

KLAMATH WATER TANK

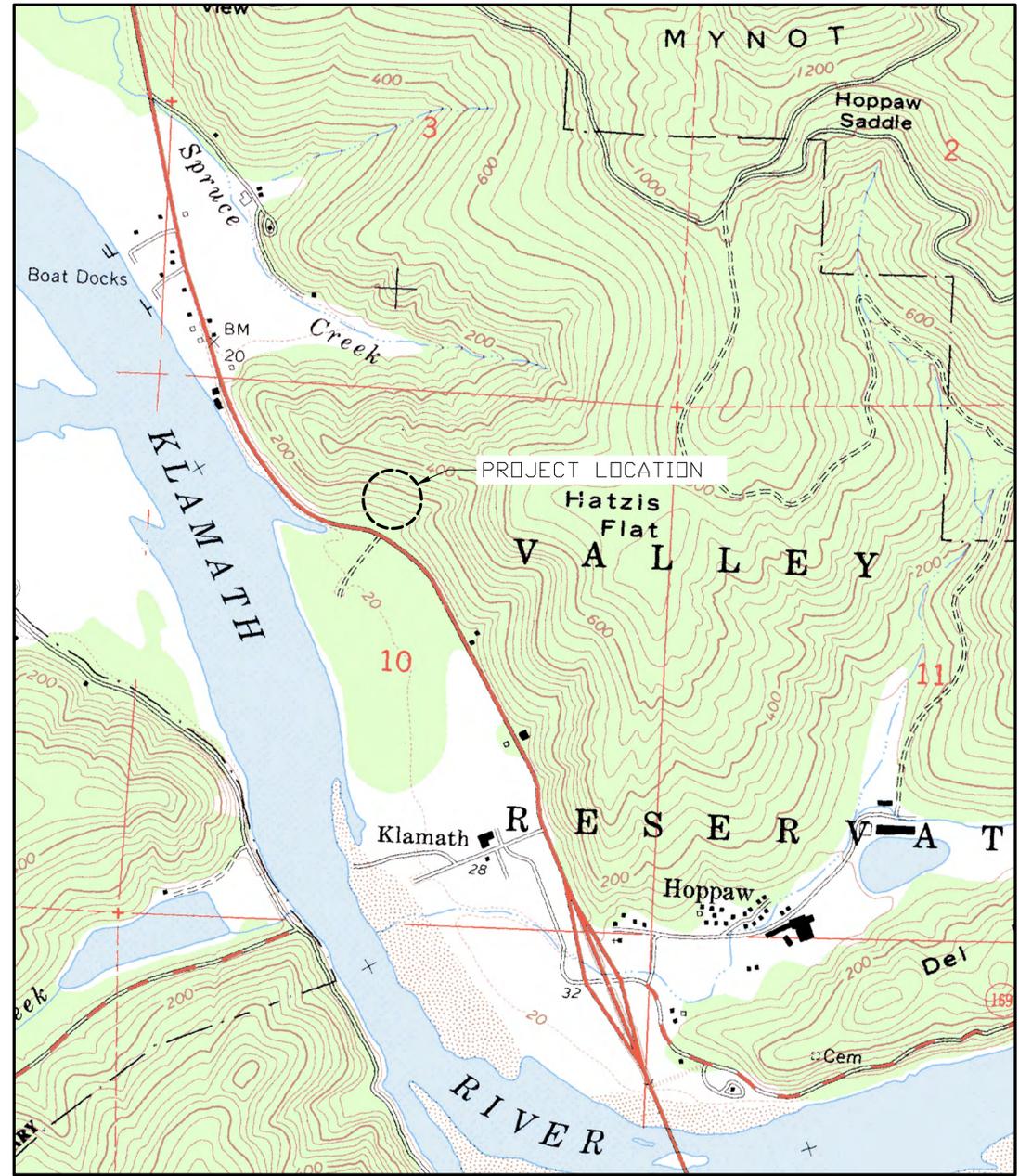
FOR
 YUOK TRIBE PLANNING DEPARTMENT
 15540 U.S. HWY 101 NORTH, KLAMATH, CA 95548
 PH: (530) 625-4759 FAX: (530) 625-4745



TRINITY VALLEY CONSULTING ENGINEERS, INC.
 67 WALNUT WAY
 PO BOX 1567
 WILLOW CREEK, CA 95573
 PHONE (530) 625-3000
 FAX (530) 625-3011

PROPOSED	EXISTING
CABLE TV OVERHEAD	CABLE TV OVERHEAD
POWER OVERHEAD	POWER OVERHEAD
TELEPHONE OVERHEAD	TELEPHONE OVERHEAD
TELEPHONE UG	TELEPHONE UG
POWER (UNDERGROUND) UG	POWER (UNDERGROUND) UG
GAS LINE	GAS LINE
ANCHOR/GUY WIRE	ANCHOR/GUY WIRE
SEWER MANHOLE	SEWER MANHOLE
SEWER LINE	SEWER LINE
FLUSHING BRANCH/CLEANOUT	FLUSHING BRANCH/CLEANOUT
SEWER SERVICE	SEWER SERVICE
STORM DRAIN MANHOLE	STORM DRAIN MANHOLE
STORM DRAIN PIPE	STORM DRAIN PIPE
STORM DRAIN INLET	STORM DRAIN INLET
WATER LINE	WATER LINE
WATER VALVE	WATER VALVE
REDUCER	REDUCER
BLOW OFF ASSEMBLY	BLOW OFF ASSEMBLY
AIR RELIEF VALVE	AIR RELIEF VALVE
FIRE HYDRANT ASSEMBLY	FIRE HYDRANT ASSEMBLY
R.P. BACKFLOW PREVENTER	R.P. BACKFLOW PREVENTER
DRIVE WAY	DRIVE WAY
SIDEWALK RAMP	SIDEWALK RAMP
BARRICADE	BARRICADE
SURVEY MONUMENT	SURVEY MONUMENT
CENTERLINE	CENTERLINE
RIGHT OF WAY LINE	RIGHT OF WAY LINE
PROPERTY LINE	PROPERTY LINE
EASEMENT LINE	EASEMENT LINE
EDGE OF PAVEMENT	EDGE OF PAVEMENT
RIDGE LINE	RIDGE LINE
FENCE LINE	FENCE LINE
CONTOUR LINE	CONTOUR LINE
SIDEWALK	SIDEWALK
STREET LIGHT	STREET LIGHT
STREET NAME SIGN	STREET NAME SIGN
SIGN	SIGN

ABBREVIATIONS	
AC	= ASPHALTIC CONCRETE
AB	= AGGREGATE BASE
A.D.	= ALGEBRAIC DIFFERENCE
BC, PC	= BEGIN CURVE
CO	= CLEAN OUT
CL	= CENTER LINE
CMP	= CORRUGATED METAL PIPE
CPCT.	= COMPACT
D	= DELTA
DET	= DETAIL
DRN	= DRAIN
<E>	= EXISTING
EC	= END CURVE
EG	= EXISTING GROUND
EO	= EDGE OF PAVEMENT
FF	= FINISH FLOOR
FG	= FINISH GRADE
FH	= FIRE HYDRENT
FL	= FLOW LINE
GA	= GUY ANCHOR
GV	= GATE VALVE
HC	= HANDICAPPED
HDP	= HIGH DENSITY POLYETHYLENE PIPE
INV	= INVERT
(INT-X)	= INTERSECTION
K	= SIGHT DISTANCE
LAT	= LATERAL
LD.	= LOCAL DEPRESSION
LF.	= LINEAR FEET
LF.	= SEWER LEACH FIELD
LT.	= LEFT
MAS.	= MASONRY
MI	= MILES
MSE	= MECHANICALLY STABILIZED EARTH
(N)	= NEW
NTS	= NOT TO SCALE
O.C.	= ON CENTER
PG&E	= PACIFIC GAS & ELECTRIC
(P)	= PROPOSED
PP	= POWER POLE
PRC	= POINT OF REVERSE CURVE
PT	= POINT
PVI	= POINT OF VERTICAL INTERSECTION
PVT	= PRIVATE
ROW	= RIGHT OF WAY
RT	= RIGHT
RTN	= RETURN
SB	= SET BACK
SDMH	= STORM DRAIN MAN HOLE
SHT	= SHEET
SD	= STORM DRAIN
STA	= STATION
STD.	= STANDARD
TC	= TOP OF CURB
TBC	= TOP BACK OF CURB
TFC	= TOP FACE OF CURB
TOB	= TOP OF BANK
TEL	= TELEPHONE
TP	= TOP OF PAVEMENT
TVCE	= TRINITY VALLEY CONSULTING ENGINEERS
TW	= TOP OF WALL
(TYP)	= TYPICAL
UG	= UNDERGROUND
W	= WATER
WV	= WATER VALVE



APPROVALS	
TRINITY VALLEY CONSULTING ENGINEERS, INC.	
JOSHUA T. McKNIGHT, PROJECT ENGINEER	DATE
KLAMATH COMMUNITY SERVICE DISTRICT (OWNER)	
NAME	DATE
YUOK TRIBE PLANNING DEPARTMENT (TRIBE)	
NAME	DATE

SHEET INDEX			
DRAWING #	TITLE	REVISION	DATE
T01	TITLE SHEET	1	09/01/16
C01	GENERAL NOTES & QUANTITIES	0	06/30/16
C02	EXISTING SITE LAYOUT	0	06/30/16
C03	PROPOSED SITE LAYOUT	1	09/01/16
C04	CLEARING, GRUBBING, AND DEMOLITION PLAN	0	06/30/16
C05.0	GRADING PLAN	0	06/30/16
C05.1	SITE SECTIONS	0	06/30/16
C05.2	GRADING DETAILS	0	06/30/16
C06.0	UTILITY PLAN - WATER	1	09/01/16
C06.1	WATER DETAILS	0	06/30/16
C07.1	FENCE DETAILS	0	06/30/16
C07.2	FENCE DETAILS	0	06/30/16
C08.0	EROSION CONTROL PLAN	1	09/01/16
C08.1	EROSION CONTROL DETAILS	0	06/30/16
S01	TANK FOUNDATION PLAN	0	06/30/16

CONTRACTOR ALERT!
 CONTRACTOR MUST CONTACT USA DIG AT 800-227-2600 AT LEAST 72 HOURS BEFORE ANY EARTHWORK OR ACTIVITIES THAT MAY IMPACT EXISTING UNDERGROUND UTILITIES.
 EXISTING UTILITY ALIGNMENTS BOTH HORIZONTALLY AND VERTICALLY MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION ACTIVITIES.

REV	DATE	DESCRIPTION
6/20/16	PRELIMINARY DESIGN	
09/01/16	ADDENDUM 1 PIPING	

YUOK TRIBE PLANNING DEPARTMENT
 KLAMATH WATER TANK
TITLE SHEET
 KLAMATH, DEL NORTE COUNTY, CALIFORNIA

SCALE:	AS SHOWN
PROJECT NO:	484
DRAWING NO:	T01

GENERAL NOTES:

1. DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN IN THESE DRAWINGS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE CONTRACT SPECIFICATIONS.
2. THE CONTRACTOR SHALL PROVIDE ALL UTILITIES AS NECESSARY TO SUCCESSFULLY COMPLETE ALL CONSTRUCTION ACTIVITIES.
3. ALL EXISTING AND PROPOSED DIMENSIONS DEPICTED HEREIN SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO STARTING WORK.
4. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER ON ALL CONSTRUCTION ACTIVITIES.
5. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING UTILITIES, WHICH ARE TO REMAIN IN PLACE, FROM DAMAGE. ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS SHALL BE EXPEDITIOUSLY REPAIRED OR RECONSTRUCTED TO THE ENGINEER'S SATISFACTION AT THE CONTRACTOR'S SOLE EXPENSE WITHOUT ADDITIONAL COMPENSATION.
6. THE CONTRACTOR SHALL POSSESS THE CLASS, OR CLASSES, OF LICENSE AS SPECIFIED IN THE NOTICE TO CONTRACTORS.
7. THE CONTRACTOR IS TO EXPOSE THE ENDS OF EXISTING BURIED UTILITIES FOR SURVEYORS TO VERIFY LOCATION AND ELEVATION PRIOR TO PLACEMENT OF NEW UTILITIES. ALL COSTS OF SUCH EXCAVATION AND BACKFILL SHALL BE INCLUDED IN THE PRICE PAID FOR VARIOUS ITEMS OF WORK.
8. ALL APPLICABLE FEES TO BE PAID AND PERMITS REQUIRED SHALL BE OBTAINED BY THE CONTRACTOR BEFORE COMMENCEMENT OF CONSTRUCTION.
9. THE TYPES, LOCATIONS, SIZES, AND DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE IMPROVEMENT PLANS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS, AND DEPTHS OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES, HOWEVER, TVCE CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES NOR FOR THE EXISTENCE OF OTHER BURIED OBJECTS OR UTILITIES WHICH MAY BE ENCOUNTERED BUT WHICH ARE NOT DEPICTED ON THESE DRAWINGS.
10. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD THE DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL.
11. THE CONTRACTOR OR ANY SUBCONTRACTOR FOR THIS CONTRACT SHALL NOTIFY MEMBERS OF U.S.A. TWO WORKING DAYS IN ADVANCE OF PERFORMING ANY EXCAVATION WORK BY CALLING THE TOLL FREE NUMBER 1-800-227-2600.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING SURVEY MONUMENTS AND OTHER SURVEY MARKERS DURING CONSTRUCTION. ALL SUCH MONUMENTS OR MARKERS DESTROYED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
13. UNDOCUMENTED PIPING EXPOSED DURING CONSTRUCTION SHALL BE LOCATED AND MARKED BY THE CONTRACTOR FOR INCLUSION IN AS-BUILT DRAWINGS.
14. ALL NEW BURIED PIPING SHALL HAVE A MINIMUM OF 3 FEET OF COVER UNLESS OTHERWISE SPECIFIED.

CULTURALLY SENSITIVE AREAS:

1. AREAS WITHIN THE PROJECT PERIMETER THAT ARE CULTURALLY SENSITIVE SHALL BE PROTECTED AGAINST DAMAGE FROM CONSTRUCTION ACTIVITIES. AT NO TIME SHALL SUCH CULTURALLY SENSITIVE AREAS BE ENTERED, PARKED UPON, STOCK PILED UPON, OR HAVE ANY OTHER ACTIVITY ASSOCIATED WITH THE CONSTRUCTION OF THIS PROJECT IN ANY WAY INFRINGE UPON, DETERIORATE, DESTROY, OR RENDER TO A STATE OR CONDITION UNACCEPTABLE ANY CULTURALLY SENSITIVE AREA. THE CONTRACTOR AGREES TO PROTECT ALL SUCH AREAS DURING ANY AND ALL ACTIVITIES ASSOCIATED WITH THE CONSTRUCTION OF THIS PROJECT.

TRAFFIC CONTROL NOTES:

1. WHENEVER THE WORK AREA IS ADJACENT TO A TRAFFIC LANE AND THERE IS A CUT, DITCH OR TRENCH MORE THAN TWO INCHES DEEP, THE CONTRACTOR SHALL MAINTAIN CONTINUOUS BARRICADES SPACED AT APPROXIMATELY 20-FOOT INTERVALS FOR THE FIRST 100 FEET FROM THE BEGINNING OF THE CUT, DITCH OR TRENCH, AND AT APPROXIMATELY 50-FOOT INTERVALS THEREAFTER. IF THE CUT, DITCH OR TRENCH IS MORE THAN TEN FEET FROM A TRAFFIC LANE, THE BARRICADED SPACING MAY BE GREATER BUT SHALL NOT EXCEED 200 FEET.
2. UNLESS SPECIFICALLY SET FORTH AS SPECIAL PROVISIONS, ALL MARKED LANES OF TRAFFIC SHALL BE UNOBSTRUCTED IN EACH DIRECTION DURING THE PEAK TRAFFIC HOURS OF 7:00 TO 8:30AM AND 3:30 TO 6:00 PM.
3. SAFE VEHICULAR AND PEDESTRIAN ACCESS SHALL BE PROVIDED AT ALL TIMES DURING CONSTRUCTION.
4. TRACK MOUNTED VEHICLES SHALL NOT BE OPERATED ON PAVED ROADS.

AGGREGATE BASE ROCK NOTES:

1. AGGREGATE BASE SHALL BE CALTRANS CLASS II.
2. AGGREGATE BASE SHALL BE INSTALLED PER SECTION 26 OF THE CALTRANS STANDARD SPECIFICATIONS.
3. AGGREGATE BASE SHALL BE COMPACTED TO A MINIMUM OF 95% RELATIVE COMPACTION PER CAL 316.

ASPHALT CONCRETE NOTES:

1. ASPHALT CONCRETE SHALL BE 1/2" MAXIMUM RADIUS HOT MIX TYPE A.
2. ASPHALT CONCRETE SHALL BE INSTALLED IN STRICT ACCORDANCE WITH SECTION 39 OF THE CALTRANS STANDARD SPECIFICATIONS.
3. ASPHALT CONCRETE SHALL BE COMPACTED TO A MINIMUM OF 95% RELATIVE COMPACTION AS VERIFIED PER CAL 216.
4. EXISTING AC SURFACES SHALL BE CUT TO A NEAT STRAIGHT LINE PARALLEL WITH THE CENTERLINE AND THE EXPOSED EDGE SHALL BE TACKED WITH EMULSION PRIOR TO PAVING. THE EXPOSED BASE MATERIAL SHALL BE GRADED, RE-COMPACTED, AND RESEALED PRIOR TO PAVING.

COMMUNICATIONS NOTES:

1. TELEPHONE/COMMUNICATION FACILITIES DEPICTED ON THESE PLAN SETS ARE FOR GENERAL LOCATION PURPOSES, ACTUAL HARDWARE, ALIGNMENTS, PLACEMENT, AND DESIGN TO BE PROVIDED BY VERIZON. CONTRACTOR TO COORDINATE WITH VERIZON FOR DESIGN AND INSTALLATION OF REQUIRED COMMUNICATION FACILITIES.

ELECTRIC NOTES:

1. POWER/ELECTRICAL FACILITIES DEPICTED ON THESE PLAN SETS ARE FOR GENERAL LOCATION PURPOSES, ACTUAL HARDWARE, ALIGNMENTS, PLACEMENT, AND DESIGN TO BE PROVIDED BY PACIFIC GAS & ELECTRIC (PG&E). CONTRACTOR TO COORDINATE WITH PG&E FOR DESIGN AND INSTALLATION OF REQUIRED COMMUNICATION FACILITIES.

QUANTITIES:

1. QUANTITIES AND LENGTHS OF ITEMS PROVIDED WITHIN THIS PLAN SET ARE APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ACTUAL QUANTITIES OF COMPONENTS REQUIRED FOR THE SUCCESSFUL AND SATISFACTORY COMPLETION OF THE PROJECT.

DUST CONTROL NOTES:

1. THE CONTRACTOR SHALL IMPLEMENT ONE OR BOTH OF THE FOLLOWING MEASURES FOR DUST CONTROL ON THIS SITE:
 - 1.1 SPRAYING OF WATER SO AS NOT TO GENERATE ADDITIONAL RUNOFF. NO DUST PALLIATIVE MATERIALS OTHER THAN WATER WILL BE USED ON THIS PROJECT. IF NON-POTABLE WATER IS TO BE USED, IT MUST BE CONVEYED IN TANKS OR PIPES CLEARLY LABELED AS "NON-POTABLE WATER - DO NOT DRINK".
 - 1.2 COVERS FOR EXPOSED AREAS.

EQUIPMENT & MATERIALS STORAGE NOTES:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL MATERIALS AND EQUIPMENT STORED ONSITE SHALL HAVE ADEQUATE COVERINGS AND CONTAINMENT TO PREVENT LEAKAGE AND SPILLS.
2. ALL MATERIALS AND EQUIPMENT SHALL BE STORED IN DESIGNATED AND APPROVED AREAS. THE AREA SHALL BE BERMED WITH EARTH DIKES THAT THE CONTRACTOR SHALL INSPECT AND MAINTAIN WEEKLY.
3. ALL FLAMMABLE, REACTIVE, AND/OR IGNITABLE LIQUIDS MUST COMPLY WITH LOCAL FIRE CODES.
4. DURING THE RAINY SEASON (OCTOBER THROUGH APRIL) THE CONTRACTOR SHALL ENSURE THAT MATERIALS ARE COVERED.
5. NO CHEMICALS, DRUMS, OR BAGGED MATERIALS SHALL BE STORED DIRECTLY ON THE GROUND; ITEMS SHALL BE PLACED ON PALLETS AND/OR IN SECONDARY CONTAINMENT.
6. IF DRUMS MUST BE KEPT UNCOVERED, THE CONTRACTOR SHALL STORE THEM AT A SLIGHT ANGLE TO REDUCE PONDING OF RAINWATER AND REDUCE CORROSION.
7. WHEN DANGEROUS MATERIALS AND/OR LIQUID CHEMICALS ARE UNLOADED ONSITE, THE CONTRACTOR SHALL HAVE EMPLOYEES TRAINED IN EMERGENCY SPILL CLEANUP PROCEDURES PRESENT.

VEHICLE MAINTENANCE NOTES:

1. EQUIPMENT AND VEHICLES TRAVELING ONSITE SHALL BE INSPECTED REGULARLY FOR LEAKS AND BE REPAIRED IMMEDIATELY; DO NOT ALLOW LEAKING VEHICLES ONSITE. KEEP VEHICLES AND EQUIPMENT CLEAN (DO NOT ALLOW EXCESSIVE BUILDUP OF OIL AND GREASE).
2. USE OFFSITE REPAIR SHOPS WHENEVER POSSIBLE; IF ONSITE REPAIRS ARE NECESSARY, USE A DESIGNATED AREA SURROUNDED BY EARTH BERMS. THE CONTRACTOR SHALL INSPECT THIS AREA WEEKLY AND AFTER EACH RAINSTORM EVENT TO ENSURE THAT THE EARTH BERMS ARE IN PLACE AND FUNCTIONING PROPERLY; ANY NON-FUNCTIONING BERMS SHALL BE REPAIRED IMMEDIATELY.
3. USE DRY CLEAN-UP METHODS FOR SPILLS AS MUCH AS POSSIBLE; USE ABSORBENT MATERIALS FOR SMALL SPILLS AND DISPOSE OF PROPERLY. USE A SECONDARY CONTAINMENT DURING FLUID CHANGES AND REPAIRS TO CATCH SPILLS.
4. SEGREGATE AND RECYCLE WASTES (INCLUDING BUT NOT LIMITED TO: USED OIL AND OIL FILTERS, BATTERIES, ETC.). KEEP HAZARDOUS WASTES SEPARATE FROM NON-HAZARDOUS WASTES; AFTER REPAIRS, ETC., PROMPTLY TRANSFER USED FLUIDS AND WASTES TO THEIR PROPER CONTAINMENT AREAS AND CONTAINERS.

1" 1/2" 0" 1/4" 1/8" 1/16" 1/32" 1/64" 1/128" 1/256" 1/512" 1/1024" 1/2048" 1/4096" 1/8192" 1/16384" 1/32768" 1/65536" 1/131072" 1/262144" 1/524288" 1/1048576" 1/2097152" 1/4194304" 1/8388608" 1/16777216" 1/33554432" 1/67108864" 1/134217728" 1/268435456" 1/536870912" 1/1073741824" 1/2147483648" 1/4294967296" 1/8589934592" 1/17179869184" 1/34359738368" 1/68719476736" 1/137438953472" 1/274877906944" 1/549755813888" 1/1099511627776" 1/2199023255552" 1/4398046511104" 1/8796093022208" 1/17592186044416" 1/35184372088832" 1/70368744177664" 1/140737488355328" 1/281474976710656" 1/562949953421312" 1/1125899906842624" 1/2251799813685248" 1/4503599627370496" 1/9007199254740992" 1/18014398509481984" 1/36028797018963968" 1/72057594037927936" 1/14411518807585584" 1/28823037615171168" 1/57646075230342336" 1/115292150460684672" 1/230584300921369344" 1/461168601842738688" 1/922337203685477376" 1/1844674407370954752" 1/3689348814741909504" 1/7378697629483819008" 1/14757395258967638016" 1/29514790517935276032" 1/59029581035870552064" 1/118059162071741104128" 1/236118324143482208256" 1/472236648286964416512" 1/9444732965739288321024" 1/18889465931478576642048" 1/37778931862957153281096" 1/75557863725914306562112" 1/151115727451828613124224" 1/302231454903657226248448" 1/604462909807314452496896" 1/1208925819614628904993792" 1/241785163922925780998752" 1/483570327845851561997504" 1/967140655691703123995008" 1/1934281311383406247990016" 1/3868562622766812495980032" 1/7737125245533624991960064" 1/15474250491067249959500128" 1/30948500982134499919000256" 1/61897001964268999838000512" 1/123794003928537999676001024" 1/247588007857075999352002048" 1/495176015714151998704004096" 1/990352031428303997408008192" 1/1980704062856607994816016384" 1/3961408125713215989632032768" 1/7922816251426431979264065536" 1/1584563250285286395852813072" 1/31691265005705727917056264448" 1/63382530011411455834112528896" 1/126765060022822911668225057792" 1/253530120045645823336450115584" 1/507060240091291646672900231168" 1/1014120480182583293345800462336" 1/2028240960365166586691600924672" 1/4056481920730333173383201849344" 1/8112963841460666346766403698688" 1/16225927682921332935532807397376" 1/32451855365842665871065614794752" 1/64903710731685331742131229589504" 1/129807421463370663484262459179008" 1/259614842926741326968524818358016" 1/519229685853482653937049636716032" 1/1038459371706965307874099273432064" 1/2076918743413930615748198446864128" 1/4153837486827861231496396893728256" 1/830767497365572246299279377504512" 1/16615349947311444925985587550081024" 1/33230699894622889851971175100162048" 1/66461399789245779703942350200324096" 1/132922799578491554077844700400648192" 1/265845599156983108155689400801283376" 1/531691198313966216311137801602566752" 1/106338239662793242622227560320513504" 1/21267647932558648524445512064010268096" 1/4253529586511729704889102412028021381792" 1/85070591730234594097780482405642763584" 1/1701411834604691881955609648011253117184" 1/3402823669209383763911219296022502235648" 1/680564733841876752782243859204500447136" 1/1361129467683753505564477718409000894272" 1/2722258935367507011128895436818001788544" 1/5444517870735014022257790873636003577088" 1/10889035741470028044515581747272007154176" 1/2177807148294005608903116349454401428352" 1/4355614296588011217806232698908802856704" 1/8711228593176022435612465397817605713408" 1/17422457182352044712224830795635210826816" 1/348449143647040894244496615912670163536" 1/6968982872940817884889933118253403270672" 1/1393796574588163576977966623650686541344" 1/2787593149176327153955933247301372682688" 1/5575186298352654307911866494602745365376" 1/1115037259670530861582373298920549071072" 1/22300745193410617231764465978410981421152" 1/44601490386821234463528931756821842242304" 1/89202980773642468927057863513643684484608" 1/17840596154728493785411572702728736969216" 1/35681192309456987570823145405474673388432" 1/713623846189139751416462908109493467667648" 1/1427247692378279502832925812189869335333296" 1/285449538475655900566585162437973866666656" 1/570899076951311801133170324875947733333112" 1/114179815390262360226634064951895446666224" 1/228359630780524720453268129903789093332448" 1/45671926156104944090653625980757818664896" 1/913438523122098881813072519615156373329792" 1/18268770462441977636261450322231266644759536" 1/3653754092488395527252290064446253295111104" 1/7307508184976791054504580128892506302222208" 1/1461501636995358210900916025777401204444416" 1/292300327399071642180183205155480240888832" 1/584600654798143284360366410310896481777664" 1/1169201309596286568720732820617989633555328" 1/2338402619192573137441465641235979271110656" 1/46768052383851462748829312824719584422221312" 1/9353610476770292549765862564943916844444224" 1/1870722095354058099553172512987833768888448" 1/374144419070811619910634502597566753777896" 1/748288838141623239821269005195133514755792" 1/14965776762332464796425380103026702951151536" 1/299315535246649295928507602060534059022311072" 1/598631070493298591857015204121068118184422144" 1/119726214098657718371403040824213636688444288" 1/23945242819731543674280608164467267333778896" 1/47890485639463087348561216328934546675577792" 1/9578097127892617469712242565786911335115544384" 1/191561942577852349354244851317382226702288672" 1/38312388515570469870848970263476445340455136" 1/7662477703114093974169740532695289088890272" 1/153249554062281894833394806653905781777744" 1/3064991081245637896667896133067815555488" 1/612998216249127579333579226613571111117184" 1/122599643249825515866715845322714222222336" 1/245199286499651031733431686645424444444672" 1/49039857299930206346686337328888888889344" 1/98079714599860412693372666657777777778688" 1/196159429199720825386755333515555555577776" 1/392318858399441650773510667022222222215552" 1/784637716798883301547021334044444444431104" 1/156927543359776660309404266808888888862208" 1/3138550867195533206188805376177777777724416" 1/62771017343910664123737710753555555544832" 1/125542034678213322464754215067111111118864" 1/251084069356426644929508430134222222237312" 1/50216813871285328985901660268444444474624" 1/100433627722570657971818121368888888149248" 1/20086725544514131594363624273777777729856" 1/401734510890282631887272485475555555597112" 1/803469021780565263774544970951111111194224" 1/1606938043561130527548881401902222222388448" 1/32138760871222610550977680380444444776896" 1/64277521742445221101955360760888888153792" 1/128555043484904442203911121321777777307584" 1/25711008696980888440782224264355555605168" 1/5142201739396177689644448528871111111202336" 1/102844034779123553792888970574222222404672" 1/20568806955824710758577714114844444809344" 1/411376139116494215171554282286888881818688" 1/822752278232988430343108556573777773637376" 1/1645504576465976860686217111547555557274752" 1/329100915293195372137323422309111111446944" 1/658201830586390744274646844618222222893888" 1/131640366117278148854929289323444441787776" 1/263280732234556297709858578646888883575552" 1/5265614644691125954197177372937777771111104" 1/105312292893825181083835474547555552222208" 1/210624585787650362167670949095111111444416" 1/42124917157530072433534189819022222288896" 1/8424983431506014486706837963804444477792" 1/1684996683012002897341367592760888815584" 1/3369993366024005794682735185521777773168" 1/67399867320480115893654703710435555633376" 1/134799734640960237877309407420871111126672" 1/26959946928192047575461888144142222253344" 1/539198938563840951509237762882844444106688" 1/1078397877127681903018475535765688882133376" 1/215679575425536380603691111154711111426752" 1/43135915085107276120737822230942222285344" 1/86271830170214552241475644461888881706688" 1/17254366034042910448295111111111111333376" 1/3450873206808582089658222222222222666752" 1/69017464136171641793164444444444453344" 1/138034928272343283582328888888888106688" 1/276069856544686567164657777777777213376" 1/55213971308937313432931555555555426752" 1/110427942617874626858581111111111193504" 1/220855885235749253717162222222222187008" 1/44171177047149850743432444444444374016" 1/88342354094299701486864888888888748032" 1/176684708188599402973729777777777149056" 1/35336941637719880594745955555555298112" 1/70673883275439761189491911111111596224" 1/1413477665108795237889838222222221192448" 1/28269553302175904757796764444444376896" 1/56539106604351809515593528888888753792" 1/113078213208713619031118707777777149584" 1/22615642641742723806235415555555299168" 1/452312852834854476124708311111111598336" 1/9046257056697089522494166222222221196672" 1/18092514113394179044988324444444393344" 1/36185028226788358089976648888888786688" 1/723700564535767161799532977777771573376" 1/144740112907153432359906595555553146752

VEGETATION NOTES:

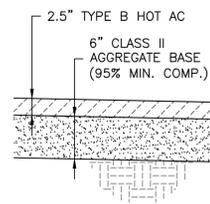
- ALL AREAS IMPACTED BY GRADING ACTIVITIES SHALL BE REPLANTED WITH GRASS, FOLIAGE, OR OTHER PLANT COVER AS EXISTED PRIOR TO GRADING ACTIVITIES.
- ALL AREAS REMOVED OF TOPSOIL THAT ARE NOT SCHEDULED TO RECEIVE TRAVELWAYS OR BUILDINGS SHALL BE REPLISHED WITH TOPSOIL EQUAL TO OR GREATER THAN WHAT EXISTED PRIOR TO GRADING ACTIVITIES.
- ALL IMPORT TOPSOIL SHALL BE FREE OF DELETERIOUS ORGANIC MATERIAL, INVASIVE PLANT AND SEED STOCK, AND OTHER MATERIAL OR PLANT COMPOSITES DEEMED UNSUITABLE FOR THE INTENDED USE.

GRADING NOTES:

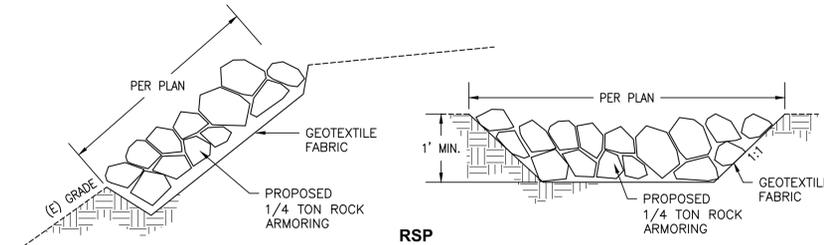
- ALL EARTHWORK, INCLUDING BUT NOT LIMITED TO, SITE CLEARING, GRUBBING, STRIPPING, AND GRADING WILL BE CONDUCTED DURING DRY WEATHER CONDITIONS. (TYPICALLY APRIL 15 TO OCTOBER 15)
- STRIP AND REMOVE ALL TOPSOIL AND VEGETATION FROM THE PROJECT AREA, AND FOR A MINIMUM OF THREE FEET TO THE OUTSIDE OF THE WORKING AREA.
- ANY UNDOCUMENTED FILL SOILS, FINE-GRAINED RESIDUAL SOILS, AND ANY OTHER DEBRIS ENCOUNTERED AT OR BELOW THE EXISTING GROUND SURFACE SHALL BE REMOVED AT THE LOCATIONS RECEIVING ANY POTENTIAL FILLS.
- THE SITE SHOULD BE GRADED TO PROVIDE ADEQUATE DRAINAGE SUCH THAT NO WATER IS ALLOWED TO POND ANYWHERE ON THE SITE OR MIGRATE BENEATH PROPOSED DEVELOPMENTS.
- ALL FILL MATERIAL SHALL BE PLACED IN VERTICAL LIFTS NOT TO EXCEED EIGHT INCHES (8") IN DEPTH AND SHALL BE COMPACTED MECHANICALLY.
- ALL FILL MATERIAL SHALL BE FREE OF ORGANICS, ROCKS LARGER THAN 3"Ø, WOODY DEBRIS, ROOTS, AND ANY OTHER DELETERIOUS MATERIAL.

GRADING NOTES (CONT.):

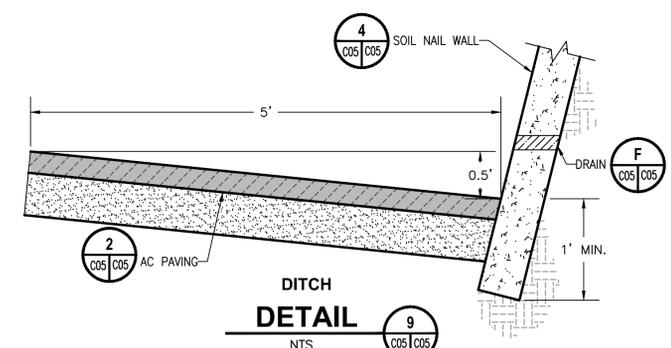
- ALL FILL MATERIAL SHALL HAVE A UNIFORM MOISTURE CONTENT AT OR NEAR OPTIMUM MOISTURE CONTENT AS DETERMINED BY TESTING AND APPROVED BY THE ENGINEER.
- NON-STRUCTURAL FILL SHALL BE COMPACTED TO A FIRM UNYIELDING SURFACE AS APPROVED BY THE ENGINEER.
- IT IS RECOMMENDED THAT ANY MATERIAL PROPOSED FOR STRUCTURAL FILL MATERIAL TO SUPPORT ANY FOUNDATIONS OR STRUCTURAL BUILDING ELEMENT AND ASSOCIATED UTILITIES BE COMPACTED AS OUTLINED IN THE SOILS REPORT REFERENCE #016144 DATED 6/9/2016 DEVELOPED BY SHN CONSULTING ENGINEERS & GEOLOGISTS, INC.
- ALL FINAL SLOPES SHALL BE TO A SMOOTH AND EVEN GRADE AND SHALL BE SURFACE TRACKWALKED AS DIRECTED.
- ALL CUT SLOPES NOT TO EXCEED 1:1 (H:V) ALL FILL SLOPES NOT TO EXCEED 1.5:1 (H:V)
- SUFFICIENT TESTING AND INSPECTION SHALL BE PERFORMED TO MONITOR THE SUITABILITY OF FILL MATERIALS AND ASSURE COMPLIANCE WITH THE RECOMMENDED COMPACTION STANDARDS.
- AGGREGATE BASE MATERIAL MAY BE USED FOR PAVEMENT SUBGRADE, PLACED BENEATH FOOTINGS OR FLOOR SLABS, AND USED AS TRENCH BACKFILL. THIS MATERIAL SHOULD MEET THE REQUIREMENTS IN THE CALTRANS STANDARD SPECIFICATIONS FOR 3/4"- CLASS 2 AGGREGATE BASE.



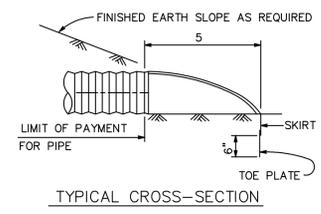
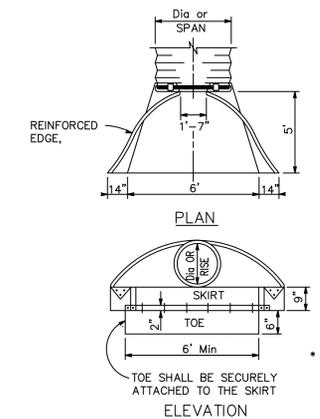
**TYP ROAD/PARKING
DETAIL 2**
NTS



**RSP
DETAIL 3**
NTS

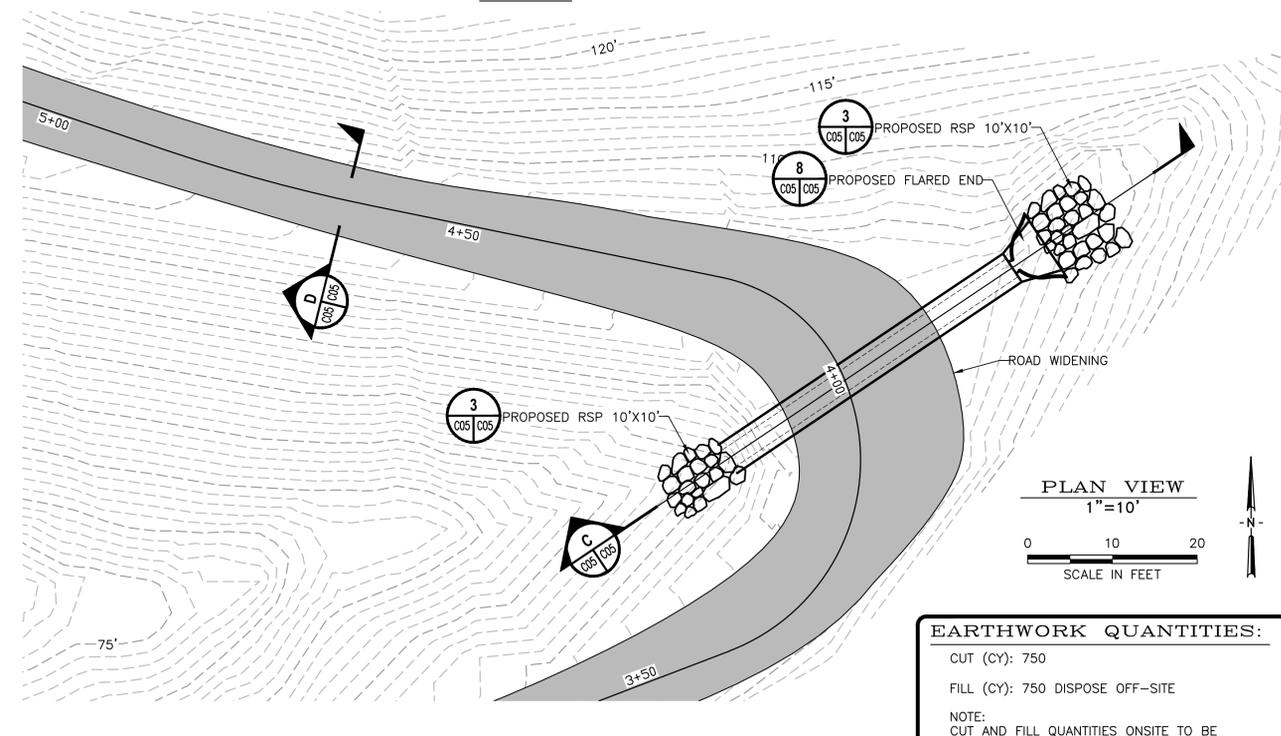
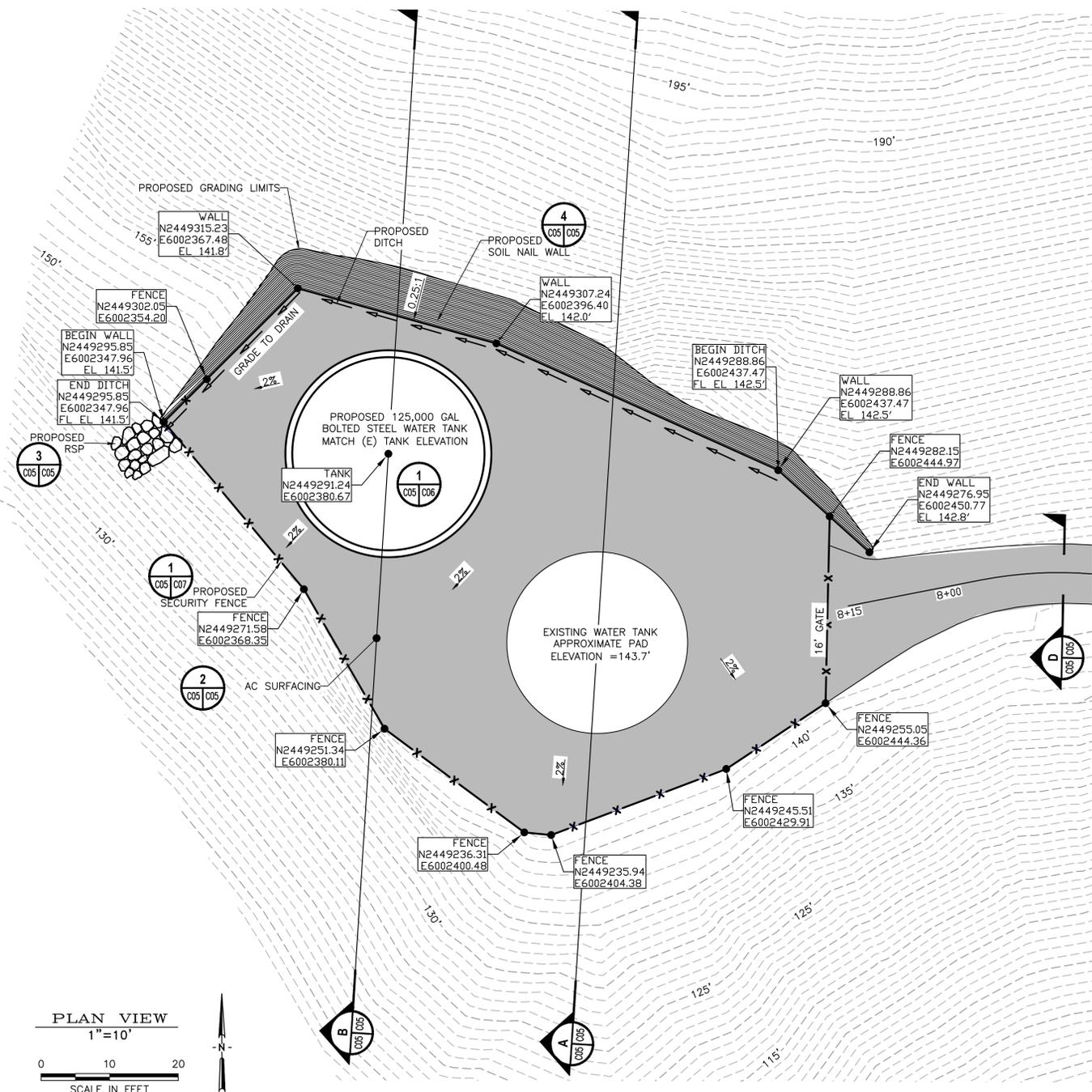


**DITCH
DETAIL 9**
NTS



8
COS COS

END SECTION THICKNESS 0.079" *
* Equivalent plastic FES to meet AASHTO M-294 and ASTM D-1248 Specifications, and shall conform to all dimensions shown above except for end section thickness, which may be 0.004" thinner.



**PLAN VIEW
1"=10'**
0 10 20
SCALE IN FEET

EARTHWORK QUANTITIES:

CUT (CY):	750
FILL (CY):	750 DISPOSE OFF-SITE
NOTE:	CUT AND FILL QUANTITIES ONSITE TO BE PERMANENT

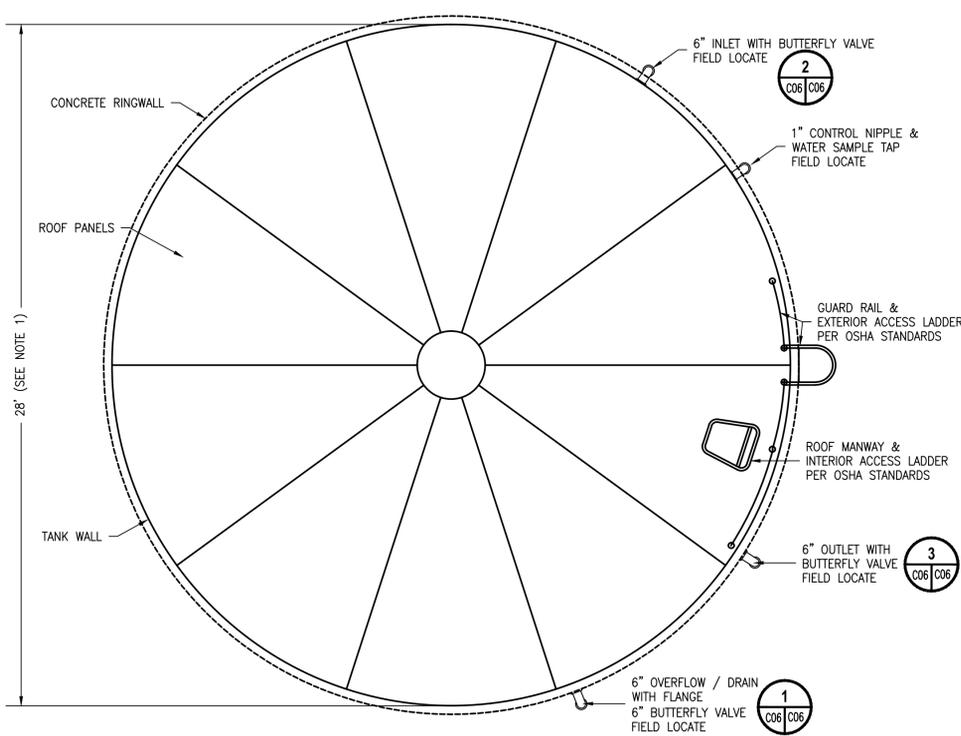


DATE	REV	DESCRIPTION
6/30/16	PRELIMINARY DESIGN	

YUROK TRIBE PLANNING DEPARTMENT
KLAMATH WATER TANK
GRADING PLAN
KLAMATH, DEL NORTE COUNTY, CALIFORNIA

DRAWN BY:	E. KEYES
DESIGNED BY:	JTM
CHECKED BY:	J. MCKNIGHT
APPROVED BY:	TVCE
DATE OF ISSUE:	JUNE 2016
SCALE:	AS SHOWN
PROJECT NO.:	484
DRAWING NO.:	C05.0

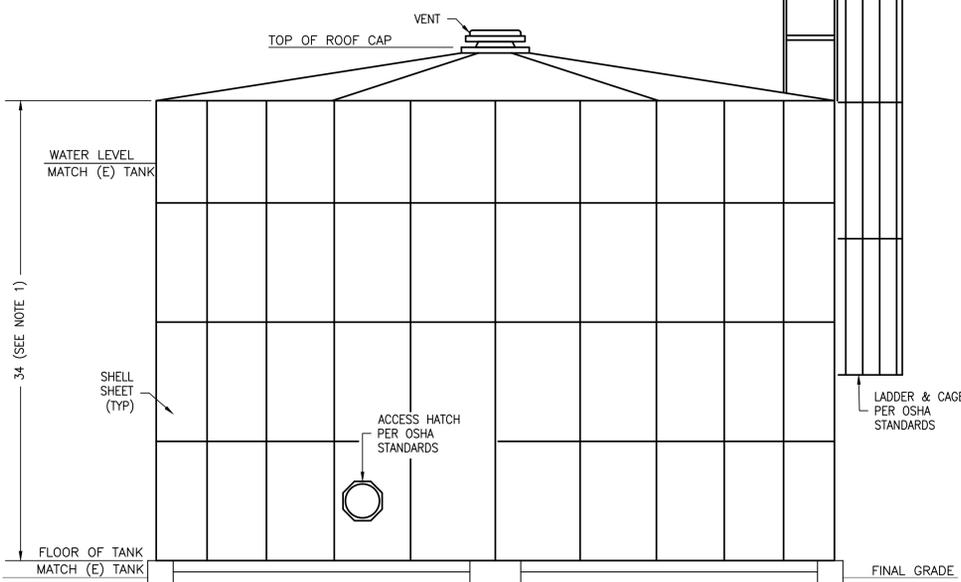
\\tveserver\d\tvce\Projects\400-499\#484 - Yurok Roads\2016\484-20_Klamath Water Tank.dwg\06_0_UTILITY_REV1.dwg, 9/2/2016 8:22:35 AM, ARCH full bleed D (24.00 x 36.00 inches), 1:1, tvce, tvce



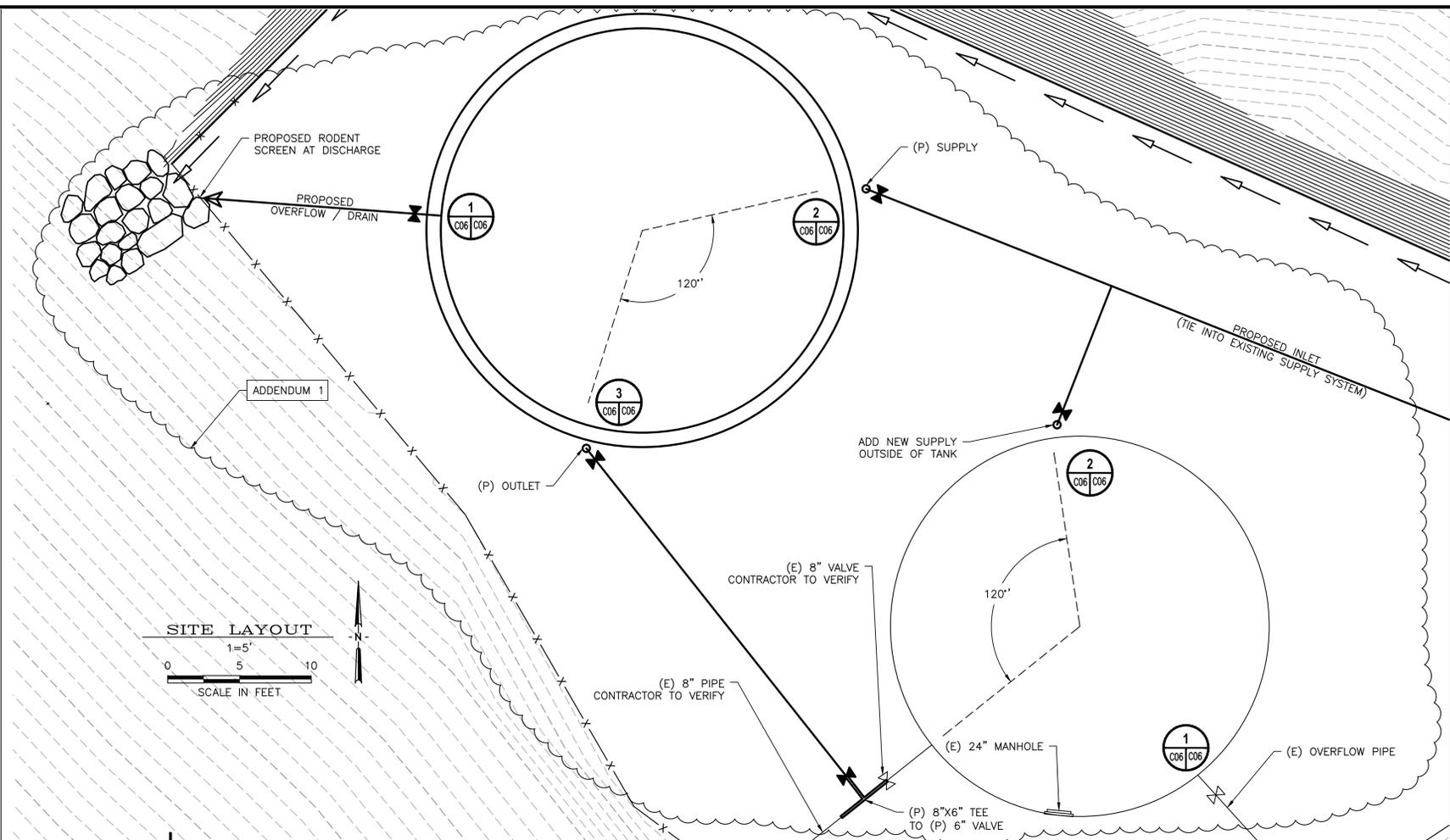
PLAN VIEW
NTS

NOTES:

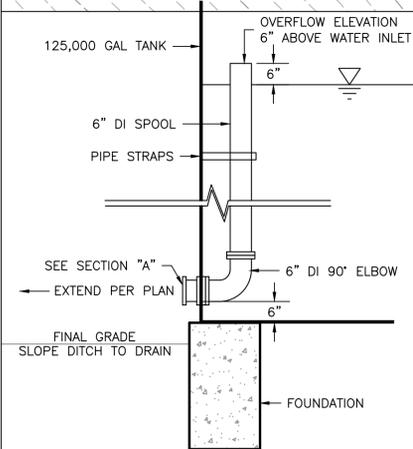
- DIMENSIONS ARE APPROXIMATE, PROVIDE STANDARD TANK WITH MINIMUM 125,000 GALLON WORKING CAPACITY (BETWEEN OUTLET INVERT AND OVERFLOW INLET).
- CONTRACTOR TO SUBMIT TANK PLANS FOR APPROVAL ACCORDING TO THE JOB SPECIFICATIONS.
- CONNECTION PIPING AND CONTROLS NOT SHOWN IN ELEVATION VIEW FOR CLARITY.
- PROVIDE TANK CONNECTION FOR LEVEL TRANSMITTER.
- TYPICAL FOUNDATION IS SHOWN, PROVIDE FOUNDATION PER MANUFACTURER'S RECOMMENDATIONS AND SOILS REPORT.
- ALL PIPE TO BE D.I. ABOVE GROUND AND PVC C-900 BELOW GROUND.
- TANK FLOOR METAL TO BE 8 GA MIN.
- ALL INTERIOR AND EXTERIOR BOLTS AND TANK PANELS TO BE EPOXY COATED OR CAPPED.
- FINISH TANK WATER LEVEL SHALL BE THE SAME AS EXISTING WATER TANK. CONTRACTOR TO VERIFY EXISTING WATER TANK LEVEL.
- PIPE CONNECTIONS FROM TANK TO UNDERGROUND REQUIRE FLEXIBLE SEISMIC COUPLING.
- PROVIDE THRUST BLOCKS AND/OR GRIP RINGS AS SHOWN OR AS DIRECTED.



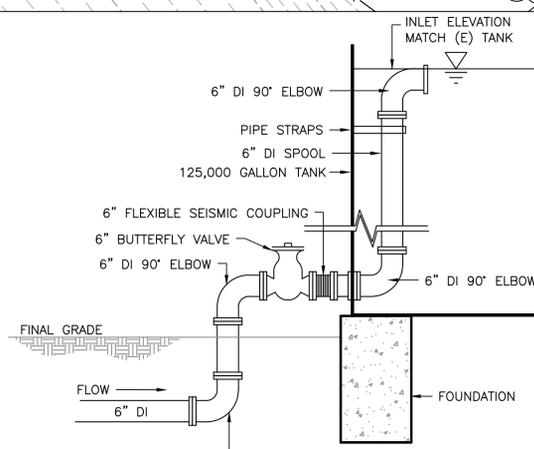
ELEVATION VIEW
NTS



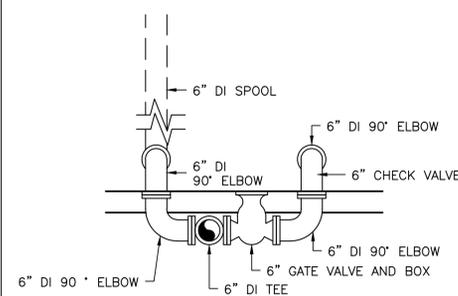
SITE LAYOUT
1"=5'
SCALE IN FEET



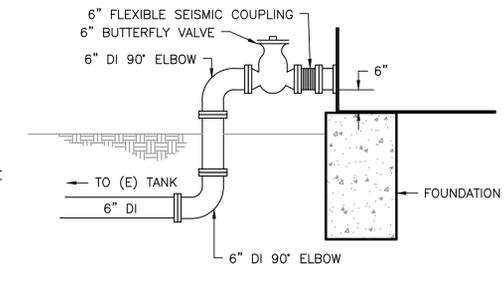
OVERFLOW/ DRAIN PIPING
DETAIL 1
1-2'



INLET PIPING
DETAIL 2
1-2'



OVERFLOW/ DRAIN PIPING
SECTION A
1-2'



OUTLET PIPING
DETAIL 3
1-2'

WATER NOTES:

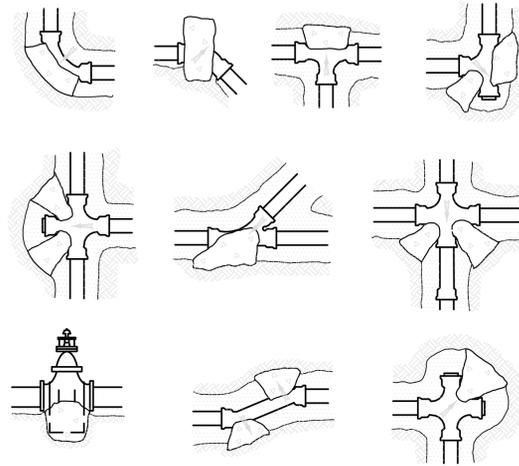
- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF AWWA STANDARDS UNLESS OTHERWISE SHOWN OR DESCRIBED ON THESE PLANS.
- THE CONTRACTOR SHALL NOTIFY THE KLAMATH COMMUNITY SERVICE DISTRICT (KCS D) FIVE (5) WORKING DAYS IN ADVANCE OF BEGINNING WORK.
- PLANS SHALL BE RESUBMITTED FOR APPROVAL IF CONSTRUCTION OF WATER FACILITIES HAS NOT BEGUN WITHIN ONE (1) YEAR AFTER THE APPROVAL DATE OF THESE IMPROVEMENT PLANS.
- ALL WORK SHALL BE INSPECTED BY THE KCS D PRIOR TO BACKFILLING.
- THE CONTRACTOR SHALL NOTIFY THE KCS D IN CASE OF AN EMERGENCY.
- THE CONTRACTOR SHALL NOTIFY THE KCS D FIVE (5) DAYS PRIOR TO SCHEDULED CONNECTION TO THE EXISTING WATER SYSTEM SO THE INSPECTOR CAN ARRANGE FOR CLOSURE OF VALVES AND CUSTOMER NOTIFICATION OF SHUT DOWN. THE KCS D WILL ARRANGE FOR CLOSURE OF VALVES, AND CUSTOMER NOTIFICATIONS OF SHUTDOWN. THE CONTRACTOR IS PROHIBITED FROM OPERATING ANY VALVES WITHOUT EXPRESS WRITTEN PERMISSION FROM THE KCS D.
- THE CONTRACTOR SHALL DISINFECT AND FLUSH THE NEW WATER SYSTEM PRIOR TO CONNECTING TO THE EXISTING WATER SYSTEM PER AWWA 605.
- SERVICE CONNECTIONS TO AN EXISTING WATER MAIN, OR TO AN EXTENSION OF AN EXISTING WATER MAIN, SHALL BE MADE BY THE CONTRACTOR. THE CONTRACTOR SHALL SCHEDULE AND PROCEED WITH THE SERVICE CONNECTION WITHOUT DELAY AND WITH MINIMUM INTERFERENCE TO EXISTING WATER AND FIRE SERVICES. THE CONTRACTOR SHALL NOTIFY THE KCS D AND SCHEDULE FOR INSPECTION FIVE (5) DAYS IN ADVANCE.
- VALVES THREE INCHES (3") AND LARGER PLACED AT TEES, CROSSES, ELBOWS, AND REDUCERS SHALL BE FLANGED AND BOLTED TO THE FITTINGS.
- PIPE JOINTS WILL NOT BE ALLOWED WITHIN SIX FEET (6') OF A VALVE, FITTING OR HYDRANT. DEFLECTION OF PIPE WILL NOT BE ALLOWED WITHIN TEN FEET (10') OF ANY FITTING OR VALVE.
- STANDARD PIPE LENGTHS (MINIMUM EIGHTEEN (18) TO TWENTY (20) FEET) SHALL BE USED FOR ALL HORIZONTAL AND VERTICAL DEFLECTIONS.
- BUTTERFLY VALVES SHALL BE MANUFACTURED BY DEZURIK, PRATT, MUELLER, OR APPROVED EQUAL.
- ALL ELBOWS, TEES, CROSSES, REDUCERS, BLOW-OFFS, DEAD ENDS, AND VALVES SHALL BE RESTRAINED TO PREVENT MOVEMENT WHEN PRESSURIZED. RESTRAINTS SHALL BE INSTALLED WHETHER SHOWN ON PLANS AND DETAILS OR NOT. VALVES SHALL BE TREATED AS BI-DIRECTIONAL DEAD-ENDS WHEN DETERMINING REQUIRED RESTRAINED LENGTHS. THE TYPE OF RESTRAINT SHALL BE THRUST BLOCKS OR JOINT RESTRAINING DEVICES, AS HEREINAFTER SPECIFIED. JOINT RESTRAINING DEVICES SHALL BE USED AT ALL OTHER LOCATIONS, WHERE UTILITY CONFLICTS DO NOT LEAVE ROOM FOR THRUST BLOCKS, OR WHERE SPECIFIED. JOINT RESTRAINING DEVICES SHALL BE INSTALLED IN ALL PUSH ON AND MECHANICAL JOINTS WITHIN THE SPECIFIED "RESTRAINED LENGTH". THE "RESTRAINED LENGTH" SHALL COMPLY WITH NOTES ON THE PLANS, OR STANDARD DRAWINGS, WHICHEVER IS LONGER. IN THE EVENT THAT NO "RESTRAINED LENGTH" IS SPECIFIED, THE CONTRACTOR SHALL OBTAIN THE REQUIRED "RESTRAINED LENGTH" FROM THE ENGINEER.
- JOINT RESTRAINING DEVICES FOR MECHANICAL JOINTS SHALL BE EBBA MEGALUG 1100, OR STAR PIPE PRODUCTS' STARGRIP 3000 FOR DUCTILE IRON PIPE; AND EBAA MEGALUG 2000PV, OR STAR PIPE PRODUCTS' ALLGRIP 3600, FOR PVC PIPE; OR APPROVED EQUAL BY THE KCS D. ONLY DUCTILE IRON PIPE SHALL BE USED WHEN RESTRAINING PUSH-ON JOINTS. PUSH-ON RESTRAINTS SHALL BE US PIPE FIELD LOCK GASKETS, OR US PIPE TR FLEX PIPE, OR APPROVED EQUAL BY THE KCS D. OUTSIDE THE BELL RESTRAINING DEVICES AND RESTRAINED PVC PUSH-ON JOINTS WILL NOT BE ALLOWED. THE PIPE LENGTH FROM THE RESTRAINED FITTING OR VALVE SHALL BE A MINIMUM OF 18- FEET, UNLESS OTHERWISE SPECIFIED.
- THREE (3) SETS OF "AS-BUILT" PLANS SHALL BE SUBMITTED TO THE KCS D, PRIOR TO ACCEPTANCE OF THE WATER SYSTEM BY THE KCS D. ALL SHEETS SHALL BE STAMPED "RECORD DRAWING" OR "AS-BUILT"



DATE	REV	DESCRIPTION	CHK BY	APP BY
9/1/16		ADDENDUM 1 PIPING	JTM	JTM
6/30/16		PRELIMINARY DESIGN	JTM	JTM

YUROK TRIBE PLANNING DEPARTMENT
KLAMATH WATER TANK
UTILITY PLAN
KLAMATH, DEL NORTE COUNTY, CALIFORNIA

DRAWN BY:	F. MASTEN
DESIGNED BY:	J. MCKNIGHT
CHECKED BY:	J. MCKNIGHT
APPROVED BY:	
DATE OF ISSUE:	JUNE 2016
SCALE:	AS SHOWN
PROJECT NO:	484
DRAWING NO:	C06.0



LOCATION OF THRUST BLOCKS
NTS

TABLE I
THRUST(T) AT FITTINGS, IN POUNDS AT 100 PSI WATER PRESSURE

PIPE SIZE	TEE OR DEAD END	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
1 1/2"	284	401	217	111	56
2"	443	627	339	173	87
2 1/2"	649	918	497	253	127
3"	962	1361	736	375	189
4"	1810	2559	1385	706	355
6"	3739	5288	2862	1459	733
8"	6433	9097	4923	2510	1261
10"	9677	13685	7406	3776	1897
12"	13685	19353	10474	5340	2683
14"	18385	26001	14072	7174	3604
16"	23779	33628	18199	9278	4661

TABLE II
SAFE BEARING LOADS (B)

SOIL	SAFE BEARING LOAD, POUNDS PER SQ. FT.
SOUND SHALE	10000
CEMENTED SAND AND GRAVEL	4000
COARSE AND FINE COMPACTED SAND	3000
MEDIUM CLAY (CAN BE SPADED)	2000
SOFT CLAY	1000
MUCK	0

$$A_{SB} = \frac{T}{B} \times \frac{P_T}{100}$$

WHERE:

A_{SB} = AREA OF BLOCK BEARING AGAINST UNDISTURBED TRENCH MATERIAL IN SQ. FT.

T = THRUST FACTOR FROM TABLE I IN POUNDS AT 100 PSI

B = SAFE BEARING LOAD FROM TABLE II IN POUNDS/SQ. FT.

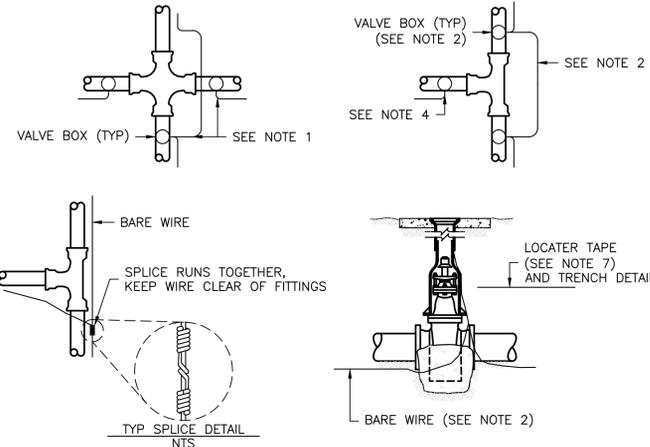
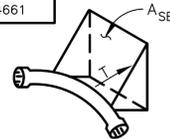
P_T = PRESSURE USED FOR PIPELINE TEST IN PSI

THRUST BLOCK SIZING
NOT TO SCALE

THRUST BLOCK NOTES:

- THRUST BLOCKS SHALL BE CONSTRUCTED SO THAT MAJOR BEARING SURFACE IS IN DIRECT LINE WITH THE MAJOR FORCE CREATED BY THE PIPE OR FITTINGS.
- ALL CONCRETE SHALL BE CLASS 470-C-2500 PER "GREENBOOK".
- CONCRETE SHALL BE FLUID ENOUGH SO THAT IT MAY BE WORKED AROUND THE FITTINGS. A DOUBLE LAYER OF 6 MIL POLYETHYLENE FILM SHALL BE PLACED BETWEEN CONCRETE AND METAL FITTINGS.
- CONCRETE SHALL BE KEPT BEHIND THE BELL OF THE FITTINGS.
- ALL THRUST BLOCKS FOR PIPES LARGER THAN 12" SHALL BE ENGINEERED.
- A CONCRETE PAD SHALL BE PLACED UNDER ALL VALVES 12" AND LARGER FOR SUPPORT.
- ALL ANCHOR BLOCKS SHALL BE CONSTRUCTED WITH A MINIMUM OF (2) #4 REBAR STRAPS.

THRUST BLOCK
DETAIL 1
NTS

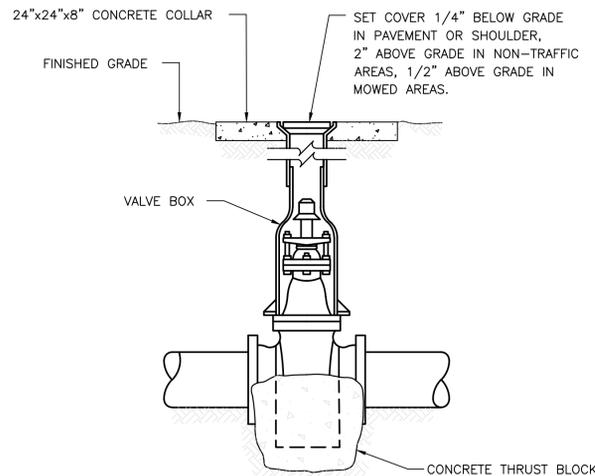


LOCATING WIRE AND WARNING TAPE

DETAIL 2
NTS

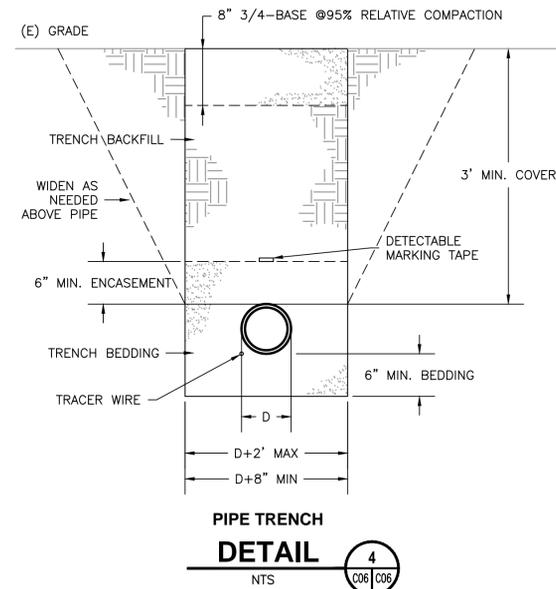
LOCATING WIRE AND WARNING TAPE NOTES:

- WIRE SHALL BE CONTINUOUS BETWEEN VALVE BOXES, EXCEPT WHERE BOXES ARE WITHIN TEN (10) FEET OF PIPE INTERSECTION.
- BARE WIRE SHALL NOT TOUCH VALVES OR FITTINGS.
- LOCATING WIRE SHALL BE PLACED AT BOTTOM OF TRENCH, NEXT TO PIPE. (DO NOT ATTACH WIRE TO PIPE).
- IF WIRE ENDS AT A VALVE, A SINGLE INSULATED WIRE SHALL EXTEND UP TO WITHIN 12" OF BOX COVER.
- ALL VALVES, INCLUDING FIRE HYDRANT VALVES, SHALL HAVE LOCATING WIRES.
- LOCATING WIRE SHALL BE BARE #6 AWG SOLID COPPER, SOFT DRAWN WIRE. WIRE SHALL BE INSTALLED WITH ALL NON-METALLIC MAINS AND SERVICES.
- WARNING TAPE SHALL BE A DETECTABLE METALLIZED 2" WIDE WARNING TAPE, BLUE COLOR CODED, IMPRINTED WITH "CAUTION-BURIED WATER LINE BELOW" SHALL BE INSTALLED 12" ABOVE ALL WATER MAINS IN OFF ROAD INSTALLATIONS. LINEGUARD DETECTABLE MARKING TAP, TYPE III OR APPROVED EQUAL.



TYPICAL GATE VALVE

DETAIL 3
NTS



PIPE TRENCH
DETAIL 4
NTS

PIPE TRENCH NOTES:

- BACKFILL BY HAND, COMPACT OR CONSOLIDATE TO PROVIDE SOLID BEDDING UNDER AND AROUND PIPE.
- BEDDING MATERIAL SHALL BE GRAVEL OR SAND AND SHALL HAVE A MAXIMUM SIZE OF 1/2" AND BE REASONABLY GRADED FROM COARSE TO FINE WITH A MINIMUM SAND EQUIVALENT OF 28.
- IMPORT GRAVEL BACKFILL SHALL BE STREAM GRAVEL OR CRUSHED ROCK AND BE REASONABLY WELL GRADED FROM COARSE TO FINE WITH A MAXIMUM SIZE OF 3" AND A MINIMUM SAND EQUIVALENT GREATER THAN 28.
- JETTING WILL NOT BE ALLOWED.
- TRENCH BACKFILL WITHIN ROADWAY PER ENGINEER.

1" = 1/2" 0" 1" 2" 3" 4" 5" 6" 7" 8" 9" 10" 11" 12" 13" 14" 15" 16" 17" 18" 19" 20" 21" 22" 23" 24" 25" 26" 27" 28" 29" 30" 31" 32" 33" 34" 35" 36" 37" 38" 39" 40" 41" 42" 43" 44" 45" 46" 47" 48" 49" 50" 51" 52" 53" 54" 55" 56" 57" 58" 59" 60" 61" 62" 63" 64" 65" 66" 67" 68" 69" 70" 71" 72" 73" 74" 75" 76" 77" 78" 79" 80" 81" 82" 83" 84" 85" 86" 87" 88" 89" 90" 91" 92" 93" 94" 95" 96" 97" 98" 99" 100"



REV	DATE	DESCRIPTION
1	6/30/16	PRELIMINARY DESIGN

YUROK TRIBE PLANNING DEPARTMENT
KLAMATH WATER TANK
DETAILS
KLAMATH, DEL NORTE COUNTY, CALIFORNIA

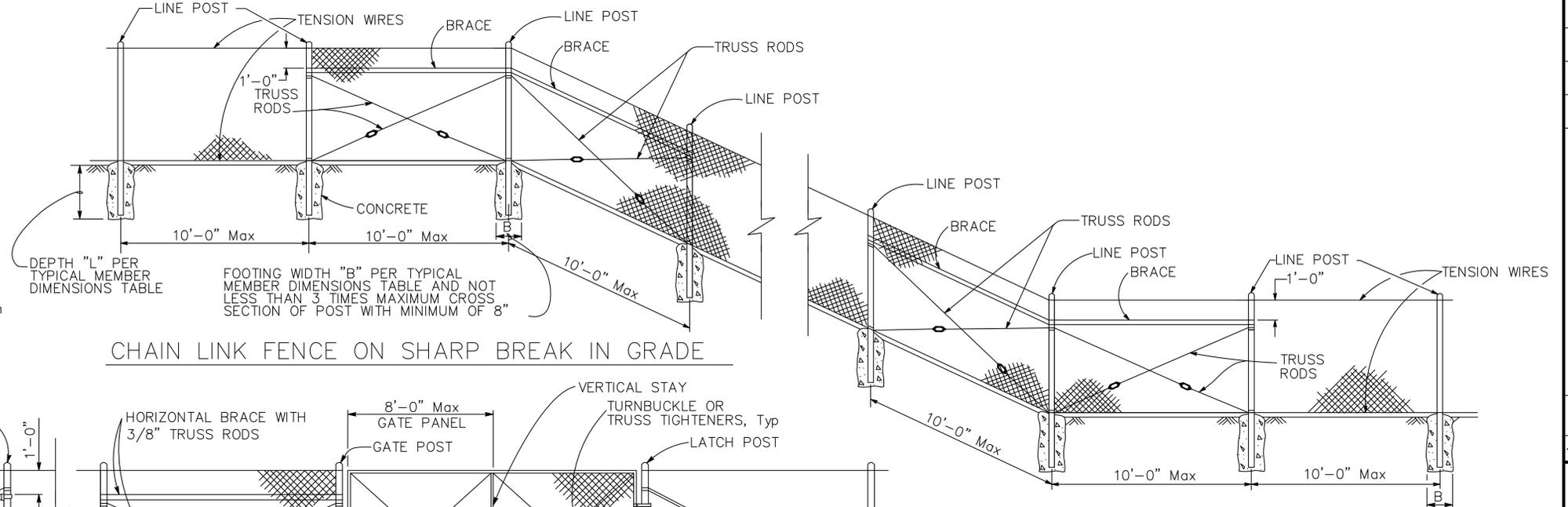
DRAWN BY: E. KEYS
DESIGNED BY: J. MCKNIGHT
CHECKED BY: J. MCKNIGHT
APPROVED BY:

DATE OF ISSUE: JUNE 2016
SCALE: AS SHOWN
PROJECT NO: 484
DRAWING NO: C06.1

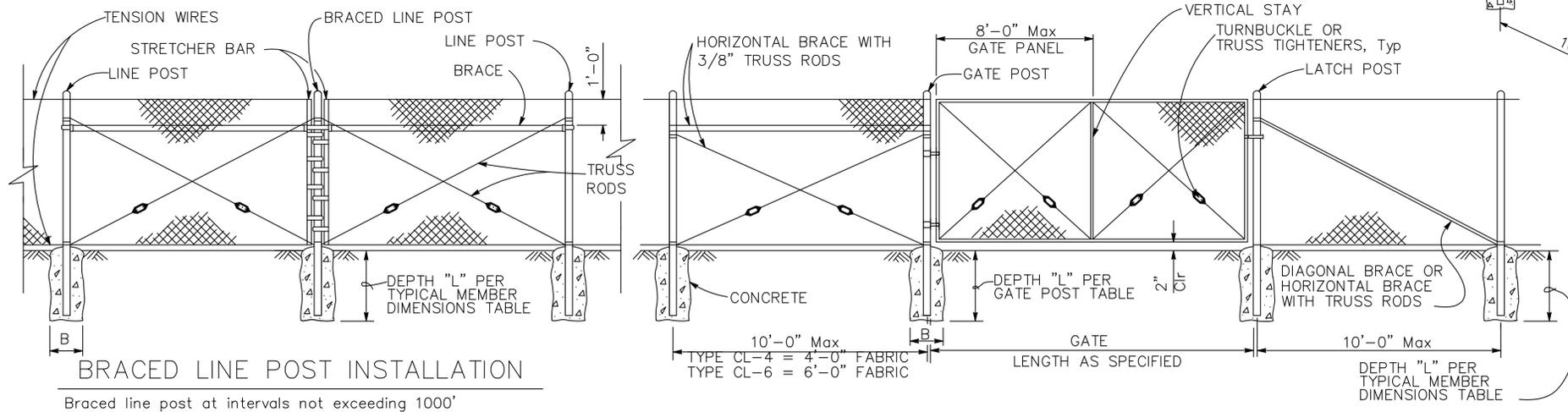
1" = 1/2" 0" 1" 1/2" 2" 3" 4" 5" 6" 7" 8" 9" 10' 11' 12' 13' 14' 15' 16' 17' 18' 19' 20'

NOTES:

1. The table to the right shows minimum sized posts and braces complying with the specifications. Larger or heavier post and brace sizes may be used upon approval.
2. Sections shown in the tables must also comply with the strength requirements and other provisions of the Specifications.
3. Other sections which comply with the strength requirements and other provisions of the Specifications may be used upon approval.
4. Options exercised shall be uniform on any one project.

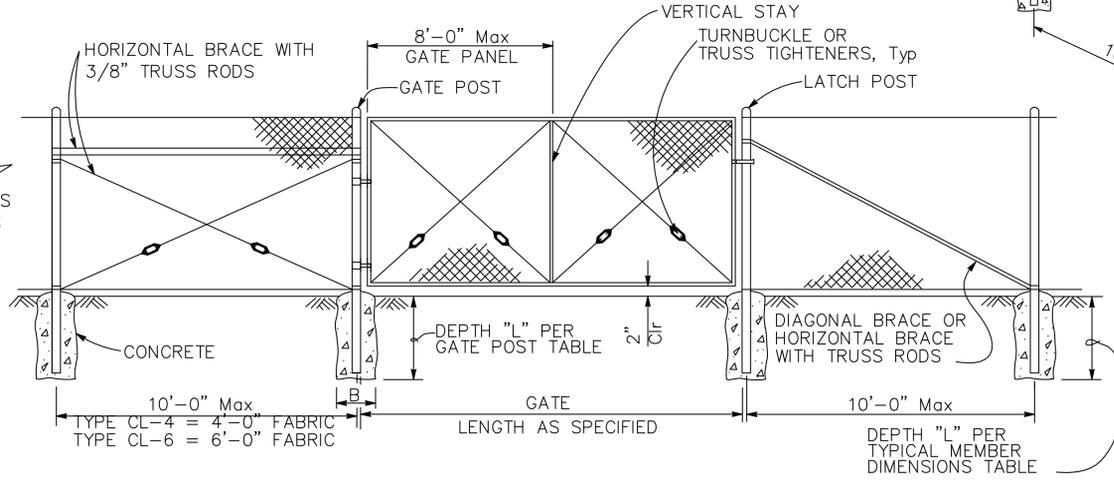


CHAIN LINK FENCE ON SHARP BREAK IN GRADE



BRACED LINE POST INSTALLATION

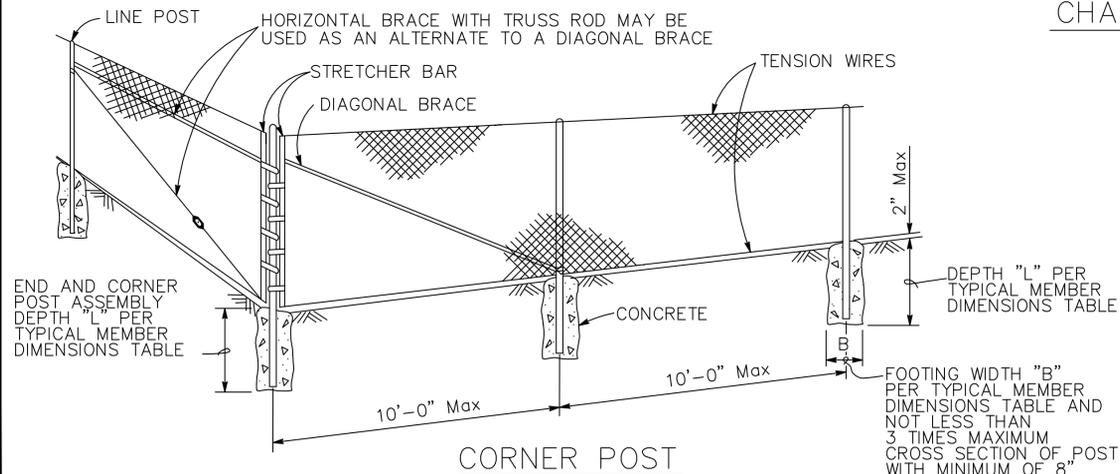
Braced line post at intervals not exceeding 1000'



CHAIN LINK GATE INSTALLATION

FENCE HEIGHT (Max)	SLATTED	B (in)	L (ft)	ROUND PIPE		
				SECTION	ROUND OD PIPE	WEIGHT (lb/ft)
				5'-0"	NO	12"
6'-0"	NO	12"	2'-6"	3 Std	3.50"	7.58
8'-0"	NO	12"	3'-0"	3 Std	3.50"	7.58
10'-0"	NO	14"	3'-6"	3 Std	3.50"	7.58
5'-0"	YES	12"	3'-0"	3 1/2 Std	4.00"	9.12
6'-0"	YES	14"	3'-6"	4 Std	4.50"	10.80
8'-0"	YES	18"	3'-6"	5 Std	5.56"	14.60
10'-0"	YES	20"	4'-0"	6 Std	6.63"	19.00

Above post dimensions and weights are minimums. Larger sizes may be used upon approval. Maximum Gate Width is 24'-0".



CORNER POST

TYPICAL MEMBER DIMENSIONS (See Notes)													
FENCE HEIGHT (Max)	SLATTED	B (in)	L (ft)	LINE POSTS						BRACES			
				ROUND PIPE			ROLL FORMED			ROUND PIPE		ROLL FORMED	
				SECTION	ROUND OD PIPE	WEIGHT (lb/ft)	SECTION	WEIGHT (lb/ft)	SECTION	ROUND OD PIPE	WEIGHT (lb/ft)	SECTION	WEIGHT (lb/ft)
				5'-0"	NO	8"	2'-6"	11/2 Std	1.90"	2.72	1.875" x 1.625"	1.85	2 Std
6'-0"	NO	10"	2'-6"	2 Std	2.38"	3.66	1.875" x 1.625"	2.40	2 Std	2.38"	3.66	1.625" x 1.250"	1.35
8'-0"	NO	12"	3'-0"	2 1/2 Std	2.88"	5.80	3.250" x 2.500"	4.50	2 Std	2.38"	3.66	1.625" x 1.250"	1.35
10'-0"	NO	14"	3'-6"	3 Std	3.50"	7.58	3.250" x 2.500"	4.50	2 1/2 Std	2.88"	5.80	1.625" x 1.250"	1.35
5'-0"	YES	12"	3'-0"	3 1/2 Std	4.00"	9.12	N/A	-	2 Std	2.38"	3.66	N/A	-
6'-0"	YES	14"	3'-0"	4 Std	4.50"	10.80	N/A	-	2 Std	2.38"	3.66	N/A	-
8'-0"	YES	18"	3'-6"	5 Std	5.56"	14.60	N/A	-	2 Std	2.38"	3.66	N/A	-
10'-0"	YES	20"	4'-0"	6 Std	6.63"	19.00	N/A	-	2 1/2 Std	2.88"	5.80	N/A	-

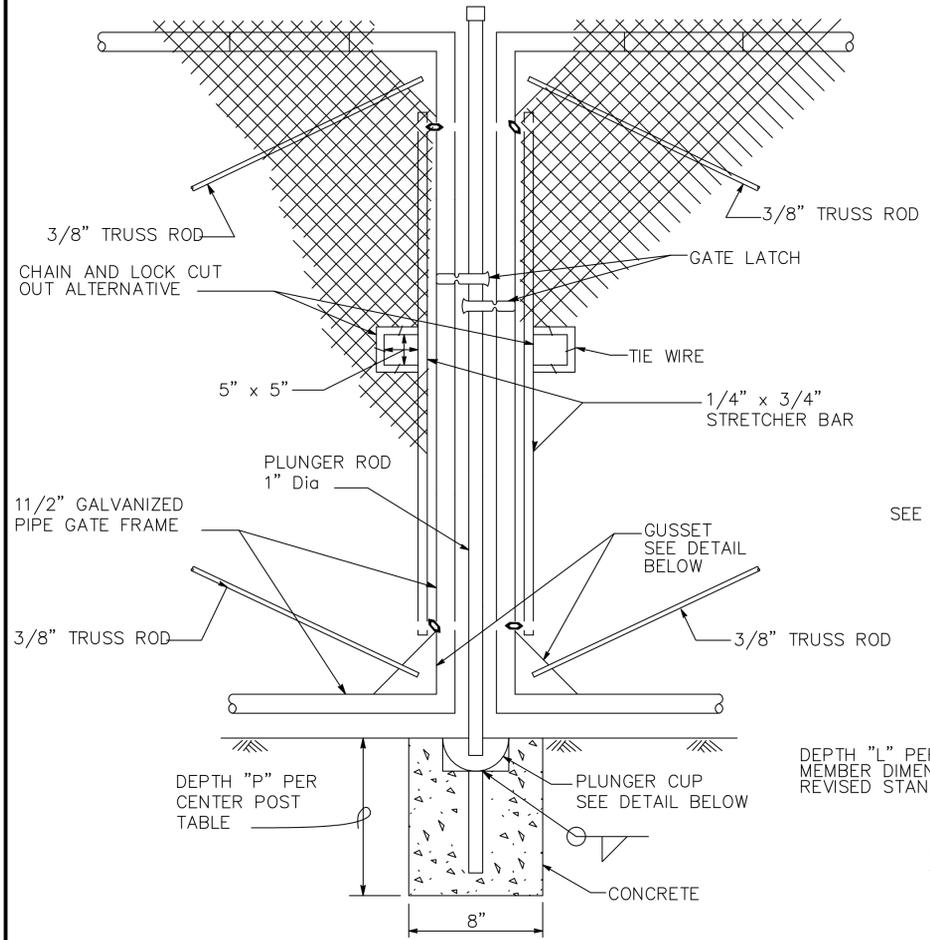


TVCE
 67 WILLOW WAY
 P.O. BOX 1657
 WILLOW CREEK, CA 95573
 PHONE (530) 629-3000
 FAX (530) 629-3011

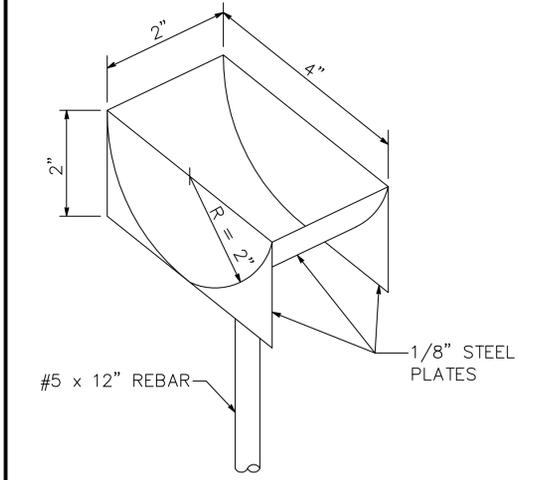
YUROK TRIBE PLANNING DEPARTMENT
 KLAMATH WATER TANK
FENCE AND GATE DETAILS
 KLAMATH, DEL NORTE COUNTY, CALIFORNIA

DATE OF ISSUE: JUNE 2016
 SCALE: AS SHOWN
 PROJECT NO: 484
 DRAWING NO: C07.1

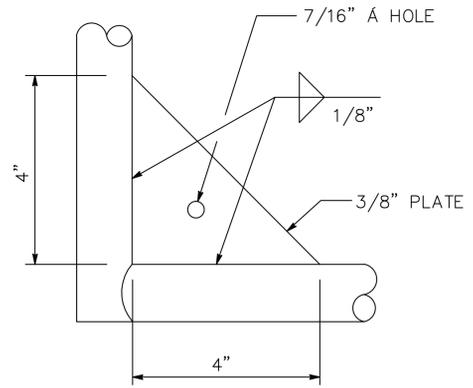
1:\400-499\484 - Yurok Roads\2016\484_20_Klamath Water Tank\dwg\07.2_fence.dwg, 7/19/2016 4:48:02 PM, ARCH full bleed D (24.00 x 36.00 inches), 1:1, lnce, lnce



DOUBLE GATE
REMOVABLE CENTER POST

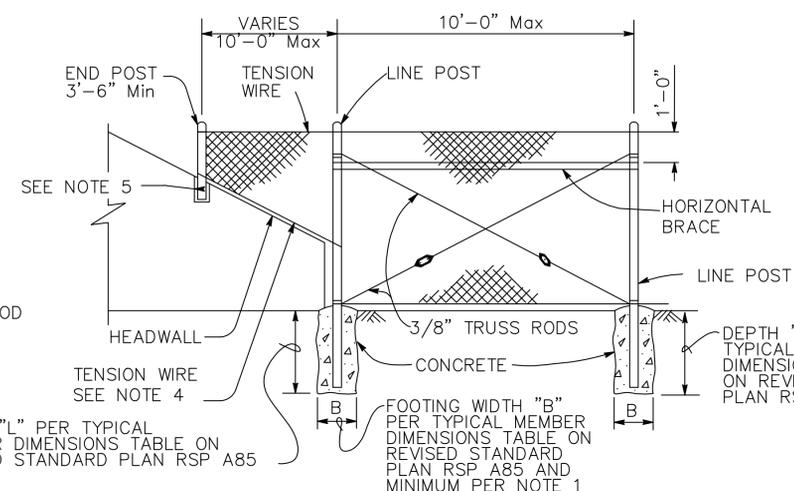


PLUNGER CUP DETAIL

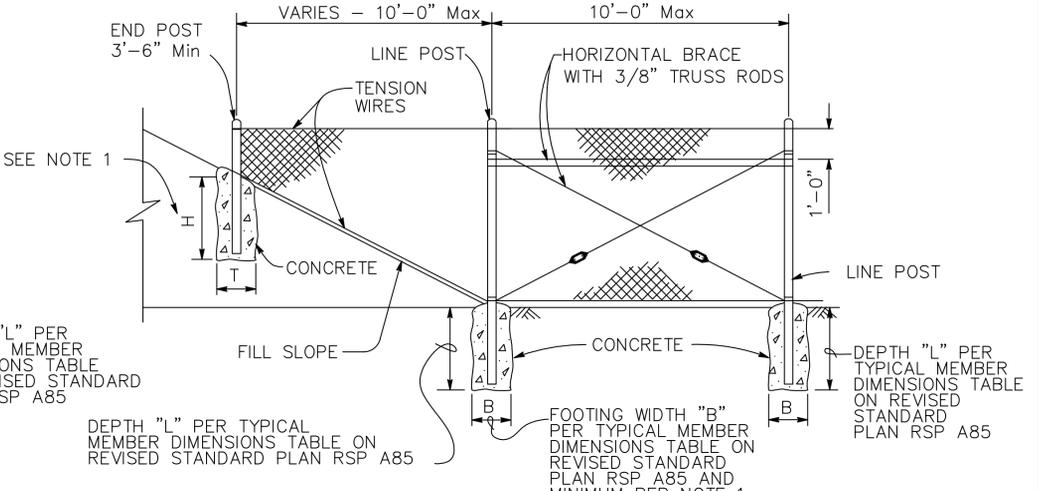


GUSSET DETAIL

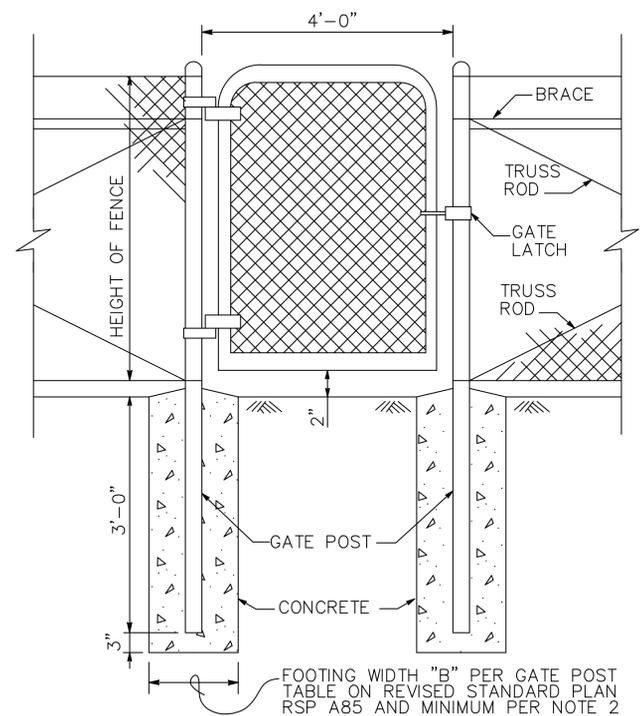
CENTER POST		
FENCE HEIGHT (Max)	SLATTED	P
ALL HEIGHTS	NO	1'-6"
5'-0"	YES	3'-0"
6'-0"	YES	3'-0"
8'-0"	YES	3'-6"
10'-0"	YES	4'-0"



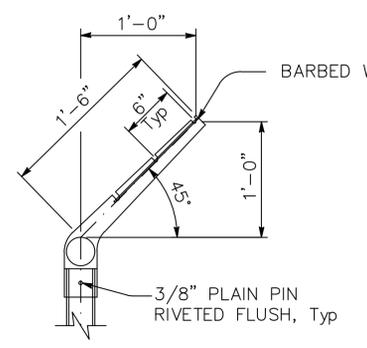
METHOD OF TYING FENCE TO HEADWALL



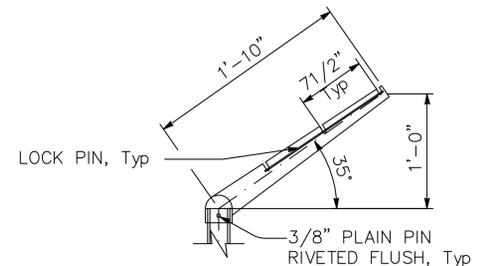
METHOD OF ERECTING FENCE FOR FILL SLOPE



WALK GATE

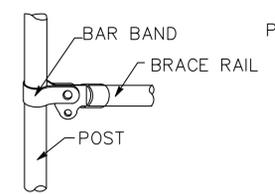


LINE POST

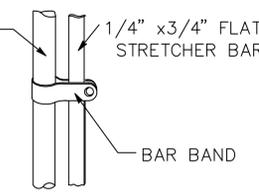


CORNER POST

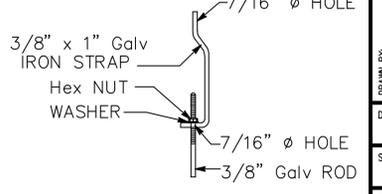
BARBED WIRE POST TOP



BRACE RAIL



STRETCHER BAR



TRUSS TIGHTENER

NOTES:

1. B is not less than 3 times maximum cross section of post with minimum of 8".
2. See Revised Standard Plan RSP A85 for Chain Link Fencing dimensions.
3. See Detail A on Standard Plan A86B for connection at headwall.
4. See Detail D on Standard Plan A86B for connection at headwall.



DATE	DESCRIPTION	CHK BY	APP BY
6/30/16	PRELIMINARY DESIGN		

YUROK TRIBE PLANNING DEPARTMENT
KLAMATH WATER TANK
FENCE AND GATE DETAILS
KLAMATH, DEL NORTE COUNTY, CALIFORNIA

DRAWN BY: F. MASTEN	DESIGNED BY: J. MCKNIGHT	CHECKED BY: J. MCKNIGHT	APPROVED BY:
DATE OF ISSUE: JUNE 2016			
SCALE: AS SHOWN			
PROJECT NO: 484			
DRAWING NO: C07.2			

\\tveserver\d\tvce\Projects\400-499\484 - Yurok Roads\2016\484-20_Klamath Water Tank.dwg\08_0_EROSION CONTROL_rev_1.dwg, 9/2/2016 8:23:18 AM, ARCH full bleed D (24.00 x 36.00 inches), 1:1, tvce, tvce

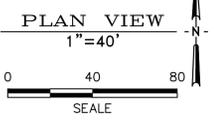
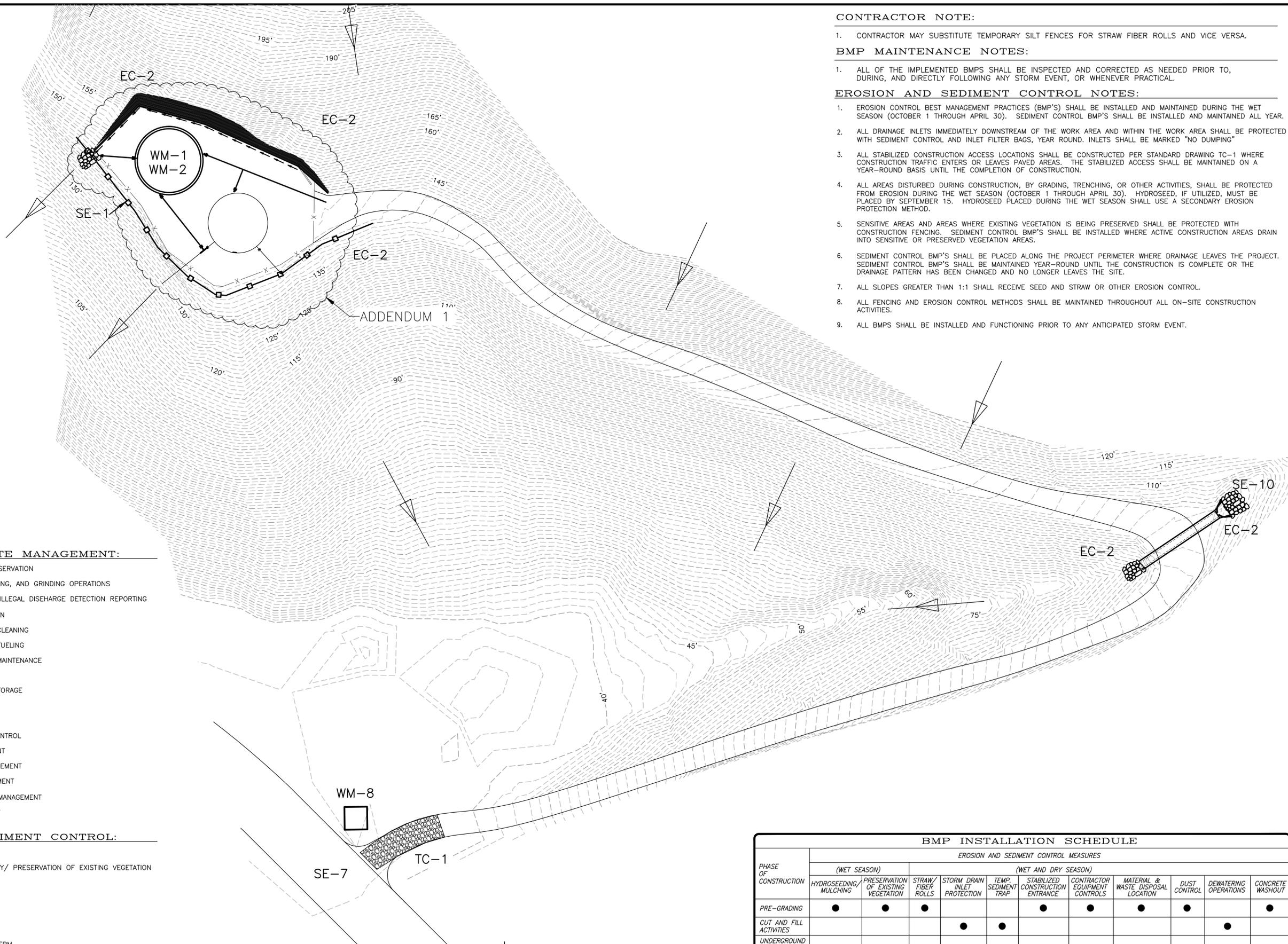
- LEGEND:**
- ON-SITE OVERLAND RELEASE PATH
 - OFF-SITE OVERLAND RELEASE PATH
 - STRAW/FIBER ROLLS
 - SILT FENCE
 - SEED AND STRAW

CONSTRUCTION SITE MANAGEMENT:

- NS-1 WATER CONTROL AND CONSERVATION
- NS-3 PAVING, SEALING, SAWCUTTING, AND GRINDING OPERATIONS
- NS-6 ILLEGAL CONNECTION AND ILLEGAL DISECHARGE DETECTION REPORTING
- NS-7 POTABLE WATER/ IRRIGATION
- NS-8 VEHICLE AND EQUIPMENT CLEANING
- NS-9 VEHICLE AND EQUIPMENT FUELING
- NS-10 VEHICLE AND EQUIPMENT MAINTENANCE
- NS-12 CONCRETE CURING
- WM-1 MATERIAL DELIVERY AND STORAGE
- WM-2 MATERIAL USE
- WM-3 STOCKPILE MANAGEMENT
- WM-4 SPILL PREVENTION AND CONTROL
- WM-6 HAZARD WASTE MANAGEMENT
- WM-7 CONTAMINATED SOIL MANAGEMENT
- WM-8 CONCRETE WASTE MANAGEMENT
- WM-9 SANITARY/ SEPTIC WASTE MANAGEMENT
- WM-10 LIQUID WASTE MANAGEMENT

EROSION AND SEDIMENT CONTROL:

- EC-1 SCHEDULING
- EC-2 PRESERVATION OF PROPERTY/ PRESERVATION OF EXISTING VEGETATION
- EC-6 STRAW MULCH
- EC-7 GEOTEXTILE AND MATS
- SE-1 TEMPORARY SILT FENCE
- SE-5 TEMPORARY FIBER ROLLS
- SE-6 TEMPORARY GRAVEL BAR BERM
- SE-7 STREET SWEEPING
- SE-10 INLET PROTECTION
- WE-1 WIND EROSION CONTROL
- TC-1 TEMPORARY CONSTRUCTION ENTRANCE
- WM-8 TEMPORARY CONCRETE WASHOUT FACILITY



CONTRACTOR NOTE:

1. CONTRACTOR MAY SUBSTITUTE TEMPORARY SILT FENCES FOR STRAW FIBER ROLLS AND VICE VERSA.

BMP MAINTENANCE NOTES:

1. ALL OF THE IMPLEMENTED BMP'S SHALL BE INSPECTED AND CORRECTED AS NEEDED PRIOR TO, DURING, AND DIRECTLY FOLLOWING ANY STORM EVENT, OR WHENEVER PRACTICAL.

EROSION AND SEDIMENT CONTROL NOTES:

1. EROSION CONTROL BEST MANAGEMENT PRACTICES (BMP'S) SHALL BE INSTALLED AND MAINTAINED DURING THE WET SEASON (OCTOBER 1 THROUGH APRIL 30). SEDIMENT CONTROL BMP'S SHALL BE INSTALLED AND MAINTAINED ALL YEAR.
2. ALL DRAINAGE INLETS IMMEDIATELY DOWNSTREAM OF THE WORK AREA AND WITHIN THE WORK AREA SHALL BE PROTECTED WITH SEDIMENT CONTROL AND INLET FILTER BAGS, YEAR ROUND. INLETS SHALL BE MARKED "NO DUMPING"
3. ALL STABILIZED CONSTRUCTION ACCESS LOCATIONS SHALL BE CONSTRUCTED PER STANDARD DRAWING TC-1 WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES PAVED AREAS. THE STABILIZED ACCESS SHALL BE MAINTAINED ON A YEAR-ROUND BASIS UNTIL THE COMPLETION OF CONSTRUCTION.
4. ALL AREAS DISTURBED DURING CONSTRUCTION, BY GRADING, TRENCHING, OR OTHER ACTIVITIES, SHALL BE PROTECTED FROM EROSION DURING THE WET SEASON (OCTOBER 1 THROUGH APRIL 30). HYDROSEED, IF UTILIZED, MUST BE PLACED BY SEPTEMBER 15. HYDROSEED PLACED DURING THE WET SEASON SHALL USE A SECONDARY EROSION PROTECTION METHOD.
5. SENSITIVE AREAS AND AREAS WHERE EXISTING VEGETATION IS BEING PRESERVED SHALL BE PROTECTED WITH CONSTRUCTION FENCING. SEDIMENT CONTROL BMP'S SHALL BE INSTALLED WHERE ACTIVE CONSTRUCTION AREAS DRAIN INTO SENSITIVE OR PRESERVED VEGETATION AREAS.
6. SEDIMENT CONTROL BMP'S SHALL BE PLACED ALONG THE PROJECT PERIMETER WHERE DRAINAGE LEAVES THE PROJECT. SEDIMENT CONTROL BMP'S SHALL BE MAINTAINED YEAR-ROUND UNTIL THE CONSTRUCTION IS COMPLETE OR THE DRAINAGE PATTERN HAS BEEN CHANGED AND NO LONGER LEAVES THE SITE.
7. ALL SLOPES GREATER THAN 1:1 SHALL RECEIVE SEED AND STRAW OR OTHER EROSION CONTROL.
8. ALL FENCING AND EROSION CONTROL METHODS SHALL BE MAINTAINED THROUGHOUT ALL ON-SITE CONSTRUCTION ACTIVITIES.
9. ALL BMP'S SHALL BE INSTALLED AND FUNCTIONING PRIOR TO ANY ANTICIPATED STORM EVENT.

BMP INSTALLATION SCHEDULE

PHASE OF CONSTRUCTION	EROSION AND SEDIMENT CONTROL MEASURES										
	(WET SEASON)					(WET AND DRY SEASON)					
	HYDROSEEDING/MULCHING	PRESERVATION OF EXISTING VEGETATION	STRAW/FIBER ROLLS	STORM DRAIN INLET PROTECTION	TEMP. SEDIMENT TRAP	STABILIZED CONSTRUCTION ENTRANCE	CONTRACTOR EQUIPMENT CONTROLS	MATERIAL & WASTE DISPOSAL LOCATION	DUST CONTROL	DEWATERING OPERATIONS	CONCRETE WASHOUT
PRE-GRADING	●	●	●			●	●		●		●
CUT AND FILL ACTIVITIES				●	●					●	
UNDERGROUND WORK											
STORM DRAIN IMPROVEMENTS				●							
OFFSITE IMPROVEMENTS											
COMPLETION OF PAVING											
POST-GRADING	●	●									



REV	DATE	DESCRIPTION	CHK BY	APP BY
1	6/30/16	PRELIMINARY DESIGN		

YUROK TRIBE PLANNING DEPARTMENT
 KLAMATH WATER TANK
EROSION CONTROL PLAN
 KLAMATH, DEL NORTE COUNTY, CALIFORNIA

DRAWN BY: E. KEYES DESIGNED BY: F. MASTEN CHECKED BY: J. MCKNIGHT APPROVED BY: TVCE	DATE OF ISSUE: JUNE 2016	SCALE: AS SHOWN	PROJECT NO: 484	DRAWING NO: C08.0
--	-----------------------------	--------------------	--------------------	----------------------

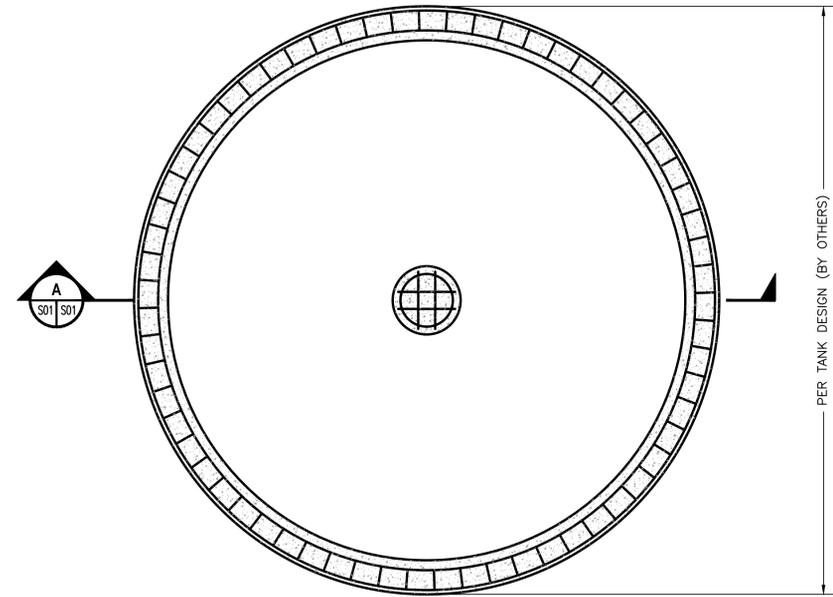
FOUNDATION NOTES:

- ALL FOOTING EXCAVATION SHALL BE AS NEAT AS PRACTICABLE. OVER EXCAVATION IN DEPTH SHALL BE FILLED WITH CONCRETE, AND IN WIDTH MAY BE FILLED WITH CONCRETE OR COMPACTED BACKFILL. ALL LOOSE SOILS SHALL BE REMOVED FROM EXCAVATION PRIOR TO PLACEMENT OF REINFORCEMENT, CONCRETE OR ENGINEERED FILL. FOOTING EXCAVATION TO BE 2" WIDER THAN SHOWN UNLESS FOOTINGS ARE FORMED.
- ALL FOUNDATIONS SHALL BEAR ON FIRM, UNDISTURBED NATIVE SOILS OR ENGINEERED FILL AT OR EXCEEDING DEPTHS SHOWN ON THE DRAWINGS.
- WATER SHALL BE REMOVED FROM FOUNDATION EXCAVATION PRIOR TO PLACING OF CONCRETE.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL SHORING, ETC. NECESSARY TO SUPPORT CUT AND/OR FILL BANKS DURING EXCAVATION, AND FORMING AND PLACEMENT OF CONCRETE.
- REINFORCING STEEL SHALL BE DEFORMED STEEL CONFORMING TO THE REQUIREMENTS OF ASTM A-615, GRADE 60 FOR #4 BARS OR LARGER, AND GRADE 40 FOR #3 BARS.
- DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS SHALL CONFORM TO THE 'ACI DETAIL MANUAL' - 1988.
- CONCRETE PROTECTION FOR REINFORCING SHALL BE AT LEAST EQUAL TO THE DIAMETER OF THE BARS. MINIMUM COVER FOR CAST-IN-PLACE CONCRETE SHALL BE AS FOLLOWS.

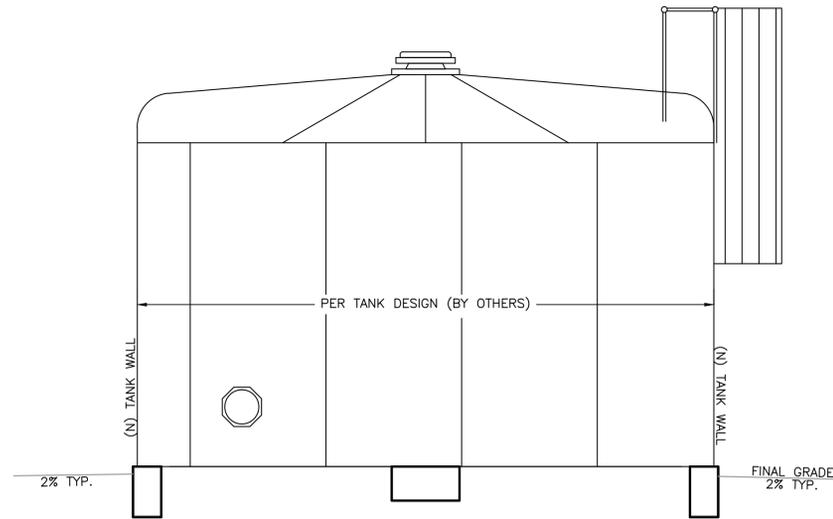
A. POURED OVER EARTH	3"
B. POURED AGAINST FORM BELOW GRADE	2"
C. FORMED SLAB (#11 BARS AND SMALLER)	32/14"
D. SLABS ON GROUND (FROM TOP OF SLAB)	1"
E. COLUMN AND BEAM MAIN BARS, TIES, STIRRUPS, SPIRALS	1½"
F. WALLS EXPOSED TO WEATHER (#6 THROUGH #18) (#5 BAR & SMALLER)	2" 1½"
G. WALLS NOT EXPOSED TO WEATHER (#11 AND SMALLER)	¾"
- REINFORCING BARS SHALL BE CLEAN OF RUST, GREASE OR OTHER MATERIAL LIKELY TO IMPAIR BOND. BENDS SHALL BE MADE COLD.
- MINIMUM LAP DISTANCE FOR REINFORCING STEEL SHALL BE 24" OR 32 BAR DIAMETERS WHICHER IS GREATER.
- ALL CONNECTORS, FASTENERS, AND METAL OBJECTS IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE EITHER STAINLESS STEEL OR HOT-DIPPED GALVANIZED.

CONCRETE NOTES:

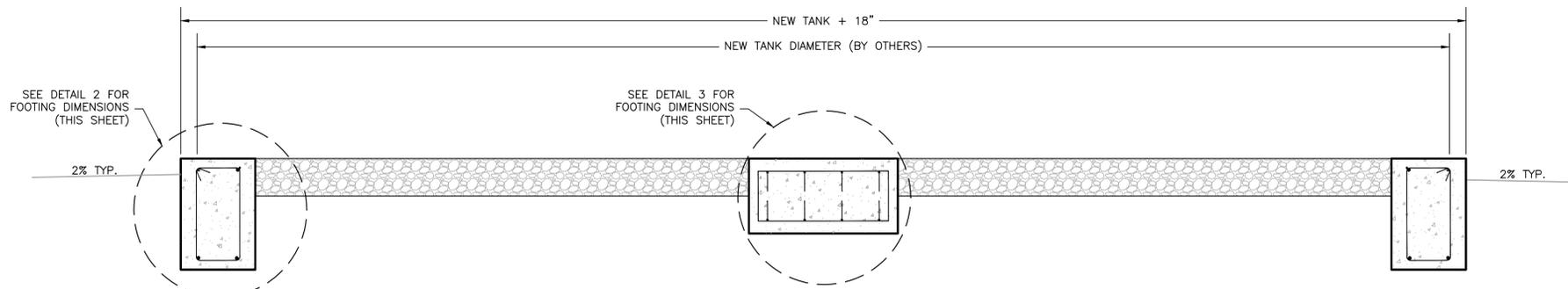
- THE MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS SHALL BE 2500 PSI AND SHALL BE A MINIMUM OF A FIVE SACK MIX WITH NO MORE THAN SEVEN GALLONS OF WATER PER CUBIC YARD..
- ALL CONCRETE SHALL BE REGULAR WEIGHT HARD ROCK TYPE (150# /CF). MAXIMUM AGGREGATE SIZE FOR SLABS ON GRADE TO BE ¾" AND 1½" FOR FOUNDATIONS. AGGREGATE SHALL CONFORM TO ASTM C-33. CEMENT SHALL CONFORM TO C-150 (TYPE II), UNLESS ALKALINE SOILS. WATER-REDUCING ADMIXTURES, RETARDING ADMIXTURES, ACCELERATING ADMIXTURES, WATER-REDUCING AND RETARDING ADMIXTURES, AND WATER-REDUCING AND ACCELERATING ADMIXTURES SHALL CONFORM TO 'SPECIFICATION FOR CHEMICAL ADMIXTURES FOR CONCRETE' (ASTM C 494).
- SLABS, BEAMS, WALLS AND OTHER CONCRETE SHALL BE KEPT CONTINUOUSLY WET FOR 48 HOURS AFTER PLACEMENT AND SHALL BE KEPT DAMP FOR 7 DAYS AFTER PLACEMENT. SLABS SHALL HAVE CURE /SEALER APPLIED IMMEDIATELY AFTER FINISHING IF OTHER FINISHES ARE NOT AFFECTED. SUPERIMPOSED LOADS SHALL NOT BE APPLIED TO ELEVATED STRUCTURAL MEMBERS OR WALLS PRIOR TO 7 DAYS MINIMUM AFTER CONCRETE HAS REACHED DESIGN STRENGTH. RESHORING SHALL REMAIN IN PLACE 28 DAYS MINIMUM, AT NO TIME DURING A RESHORING PROCESS SHALL THE CONCRETE MEMBER BE UNSUPPORTED.
- CONCRETE SHALL NOT FREE FALL MORE THAN SIX FEET.
- KEYED CONSTRUCTION JOINTS SHALL BE USED IN ALL CASES. ALL CONSTRUCTION JOINTS SHALL BE THOROUGHLY CLEANED AND ALL LAITANCE SHALL BE REMOVED. ALL VERTICAL JOINTS SHALL BE THOROUGHLY WETTED AND SLUSHED WITH A COAT OF NEAT CEMENT IMMEDIATELY BEFORE PLACING NEW CONCRETE.
- PROVIDE CONTROL JOINTS PER PLAN AND /OR EVERY 20 FEET ON CENTER. FILL WITH APPROVED CAULKING.
- PROVIDE ¾" CHAMFER AT EXPOSED EDGES OF CONCRETE BEAMS AND COLUMNS U.N.O.
- ANCHOR BOLT SIZES AND LOCATIONS SHALL BE PER THE BUILDING PLANS. EMBEDMENT DEPTHS SHALL BE A MINIMUM OF 7".



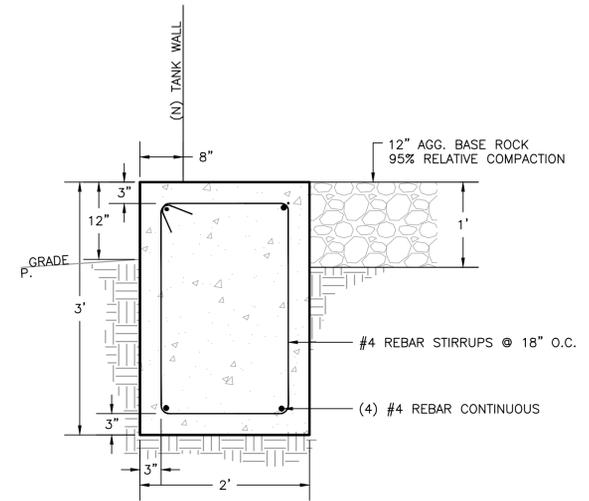
**FOUNDATION PLAN
DETAIL 1**
1"-5"
S01 S01



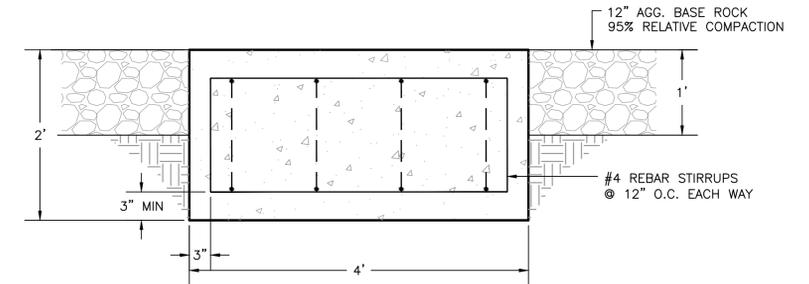
**FOUNDATION PROFILE
SECTION B**
1"-5"
S01 S01



**FOUNDATION PLAN
SECTION A**
1/2"-1"
S01 S01



**FOUNDATION PLAN
DETAIL 2**
nts
S01 S01



**FOUNDATION PLAN
DETAIL 3**
1"-1"
S01 S01

NOTE:

- FOUNDATION IS SUBJECT TO REVIEW OF LOADING AND REQUIREMENTS OF THE TANK MANUFACTURER.

Y:\400-499\484 - Yurok_Roads\2016\484_20_Klamath Water Tank\dwg\S01_foundation.dwg, 7/26/2016 9:12:09 AM, ARCH Full bleed D (24.00 x 36.00 Inches), 1:1, tvce, tvce

1" 1/2" 0"



REV	DATE	DESCRIPTION	DES BY	CHK BY	APP BY

YUROK TRIBE PLANNING DEPARTMENT
KLAMATH WATER TANK
TANK FOUNDATION
KLAMATH, DEL NORTE COUNTY, CALIFORNIA

DRAWN BY: E. KEYES	DESIGNED BY: J. MCKNIGHT	CHECKED BY: J. MCKNIGHT	APPROVED BY:
DATE OF ISSUE: JUNE 2016			
SCALE: AS SHOWN			
PROJECT NO: 484			
DRAWING NO: S01			