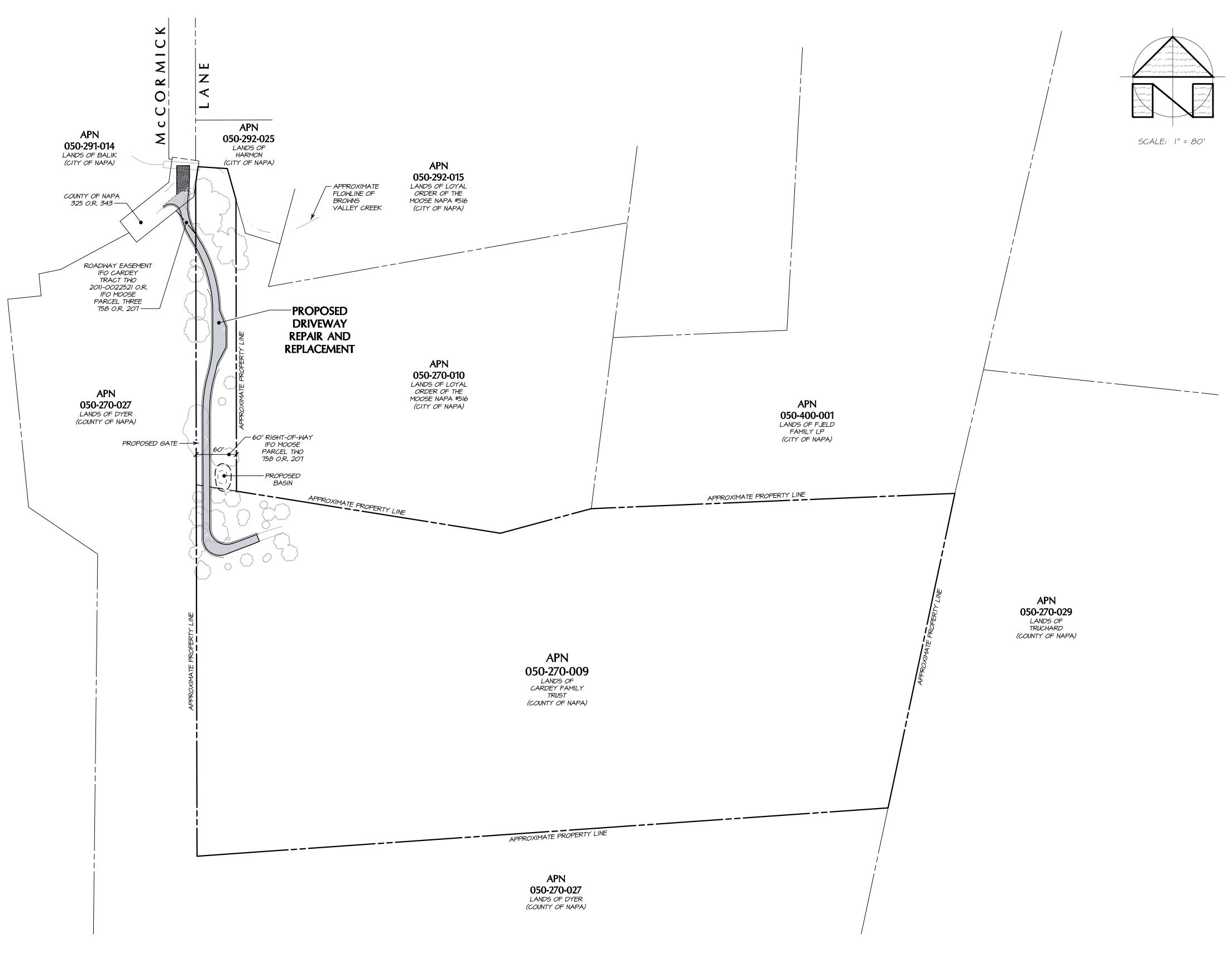


Plans

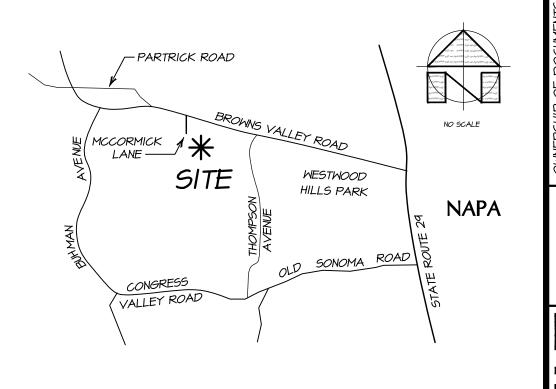
DRIVEWAYIMPROVEMENTIPLAN



OVERALL SITE PLAN

GEOTECHNICAL CONSULTANT

THIS GRADING PLAN HAS BEEN REVIEWED BY THE UNDERSIGNED AND FOUND TO BE IN CONFORMANCE WITH THE RECOMMENDATIONS OUTLINED IN THE PROJECT'S GEOTECHNICAL INVESTIGATION REPORT DATED AUGUST 25, 2017. THE GEOTECHNICAL INVESTIGATION REPORT SHALL BE CONSIDERED A PART OF THIS PLAN AND ALL GRADING WORK SHALL BE IN ACCORDANCE WITH SAID INVESTIGATION. RGH CONSULTANTS



LOCATION MAP

PROJECT INFORMATION:

PROPERTY OWNER & APPLICANT: STEVEN M. AND ANDREA L. CARDEY 1100 MCCORMICK LANE NAPA, CA 94558

PROJECT ADDRESS: 1100 MCCORMICK LANE NAPA COUNTY, CA

ASSESSOR'S PARCEL NUMBER: 050-270-009

PARCEL SIZE: 14.95 ACRES

PROJECT SIZE: 0.6± ACRES 550± LF OF DRIVEWAY

ZONING:

COUNTY = AW / CITY = HS

SHEET INDEX*:

OVERALL SITE PLAN SHEET C2 GENERAL NOTES SHEET C3 DEMOLITION PLAN

SHEET C4 GRADING & LAYOUT PLAN AND DRIVEWAY PROFILE SHEET C5 CROSS SECTIONS

(STA 10+00 - 11+25) SHEET C6 CROSS SECTIONS (STA 11+50 - 13+00) SHEET CT CROSS SECTIONS (STA 13+50 - 16+50)

SHEET C8 UTILITY PLAN SHEET C9 DETAIL SHEET SHEET CIO EROSION CONTROL PLAN

SHEET CII DETAIL SHEET

* NOTE: THE CALIFORNIA BEST MANAGEMENT PRACTICES SHALL BE CONSIDERED A PART OF THIS PLAN.

PROJECT SUMMARY:

THE PURPOSE OF THIS PLAN IS TO PROVIDE INFORMATION TO RECONSTRUCT, REPAIR AND REPLACE AN EXISTING COMPROMISED



PREPARED UNDER THE DIRECTION OF

PAUL N. BARTELT R.C.E. 45102 JOB NO: 17-04 SHEET NO:

DATE: NOVEMBER 2017

4

S

Ш

02-26-18 STORM DRAIN REVISION C3, C4, C8 & C10 SHEETS NO. DATE DESCRIPTION BY

SEE PLAN REVIEW LETTER

GENERAL NOTES:

- ALL WORKMANSHIP AND MATERIALS FOR THE IMPROVEMENTS SHOWN ON THESE PLANS SHALL CONFORM TO THE REQUIREMENTS OF THE NAPA COUNTY ROAD & STREET STANDARDS AND/OR THE LATEST EDITION OF THE STATE OF CALIFORNIA STANDARD SPECIFICATIONS AND STANDARD PLANS, THE 2016 CALIFORNIA BUILDING CODE (C.B.C.), THE 2016 CALIFORNIA PLUMBING CODE (C.P.C.) AND NAPA COUNTY ENVIRONMENTAL HEALTH STANDARDS. THE IMPROVEMENTS SHOWN ON THESE PLANS SHALL BE INSPECTED BY A REPRESENTATIVE FROM NAPA COUNTY PLANNING, BUILDING AND ENVIRONMENTAL SERVICES DEPARTMENT AND THE
- CONTRACTOR SHALL PROVIDE SUBMITTALS FOR ALL MATERIALS TO BE USED ON THE PROJECT TO THE ENGINEER FOR APPROVAL PRIOR TO BIDDING, PURCHASING OR INSTALLATION. CONTRACTOR SHOULD ALLOW AT LEAST FIVE (5) WORKING DAYS FOR INITIAL REVIEW OF EACH SUBMITTAL AND ADDITIONAL TIME IF COORDINATION WITH SUBSEQUENT SUBMITTALS IS REQUIRED. ALLOW FIVE (5) WORKING DAYS FOR EACH RESUBMITTAL. USE OF UNAPPROVED MATERIALS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- ALL MATERIALS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR BEING FAMILIAR WITH THE SPECIFICATIONS, PROVISIONS AND PROCEDURES REQUIRED BY NAPA COUNTY FOR THE WORK OUTLINED IN THESE PLANS. CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING A COPY OF THE APPROVED PLANS AND ANY ADDENDUMS AT THE JOB SITE AT ALL TIMES.
- CONTRACTOR SHALL BE APPROPRIATELY LICENSED WITH THE STATE OF CALIFORNIA TO PERFORM THE WORK OUTLINED IN THESE PLANS.
- 6 PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL SECURE CONSTRUCTION PERMITS FROM NAPA COUNTY AND OTHER AGENCIES AS
- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL APPROPRIATE PERMITS PRIOR TO THE START OF ANY WORK WITHIN A RIPARIAN AREA.
- CONTRACTOR SHALL CONTACT BARTELT ENGINEERING TO ARRANGE A PRE-CONSTRUCTION MEETING FOR THE PURPOSE OF REVIEWING JOB REQUIREMENTS AND NAPA COUNTY PROCEDURES.
- CONTRACTOR SHALL NOTIFY NAPA COUNTY STAFF AND THE ENGINEER AT LEAST THREE (3) WORKING DAYS PRIOR TO COMMENCEMENT OF WORK.
- IO. CONSTRUCTION AND GRADING ACTIVITIES ON THE SITE SHALL BE LIMITED TO BETWEEN 7:00 A.M. AND 7:00 P.M. DAILY.
- CONTRACTOR SHALL PROVIDE EMERGENCY TELEPHONE NUMBERS TO THE NAPA COUNTY SHERIFF, FIRE AND PUBLIC WORKS DEPARTMENTS AND KEEP THEM INFORMED DAILY REGARDING STREETS UNDER CONSTRUCTION AND DETOURS. DETOURS SHALL NOT BE PERMITTED UNLESS APPROVED IN WRITING BY THE NAPA COUNTY PUBLIC WORKS DEPARTMENT.
- 12. CONTRACTOR SHALL REQUEST INSPECTIONS A MINIMUM OF THREE (3) WORKING DAYS IN ADVANCE BY CALLING NAPA COUNTY PLANNING, BUILDING AND ENVIRONMENTAL SERVICES DEPARTMENT AT (101) 253-4411, 8:00 A.M. TO 5:00 P.M., MONDAY THROUGH FRIDAY AND THE ENGINEER AT (707) 258-1301.
- 13. CONTRACTOR SHALL NOTIFY ALL PUBLIC OR PRIVATE UTILITY COMPANIES TWO (2) WORKING DAYS PRIOR TO COMMENCEMENT OF WORK ON THIS PROJECT TO VERIFY THE LOCATION OF EXISTING UTILITY LINES. CALL UNDERGROUND SERVICE ALERT (U.S.A.) TOLL FREE AT 811 OR 1-800-227-2600, 6:00 A.M. TO 7:00 P.M., MONDAY THROUGH FRIDAY OR SUBMIT TICKET ONLINE AT WWW.811EXPRESS.COM.
- 14. CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF ALL EXISTING UTILITIES IN THE FIELD. COSTS OF REPAIRING ANY DAMAGES OR INJURIES CAUSED BY THE CONTRACTOR SHALL BE BORNE BY THE CONTRACTOR. VARIOUS UNDERGROUND LINES WERE PLOTTED ON THE PLANS FROM THE INFORMATION OBTAINED FROM THE RESPECTIVE UTILITY COMPANIES AND/OR THE OWNER, THEREFORE, NO WARRANTY, EXPRESSED OR IMPLIED, IS MADE AS TO THE COMPLETENESS OR CORRECTNESS OF THEIR LOCATION.
- EXISTING UTILITIES SHALL BE KEPT IN SERVICE AT ALL TIMES. UTILITIES THAT INTERFERE WITH THE WORK TO BE PERFORMED SHALL BE PROTECTED AS REQUIRED BY NAPA COUNTY, PG&E, AT&T, COMCAST AND THE OWNER.
- 16. CONTRACTOR SHALL COORDINATE ALL NECESSARY UTILITY RELOCATIONS, IF REQUIRED, WITH THE APPROPRIATE UTILITY COMPANIES AND/OR THE OWNER.
- 17. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING FACILITIES AND IMPROVEMENTS FROM DAMAGE RESULTING FROM CONTRACTOR'S WORK. ANY DAMAGE CAUSED BY CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S
- 18. CONTRACTOR SHALL PROVIDE AND MAINTAIN SUFFICIENT BARRICADES TO PROVIDE FOR THE SAFETY OF THE GENERAL PUBLIC TO THE SATISFACTION OF NAPA COUNTY AND THE OWNER.
- CONTRACTOR AGREES THAT THEY SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THE PROJECT; EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
- 20. SHOULD ANY CONTRACTOR OR SUBCONTRACTOR FIND ANY DEFICIENCIES, ERRORS, CONFLICTS OR OMISSIONS IN THESE PLANS AND SPECIFICATIONS OR SHOULD THERE BE ANY DOUBT AS TO THEIR MEANING OR INTENT, THE CONTRACTOR SHALL NOTIFY BARTELT ENGINEERING FOR A WRITTEN CLARIFICATION, ADDENDUM, ETC. SHOULD THE CONTRACTOR FAIL TO DO SO BEFORE SUBMITTING A PROPOSAL, THE CONTRACTOR CANNOT CLAIM ADDITIONAL COMPENSATION FOR WORK REQUIRED TO COMPLETE THE PROJECT.
- 21. ALL DIMENSIONS SHOWN ON THE PLANS SHOW MEASUREMENTS IN A HORIZONTAL PLANE. ALL STATIONS (SHOWN ON THE PLAN AND PROFILE) ARE TAKEN ALONG CENTER LINES UNLESS OTHERWISE NOTED ON THE PLANS. WRITTEN DIMENSIONS ALWAYS TAKE PRECEDENCE OVER SCALED DIMENSIONS. IF THERE IS A CONFLICT, NOTIFY BARTELT ENGINEERING AND OBTAIN CLARIFICATION.
- 22. FADED BACKGROUND REPRESENTS EXISTING TOPOGRAPHIC FEATURES. THE TOPOGRAPHIC INFORMATION SHOWN ON THIS PLAN WAS TAKEN FROM THE "TOPOGRAPHIC MAP OF 1100 MCCORMICK LANE" PREPARED BY CINQUINI AND PASSARINO, INC., DATED JUNE 19, 2017 BARTELT ENGINEERING ASSUMES NO LIABILITY, REAL OR ALLEGED, REGARDING THE ACCURACY OF THE TOPOGRAPHIC INFORMATION SHOWN.
- BENCHMARK NOTE: CONTROL POINT NO. 5, BEING A SET MAG NAIL AT THE SOUTH END OF MCCORMICK LANE, ELEVATION: 140.05' VERTICAL DATUM: NAVD88
- BASIS OF BEARING: BEING SOUTH 16°48'IT" EAST BETWEEN CONTROL POINTS 33 AND 34 AS SHOWN IN THE POST EARTHQUAKE CONTROL REVIEW, DATED APRIL IO, 2015 ON FILE AT THE CITY OF NAPA PUBLIC WORKS DEPARTMENT, OF THE CITY OF NAPA'S CONTROL NETWORK RECORDED IN BOOK 41 OF SURVEYS AT PAGES 44 THROUGH 47 INCLUSIVE, NAPA COUNTY RECORDS.
- CONTOUR INTERVAL: EVERY ONE (I) FOOT, HIGHLIGHTED EVERY FIVE (5) FEET 23. THIS DRAWING DOES NOT REPRESENT A BOUNDARY SURVEY. BOUNDARY LINES

SHOWN ARE APPROXIMATE AND FOR INFORMATIONAL PURPOSES ONLY.

- 24. THESE PLANS ARE INTENDED TO BE USED FOR CONSTRUCTION STAKING OF THE SITE IMPROVEMENTS SHOWN HEREON AND TO PROVIDE HORIZONTAL AND VERTICAL CONTROL FOR THE DRIVEWAY LOCATION. ALL STAKING IS TO BE PERFORMED BY A LICENSED LAND SURVEYOR. IF THE CONTRACTOR OR SURVEYOR FINDS ANY DISCREPANCIES, CONTACT BARTELT ENGINEERING FOR A WRITTEN CLARIFICATION.
- 25. THE TERM "ENGINEER", AS CALLED OUT ON THIS SET OF PLANS, SHALL MEAN A REPRESENTATIVE OF BARTELT ENGINEERING.

PLANNING NOTES:

- CONSTRUCTION ACTIVITIES THROUGHOUT THE ENTIRE DURATION OF THE PROJECT SHALL BE LIMITED TO THE HOURS OF 7:00 A.M. TO 7:00 P.M., MONDAY THROUGH FRIDAY. THERE WILL BE NO START UP OF MACHINES NOR EQUIPMENT PRIOR TO 8:00 A.M., MONDAY THROUGH FRIDAY: NO DELIVERY OF MATERIALS NOR EQUIPMENT PRIOR TO 7:30 A.M. NOR PAST 5:30 P.M., MONDAY THROUGH FRIDAY; NO CLEANING OF MACHINES NOR EQUIPMENT PAST 6:00 P.M., MONDAY THROUGH FRIDAY; NO SERVICING OF EQUIPMENT PAST 6:45 P.M., MONDAY THROUGH FRIDAY. CONSTRUCTION ON WEEKENDS OR LEGAL HOLIDAYS SHALL BE LIMITED TO THE HOURS OF 8:00 A.M. TO 4:00 P.M.
- SHOULD HAZARDOUS MATERIALS BE ENCOUNTERED DURING CONSTRUCTION, NAPA COUNTY ENVIRONMENTAL HEALTH SHALL BE NOTIFIED AND APPROPRIATE REMEDIATION MEASURES SHALL BE UNDERTAKEN.
- SHOULD GROUND-DISTURBING ACTIVITIES ASSOCIATED WITH CONSTRUCTION REVEAL THE PRESENCE OF POTENTIAL CULTURAL RESOURCES (E.G., ARTIFACT CONCENTRATIONS, STRUCTURAL DEBRIS, SKELETAL REMAINS), WORK WITHIN 50 FEET OF THE FIND SHALL BE SUSPENDED UNTIL A QUALIFIED CULTURAL RESOURCE SPECIALIST CAN EVALUATE THE DISCOVERY AND RECOMMEND APPROPRIATE MITIGATION MEASURES, CONSISTENT WITH THE CEQA GUIDELINES, AS APPENDED. AS PROJECT CONSTRUCTION PROCEEDS, THE DISCOVERY SHALL BE CLEARLY MARKED AND PROTECTED BY TEMPORARY FENCING IF CULTURAL RESEARCH OR RECOVERY TECHNIQUES ARE LONG-TERM IN NATURE.
- SHOULD SKELETAL REMAINS BE ENCOUNTERED, THE NAPA COUNTY CORONER SHALL BE NOTIFIED. SHOULD THE CORONER DETERMINE THAT SUCH REMAINS ARE IN A CONTEXT SUGGESTING THE HISTORIC OR PREHISTORIC OCCUPANCY BY NATIVE AMERICANS, THE CALIFORNIA NATIVE AMERICAN HERITAGE COMMISSION SHALL BE NOTIFIED, SO IT MAY ARRANGE AT ITS DISCRETION FOR QUALIFIED NATIVE AMERICAN OR EQUIVALENT PARTICIPATION IN DETERMINING THE DISPOSITION OF SUCH REMAINS.
- IN THE EVENT ANY HISTORIC OR CULTURAL RESOURCES ARE DISCOVERED DURING THE GRADING, ALL ACTIVITIES SHALL CEASE. A QUALIFIED ARCHAEOLOGIST SHALL BE RETAINED TO PRESERVE, PROTECT OR REMOVE ANY SIGNIFICANT HISTORIC OR CULTURAL RESOURCES.

GRADING NOTES:

- I. ALL MOVEMENT OF EARTH SHALL COMPLY WITH NAPA COUNTY ROAD & STREET STANDARDS, THE 2016 CALIFORNIA BUILDING CODE (C.B.C.), NAPA COUNTY CONSERVATION REGULATIONS, THE GEOTECHNICAL INVESTIGATION REPORT AND THESE PLANS.
- THE SITE SHALL BE VISUALLY INSPECTED BY THE CONTRACTOR TO DETERMINE THE EXTENT OF CLEARING, GRUBBING AND GRADING WORK TO BE DONE. GRADING ON THE SITE WILL BE LIMITED TO THE EXCAVATIONS AND/OR FILLS AS SHOWN ON THESE PLANS.
- 3. ALL GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL INVESTIGATION REPORT PREPARED BY RGH CONSULTANTS DATED AUGUST 25, 2017. THE CONTRACTOR SHALL OBTAIN A COPY OF THE GEOTECHNICAL INVESTIGATION REPORT FROM THE OWNER PRIOR TO COMMENCEMENT OF THE WORK.
- THE GEOTECHNICAL ENGINEER SHALL BE NOTIFIED AT LEAST THREE (3) WORKING DAYS IN ADVANCE OF COMMENCING WORK, INCLUDING SITE STRIPPING AND GRADING OPERATIONS. THE GRADING WORK SHOWN ON THESE PLANS SHALL BE OBSERVED AND TESTED BY THE GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE.
- SOIL STRIPPED AS DETAILED IN THE GEOTECHNICAL INVESTIGATION REPORT SHALL BE STOCKPILED FOR USE IN LANDSCAPED AREAS. CONTRACTOR SHALL COORDINATE STOCKPILE LOCATION WITH THE ENGINEER.
- 6. CONTRACTOR SHALL CONDUCT ALL GRADING OPERATIONS IN SUCH A MANNER AS TO PRECLUDE WIND BLOWN DIRT AND DUST AND RELATED DAMAGE TO NEIGHBORING PROPERTIES. SUFFICIENT WATERING TO CONTROL DUST IS REQUIRED AT ALL TIMES. CONTRACTOR SHALL ASSUME LIABILITY FOR CLAIMS RELATED TO WIND BLOWN MATERIAL. IF THE DUST CONTROL IS INADEQUATE AS DETERMINED BY NAPA COUNTY OR THE OWNER, CONSTRUCTION WORK SHALL BE SUSPENDED UNTIL CORRECTIVE MEASURES ARE TAKEN.
- 7. CONTRACTOR SHALL CONFORM TO EXISTING SURROUNDING TOPOGRAPHY AND OTHER IMPROVEMENTS WITH A SMOOTH TRANSITION IN GRADING, ETC., AND AVOID ANY ABRUPT OR APPARENT CHANGES IN GRADES OR CROSS SLOPES, LOW SPOTS OR HAZARDOUS CONDITIONS.
- 8. TREES THAT ARE REMOVED SHALL ALSO HAVE THEIR STUMPS AND MAJOR ROOT SYSTEMS REMOVED. AFTER A TREE OR A STUMP IS REMOVED THE RESULTING EARTH CAVITY SHALL BE CLEANED OF LARGER ROOTS (TWO (2) INCH DIAMETER AND LARGER). SOIL SHOULD BE REMOVED AND DISHED TO PROVIDE ACCESS FOR COMPACTION EQUIPMENT. ALL EARTHWORK, SCARIFICATION, BACKFILL AND COMPACTION SHALL BE PERFORMED PER THE GEOTECHNICAL INVESTIGATION REPORT, THESE PLANS AND NAPA COUNTY REQUIREMENTS.
- 9. THE TREE STUMPS AND ALL OTHER ORGANIC MATERIAL TO BE REMOVED AS PART OF THE CONSTRUCTION SHALL BE CHIPPED AND/OR HAULED OFFSITE AND DISPOSED

UTILITY NOTES:

- I. ALL WORK SHALL BE IN COMPLIANCE WITH APPLICABLE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (O.S.H.A.) STANDARDS AS SET FORTH BY THE FEDERAL DEPARTMENT OF LABOR AND/OR THE STATE OF CALIFORNIA. THE CONTRACTOR SHALL SECURE A TRENCH PERMIT FROM THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY PRIOR TO EXCAVATION OF ANY TRENCH OVER FIVE (5)
- TRENCHING AND BACKFILL WITHIN THE PUBLIC RIGHT OF WAY AND UNDER PRIVATE ROADS SHALL COMPLY WITH NAPA COUNTY STANDARDS, CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY STANDARDS FOR TRENCH SAFETY.
- 3. ALL STORM DRAIN SYSTEM INSTALLATION SHALL BE DONE IN ACCORDANCE WITH NAPA COUNTY STANDARDS. PLASTIC PIPE FOR THE STORM DRAIN SHALL COMPLY WITH SECTION 64 OF THE CALTRANS STANDARD SPECIFICATIONS. REINFORCED CONCRETE PIPE (RCP) SHALL BE CLASS 3 PER SECTION 65 OF THE CALTRANS STANDARD SPECIFICATIONS.
- 4. ALL WATER SYSTEM WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT CITY OF NAPA SPECIFICATIONS.

TREE PRESERVATION NOTES:

- PROTECT TREE ROOT SYSTEMS FROM DAMAGE DUE TO NOXIOUS MATERIALS CAUSED BY RUNOFF OR SPILLAGE WHILE MIXING, PLACING OR STORING CONSTRUCTION MATERIALS. PROTECT ROOT SYSTEMS FROM FLOODING, ERODING, OR EXCESSIVE WETTING CAUSED BY DEWATERING OPERATIONS.
- DO NOT STORE CONSTRUCTION MATERIALS, DEBRIS, OR EXCAVATED MATERIAL WITHIN THE DRIP LINE OF REMAINING TREES. DO NOT PERMIT VEHICLES OR FOOT TRAFFIC WITHIN THE DRIP LINE AND PREVENT SOIL COMPACTION OVER ROOT
- TREE PRESERVATION STANDARDS WILL BE UTILIZED FOR THE PRESERVATION OF TREES LOCATED WITHIN 25 FEET OF THE LIMITS OF WORK. CONSTRUCTION ACTIVITY INCLUDES BUT IS NOT LIMITED TO GRADING, TRENCHING, EXCAVATING, OPERATION OR PARKING OF CONSTRUCTION EQUIPMENT OR VEHICLES IN THE VICINITY OF A TREE TO BE PRESERVED WHICH HAS THE POTENTIAL TO HARM OR AFFECT THE HEALTH OR VIGOR OF THE TREE.
- CLEANING OF CONSTRUCTION TOOLS OR EQUIPMENT ANY AND ALL CLEANING OF CONSTRUCTION TOOLS OR EQUIPMENT SHALL OCCUR FAR FROM THE TREES TO DISCOURAGE TOXIC LEACHATES FROM ENTERING THE TREE PRESERVATION ZONES
- 5. CONTRACTORS AND SUBCONTRACTORS WILL DIRECT ALL EQUIPMENT AND PERSONNEL TO REMAIN OUTSIDE TREE PRESERVATION ZONES (TPZ) AT ALL TIMES UNTIL THE PROJECT IS COMPLETE AND WILL INSTRUCT PERSONNEL AND SUBCONTRACTORS AS TO THE PURPOSE AND IMPORTANCE OF PRESERVATION.
- TREE AND ROOT PRUNING PRUNING SHALL COMPLY WITH ANSI (ZI33.I) PRUNING STANDARDS, ALL CUTS SHALL OCCUR JUST OUTSIDE THE BRANCH BARK RIDGE OR CALLUS SHOULDER, SHOULD ONE BE PRESENT. THE TREES SHALL BE THINNED WITH NO DRAMATIC CHANGE IN CURRENT ARCHITECTURAL FORM. SHAPING MAY BE NECESSARY FOR BUILDING CLEARANCE. CLIMBING SPURS WILL NOT BE ALLOWED FOR PRUNING ACTIVITIES.
- PRUNE TREES ACCORDING TO THE NATIONAL ARBORIST ASSOCIATION'S "PRUNING STANDARDS FOR SHADE TREES". ANY DAMAGE TO ROOTS OF TREES TO REMAIN SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE OWNER AND ENGINEER TO DETERMINE IF PRUNING OF THE CROWN IS NECESSARY TO COMPENSATE FOR ROOT DAMAGE. CUT BRANCHES WITH SHARP PRUNING INSTRUMENTS; DO NOT BREAK OR CHOP. PRUNE TREE ROOTS EXPOSED DURING GRADE LOWERING. DO NOT CUT MAIN LATERAL ROOTS OR TAP ROOTS; CUT ONLY SMALLER ROOTS. CUT ROOTS WITH SHARP PRUNING INSTRUMENTS; DO NOT BREAK OR CHOP.
- TRENCHING AND GRADING TRENCHING AND GRADING SHALL BE RESTRICTED TO THE CONSTRUCTION ENVELOPE. NO GRADING OR TRENCHING SHALL OCCUR WITHIN THE TPZ. ALL ROOTS ENCOUNTERED OUTSIDE THE TPZ WILL BE PRUNED IMMEDIATELY AND NEATLY BACK TO THE TPZ. FINAL PRUNING CUTS SHALL BE FREE OF CRACKS OR SHATTERED MATERIAL.
- REGRADING WHERE NEW FINISH GRADE IS INDICATED BELOW EXISTING GRADE AROUND TREES, SLOPE GRADE BEYOND TREE DRIP LINE IF POSSIBLE. MAINTAIN EXISTING GRADES WITHIN TREE DRIP LINE TO THE GREATEST EXTENT POSSIBLE. ORIGINAL GRADE WILL BE MAINTAINED IN THE IMMEDIATE AREA OF THE ROOT CROWN AND WHERE THE SOIL CONTACTS THE TREE TRUNK, AT ALL TIMES. NO INCREASE IN GRADE WILL BE ALLOWED UNDER ANY CIRCUMSTANCES IN THIS AREA.
- IO. DO NOT EXCAVATE WITHIN TREE DRIP LINE, UNLESS OTHERWISE INDICATED.
- RELOCATE ROOTS IN BACKFILL AREAS WHEREVER POSSIBLE. IF ENCOUNTERING LARGE, MAIN LATERAL ROOTS, EXPOSE BEYOND EXCAVATION LIMITS AS REQUIRED TO BEND AND RELOCATE WITHOUT BREAKING. IF ENCOUNTERED IMMEDIATELY ADJACENT TO LOCATION OF NEW CONSTRUCTION AND RELOCATION IS NOT PRACTICAL, CUT ROOTS APPROXIMATELY THREE (3) INCHES BACK FROM NEW CONSTRUCTION. DO NOT ALLOW EXPOSED ROOTS TO DRY OUT BEFORE PLACING PERMANENT BACKFILL. PROVIDE TEMPORARY EARTH COVER OR PACK WITH PEAT MOSS AND WRAP WITH BURLAP. WATER AND MAINTAIN IN A MOIST CONDITION AND TEMPORARILY SUPPORT AND PROTECT ROOTS FROM DAMAGE UNTIL THEY ARE PERMANENTLY RELOCATED AND COVERED WITH EARTH.
- 12. ROOTS OF SINGLE STANDING TREES OFTEN EXTEND TWO (2) TO THREE (3) TIMES THE DISTANCE OF THE ACTUAL DRIP LINE AND FUNCTION PRIMARILY IN THE UPTAKE OF NUTRIENTS AND WATER. THE DRIP LINE IS ARBITRARILY ESTABLISHED AS THE MINIMUM ROOT AREA GENERALLY REQUIRED TO PRESERVE TREE HEALTH. AS MUCH AREA AROUND THE CIRCUMFERENCE OF THE TREE BEYOND THE DRIP LINE WILL HAVE MINIMUM INTRUSION TO FURTHER ENSURE TREE SURVIVAL AND HEALTH.
- 13. ALL GRADING WILL BE ACCOMPLISHED TO PREVENT THE CONCENTRATION OF RUNOFF NEAR EXISTING TREES. THE INTENT IS TO PREVENT ACCUMULATION OF EXCESS WATER IN THE ROOT ZONES OF EXISTING TREES.



KP BY

02-26-18 NO CHANGE TO THIS SHEET

DESCRIPTION

NO. DATE

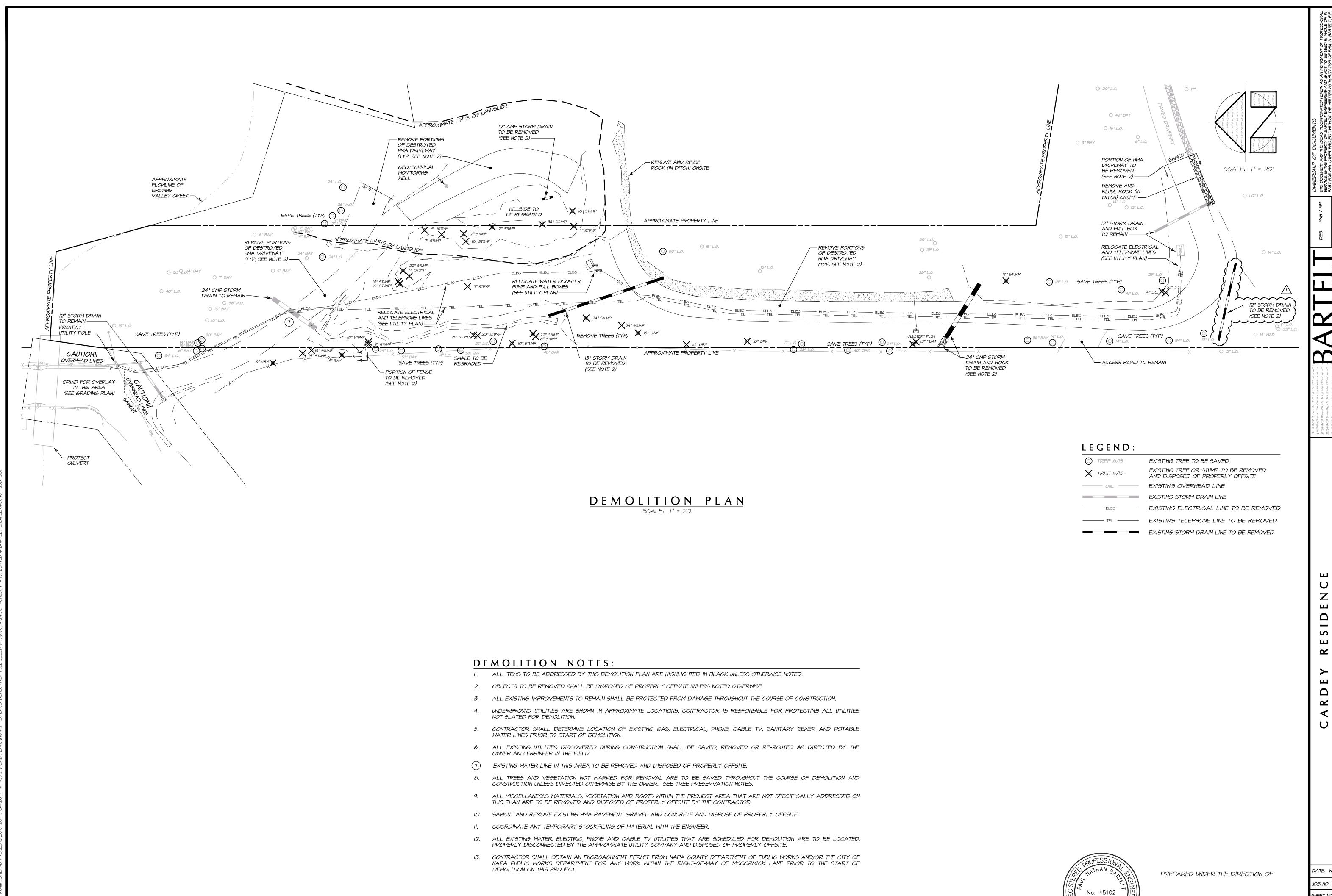
PREPARED UNDER THE DIRECTION OF

JOB NO: 17-04 SHEET NO:

R.C.E. 45102

PAUL N. BARTELT

DATE: NOVEMBER 2017



PREPARED UNDER THE DIRECTION OF

No. 45102

PAUL N. BARTELT

R.C.E. 45102

02-26-18 STORM DRAIN REVISION

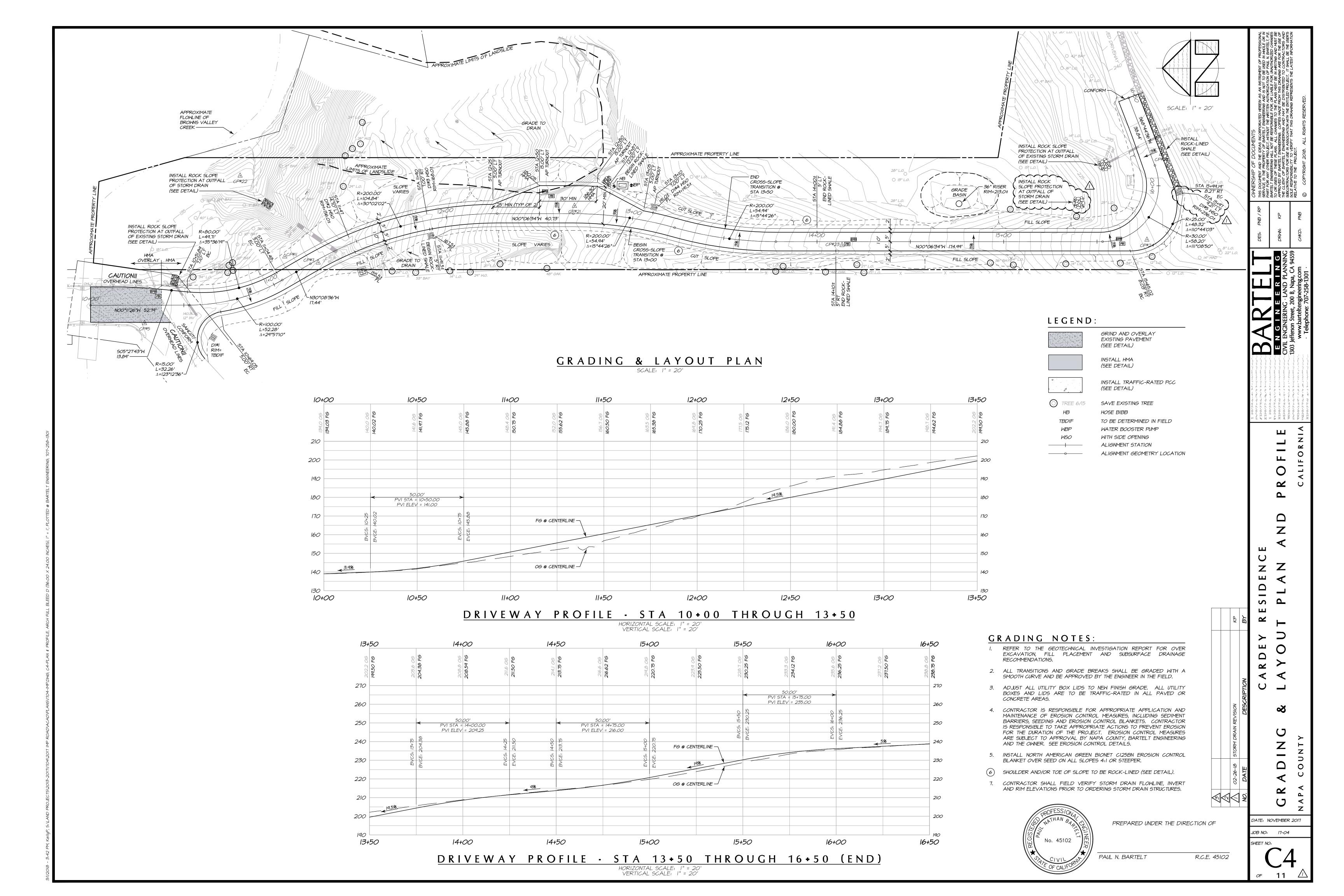
DESCRIPTION

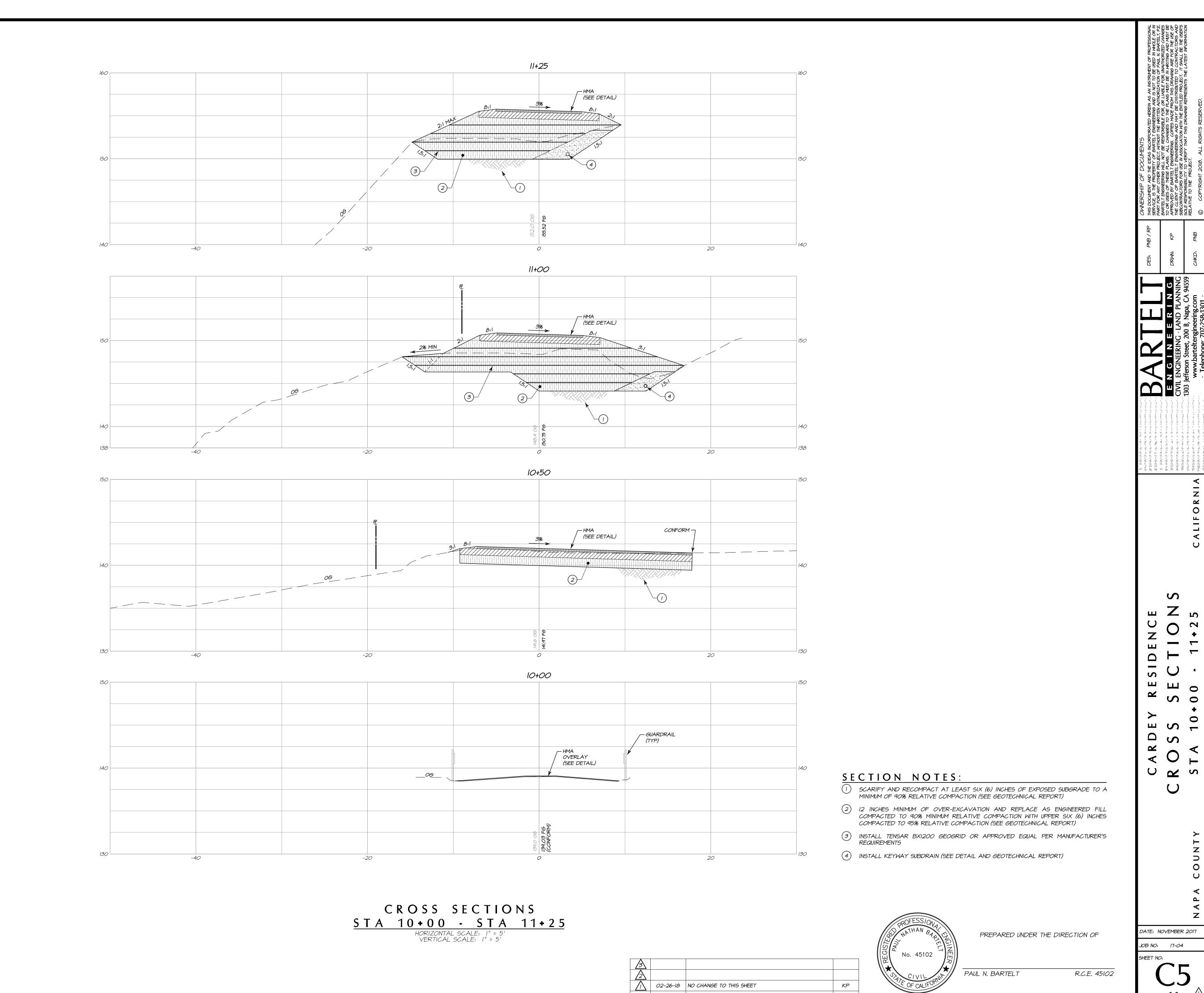
NO. DATE

KP **BY** DATE: NOVEMBER 2017

JOB NO: 17-04

SHEET NO:

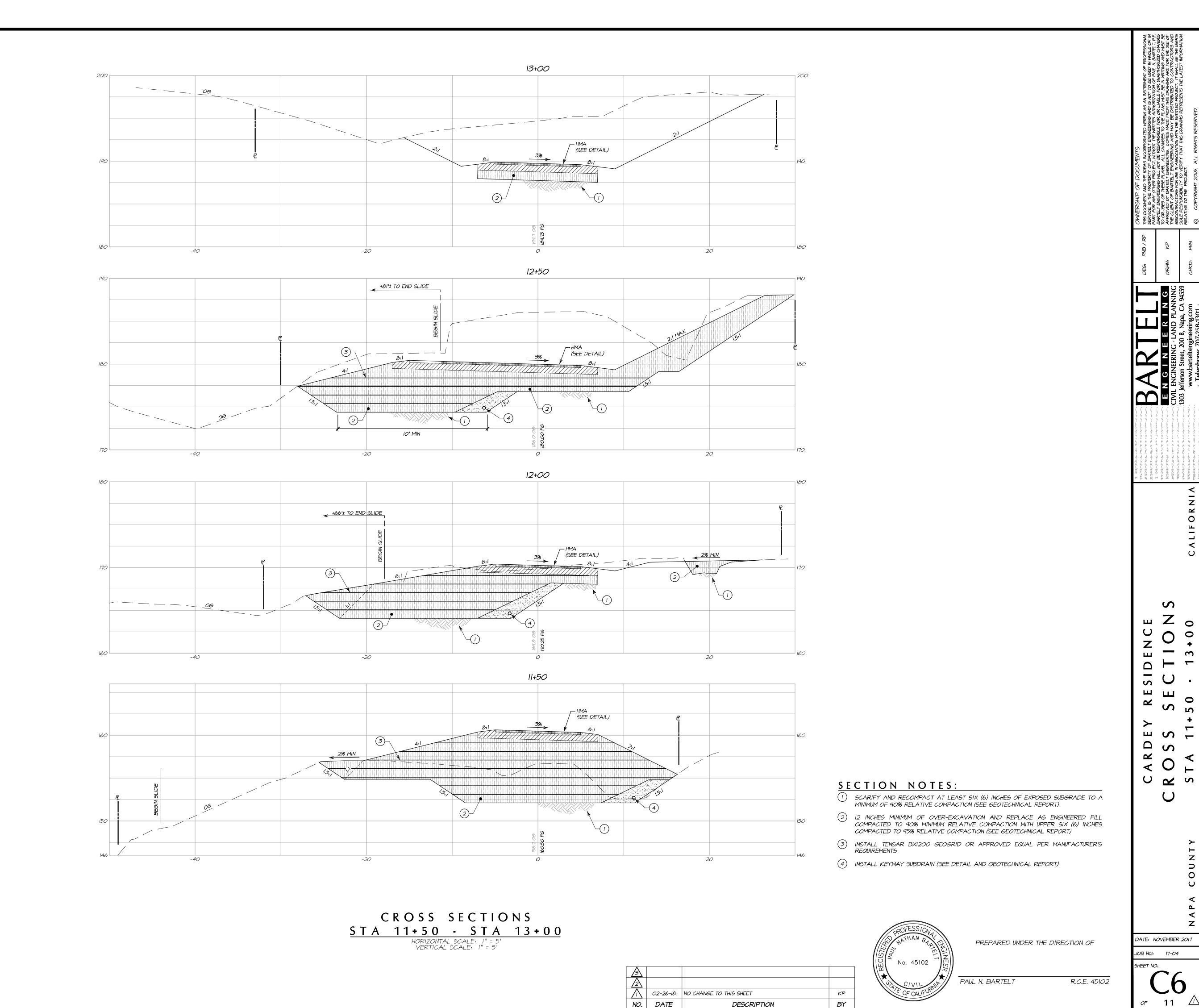


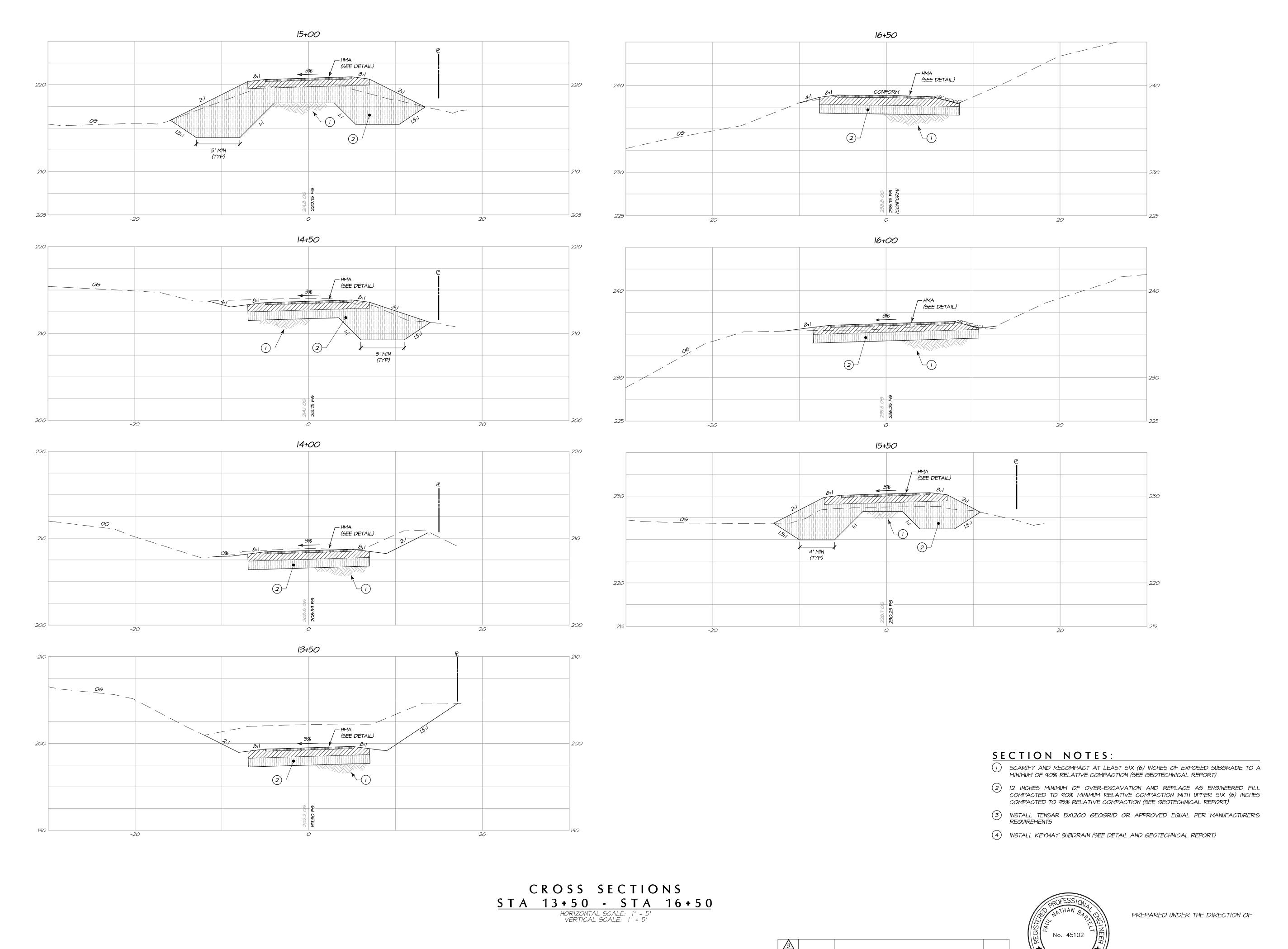


NO. DATE

BY

DESCRIPTION





02-26-18 NO CHANGE TO THIS SHEET

DESCRIPTION

NO. DATE

DATE: NOVEMBER 2017

JOB NO: 17-04

SHEET NO:

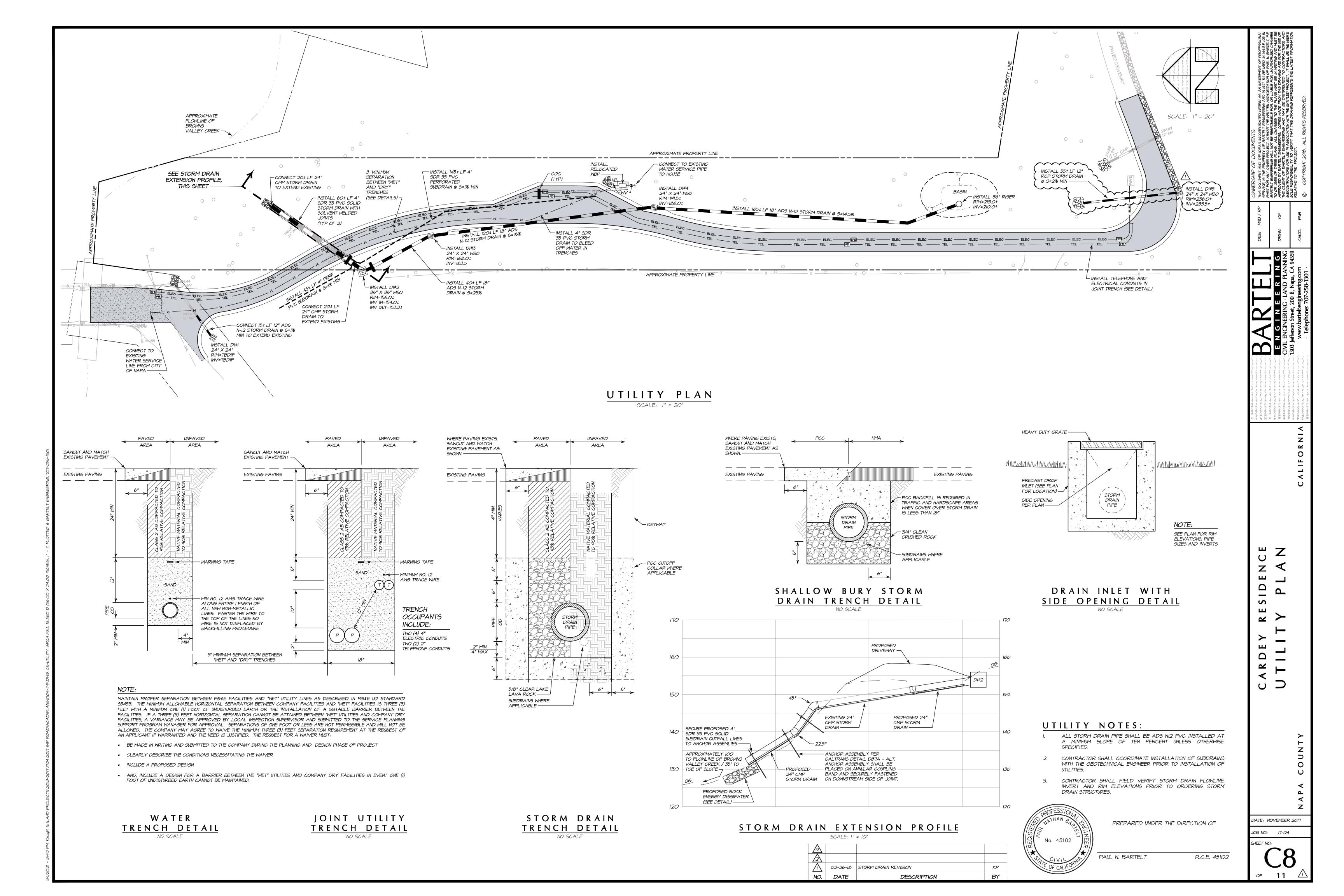
OF 11

PAUL N. BARTELT

KP **BY** В С ∵

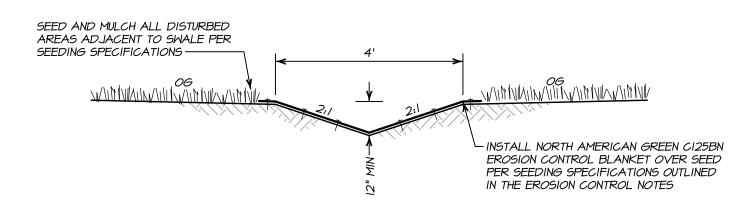
S PR C

S

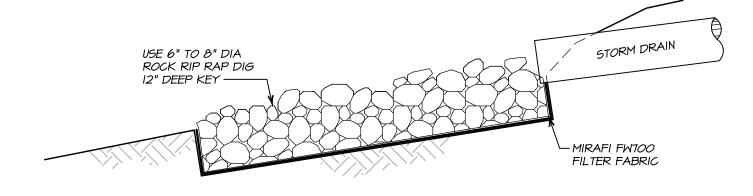


HMA PAVING SECTION

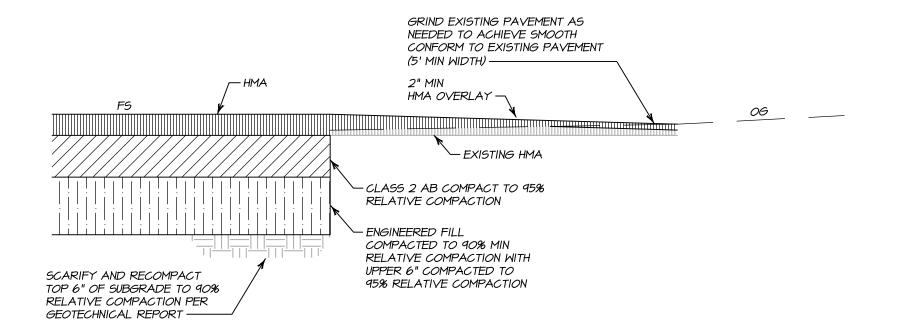
NO SCALE



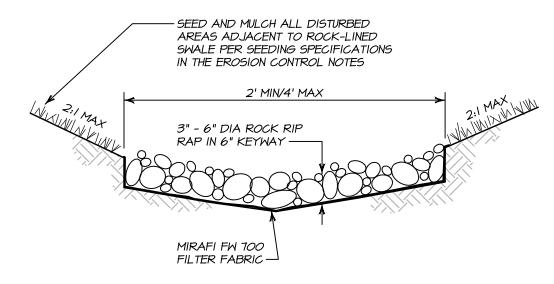
GRASS-LINED SWALE DETAIL



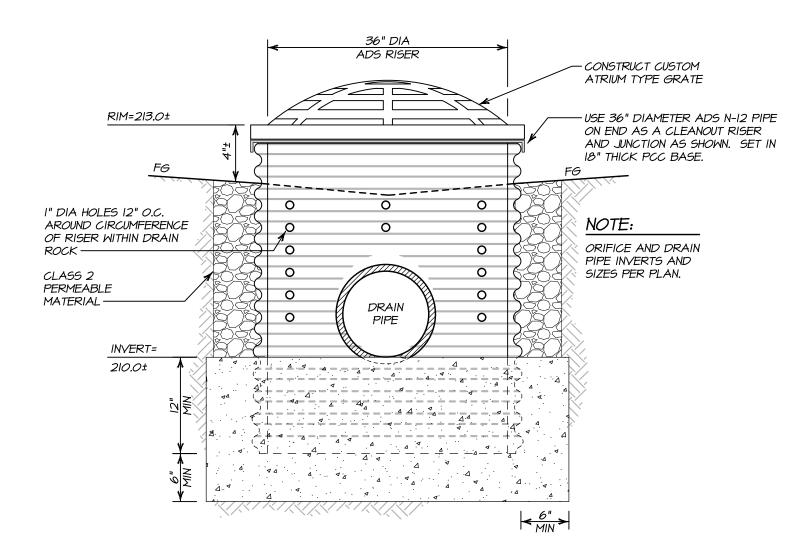
ROCK ENERGY DISSIPATER DETAIL



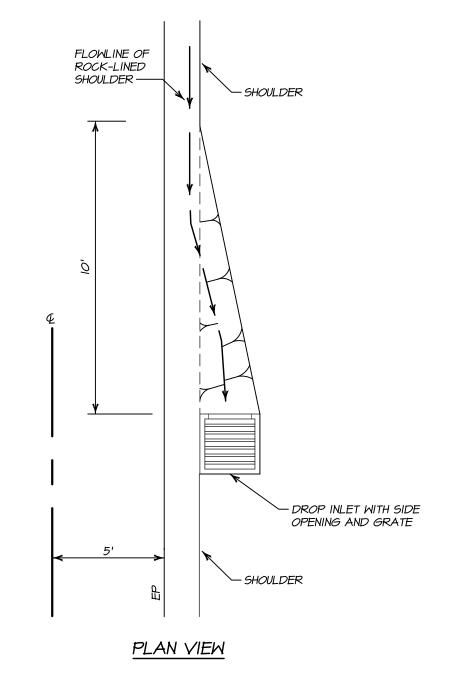
HMA GRIND &
OVERLAY DETAIL



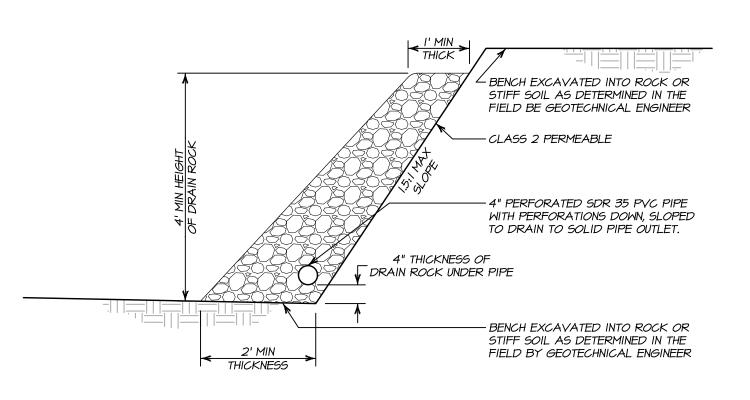
ROCK-LINED SWALE DETAIL



SEDIMENT BASIN DRAIN INLET DETAIL NO SCALE



DROP INLET WITH SIDE OPENING DETAIL



KEYWAY SUBDRAIN DETAIL NO SCALE



PREPARED UNDER THE DIRECTION OF

PAUL N. BARTELT R.C.E. 45102

JOB NO: 17-04

SHEET NO:

OF 11

DATE: NOVEMBER 2017

ш

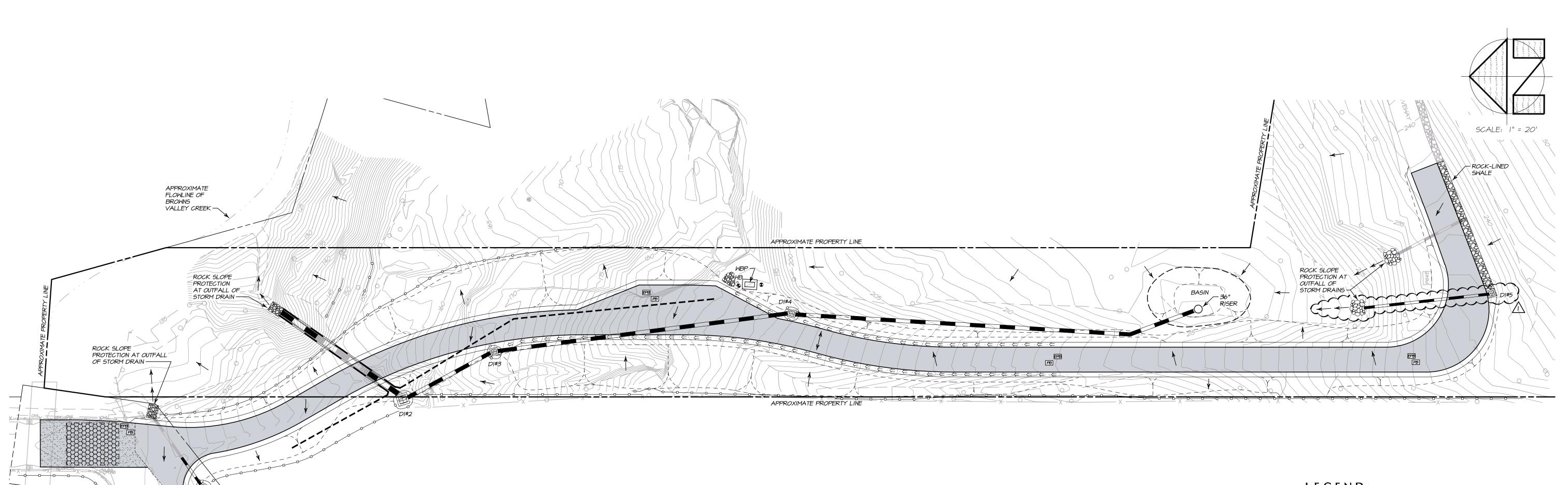
ш

 \Box

O I

S

3			
2			
\triangle	02-26-18	NO CHANGE TO THIS SHEET	KP
NO.	DATE	DESCRIPTION	BY



EROSION CONTROL PLAN

EROSION CONTROL NOTES:

- I. ALL MAJOR GRADING SHOWN HEREIN SHALL BE WINTERIZED IF NOT YET COMPLETED PRIOR TO OCTOBER 15 OF EACH YEAR THAT THE PROJECT IS UNDER CONSTRUCTION. EXCEPTIONS INCLUDE, BUT ARE NOT LIMITED TO, PROVISIONS THAT THE MAJOR GRADING HAS PREDOMINANTLY BEEN COMPLETED AND THAT THERE COULD BE A DETRIMENTAL IMPACT ON THE ENVIRONMENT IF THE MAJOR GRADING REMAINS INCOMPLETE. A REQUEST TO ALLOW GRADING TO OCCUR BETWEEN OCTOBER 15 AND APRIL I SHALL BE SUBMITTED TO NAPA COUNTY PLANNING, BUILDING AND ENVIRONMENTAL SERVICES THREE (3) WORKING DAYS PRIOR TO OCTOBER 15 OF EACH YEAR THAT THE PROJECT IS UNDER CONSTRUCTION. NO GRADING SHALL OCCUR AFTER OCTOBER 15 UNTIL APPROVAL HAS BEEN GRANTED BY THE NAPA COUNTY PLANNING, BUILDING AND ENVIRONMENTAL SERVICES DIRECTOR OR HIS REPRESENTATIVES.
- 2. THIS PLAN ADDRESSES EROSION AND SEDIMENT CONTROL MEASURES AND MINOR GRADING ASSOCIATED WITH THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHOWN ON THIS PLAN DURING THE RAINY SEASON (OCTOBER 15 TO APRIL I).
- 3. ALL PERMANENT AND TEMPORARY SEDIMENT/DETENTION DEVICES SHALL BE INSTALLED PRIOR TO OCTOBER I OF EACH YEAR WITHIN WHICH WORK TAKES PLACE.
- 4. SILT FENCE AND/OR STRAW WATTLE/LOG SEDIMENT BARRIERS WILL BE INSTALLED PRIOR TO OCTOBER 15 AND WILL REMAIN OPERABLE DURING THE RAINY SEASON (OCTOBER 15 TO APRIL I).
- 5. CHANGES TO THIS EROSION AND SEDIMENT CONTROL PLAN TO MEET FIELD CONDITIONS WILL BE MADE ONLY WITH THE APPROVAL OF/OR AT THE DIRECTION OF BARTELT ENGINEERING. 6. THE CONTRACTOR WILL INFORM ALL CONSTRUCTION SITE WORKERS ABOUT THE MAJOR PROVISIONS OF THE EROSION AND
- SEDIMENT CONTROL PLAN AND SEEK THEIR COOPERATION IN AVOIDING THE DISTURBANCE OF THESE EROSION CONTROL MEASURES. 7. DURING THE RAINY SEASON (OCTOBER 15 TO APRIL I) ALL SEDIMENT BARRIERS WILL BE INSPECTED AND REPAIRED AT THE END
- OF EACH WORKING DAY AND, IN ADDITION, AFTER EACH RAIN EVENT PRODUCING RUNOFF. 8. BETWEEN OCTOBER IS AND APRIL I, ALL PAVED AREAS WILL BE KEPT CLEAR OF DIRT, SEDIMENT AND DEBRIS. THE PROJECT
- 9. THE SEEDED AREAS WILL BE REPAIRED, RESEEDED AND MULCHED AS SOON AS POSSIBLE AFTER BEING DAMAGED.

AREA WILL BE MAINTAINED SO THAT A MINIMUM OF SEDIMENT-LADEN RUNOFF LEAVES THE SITE.

- IO. ALL GRADED OR DISTURBED AREAS SHALL BE SEEDED IMMEDIATELY AFTER GRADING IS COMPLETE.
- II. AREA TO BE SEEDED SHALL BE SCARIFIED TO DEPTH OF FOUR (4) INCHES TO EIGHT (8) INCHES AND DRESSED TO PROVIDE A REASONABLY SMOOTH FIRM SURFACE.
- 12. THE SEED AND FERTILIZER WILL BE APPLIED BY HAND AT THE RATES SPECIFIED BELOW:

LE BALLISTER'S QUICK COVER CROP APPLIED AT 50 POUNDS PER ACRE IN THE FOLLOWING PERCENTAGES:

ANNUAL RYEGRASS (LOLIUM MULTIFLURUM) 50% SOFT CHESS (BROMUS MOLLIS) CRIMSON CLOVER (TRIFOLIUM INCARNATUM) ROSE CLOVER (TRIFOLIUM HIRTUM)

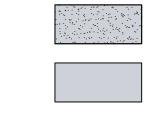
20% 25%

13. FERTILIZER USED SHALL BE ONE OF THE FOLLOWING SPECIFICATIONS:

16-20-0 250 POUNDS PER ACRE 400 POUNDS PER ACRE 12-12-12 300 POUNDS PER ACRE

- 14. STRAW MULCH SHALL BE APPLIED, BY HAND, TO ALL DISTURBED AREAS AT A RATE OF 4,000 POUNDS PER ACRE.
- 15. NORTH AMERICAN GREEN BIONET CI25BN EROSION CONTROL BLANKETS SHALL BE INSTALLED OVER SEED ON ALL DISTURBED SLOPES 4:1 OR STEEPER.

LEGEND:



PROPOSED GRIND AND OVERLAY

PROPOSED HMA

EXISTING STORM DRAIN PROPOSED STORM DRAIN

------PROPOSED SUBDRAIN PROPOSED ROCK-LINED $\Rightarrow \cdot \Rightarrow \cdot \Rightarrow \cdot \Rightarrow \cdot$ DRAINAGE COURSE **---->** ---->

PROPOSED DRAINAGE PATH SEDIMENT BARRIER SOILS STOCKPILE AREA (LOCATION TO BE DETERMINED PRIOR TO CONSTRUCTION)

STAGING AREA

CONSTRUCTION ENTRANCE

00000000

PRIOR TO CONSTRUCTION) TEMPORARY SANITARY FACILITY (PORTABLE TOILET) (LOCATION TO BE DETERMINED PRIOR TO CONSTRUCTION)

(LOCATION TO BE DETERMINED

THE CALIFORNIA STORMWATER BEST MANAGEMENT PRACTICES SHALL BE CONSIDERED A PART OF THIS PLAN.

NAPA COUNTY CONSTRUCTION SITE RUNOFF CONTROL REQUIREMENTS:

- I. CONTRACTOR SHALL NOTIFY THE NAPA COUNTY PLANNING, BUILDING AND ENVIRONMENTAL SERVICES DEPARTMENT AT (707) 253-4471 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 2. REVIEW AND/OR APPROVAL OF THESE PLANS SHALL NOT RELIEVE THE CONTRACTOR FROM HIS OR HER RESPONSIBILITIES FOR COMPLIANCE WITH THE REQUIREMENTS OF THE CONSTRUCTION SITE RUNOFF CONTROL MANUAL, NOR SHALL IT RELIEVE THE CONTRACTOR FROM ERRORS OR OMISSIONS IN THE APPROVED PLANS.
- 3. IF THE APPROVED PLANS NEED TO BE MODIFIED ADDITIONAL SEDIMENT AND STORMWATER CONTROL MEASURES MAY BE REQUIRED AS DEEMED NECESSARY BY NAPA COUNTY ENGINEERING AND CONSERVATION OR THE ENGINEER.



KP BY

02-26-18 STORM DRAIN REVISION

DESCRIPTION

NO. DATE

PREPARED UNDER THE DIRECTION OF

PAUL N. BARTELT R.C.E. 45102

ш

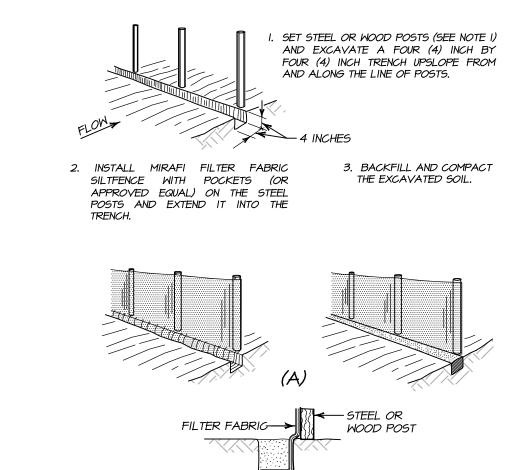
DATE: NOVEMBER 2017 JOB NO: 17-04

SHEET NO:

AGES MUD MAT TEMPORARY CONSTRUCTION ENTRANCE/EXIT DETAIL

INSTALLATION OF SILT FENCE SEDIMENT BARRIER

- LAY OUT A SUITABLE FENCE LINE AND SET POSTS ALONG IT. ON SLOPES, ALIGN THE FENCE ALONG THE CONTOUR AS CLOSELY AS POSSIBLE. IN SMALL SWALES, CURVE THE FENCE LINE UPSTREAM AT THE ENDS TO DIRECT THE FLOW TOWARD THE
- 2. SPACE POSTS ON SIX (6) FOOT CENTERS AND DRIVE THEM A MINIMUM OF 12 INCHES INTO THE GROUND. POSTS FOR SILT FENCES CAN BE EITHER I-1/2 INCHES MINIMUM DIAMETER HARD WOOD OR 1.33 POUNDS PER FOOT STEEL WITH A MINIMUM LENGTH OF FIVE (5) FEET. STEEL POSTS MUST HAVE PROJECTIONS FOR FASTENING WIRE TO
- 3. FASTEN THE FILTER FABRIC TO THE UPHILL SIDE OF THE FENCE POSTS, AND EXTEND TO SIX (6) TO EIGHT (8) INCHES INTO THE TRENCH. THE HEIGHT OF THE FENCE SHOULD NOT EXCEED 36 INCHES. DO NOT STAPLE FABRIC ONTO TREES. CUT THE FILTER FABRIC FROM A CONTINUOUS ROLL TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, SPLICE THE FILTER CLOTH AT A SUPPORT POST, WITH A MINIMUM SIX (6) INCHES OVERLAP, AND SECURELY FASTEN BOTH ENDS TO
- 4. BACKFILL THE TRENCH OVER THE TOE OF THE FABRIC AND COMPACT THE SOIL.
- PREFABRICATED SILT FENCE WITH POSTS MAY BE USED AS AN ALTERNATE TO SETTING STEEL OR WOOD POSTS.

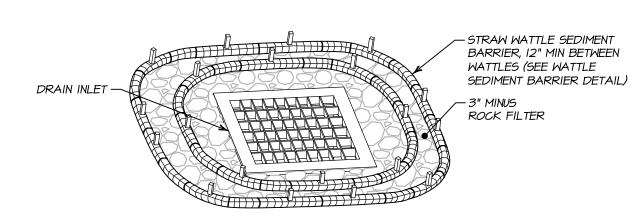


SILT FENCE SEDIMENT BARRIER DETAIL

CONSTRUCTION OF A SILT FENCE:

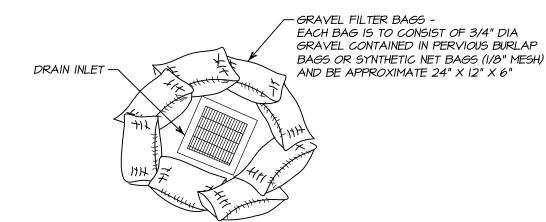
(B) EXTENSION OF FABRIC INTO THE TRENCH

(A) INSTALLATION SEQUENCE



- I. THIS DETAIL APPLIES TO DRAIN INLETS LOCATED IN NON-PAVED AREAS ONLY.
- 2. PLACE AND OVERLAP ENDS OF STRAW WATTLE SEDIMENT BARRIER SO THAT NO SPACE EXISTS BETWEEN THE ENDS OF THE SEDIMENT BARRIER.
- 3. REMOVE SEDIMENT AND DEBRIS AS IT ACCUMULATES TO ALLOW DRAINAGE INTO THE STORM DRAIN SYSTEM.
- 4. REMOVE FILTER AFTER CONSTRUCTION.

STRAW WATTLE DRAIN INLET FILTER DETAIL



- I. THIS DETAIL APPLIES TO DRAIN INLETS LOCATED IN PAVED AREAS ONLY.
- 2. PLACE AND OVERLAP ENDS OF GRAVEL BAG SEDIMENT BARRIER SO THAT NO SPACE EXISTS BETWEEN THE ENDS OF EACH INDIVIDUAL SEDIMENT BARRIER.
- 3. REMOVE SEDIMENT AND DEBRIS AS IT ACCUMULATES TO ALLOW DRAINAGE INTO THE STORM DRAIN SYSTEM.
- 4. REMOVE FILTER AFTER CONSTRUCTION.

GRAVEL BAG SEDIMENT FILTER

INSTALLATION DETAIL NO SCALE

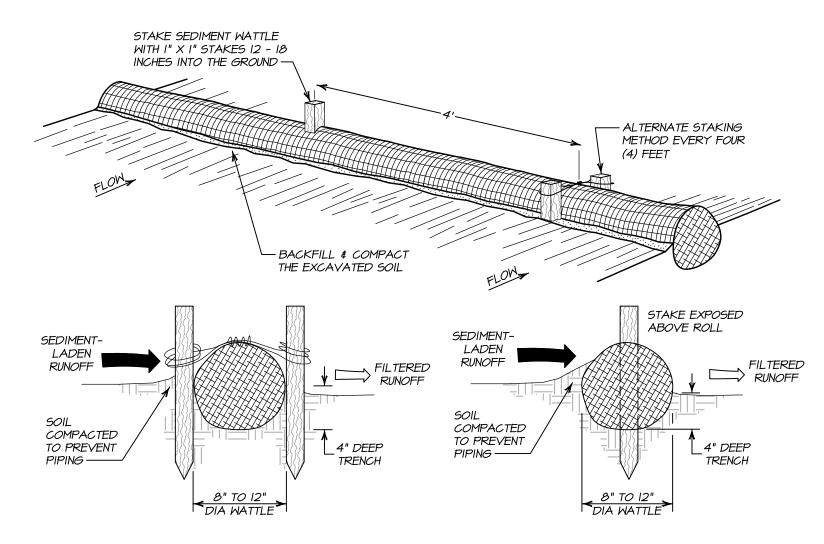
INSTALLATION OF WATTLE SEDIMENT BARRIER I. PREPARE THE SLOPE BEFORE THE WATTLING PROCEDURE IS STARTED. SHALLOW GULLIES SHOULD BE SMOOTHED AS WORK PROGRESSES.

2. DIG SMALL TRENCHES ACROSS THE SLOPE ON CONTOUR, TO PLACE ROLLS IN. THE TRENCH SHOULD BE DEEP ENOUGH TO ACCOMMODATE HALF THE THICKNESS OF THE ROLL. WHEN THE SOIL IS LOOSE AND UNCOMPACTED, THE TRENCH

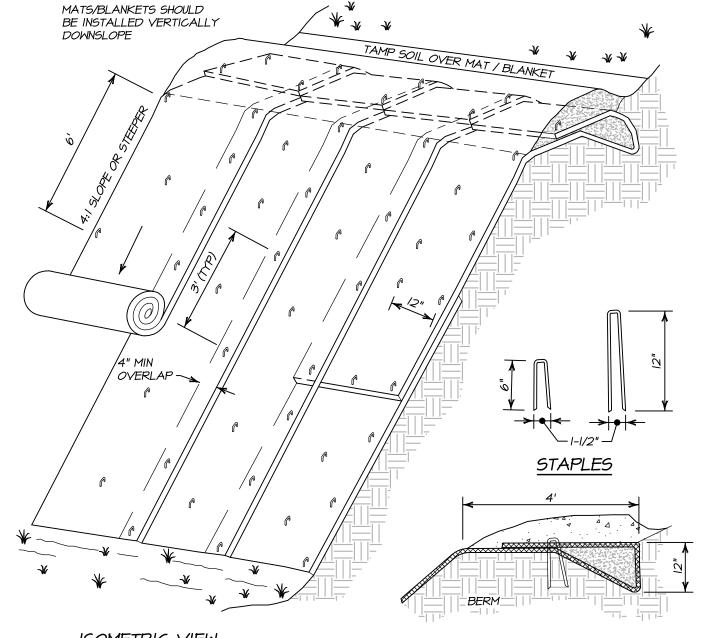
- SHOULD BE DEEP ENOUGH TO BURY THE ROLL 2/3 OF ITS THICKNESS BECAUSE THE GROUND WILL SETTLE. 3. IT IS CRITICAL THAT ROLLS ARE INSTALLED PERPENDICULAR TO WATER MOVEMENT, PARALLEL TO THE SLOPE CONTOUR. START BUILDING TRENCHES AND INSTALL ROLLS FROM THE BOTTOM OF THE SLOPE AND WORK UP.
- 4. CONSTRUCT TRENCHES AT CONTOUR INTERVALS DEPENDING ON STEEPNESS OF SLOPE. THE STEEPER THE SLOPE, THE CLOSER TOGETHER THE TRENCHES. LAY THE ROLL ALONG THE TRENCHES FITTING IT SNUGLY AGAINST THE SOIL. MAKE SURE NO GAPS EXIST BETWEEN THE SOIL AND THE STRAW WATTLE.
- 5. USE A STRAIGHT BAR TO DRIVE HOLES THROUGH THE WATTLE AND INTO THE SOIL FOR THE WILLOW OR WOODEN STAKES. DRIVE THE STAKE THROUGH PREPARED HOLE INTO SOIL. LEAVE ONLY ONE (I) OR TWO (2) INCHES OF STAKE EXPOSED ABOVE ROLL.
- 6. INSTALL STAKES AT LEAST EVERY FOUR (4) FEET APART THROUGH THE WATTLE AS SHOWN BELOW.

www.brockwhite.com

- 7. STRAW WATTLE SHALL BE 100% BIODEGRADABLE.
- 8. WATTLES AND STAKES SHALL BE REMOVED AND DISPOSED OF PROPERLY OFFSITE ONCE COVER CROP IS ESTABLISHED AND NOTICE IS RECEIVED FROM ENGINEER.



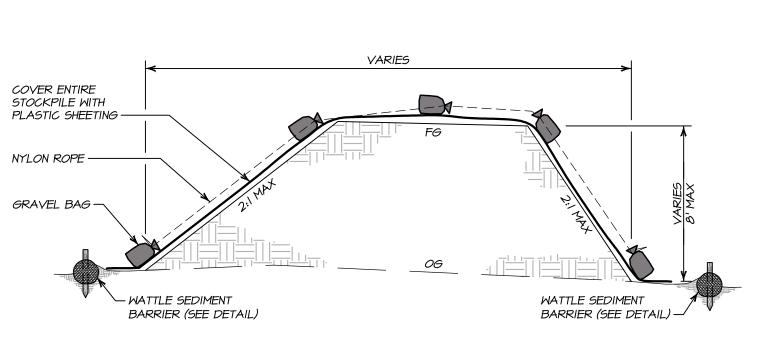
WATTLE SEDIMENT BARRIER DETAIL



ISOMETRIC VIEW

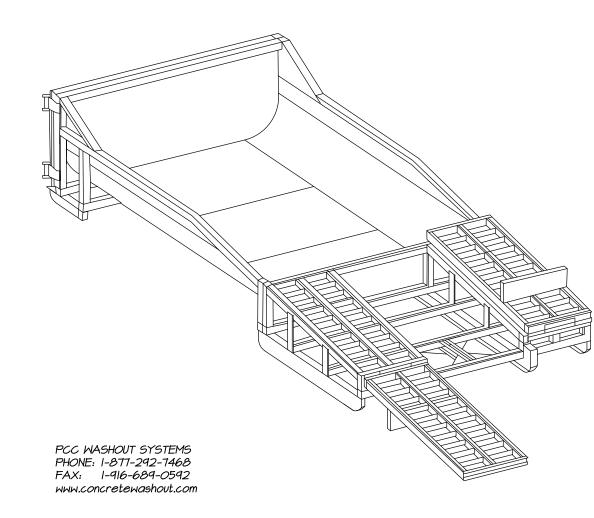
- I. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
- 2. APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
- 3. LAY NORTH AMERICAN GREEN BIONET CI25BN BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.

SLOPE STABILIZATION & EROSION CONTROL BLANKET INSTALLATION DETAIL

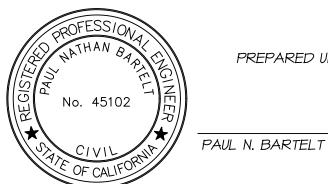


- I. IF STOCKPILE IS TOPSOIL, IT MAY BE PROTECTED BY APPLYING STRAW MULCH AND EROSION CONTROL SEED MIX IN PLACE OF PLASTIC SHEETING. IF GRASSES FAIL TO ESTABLISH EFFECTIVE COVER, PLASTIC SHEETING WILL BE
- 2. PLASTIC SHEETING SHALL BE SECURELY HELD IN PLACE WITH A LINE OF GRAVEL BAGS SLUNG OVER THE TOP OF THE STOCK PILE WITH ROPE.

TYPICAL STOCKPILE CROSS SECTION



PORTABLE PCC WASHOUT CONTAINER DETAIL



PREPARED UNDER THE DIRECTION OF

JOB NO: 17-04

DATE: NOVEMBER 2017

02-26-18 NO CHANGE TO THIS SHEET KP BY NO. DATE DESCRIPTION

SHEET NO: R.C.E. 45102

S