESIGNED	W. ETTLICH
DESIGNED	J. SMITH
DRAWN	R.J. GONZALVO
CHECKED	W. ETTLICH
DATE	
PROJECT NUMBER	10494-34038



MCC ELEVATIONS	
	FILENAME 34038-00E-09.dwg SCALE 1/2" = 1'-0"
SHEET E09	

PANEL: LLPA		FEEDER ENTRANCE: BOTTOM		MOUNTING: MCC				
SERVICE: 120/208V, 3P, 4W, 100% NEUTRAL		SERVICE ENTRANCE LABEL: .						
MAIN DEVICE: 100A MCB, 3P, 4W, 14KAIC								
CKT NO.	CIRCUIT IDENTIFICATION	CB AMPS	VA PER PHASE			CB AMPS	CIRCUIT IDENTIFICATION	CKT NO.
			A	B	C			
1	(E) INTERIOR LIGHTING	20/1	900	800		20/1	(E) INTERIOR RECEPTACLES	2
3	(E) INTERIOR LIGHTING	20/1		1400	600	20/1	(E) INTERIOR RECEPTACLES	4
5	(E) INTERIOR LIGHTING	20/1			500	20/1	(E) WETWELL	6
7	(E) INTERIOR LIGHTING	20/1	1500	700		20/1	EXHAUST FAN, EF-01	8
9	(E) INTERIOR LIGHTING	20/1		400	1000	20/1	(E) MCC CONTROL	10
11	(E) INTERIOR LIGHTING	20/1			1800	20/1	SUPPLY FAN, SF-02	12
13	(E) ENGINE HEATER	20/1	700	700		20/1	(E) WETWELL EXHAUST FAN	14
15	(E) FUEL PUMP	20/1		600	2250	30/2	(E) WATER HEATER	16
17	(E) HYRO TANK CONTROL	20/1			600	2250		18
19	(E) SUMP PUMP CONTROL	20/1	600	900		20/1	(E) WETWELL SUPPLY FAN	20
21	AIR COMPRESSOR	20/1		500	100	20/1	PROBE RELAY	22
23	AIR COMPRESSOR	20/1			500	20/1	SPARE	24
25	SPARE	20/1				20/1	SPARE	26
27	SPARE	20/1				20/1	SPARE	28
29	SPARE	20/1				20/1	SPARE	30
31	SPARE	20/1				20/1	SPARE	32
33	SPARE	20/1				20/1	SPARE	34
35	SPARE	20/1				20/1	SPARE	36
37	SPARE	20/1				20/1	SPARE	38
39	SPARE	20/1				20/1	SPARE	40
41	SPARE	20/1				20/1	SPARE	42
EST TOTAL VA PER PHASE			6800	6800	6900	(E) - DENOTES EXISTING EQUIPMENT		
EST TOTAL PANELBOARD VA			20600					



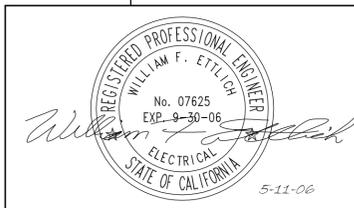
BUBBLER PANEL SCHEMATIC
NTS

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DATE: 05/11/06 10:28:37am, rgonzalv



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DESIGNED	J. SMITH
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DRAWN	R.J. GONZALVO
CHECKED	W. ETTLICH
DATE	
PROJECT NUMBER	10494-34038

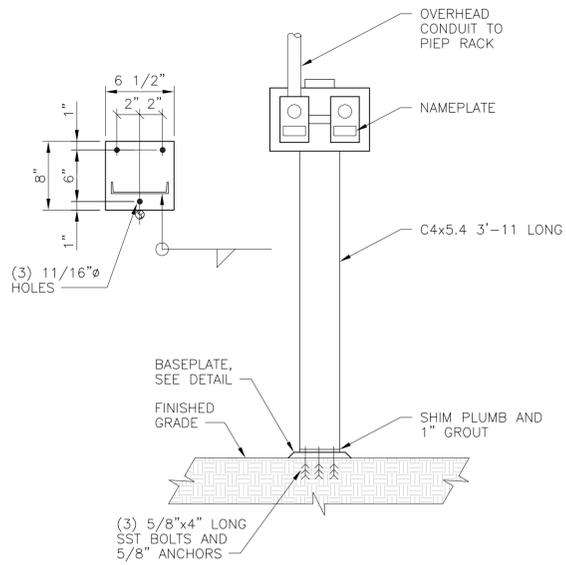


SCHEDULES AND SCHEMATICS

0 1" 2"

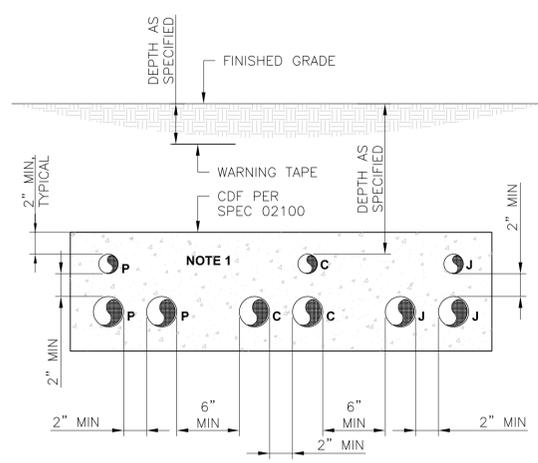
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SCALE	NONE

SHEET **E10**



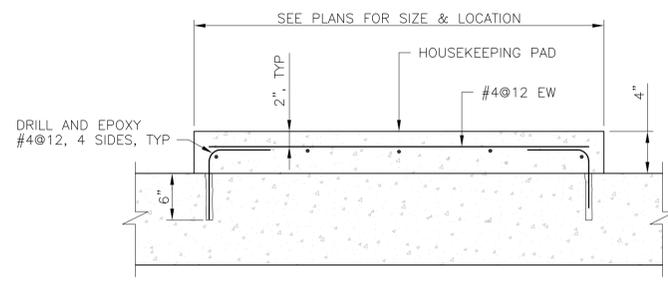
- NOTES:
- ADAPT TO SPECIFIC REQUIREMENTS.
 - HOT DIP GALVANIZE AFTER FABRICATION.
 - USE FOR SMALL DEVICES SUCH AS CONTROL STATIONS.

PEDESTAL MOUNTED EQUIPMENT
NTS

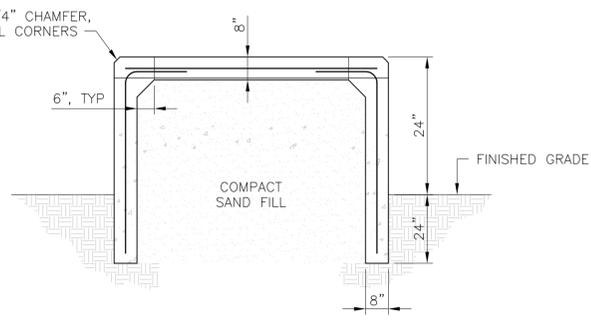
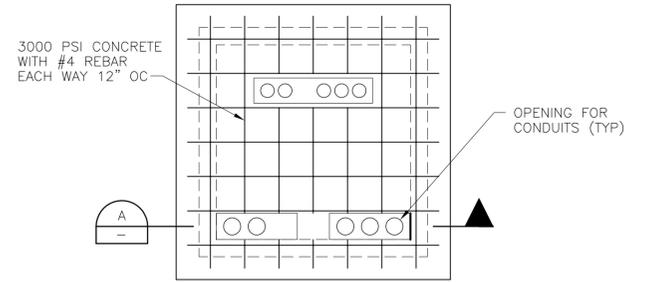


- NOTES:
- NUMBER OF CONDUITS AS REQUIRED FOR THE APPLICATION.
 - P SUBSCRIPT ELECTRICAL POWER CONDUIT.
 - C SUBSCRIPT CONTROL CONDUIT.
 - J SUBSCRIPT COMMUNICATION (TELEPHONE, DATA, INSTRUMENTATION) CONDUIT.

CONCRETE ENCASED DUCT BANK
NTS

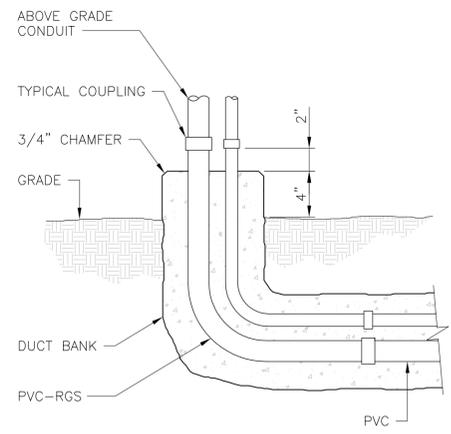


HOUSEKEEPING PAD DETAIL
NTS



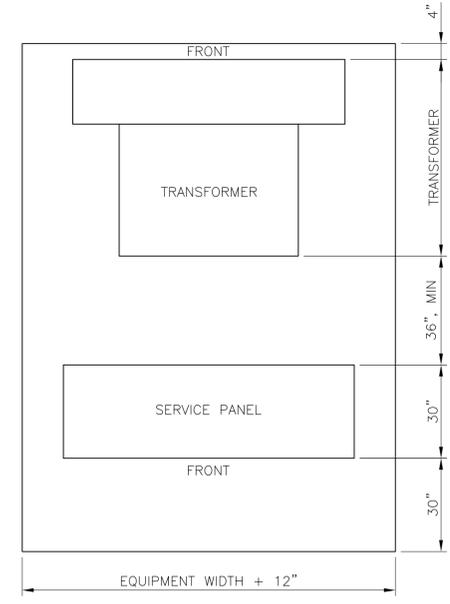
- NOTE:
- SEE CITY OF HEALDSBURG ELECTRICAL STANDARDS, PAGE C-10 AND C-11 AND EQUIPMENT MANUFACTURER'S SHOP DRAWINGS FOR SPACING, PLACEMENT AND GROUNDING DETAILS FOR CONDUIT OPENINGS.

TRANSFORMER/SERVICE PANEL PAD DETAIL
NTS

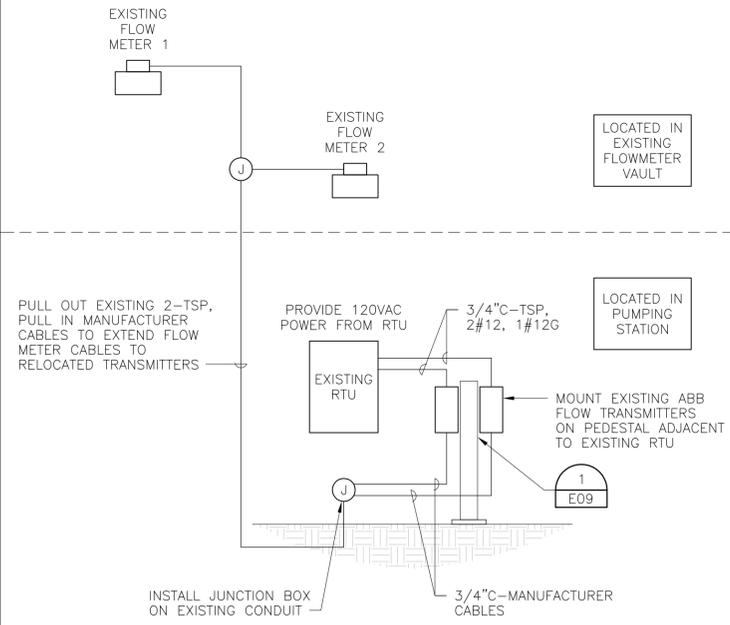


- NOTES:
- SEE DUCT BANK SECTION DETAIL FOR ADDITIONAL REQUIREMENTS.

CONDUIT TRANSITION TO ABOVE GRADE (EXTERIOR)
NTS



TRANSFORMER/SERVICE PANEL PAD LAYOUT
NTS



EXISTING FLOW TRANSMITTER RELOCATION
NTS

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DATE: 05/11/06 10:29:01am, rgonzalvo



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CHECKED	W. ETTLICH
DATE	
PROJECT NUMBER	10494-34038



ELECTRICAL DETAILS

0 1" 2"

FILENAME	34038-00E-11.dwg	SHEET	E11
SCALE	NOT TO SCALE		