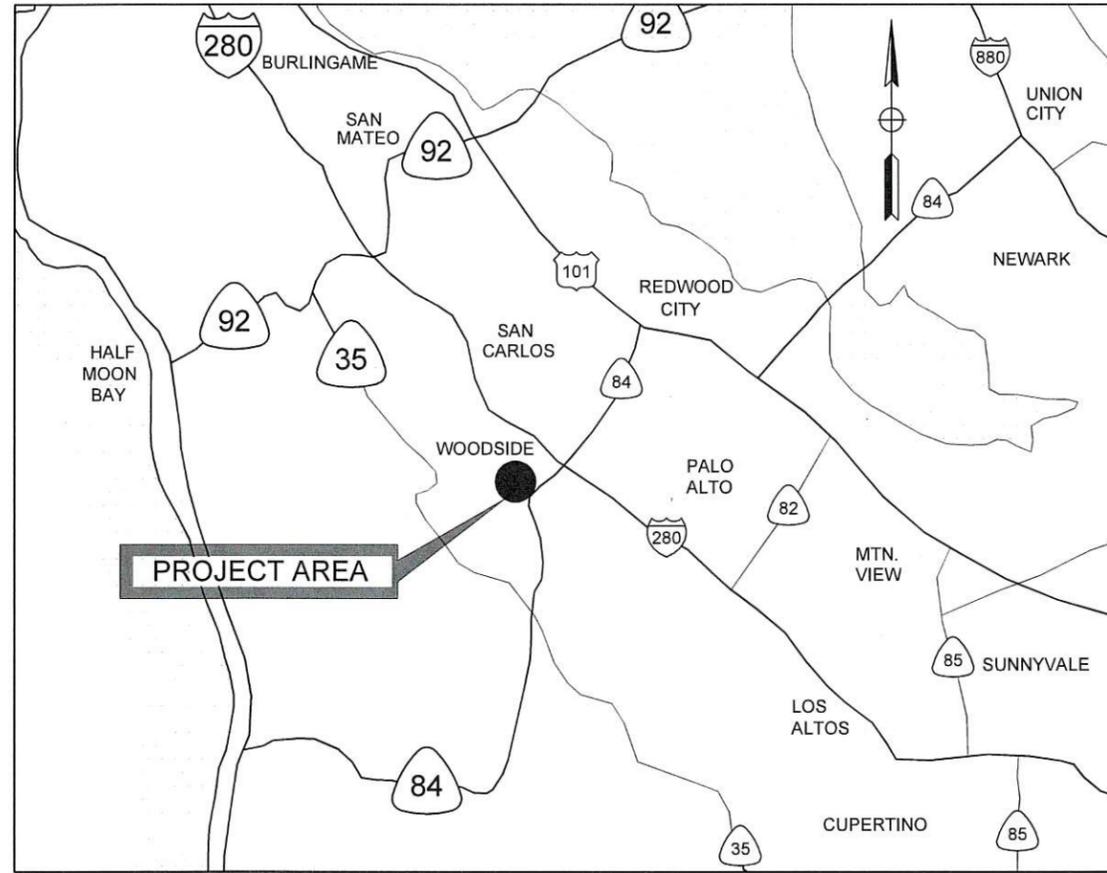


TOWN OF WOODSIDE

TOWN CENTER SEWER PUMP STATION IMPROVEMENTS

2995 WOODSIDE ROAD

APN# 073-112-120



VICINITY MAP



LOCATION MAP
PLAN INDEX

TOWN OF WOODSIDE
2995 WOODSIDE ROAD
WOODSIDE, CA 94062
(650) 851-6790

**NOTICE TO BIDDERS:
CONSTRUCTION OF THIS
PROJECT WILL COMMENCE
IN APRIL 2017**

Sean R. Rose
SEAN R. ROSE

10/27/16
DATE

Sindhi Melaloo
PROJECT MANAGER

10/27/16
DATE

SHEET No.	SHEET Ref.	SHEET DESCRIPTION
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mt MARK THOMAS & COMPANY INC.
Providing Engineering, Surveying, and Planning Services
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No.	DESCRIPTION	DATE	BY
REVISIONS			

Town of Woodside
Public Works Department
2995, WOODSIDE ROAD, CA 94062
(650) 851-6790 FAX (650) 851-2195

RICHARD TANAKA
No. 23233
Exp. 12/31/17
CIVIL
REGISTERED PROFESSIONAL ENGINEER
Richard Tanaka 10/19/2016
REGISTERED CIVIL ENGINEER DATE

TITLE AND LOCATION MAP
TOWN OF WOODSIDE
TOWN CENTER SEWER PUMP STATION
IMPROVEMENTS

SHEET
1
OF 22 SHEETS
T-1

GENERAL NOTES

- WORK SHALL BE IN ACCORDANCE WITH THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS (DATED MAY 2010), STANDARD PLANS (DATED MAY 2010), AND TOWN OF WOODSIDE STANDARD DETAILS. THE CONTRACTOR SHALL PERFORM THE WORK DESCRIBED IN THE SPECIFICATIONS, AND AS SHOWN ON THE DRAWINGS, AND TO THE SATISFACTION OF THE TOWN ENGINEER.
- ALL EXISTING PAVEMENT REMOVED OR DAMAGED SHALL BE REPLACED AS REQUIRED BY THE TOWN ENGINEER.
- ALL STANDARD STREET MONUMENTS, LOT CORNER PIPES, AND OTHER PERMANENT MONUMENTS DISTURBED DURING CONSTRUCTION SHALL BE REPLACED BEFORE ACCEPTANCE OF THE IMPROVEMENTS BY THE TOWN OF WOODSIDE.
- MANHOLE FRAMES AND COVERS SHALL BE BROUGHT TO FINAL GRADE BEFORE FINAL PAVING.
- APPROVAL OF THESE PLANS DOES NOT RELEASE THE CONTRACTOR OF THE RESPONSIBILITY FOR THE CORRECTIONS OF MISTAKES, ERRORS, OR OMISSIONS CONTAINED THEREIN. IF, DURING THE COURSE OF CONSTRUCTION OF IMPROVEMENTS, PUBLIC INTEREST REQUIRES A MODIFICATION OF/OR A DEPARTURE FROM THE TOWN OF WOODSIDE SPECIFICATION OR THESE IMPROVEMENT PLANS, THE TOWN ENGINEER SHALL HAVE THE AUTHORITY TO REQUIRE SUCH MODIFICATION OR DEPARTURE AND TO SPECIFY THE MANNER IN WHICH THE SAME IS TO BE COMPLETED
- CONTRACTOR SHALL PROVIDE ADEQUATE DUST CONTROL AT ALL TIMES AS REQUIRED BY OWNER'S REPRESENTATIVE. NO VISIBLE AIRBORNE PARTICLES WILL BE ALLOWED AT ANY TIME DURING CONSTRUCTION.
- ALL TRENCH EXCAVATION AND BACKFILL FOR SEWER LINES SHALL CONFORM TO THE REQUIREMENTS OF THE WEST BAY SANITARY DISTRICT STANDARD SPECIFICATIONS. JETTING OF BACKFILL MATERIALS TO ACHIEVE COMPACTION IS NOT ALLOWED.
- ALL TRENCHES AND EXCAVATION SHALL BE CONSTRUCTED IN STRICT COMPLIANCE WITH THE APPLICABLE SECTIONS OF CALIFORNIA AND FEDERAL OSHA REQUIREMENTS AND OTHER APPLICABLE SAFETY ORDINANCES. CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR TRENCH SHORING DESIGN AND INSTALLATION.
- CONTRACTOR WILL BE RESPONSIBLE FOR THE VERIFICATION OF LOCATIONS OF ALL EXISTING UTILITIES IN THE FIELD PRIOR TO BEGINNING WORK. ALL CONTRACTORS SHALL CALL U.S.A., (CA. 1-800-227-2600) 48 HOURS BEFORE DIGGING. EXCAVATION FOR UNDERGROUND FACILITIES SHALL NOT BE PERMITTED PRIOR TO CONTACTING UNDERGROUND SERVICE ALERT AND VERIFICATION OF ALL OTHER EXISTING UTILITY LOCATIONS NOT INCLUDED IN U.S.A LOCATION SERVICES.
- THE TOWN ENGINEER IS AUTHORIZED TO REQUIRE MODIFICATIONS DURING CONSTRUCTION WHERE PUBLIC NECESSITY REQUIRES SAME.
- EXCEPT FOR WETWELL, SELF COMPACTING FILL MATERIAL SHALL BE COMPACTED TO A MINIMUM OF TWO AND ONE HALF (2.5) FEET ABOVE THE TOP OF PIPE ELEVATION BY METHODS THAT WILL NOT DAMAGE THE PIPE OR SUBSTITUTED WITH GRAVEL OR ONE (1) SACK SLURRY MIX. FILL MATERIAL MUST ATTAIN A MINIMUM OF NINETY FIVE PERCENT (95%) RELATIVE COMPACTION, AS PER STATE OF CALIFORNIA STANDARD SPECIFICATIONS.
- THE TOWN SHALL BE NOTIFIED FORTY-EIGHT (48) HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION OPERATIONS.
- NO INSTALLATION OF BASE ROCK OR ASPHALT SURFACING SHALL BEGIN UNTIL ALL UNDERGROUND WORK IS COMPLETED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREVENTION OF A SEWAGE SPILL & OTHER POLLUTANTS ASSOCIATED WITH THE CONTRACTORS ACTIVITIES ON THIS PROJECT AND THE CONTRACTOR SHALL PAY ALL COSTS ASSOCIATED WITH THE RELEASE OF SEWAGE OR OTHER POLLUTANTS INTO THE SURFACE DRAINAGE SYSTEM AND DOWNSTREAM SURFACE WATERS.
- ALL SANITARY SEWER PIPES SHALL BE PVC SDR26, DIP, PVC C-900, OR APPROVED EQUAL AS SHOWN ON THESE PLANS UNLESS OTHERWISE SPECIFIED BY THE TOWN OF WOODSIDE.
- CONTRACTOR SHALL SUPPLY ALL EQUIPMENT, LABOR, AND MATERIALS NECESSARY TO PERFORM THE WORK SHOWN ON THE PLANS EXCEPT WHERE NOTED.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL SUB-CONTRACTORS AND THEIR WORK SO AS TO ELIMINATE CONFLICTS AND WORK TOWARD THE GENERAL GOOD AND COMPLETION OF THE ENTIRE PROJECT.
- ALL WORKMANSHIP AND MATERIALS FURNISHED BY THE CONTRACTOR SHALL BE THE KIND AND QUALITY DESCRIBED IN THE SPECIFICATIONS AND SHALL BE FIRST CLASS THROUGHOUT. NEITHER FINAL ACCEPTANCE NOR FINAL PAYMENT BY THE TOWN SHALL RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR FAULTY MATERIALS OR WORKMANSHIP.
- IN THE EVENT OF ANY CONFLICT OF INFORMATION SHOWN ON THESE PLANS OR ANY CONFLICT BETWEEN THESE PLANS AND THE INTENT OF A CONSISTENT AND FUNCTIONAL PRODUCT, THE CONTRACTOR SHALL SO NOTIFY THE ENGINEER IN WRITING, UPON WHICH NOTICE THE ENGINEER SHALL RESOLVE THE CONFLICTS BY THE ISSUANCE OF A WRITTEN ORDER, REVISED PLANS OR BOTH. THE CONTRACTOR SHALL BEAR FULL COST AND RESPONSIBILITY FOR WORK AFFECTED BY SUCH CONFLICTS AND PERFORMED BY CONTRACTOR PRIOR TO SUCH NOTICE TO THE OWNER AND ISSUANCE OF SUCH ORDER AND/OR REVISED PLANS.
- CONTRACTOR SHALL EXERCISE ALL NECESSARY CAUTION TO AVOID DAMAGE TO ANY EXISTING TREES, OR SURFACE IMPROVEMENTS OR TO ANY EXISTING DRAINAGE STRUCTURE, WATER STRUCTURE, SEWER CLEANOUTS, MANHOLES, OR JUNCTION BOXES FOR UNDERGROUND ELECTRIC, GAS, TELEPHONE, CABLE TV, STORM, SANITARY, WATER, OR OTHER UTILITIES WHICH ARE TO REMAIN IN PLACE AND SHALL BEAR FULL COST AND RESPONSIBILITY FOR ANY DAMAGE THERETO.
- ALL KNOWN EXISTING UTILITY LINES ARE SHOWN FOR INFORMATION ONLY. CONTRACTOR SHALL EXERCISE ALL NECESSARY CAUTION TO AVOID DAMAGE TO ANY EXISTING UTILITY LINES OR FACILITIES TO REMAIN IN PLACE, WHETHER FOR UNDERGROUND ELECTRIC, GAS, TELEPHONE, CABLE TV, STORM, SANITARY, WATER, OR OTHER UTILITIES AND SHALL BEAR FULL COST AND RESPONSIBILITY FOR ANY DAMAGE THERETO.
- CONTRACTOR SHALL POTHOLE AND VERIFY LOCATION OF ALL EXISTING UTILITIES IN THE FIELD PRIOR TO BEGINNING WORK. LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND FOR GENERAL INFORMATION PURPOSES ONLY. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY OF ANY UTILITY CONFLICT. CONTRACTOR WILL BE PAID FOR ADDITIONAL ITEMS OF CONSTRUCTION AS A RESULT OF A UTILITY CONFLICT BUT WILL NOT BE PAID FOR DELAY OR RE-MOBILIZATION COSTS. ANY ADDITIONAL PAYMENT FOR UTILITY CONFLICTS MUST BE APPROVED BY DISTRICT PRIOR TO THE CONSTRUCTION. ALL UTILITY CROSSING LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE AND FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR MUST VERIFY ACTUAL LOCATIONS, SIZES AND DEPTHS 5 DAYS PRIOR TO CONSTRUCTION.
- ENGINEER SHALL BEAR NO RESPONSIBILITY FOR METHODS AND PROCEDURES OF WORK ESTABLISHED BY CONTRACTOR, JOB SITE CONDITIONS, JOB SAFETY OR CONFORMANCE WITH SAFETY PROCEDURES AND REQUIREMENTS.
- IN CONFORMANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOBSITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS BOTH THE OWNER AND ENGINEER FROM ANY AND ALL LIABILITY REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.

- THE CONTRACTOR, PRIOR TO BIDDING, SHALL VISIT THE JOB SITE TO BECOME ACQUAINTED WITH THE EXISTING INSTALLATION AND SYSTEMS RELATED TO THE ENTIRE PROJECT AND SHALL INCLUDE IN THE BID PROPOSAL ALL LABOR AND MATERIAL REQUIRED FOR THE ENTIRE PROJECT TO BE COMPLETED AND OPERATIVE.
- THE CONTRACTOR SHALL MAINTAIN AT THE JOBSITE, AN UP TO DATE "AS-BUILT" DRAWING SET. THE "AS-BUILT" PLANS SHALL BE VERIFIED BY THE TOWN TOGETHER WITH APPROVAL OF EACH PROGRESS PAYMENT. THE "AS-BUILT" DRAWING SET SHALL REFLECT ALL APPROVED CHANGED TO THE DESIGN DRAWINGS. THE "AS-BILT" DRAWING SET SHALL BE KEPT CLEAN AND IN GOOD CONDITION AND SHALL BE TURNED OVER TO THE OWNER AT THE COMPLETION OF THE PROJECT.
- UPON COMPLETION OF HIS WORK, THE CONTRACTOR SHALL SCHEDULE AND PERFORM A COMPLETE FUNCTIONAL TEST TO DEMONSTRATE TO THE TOWN THAT THE NEW INSTALLATION IS OPERATING AS INTENDED. ANY DEFECTS OR DEFICIENCIES IN THE MATERIALS OR WORK SHALL BE CORRECTED IMMEDIATELY BY THE CONTRACTOR'S EXPENSE. FOUR (4) HARD COPIES AND ONE (1) E-COPY OF EACH APPLICABLE MANUAL TO BE PROVIDED TO THE TOWN.
29. THE EXISTING STRUCTURE OF THE PUMP HOUSING IS TO BE PROTECTED. CONTRACTOR IS TO RESTORE TO ITS EXISTING CONDITION IF ANY MODIFICATION TO THE STRUCTURE OCCURS DURING CONSTRUCTION.

PROJECT MITIGATION REQUIREMENTS:

MITIGATION MEASURE 1. REDUCE THE SPREAD OF INVASIVE WEEDS. CONTRACTOR SHALL PRESSURE WASH ALL CONSTRUCTION EQUIPMENT, SPECIFICALLY USED IN EARTH MOVING ACTIVITIES, PRIOR TO MOBILIZATION ON-SITE OR OFF-SITE. REDUCE THE CHANCE OF SPREADING INVASIVE WEED PROPAGULES. SUCH WASHING SHALL OCCUR IN AREAS WHERE WEED SEEDS WASHED FROM EQUIPMENT CANNOT ENTER DRY CREEK OR ITS BANKS.

MITIGATION MEASURE 2A. EROSION AND SEDIMENTATION CONTROL. DURING CONSTRUCTION, THE CONTRACTOR SHALL EMPLOY STANDARD CONSTRUCTION BMP's TO TREAT AND MINIMIZE RUNOFF. CONSTRUCTION BMPS WILL INCLUDE THE FOLLOWING TO AVOID AND MINIMIZE IMPACTS ON STEELHEAD:

- NO LITTER, DEBRIS, OR SEDIMENT SHALL BE DUMPED INTO STORM DRAINS OR INTO THE DRY CREEK RIPARIAN CORRIDOR.
- ALL LITTER AND CONSTRUCTION DEBRIS WITHIN THE WORK AREA WILL BE PLACED IN CONTAINERS WITH SECURE LIDS BEFORE THE END OF WORK EACH DAY IN ORDER TO REDUCE THE LIKELIHOOD OF PREDATORS BEING ATTRACTED TO THE SITE BY DISCARDED FOOD WRAPPERS AND OTHER RUBBISH THAT MAY BE LEFT ON THE SITE. IF CONTAINERS MEETING THESE CRITERIA ARE NOT AVAILABLE, ALL RUBBISH WILL BE REMOVED FROM THE PROJECT SITE AT THE END OF EACH WORK DAY.
- VEHICLES AND EQUIPMENT MAY ONLY BE DRIVEN WITHIN ESTABLISHED ROADS AND CROSSINGS. ROUTES AND BOUNDARIES WILL BE CLEARLY MARKED AND WILL BE LOCATED OUTSIDE OF DRIPLINES OF PRESERVED TREES.
- EQUIPMENT STAGING AND PARKING OF VEHICLES SHALL OCCUR ON ESTABLISHED ACCESS ROADS AND FLAT SURFACES.
- NO HEAVY EQUIPMENT SHALL OPERATE WITHIN THE RIPARIAN HABITAT ALONG, OR THE BANKS OF, DRY CREEK.
- THE INTEGRITY AND EFFECTIVENESS OF CONSTRUCTION FENCING AND EROSION CONTROL MEASURES SHALL BE INSPECTED ON A DAILY BASIS. CORRECTIVE ACTIONS AND REPAIRS SHALL BE CARRIED OUT IMMEDIATELY FOR FENCE BREACHES AND INEFFECTIVE BMPS.
- THE FUELING, WASHING, AND MAINTENANCE OF VEHICLES WILL OCCUR IN DEVELOPED HABITAT, AWAY FROM THE RIPARIAN HABITAT AND STREAM CHANNEL, AND WILL NOT OCCUR IN AREAS WHERE FUEL OR WASH-WATER COULD RUN INTO DRY CREEK. EQUIPMENT SHALL BE REGULARLY MAINTAINED TO AVOID FLUID LEAKS. ANY LEAKS WILL BE CAPTURED IN CONTAINERS UNTIL EQUIPMENT IS MOVED TO A REPAIR LOCATION. HAZARDOUS MATERIALS WILL BE STORED ONLY WITHIN DEVELOPED HABITAT. CONTAINMENT AND CLEANUP PLANS WILL BE PREPARED AND PUT IN PLACE FOR IMMEDIATE CLEANUP OF FLUID OR HAZARDOUS MATERIAL SPILLS.
- ABSORBENT MATERIALS DESIGNED FOR SPILL CONTAINMENT AND CLEAN-UP ACTIVITIES SHALL BE AVAILABLE ON-SITE FOR USE IN AN ACCIDENTAL SPILL.
- AT NO TIME SHALL SEDIMENT-LADEN WATER BE ALLOWED TO ENTER THE STREAM CHANNEL.

MITIGATION MEASURE 2B. WORKER ENVIRONMENTAL AWARENESS PROGRAM. BEFORE ANY CONSTRUCTION ACTIVITIES BEGIN, A QUALIFIED BIOLOGIST RETAINED BY TOWN WILL CONDUCT A TRAINING SESSION FOR ALL CONSTRUCTION PERSONNEL. AT A MINIMUM, THE TRAINING WILL INCLUDE A DESCRIPTION OF THE CENTRAL CALIFORNIA COAST STEELHEAD, CALIFORNIA RED-LEGGED FROG, AND SAN FRANCISCO GARTER SNAKE AND THEIR HABITATS, THE IMPORTANCE OF THESE SPECIES, THE GENERAL MEASURES THAT ARE BEING IMPLEMENTED TO CONSERVE THESE SPECIES AS THEY RELATE TO THE PROJECT, AND THE BOUNDARIES WITHIN WHICH THE PROJECT MAY BE ACCOMPLISHED. CONTRACTOR SHALL TRAINING SESSION WITH BIOLOGIST.

MITIGATION MEASURE 3A. PRE-CONSTRUCTION SURVEY. A QUALIFIED BIOLOGIST WILL BE PROVIDED BY THE TOWN AND WILL SURVEY THE WORK SITE WITHIN 48 HOURS OF THE INITIATION OF PROJECT ACTIVITIES. IF CALIFORNIA RED-LEGGED FROGS OR SAN FRANCISCO GARTER SNAKES OF ANY LIFE STAGE ARE FOUND, THE ANIMALS WILL NOT BE HANDLED AND WILL INSTEAD BE ALLOWED TO LEAVE THE SITE ON THEIR OWN. IF NEEDED, THE USFWS (AND CDFW, IF A SAN FRANCISCO GARTER SNAKE IS FOUND) WILL BE CONTACTED TO REQUEST PERMISSION TO RELOCATE THE INDIVIDUAL. CONTRACTOR SHALL COMPLY WITH SURVEY FINDINGS AND WORK/COORDINATE WITH BIOLOGIST FOR COMPLIANCE.

MITIGATION MEASURE 3B. BIOLOGICAL MONITORING. CONSTRUCTION MONITORING. A QUALIFIED H. T. HARVEY & ASSOCIATES WILDLIFE ECOLOGIST WILL MONITOR CONSTRUCTION ACTIVITIES FOR UP TO 3 DAYS WHEN CONSTRUCTION ACTIVITIES ARE INITIATED IN JULY. PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES EACH OF THESE 3 DAYS, THE BIOLOGIST WILL SURVEY THE SITE TO ENSURE NO CALIFORNIA RED-LEGGED FROGS, SAN FRANCISCO GARTER SNAKES, OR WESTERN POND TURTLES ARE PRESENT WITHIN THE WORK AREA. THE BIOLOGICAL MONITOR WILL REMAIN WITHIN THE PROJECT SITE AT ALL TIMES WHEN CONSTRUCTION ACTIVITIES ARE OCCURRING SO THAT EACH AREA OF WORK CAN BE OBSERVED TO AVOID TAKE OF CALIFORNIA RED-LEGGED FROGS, SAN FRANCISCO GARTER SNAKES, AND WESTERN POND TURTLES. IF AN INDIVIDUAL OF ANY OF THESE SPECIES IS DETECTED, ANY PROJECT ACTIVITIES THAT COULD RESULT IN HARM TO THE INDIVIDUAL WILL CEASE UNTIL THE INDIVIDUAL HAS MOVED OUT OF THE PROJECT SITE ON ITS OWN. THE USFWS WILL BE CONTACTED IMMEDIATELY IF A CALIFORNIA RED-LEGGED FROG OR SAN FRANCISCO GARTER SNAKE IS FOUND, AND THE CDFW WILL BE CONTACTED IMMEDIATELY IF A SAN FRANCISCO GARTER SNAKE IS FOUND. WESTERN POND TURTLES DETECTED DURING THE COURSE OF THE PROJECT MAY BE RELOCATED IN COORDINATION WITH THE CDFW. IF ANY INDIVIDUALS ARE KILLED OR INJURED DURING PROJECT ACTIVITIES, THE USFWS AND/OR CDFW, AS APPROPRIATE, WILL BE CONTACTED WITHIN 24 HOURS.

FOLLOWING THE COMPLETION OF THESE 3 DAYS OF FULL-TIME MONITORING, THE BIOLOGIST WILL PASS THE RESPONSIBILITIES DESCRIBED IN THIS CONDITION TO A DEDICATED MEMBER OF THE CONSTRUCTION CREW. THE BIOLOGIST WILL ENSURE THAT THIS DEDICATED CREW MEMBER IS TRAINED IN THE IDENTIFICATION OF THE CALIFORNIA RED-LEGGED FROG, SAN FRANCISCO GARTER SNAKE, AND WESTERN POND TURTLE, AS WELL AS APPROPRIATE PROTOCOLS TO FOLLOW IF ANY OF THESE SPECIES (OR ANIMALS THAT MAY BE ONE OF THESE SPECIES) ARE DETECTED ON THE SITE. THIS DEDICATED CREW MEMBER WILL BE RESPONSIBLE FOR CHECKING THE WORK AREA FOR THESE SPECIES PRIOR TO THE START OF CONSTRUCTION EACH DAY, AND FOR INSPECTING ANY STEEP-WALLED HOLES OR TRENCHES FOR ANY ANIMALS THAT MAY INADVERTENTLY BECOME TRAPPED AND/OR INJURED.

WEEKLY SITE CHECKS. FOLLOWING THE COMPLETION OF THE INITIAL 2-3 DAYS OF MONITORING, AN H. T. HARVEY & ASSOCIATES QUALIFIED BIOLOGIST WILL RETURN TO THE SITE ONCE WEEKLY TO PERFORM SITE CHECKS FOR CALIFORNIA RED-LEGGED FROGS, SAN FRANCISCO GARTER SNAKES, AND WESTERN POND TURTLES. DURING THE SITE CHECKS, THE BIOLOGIST WILL SURVEY THE SITE TO ENSURE THAT NO INDIVIDUALS OF THESE SPECIES ARE PRESENT WITHIN THE WORK AREA. IN ADDITION, THE BIOLOGIST WILL INSPECT ANY STEEP-WALLED HOLES OR TRENCHES FOR ANY ANIMALS THAT MAY INADVERTENTLY BECOME TRAPPED AND/OR INJURED. THE BIOLOGIST WILL ALSO DETERMINE WHETHER ANY ADDITIONAL IMPACT AVOIDANCE AND MINIMIZATION MEASURES SHOULD BE CONSIDERED BY THE TOWN, BASED ON WHETHER ANY CHANGES IN SITE CONDITIONS ARE NOTED FROM VISIT TO VISIT.

SITE CHECKS FOLLOWING RAIN EVENTS. BECAUSE PROJECT ACTIVITIES WILL CONTINUE INTO SEPTEMBER AND MAY CONTINUE INTO OCTOBER, THERE IS SOME POSSIBILITY THAT RAIN EVENTS (I.E., AN EVENT TOTALING AT LEAST 0.5 INCH OF RAINFALL) MAY OCCUR DURING THE COURSE OF THE PROJECT. THE PROBABILITY THAT A CALIFORNIA RED-LEGGED FROG MAY OCCUR ON THE PROJECT SITE INCREASES SUBSTANTIALLY DURING AND WITHIN 24 HOURS FOLLOWING RAIN EVENTS. THE BIOLOGIST WILL CONDUCT UP TO FOUR ADDITIONAL SITE CHECKS, AS NEEDED, DURING OR IMMEDIATELY FOLLOWING RAIN EVENTS (AS APPROPRIATE) TO SURVEY THE SITE FOR CALIFORNIA RED-LEGGED FROGS (THE BIOLOGIST WILL ALSO SURVEY FOR SAN FRANCISCO GARTER SNAKES AND WESTERN POND TURTLES DURING SUCH VISITS). TO THE EXTENT FEASIBLE, THE BIOLOGIST WILL ENDEAVOR TO CONDUCT WEEKLY SITE CHECKS SIMULTANEOUSLY WITH SITE CHECKS FOLLOWING RAIN EVENTS FOR EFFICIENCY.

MITIGATION MEASURE 3C. PREVENTION OF ENTRAPMENT. TO PREVENT THE INADVERTENT ENTRAPMENT OF SAN FRANCISCO GARTER SNAKES AND CALIFORNIA RED-LEGGED FROGS, ALL EXCAVATED, STEEP-WALLED HOLES OR TRENCHES SHALL BE COMPLETELY COVERED AT THE END OF EACH WORK DAY WITH PLYWOOD OR SIMILAR MATERIALS. IF THIS IS NOT POSSIBLE, ONE OR MORE ESCAPE RAMPS CONSTRUCTED OF EARTH FILL OR WOODEN PLANKS SHALL BE PLACED IN THE EXCAVATION. BEFORE SUCH HOLES OR TRENCHES ARE FILLED, THEY SHALL BE THOROUGHLY INSPECTED FOR ANY ANIMALS BY THE ON-SITE BIOLOGICAL MONITOR. IF AT ANY TIME A CALIFORNIA RED-LEGGED FROG OR SAN FRANCISCO GARTER SNAKE IS FOUND TRAPPED OR INJURED IN ONE OF THESE HOLES, ANY PROJECT ACTIVITIES THAT COULD RESULT IN HARM TO THE INDIVIDUAL SHALL CEASE UNTIL THE INDIVIDUAL HAS MOVED OUT OF THE PROJECT AREA ON ITS OWN (A RAMP ALLOWING THE INDIVIDUAL TO LEAVE MAY NEED TO BE PROVIDED).

MITIGATION MEASURE 4A. AVOIDANCE OF THE NESTING SEASON. TO THE EXTENT FEASIBLE, CONSTRUCTION ACTIVITIES WILL BE SCHEDULED BY THE CONTRACTOR TO AVOID THE NESTING SEASON. IF CONSTRUCTION ACTIVITIES ARE SCHEDULED TO TAKE PLACE OUTSIDE THE NESTING SEASON, ALL POTENTIAL CONSTRUCTION IMPACTS ON NESTING BIRDS PROTECTED UNDER THE MBTA AND CALIFORNIA FISH AND GAME CODE WILL BE AVOIDED. THE NESTING SEASON FOR MOST BIRDS IN THE SOUTH SAN FRANCISCO BAY AREA EXTENDS FROM 1 FEBRUARY THROUGH 31 AUGUST.

MITIGATION MEASURE 4B. PRE-CONSTRUCTION/PRE-DISTURBANCE SURVEYS. IF IT IS NOT POSSIBLE TO SCHEDULE CONSTRUCTION ACTIVITIES BETWEEN 1 SEPTEMBER AND 31 JANUARY, THEN PRE-CONSTRUCTION SURVEYS FOR NESTING BIRDS WILL BE CONDUCTED BY A TOWN RETAINED QUALIFIED ORNITHOLOGIST TO ENSURE THAT NO NESTS WILL BE DISTURBED DURING PROJECT IMPLEMENTATION. THESE SURVEYS WILL BE CONDUCTED NO MORE THAN SEVEN DAYS PRIOR TO THE INITIATION OF CONSTRUCTION ACTIVITIES. DURING THIS SURVEY, THE ORNITHOLOGIST WILL INSPECT ALL TREES AND OTHER POTENTIAL NESTING HABITATS (E.G., TREES, SHRUBS, RUDERAL GRASSLANDS, BUILDINGS) IN AND IMMEDIATELY ADJACENT TO THE IMPACT AREAS FOR NESTS. IF AN ACTIVE NEST IS FOUND SUFFICIENTLY CLOSE TO WORK AREAS TO BE DISTURBED BY THESE ACTIVITIES, THE ORNITHOLOGIST WILL DETERMINE THE EXTENT OF A CONSTRUCTION-FREE BUFFER ZONE TO BE ESTABLISHED AROUND THE NEST (TYPICALLY 300 FEET FOR RAPTORS AND 100 FEET FOR OTHER SPECIES), TO ENSURE THAT NO NESTS OF SPECIES PROTECTED BY THE MBTA AND CALIFORNIA FISH AND GAME CODE WILL BE DISTURBED DURING PROJECT IMPLEMENTATION.

PROJECT BENCHMARK:

THE BENCHMARK USED FOR THE PROJECT IS DESIGNATED W 151, PID HT1677, IN THE TOWN OF WOODSIDE, COUNTY OF SAN MATEO, CA. NGVD 29 EL 378.91.

THE BENCHMARK USED FOR THE PROJECT IS LOCATED AT 0.1 MILE EAST ALONG WOODSIDE ROAD FROM WOODSIDE SCHOOL, AT THE T-JUNCTION OF A PAVED DRIVEWAY LEADING SOUTH, 31.7 FEET EAST OF AND ACROSS THE DRIVEWAY FROM A FIRE PLUG, 26.5 FEET SOUTH OF THE CENTERLINE OF THE ROAD, 14.0 FEET NORTH OF A 16-INCH LEANING PINE TREE, 11.5 FEET EAST OF THE CENTERLINE OF THE DRIVEWAY, 1.7 FEET NORTH OF AN IRON FENCE POST AT THE WEST END OF A FENCE, 1.5 FEET WEST OF A WITNESS POST, ABOUT LEVEL WITH THE ROAD, AND SET IN THE TOP OF A CONCRETE POST PROJECTING 0.4 FOOT ABOVE THE GROUND.

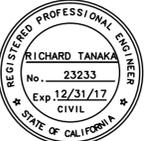


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(408) 253-7863

DESIGNED BY :	BN				
DRAWN BY :	ED				
CHECKED BY :	FQ				
DATE :	10/19/2016				
SCALE :		No.	DESCRIPTION	DATE	BY
MTCO JOB No. :	CU-14113	REVISIONS			



Town of Woodside
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REGISTERED PROFESSIONAL ENGINEER
RICHARD TANAKA
No. 23233
Exp. 12/31/17
CIVIL
STATE OF CALIFORNIA

[Signature] 10/19/2016
REGISTERED CIVIL ENGINEER DATE

GENERAL NOTES TOWN OF WOODSIDE TOWN CENTER SEWER PUMP STATION IMPROVEMENTS		
WORK ORDER No.	ADVERTISEMENT DATE:	CONTRACT No.

SHEET 2 OF 22 SHEETS G-1



ABBREVIATIONS

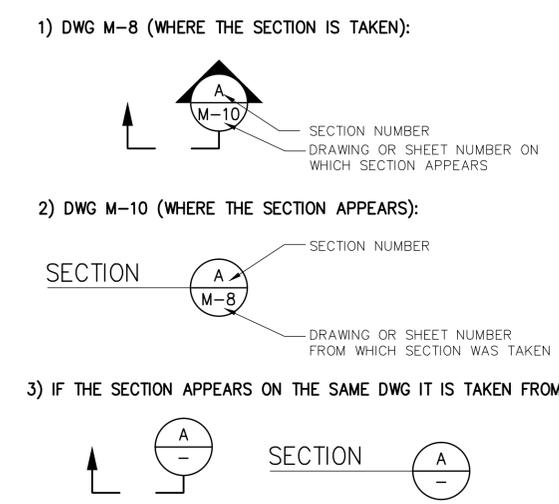
AB	AGGREGATE BASE, ANCHOR BOLT, ABANDON	FL	FLOW LINE	R, RAD	RADIUS
AC	ASPHALT CONCRETE	FLEX	FLEXIBLE	RCP	REINFORCED CONCRETE PIPE
ACI	AMERICAN CONCRETE INSTITUTE	FLG	FLANGE	RCW	RECYCLED WATER
ACP	ASBESTOS CEMENT PIPE	FLR	FLOOR	RD	ROAD, ROUND
ADA	AMERICAN DISABILITIES ACT	FM	FORCEMAIN	RDWD	REDWOOD
ADD'L, ADDL	ADDITIONAL	FS	FLOW SWITCH	REINF	REINFORCEMENT, REINFORCE, REINFORCING
AGG	AGGREGATE	FT	FEET	REQ'D	REQUIRED
ALUM	ALUMINUM	FTG	FOOTING	R/W	RIGHT-OF-WAY
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	G	GAS	R/W(P)	PROPOSED RIGHT-OF-WAY
APPROX	APPROXIMATE	GALV	GALVANIZED	S	SLOPE
AR	AIR RELEASE	GND	GROUND	SCH, SCHED	SCHEDULE
ARCH	ARCHITECTURAL	GRT	GRATE	SD	STORM DRAIN
ARV	AIR RELEASE VALVE	GV	GATE VALVE	SDMH	STORM DRAIN MANHOLE
ASPH	ASPHALT	HB	HOSE BIBB	SECT	SECTION
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	HORIZ	HORIZONTAL	SF	SQUARE FEET
AVE	AVENUE	HP	HIGH POINT, HORSEPOWER	SHT	SHEET
AWG	AMERICAN WIRE GAUGE	HR	HANDRAIL	SIM	SIMILAR
AWWA	AMERICAN WATER WORKS ASSOCIATION	HS	HIGH STRENGTH	SL	SLOPE
		HWL	HIGH WATER LEVEL	SP	STATIC PRESSURE, SPACE(S)
		HWY	HIGHWAY	SPD	SUMP PUMP DISCHARGE
				SPEC(S)	SPECIFICATION(S)
BF	BLIND FLANGE	ID	INSIDE DIAMETER	SQ	SQUARE
BFP	BACKFLOW PREVENTER	IE	INVERT ELEVATION = FLOW LINE	SS	SANITARY SEWER
BFV	BUTTERFLY VALVE	IN	INCH	SSCO	SANITARY SEWER CLEANOUT
BLDG	BUILDING	INCH	INCH	SSFM	SANITARY SEWER FORCEMAIN
BLVD	BOULEVARD	INST	INSTRUMENTATION	SSMH	SANITARY SEWER MAINTENANCE HOLE
BM	BENCH MARK	INT	INTERIOR	SST	STAINLESS STEEL
BOT	BOTTOM	INV	INVERT	ST	STREET, SURGE TANK
BV	BALL VALVE	IRR	IRRIGATION	STA	STATION
		JT	JOINT TRENCH	STD	SURGE TANK DRAIN, STANDARD
CB	CATCH BASIN			STL	STEEL
CDF	CONTROLLED DENSITY FILL	KVA	KILOVOLT-AMPERE	T, TEL	TELEPHONE, TANK
CEM	CEMENT	KW	KILOWATT	T&B	TOP AND BOTTOM
CFM	CUBIC FEET PER MINUTE			TC	TOP OF CURB
CIP	CAST IRON PIPE	L	LENGTH, ANGLE	TEMP	TEMPORARY
CJ	CONSTRUCTION JOINT	LBS	POUNDS	TEFC	TOTALLY ENCLOSED, FAN COOLED
CHKR	CHECKER	LCP	LOCAL CONTROL PANEL	THK	THICK
C/L, CL, CL	CENTERLINE	LD	LAP DEVELOPMENT	THW	MOISTURE AND HEAT RESISTANT THERMOPLASTIC
CLSM	CONTROLLED LOW-STRENGTH MATERIAL	LF	LINEAR FEET	TOC	TOP OF CONCRETE
CLR	CLEAR	LLV	LONG LEG VERTICAL	TOS	TOP OF SLAB
CML	CEMENT MORTAR LINED	LN	LANE	TYP	TYPICAL
CMP	CORRUGATED METAL PIPE	LP	LOW POINT, LIGHT POLE		
CMU	CONCRETE MASONRY UNITS			UBC	UNIFORM BUILDING CODE
CO	CLEANOUT	MAT	MATERIAL	UG	UNDERGROUND
CONC	CONCRETE	MAX	MAXIMUM	UON	UNLESS OTHERWISE NOTED
CONN	CONNECT, CONNECTION	MB	MACHINE BOLT	UPC	UNIFORM PLUMBING CODE
CONST	CONSTRUCTION	MCC	MOTOR CONTROL CENTER	UT	UTILITY
CONT	CONTINUATION, CONTINUOUS	MECH	MECHANICAL		
CPLG	COUPLING	MFR	MANUFACTURER	V	VALVE
CRSI	CONCRETE REINFORCING STEEL INSTITUTE	MGD	MILLION GALLONS PER DAY	VAR	VARIOUS
		MH	MANHOLE	VB	VALVE BOX
CV	CHECK VALVE	MIN	MINIMUM	VCP	VITRIFIED CLAY PIPE
CY	CUBIC YARD	M/L	MONUMENT LINE	VERT	VERTICAL
		MON	MONUMENT	VR	VACUUM RELIEF
		MPH	MILES PER HOUR		
D	DRAIN, DIAMETER	N	NORTH	1W	POTABLE WATER (NO 1 WATER)
DEMO	DEMOLISH, DEMOLITION	NAAMM	NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURER	2W	NON-POTABLE WATER (NO 2 WATER)
DET	DETAIL			3W	WWTP EFFLUENT (NO 3 WATER)
DIA	DIAMETER			W	WEST
DIP	DUCTILE IRON PIPE	NGS	NATIONAL GEODETIC SURVEY	W/	WITH
DN	DOWN	NO.	NUMBER	WG	WATER GAUGE
DR	DRIVE	N.O.	NORMALLY OPEN	WM	WATER METER
DSGN	DESIGNED	NSG	NON-SHRINK GROUT	W/O	WITHOUT
DWG(S)	DRAWING(S)	NTS	NOT TO SCALE	WOF	WATER OVERFLOW
DWL(S)	DOWEL(S)			WP	WORK POINT
E	EAST, ELECTRICAL	OC	ON CENTER, ODOR CONTROL	WS	WATERSTOP
(E), EXIST	EXISTING	OD	OUTSIDE DIAMETER	WT	WATER TURNOUT
EA	EACH	OE	OVERHEAD ELECTRICAL	WV	WATER VALVE
EB	ELECTRICAL BOX	OH	OVERHEAD	WY	WAY
EBD	EMERGENCY BYPASS DISCHARGE	OPNG	OPENING		
ECC	ECCENTRIC			&	AND
EF	EACH FACE	P	PUMP	△	ANGLE OF DEFLECTION
EL, ELEV	ELEVATION	PC	POINT OF CURVATURE	AT	AT
ELEC	ELECTRICAL	PCF	POUNDS PER CUBIC FOOT	#	NUMBER
EP	EDGE OF PAVEMENT	PD	PUMP DISCHARGE	Ø	DIAMETER
EPDM	ETHYLENE PROPYLENE DIENE MONOMER	PDWF	PEAK DRY WEATHER FLOW	=	EQUALS
EQ	EQUAL	PE	POLYETHYLENE, PERMANENT EASEMENT	"	INCHES
EQUIP	EQUIPMENT	PEN	PENETRATION	'	FEET
EW	EACH WAY	PG&E	PACIFIC GAS AND ELECTRIC	x	BY
EXT	EXTERIOR	PJ	PRESSURE INDICATOR, POINT OF INTERSECTION	±	PLUS OR MINUS
EXP	EXPANSION	P&ID	PROCESS & INSTRUMENTATION DIAGRAM	%	PERCENT
		PKWY	PARKWAY	°	DEGREES
FCA	FLANGE COUPLING ADAPTER	PL, PL	PROPERTY LINE, PLATE, PLACE		
FD	FLOOR DRAIN	PP	POWER POLE		
FDN	FOUNDATION	PRESS	PRESSURE		
FF	FINISHED FLOOR	PS	PUMP STATION, PUMP SUCTION		
FG	FINISHED GRADE	PSF	POUNDS PER SQUARE FOOT		
FH	FIRE HYDRANT	PSI(G)	POUNDS PER SQUARE INCH (GAUGE)		
FIG	FIGURE	PT	POINT		
		PTB	POWER TERMINAL BOX		
		PTDF	PRESSURE TREATED DOUGHLAS FIR		
		PV	PLUG VALVE		
		PVC	POLYVINYL CHLORIDE		
		PWWF	PEAK WET WEATHER FLOW		

NOTES:
NOT ALL ABBREVIATIONS SHOWN ARE USED IN THIS PROJECT.

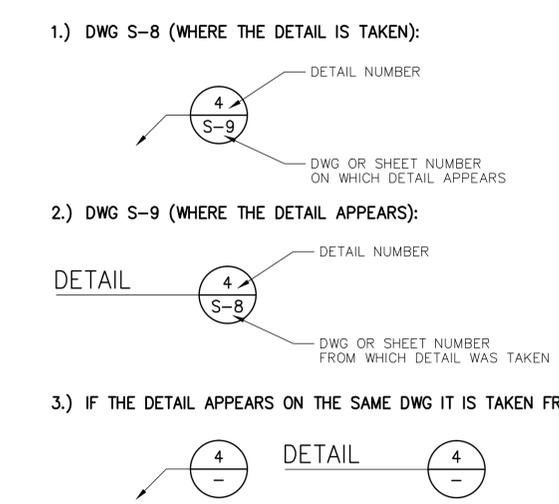
SYMBOLS

	NEW PIPING, EQUIPMENT OR STRUCTURES		AIR RELEASE VALVE
	EXISTING EQUIPMENT OR STRUCTURES		CATCH BASIN
	BURIED OR HIDDEN NEW PIPING, EQUIPMENT, OR STRUCTURES		POWER POLE
	BURIED OR HIDDEN EXISTING PIPING, EQUIPMENT, OR STRUCTURES		MANHOLE
	CENTER LINE		WATER VALVE
	PROPERTY/EASEMENT LINE		WATER VALVE (BY OTHERS)
	FENCE		STREET SIGNAGE
	SEWER LINE		FIRE HYDRANT
	WATER LINE		
	OVERHEAD LINE		
	GAS LINE		
	UNDERGROUND ELECTRIC		
	UNDERGROUND TELEPHONE		
	JOINT TRENCH		
	UNDERGROUND		
	PERMANENT EASEMENT		
	GATE VALVE		
	PLUG VALVE		
	BALL VALVE		
	CHECK VALVE		
	BLIND FLANGE OR GROOVED END COUPLING		
	REDUCER OR INCREASER		

TYPICAL SECTION DESIGNATION SYSTEM



TYPICAL DETAIL DESIGNATION SYSTEMS



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Cupertino, CA 95014
(408) 253-7863

DESIGNED BY :	BN				
DRAWN BY :	ED				
CHECKED BY :	FQ				
DATE :	10/19/2016				
SCALE :	No.	DESCRIPTION	DATE	BY	
MTCO JOB No. :	CU-14113				

Town of Woodside
Public Works Department
2955, WOODSIDE ROAD, CA 94062
(650) 851-6790 FAX (650) 851-2195

REGISTERED PROFESSIONAL ENGINEER
RICHARD TANAKA
No. 23233
Exp. 12/31/17
CIVIL
10/19/2016
REGISTERED CIVIL ENGINEER DATE

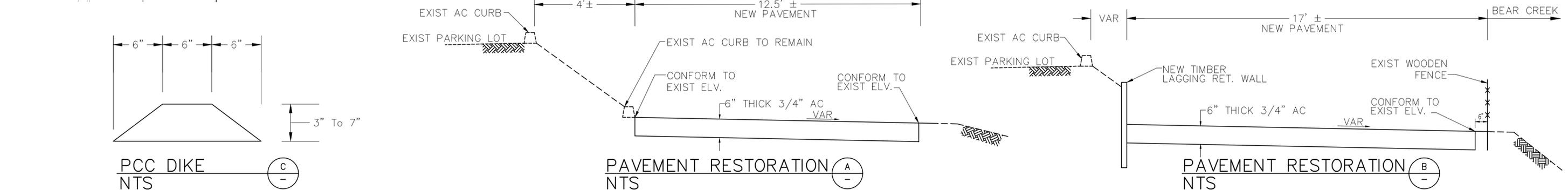
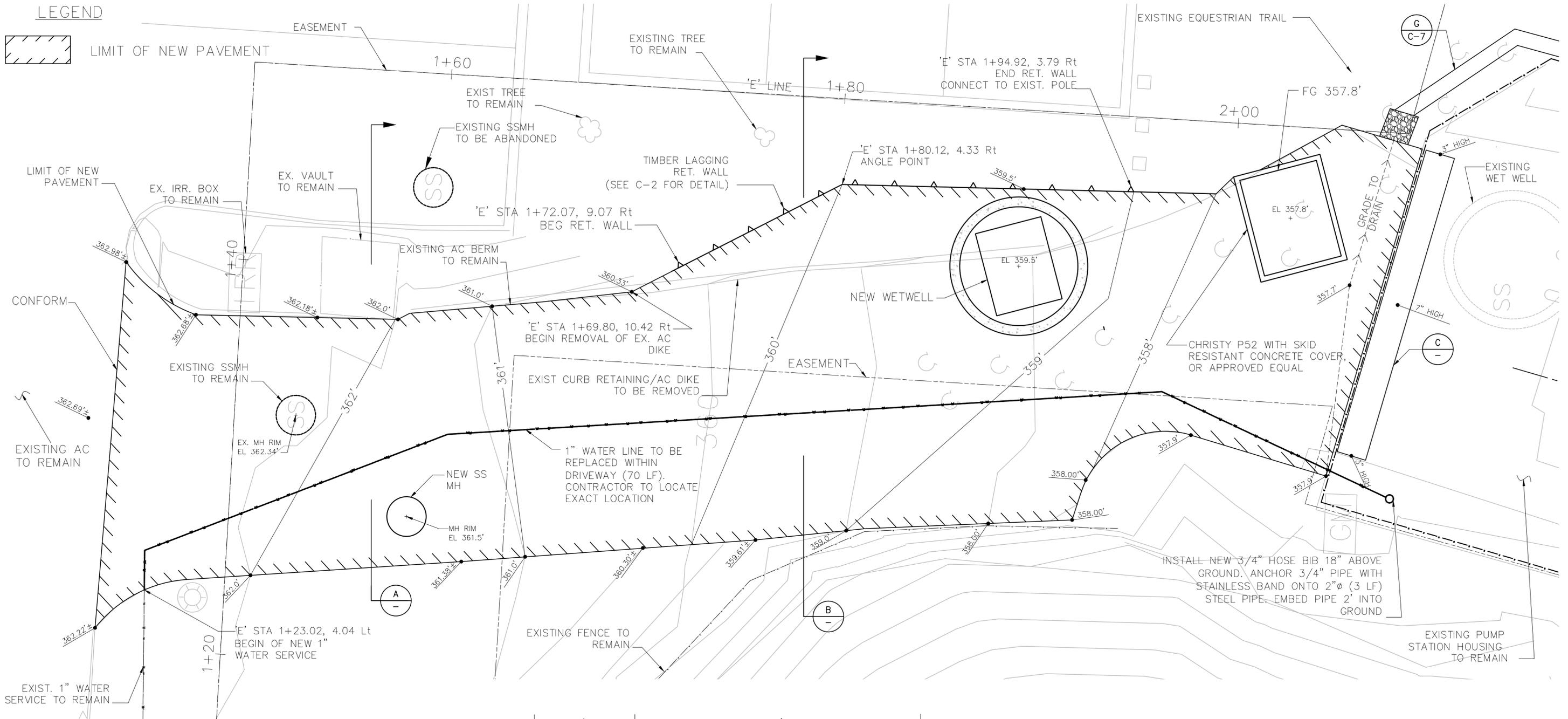
SYMBOLS & ABBREVIATIONS
TOWN OF WOODSIDE
TOWN CENTER SEWER PUMP STATION IMPROVEMENTS

WORK ORDER No.	ADVERTISEMENT DATE:	CONTRACT No.
----------------	---------------------	--------------



LEGEND

 LIMIT OF NEW PAVEMENT



100% SUBMITTAL

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DESIGNED BY :	BN
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CHECKED BY :	FQ
DATE :	10/19/2016
SCALE :	2"=5'
MTCO JOB No. :	CU-14113

No.	DESCRIPTION	DATE	BY
REVISIONS			

Town of Woodside
 Public Works Department
 2955, WOODSIDE ROAD, CA 94062
 (650) 851-6790 FAX (650) 851-2195

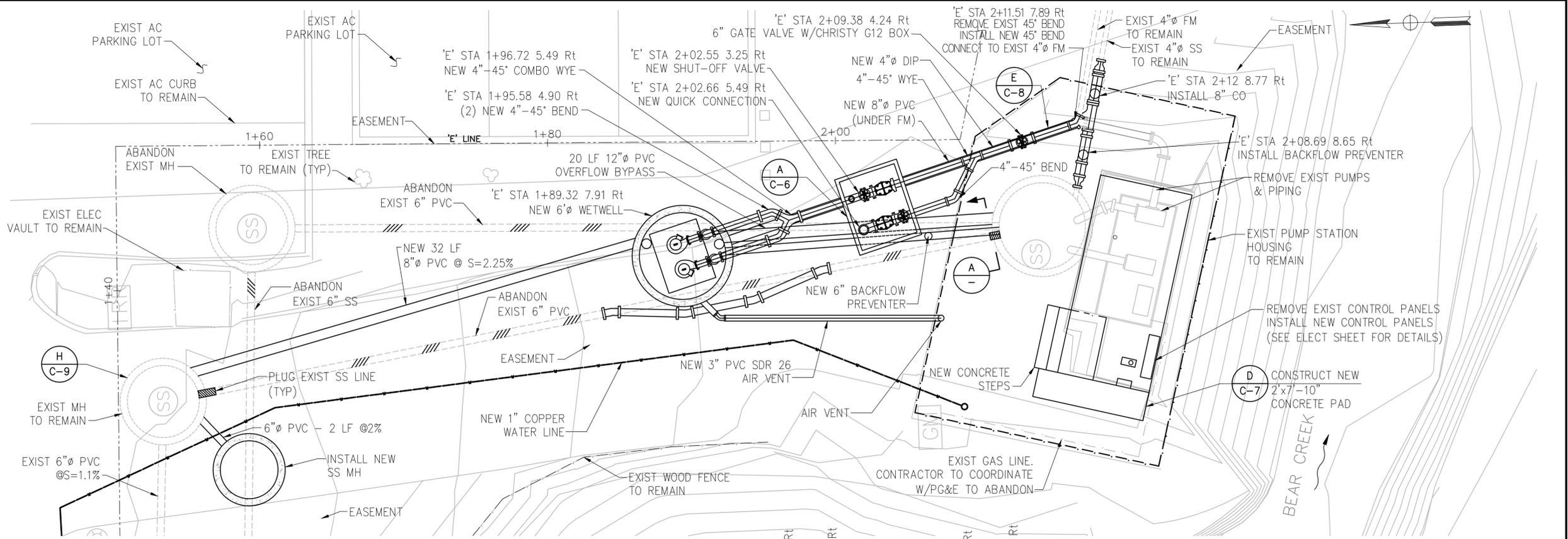
RICHARD TANAKA
 No. 23233
 Exp. 12/31/17
 CIVIL
 REGISTERED CIVIL ENGINEER
 10/19/2016

SITE IMPROVEMENT
TOWN OF WOODSIDE
TOWN CENTER SEWER PUMP STATION
IMPROVEMENTS

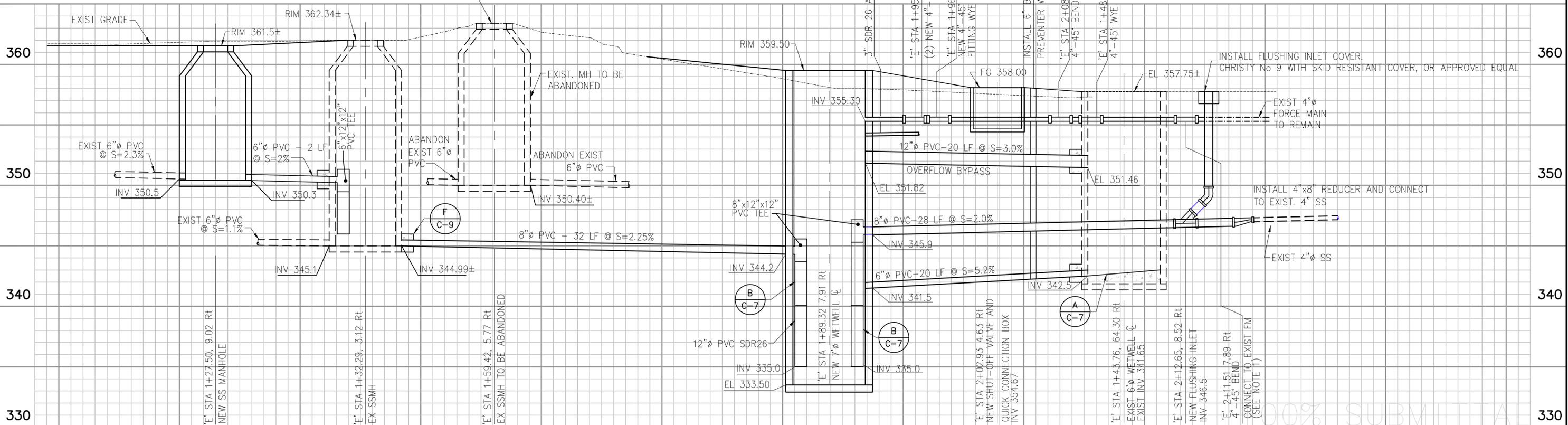
WORK ORDER No. _____ ADVERTISEMENT DATE: _____ CONTRACT No. _____

NOTES:

1. CONTRACTOR TO FIELD VERIFY EXISTING FM CONNECTION, BEND, AND WYE PRIOR TO ORDER THE MATERIAL.
2. CONTRACTOR TO SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW AND APPROVAL.
3. EXISTING PUMP STATION HOUSING IS TO BE PROTECTED DURING CONSTRUCTION.
4. ANY MODIFICATION TO THE HOUSING STRUCTURE FOR EASE OF CONSTRUCTION HAS TO BE APPROVED BY THE ENGINEER.
5. ALL ACCESS TO ADJACENT PROPERTIES MUST BE UNINTERRUPTED.



OVERFLOW LINES TRENCH DETAILS



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DESIGNED BY :	BN
DRAWN BY :	ED
CHECKED BY :	FQ
DATE :	10/19/2016
SCALE :	H 1" = 4' / V 1" = 4'
MTCo JOB No. :	CU-14113

No.	DESCRIPTION	DATE	BY
	REVISIONS		

Town of Woodside
 Public Works Department
 2955, WOODSIDE ROAD, CA 94062
 (650) 851-6790 FAX (650) 851-2195

REGISTERED PROFESSIONAL ENGINEER
 RICHARD TANAKA
 No. 23233
 Exp 12/31/17
 CIVIL
 STATE OF CALIFORNIA

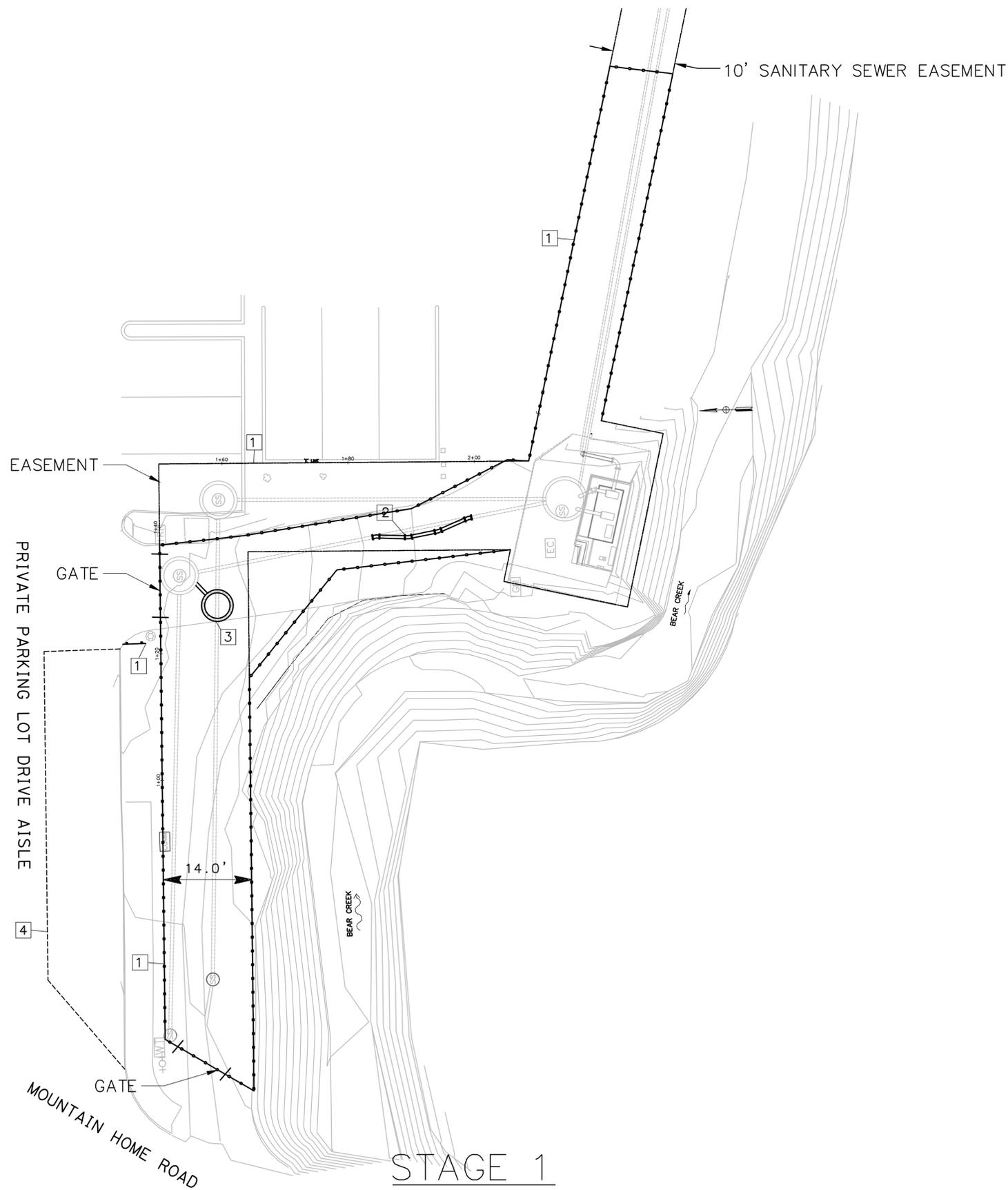
10/19/2016
 REGISTERED CIVIL ENGINEER DATE

PUMP STATION LAYOUT
 TOWN OF WOODSIDE
 TOWN CENTER SEWER PUMP STATION
 IMPROVEMENTS

WORK ORDER No. ADVERTISEMENT DATE: CONTRACT No.

SHEET
 6
 OF 22 SHEETS
 C-3



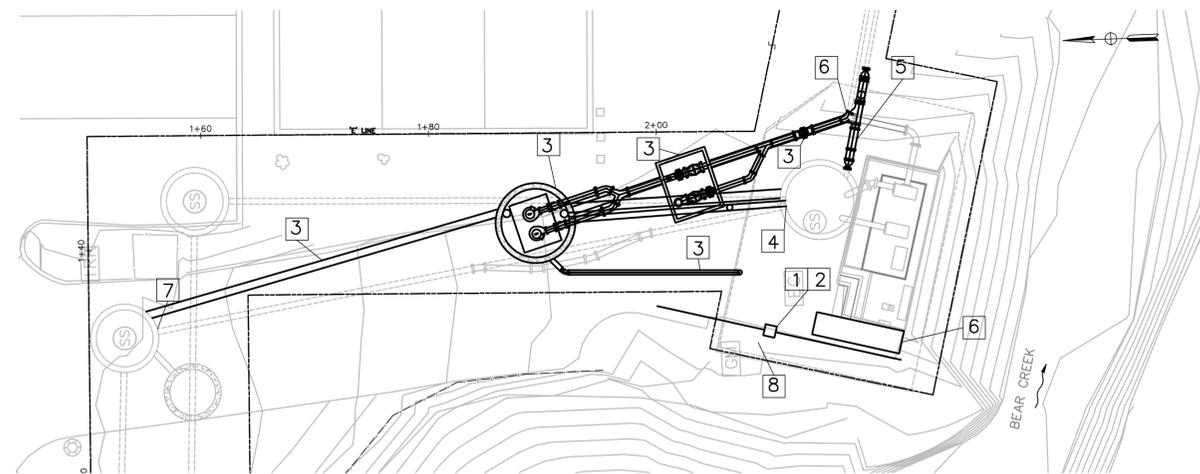


STAGE 1 NOTES:

1. INSTALL TEMP FENCE AROUND WORK AREA AND PROJECT INFORMATION & (2) TRAIL CLOSED SIGNS. AREA SHOWN IN WORK AREA IS AVAILABLE FOR STAGING, EQUIPMENT, MATERIALS, ETC.
2. INSTALL 6" PVC AROUND PROPOSED WETWELL USING TEMPORARY 22.5° PVC BENDS. PROVIDE TEMP BYPASS SYSTEM
3. INSTALL NEW DROP MANHOLE AND CONNECT TO EXISTING MANHOLE
4. TRUCKS CAN USE SOUTHERLY LANE OF DRIVE AISLE FOR DELIVERIES AND HAULING. TRUCKS MUST USE MOUNTAIN HOME ROAD TO ACCESS SITE. NO CONSTRUCTION TRAFFIC IS ALLOWED THROUGH PRIVATE PARKING LOT.

STAGE 2 NOTES:

1. PG&E TO MAINTAIN EXIST SERVICE & CONTRACTOR TO PROVIDE NEW 3" C TO NEW PG&E SERVICE PEDESTAL
2. EXIST 1" C TELEPHONE SERVICE TO REMAIN IN OPERATION & CONTRACTOR TO PROVIDE NEW 1" C TO NEW CABINET
3. INSTALL ALL NEW SEWER LINES, WETWELL, HATCH, & VAULT
4. INSTALL 6" GRAVITY LINE FROM EXIST WETWELL TO NEW WETWELL & PLUG. PROVIDE TEMP BYPASS SYSTEM
5. CONNECT EXIST 4" GRAVITY LINE TO EXIST WETWELL & NEW WETWELL. SEE SHEET C-3. PROVIDE TEMP BYPASS SYSTEM
6. INSTALL NEW FM PIPE (2) VALVES UP TO THE EXIST CONNECTION POINT. PROVIDE TEMP BYPASS SYSTEM
7. CONSTRUCT CONCRETE PAD.
8. INSTALL TEMP PLUG.
9. INSTALL 1" WATER SERVICE & HOSE BIB.



GENERAL STAGING NOTES

1. STAGING PLAN SHOWN HEREIN IS ONE METHOD. CONTRACTOR TO SUBMIT DETAILED STAGING PLAN FOR TOWN'S REVIEW AND APPROVAL.
2. CONTRACTOR TO PROVIDE BYPASS PLAN FOR TOWN'S APPROVAL.

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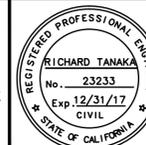
DESIGNED BY : BN
 DRAWN BY : ED
 CHECKED BY : FQ
 DATE : 10/19/2016
 SCALE :
 MTCO JOB No. : CU-14113

No.	DESCRIPTION	DATE	BY
REVISIONS			



Town of Woodside
 Public Works Department

2955, WOODSIDE ROAD, CA 94062
 (650) 851-6790 FAX (650) 851-2195



Richard Tanaka 10/19/2016
 REGISTERED CIVIL ENGINEER DATE

STAGING PLAN & ORDER OF WORK
 TOWN OF WOODSIDE
 TOWN CENTER SEWER PUMP STATION
 IMPROVEMENTS

WORK ORDER No. ADVERTISEMENT DATE: CONTRACT No.

SHEET 7 OF 22 SHEETS
 C-4

RELATIVE BORDER SCALE IS IN INCHES

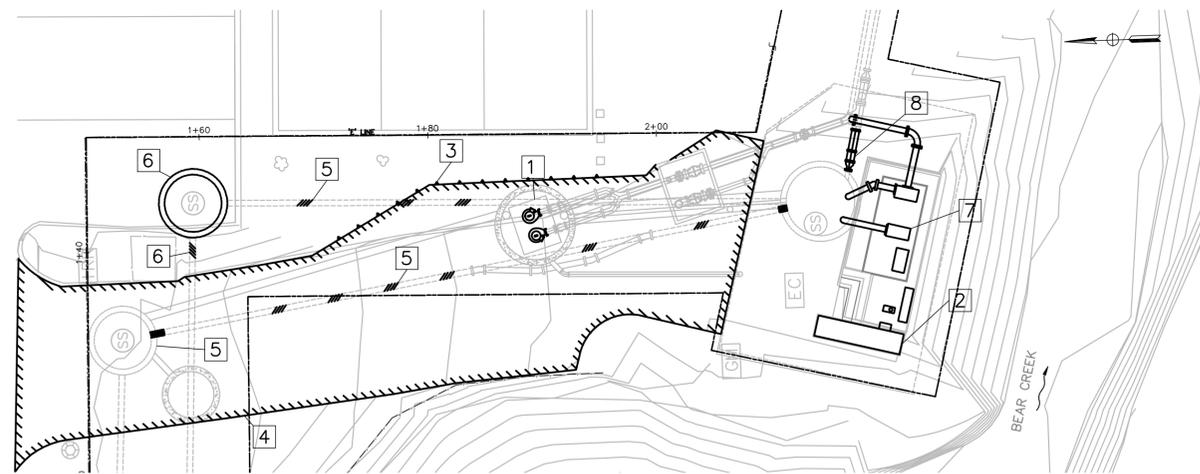


GENERAL STAGING NOTES

- ① STAGING PLAN SHOWN HEREIN IS ONE METHOD. CONTRACTOR TO SUBMIT DETAILED STAGING PLAN FOR TOWN'S REVIEW AND APPROVAL.
- ② CONTRACTOR TO PROVIDE BYPASS PLAN FOR TOWN'S APPROVAL.

STAGE 3 NOTES:

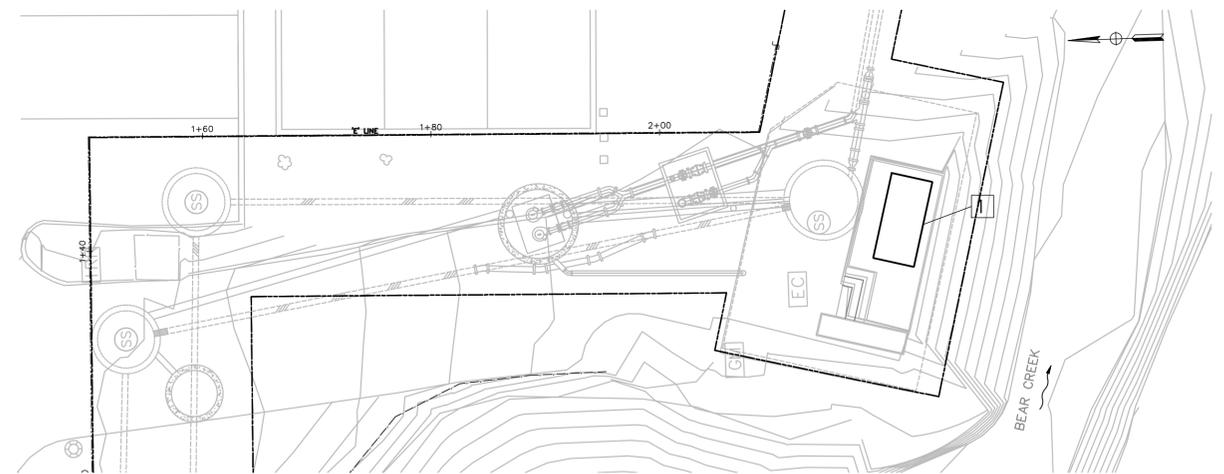
- 1. TEST NEW PUMP STATION
- 2. INSTALL NEW CONTROL CABINET & CONNECT POWER AND COMMUNICATIONS. DISCONNECT EXIST POWER & COMMUNICATIONS & TRANSFER TO NEW SERVICE. PROVIDE TEMP BYPASS SYSTEM
- 3. CONSTRUCT RETAINING WALL
- 4. CONSTRUCT NEW AC PAVEMENT
- 5. PLUG AND RECHANNEL MH. REMOVE EXISTING PLUG. PROVIDE TEMP BYPASS SYSTEM
- 6. ABANDON 6" PVC & MH
- 7. DEMO EXISTING PUMPS & GENERATOR
- 8. CLOSE VALVE, FILL WITH CONCRETE SLURRY AND CAP AT EXIST WETWELL



STAGE 3

STAGE 4 NOTES:

- 1. INSTALL NEW GENERATOR.



STAGE 4

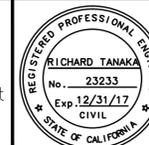
mt MARK THOMAS & COMPANY INC.
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 Cupertino, CA 95014
 (408) 253-7863

DESIGNED BY :	BN				
DRAWN BY :	ED				
CHECKED BY :	FQ				
DATE :	10/19/2016				
SCALE :	1"=5'	No.	DESCRIPTION	DATE	BY
MTCO JOB No. :	CU-14113	REVISIONS			



Town of Woodside
 Public Works Department

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Richard Tanaka 10/19/2016
 REGISTERED CIVIL ENGINEER DATE

STAGING PLAN & ORDER OF WORK
 TOWN OF WOODSIDE
 TOWN CENTER SEWER PUMP STATION
 IMPROVEMENTS

WORK ORDER No. _____ ADVERTISEMENT DATE: _____ CONTRACT No. _____

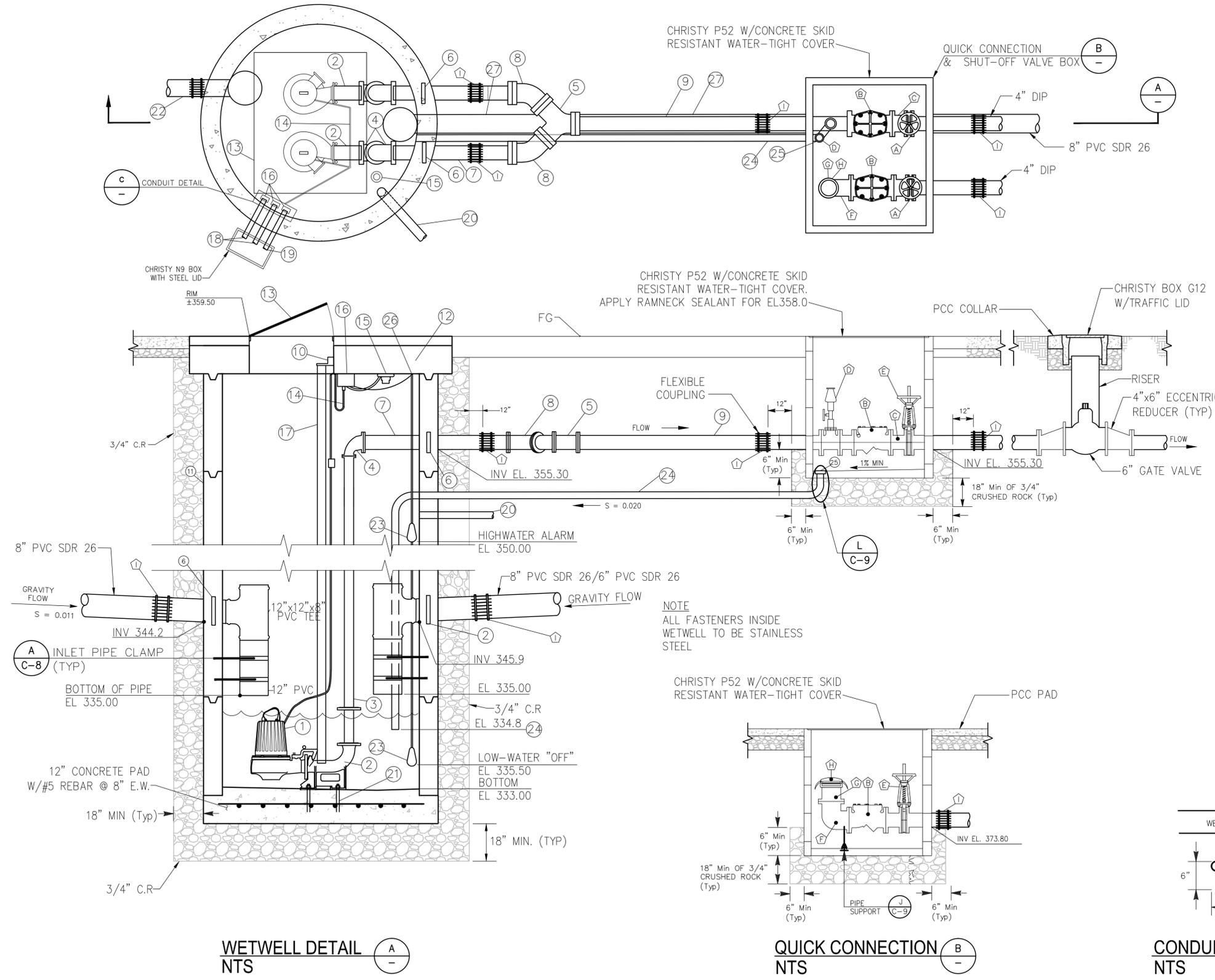
SHEET
 8
 OF 22 SHEETS
 C-5

RELATIVE BORDER SCALE
 IS IN INCHES



WETWELL DETAIL LEGEND

- ① FLYGT SUBMERSIBLE PUMP MODEL NP-3127 WITH MIX-FLUSH SYSTEM (2 EA.)
 - ② FLYGT 4-IN DISCHARGE ELBOW ASSEMBLY AND BRACKET WITH 3/4" Ø SS ANCHOR BOLTS (2 EA.)
 - ③ 4" DIP DISCHARGE PIPE FLANGED (2 EA.)
 - ④ 4" DIP 90° ELBOW, FLANGED (2 EA.)
 - ⑤ 4" DIP 45° FLANGED COMBO WYE
 - ⑥ WATER STOP
 - ⑦ 4" DIP DISCHARGE PIPE FLANGED (LENGTH AS DETERMINED IN THE FIELD FOR PROPER CONNECTION)
 - ⑧ 4" DIP 45° BEND FLANGED (AS REQUIRED)
 - ⑨ 4" DIP SSFM
 - ⑩ UPPER GUIDE RAIL BRACKET (2 EA.)
 - ⑪ 6-FT DIA WETWELL SECTION W/ CIM 1000 URETHANE LINER OR APPROVED EQUAL
 - ⑫ PRECAST CONCRETE WETWELL LID
 - ⑬ FLYGT ALUMINUM SAFE-HATCH ACCESS COVER FLE-HD (36"x48")
 - ⑭ MOTOR ELECTRICAL CABLE
 - ⑮ FLYGT ULTRASONIC LEVEL MONITOR MOUNTED TO UNDERSIDE OF PRECAST WETWELL LID
 - ⑯ EXPLOSION-PROOF JUNCTION BOX
 - ⑰ 2" DIA. GALVANIZED GUIDE RAILS (4 REQUIRED)
 - ⑱ 2" SCH 80 CONDUIT FROM CONTROL PANEL FOR MOTOR ELECTRICAL CABLES
 - ⑲ 2" SCH 80 CONDUIT FROM CONTROL PANEL FOR TELEMETRY CONTROL WIRES
 - ⑳ 3" PVC AIR VENT (2% Min SLOPE)
 - ㉑ DRILL AND BOND SS BOLTS Min 4" EMBEDDED DEPTH TO MOUNT DISCHARGE ELBOW AND BRACKET (SEE #2)
 - ㉒ 8" PVC SDR 26 SANITARY SEWER INFLUENT LINE
 - ㉓ FLYGT ENM-10 FLOATS (2 TOTAL) (SEE SPECIFICATIONS FOR SCADA)
 - ㉔ 2" PVC SCH80 DRAIN PIPE
 - ㉕ 2" PVC SCH80 FLOOR DRAIN
 - ㉖ 3/8" DIA. SS 2-IN CABLE HOOKS (4 TOTAL)
 - ㉗ 8" PVC SDR 26
- Ⓐ 4" DeZURIK FLANGED KNIFE VALVE
 - Ⓑ 4" FLANGED BALL CHECK VALVE
 - Ⓒ 4" DIP FLANGED SPACER (FS)
 - Ⓓ 2" STAINLESS STEEL AIR RELIEF VALVE (CONNECT TO 2" DRAIN)
 - Ⓔ 4" DeZURIK FLANGED KNIFE VALVE
 - Ⓕ 4"x6" FLANGED REDUCER 90° ELBOW
 - Ⓖ 6" FLANGED ALUMINUM QUICK CONNECT, MALE FITTING
 - Ⓗ 6" FEMALE CAP
 - Ⓘ FLEXIBLE COUPLING



WETWELL DETAIL A NTS

QUICK CONNECTION B NTS

CONDUIT DETAIL C NTS

WETWELL LID D NTS

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CHECKED BY :	FQ
DATE :	10/19/2016
SCALE :	
MTCO JOB No. :	CU-14113

No.	DESCRIPTION	DATE	BY
REVISIONS			

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 Public Works Department
 2955, WOODSIDE ROAD, CA 94062
 (650) 851-6790 FAX (650) 851-2195

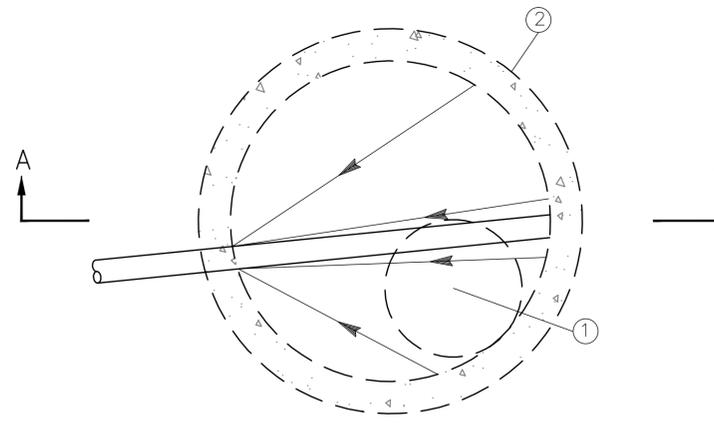
RICHARD TANAKA
 No. 23233
 Exp. 12/31/17
 CIVIL
 REGISTERED CIVIL ENGINEER
 10/19/2016

CONSTRUCTION DETAILS
 TOWN OF WOODSIDE
 TOWN CENTER SEWER PUMP STATION
 IMPROVEMENTS

SHEET
 9
 OF 22 SHEETS
 C-6

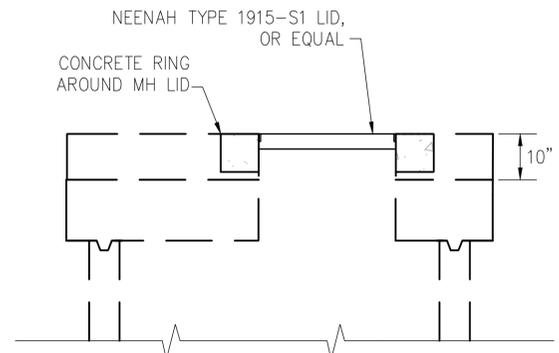


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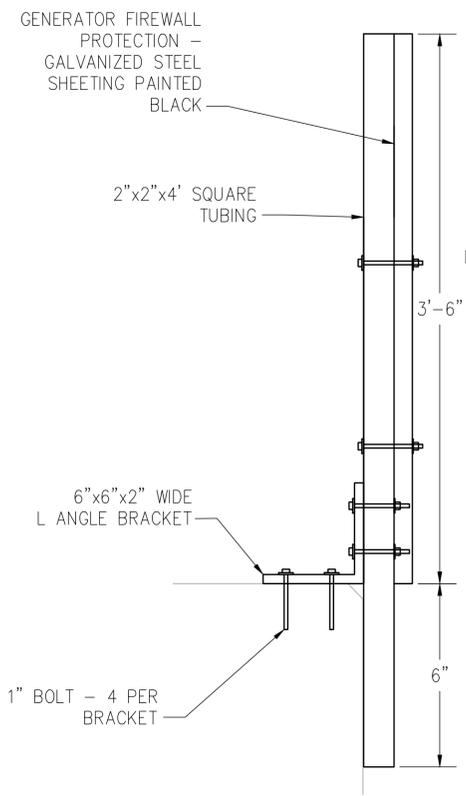


WETWELL DETAIL LEGEND

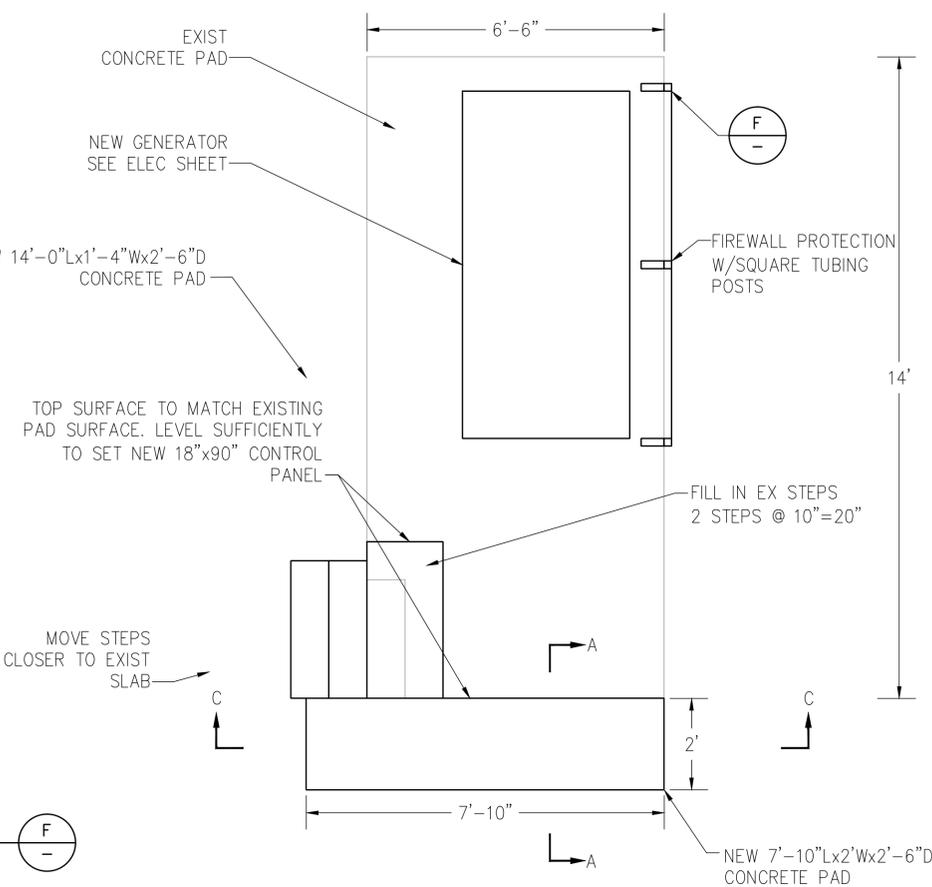
- ① REMOVE EXIST LID AND CONCRETE AS NECESSARY TO INSTALL NEW WATER TIGHT MH COVER. (NEENAH TYPE 1915-S1 R1755 SERIES OR APPROVED EQUAL)
- ② EXIST WETWELL
- ③ WATERPROOF SEALANT



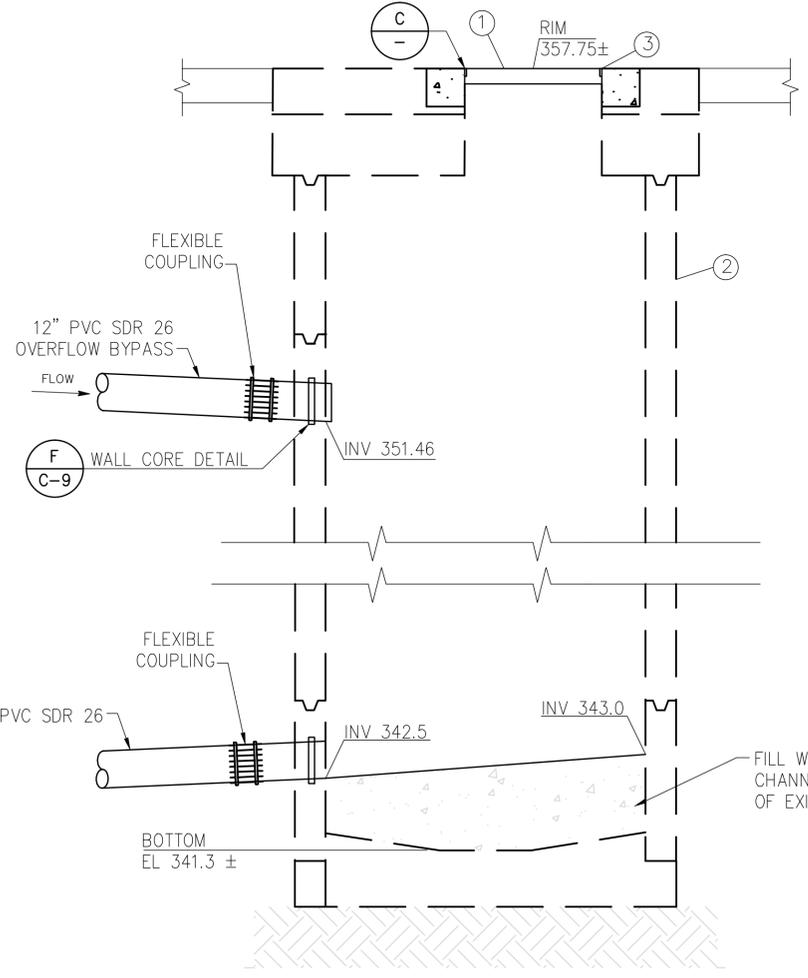
WATERTIGHT MANHOLE LID
NTS



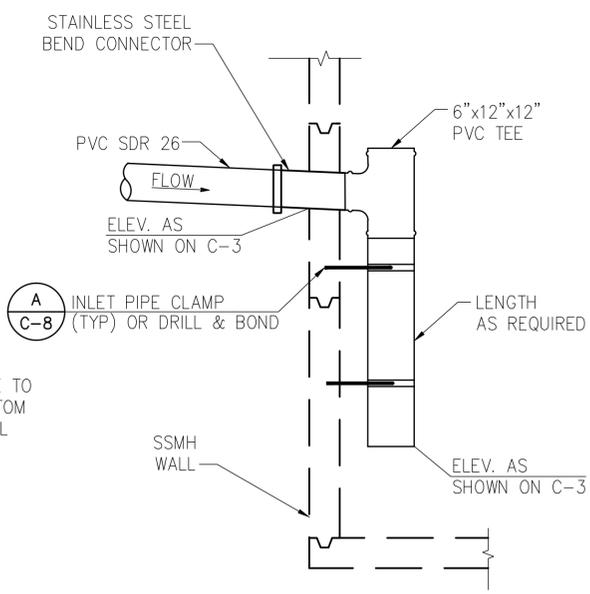
GENERATOR FIREWALL
NTS



PLAN VIEW



EXIST WETWELL SECTION A-A
NTS

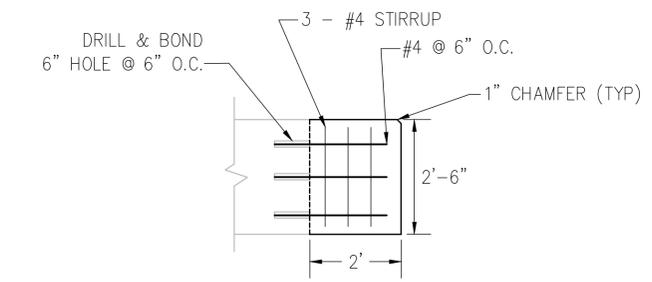


FLOW INFLUENT SECTION B-B
NTS

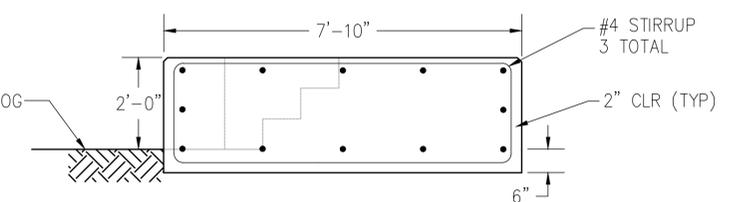
TOWN OF WOODSIDE
TOWN CENTER SEWER PUMP STATION
IMPROVEMENTS
ESTIMATED DURATION:
TO WORK HOURS:
TO CONTACT:
(650) 851-6790 (TOWN)
(CONTRACTOR)

TOWN OF WOODSIDE
TRAIL CLOSED
ESTIMATED DURATION:
TO CONTACT:
(650) 851-6790 (TOWN)

PROJECT INFO SIGNS
SCALE 1"=1'



SECTION A-A



SECTION C-C

CONCRETE PAD EXTENSION
SCALE 1"=0.5'

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DESIGNED BY :	BN				
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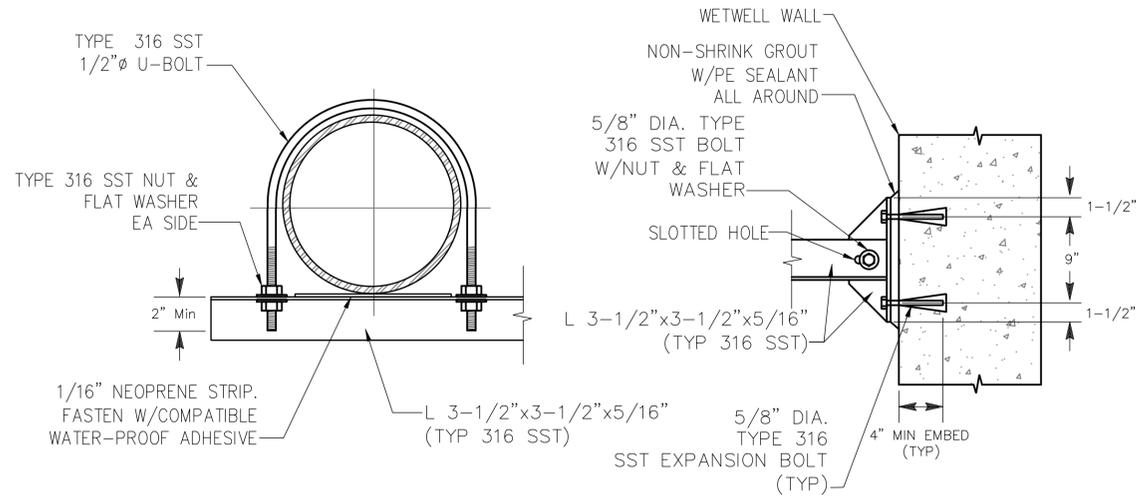
Town of Woodside
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CIVIL
STATE OF CALIFORNIA
10/19/2016
REGISTERED CIVIL ENGINEER DATE

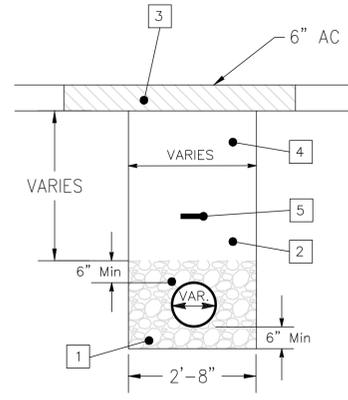
CONSTRUCTION DETAILS
TOWN OF WOODSIDE
TOWN CENTER SEWER PUMP STATION
IMPROVEMENTS
WORK ORDER No. ADVERTISEMENT DATE: CONTRACT No.

SHEET
10
OF 22 SHEETS
C-7



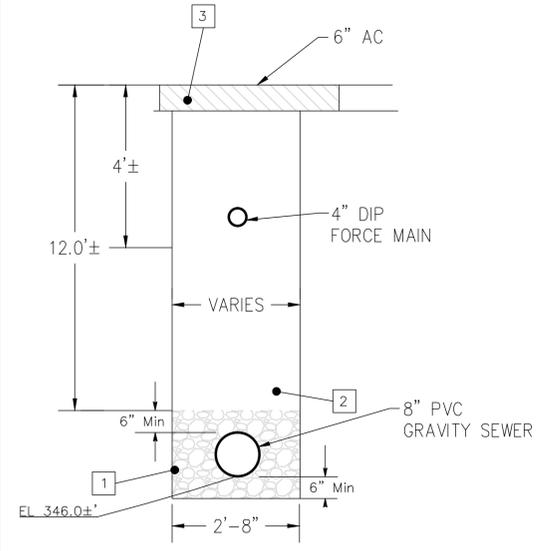


INLET PIPE CLAMP
NTS (A)
C-5



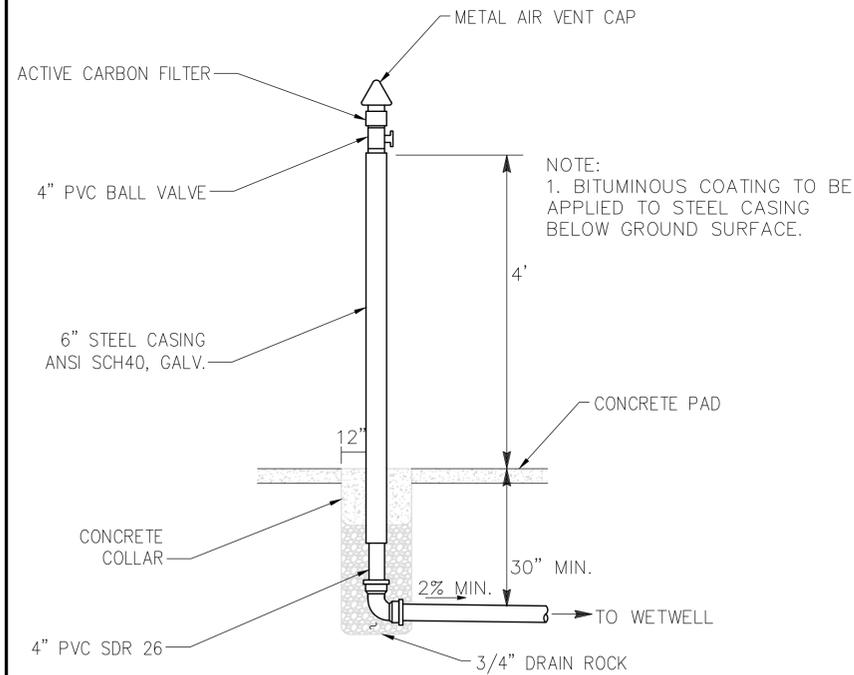
TYPICAL TRENCH
NTS (C)
-

- TRENCH LEGEND:**
- 1 FOR SANITARY SEWER PIPE, USE 3/4" CRUSHED ROCK FOR INITIAL BACKFILL, 6" ABOVE AND BELOW THE PIPE (Min).
 - 2 CLASS II AB
 - 3 6" AC PAVEMENT
 - 4 95% RELATIVE COMPACTION
 - 5 TRACER WIRE

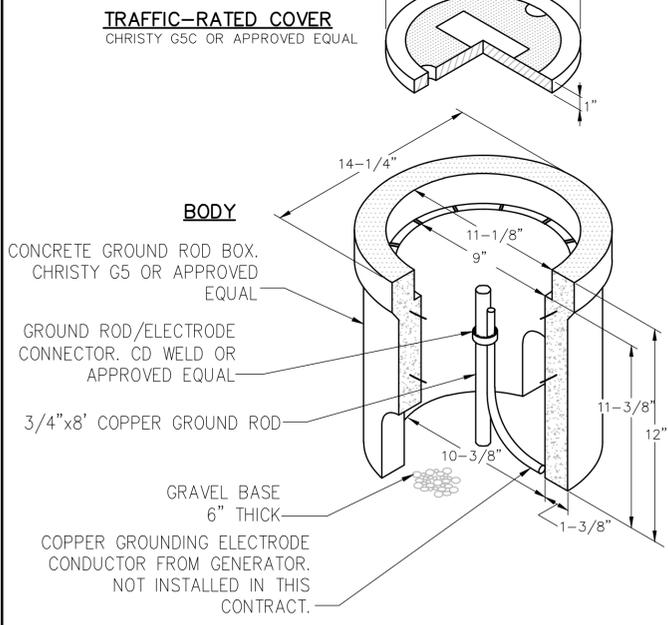


FORCE MAIN TRENCH
NTS (E)
C-3

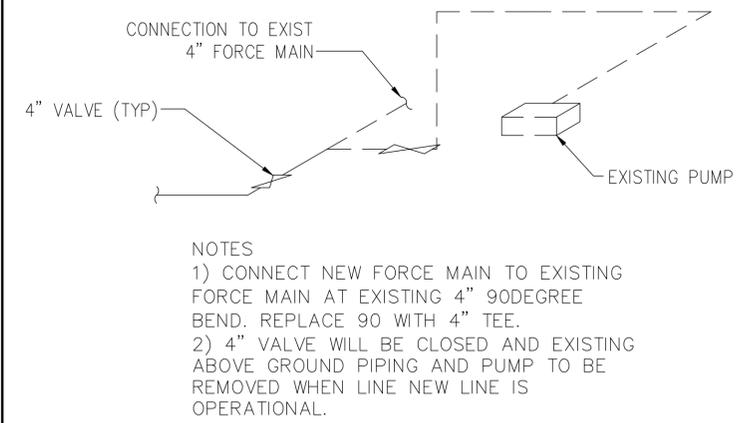
- TRENCH LEGEND:**
- 1 FOR SANITARY SEWER PIPE, USE 3/4" CRUSHED ROCK FOR INITIAL BACKFILL, 6" ABOVE & BELOW THE PIPE (Min.)
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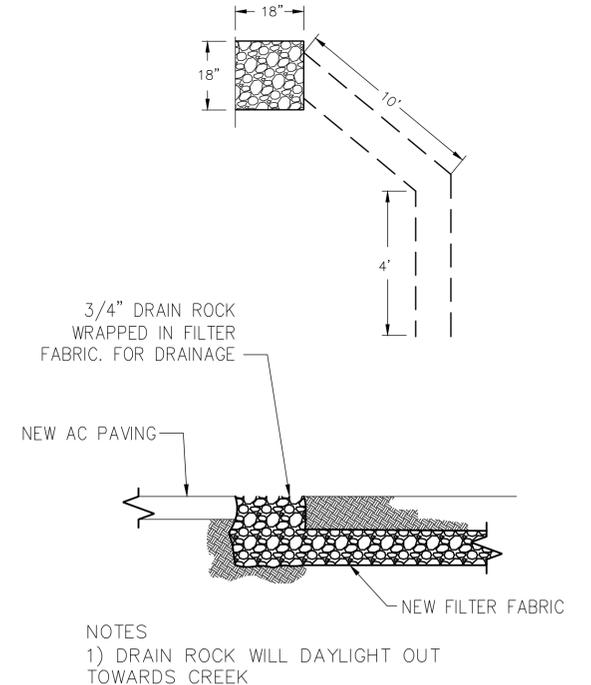
AIR VENT POST
NTS (B)
-



GROUNDING ROD
NTS (D)
E-7



ISOMETRIC CONNECTION AT FORCE MAIN
NTS (F)
-



DRAINAGE SWALE
NTS (G)
C-1

MARK THOMAS & COMPANY INC.
Providing Engineering, Surveying, and Planning Services
20863 Stevens Creek Boulevard, Suite 100
Cupertino, CA 95014
(408) 253-7863

DESIGNED BY :	BN
DRAWN BY :	ED
CHECKED BY :	FQ
DATE :	10/19/2016
SCALE :	
MTCo JOB No. :	CU-14113

No.	DESCRIPTION	DATE	BY
REVISIONS			

Town of Woodside
Public Works Department
2955, WOODSIDE ROAD, CA 94062
(650) 851-6790 FAX (650) 851-2195

REGISTERED PROFESSIONAL ENGINEER
RICHARD TANAKA
No. 23233
Exp. 12/31/17
CIVIL
STATE OF CALIFORNIA

10/19/2016
REGISTERED CIVIL ENGINEER DATE

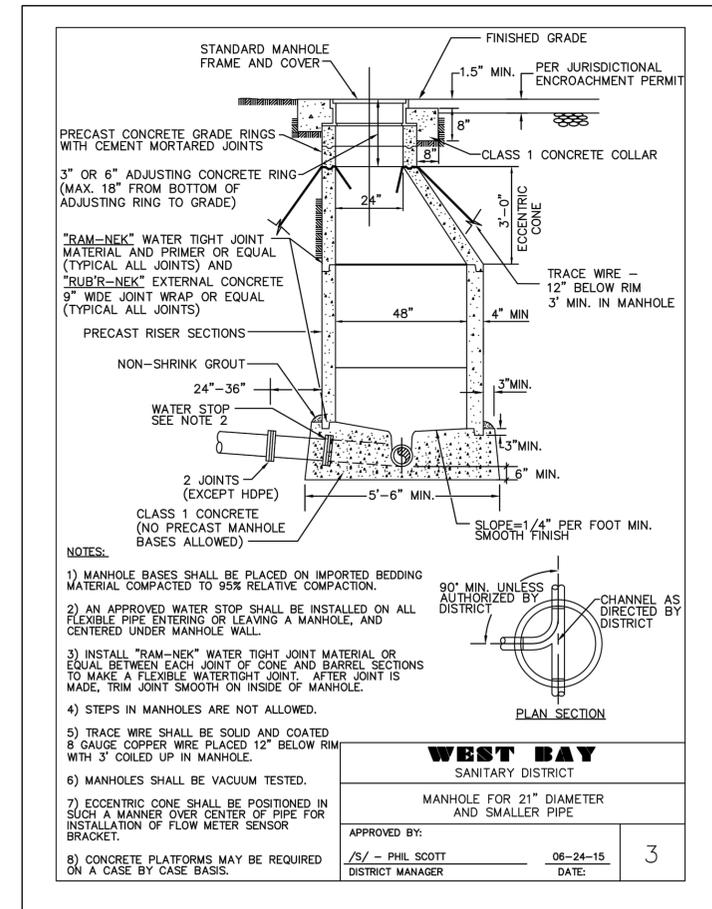
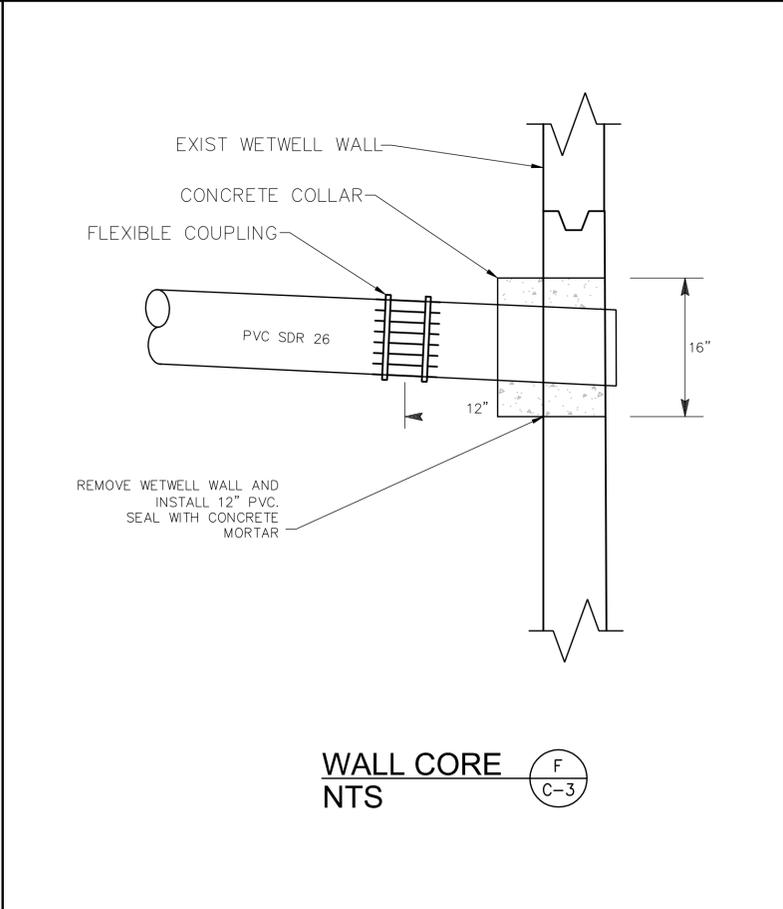
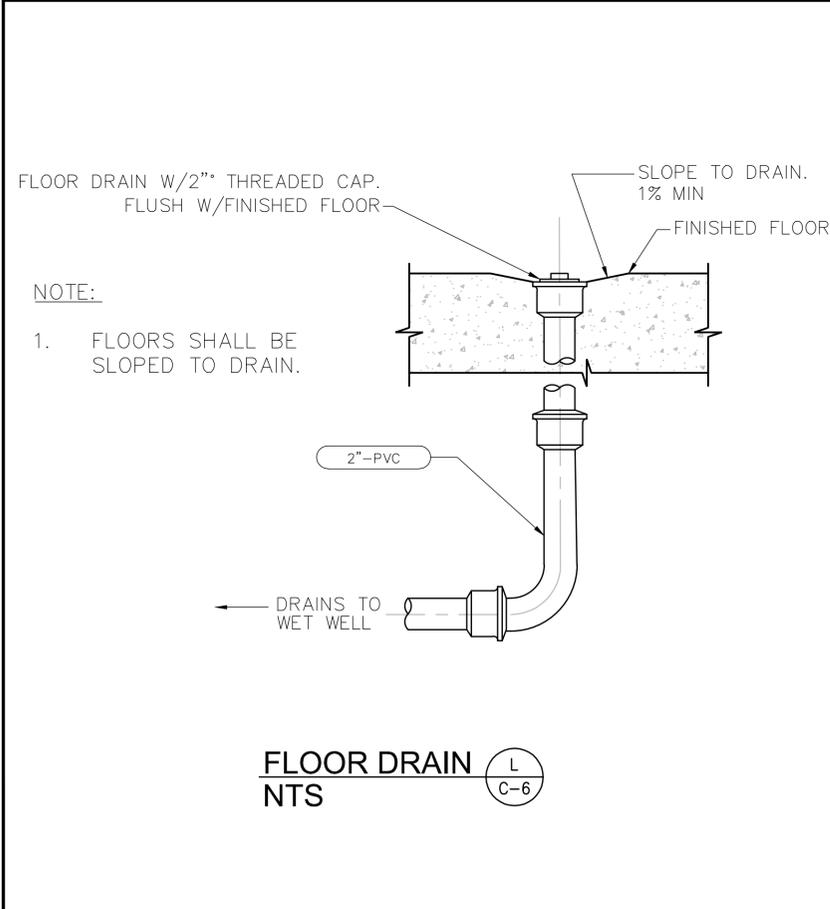
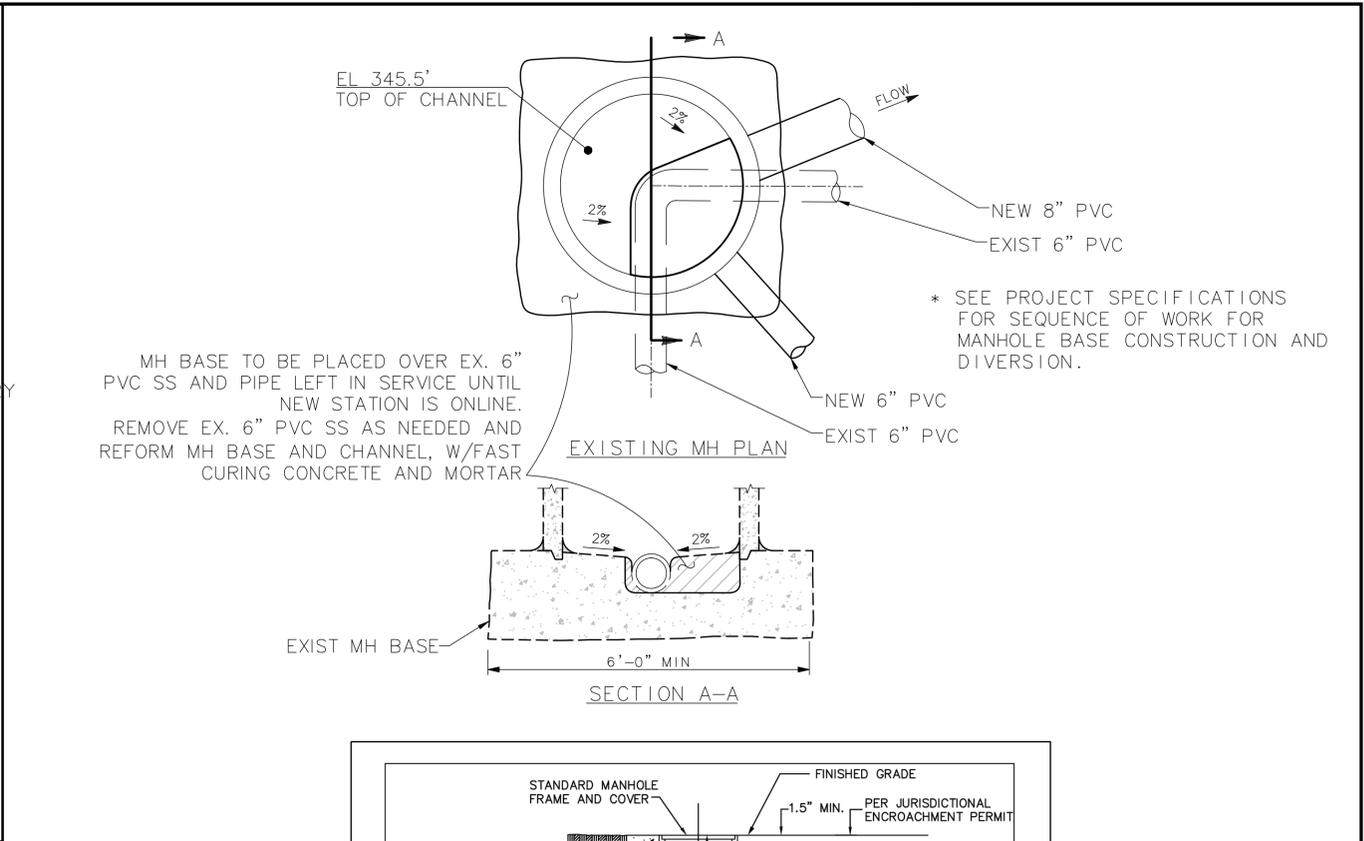
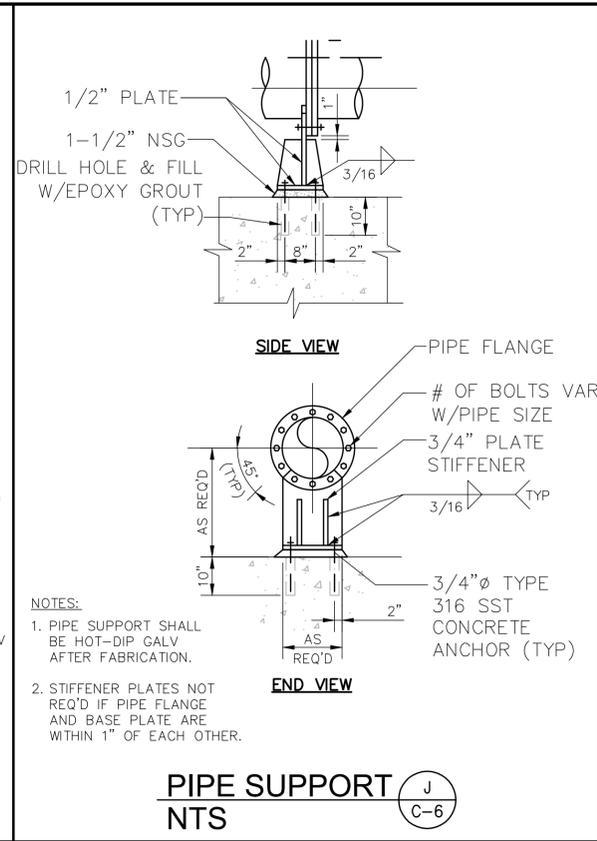
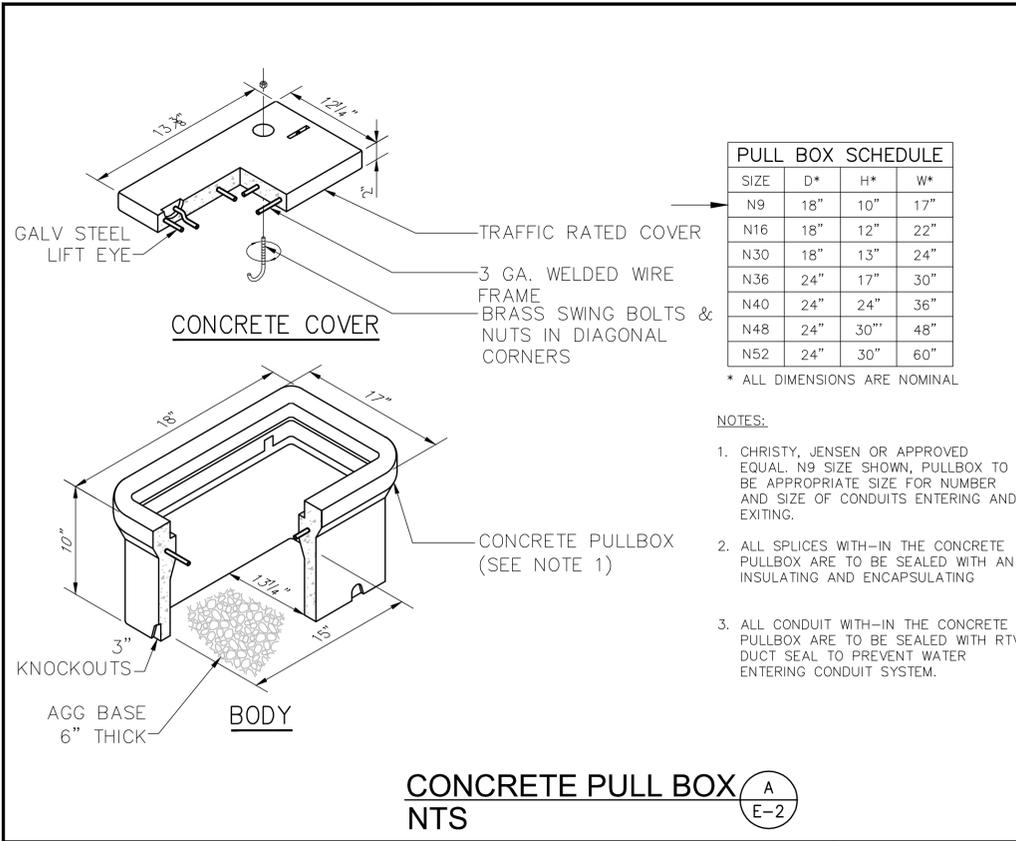
CONSTRUCTION DETAILS
TOWN OF WOODSIDE
TOWN CENTER SEWER PUMP STATION IMPROVEMENTS

WORK ORDER No. _____ ADVERTISEMENT DATE: _____ CONTRACT No. _____

SHEET
11
OF 22 SHEETS
C-8



100% SUBMITTAL



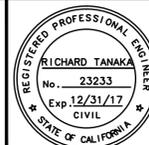
MARK THOMAS & COMPANY INC.
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20863 Stevens Creek Boulevard, Suite 100
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REVISIONS			



Town of Woodside
Public Works Department
2955, WOODSIDE ROAD, CA 94062
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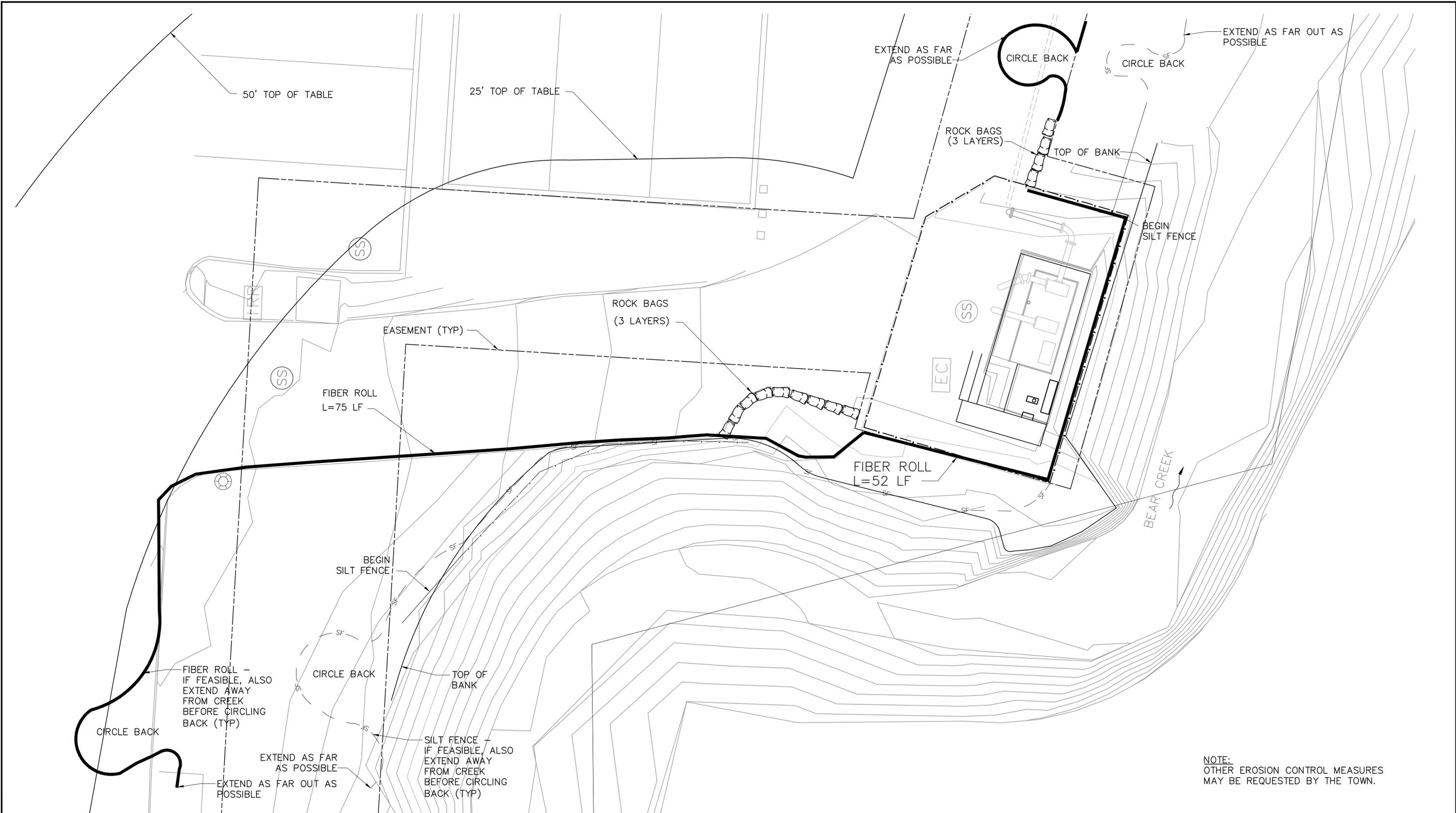
REGISTERED CIVIL ENGINEER
DATE: 10/19/2016

CONSTRUCTION DETAILS TOWN OF WOODSIDE TOWN CENTER SEWER PUMP STATION IMPROVEMENTS			SHEET 12 OF 22 SHEETS C-9
WORK ORDER No.	ADVERTISEMENT DATE:	CONTRACT No.	

RELATIVE BORDER SCALE IS IN INCHES



100% SUBMITTAL



100% SUBMITTAL

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 Providing Engineering, Surveying, and Planning Services
 20863 Stevens Creek Boulevard, Suite 100
 Cupertino, CA 95014
 (408) 253-7863

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	REVISIONS		

Town of Woodside
 Public Works Department
 2955, WOODSIDE ROAD, CA 94062
 (650) 851-6790 FAX (650) 851-2195

REGISTERED PROFESSIONAL ENGINEER
 RICHARD TANAKA
 No. 23233
 Exp. 12/31/17
 CIVIL
 REGISTERED CIVIL ENGINEER DATE 10/19/2016

WATER POLLUTION CONTROL PLAN
TOWN OF WOODSIDE
TOWN CENTER SEWER PUMP STATION IMPROVEMENTS

WORK ORDER No. _____ ADVERTISEMENT DATE: _____ CONTRACT No. _____

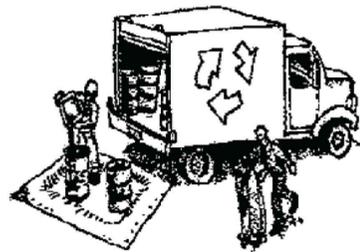
SHEET 13 OF 22 SHEETS
 C-10



Construction Best Management Practices (BMPs)

Construction projects are required to implement the stormwater best management practices (BMP) on this page, as they apply to your project, all year long.

Materials & Waste Management



Non-Hazardous Materials

- Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or if not actively being used within 14 days.
- Use (but don't overuse) reclaimed water for dust control.

Hazardous Materials

- Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state and federal regulations.
- Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecast.
- Follow manufacturer's application instructions for hazardous materials and be careful not to use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- Arrange for appropriate disposal of all hazardous wastes.

Waste Management

- Cover waste disposal containers securely with tarps at the end of every work day and during wet weather.
- Check waste disposal containers frequently for leaks and to make sure they are not overfilled. Never hose down a dumpster on the construction site.
- Clean or replace portable toilets, and inspect them frequently for leaks and spills.
- Dispose of all wastes and debris properly. Recycle materials and wastes that can be recycled (such as asphalt, concrete, aggregate base materials, wood, gyp board, pipe, etc.)
- Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste.

Construction Entrances and Perimeter

- Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site.
- Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking. Never hose down streets to clean up tracking.

Equipment Management & Spill Control



Maintenance and Parking

- Designate an area, fitted with appropriate BMPs, for vehicle and equipment parking and storage.
- Perform major maintenance, repair jobs, and vehicle and equipment washing off site.
- If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or surface waters.
- Do not clean vehicle or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment.

Spill Prevention and Control

- Keep spill cleanup materials (e.g., rags, absorbents and cat litter) available at the construction site at all times.
- Inspect vehicles and equipment frequently for and repair leaks promptly. Use drip pans to catch leaks until repairs are made.
- Clean up spills or leaks immediately and dispose of cleanup materials properly.
- Do not hose down surfaces where fluids have spilled. Use dry cleanup methods (absorbent materials, cat litter, and/or rags).
- Sweep up spilled dry materials immediately. Do not try to wash them away with water, or bury them.
- Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- Report significant spills immediately. You are required by law to report all significant releases of hazardous materials, including oil. To report a spill: 1) Dial 911 or your local emergency response number, 2) Call the Governor's Office of Emergency Services Warning Center, (800) 852-7550 (24 hours).

Earthmoving



- Schedule grading and excavation work during dry weather.
- Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- Remove existing vegetation only when absolutely necessary, and seed or plant vegetation for erosion control on slopes or where construction is not immediately planned.
- Prevent sediment from migrating offsite and protect storm drain inlets, gutters, ditches, and drainage courses by installing and maintaining appropriate BMPs, such as fiber rolls, silt fences, sediment basins, gravel bags, berms, etc.
- Keep excavated soil on site and transfer it to dump trucks on site, not in the streets.

Contaminated Soils

- If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board:
 - Unusual soil conditions, discoloration, or odor.
 - Abandoned underground tanks.
 - Abandoned wells
 - Buried barrels, debris, or trash.

Paving/Asphalt Work



- Avoid paving and seal coating in wet weather or when rain is forecast, to prevent materials that have not cured from contacting stormwater runoff.
- Cover storm drain inlets and manholes when applying seal coat, tack coat, slurry seal, fog seal, etc.
- Collect and recycle or appropriately dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters.
- Do not use water to wash down fresh asphalt concrete pavement.

Sawcutting & Asphalt/Concrete Removal

- Protect nearby storm drain inlets when saw cutting. Use filter fabric, catch basin inlet filters, or gravel bags to keep slurry out of the storm drain system.
- Shovel, absorb, or vacuum saw-cut slurry and dispose of all waste as soon as you are finished in one location or at the end of each work day (whichever is sooner!).
- If sawcut slurry enters a catch basin, clean it up immediately.

Concrete, Grout & Mortar Application



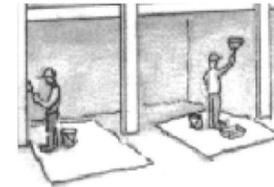
- Store concrete, grout, and mortar away from storm drains or waterways, and on pallets under cover to protect them from rain, runoff, and wind.
- Wash out concrete equipment/trucks offsite or in a designated washout area, where the water will flow into a temporary waste pit, and in a manner that will prevent leaching into the underlying soil or onto surrounding areas. Let concrete harden and dispose of as garbage.
- When washing exposed aggregate, prevent washwater from entering storm drains. Block any inlets and vacuum gutters, hose washwater onto dirt areas, or drain onto a bermed surface to be pumped and disposed of properly.

Landscaping



- Protect stockpiled landscaping materials from wind and rain by storing them under tarps all year-round.
- Stack bagged material on pallets and under cover.
- Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.

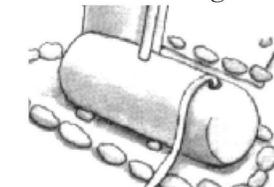
Painting & Paint Removal



Painting Cleanup and Removal

- Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.
- For water-based paints, paint out brushes to the extent possible, and rinse into a drain that goes to the sanitary sewer. Never pour paint down a storm drain.
- For oil-based paints, paint out brushes to the extent possible and clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids as hazardous waste.
- Paint chips and dust from non-hazardous dry stripping and sand blasting may be swept up or collected in plastic drop cloths and disposed of as trash.
- Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury, or tributyltin must be disposed of as hazardous waste. Lead based paint removal requires a state-certified contractor.

Dewatering



- Discharges of groundwater or captured runoff from dewatering operations must be properly managed and disposed. When possible send dewatering discharge to landscaped area or sanitary sewer. If discharging to the sanitary sewer call your local wastewater treatment plant.
- Divert run-on water from offsite away from all disturbed areas.
- When dewatering, notify and obtain approval from the local municipality before discharging water to a street gutter or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- In areas of known or suspected contamination, call your local agency to determine whether the ground water must be tested. Pumped groundwater may need to be collected and hauled off-site for treatment and proper disposal.

Storm drain polluters may be liable for fines of up to \$10,000 per day!

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GENERAL NOTES

- THE COMPLETE ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH THE 2013 CBC (CALIFORNIA BUILDING CODE), CMC (CALIFORNIA MECHANICAL CODE), CPC (CALIFORNIA PLUMBING CODE), CEC (CALIFORNIA ELECTRICAL CODE), THE LATEST RULES AND REGULATIONS OF THE SAFETY ORDER ISSUED BY THE DIVISION OF INDUSTRIAL SAFETY, THE NATIONAL BOARD OF FIRE UNDERWRITERS, ALL APPLICABLE STATE AND LOCAL CODES ISSUED BY AUTHORITIES HAVING JURISDICTION.
- THE CONTRACTOR SHALL PROVIDE SUBMITTALS FOR ALL ELECTRICAL EQUIPMENT AND MATERIALS FOR APPROVAL BEFORE PURCHASING.
- THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE ENGINEER, THE CITY, PG&E, AT&T AND WITH OTHER WORK TO BE PROVIDED.
- THE CONTRACTOR SHALL ORGANIZE AND CONDUCT HIS WORK TO MINIMIZE PLANT SHUTDOWN TIME. THIS SHALL INCLUDE PROVIDING TEMPORARY POWER TO ESSENTIAL EQUIPMENT IF NECESSARY AND COORDINATING ALL POWER SHUTDOWNS WITH THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT AND ENSURE THAT ALL EXISTING UNDERGROUND UTILITIES ARE IDENTIFIED BEFORE BEGINNING ANY EXCAVATION WORK OR DRIVING ANY GROUND RODS. THE CONTRACTOR SHALL BE LIABLE FOR ALL DAMAGES TO EXISTING FACILITIES RESULTING FROM THE PROJECT.
- ALL ELECTRICAL EQUIPMENT SHALL HAVE A NATIONALLY RECOGNIZED TESTING LABORATORY LABEL.
- STRUCTURAL CALCULATIONS SEE GENERATOR SEISMIC/ANCHORING CALCULATIONS SIGNED BY A CIVIL OR STRUCTURAL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA.
- EXISTING UTILITY LOCATIONS ARE APPROXIMATE ONLY.
- ALL EXISTING EQUIPMENT SHALL REMAIN IN PLACE UNLESS OTHERWISE NOTED.
- LOCATIONS OF CONTROLLERS, CONDUIT, PULL BOXES AND OTHER EQUIPMENT AS SHOWN ON THE PLANS ARE APPROXIMATE AND MAY BE CHANGED TO SUIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
- ALL EXTERIOR MOUNTED EQUIPMENT SHALL BE WEATHERPROOF.
- UNLESS OTHERWISE INDICATED, THE MINIMUM SIZE OF CONDUCTORS SHALL BE #12 AWG XHHW STRANDED COPPER ONLY.
- GREEN INSULATED GROUND CONDUCTORS SHALL BE INSTALLED IN ALL FEEDER AND BRANCH CIRCUIT CONDUITS.
- CONDUITS INSTALLED UNDERGROUND SHALL BE SCHEDULE 40 PVC. RIGID GALVANIZED STEEL CONDUIT SHALL BE USED AT OTHER LOCATIONS SUBJECT TO DAMAGE. RISERS FROM UNDERGROUND TO ABOVE GROUND SHALL BE PVC COATED GALVANIZED RIGID STEEL.
- ELECTRICAL EQUIPMENT AND FEEDERS SHALL BE SUPPORTED AND/OR ANCHORED IN ACCORDANCE WITH UBC ZONE 4 SEISMIC REQUIREMENTS.
- GROUNDING CONNECTIONS SHALL BE THE CADWELD OR COMPRESSION TYPE.
- PROVIDE LABELS ON ALL EQUIPMENT AND DEVICES. LABELS SHALL BE PHENOLIC TYPE WITH BLACK LETTERS ON WHITE BACKGROUND, ATTACHED TO THE EQUIPMENT WITH STAINLESS STEEL SCREWS.
- DEMOLITION WORK SHALL BE PROVIDED AS REQUIRED TO ACCOMPLISH NEW WORK AS NOTED. WORK SHALL BE PERFORMED CAREFULLY TO AVOID DAMAGE TO SURFACES, STRUCTURES, AND EQUIPMENT TO REMAIN. EXISTING EQUIPMENT AND/OR ELECTRICAL WIRING WHICH IS TO REMAIN, BUT HAS BEEN REMOVED TO FACILITATE THE INSTALLATION OF THE NEW EQUIPMENT, SHALL BE RESTORED TO ITS ORIGINAL OPERATING CONDITION.
- THE OWNER RETAINS FIRST SALVAGE RIGHTS TO ALL EXISTING EQUIPMENT REMOVED UNDER THIS CONTRACT. THE ELECTRICAL CONTRACTOR SHALL CONSULT WITH THE OWNER FOR DISPOSITION OF THE EXISTING EQUIPMENT TO BE REMOVED BY HIM. THE CONTRACTOR SHALL INCLUDE IN HIS BID PROPOSAL ALL COSTS RELATED TO THE DISPOSAL OF EXISTING EQUIPMENT REMOVED UNDER THIS CONTRACT.
- EXISTING CONDUCTORS REMOVED FROM SERVICE SHALL NOT BE PERMITTED TO BE USED FOR NEW WORK UNDER THIS CONTRACT.
- SEAL OPENINGS AROUND NEW CONDUIT AND CONDUIT OPENINGS WHERE CONDUIT WAS REMOVED TO PREVENT PASSAGE OF WATER OR WATER AND GAS.

ABBREVIATIONS

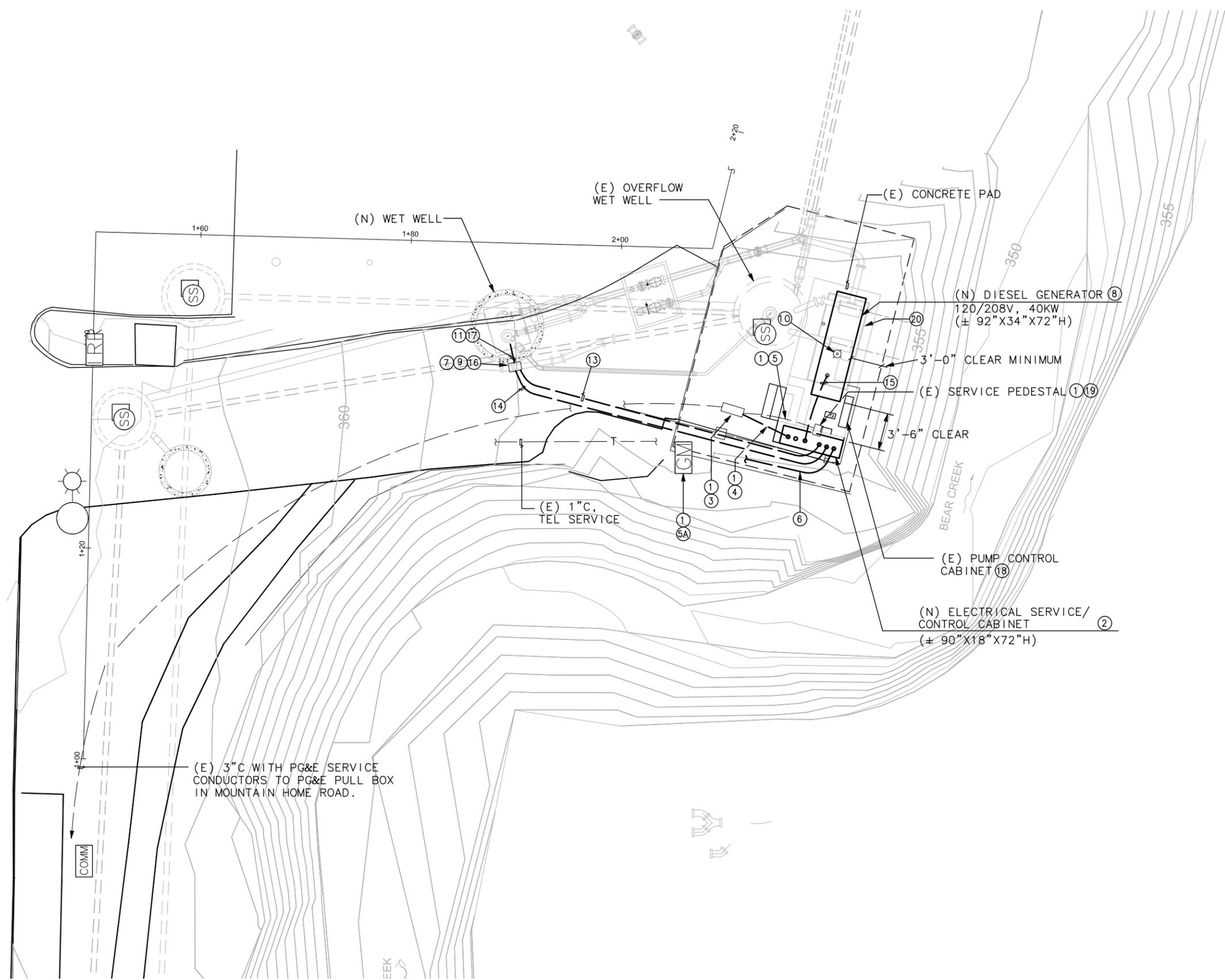
A	AMMETER, AMPERE, AMBER	MC	MINI CAS
ANN	ANNUNCIATOR	MCP	MOTOR CIRCUIT PROTECTOR
AT	AMPERE TRIP	MT	EMPTY
ATS	AUTOMATIC TRANSFER SWITCH	(N)	NEW
C	CONDUIT, CONTACTOR, CONTROL	O/L	OVERLOAD
CKT	CIRCUIT	PFR	POWER FAIL RELAY
CR	CONTROL RELAY	RCPT	RECEPTACLE
CT	CURRENT TRANSFORMER	RTU	REMOTE TERMINAL UNIT
CU	COPPER	SPD	SURGE PROTECTION DEVICE
ETM	ELAPSED TIME METER	SS	STAINLESS STEEL/ SOFT START
(E)	EXISTING	TSP	TWISTED SHIELDED PAIR
F	FAN	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
FLA	FULL LOAD AMPS	U.O.N.	UNLESS OTHERWISE NOTED
FVNR	FULL VOLTAGE NON-REVERSING		
G	GREEN, GROUND, GENERATOR		
GFI	GROUND FAULT INTERRUPTER/5mA		
GND	GROUND		
GRS	GALVANIZED RIGID STEEL CONDUIT		
HI	HIGH	RC	REMOVE AND BECOME PROPERTY OF THE CONTRACTOR
IS	INTRINSICALLY SAFE	RS	REMOVE AND SALVAGE
KAIC	THOUSAND AMPERE INTERRUPTING CAPACITY	CC	REMOVE EXISTING CONDUCTORS AND CONNECT NEW CONDUIT TO EXISTING CONDUIT
KVA	KILOVOLT AMPERE	CB	INSTALL NEW CONDUIT INTO EXISTING PULL BOX
KW	KILOWATT		
LT FLEX	LIQUID TIGHT FLEX CONDUIT		

DRAWING INDEX

E-1	ELECTRICAL GENERAL
E-2	ELECTRICAL SITE PLAN
E-3	SINGLE LINE DIAGRAM
E-4 AND E-5	PUMP CONTROL SCHEMATICS
E-6	TELEMETRY RTU
E-7	PUMP CONTROL CABINET
E-8	GENERATOR DETAILS

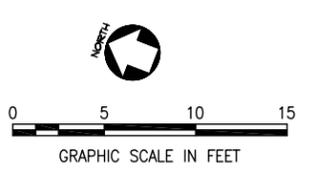
LEGEND

①	SHEET NOTE REFERENCE		CONTACT - NORMALLY OPEN
Ⓟ	20A, 125V DUPLEX RECEPTACLE, NEMA 5-20R, +36" U.O.N.		CONTACT - NORMALLY CLOSED
	GFI - GROUND FAULT PROTECTED		MAGNETIC STARTER WITH OVERLOAD NEMA SIZE INDICATED
	EX - EXPLOSION PROOF		CIRCUIT BREAKER, THERMAL MAGNETIC TRIP SHOWN, 3 POLE UNLESS INDICATED OTHERWISE.
	CRE - CORROSION RESISTANT		SWITCH - CURRENT RATING INDICATED, 3 POLE UNLESS INDICATED OTHERWISE.
	TL - TWIST LOCK		FUSE - RATING INDICATED
	WP - WEATHERPROOF		SURGE ARRESTER
\$	LIGHT SWITCH +45" U.O.N.		TRANSFORMER, SECONDARY VOLTAGES, PHASE AND RATING INDICATED AS APPLICABLE
	NEW ELECTRICAL EQUIPMENT		PUSH-BUTTON SWITCH, MOMENTARY CONTACT, NORMALLY OPEN
	EXISTING ELECTRICAL EQUIPMENT		TIME DELAY RELAY ARROW INDICATES TIMED DIRECTION
	ELECTRICAL EQUIPMENT TO BE DISCONNECTED AND REMOVED		CURRENT TRANSFORMER, NUMBER INDICATED
	CONDUIT RUN UNDERGROUND		THERMOSTAT
	CONDUIT RUN ABOVE GRADE		NON FUSED DISCONNECT SWITCH, SIZE INDICATED, 3 POLE UNLESS INDICATED OTHERWISE.
	FLEXIBLE METAL CONDUIT		GROUND ELECTRODE, 5/8"Ø x 10'-0" COPPER CLAD STEEL
	EXISTING PRE CAST CONCRETE PULL BOX		
	NEW PRE CAST CONCRETE PULLBOX COVER MARKED "ELECTRICAL" SEE CALTRANS STANDARD PLAN ES-EB.		
	MOTOR, SQUIRREL CAGE INDUCTION NUMBER IF PRESENT INDICATES HORSEPOWER		
	MAGNETIC COIL. LETTER INDICATES TYPE: CR=RELAY		



SHEET NOTES:

- ① COORDINATE WITH PG&E.
- ② SEE PUMP CONTROL CABINET DETAIL ON SHEET E-7.
- ③ (E) PG&E SERVICE BOX.
- ④ INSTALL 3" C, MT (CONDUCTORS BY PG&E).
- ⑤ (E) 3" C WITH CONDUCTORS TO BE REMOVED BY PG&E AFTER (N) SERVICE CABINET IS IN OPERATION.
- ⑤A (E) GAS METER TO BE REMOVED BY PG&E.
- ⑥ (E) 1" C WITH TELEPHONE SERVICE TO BE REROUTED TO NEW CONTROL CABINET WHEN SWITCHING OVER TO (N) CONTROL CABINET. COORDINATE WITH AT&T.
- ⑦ INSTALL PULL BOX. SEE SHEET C-5.
- ⑧ SEE GENERATOR INSTALLATION DETAIL ON SHEET E-8. CONFIRM EXACT LOCATION WITH THE ENGINEER BEFORE INSTALLATION.
- ⑨ SPLICE PUMP CABLES TO PUMP CONDUCTORS.
- ⑩ RECONNECT (E) LIGHT TO (N) SERVICE CABINET.
- ⑪ INSTALL 2" C, PUMP #1 MANUFACTURER CABLE
2" C, PUMP #2 MANUFACTURER CABLE
1#10 (G)
- ⑫ NOT USED.
- ⑬ INSTALL 2" C, 1-LEVEL TRANSMITTER CABLE
1-BACKUP LEVEL SENSOR CABLE
4#14 (FS-L & FS-H)
1#10 (G)
- ⑭ INSTALL 2" C, 3#8 (PUMP #1, 208 V)
4#14 (TEMP & LEAK DETECTION)
1#8 (G)
2" C, 3#8 (PUMP #2, 208 V)
4#14 (TEMP & LEAK DETECTION)
1#8 (G)
- ⑮ INSTALL 2 1/2" C, 3#3/0 & 1#4 (G)
1 1/2" C, 2#12 (BATTERY & CHARGER, 120 V)
2#10 (GEN HEATER, 240 V, 1.0 KW)
1#10 (G)
1 1/2" C, 2#14 (LOW FUEL)
2#14 (COMMON ALARM)
2#14 (GEN RUNNING)
BLUE THWN (TYP)
- ⑯ PROVIDE EYS SEAL IN CONDUITS TO ELECTRICAL CABINET WITH PERMANENT SEALANT. PROVIDE DUCT SEAL IN CONDUIT TO WET WELL.
- ⑰ SUPPORT CABLES AT TOP WITH KELLUMS GRIPS. PROVIDE ENOUGH SLACK IN CABLES SO THAT PUMPS CAN BE PULLED UP AND SET AT GRADE FOR MAINTENANCE.
- ⑱ [RC] (E) PUMP CONTROL CABINET AFTER NEW PUMP CONTROL PANEL IS IN OPERATION. [RS] (E) SCADA PANEL.
- ⑲ (E) METER TO BE REMOVED BY PG&E. [RC] (E) SERVICE CABINET AFTER (N) SERVICE CABINET IS IN OPERATION.
- ⑳ [RC] ALL (E) ELECTRICAL EQUIPMENT NO LONGER NEEDED WHEN (N) PUMPS ARE IN OPERATION.



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phone (408) 970-9888 fax (408) 970-9316
PROJECT NO. 202-15-01 www.aec-engineers.com

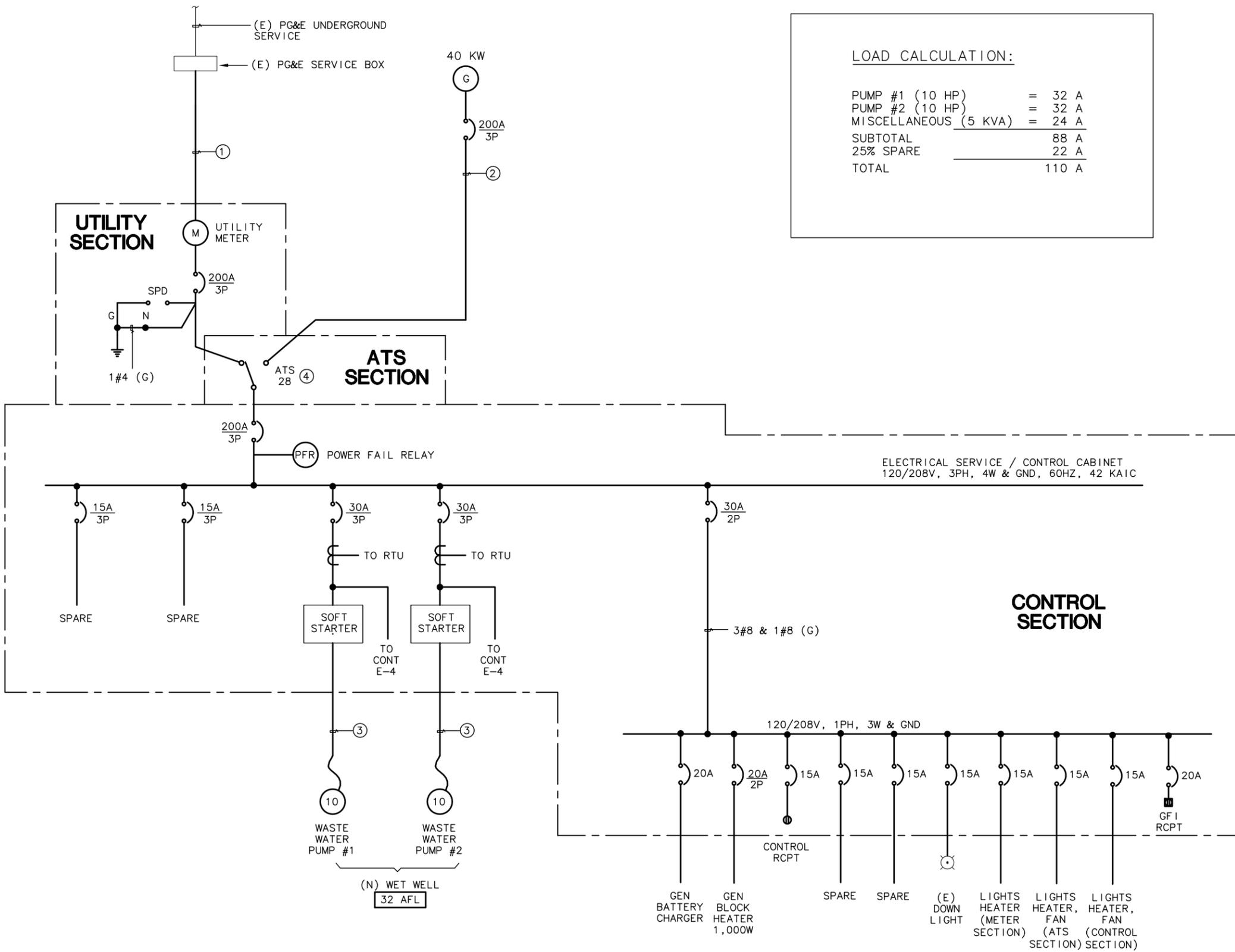
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DRAWN BY : CB	▲					
DATE : 10/19/2016	▲					
SCALE : AS SHOWN	▲					
MT&CO. JOB NO. : CU-14113	▲					

DATE 10/19/2016



**TOWN OF WOODSIDE
TOWN CENTER PUMP STATION AREA IMPROVEMENTS
ELECTRICAL SITE PLAN**

SHEET 16 OF - SHEETS
E-2



LOAD CALCULATION:

PUMP #1 (10 HP)	=	32 A
PUMP #2 (10 HP)	=	32 A
MISCELLANEOUS (5 KVA)	=	24 A
SUBTOTAL		88 A
25% SPARE		22 A
TOTAL		110 A

GENERAL NOTE:

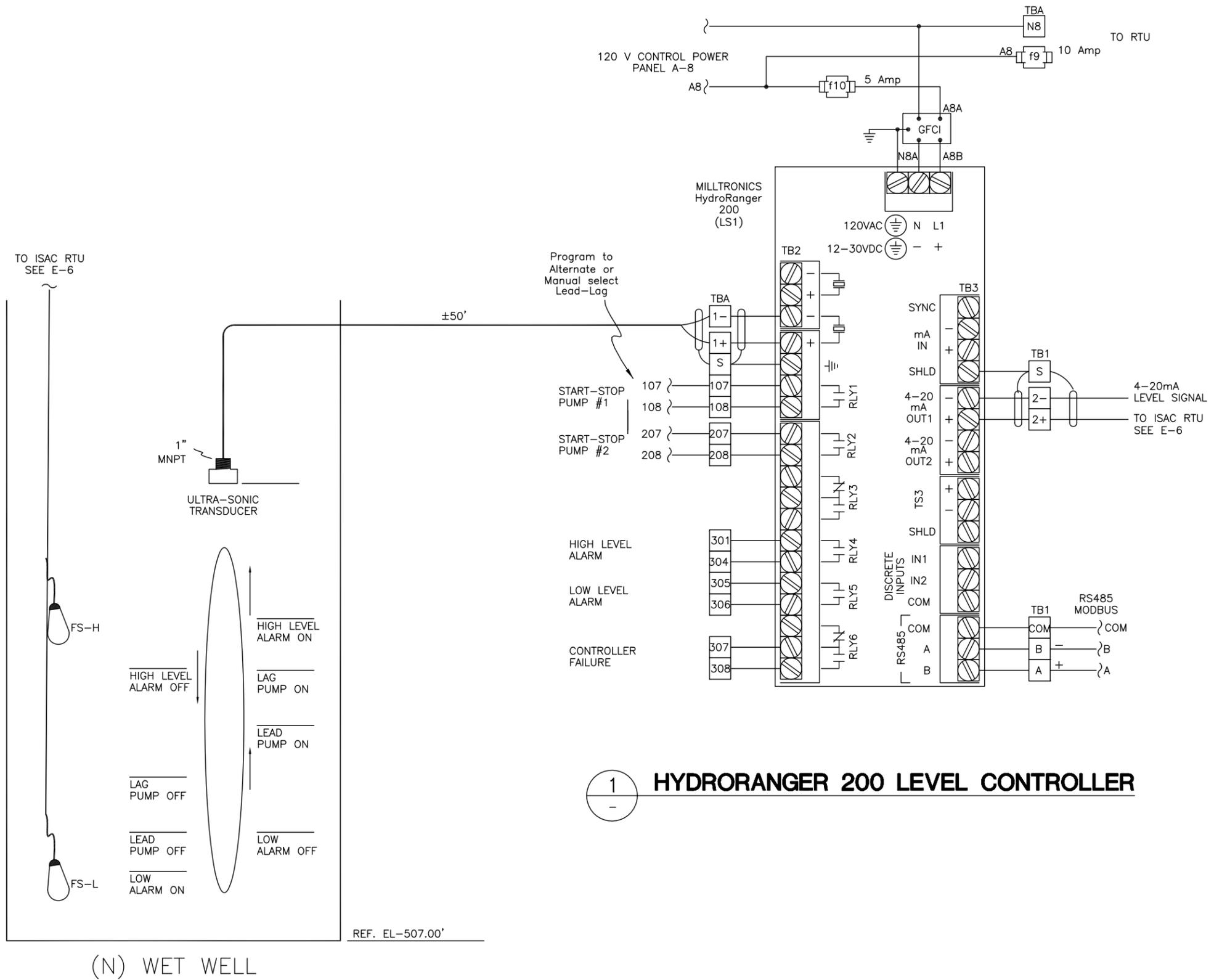
1. ALL EQUIPMENT IS NEW. UNLESS OTHERWISE NOTED.

SHEET NOTES:

- ① INSTALL 3" C, MT (CONDUCTORS BY PG&E).
- ② INSTALL 2 1/2" C, 3#3/0 & 1#4 (G).
- ③ SEE NOTES ① & ④ ON SHEET E-3.
- ④ PROVIDE 200A/3P OPEN TRANSITION AUTOMATIC TRANSFER SWITCH, ASCO OR APPROVED EQUAL.

① SINGLE LINE DIAGRAM

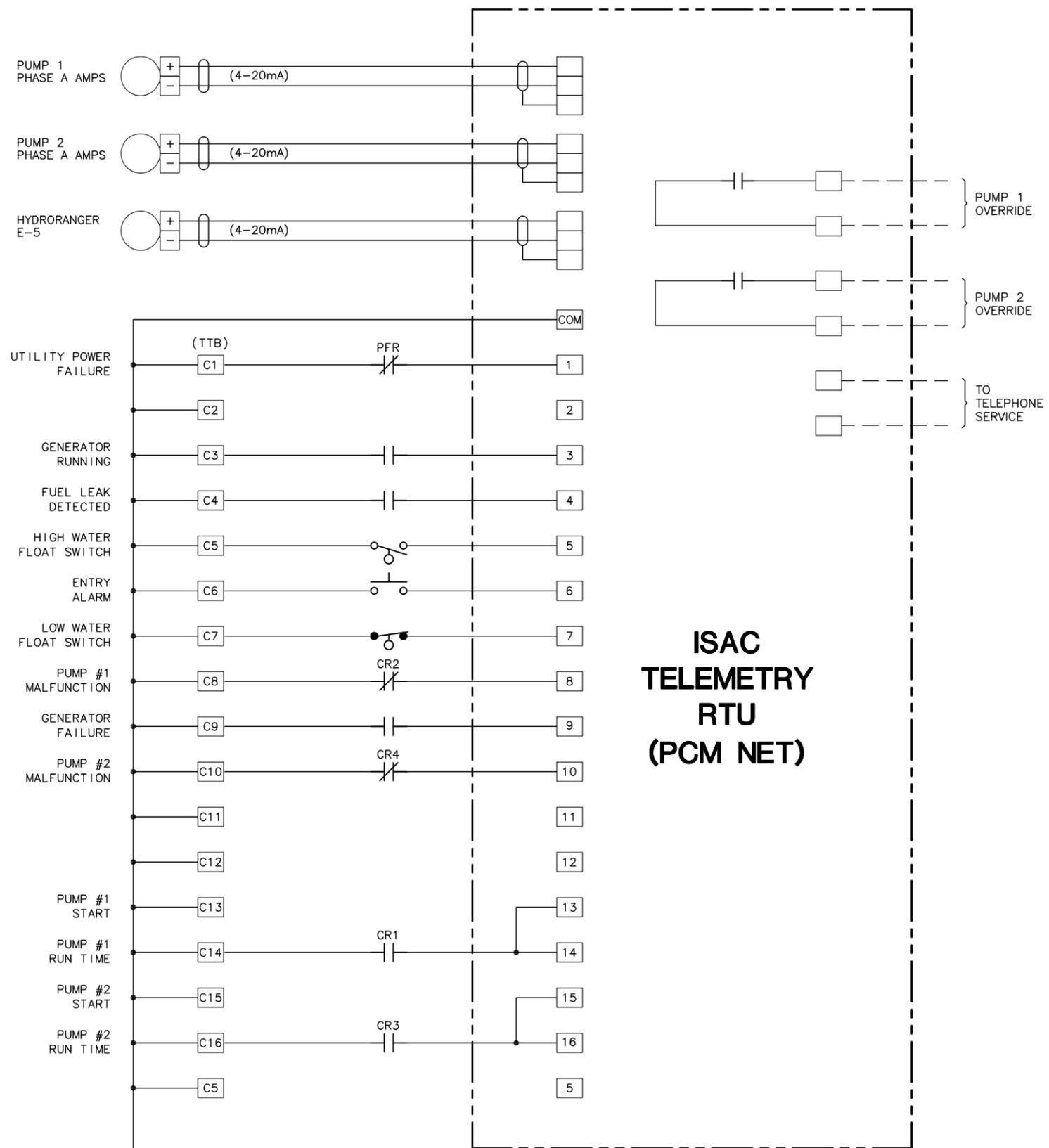
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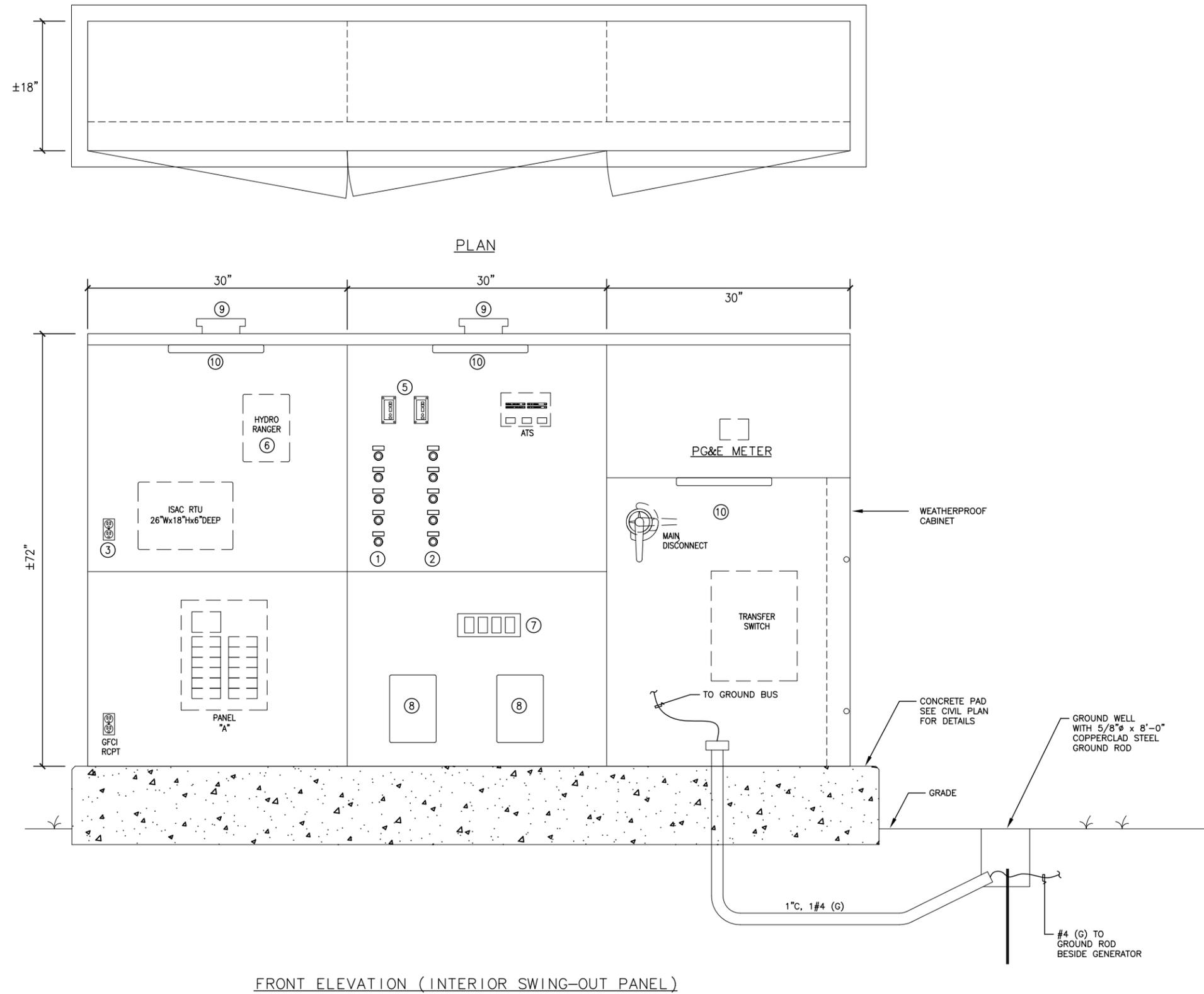
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**ISAC
TELEMETRY
RTU
(PCM NET)**

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①	PUMP #1 (HOA, START, ETM, READY, RUN & OL RESET)
②	PUMP #2 (HOA, START, ETM, READY, RUN & OL RESET)
③	RECEPTACLE FOR CONTROL POWER
④	NOT USED
⑤	MINICAS (1 AND 2)
⑥	HYDRORANGER 200
⑦	PUMP CIRCUIT BREAKERS
⑧	PUMP SOFT STARTER
⑨	EXHAUST FAN
⑩	LED LIGHT

FRONT ELEVATION (INTERIOR SWING-OUT PANEL)

1 PUMP CONTROL CABINET

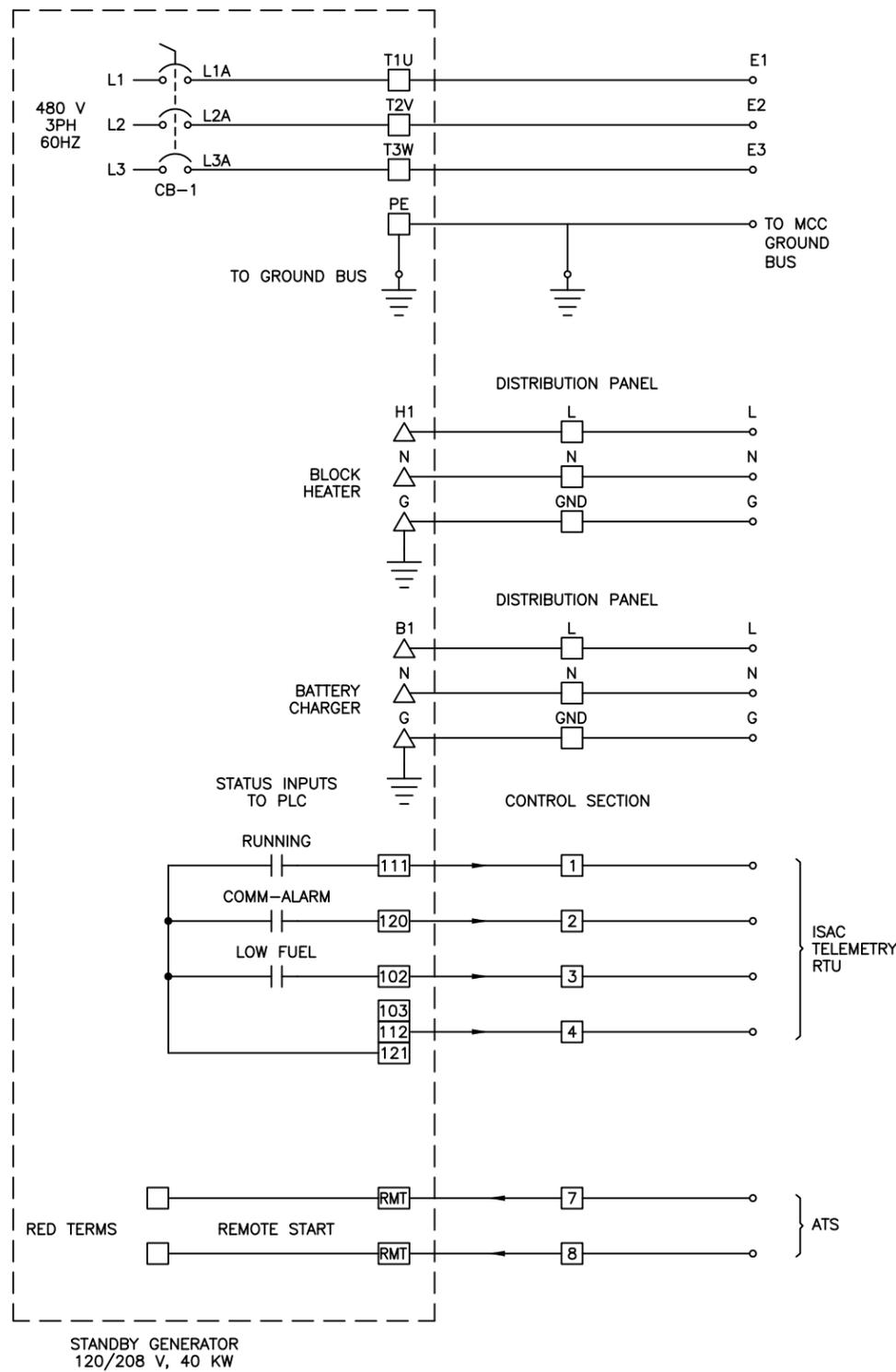
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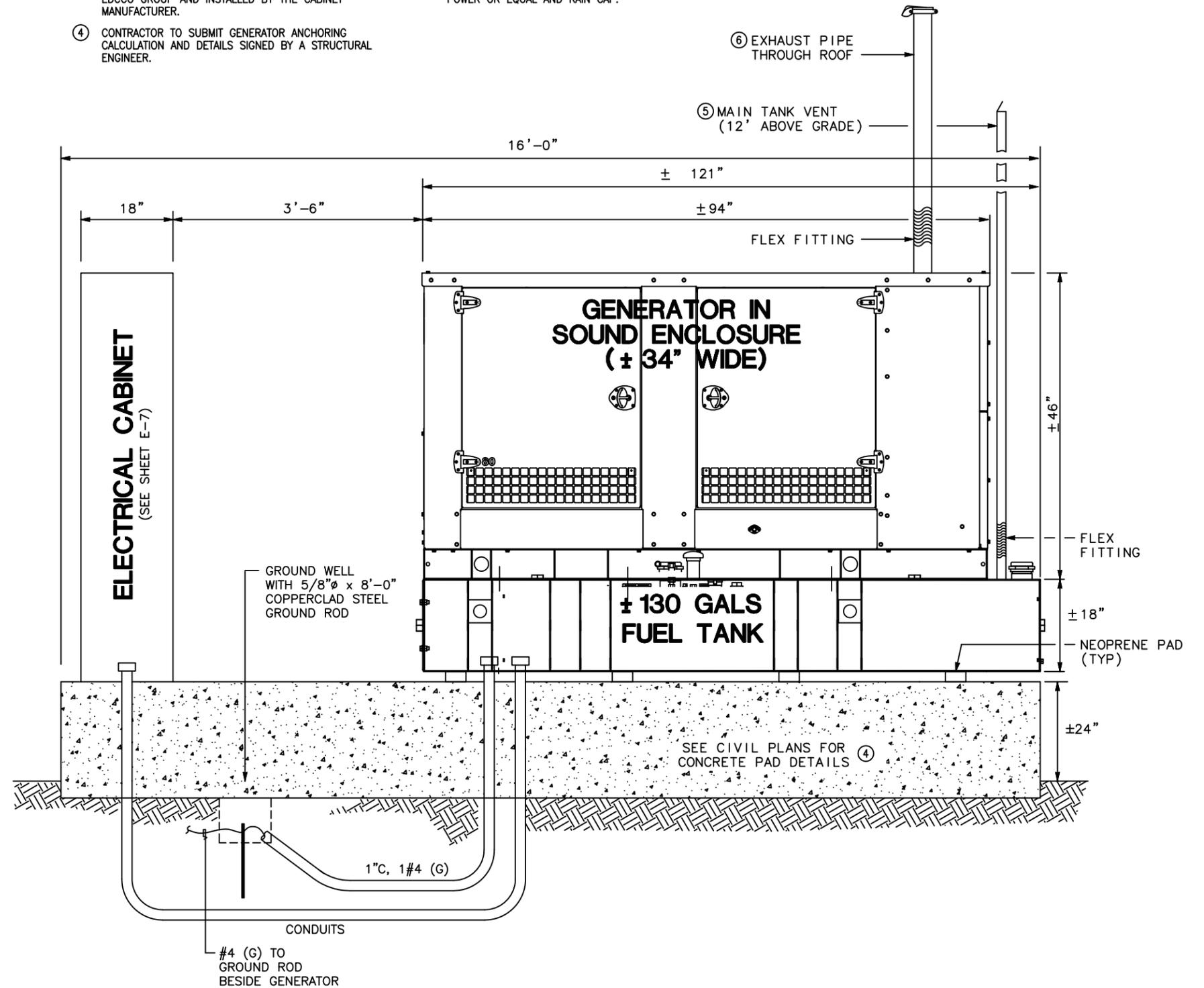


SHEET NOTES:

- ① REINSTALL (E) METER ON (N) METER MAIN PANEL ON END OF (E) PG&E SERVICE CONDUIT.
- ② INSTALL (E) CATHODIC PROTECTION PANEL ON END OF (N) ELECTRICAL SERVICE/CONTROL CABINET.
- ③ CONTROL SECTION SHALL BE PURCHASED FROM EDCCO GROUP AND INSTALLED BY THE CABINET MANUFACTURER.
- ④ CONTRACTOR TO SUBMIT GENERATOR ANCHORING CALCULATION AND DETAILS SIGNED BY A STRUCTURAL ENGINEER.
- ⑤ EXTEND 2" MAIN TANK VENT 12' ABOVE GRADE. PROVIDE FLEX FITTING AT TANK AND RAIN CAP. SUPPORT FROM WOOD STRUCTURE.
- ⑥ INSTALL 3" EXHAUST PIPE UP THROUGH THE ROOF. SUPPORT FROM STRUCTURE. PROVIDE THIMBLE ROOF PENETRATION BY CLIFFORD POWER OR EQUAL AND RAIN CAP.



2 GENERATOR CONNECTIONS



1 GENERATOR INSTALLATION DETAIL

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