

COUNTY OF SANTA CLARA
General Construction
Specifications

GENERAL CONDITIONS

1. ALL CONSTRUCTION WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE SOILS AND/OR GEOTECHNICAL REPORT PREPARED BY C2EARTH INC. AND DATED FEBRUARY 2020. THIS REPORT IS SUPPLEMENTED BY: 1) THESE PLANS AND SPECIFICATIONS, 2) THE COUNTY OF SANTA CLARA STANDARD DETAILS.
2. THE COUNTY OF SANTA CLARA STANDARD SPECS, 4) STATE OF CALIFORNIA STANDARD DETAILS, 5) STATE OF CALIFORNIA STANDARD SPECIFICATIONS. IN THE EVENT OF CONFLICT, THE FORMER SHALL TAKE PRECEDENCE OVER THE LATTER. THE PERFORMANCE AND COMPLETION OF ALL WORK MUST BE TO THE SATISFACTION OF THE COUNTY.
3. DEVELOPER IS RESPONSIBLE FOR INSTALLATION OF THE IMPROVEMENTS SHOWN ON THESE PLANS AND HE OR HIS SUCCESSOR PROPERTY OWNERS ARE RESPONSIBLE FOR THEIR CONTINUED MAINTENANCE.
4. DEVELOPER SHALL BE RESPONSIBLE FOR CORRECTION OF ANY ERRORS OR OMISSIONS IN THESE PLANS. THE COUNTY SHALL BE AUTHORIZED TO REQUIRE DISCONTINUANCE OF ANY WORK AND SUCH CORRECTION AND MODIFICATION OF PLANS AS MAY BE NECESSARY TO COMPLY WITH COUNTY STANDARDS OR CONDITIONS OF DEVELOPMENT APPROVAL.
5. DEVELOPER SHALL OBTAIN ENCROACHMENT PERMITS FROM THE SANTA CLARA VALLEY WATER DISTRICT AND CALIFORNIA DEPARTMENT OF TRANSPORTATION WHERE NEEDED. COPIES OF THESE PERMITS SHALL BE KEPT AT THE JOB SITE FOR REVIEW BY THE COUNTY'S INSPECTOR.
6. DEVELOPER SHALL REMOVE OR TRIM ALL TREES TO PROVIDE AN UNOBSTRUCTED FIFTEEN (15) FOOT VERTICAL CLEARANCE FOR ROADWAY AREA. THIS PLAN AUTHORIZES THE REMOVAL OF ONLY THOSE TREES WITH TRUNK DIAMETERS GREATER THAN 12 INCHES MEASURED 4.5 FEET ABOVE THE GROUND THAT ARE SHOWN TO BE REMOVED UNLESS AN AMENDED PLAN IS APPROVED OR A SEPARATE TREE REMOVAL PERMIT IS OBTAINED FROM THE PLANNING OFFICE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT REMOVAL OF ADDITIONAL TREES HAS BEEN PERMITTED.
7. DEVELOPER SHALL PROVIDE ADEQUATE DUST CONTROL AS REQUIRED BY THE COUNTY INSPECTOR.
8. ALL PERSONS MUST COMPLY WITH SECTION 4442 OF THE PUBLIC RESOURCES CODE AND SECTION 13005 OF THE HEALTH AND SAFETY CODE RELATING TO THE USE OF SPARK ARRESTERS.
9. UPON DISCOVERING OR UNEARTHING ANY BURIAL SITE AS EVIDENCED BY HUMAN SKELETAL REMAINS OR ARTIFACTS, THE PERSON MAKING SUCH DISCOVERY SHALL IMMEDIATELY NOTIFY THE COUNTY CORNER AT (408) 454-2520 AND LAND DEVELOPMENT ENGINEERING OFFICE AT (408) 299-5730. NO FURTHER DISTURBANCE OF THE SITE MAY BE MADE EXCEPT AS AUTHORIZED BY THE LAND DEVELOPMENT OFFICE IN ACCORD WITH PROVISIONS OF THIS ORDINANCE (COUNTY ORDINANCE CODE SECTION B6-18).
10. THESE PLANS ARE FOR THE WORK DESCRIBED IN THE SCOPE OF WORK ONLY. A SEPARATE EROSION CONTROL PLAN SHALL BE SUBMITTED FOR REVIEW.
11. ANY DEVIATION FROM THESE APPROVED PLANS SHALL BE RE-APPROVED IN WRITING BY THE COUNTY ENGINEER PRIOR TO CONSTRUCTION.

CONSTRUCTION STAKING

1. THE DEVELOPER'S ENGINEER IS RESPONSIBLE FOR THE INITIAL PLACEMENT AND DEVELOPMENT OF CONSTRUCTION GRADE STAKES. THE STAKES ARE TO BE ADEQUATELY IDENTIFIED, LOCATED, STABILIZED, ETC. FOR THE CONVENIENCE OF CONTRACTORS. LATERAL OFFSET OF STAKES SET FOR CURBS AND GUTTERS SHALL NOT EXCEED 2 1/2 FEET FROM BACK OF CURB.
2. ANY PROPERTY LINE STAKES OR ROAD MONUMENTS DISTURBED DURING CONSTRUCTION SHALL BE REPLACED BY DEVELOPER'S ENGINEER AND LICENSED LAND SURVEYOR.
3. PROPERTY LINE STAKING MUST BE PERFORMED BY THE PROJECT ENGINEER OR LAND SURVEYOR TO ESTABLISH OR RE-ESTABLISH THE PROJECT BOUNDARY AND SHALL BE INSPECTED BY THE COUNTY INSPECTOR PRIOR TO THE BEGINNING OF THE WORK.
4. PROPER CONSTRUCTION STAKES SHALL BE SET IN THE FIELD BY THE PROJECT ENGINEER OR LAND SURVEYOR AND VERIFIED BY THE COUNTY INSPECTOR PRIOR TO THE COMMENCEMENT OF GRADING.

CONSTRUCTION INSPECTION

1. CONTRACTOR SHALL NOTIFY PERMIT INSPECTION UNIT, SANTA CLARA COUNTY PRIOR TO COMMENCING WORK AND FOR FINAL INSPECTION OF WORK AND SITE.
2. THE COUNTY REQUIRES A MINIMUM OF 24 HOURS ADVANCE NOTICE FOR GENERAL INSPECTION, 48 HOURS FOR ASPHALT CONCRETE INSPECTION.
3. INSPECTION BY SANTA CLARA COUNTY SHALL BE LIMITED TO INSPECTION OF MATERIALS AND PROCESSES OF CONSTRUCTION TO OBSERVE THEIR COMPLIANCE WITH PLANS & SPECIFICATIONS BUT DOES NOT INCLUDE RESPONSIBILITY FOR THE SUPERINTENDENT OF CONSTRUCTION, SITE CONDITIONS, EQUIPMENT OR PERSONNEL. CONTRACTOR SHALL NOTIFY THE COUNTY LAND DEVELOPMENT INSPECTOR AT PHONE (408) 299-6868 AT LEAST 24 HOURS PRIOR TO COMMENCING WORK AND FOR FINAL INSPECTION OF WORK AND SITE.
4. DEVELOPER AND/OR HIS AUTHORIZED REPRESENTATIVE MUST SUBMIT WRITTEN REQUEST FOR FINAL INSPECTION AND ACCEPTANCE. SAID REQUEST SHALL BE DIRECTED TO THE INSPECTION OFFICE NOTED ON THE PERMIT FORM.
5. THE CONTRACTOR SHALL PROVIDE TO THE COUNTY CONSTRUCTION INSPECTOR WITH PAD ELEVATION AND LOCATION CERTIFICATES, PREPARED BY THE PROJECT ENGINEER OR LAND SURVEYOR, PRIOR TO COMMENCEMENT OF THE BUILDING FOUNDATION.

SITE PREPARATION (CLEARING AND GRUBBING)

1. EXISTING TREES AUTHORIZED FOR REMOVAL, ROOTS, AND FOREIGN MATERIAL IN AREAS TO BE IMPROVED WILL BE REMOVED TO AN AUTHORIZED DISPOSAL SITE AS FOLLOWS:
 - A) TO A MINIMUM DEPTH OF TWO FEET BELOW THE FINISHED GRADE OF PROPOSED ROADWAYS (EITHER PRIVATE OR TO BE DEDICATED TO PUBLIC USE)
 - B) FROM AREAS AFFECTED BY THE PROPOSED GRADING EXCEPT WHERE NOTED ON THE PLANS.
2. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO MOVE OR RELOCATE UTILITY POLES AND OTHER OBSTRUCTIONS IN THE WAY OF CONSTRUCTION.

UTILITY LOCATION, TRENCHING & BACKFILL

1. CONTRACTOR SHALL NOTIFY USA (UNDERGROUND SERVICE ALERT) AT 1-800-277-2600 A MINIMUM OF 24 HOURS BEFORE BEGINNING UNDERGROUND WORK FOR VERIFICATION OF THE LOCATION OF UNDERGROUND UTILITIES.
2. ACCURATE VERIFICATION AS TO SIZE, LOCATION, AND DEPTH OF EXISTING UNDERGROUND CONDUITS OR FACILITIES SHALL BE THE INDIVIDUAL CONTRACTORS RESPONSIBILITY. PLAN LOCATIONS ARE APPROXIMATE AND FOR GENERAL INFORMATION ONLY.
3. ALL UNDERGROUND INSTALLATIONS SHALL BE IN PLACE AND THE TRENCH BACKFILLED AND COMPACTED BEFORE PLACING AGGREGATE BASE MATERIAL OR SURFACE STRUCTURES. SURFACING MAY BE DONE IF THE UTILITY COMPANY CONCERNED INDICATES BY LETTER THAT IT WILL BORE, UNLESS SPECIFICALLY AUTHORIZED BY THE COUNTY. GAS AND WATER MAINS SHALL BE INSTALLED OUTSIDE THE PAVED AREAS.
4. TRENCH BACKFILL IN EXISTING PAVEMENT AREAS SHALL BE SAND MATERIAL IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE STATE SPECIFICATIONS. THE STRUCTURAL SECTION FOR TRENCH REPLACEMENT SHALL CONSIST OF NOT LESS THAN 12 INCHES OF APPROVED AGGREGATE BASE MATERIAL COMPACTED TO A RELATIVE COMPACTION OF AT LEAST 95% AND 4 INCHES OF HOT ASPHALT CONCRETE PLACED IN TWO LIFTS. TRENCH RESTORATION FOR HIGHER TYPE PAVEMENTS SHALL BE MADE IN KIND OR AS DIRECTED BY THE COUNTY.
5. TRENCH BACKFILL IN NEW CONSTRUCTION AREAS SHALL BE SAND MATERIAL COMPACTED TO A RELATIVE COMPACTION OF AT LEAST 90%. THE REQUIREMENT FOR SELECT MATERIAL MAY BE WAIVED BY COUNTY IF THE NATIVE SOIL IS SUITABLE FOR USE AS TRENCH BACKFILL BUT THE COMPACTION REQUIREMENTS WILL NOT BE THEREBY WAIVED.
6. BACKFILL AND TRENCH RESTORATION REQUIREMENTS SHALL APPLY AS MINIMUM STANDARDS TO ALL UNDERGROUND FACILITIES INSTALLED BY OTHER FIRMS OR PUBLIC AGENCIES.

RETAINING WALLS

1. REINFORCED CONCRETE AND CONCRETE MASONRY UNIT RETAINING WALLS SHALL HAVE FOUNDATION AND REINFORCEMENT INSPECTED BY THE COUNTY ENGINEERING INSPECTOR AND ENGINEER OF RECORD PRIOR TO POURING THE FOUNDATION AND FORMING THE WALL.
2. SEGMENTAL BLOCK RETAINING WALLS SHALL HAVE FOUNDATION AND REINFORCEMENT INSPECTED BY THE COUNTY ENGINEERING INSPECTOR.

GRADING

1. EXCAVATED MATERIAL SHALL BE PLACED IN THE FILL AREAS DESIGNATED OR SHALL BE HAULED AWAY FROM THE SITE TO A COUNTY APPROVED DISPOSAL SITE. WHERE FILL MATERIAL IS TO BE PLACED ON NATURAL GROUND, IT SHALL BE STRIPPED OF ALL VEGETATION, TO ACHIEVE A PROPER BOND WITH THE FILL MATERIAL. THE SURFACE OF THE GROUND SHALL BE SCARIFIED TO DEPTH OF 6" BEFORE FILL IS PLACED. WHERE NATURAL GROUND IS STEEPER THAN 5:1, IT SHALL BE BENCHED AND THE FILL KEYED IN TO ACHIEVE STABILITY. WHERE NEW FILL IS TO BE PLACED ON EXISTING FILL, THE EXISTING FILL SHALL BE REMOVED UNTIL MATERIAL COMPACTED TO 90% RELATIVE COMPACTION IS EXPOSED. THEN THE NEW FILL MATERIAL SHALL BE PLACED AS PER THESE CONSTRUCTION NOTES. FILL MATERIAL SHALL BE PLACED IN UNIFORM LIFTS NOT EXCEEDING 6" IN UNCOMPACTED THICKNESS. BEFORE COMPACTION BEGINS, THE FILL SHALL BE BROUGHT TO A WATER CONTENT THAT WILL PERMIT PROPER COMPACTION BY EITHER 1) AERATING THE FILL IF IT IS TOO WET OR 2) MOISTENING THE FILL WITH WATER IF IT IS TOO DRY. EACH LIFT SHALL BE THOROUGHLY MIXED BEFORE COMPACTION TO ENSURE A UNIFORM DISTRIBUTION OF MOISTURE.
2. EXCESS CUT MATERIAL SHALL NOT BE SPREAD OR STOCKPILED ON THE SITE.
3. SURPLUS EARTH FILL MATERIAL SHALL BE PLACED IN A SINGLE (8" MAX) THICK LAYER COMPACTED TO WITHSTAND WEATHERING IN THE AREA(S) DELINEATED ON THE PLAN.
4. NO ORGANIC MATERIAL SHALL BE PLACED IN ANY FILL. NO TREES SHALL BE REMOVED OUTSIDE OF CUT, FILL OR ROADWAY AREAS.
5. THE UPPER 6" OF SUBGRADE BELOW DRIVEWAY ACCESS ROAD OR PARKING AREA SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY.
6. MAXIMUM SLOPE SHALL BE 2 HORIZONTAL TO 1 VERTICAL. MAXIMUM FILL SLOPE SHALL BE 2 HORIZONTAL TO 1 VERTICAL.

LOCATION	CUT (C.Y.)	FILL (C.Y.)	VERT. DEPTH
RESIDENCE	45	0	2.5'
ACCESSORY STRUCTURE			
POOL/HARDSCAPE			
LANDSCAPE DRIVEWAY			
OFF SITE IMPROVEMENTS			
TOTAL			

- NOTE: FILL VOLUMES INCLUDE 10% SHRINKAGE.
7. EXCESS MATERIAL SHALL BE OFF HAULED TO A COUNTY APPROVED DUMP SITE.
 8. NOTIFY SOILS ENGINEER TWO (2) DAYS PRIOR TO COMMENCEMENT OF ANY GRADING WORK TO COORDINATE THE WORK IN THE FIELD.
 9. ALL MATERIALS FOR FILL SHOULD BE APPROVED BY THE SOILS ENGINEER BEFORE IT IS BROUGHT TO THE SITE.
 10. THE UPPER 6" OF THE SUBGRADE SOIL SHALL BE SCARIFIED, MOISTURE BE REQUIRED FOR THE MINIMUM RELATIVE COMPACTION OF 95%.
 11. ALL AGGREGATE BASE MATERIAL SHALL BE COMPACTED TO A MINIMUM 95% RELATIVE COMPACTION.
 12. THE GEOTECHNICAL PLAN REVIEW LETTER MUST BE REVIEWED AND APPROVED BY THE COUNTY GEOLOGIST PRIOR TO FINAL APPROVAL BY THE COUNTY ENGINEER FOR BUILDING OCCUPANCY.
 13. THE PROJECT GEOTECHNICAL ENGINEER SHALL PERFORM COMPACTION TESTING AND PRESENT THE RESULTS TO THE COUNTY ENGINEERING INSPECTOR PRIOR TO THE CONSTRUCTION OF ANY PAVED AREA.
 14. GRADING WORK BETWEEN OCTOBER 15TH AND APRIL 15TH IS AT THE DISCRETION OF THE SANTA CLARA COUNTY GRADING OFFICIAL.
 15. TOTAL DISTURBED AREA FOR THE PROJECT 380 SQUARE FEET.
 16. THE INSPECTOR MAY VERIFY THAT A VALID NOTICE OF INTENT (NOI) HAS BEEN ISSUED BY THE STATE AND THAT A CURRENT AND UP TO DATE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS AVAILABLE ON SITE.

TREE PROTECTION

1. FOR ALL TREES TO BE RETAINED WITH A CANOPY IN THE DEVELOPMENT AREA OR INTERFACES WITH THE LIMITS OF GRADING FOR ALL DEVELOPMENT ON SITE, THE TREES SHALL BE PROTECTED BY THE PLACEMENT OF RIGID TREE PROTECTIVE FENCING, CONSISTENT WITH THE COUNTY INTEGRATED LANDSCAPE GUIDELINES, AND INCLUDE THE FOLLOWING:
 - A. FENCING SHALL BE PLACED ALONG THE OUTSIDE EDGE OF THE DRIPLINE OF THE TREE OR GROVE OF TREES.
 - B. THE FENCING SHALL BE MAINTAINED THROUGHOUT THE SITE CONSTRUCTION PERIOD AND SHALL BE INSPECTED PERIODICALLY FOR DAMAGE AND PROPER FUNCTION.
 - C. FENCING SHALL BE REPAIRED, AS NECESSARY, TO PROVIDE A PHYSICAL BARRIER FROM CONSTRUCTION ACTIVITIES.
 - D. SIGNAGE STATING "WARNING- THIS FENCING SHALL NOT BE REMOVED WITHOUT THE PERMISSION OF THE PLANNING OFFICE (408) 299-5770. COUNTY OF SANTA CLARA TREE PROTECTION MEASURES MAY BE FOUND AT <http://www.sccplanning.gov>." SHALL BE PLACED ON THE TREE PROTECTIVE FENCING UNTIL FINAL OCCUPANCY.
2. PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY, TREE PROTECTIVE FENCING SHALL BE SECURELY IN PLACED AND INSPECTED BY THE LAND DEVELOPMENT ENGINEERING INSPECTOR.
3. SEE EXISTING TREE PROTECTION DETAILS FOR MORE INFORMATION.

ACCESS ROADS AND DRIVEWAYS

1. DRIVEWAY LOCATIONS SHALL BE AS SHOWN ON THE IMPROVEMENT PLANS WITH CENTERLINE STATIONING. THE MINIMUM CONCRETE THICKNESS SHALL BE 6 INCHES THROUGHOUT (WITH A MAXIMUM APPROACH SLOPE OF 1 1/4 INCHES PER FOOT).
2. ALL DRIVEWAY OR COMMON ACCESS ROAD SECTIONS IN EXCESS OF 15 LONGITUDINAL SLOPE MUST BE PAVED WITH A MINIMUM 2-INCH ASPHALT LIFT OR FULL DEPTH CONCRETE LIFT PRIOR TO ANY COMBUSTIBLE FRAMING.
3. THE OWNER AND PRIME CONTRACTOR ARE RESPONSIBLE FOR MAINTAINING PROJECT SITE ACCESS AND NEIGHBORHOOD ACCESS FOR EMERGENCY VEHICLES AND LOCAL RESIDENTS.
4. ROADWAYS DESIGNATED AS NOT COUNTY MAINTAINED ROADS AS SHOWN ON THE PLAN WILL NOT BE ELIGIBLE FOR COUNTY MAINTENANCE UNTIL THE ROADWAYS ARE IMPROVED (AT NO COST TO THE COUNTY) TO THE PUBLIC MAINTENANCE ROAD STANDARDS APPROVED BY THE BOARD OF SUPERVISORS AND IN EFFECT AT SUCH TIME THAT THE ROADWAYS ARE CONSIDERED FOR ACCEPTANCE INTO THE COUNTY'S ROAD SYSTEM.
5. ALL WORK IN THE COUNTY ROAD RIGHT-OF-WAY REQUIRES AN ENCROACHMENT PERMIT FROM THE ROADS AND AIRPORTS DEPARTMENT. EACH INDIVIDUAL ACTIVITY REQUIRES A SEPARATE PERMIT - I.E. CABLE, ELECTRICAL, GAS, SEWER, WATER, RETAINING WALLS, DRIVEWAY APPROACHES, FENCES, LANDSCAPING, TREE REMOVAL, STORM DRAINAGE IMPROVEMENTS, ETC.

STREET LIGHTING

1. PACIFIC GAS & ELECTRIC ELECTROLER SERVICE FEE SHALL BE PAID BY THE DEVELOPER AND/OR HIS AUTHORIZED REPRESENTATIVE.

SANITARY SEWER

1. THE SANITARY SEWER AND WATER UTILITIES SHOWN ON THESE PLANS ARE NOT PART OF THIS GRADING PERMIT AND ARE SHOWN FOR REFERENCE ONLY.
2. ALL MATERIALS AND METHODS OF CONSTRUCTION OF SANITARY SEWERS SHALL CONFORM TO THE SPECIFICATIONS OF THE SANITARY SEWER INSPECTION OF SANITARY SEWER WORK SHALL BE DONE BY SAID JURISDICTION.

PORTLAND CEMENT CONCRETE

1. CONCRETE USED FOR STRUCTURAL PURPOSES SHALL BE CLASS "A" (6 SACK PER CUBIC YARD) AS SPECIFIED IN THE STATE STANDARD SPECIFICATIONS. CONCRETE PLACED MUST DEVELOP A MINIMUM STRENGTH FACTOR OF 2800 PSI IN A SEVEN-DAY PERIOD. THE CONCRETE MIX DESIGN SHALL BE UNDER THE CONTINUAL CONTROL OF THE COUNTY INSPECTOR.

GEOTECHNICAL ENGINEER OBSERVATION

1. A CONSTRUCTION OBSERVATION LETTER FROM THE RESPONSIBLE GEOTECHNICAL ENGINEER AND ENGINEERING GEOLOGIST DETAILING CONSTRUCTION OBSERVATIONS AND CERTIFYING THAT THE WORK WAS DONE IN ACCORDANCE WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL AND GEOLOGIC REPORTS SHALL BE SUBMITTED PRIOR TO THE GRADING COMPLETION AND RELEASE OF THE BOND.

AIR QUALITY, LANDSCAPING AND EROSION CONTROL

1. WATER ALL ACTIVE CONSTRUCTION AREAS AT LEAST TWICE DAILY.
2. COVER ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOSE MATERIALS OR REQUIRE ALL TRUCKS TO MAINTAIN AT LEAST TWO FEET OF FREEBOARD.
3. PAVE, APPLY WATER THREE TIMES DAILY, OR APPLY (NON-TOXIC) SOIL STABILIZERS ON ALL UNPAVED ACCESS ROADS, PARKING AREAS AND STAGING AREAS AT CONSTRUCTION SITES.
4. SWEEP DAILY (WITH WATER SWEEPERS) ALL PAVED ACCESS ROADS, PARKING AREAS AND STAGING AREAS AT CONSTRUCTION SITES. THE USE OF DRY POWDER SWEEPING IS PROHIBITED.
5. SWEEP STREETS DAILY (WITH WATER SWEEPERS) IF VISIBLE SOIL MATERIAL IS CARRIED ONTO ADJACENT PUBLIC STREETS. THE USE OF DRY POWDER SWEEPING IS PROHIBITED.
6. ALL CONSTRUCTION VEHICLES, EQUIPMENT AND DELIVERY TRUCKS SHALL HAVE A MAXIMUM IDLING TIME OF 5 MINUTES (AS REQUIRED BY THE CALIFORNIA AIRBORNE TOXIC CONTROL MEASURE TITLE 13, SECTION 2485 OF CALIFORNIA CODE OF REGULATIONS (CCR)). ENGINES SHALL BE SHUT OFF IF CONSTRUCTION REQUIRES LONGER IDLING TIME UNLESS NECESSARY FOR PROPER OPERATION OF THE VEHICLE.
7. ALL VEHICLE SPEEDS ON UNPAVED ROADS SHALL BE LIMITED TO 15 MILES PER HOUR.
8. ALL CONSTRUCTION EQUIPMENT SHALL BE MAINTAINED AND PROPERLY TUNED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. ALL EQUIPMENT SHALL BE CHECKED BY A CERTIFIED MECHANIC AND DETERMINED TO BE RUNNING IN PROPER CONDITION PRIOR TO OPERATION.
9. POST A SIGN THAT IS AT LEAST 32 SQUARE FEET MINIMUM 2 INCHES LETTER HIGH, VISIBLE NEAR THE ENTRANCE OF CONSTRUCTION SITE THAT IDENTIFIES THE FOLLOWING REQUIREMENTS: OBTAIN ENCROACHMENT PERMIT FOR SIGN FROM ROADS DEPARTMENT OR OTHER APPLICABLE AGENCY IF REQUIRED.
 - A. 15 MILES PER HOUR (MPH) SPEED LIMIT
 - B. 5 MINUTES MAXIMUM IDLING TIME OF VEHICLES
 - C. TELEPHONE NUMBER TO CONTACT THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT REGARDING DUST COMPLAINTS. NOTE PHONE NUMBER OF THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT AIR POLLUTION COMPLAINT HOTLINE IS 1-800-334-6367.
10. ALL FILL SLOPES SHALL BE COMPACTED AND LEFT IN A SMOOTH AND FIRM CONDITION CAPABLE OF WITHSTANDING WEATHERING.
11. ALL EXPOSED DISTURBED AREAS SHALL BE SEEDED WITH BROME SEED SPREAD AT THE RATE OF 5 LB. PER 1000 SQUARE FEET (OR APPROVED EQUAL). SEEDING AND WATERING SHALL BE MAINTAINED AS REQUIRED TO ENSURE GROWTH.
12. ALL DITCHES SHALL BE LINED PER COUNTY STANDARD SDB.
13. ALL STORM DRAINAGE STRUCTURES SHALL BE INSTALLED WITH EFFECTIVE ENTRANCE & OUTFALL EROSION CONTROLS E.G. SACKED SUBST SITE.
14. PRIOR TO GRADING COMPLETION AND RELEASE OF THE BOND, ALL GRADED AREAS SHALL BE RESEEDD IN CONFORMANCE WITH THE COUNTY GRADING ORDINANCE TO MINIMIZE THE VISUAL IMPACTS OF THE GRADE SLOPES AND PREVENT EROSION AND COMBUSTIBLE MATERIALS FROM THE SUBST SITE.
15. PERMANENT LANDSCAPING SHOWN ON THE ATTACHED LANDSCAPE PLAN MUST BE INSTALLED AND FIELD APPROVED BY THE COUNTY PLANNING OFFICE PRIOR TO FINAL APPROVAL BY THE COUNTY ENGINEER, AND FINAL OCCUPANCY REPORT BY THE BUILDING INSPECTION OFFICE.
16. THE OWNER SHALL PREPARE AND PRESENT A WINTERIZATION REPORT TO THE COUNTY INSPECTOR FOR REVIEW PRIOR TO OCTOBER 15TH OF EVERY YEAR.
17. THE OWNER, CONTRACTOR, AND ANY PERSON PERFORMING CONSTRUCTION ACTIVITIES SHALL ENSURE THAT ALL TEMPORARY CONSTRUCTION FACILITIES, INCLUDING BUT NOT LIMITED TO CONSTRUCTION MATERIALS, DELIVERIES, HAZARDOUS AND NON-HAZARDOUS MATERIAL STORAGE, EQUIPMENT, TOOLS, PORTABLE TOILETS, CONCRETE WASHOUT, GARBAGE CONTAINERS, LAYDOWN YARDS, SECONDARY CONTAINMENT AREAS, ETC. ARE LOCATED OUTSIDE THE SANTA CLARA COUNTY ROAD RIGHT-OF-WAY.
18. EROSION CONTROL PLAN IS A GUIDE AND SHALL BE AMENDED AS NECESSARY TO PREVENT EROSION AND ILLICIT DISCHARGES ON A YEAR AROUND BASIS, DEPENDING ON THE SEASON, WEATHER, AND FIELD CONDITIONS. EROSION CONTROL MEASURES IN ADDITION TO THOSE NOTED IN THE PERMITTED PLANS MAY BE NECESSARY. FAILURE TO INSTALL SITE AND SITUATIONALLY APPROPRIATE EROSION CONTROL MEASURES MAY RESULT IN VIOLATIONS, FINES, AND A STOPPAGE OF WORK.

COUNTY LOCATION
MAP

SURVEY MONUMENT PRESERVATION

1. THE LANDOWNER / CONTRACTOR MUST PROTECT AND ENSURE THE PERPETUATION OF SURVEY MONUMENTS AFFECTED BY CONSTRUCTION ACTIVITIES.
2. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL LOCATE, STAKE, AND FLAG OR OTHERWISE IDENTIFY WITH PAINT OR OTHER MARKINGS ALL PERMANENT SURVEY MONUMENTS OF RECORD AND ANY UNRECORDED MONUMENTS THAT ARE DISCOVERED THAT ARE WITHIN 50 FEET OF THE CONSTRUCTION ACTIVITY.
3. THE LANDOWNER, CONTRACTOR AND/OR ANY PERSON PERFORMING CONSTRUCTION ACTIVITIES THAT WILL OR MAY DISTURB AN EXISTING MONUMENT, CORNER STAKE, OR ANY OTHER PERMANENT SURVEYED MONUMENT, SHALL CAUSE TO HAVE A LICENSED LAND SURVEYOR OR CIVIL ENGINEER, AUTHORIZED TO PRACTICE SURVEYING, ENSURE THAT A CORNER RECORD AND/OR RECORD OF SURVEY ARE FILED WITH THE COUNTY SURVEYOR'S OFFICE PRIOR TO DISTURBING SAID MONUMENTS AND RESET PERMANENT MONUMENT(S) IN THE SURFACE OF THE NEW CONSTRUCTION OR SET A WITNESS MONUMENT(S) TO PERPETUATE THE LOCATION IF ANY PERMANENT MONUMENT COULD BE DESTROYED, DAMAGED, COVERED, DISTURBED, OR OTHERWISE OBLITERATED. THE LICENSED LAND SURVEYOR OR CIVIL ENGINEER SHALL FILE A CORNER REPORT OR RECORD OF SURVEY WITH THE COUNTY SURVEYOR PRIOR TO FINAL ACCEPTANCE OF THE PROJECT BY THE LAND DEVELOPMENT ENGINEERING INSPECTOR.

COUNTY OF SANTA CLARA DEPT. OF ROADS AND AIRPORTS

ISSUED BY: _____ DATE: _____

ENCROACHMENT PERMIT NO. _____

NO WORK SHALL BE DONE IN THE COUNTY'S RIGHT-OF-WAY WITHOUT AN ENCROACHMENT PERMIT, INCLUDING THE STAGING OF CONSTRUCTION MATERIAL AND THE PLACEMENT OF PORTABLE TOILETS.

COUNTY OF SANTA CLARA
LAND DEVELOPMENT ENGINEERING & SURVEYING

GRADING / DRAINAGE PERMIT NO. _____

ISSUED BY: _____ DATE: _____

BIOLOGICAL INFORMATION
TOP OF BANK DELINEATED BY MIG INC., "GENERAL BIOLOGICAL RESOURCE ASSESSMENT" DATED OCTOBER 2019 PROJECT NO. 16710

RESTORATION ENGINEER / GEOMORPHOLOGIST
STILLWATER SCIENCES
2855 TELEGRAPH AVENUE, SUITE 400,
BERKELEY, CA 94705
CHRIS LYLE

STORM DRAINAGE AND STORMWATER MANAGEMENT

1. DEVELOPER IS RESPONSIBLE FOR ALL NECESSARY DRAINAGE FACILITIES WHETHER SHOWN ON THE PLANS OR NOT AND HE OR HIS SUCCESSOR PROPERTY OWNERS ARE RESPONSIBLE FOR THE ADEQUACY AND CONTINUED MAINTENANCE OF THESE FACILITIES IN A MANNER WHICH WILL PRECLUDE ANY HAZARD TO LIFE, HEALTH, OR DAMAGE TO ADJOINING PROPERTY, CONSISTENT WITH NPDES PERMIT CAS612008 / ORDER NO. R2-2009-0047 AND NPDES PERMIT CAS000004 / ORDER NO. 2013-0001-DW0.
2. DROP INLETS SHALL BE COUNTY STANDARD TYPE 5 UNLESS OTHERWISE NOTED ON THE PLANS. THE DEVELOPER'S ENGINEER SHALL BE RESPONSIBLE FOR THE PROPER LOCATION OF DROP INLETS. WHERE STREET PROFILE GRADE EXCEEDS 6% DROP INLETS SHALL BE SET AT 500 AREA CURB LINE TO ACCEPT WATER OR AS SHOWN ON THE PLANS.
3. WHERE CULVERTS ARE INSTALLED THE DEVELOPER SHALL BE RESPONSIBLE FOR GRADING THE OUTLET DITCH TO DRAIN TO AN EXISTING SWALE OR TO AN OPEN AREA FOR SHEET FLOW.
4. UPON INSTALLATION OF DRIVEWAY CONNECTIONS, PROPERTY OWNERS SHALL PROVIDE FOR THE UNINTERRUPTED FLOW OF WATER IN ROADSIDE DITCHES.
5. THE COUNTY SHALL INSPECT UNDERGROUND DRAINAGE IMPROVEMENTS AND STORMWATER MANAGEMENT FEATURES PRIOR TO BACKFILL.

AS-BUILT PLANS STATEMENT

THIS IS A TRUE COPY OF THE AS-BUILT PLANS. THERE (____) WERE (____) WERE NOT) MINOR FIELD CHANGES - MARKED WITH THE SYMBOL (C). THERE (____) WERE NOT) PLAN REVISIONS INDICATING SIGNIFICANT CHANGES REVIEWED BY THE COUNTY ENGINEER AND MARKED WITH THE SYMBOL A.

DATE _____ SIGNATURE _____

NOTE: THIS STATEMENT IS TO BE SIGNED BY THE PERSON AUTHORIZED BY THE COUNTY ENGINEER TO PERFORM THE INSPECTION WORK. A REPRODUCIBLE COPY OF THE AS-BUILT PLANS MUST BE FURNISHED TO THE COUNTY ENGINEER AFTER CONSTRUCTION.

COUNTY ENGINEER'S NOTE

ISSUANCE OF A PERMIT AUTHORIZING CONSTRUCTION DOES NOT RELEASE THE DEVELOPER, PERMITTEE OF ENGINEER FROM RESPONSIBILITY FOR THE CORRECTION OF ERRORS OR OMISSIONS CONTAINED IN THE PLANS. IF, DURING THE COURSE OF CONSTRUCTION, THE PUBLIC INTEREST REQUIRES A MODIFICATION OF (OR DEPARTURE FROM) THE SPECIFICATIONS OF THE PLANS, THE COUNTY SHALL HAVE THE AUTHORITY TO REQUIRE THE SUSPENSION OF WORK, AND THE NECESSARY MODIFICATION OR DEPARTURE AND TO SPECIFY THE MANNER IN WHICH THE SAME IS TO BE MADE.

DATE _____

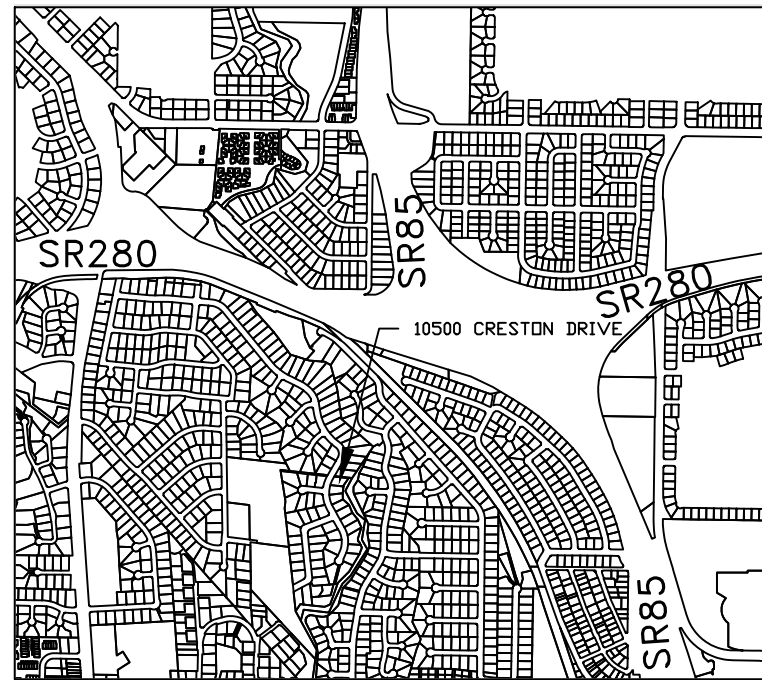
C42912
R.C.E. NO. _____

3-31-2020
EXPIRATION DATE _____

R.C.E. NO. _____ EXPIRATION DATE _____



COUNTY LOCATION
MAP



VICINITY MAP

LANDS OF GUSTAFSON

10500 CRESTON DRIVE
LOS ALTOS, CA 94024

GRADING ABATEMENT PERMIT & PLAN

SCOPE OF WORK

1. THE DEVELOPER IS RESPONSIBLE FOR THE INSTALLATION OF THE WORK PROPOSED IN THE EROSION CONTROL PLAN. THE ENGINEER OF RECORD IS RESPONSIBLE FOR THE DESIGN OF THE EROSION CONTROL PLANS AND ANY MODIFICATIONS OF THE EROSION CONTROL PLANS TO PREVENT ILLICIT DISCHARGES FROM THE SITE DURING CONSTRUCTION.

- REMOVE RETAINING WALL 'A'
- REMOVE 45 CY OF SOIL
- INSTALL PERMANENT EROSION CONTROL DEVICES
- INSTALL PLANTING.

LEGEND

DESCRIPTION PROPOSED EXISTING

PROPERTY LINES	-----	-----
ADJACENT PROPERTY LINES	-----	-----
EASEMENTS	-----	-----
CURB AND GUTTER	=====	=====
EX. CONCRETE SURFACE	=====	=====
DIRECTION OF FLOW	----->	----->
SLOPE IN GRADE, % OF GRADE	< S=0.02	+19.32
SLOT ELEVATION	19.32	19.32
REMOVE EX. CMU WALL	=====	=====
REMOVE PAVERS, SOIL - 380 SF	=====	=====
WOODEN DECKS, SEE PLANS	=====	=====
EARTHWORK, IMPROVEMENTS	=====	=====
AD AREA DRAIN	=====	=====
FD FINISHED GRADE, BOTTOM OF WALL	=====	=====
CF SEWER CLEANDUT	=====	=====
EX EXISTING	=====	=====
FG FINISHED GRADE (NON PAVEMENT)	=====	=====
FF FINISHED FLOOR ELEVATION	=====	=====
FS FINISHED SURFACE (PAVEMENT)	=====	=====
JP JOINT UTILITY POLE	=====	=====
OH OVERHEAD ELECTRIC	=====	=====
PU PUBLIC UTILITY EASEMENT	=====	=====
FS SQUARE FEET	=====	=====
TF TOP OF FOOTING	=====	=====
TDB TOP OF BANK	=====	=====
TW TOP OF WALL	=====	=====
WM WATER METER	=====	=====

SHEET INDEX

C1	COVER SHEET
C2	BOUNDARY/TOPO SURVEY (BY OTHERS)
C3	DEMOLITION
C4	EARTHWORK & IMPROVEMENTS
C5	SECTIONS
C6	SECTIONS 2
L1	PLANTING PLAN (BY OTHERS)

ENGINEER'S NAME: ROBERT SCHNEIDER
ADDRESS: 3111 CARRIKER LANE, SOQUEL, CA 95073
PHONE NO. 831.295.7631

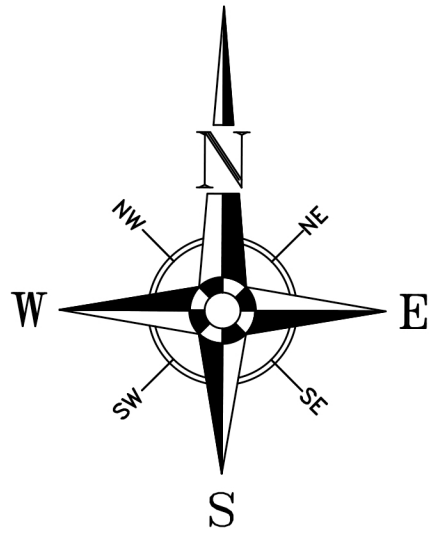


Revision	Date	APN	Sheet
Revision 1	Date	326-12-057	1 of
Revision 2	Date	Co. File	1
Revision 3	Date		6

APPLICANT:

ROAD:

COUNTY FILE NO.:



3111 Carriker Lane
Soquel, Ca 95073
(831) 295-7831
www.delveengineeringandconsulting.com

REVISIONS:
1) ADDED SHT 12/31/2019

SUBMITTALS DATE: INT.
FIRST ☐
SECOND ☐ 12/31/2019
THIRD ☐
FOURTH ☐

SCALE:
GRID
DRAWN BY:

DESIGNED BY:

CHECKED BY: DATE:

APPROVED BY: DATE:



TITLE:

10500 Creston Drive
Los Altos, CA 94024
Grading Abatement Permit & Plan

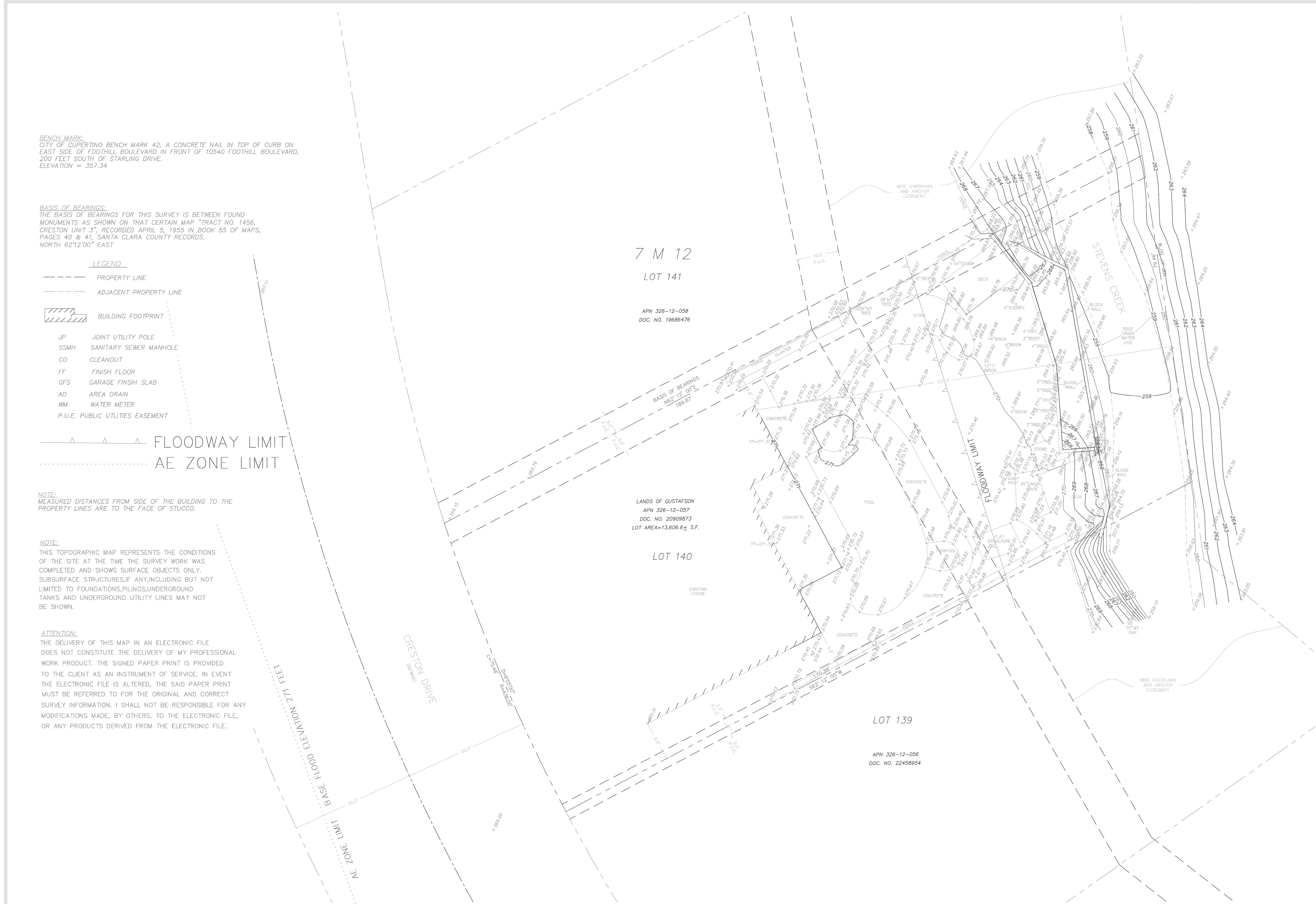
EXISTING

DATE: 07/30/2020

PROJECT ID: 2018_027

DRAWING NO.: C2

SHT 2 OF 6



KEVIN SMITH
LAND SURVEYING
111 DELLVIEW AVENUE
SANTA CRUZ, CA 95062
(831) 588-0154

PARTIAL TOPOGRAPHIC SURVEY
FOR: MICHAEL GUSTAFSON
10500 CRESTON DRIVE, LOS ALTOS, CA 94024
APN 326-12-057

SHEET

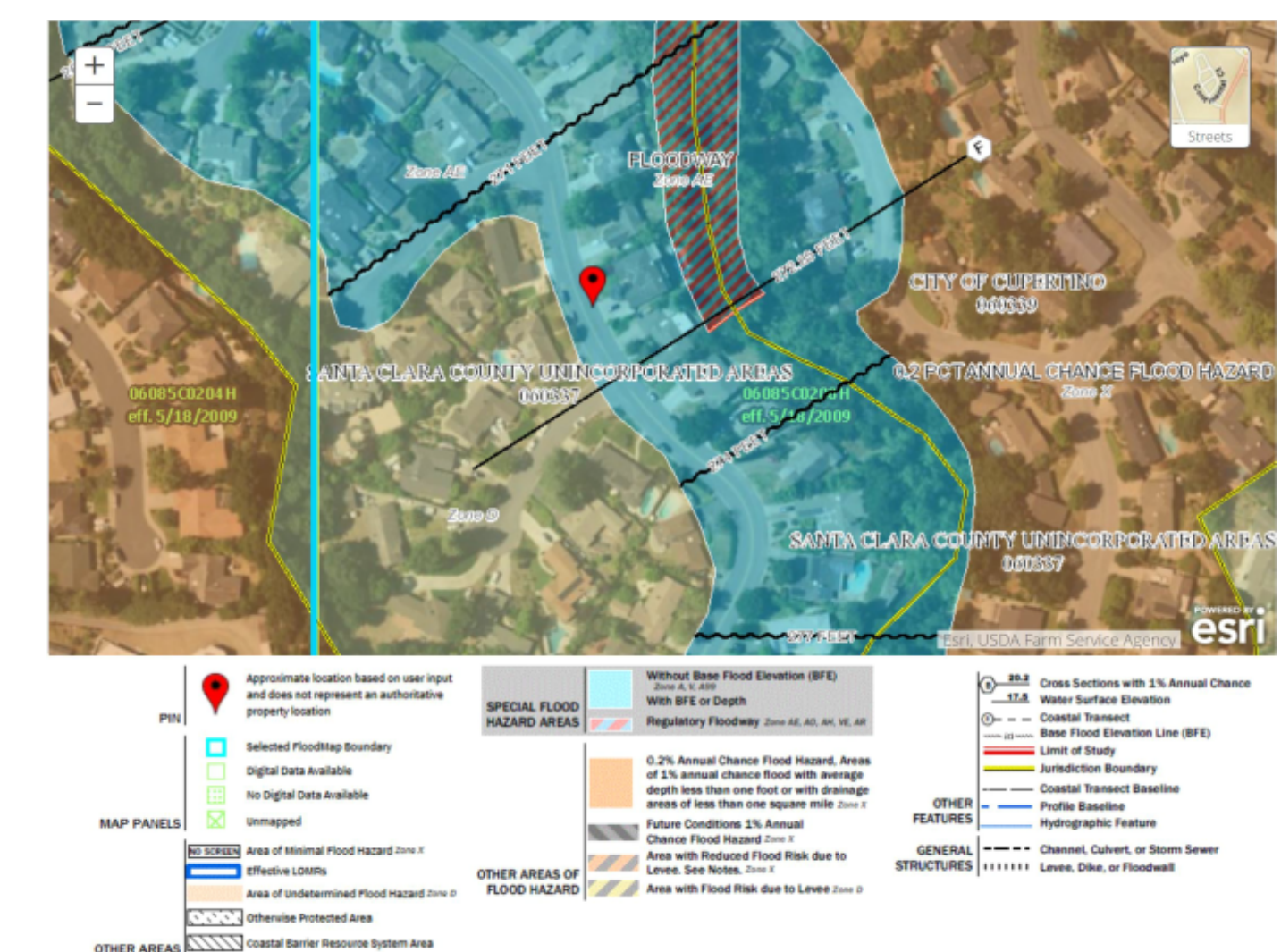
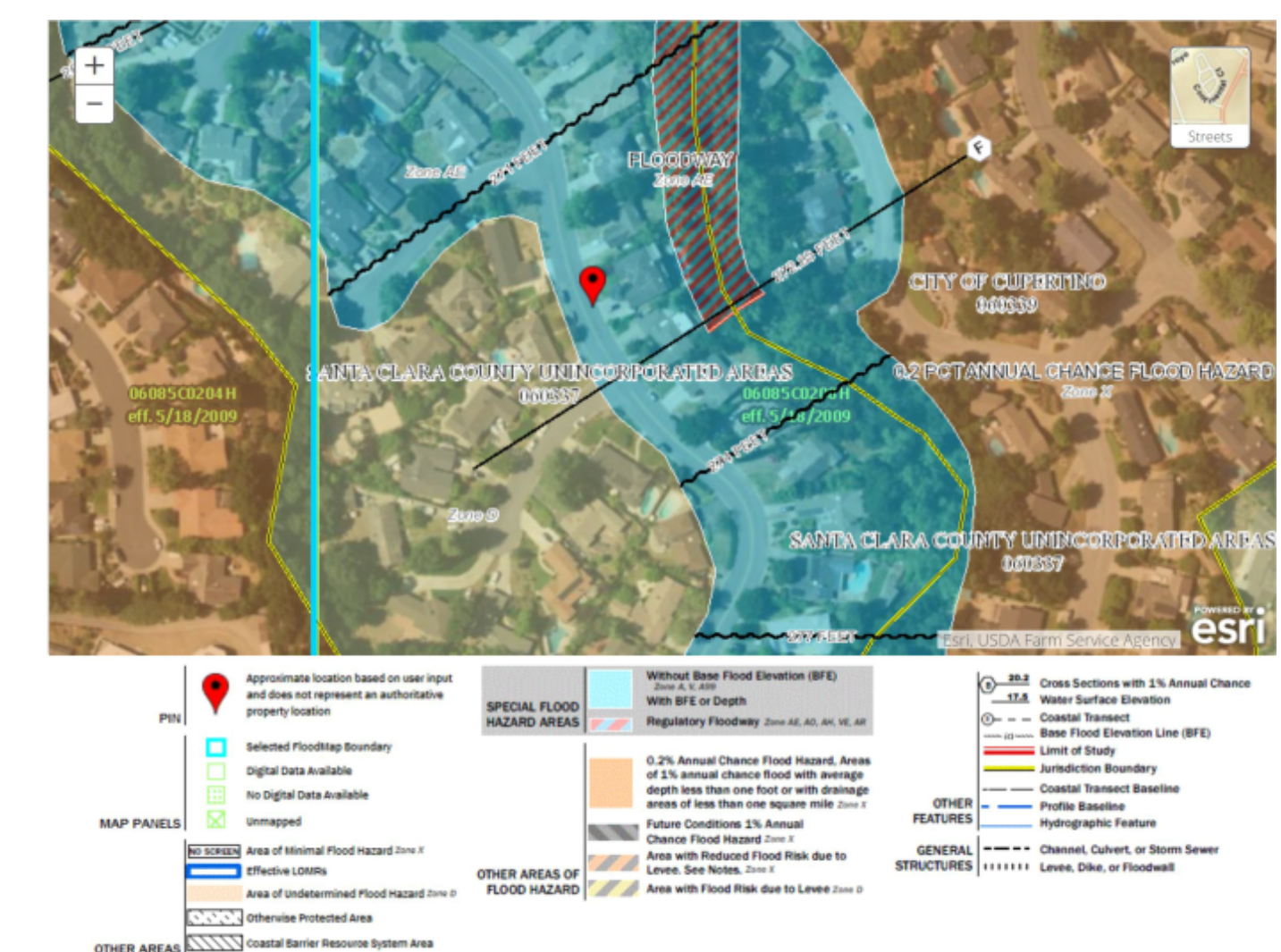
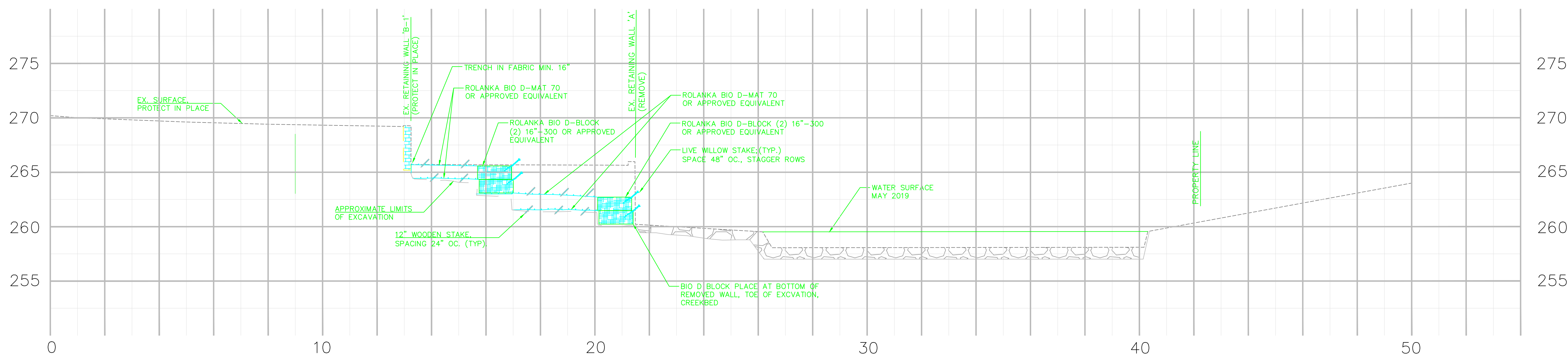
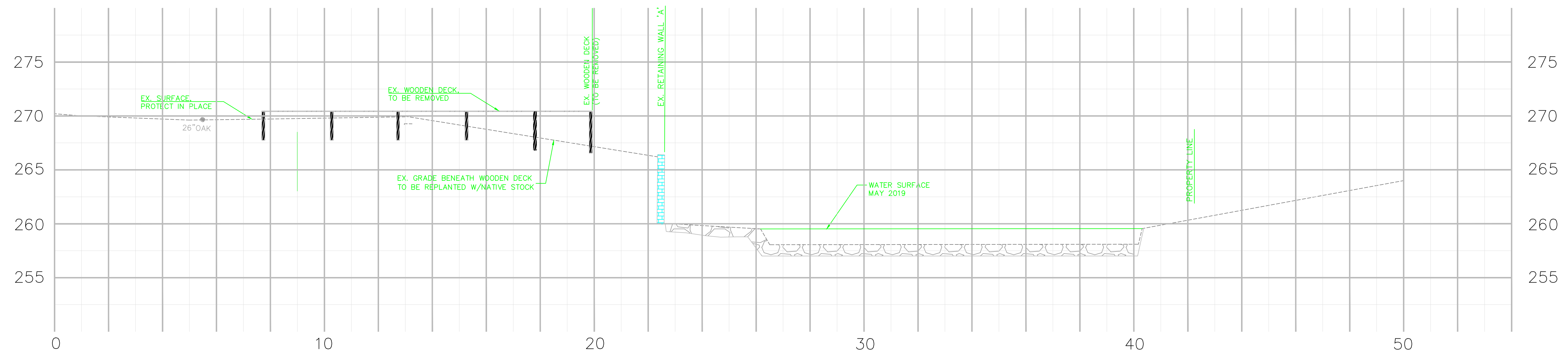
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OF 1

DATE MAY 2019

JOB NO. K19014

TIME DATE STAMP



FEMA FLOOD MAP (CURRENT)

- RED SYMBOL IS PROPERTY LOCATION
- FLOODWAY ZONE AE
- FLOODWAY SHOWN ON DRAWINGS
- FLOOD INSURANCE RATE ZONE
CORRESPONDS TO 100-YR FLOOD
- BASE FLOOD ELEVATION =272.2 +/-
- MAP EFFECTIVE DATE 5/18/2009
- MAP PANEL 06085C0208H

INITIAL FIRM (FLOODWAY MAPPING)

- FIRM = FLOOD INSURANCE RATE MAP
- OLD FLOOD ZONE A1
- FLOOD INSURANCE RATE ZONE
CORRESPONDS TO FLOODWAY
- MAP EFFECTIVE DATE 5/1/1980
- MAP PANEL 060339 0080

3/19/2007

2018027_GRADE.dwg



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Soquel, Ca 95073
831-295-7631
www.delveengineeringandconsulting.com

REVISIONS:

SUBMITTALS		DATE:	INIT.
FIRST	<input type="checkbox"/>		
SECOND	<input type="checkbox"/>		
THIRD	<input type="checkbox"/>		
FOURTH	<input type="checkbox"/>		

SCALE:

GRID

DRAWN BY:

DESIGNED BY:

CHECKED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____



PTT E

10500 Creston Drive
Los Altos, CA 94024
Grading Abatement Plan

SECTIONS

DATE: _____

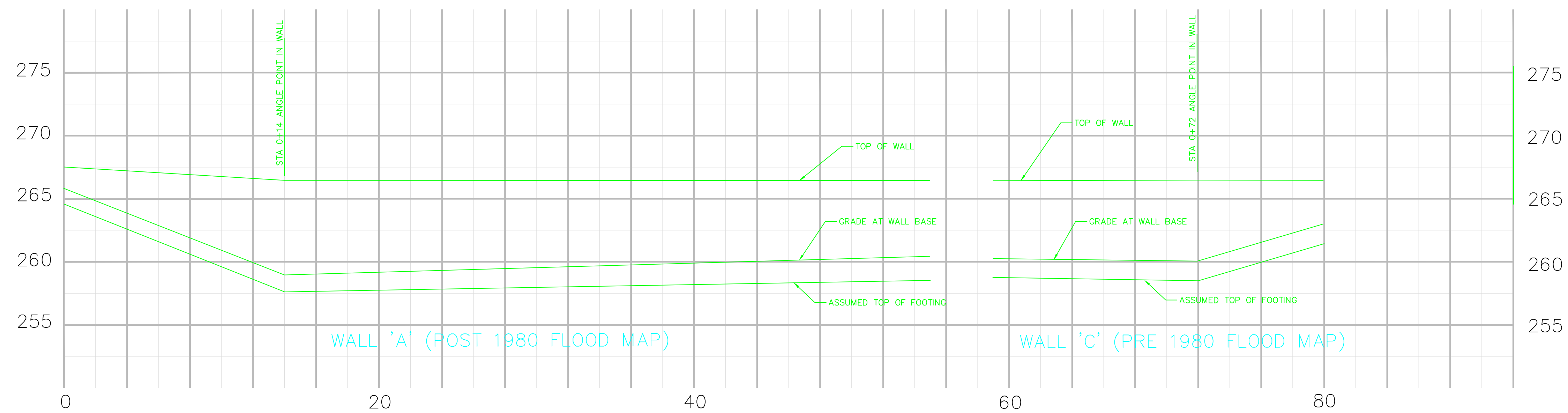
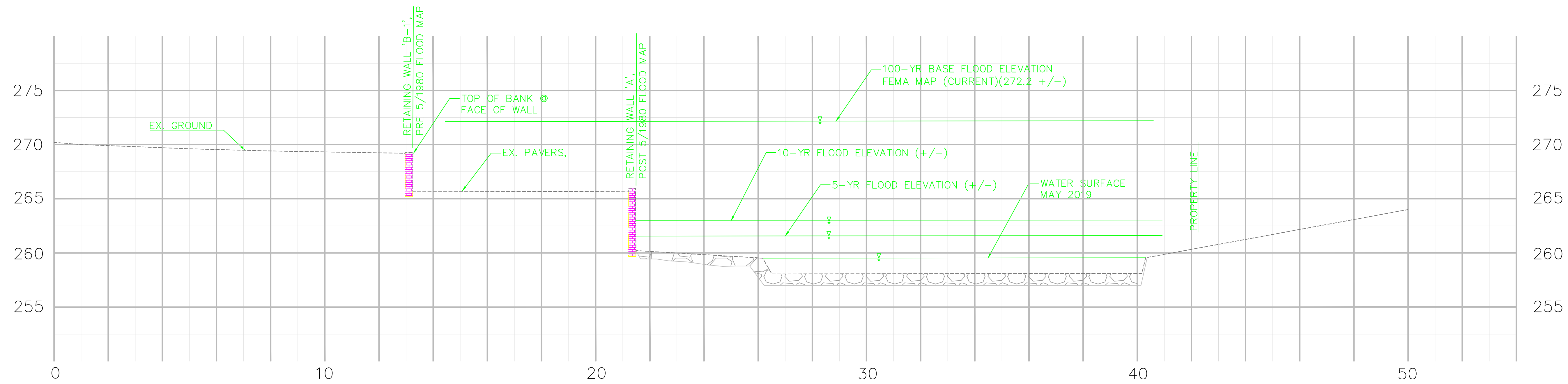
07/30/2020

PROJECT ID.:

2018_027

DRAWING NO.:

C5



Delve
Engineering
& Consulting

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Soquel, Ca 95073
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REVISIONS:

SUBMITTALS	DATE:	INIT.
FIRST	<input type="checkbox"/>	_____
SECOND	<input type="checkbox"/>	_____
THIRD	<input type="checkbox"/>	_____
FOURTH	<input type="checkbox"/>	_____

SCALE: _____

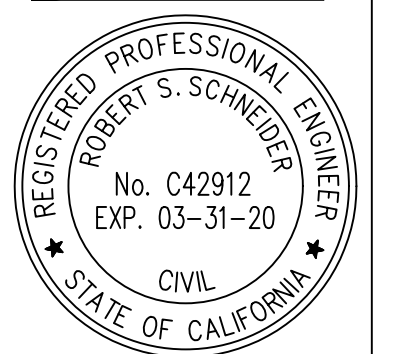
GRID

DRAWN BY: _____

DESIGNED BY: _____

CHECKED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____



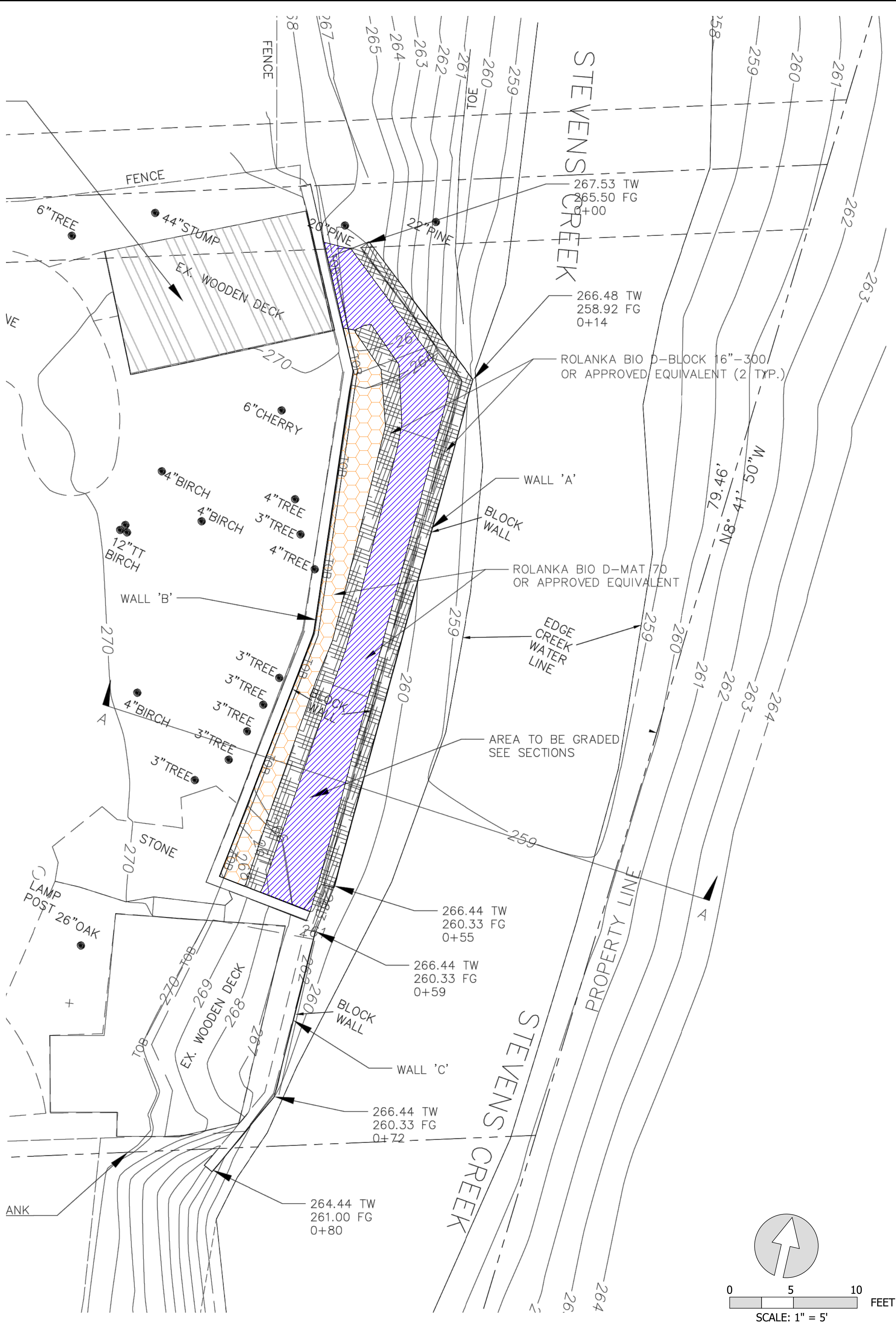
TITLE:

10500 Creston Drive
Los Altos, CA 94024
Grading Abatement Plan

SECTIONS 2

DATE:
07/30/2020
PROJECT ID.:
2018_027
DRAWING NO.:
C6
SHT 6 OF 6

Planting Zone	Area of Planting Zone (acres)	Scientific Name	Common Name	Life Form	Container plant size	Average Spacing (feet on-center)	Percent Fill	Number of Plants
Coir Staking	0.009	<i>Salix exigua</i>	narrow-leaved willow	shrub or small tree	cutting	3	15%	6
	0.009	<i>Salix laevigata</i>	red willow	tree	cutting	3	25%	11
	0.009	<i>Salix lasiandra</i>	Pacific willow	shrub or small tree	cutting	3	25%	11
	0.009	<i>Salix lasiolepis</i>	arroyo willow	shrub or small tree	cutting	3	35%	15
		Total Willow Stakes					100%	43
Lower Terrace	0.004	<i>Acer negundo</i>	box elder	tree	container (≥ deepot 40)	6	50%	2
	0.004	<i>Baccharis salicifolia</i>	mule fat	shrub	container (≥ deepot 16)	3	15%	3
	0.004	<i>Cornus sericea</i>	American dogwood	shrub	container (≥ deepot 16)	3	20%	4
	0.004	<i>Physocarpus capitatus</i>	ninebark	shrub	container (≥ deepot 16)	3	15%	3
		Total Lower Terrace Tree/Shrubs					100%	12
	0.004	<i>Juncus patens</i>	spreading rush	perennial herb	plug	3	65%	12
Upper Terrace		Total Lower Terrace Container Herbaceous Plants					65%	12
	0.002	<i>Acer macrophyllum</i>	big-leaf maple	tree	container (≥ treeband 4)	6	20%	1
	0.002	<i>Aesculus californica</i>	California buckeye	tree	container (≥ deepot 40)	6	20%	1
	0.002	<i>Rubus parviflorus</i>	thimbleberry	shrub	container (≥ deepot 16)	3	40%	4
		Total Upper Terrace Tree/Shrubs					80%	6
	0.002	<i>Artemisia douglasiana</i>	mugwort	perennial herb	plug	2	25%	6
	0.002	<i>Clematis ligusticifolia</i>	Creek clematis	woody vine	container (≥ deepot 16)	3	25%	3
	0.002	<i>Elymus triticoides</i>	beardless wild-rye	annual to perennial herb	plug	2	25%	6
	0.002	<i>Scrophularia californica</i>	California figwort	perennial herb	container (≥ deepot 16)	3	25%	3
		Total Upper Terrace Container Herbaceous Plants					100%	18



10500 CRESTON DRIVE,
LOS ALTOS, CA 94024

SANTA CLARA COUNTY, CA

Stillwater Sciences

2855 TELEGRAPH AVENUE, SUITE 400
BERKELEY, CA 94705

P: (510) 848-8098

PROJECT NUMBER: 859.00

SCALE: AS NOTED

DATE: 2/14/2020

DESIGN: CL

DRAWN: CL

CHECKED: MK

APPROVED: ----

PLANTING PLAN

SHEET 1 OF 1

PLANTING AND SEEDING SPECIFICATIONS

PART 1 GENERAL

1.01 PROJECT

- A. The specifications below have been developed specifically for the implementation of the Stevens Creek Wall Mitigation Project (Project) at 10500 Creston Drive, Los Altos, California 94024.

1.02 PARTIES

- A. Contractor

- 1. The selected Contractor shall implement the Project according to the specifications contained herein.

- B. Construction Manager

- 1. The Construction Manager is the landowner, Michael Gustafson, or his representative, MIG, Inc.

- C. County

- 1. Representatives of Santa Clara County may require or request input or reporting on items specified below.

1.03 DESCRIPTION

- A. This section covers the contract item for Planting and Seeding.

- B. The work described in this section shall be performed in designated planting areas shown on the Drawings and shall include:

- 1. Site preparation,
 - 2. Plant material procurement, delivery, storage, and installation, including container plants, plugs, and pole cuttings,
 - 3. Seedbed preparation and seeding of all areas shown on the contract drawings,
 - 4. Maintenance during the installation period, and
 - 5. Cleanup.

1.04 REFERENCES

- A. The following publications form a part of this specification to the extent referenced:
1. Grading Abatement Permit and Plan. 10500 Creston Drive, Los Altos, CA 94024. Design Plans. Delve Engineering. 2019.
 2. Guidelines and Standards for Land Use Near Streams. Valley Water. 2006.
 3. American National Standards Institute (ANSI) – ANSI Z60.1 (2004), Nursery Stock.
 4. Swiecki, T., and E. Bernhardt. 2016. CNPS Best Management Practices (BMPs) for Producing Clean Nursery Stock.
 5. Swiecki, T., and E. Bernhardt. 2016. Phytosanitary Procedures for CNPS BMPs for Producing Clean Nursery Stock.
 6. Agricultural Marketing Service: AMS-01 (Amended through: Aug 1988) Federal Seed Act Regulations (Part 201-202).
 7. California Food and Agricultural Code.
 8. Species names: All container plant material and seeds shall be true to botanical and common name (and variety or subspecies, if specified) as indicated in Jepson Flora Project. 2020. Jepson eFlora. <http://ucjeps.berkeley.edu/eflora/>.

1.05 SUBMITTALS

- A. The Contractor shall submit the following:
1. Implementation schedule.
 2. Plant source (i.e., nursery supplier) and evidence of nursery order.
 3. Seeding product data
 - a. Materials certifying that each container of seed delivered meets the specification requirements (bag tags).
 - b. Seed mixes: The Contractor shall furnish certified seed mix labels from the supplier affixed to sealed seed mix bags prior to seeding. Scans of the seed tags shall be submitted upon opening the seed bag.
 - c. Native grass straw (weight receipts from scales shall be required), including harvest date, location, species, and invasive plant content.

4. Following plant delivery to the Project site, the Contractor shall submit inspection, inventory, and receiving records that describe the condition of the plants at time of delivery (i.e., delivery receipts).

1.06 DEFINITIONS

- A. Installation period: The installation period shall start when the Contractor commences work within this section and shall continue until all requirements indicated in this section and accompanying drawings are successfully completed as determined by the Construction Manager's favorable review.

1.07 SEED QUALITY ASSURANCE

- A. Seed material shall be provided by the Contractor and shall be from locally collected propagules sourced within 50 miles of the Project site. Seed may be grown outside of 50 miles of the Project site only with prior written approval from the County.
- B. Seed shall be pre-mixed by the supplier before shipment to the Project site. Seed mix shall not contain invasive plants or mold. Seeding rates in the tables assume seeding areas will be broadcast seeded.
- C. The Contractor shall furnish seed that is unopened, tagged and labeled in accordance with the California Food and Agricultural Code (§ 52451–52456).
- D. Seed shall be of a quality which has a minimum pure live seed (PLS) content as specified (percent purity x percent germination) and invasive plant seed shall not exceed 0.5 percent of the aggregate of PLS and other material. Seed mixes and materials not meeting the Construction Manager's favorable review shall immediately be removed from the site and replaced at the Contractor's expense.

1.08 PLANT INSPECTIONS

- A. The Contractor shall notify the Construction Manager at least 5 days prior to each of the anticipated inspection events described below:
 1. Plant Delivery Inspection: Following delivery of plants to the Project site, the Construction Manager shall inspect the plant material (prior to installation) for conformity to the ANSI Z60.1 (2004), Nursery Stock and these specifications. Such inspections shall not impair the right of additional observations during further progress of the work. All plants shall have a normal habit of growth and shall be sound, healthy, vigorous, and free of insect infestations, plant diseases, sun scalds, fresh abrasions of the bark, excessive abrasions, or other objectionable disfigurement. Tree trunks shall

be sturdy and have well hardened systems. The trees should have fibrous root systems which are not root- or pot-bound. The size of the plants shall correspond with that normally expected for species of commercially available nursery stock and as specified on the Drawings. If inspections find that sample plants are defective, the Construction Manager reserves the right to reject the entire lot of plants.

- a. Replacement Plants. All plants not conforming to the requirements in these specifications shall be considered defective and such plants shall be marked as rejected and immediately removed from the Project site and replaced with conforming plants. Substitutions of plant species shall be approved in writing by the County.
2. Plant Installation Inspection: Plant installation will be inspected by the Construction Manager for conformance with the plans and specifications. Installation inspection shall be initiated only after all collective Project requirements have been completed, which include but are not limited to: site preparation, seeding, planting, watering, and all other associated work.

The quantity and type of plants and rootstock installed, clean up requirements, and the acceptability of the plants installed, in accordance with the requirements stated herein, shall be determined and noted in writing by the Contractor and submitted to the Construction Manager. At the inspection, the Construction Manager will evaluate any deficiencies previously noted to ensure they have been corrected. Time for the inspection shall be established in writing. An Installation Acceptance will be given after all installation requirements have been satisfactorily completed and approved by the Construction Manager.

1.09 PLANT PROCUREMENT

- A. Phytophthora Control and Management: The contracted nursery shall follow best management practices (BMPs) for minimizing the spread of Phytophthora species (CNPS Best Management Practices (BMPs) for Producing Clean Nursery Stock and Phytosanitary Procedures for CNPS BMPs for Producing Clean Nursery Stock).
- B. Container plants and plugs: Local plant stock collected from the San Francisco Peninsula, growing under similar ecological conditions (e.g., climate, soils, depth to groundwater) shall be used; if possible, material shall be collected from within 50 miles of the Project site. The contracted nursery shall collect material during the appropriate time of

year per species or provide existing in-stock material already collected from within the region.

C. Pole cuttings:

1. Collection origin: Where cuttings are specified, and the plant species has been documented on-site, cuttings may be taken from riparian and mesic areas on site. If the Project site does not supply sufficient source materials, cuttings shall be obtained from plants within 50 miles of the site.
2. Timing of collection: Cuttings shall be collected during the species' dormant period, kept moist, and installed within one week of collection. Collection during late fall/early winter shall coincide with the species' dormancy period and the planting schedule. Local cuttings may be substituted for the container stock requirements identified for species if it is determined to be more cost-effective and consistent with high survival rates.
3. Collection procedures:
 - a. Cuttings shall be taken from healthy trees that are at least 1 year old or older and only straight branches should be used. The optimal age is 4-5 years, smooth barked, not with deeply furrowed bark. Do not collect suckers and current year's growth (these do not have sufficient energy reserves).
 - b. Collect cuttings from various sources to ensure genetic diversity of the plant material. Do not cut more than 30 percent of the plants in a designated area. Do not cut more than 30 percent of any individual plant; leave a minimum of 70 percent of each individual plant intact. Leave a minimal impact to donor areas. Select for collection only branches whose removal will not impair the parent tree's health and appearance. Remove branches from the inside of the crown area rather than the more visually obvious exterior area.
 - c. Harvest cuttings with pruning shears, lopping shears, small wood saw, or brush cutters. Do not use chain saw. Do not use anvil type shears of any type (these tend to crush and split cutting ends). Make cuts with sharp, clean tools. Make clean cuts without any additional damage or scarring of parent tree. For easy recognition of top and bottom of cutting at time of planting, cut off top end with a horizontal square cut above a leaf bud, bottom end with a cut at 45 degree angle below a leaf bud.

- d. The cuttings shall be cut into a minimum of 4-foot sections with the stem diameter between 3/4 and 3 inches at the base. No cuttings shall be made from the tips of branches. A clean, angled cut (approximately 45-degree angle) shall be made at the base. All other branches shall be removed from the primary cutting.
4. Preparation procedures:
- a. Stripping: Remove all side branches and all leaves along the entire length of each cutting, immediately at time of collection, so cutting is one single stem. Stems shall be straight and unbranched from the base of the stem through at least half the stem length. Spread pruned-off branches and trimmings in the designated willow cutting areas so that no areas are left unsightly.
 - b. Dipping: Seal top end of each cutting by dipping it in 50:50 mix of light-colored latex paint in water. Assign one different color to each species (a total of four species as indicated on the Drawings shall be collected). Use pure latex paint only. Do not use other synthetic paints or paints containing lead additives. Comply with all legal requirements regarding VOC (Volatile Organic Compounds).
 - c. Packaging: Bundle cuttings and label by species (in addition to dipping in paint). Wrap bundles in burlap or other suitable material that protects the cuttings from sunlight, heat, and wind, and allows air to circulate. Soak cuttings in water for a minimum of 5 days, but no more than 21 days, prior to planting. Proper soaking consists of saturating at least one third of the basal end of the cuttings in water for the specified period in a shaded location. Avoid soaking latex painted cutting tops.
 - d. Temporary Storage: Under no conditions shall any cuttings be allowed to dry out. Any temporary storage (less than 24 hours) shall ensure that cuttings are maintained in a moist, shaded, and cool condition.

1.10 DELIVERY, STORAGE, AND HANDLING

A. Plants

1. Delivery

- a. The Contractor will provide the plants for the initial planting and for any required re-planting during the Installation Period. The plants will be delivered to the Project site.

- b. The Contractor will provide the Construction Manager 5 days advance notice of the proposed date(s) of all plant deliveries.
- c. The Contractor shall load, transport, offload, and protect plants from the point of pickup to points of installation.
- d. The Contractor and the Construction Manager shall perform a joint Delivery Plant Inspection and inventory of the condition of the plants at the time the Contractor takes delivery of the plants.

2. Storage

- a. Plants (including container plants, plugs, and pole cuttings) not installed on the day of arrival at the site shall be stored and protected in areas approved by the Construction Manager. Plants shall be protected from exposure to wind and shall be shaded from the sun. Any covering provided to protect the plants must allow air to circulate to avoid internal overheating. The plant's soil shall be kept in a moist condition until planted. Container plants damaged due to improper storage by the Contractor shall be replaced before the start of plant installation at the Contractor's expense.

3. Handling

- a. The Contractor shall handle all container plants to ensure they are not damaged at any time. Plants and materials shall not be dropped from vehicles. Container-grown plants shall be handled by the container and not by the trunk or stems.

B. Seeds

- 1. The Contractor shall provide proper storage of the seed. Storage facilities shall be cool, clean, dry, and free from other seed sources such as invasive plants or agricultural products. Seed stored where temperatures exceed 80 degrees F will be considered defective and shall be replaced at no additional expense to the Construction Manager.
- 2. Seed, which in the Contractor's possession, has become wet, moldy, or otherwise damaged, will be considered defective and shall be replaced at no additional expense to the Construction Manager.
- 3. Upon delivery to the site, store seed, and fertilizer in cool, dry locations away from potential contaminants. Do not store chemical materials with landscape materials.

1.11 TIMING AND CONDITIONS

A. Planting

1. Planting operations shall be performed only during periods when beneficial results can be obtained. When excessive moisture, winds, or other unsatisfactory conditions prevail, the work shall be stopped when directed by the Construction Manager. If the temperature is expected to be 90 degrees Fahrenheit or greater, the Contractor shall schedule plant installation in the mornings to avoid stressing plants. When special conditions warrant a variance to the planting operations, changes to operations shall be approved by the Construction Manager. The Contractor shall be prepared to install plants at the earliest time when all conditions (weather, moisture, temperature, and river flows, etc.) are acceptable.

B. Seeding

1. Seeding shall be performed within 5 days of completion of BioD-Mat (or equivalent) installation in all areas subject to erosion control measures. No variance to the start date will be allowed unless given in writing by the Construction Manager.
2. Areas subject to replanting with plug and container plants shall be seeded within 5 days of final plant installation.
3. Seeding Conditions: Seeding operations shall be performed only during periods when beneficial results can be obtained. When conditions are unsatisfactory for seeding, as determined by the Construction Manager, the work shall be stopped as directed by the Construction Manager. At no time shall the Contractor's equipment be operated during rain events or on saturated work areas. If the seeding schedule calls for installation when the temperature is expected to be 90 degrees or greater, the Contractor shall schedule seeding in the mornings to avoid stressing plants during seeding. The Contractor shall be prepared to seed at the earliest time when all conditions (weather, moisture, temperature, wind) are acceptable. When special conditions warrant a variance to the seeding operations, a proposed seeding time shall be submitted for the Construction Manager's favorable review.

PART 2 PRODUCTS

2.01 PLANTING

A. Plants

1. All plant species included in the planting plan are locally sourced and native to the watershed the Project is within, in conformance with the Guidelines and Standards for Land Use Near Streams.
2. The Contractor will provide the plants, including container plants, plugs, and pole cuttings for the initial planting and for any required re-planting during the Installation Period.
3. The location, quantity, and spacing of container plants, plugs, and pole cuttings will be implemented as indicated in the Project design Drawings.

2.02 SEEDING

A. Seed

1. All seed species included in the planting plan are locally sourced and native to the watershed the Project is within, in conformance with the Guidelines and Standards for Land Use Near Streams.
2. Seed species and seeding rates shall be applied as specified in the Project design drawings.

PART 2 EXECUTION

3.01 SITE CONDITIONS AND COORDINATION

- A. Site preparation: Site preparation shall include planting zone preparation, and seedbed preparation as described in Paragraphs 3.02, 3.03, and 3.04 below.
- B. Watering: The water supply and equipment shall be verified by the Construction Manager prior to planting and seeding.
- C. Vandalism: The Contractor shall be responsible for securing the Project site to minimize negative effects from vandalism and theft.
- D. Equipment Operation: At no time shall the Contractor's equipment be operated during rain events or on saturated work areas, as defined herein. If saturated work areas exist, no mechanized equipment shall be permitted without prior approval in writing by the Construction Manager. Contractor shall coordinate with the Construction Manager to determine when work can begin following saturated work area conditions.
- E. Existing Features: During plant installation operations, care shall be taken to avoid damaging existing facilities, overhead utilities, roads and access ramps, sensitive habitats, or any other items on or around the

Project areas. The Contractor shall schedule seeding after planting to avoid compacting or otherwise damaging the prepared surface and seed.

3.02 PLANTING ZONE PREPARATION

- A. After grading activities have been completed, the Contractor shall prepare the planting areas including hand-grading of the planting surface, and soil loosening if deemed necessary.

3.03 PLANT MATERIAL INSTALLATION

- A. Site preparation as described in Paragraphs 3.01 and 3.02 of this section shall be completed prior to plant installation. Plants shall be installed under moist soil conditions at planting locations.
 - 1. Container Plant Installation: The location, quantity, and spacing of cuttings, plugs, and container plants shall be implemented as shown in the Project Drawings. The Contractor shall provide and remove container plants from their containers without damage to the plant or root system. For container plants a hole shall be prepared that is the depth of the container and 1.5 to 2 times the diameter of the root ball. The plant shall be placed so the root crown is 0.5 to 1 inch above the soil surface, and the hole shall be backfilled with the original soil that was removed. The Contractor shall backfill carefully, with existing soil, and work around the root ball then tamp soil so that all air pockets are removed, and the plant is secure and at the proper grade. Additional fill shall be placed due to settlement of soil as required. If planting is on a slope, a downslope berm that is 4 inches tall shall be installed to form a basin for retaining water.
 - 2. Plug installation: Plugs shall be planted in planting holes slightly deeper than the length of the plugs; plugs shall be inserted deeply so that the top of the plug soil is at least 0.5 inches below the adjacent native soil. Firm soil around plugs and cover all nursery soil with 0.5 inch of native soil.
 - 3. Pole Cutting Installation:
 - a. Time:
 - 1) Do not use cuttings allowed to dry out. Dispose of unused cuttings.
 - 2) Do not plant cuttings until the soil is moist to a minimum depth of 6 inches, unless otherwise permitted by the Construction Manager.

- 3) Plant cuttings between the months of September through December and no later than mid-February.
 - b. Watering: If the soil in and around the planting area is not wet prior to planting, water the soil and maintain in a wet state until the cuttings are planted.
 - c. Planting Pits: Make planting pits perpendicular to the ground and form with a steel bar, hand-held auger or similar tool or equipment. Make pits large enough so that cuttings may be planted to the proper depths without damage to the bark. Where rock or other hard material prevents the installation of cuttings as specified, new pits shall be excavated elsewhere and the abandoned pits backfilled.
 - d. Cuttings Adjustment: Do not cut or prune cuttings after their initial collection to adjust them to the pit size or for any other reason. The growth hormones concentrate at both ends of the cutting immediately after collection. A second cutting for length adjustment would remove the majority of these hormones and substantially limit the probability of their growth.
 - e. Installation Method: Plant cuttings with the bottom angle-cut ends in the ground and latex painted straight-cut tops above ground. Leaf bud scars shall point up. Cuttings shall be pressed or pounded into the soil so that the rooting end of the cutting is at a depth of 2 to 2.5 feet. Avoid damaging cuttings, stripping their bark, or splitting them during installation. Remove and replace split or damaged cuttings. Do not hammer cuttings into the soil.

3.04 SEEDBED PREPARATION

- A. After planting activities have been completed, the Contractor shall prepare the seeding areas including hand-grading of the planting surface, and soil loosening if deemed necessary. Soil shall be scarified to a depth of 1–2 inches to create a loose and friable topsoil medium prior to seeding operations.
- B. Soil surfaces that are too hard and smooth, or soil clods too large to accept seeding, as determined by the Construction Manager, shall be broken up by methods approved by the Construction Manager until the condition of the soil is acceptable as a suitable seed bed.
- C. Soils shall be wetted to a minimum of 4-inch depth immediately prior to seed application.

3.05 EROSION CONTROL DEVICES

- A. Before completion of erosion control devices the seedbed shall be prepared.

2.01 SEEDING METHODS AND SEQUENCE

- A. The Contractor shall perform restoration seeding by broadcast seeding after installation of erosion control devices. In conjunction with or immediately following broadcast seeding, the seed shall be raked in and covered with blown straw mulch.

3.06 MAINTENANCE DURING INSTALLATION PERIOD

- A. General Maintenance: The Contractor shall maintain installed plants (including pole cuttings) and seeding material in a healthy, and vigorous growing condition. Maintenance shall begin immediately after each plant is installed and after seeding material is installed, and shall continue throughout the installation period. Maintenance shall include regular observations of the site, watering, pruning, straightening, adjusting, repairing, and other necessary operations to ensure each plant and all seeded areas are maintained in a healthy growing condition.
- B. Watering: The Contractor shall provide the labor, materials, and water necessary to fully water the planting and seeding areas during the installation period. The Contractor shall be responsible for maintaining the watering system during the installation period. Maintenance shall include the repair, checking, adjustment and replacement of parts, ensuring the system is delivering the required amount of water, and ensuring the system is fully operational. Failure of the watering system or failure of the system to provide full and proper coverage shall not relieve Contractor of the responsibility to provide adequate water as required for vigorous growth of all plants.
- C. Area Protection: Seeded areas shall be protected from pedestrian traffic or other compaction.
- D. Watering-In Planting: The Contractor shall water-in plant material including pole cuttings immediately after installation, completely saturating each plant location.
- E. Watering-in Seeding: The Contractor shall keep the soil at the seeded area constantly moist throughout the installation period. Thereafter the Construction Manager shall keep the soil constantly moist during the first 3 weeks immediately after seeding.

- F. Watering Frequency, Rate, and Duration: Watering of all plants installed under this contract shall start at the earliest time during the installation period. The Contractor shall be responsible for watering and keeping the soil around newly installed plants sufficiently moist at a rate and frequency sufficient to provide healthy, vigorous growth. The Contractor shall wet soil to a minimum depth of 18 inches during each watering event. Water shall be applied in a manner that ensures deep penetration in the soils surrounding the plant root balls. Water shall not be applied at a rate that will cause erosion, damage to the plants, or cause runoff.
- G. Repair: Areas damaged shall be repaired to their original condition and/or reseeded within 7 working days at no additional expense to the Construction Manager.
- H. Re-seeding: Seeded areas that have failed to germinate or without substantial growth (as determined by the Construction Manager) shall be re-seeded within 1 month after seeding with the same seed mix as originally specified at no additional expense to the Construction Manager.

3.06 CLEANUP

- A. Excess and waste material from the planting and seeding operations shall be removed and disposed of off-site at the Contractor's expense and according to all federal, State, and local codes.

PART 4 PAYMENT

4.01 PAYMENT

- A. The contract price will be paid for PLANTING AND SEEDING; which price shall include full compensation for all costs incurred under this section.

END OF SECTION