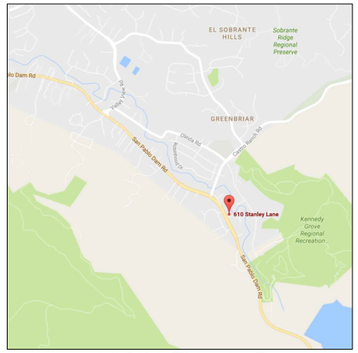
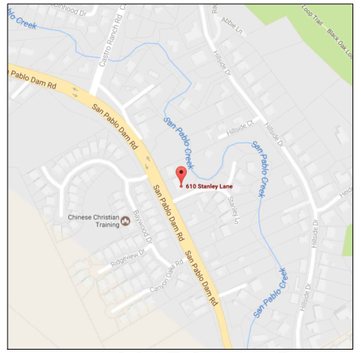
SLIDE REPAIR – RETAINING WALL
600 & 610 STANLEY LANE

EL SOBRANTE, CA 94803

APN: 433–020–057



VICINITY MAP
N.T.S.



LOCATION MAP
N.T.S.

RECEIVED on 6/6/2023 CDDP23-03014
By Contra Costa County
Department of Conservation and Development

SCOPE OF WORK

CONSTRUCT A (N) DRILLED PIER AND WOOD LAGGING RETAINING WALL ALONG THE REAR OF THE PROPERTY. APPROX. DIMENSIONS OF THE (N) RET. WALL IS TO BE 48 LF W/ A HEIGHT RANGING FROM 5'-0" TO 11'-0".

PROJECT INFORMATION

OWNER:
JOHN AND BARBARA VANEK
610 STANLEY LANE
EL SOBRANTE, CA 94803
(510) 449-5729

CIVIL ENGINEER:
ROBERT MAHONY, P.E., G.E.
SOIL ENGINEERING CONSTRUCTION, INC.
927 ARGUELLO ST.
REDWOOD CITY, CA 94063

CONTRACTOR:
SOIL ENGINEERING CONSTRUCTION, INC.
927 ARGUELLO ST.
REDWOOD CITY, CA 94063

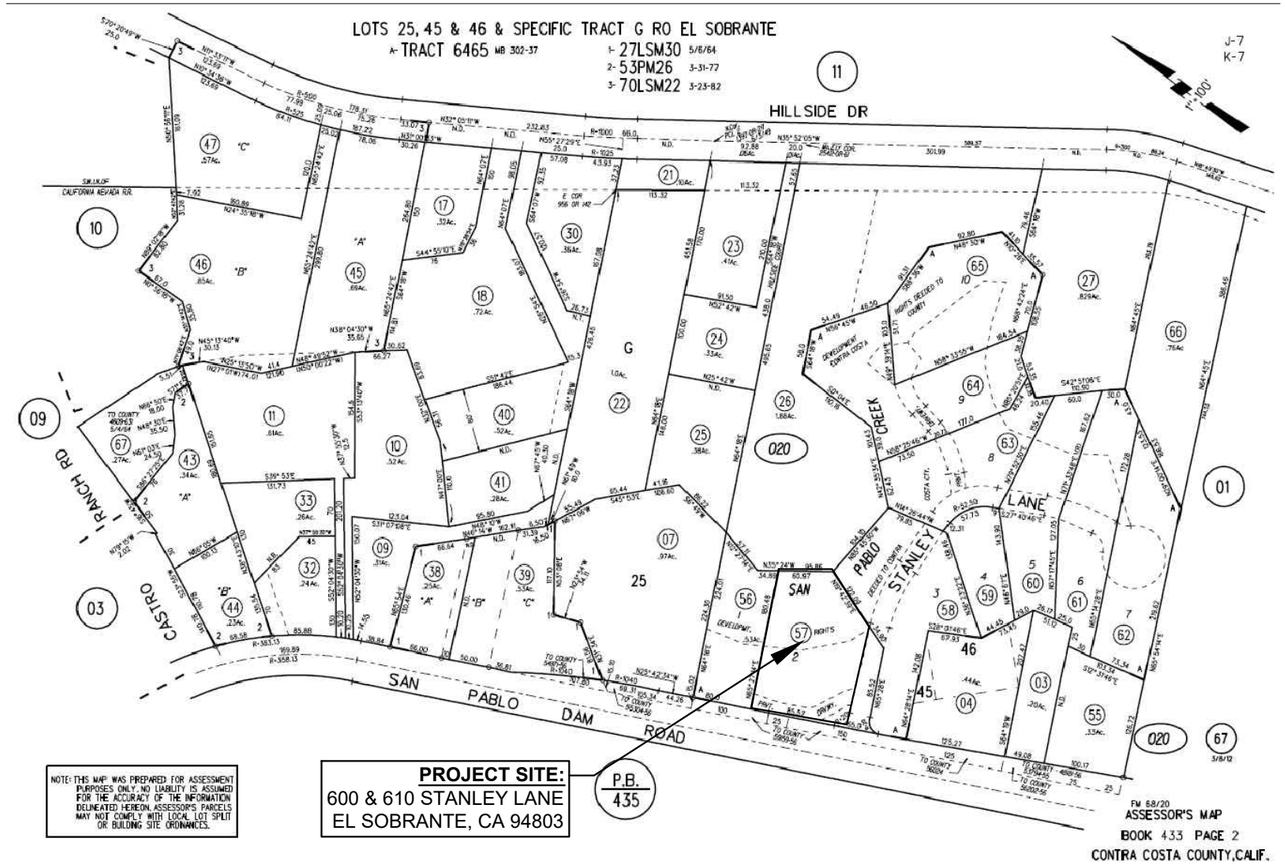
GEOTECHNICALCONSULTANT:
LANGAN TREADWELL ROLLO
555 MONTGOMERY STREET, SUITE 1300
SAN FRANCISCO, CA 94111
(415) 955-5200

SURVEYOR:
GIULIANI & KULL, INC.
440 YOSEMITE AVE., SUITE A
OAKDALE, CA 95361
(209) 847-8726

APPLICABLE CODES

ALL WORK PERFORMED SHALL BE IN COMPLIANCE WITH THE FOLLOWING CODES:

2016 CALIFORNIA BUILDING CODE (CBC)
2015 INTERNATIONAL BUILDING CODE (IBC)



NOTE: THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY. NO LIABILITY IS ASSUMED FOR THE ACCURACY OF THE INFORMATION DELINEATED HEREON. ASSESSOR'S PARCELS MAY NOT COMPLY WITH LOCAL LOT SPLIT OR BUILDING SITE ORDINANCES.

PROJECT SITE:
600 & 610 STANLEY LANE
EL SOBRANTE, CA 94803

SHEET INDEX

SHEET NO.	DESCRIPTION
C-0	TITLE SHEET
C-1	SURVEY
C-2	GEOTECHNICAL STUDY
C-3	SITE PLAN
C-4	WALL ELEVATIONS
C-5	DETAILS
C-6	DETAILS
C-7	CREEK STUDY
C-8	BEST MANAGEMENT PRACTICES
C-9	TIE-BACK DETAILS

1-800-227-2600 CALL BEFORE YOU DIG USA UNDERGROUND SERVICE ALERT

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SOIL ENGINEERING CONSTRUCTION Inc.
927 ARGUELLO STREET
REDWOOD CITY, CA 94063
PHONE: 650-367-9595
FAX: 650-367-8139

REVISIONS: DATE:

REGISTERED PROFESSIONAL ENGINEER SCOTT M. TAYLOR C 58276 CIVIL GEOTECHNICAL STATE OF CALIFORNIA

TITLE SHEET
JOHN VANEK
610 STANLEY LANE
EL SOBRANTE, CA 94803

Client Project No.

SEC Project No.
17–012

Date
06/08/18

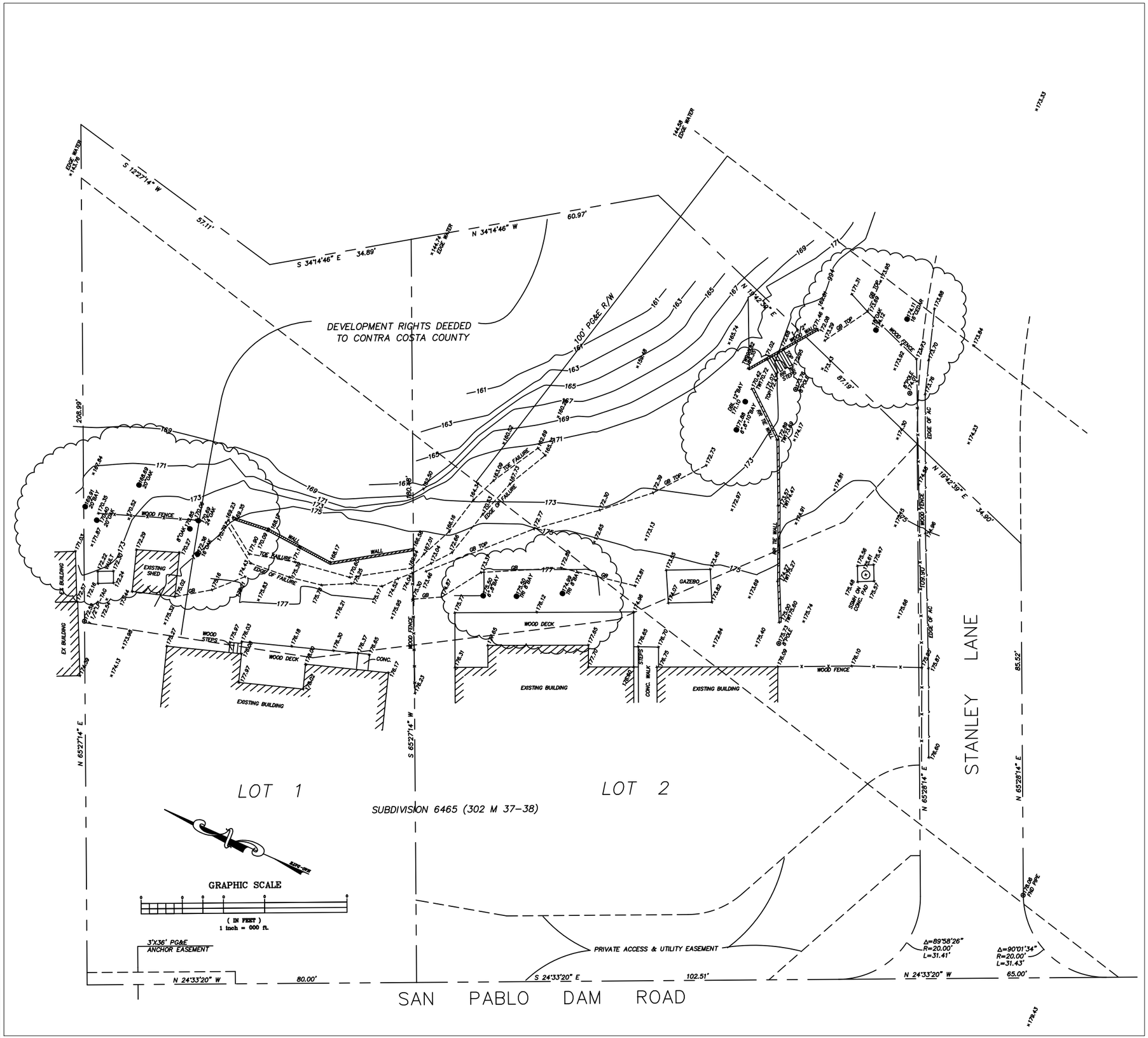
Designed By:
SMT

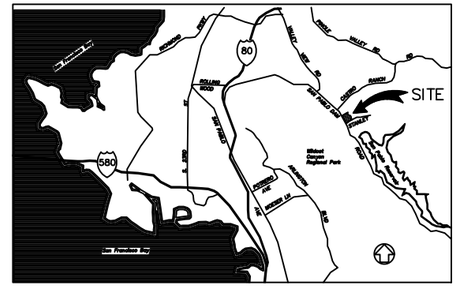
Drawn By:
SMT

Checked By:
RDM

Scale:
AS SHOWN

Sheet:
C–0





VICINITY MAP
N.T.S.

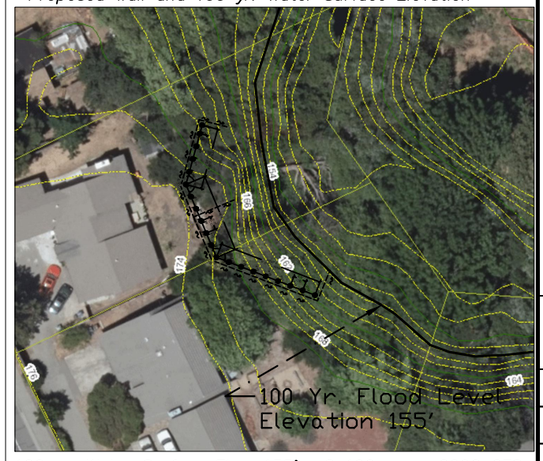
LEGEND

- PROPERTY LINE
- BUILDING FOOTPRINT
- TREE
- CONTOUR LINE
- RETAINING WALL
- FENCE LINE
- EDGE OF PAVEMENT

THIS DRAWING REPRESENTS A TOPOGRAPHIC SURVEY PREPARED IN CONFORMANCE WITH THE REQUIREMENTS OF THE LAND SURVEYORS ACT. THE PROPERTY LINES SHOWN HEREON ARE COMPILED FROM RECORD DATA AND REPRESENT THE BEST GRAPHICAL FIT BETWEEN RECORD INFORMATION AND THE TOPOGRAPHICAL FEATURES SURVEYED AND SHOULD NOT BE RELIED UPON OR USED FOR ANY OTHER PURPOSES. PURSUANT TO THE CLIENT'S DIRECTION A BOUNDARY SURVEY WAS NOT PERFORMED AT THIS TIME WHICH MAY HAVE DETERMINED THE ACTUAL PROPERTY LINES.

BM #3157 located in San Pablo Dam Rd just south of intersection with Stanley Ln. Elevation179.428'above Mean Sea Level based upon the California Coordinate System.

Proposed wall and 100 yr. Water Surface Elevation



100 yr. Water Surface Elev. 155', Q 100-yr = 2690 CFS

NO	DATE	REVISIONS	DRAWN BY	DESIGNED BY	CHECKED BY
			E.T.		

SCALE 1"=10'

Giuliani & Kull, Inc.
Engineers • Planners • Surveyors
4880 Stevens Creek Blvd. Suite 205 San Jose, CA. 95129
(408) 615-4000 Fax (408) 615-4004
Auburn • San Jose • Oakdale

600 STANLEY LANE
EL SOBRANTE, CALIFORNIA

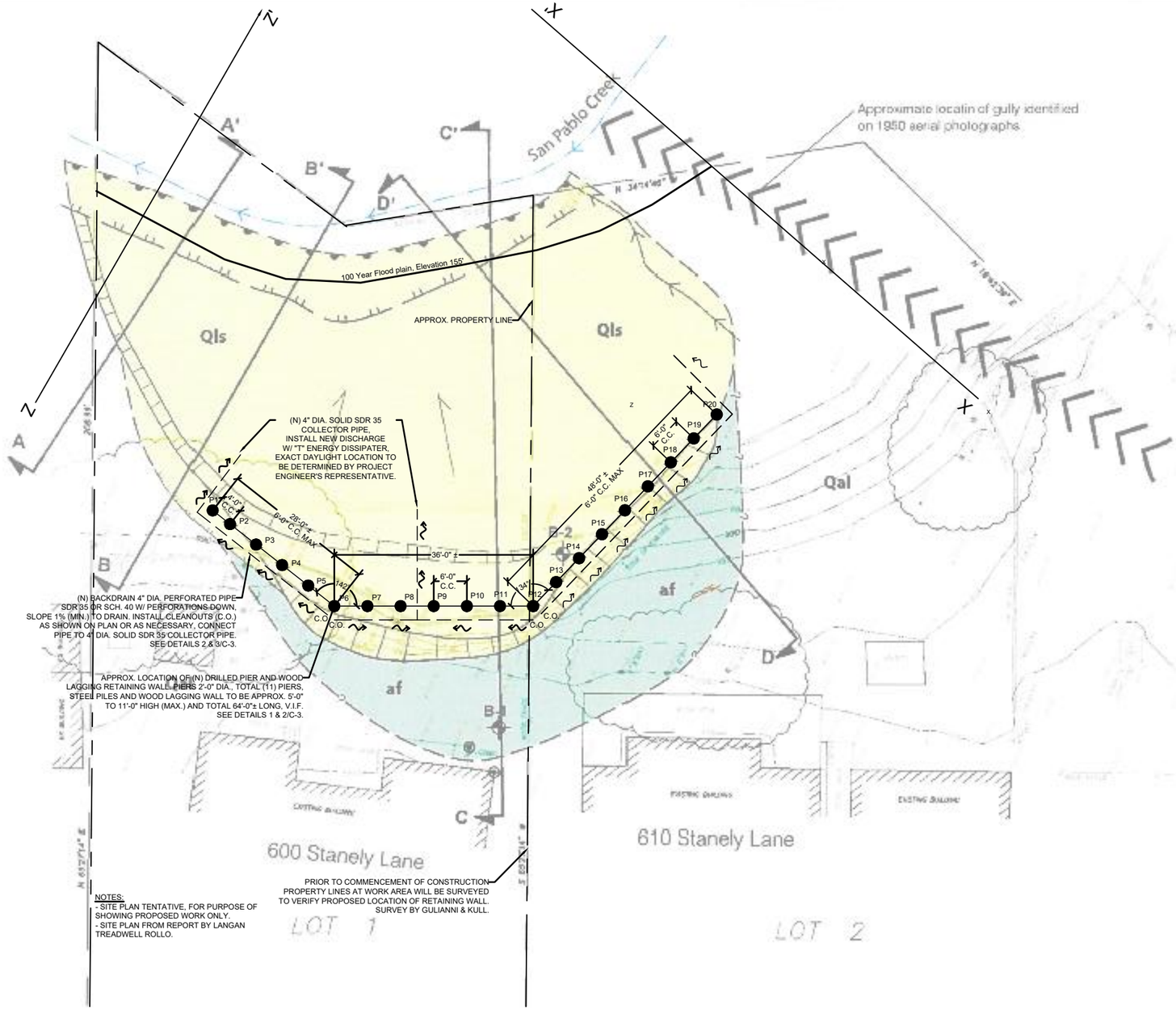
PARTIAL TOPOGRAPHIC SURVEY

SHEET C-1

OF

DATE 4/8/16

JOB NO. 16140



NOTES:
- SITE PLAN TENTATIVE, FOR PURPOSE OF SHOWING PROPOSED WORK ONLY.
- SITE PLAN FROM REPORT BY LANGAN TREADWELL ROLLO.

EXPLANATION

- Geologic contact; solid where certain, dashed where approximated, dotted where concealed, queried where uncertain
- Landslide; head scarp area hatched, arrows in direction in downslope movement, limits depicted by black line (dashed where approximated)
- Toe of creek bank (dashed where approximated)
- Top of creek bank (dashed where approximated)
- A — A' Idealized Subsurface Profile location
- B-3 Langan Treadwell Rollo exploratory boring
- Approximate location of infilled gully
- Ephemeral Swale, arrows show flow direction
- Creek, arrows show flow direction
- Incipient scarp
- Ground Cracks
- Datum location to reference Topographic Survey by Guliani & Kull, Inc.

Geologic Units

- af — Artifical Fill
- Qls — Quaternary Landslide Deposits
- Qal — Quaternary Alluvial Deposits

Creek Cross SEctions See sheet C-6

0 20 Feet
Approximate scale

600-610 STANLEY LANE
El Sobrante, California

GEOLOGIC MAP

Date: 7/29/16 | Project No. 731680101 | Figure 2

LANGAN TREADWELL ROLLO

NOTES:
1) Site conditions mapped using total station and stadia rod overlain on Topographic Survey by Guliani & Kull
2) Conditions shown are those observed during geologic reconnaissance on 4/21/16 and 6/1/16, and may have since changed
3) Subsurface Profiles shown on Figure 5
4) Log of borings shown on Figures A-1 & A-2

Reference: Base map from a drawing titled "Partial Topographic Survey," Sheet 1, by Guliani & Kull, Inc., dated 04/09/16

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REDWOOD CITY, CA 94063
PHONE: 650-367-9595
FAX: 650-367-8139

DATE:
REVISIONS:

REGISTERED PROFESSIONAL ENGINEER SCOTT M. TAYLOR C 58276 CIVIL GEOTECHNICAL STATE OF CALIFORNIA

GEOTECHNICAL INVESTIGATION – SITE PLAN
JOHN VANEK
610 STANLEY LANE
EL SOBRANTE, CA 94803

Client Project No.

SEC Project No.
17-012

Date
06/08/18

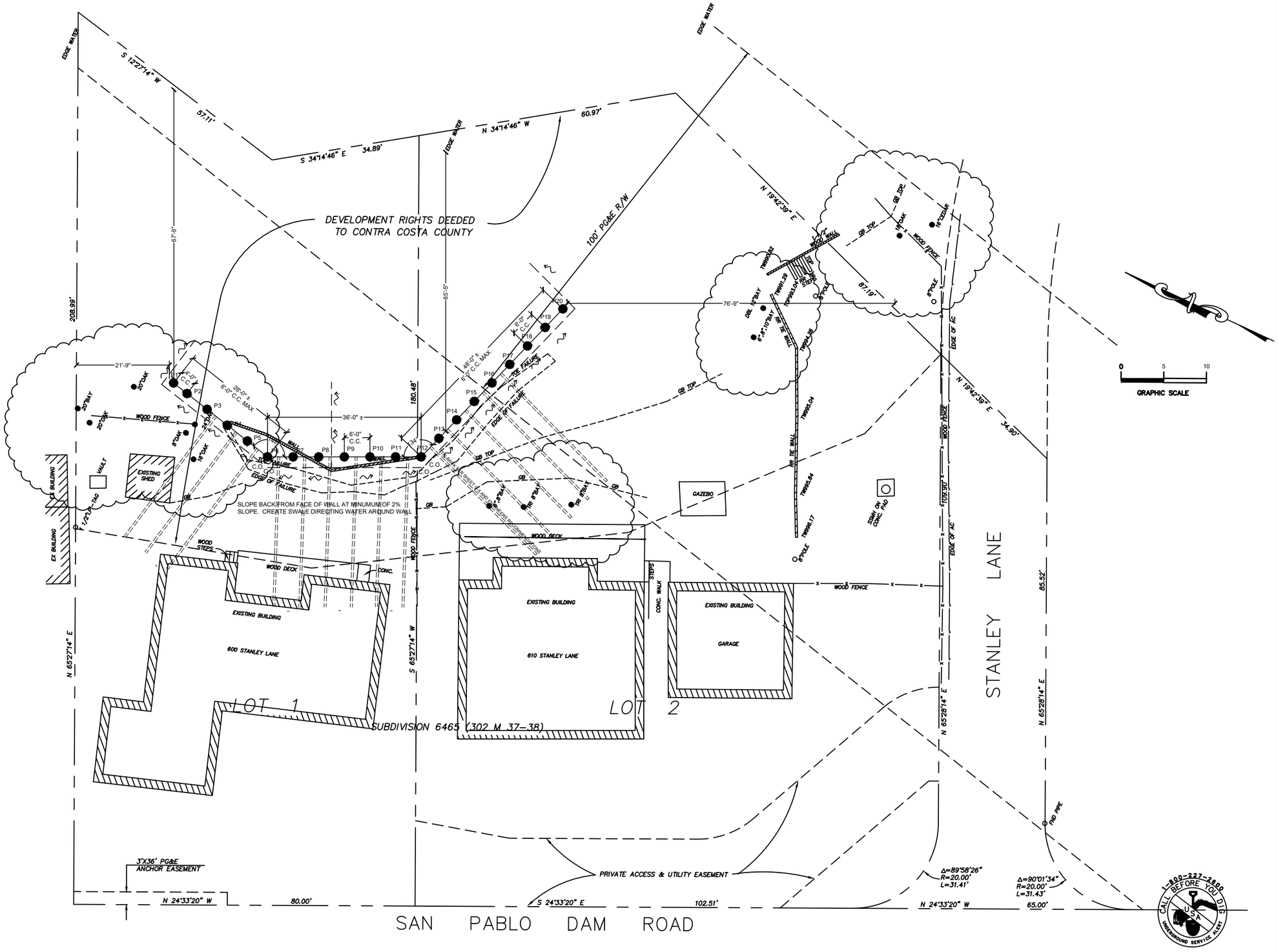
Designed By:
SMT

Drawn By:
SMT

Checked By:
RDM

Scale:
1" = 10'

Sheet:
C-2



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DATE:

REVISIONS:

REGISTERED PROFESSIONAL ENGINEER
SCOTT M. TAYLOR
C 58276
CIVIL
GEOTECHNICAL
STATE OF CALIFORNIA

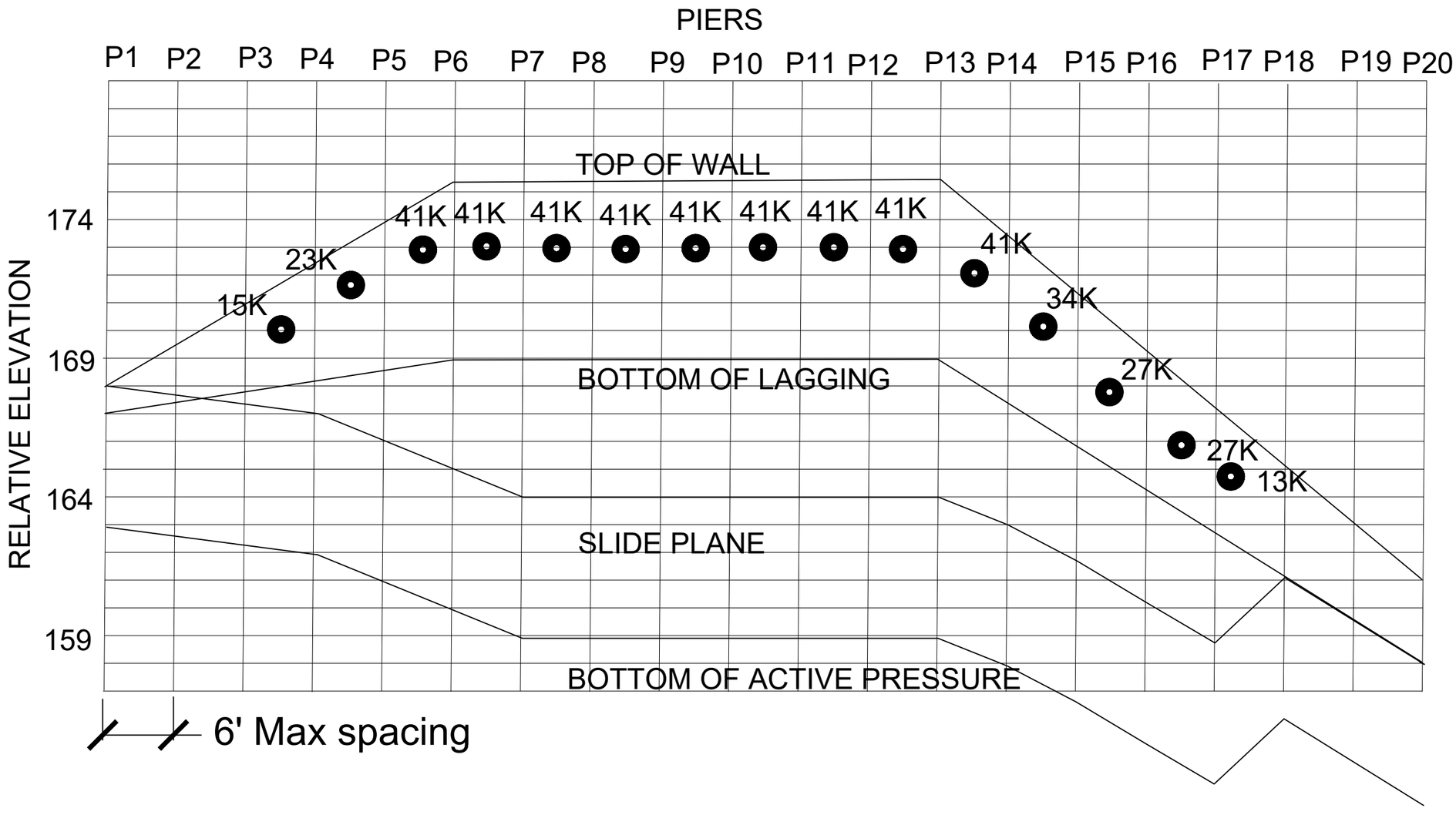
PROPOSED WORK – SITE PLAN

JOHN VANEK
610 STANLEY LANE
EL SOBRANTE, CA 94803

Client Project No.	
SEC Project No.	17-012
Date	06/08/18
Designed By:	SMT
Drawn By:	SMT
Checked By:	RDM
Scale:	1" = 10'
Sheet:	C-3

DRAWING NAME: G:\Dwg\Current\Vanek Drive\Revised Project drwg's-redline_John\605-610 Stanley Rd, El Sobrante, Lands\Civil\Vanek current set\17 605 - 34 X 36 SEC.dwg
PLOT DATE: 6/8/18
PLOT By: SMT

Wall Elevation View



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CONSTRUCTION Inc.

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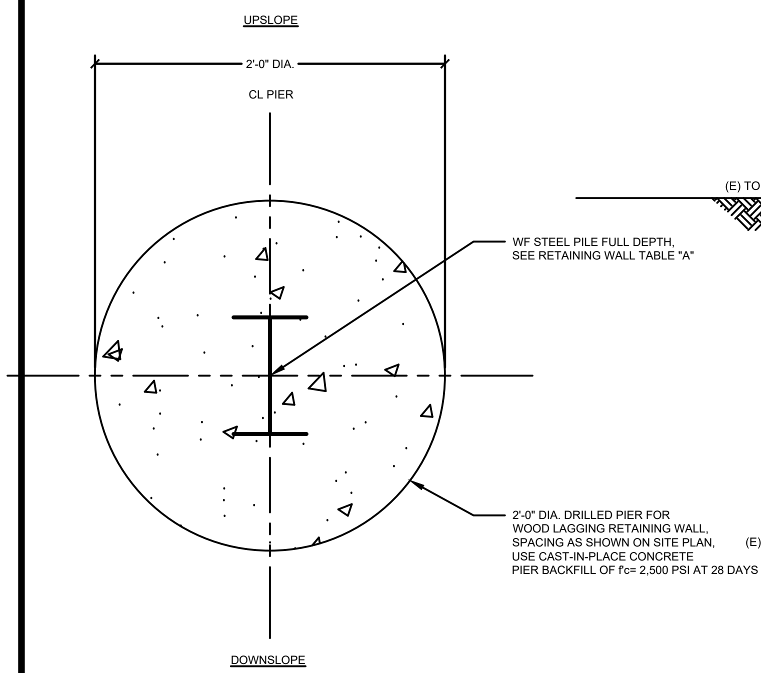
REVISIONS:

SCOTT M. TAYLOR
C 58276
REGISTERED PROFESSIONAL ENGINEER
CIVIL GEOTECHNICAL
STATE OF CALIFORNIA

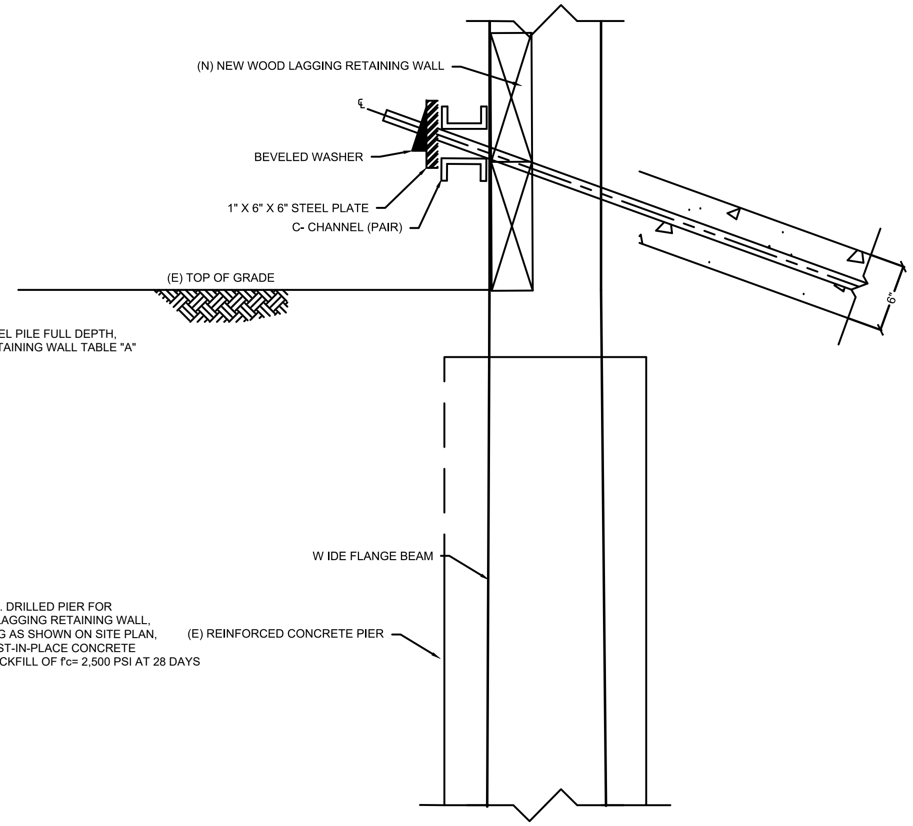
PROPOSED WORK –
SITE PLAN
JOHN VANEK
610 STANLEY LANE
EL SOBRANTE, CA 94803

Client Project No.	
SEC Project No.	17–012
Date	06/08/18
Designed By:	SMT
Drawn By:	SMT
Checked By:	RDM
Scale:	1" = 10'
Sheet:	C–4



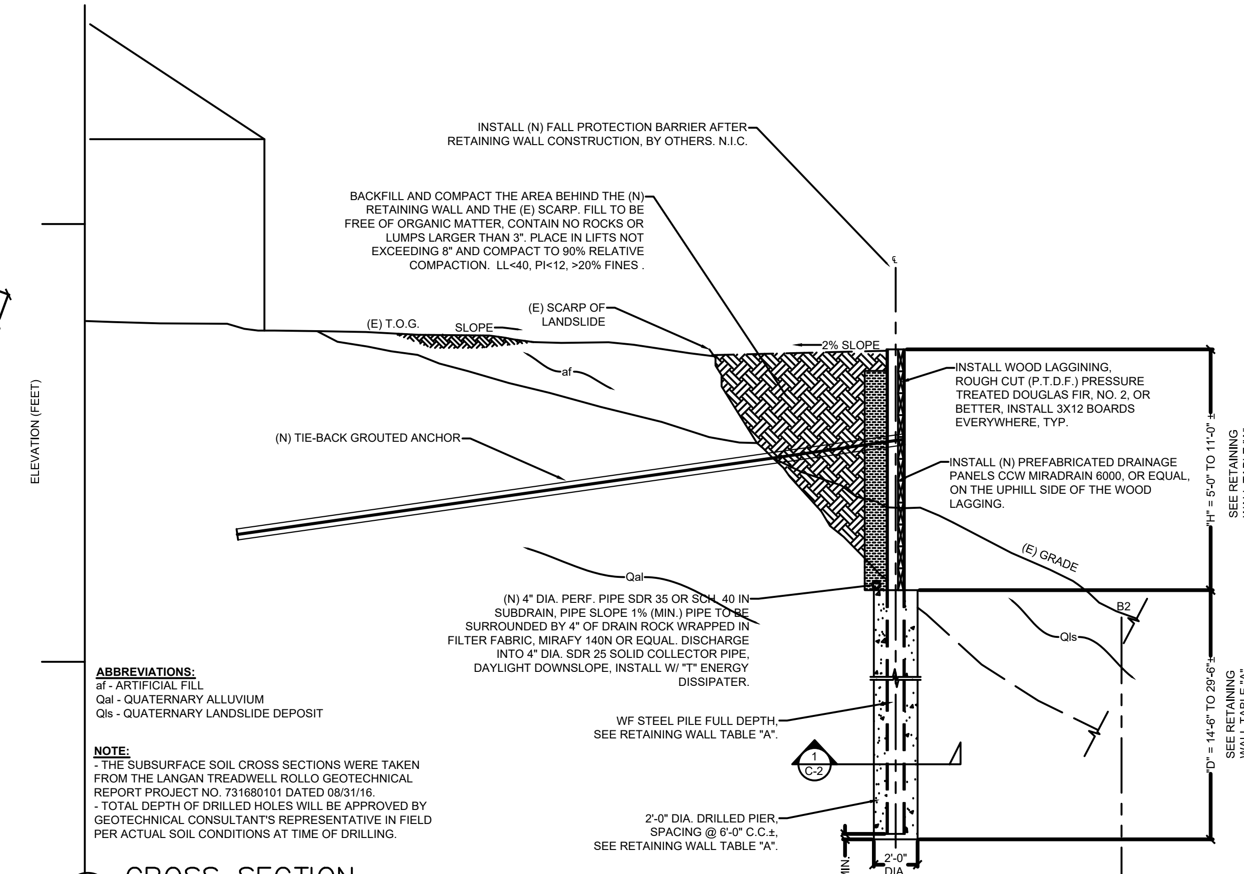
1 SECTION – WALL DRILLED PIER

SCALE : N.T.S.



4 TIEBACK AND WOOD LAGGING

SCALE : 1"= 8"



ABBREVIATIONS:
af - ARTIFICIAL FILL
Qal - QUATERNARY ALLUVIUM
Qls - QUATERNARY LANDSLIDE DEPOSIT

NOTE:
- THE SUBSURFACE SOIL CROSS SECTIONS WERE TAKEN FROM THE LANGAN TREADWELL ROLLO GEOTECHNICAL REPORT PROJECT NO. 731680101 DATED 08/31/16.
- TOTAL DEPTH OF DRILLED HOLES WILL BE APPROVED BY GEOTECHNICAL CONSULTANT'S REPRESENTATIVE IN FIELD PER ACTUAL SOIL CONDITIONS AT TIME OF DRILLING.

2 CROSS SECTION

SCALE : N.T.S.

COLUMN AND TIEBACK DETAILS

PIER NUMBER	RETAINED HT (FT)	DEPTH TO SLIDE	TOTAL ACTIVE FORCE	MINIMUM PIER EMBEDMENT (FT)	TIE-BACK LOAD (Kips)	UNBONDED LENGTH (FT)	WIDE FLANGE BEAM s^3 MINIMUM	TIE-BACK STRANDS REQUIRED (SHEET TB-1, COLUMN 5
1	1	0	6	16	0	15	16	N/A
2	2	0	7	16	0	15	16	N/A
3	3	0	8	16	0	15	16	N/A
4	4	1	10	11	15	15	7	1
5	5	2	12	15	23	15	22	1
6	6	4	15	18	41	15	52	2
7	6	5	16	20	41	15	67	2
8	6	5	16	20	41	15	67	2
9	6	5	16	20	41	15	67	2
10	6	5	16	20	41	15	67	2
11	6	5	16	20	41	15	67	2
12	6	5	16	20	41	15	67	2
13	6	5	16	20	41	15	67	2
14	5	4	14	17	41	15	46	2
15	4	4	13	15	34	15	29	1
16	4	4	13	15	27	15	29	1
17	4	4	13	15	27	15	29	1
18	4	0	9	19	13	15	31	1
19	4	0	9	19	0	15	31	N/A
20	4	0	9	19	0	15	31	N/A

ACTIVE SOIL PRESSURE (HEIGHT OF RETAINING WALL), ACTING OVER FULL DEPTH AND WIDTH OF RETAINING WALL SPAN, PLUS 5' BELOW B.O.W.. HEIGHT OF WALL MAY VARY FROM 5'-0" TO 11'-0" (MAX) "D" - EMBEDMENT DEPTH INTO COMPETENT SUPPORTING MATERIAL UPON REQUEST CONTRACTOR MAY OBTAIN ADDITIONAL WALL CASES TO MORE EFFICIENTLY MEET SITE CONDITIONS.TIEBACKS TO BE DOUBLE CORROSION PROTECTED

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REDWOOD CITY, CA 94063
PHONE: 650-367-9595
FAX: 650-367-8139

DATE:

REVISIONS:

REGISTERED PROFESSIONAL ENGINEER SCOTT M. TAYLOR C 58276 CIVIL & GEOTECHNICAL STATE OF CALIFORNIA

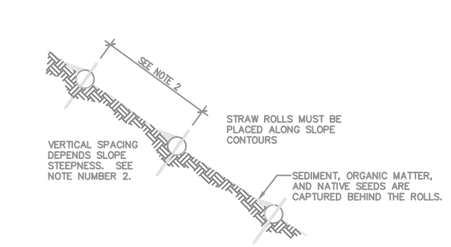
DETAILS
JOHN VANEK
610 STANLEY LANE
EL SOBRANTE, CA 94803

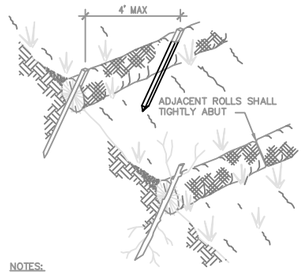
Client Project No.

SEC Project No.: 17-012
Date: 06/08/18
Designed By: SMT
Drawn By: SMT
Checked By: RDM
Scale: AS SHOWN
Sheet: C-5

GENERAL SITE NOTES:

1. DESIGN AND CONSTRUCTION TO BE IN ACCORDANCE WITH 2016 CBC, AS AMENDED BY THE STATE OF CALIFORNIA AND COUNTY OF CONTRA COSTA CODES AND ORDINANCES.
2. ALL DIMENSIONS, CONDITIONS AND LOCATION OF FACILITIES TO BE VERIFIED AND DETERMINED IN FIELD.
3. EXACT LOCATION OF ALL WORK FOR PROPOSED SOLDIER BEAM WITH WOOD LAGGING RETAINING WALL MAY BE ADJUSTED AS FIELD CONDITIONS REQUIRE. ENGINEER OF RECORD SHALL BE INFORMED OF ANY DEVIATION FROM THE APPROVED PROJECT DOCUMENTS AND WILL SUBMIT TO BUILDING OFFICIALS REVISED CALCULATIONS AND REVISED DRAWINGS FOR APPROVAL.
4. ALL EXPOSED STEEL SHALL BE GALVANIZED OR COATED WITH CORROSION INHIBITING PAINT.
5. CAST-IN-PLACE CONCRETE SHALL HAVE COMPRESSIVE STRENGTH AT 28 DAYS:
   - DRILLED PIER CONCRETE BACKFILL: f'c = 2,500 PSI (MIN.)
   NORMAL WEIGHT CONCRETE,
   USE CEMENT TYPE II - V PORTLAND CEMENT.
   MAXIMUM WATER-CEMENTIOUS MATERIAL RATIO, BY WEIGHT, NORMAL WEIGHT CONCRETE, TO BE OF 0.59.
6. REINFORCING STEEL, IF ANY, SHALL CONFORM TO ASTM A615, GRADE 60 FOR #4 BARS AND ABOVE.
7. STEEL MEMBERS SHALL BE:
   - ALL WIDE FLANGE STEEL MEMBERS SHALL CONFORM TO ASTM A572, GRADE 50.
   - MISCELLANEOUS CHANNELS, ANGLES, AND PLATES SHALL CONFORM TO ASTM A36.
8. REINFORCING COVER:
   - CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH SHALL HAVE MINIMUM 3" CONCRETE COVER.
   - CONCRETE EXPOSED TO EARTH OR WEATHER SHALL HAVE MINIMUM 2" CONCRETE COVER FOR #6 BARS AND ABOVE, 1-1/2" FOR #5 BARS AND BELOW.
9. SPECIAL INSPECTION (2016 CBC SEC. 1704, SEC. 107.2.1):
   - COUNTY OF CONTRA COSTA SPECIAL INSPECTION SCHEDULE.
   UPON CONCLUSION OF CONSTRUCTION, ENGINEER OF RECORD WILL PREPARE SUMMARY LETTER OF HIS OBSERVATIONS RELATIVE TO RETAINING WALL CONSTRUCTION AND AS-BUILTS CONSTRUCTION CONDITIONS.
10. DESIGN RECOMMENDATIONS AND PARAMETERS:
    - TECHNICAL LETTER REPORT - ENGINEERING GEOLOGIC AND GEOTECHNICAL INVESTIGATION, 600 & 610 STANLEY LANE, EL SOBRANTE, CALIFORNIA, BY LANGAN TREADWELL ROLLO, PROJECT NO. 731680101, DATED AUGUST 31, 2016.
11. PROJECT SOIL ENGINEER: LANGAN TREADWELL ROLLO, SHALL CONFIRM THAT CONSTRUCTION PLANS AND SPECIFICATIONS HAVE BEEN REVIEWED AND THAT IT HAS BEEN DETERMINED THAT RECOMMENDATIONS IN THEIR GEOTECHNICAL REPORT(S) ARE PROPERLY INCORPORATED INTO CONSTRUCTION PLANS. APPROVAL LETTER SHALL BE SUBMITTED TO CONTRA COSTA COUNTY BUILDING DEPARTMENT.
12. PROJECT SOIL ENGINEER: LANGAN TREADWELL ROLLO SHALL BE RETAINED TO PROVIDE OBSERVATION AND TESTING SERVICES DURING CONSTRUCTION PER GEOTECHNICAL REPORT(S) RECOMMENDATIONS.
13. ALL CONSTRUCTION SHALL COMPLY WITH RECOMMENDATIONS OF AFOREMENTIONED REPORT(S).





NOTES:

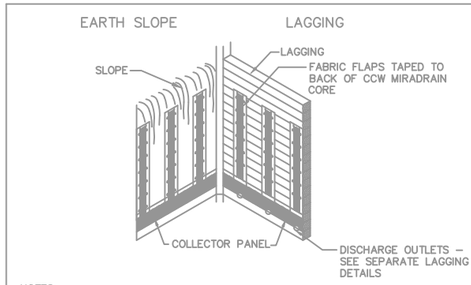
1. STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3" TO 4" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL.
2. VERTICAL SPACING FOR SLOPE INSTALLATIONS:

   SLOPE OF 2:1 OR GREATER = 10 FEET APART
   SLOPE BETWEEN 4:1 AND 2:1 = 15 FEET APART
   SLOPE OF 4:1 OR FLATTER = 20 FEET APART
3. INSPECT AND REPAIR STRAW ROLLS AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
4. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.

STRAW ROLL

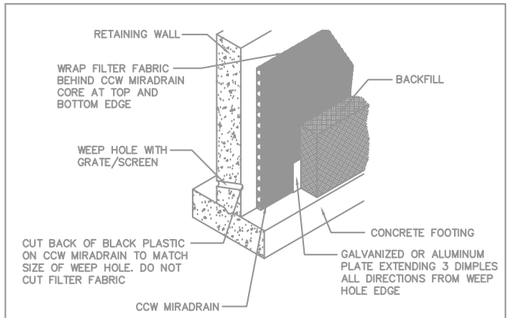
SCALE : NO SCALE

STRAW ROLL-024-*MSTR



NOTES:
1. BACK OF CCW MIRADRAIN CORE SHOULD BE FACING INSTALLER WHEN INSTALLING. FABRIC SIDE OF CCW MIRADRAIN IS INSTALLED TOWARDS LAGGING OR EARTH.

MD-2	CHIMNEY DRAIN	CARLISLE © 2007 CARLISLE CORPORATION

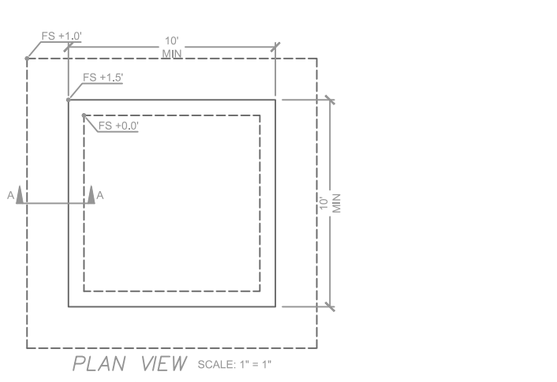


MD-1	RETAINING WALL DETAIL	CARLISLE © 1998 CARLISLE CORPORATION

CCW–MIRADRAIN 2000–STANDARD DETAILS

SCALE: N.T.S.

6



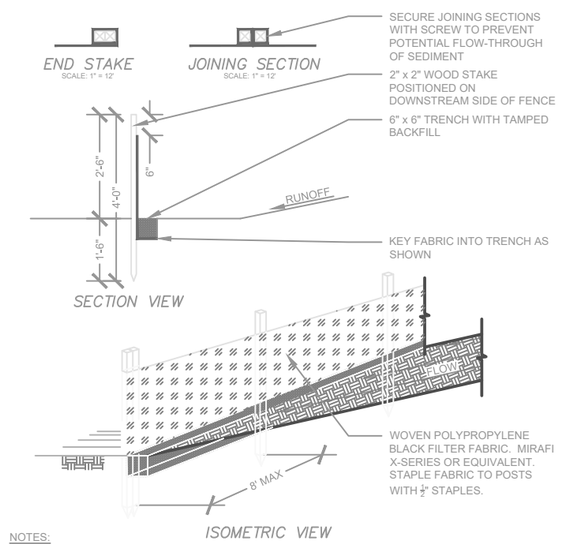
NOTES:

1. LOCATE AWAY FROM STORM DRAIN INLETS, DRAINAGE FACILITIES, OR WATERCOURSES. DO NOT DISCHARGE WASH WATER TO STORM DRAINS OR WATERCOURSES.
2. BERM UP EDGES AS SHOWN IN SECTION A-A TO CONTAIN WASH WATERS AND TO PREVENT RUNON AND RUNOFF.
3. IF WASH WATER REACHES WITHIN 3" OF THE TOP OF BERM, CONTRACTOR SHALL UTILIZE SUMP PUMP AND DESILTING BASIN TO REMOVE SEDIMENT LADEN WASH WATER.

TEMPORARY WASHOUT PIT

SCALE : AS SHOWN

WASHOUT PIT-024-*MSTR



NOTES:

1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN ACCUMULATION REACHES ONE-THIRD OF THE BARRIER HEIGHT.
2. REMOVED SEDIMENT SHALL BE REMOVED AND DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE.
3. SILT FENCES SHOULD BE LEFT IN PLACE UNTIL THE UPSTREAM AREA IS PERMANENTLY STABILIZED.
4. SILT FENCE SHALL BE PLACED ON CONSISTENT ELEVATION TO MAXIMIZE EFFICIENCY. THE LAST 8'-0" OF FENCE SHALL BE TURNED UP SLOPE.

SILT FENCE

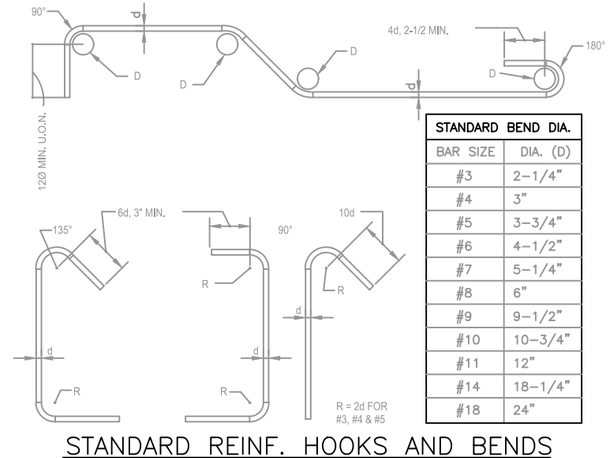
SCALE : 1" = 1/2"

SILT FENCE-024-*MSTR

MIN. DEVELOPMENT LENGTH IN INCHES (Ld):		
	f'c = 3.0 ksi	f'c = 4.0 ksi
#4	23"	19"
#5	28"	24"
#6	34"	29"
#7	62"	54"
#8	71"	61"

LAP LENGTH IN INCHES (1.30 Ld):		
	f'c = 3.0 ksi	f'c = 4.0 ksi
#4	30"	25"
#5	37"	32"
#6	44"	38"
#7	81"	70"
#8	92"	80"

NOTES:
- FOR LAP SPLICES USE CLASS "B" SPLICES, (LAP OF 1.30 Ld).
- AT CONTRACTOR'S OPTION, HIGH STRENGTH COUPLERS MAY BE UTILIZED. (COUPLERS TO DEVELOP AT LEAST 125% SPECIFIED YIELD STRENGTH f'y OF BAR)
- FOR CONCRETE OF f'c=2.5 KSI USE TABLE FOR f'c=3.0 KSI.



STANDARD BEND DIA.	
BAR SIZE	DIA. (D)
#3	2–1/4"
#4	3"
#5	3–3/4"
#6	4–1/2"
#7	5–1/4"
#8	6"
#9	9–1/2"
#10	10–3/4"
#11	12"
#14	18–1/4"
#18	24"

STANDARD REINF. HOOKS AND BENDS

NOTES:
- HOOK LENGTHS ARE MINIMUMS. LONGER HOOKS SHALL BE PROVIDED WHERE DETAILED ON DRAWINGS.
- BAR STIRRUP AND TIE CONFIGURATION SHALL BE AS SHOWN ON DRAWINGS.

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SOIL ENGINEERING CONSTRUCTION Inc.
927 ARGUELLO STREET
REDWOOD CITY, CA 94063
PHONE: 650-367-9595
FAX: 650-367-8139

DATE:

REVISIONS:

REGISTERED PROFESSIONAL ENGINEER SCOTT M. TAYLOR C 58276 CIVIL & GEOTECHNICAL STATE OF CALIFORNIA

PROJECT NOTES, STANDARD TABLES AND STANDARD WALL DRAIN DETAILS

JOHN VANEK
610 STANLEY LANE
EL SOBRANTE, CA 94803

Client Project No.

SEC Project No.
17–012

Date
03/15/2018

Designed By:
SMT

Drawn By:
SMT

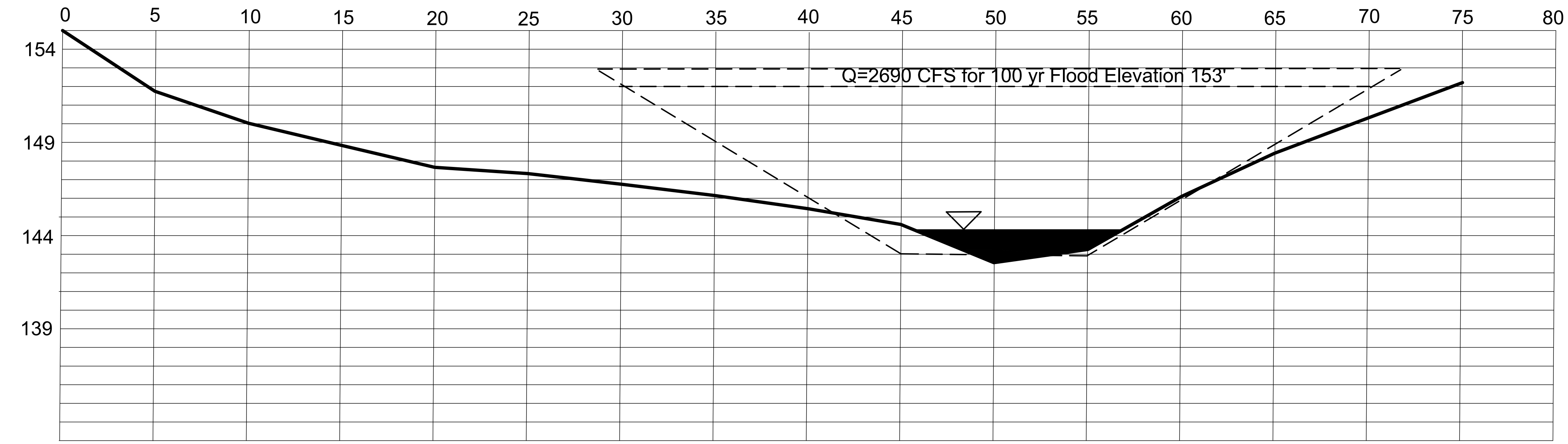
Checked By:
RDM

Scale:
AS SHOWN

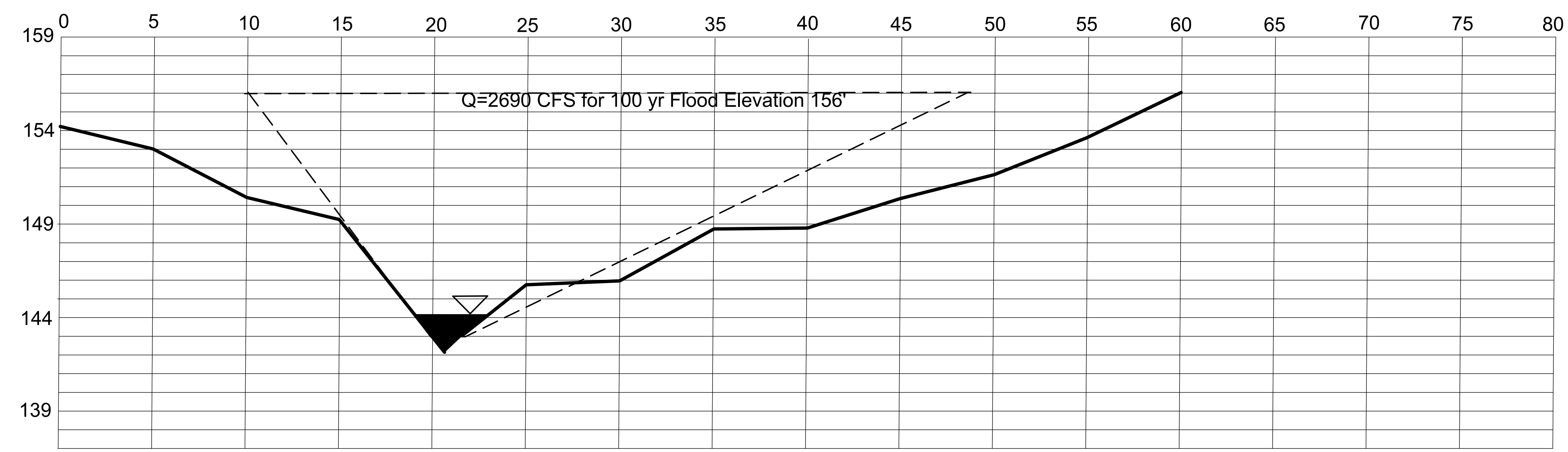
Sheet:
C–6

DRAWING NAME: PLOT DATE: PLOTTED BY:

Cross Section X-X'



Cross Section Z-Z'



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SOIL ENGINEERING CONSTRUCTION Inc.

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DATE:

REVISIONS:

REGISTERED PROFESSIONAL ENGINEER SCOTT M. TAYLOR C 58276 CIVIL & GEOTECHNICAL STATE OF CALIFORNIA

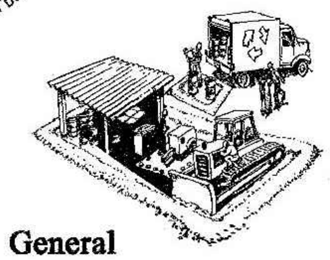
SAN PABLEO CREEK X-SECTIONS

JOHN VANEK
610 STANLEY LANE
EL SOBRANTE, CA 94803

Client Project No.	
SEC Project No.	17-012
Date	06/08/18
Designed By:	SMT
Drawn By:	SMT
Checked By:	RDM
Scale:	1" = 10'
Sheet:	C-7

Stormwater
Pollution Prevention Program

Stormwater Pollution Prevention Program



Pollution Prevention – It's Part of the Plan

It is your responsibility to do the job right!

Runoff from streets and other paved areas is a major source of pollution in local creeks, San Francisco Bay and the Pacific Ocean. Construction activities can directly affect the health of our waters unless contractors and crews plan ahead to keep dirt, debris, and other construction waste away from storm drains and creeks. Following these guidelines will ensure your compliance with local stormwater ordinance requirements. Remember, ongoing monitoring and maintenance of installed controls is crucial to proper implementation.

General Construction & Site Supervision

Advance planning prevents pollution

✓ **Schedule excavation and grading activities for dry weather periods.** To reduce soil erosion, plant temporary vegetation or place other erosion controls before rain begins.

✓ **Locate and protect storm drains** in the vicinity of the site with berms or filters during wet weather periods.

✓ **Control the amount of runoff crossing your site** (especially during excavation) by using berms or temporary or permanent drainage ditches to divert water flow around the site. Reduce stormwater runoff velocities by constructing temporary check dams or berms where appropriate.

✓ **Train your employees and subcontractors.** Make these brochures available to everyone who works on the construction site. Inform subcontractors about the new stormwater requirements and their responsibilities.

Good housekeeping practices

✓ **Designate one completely contained area for auto parking, vehicle refueling, and routine equipment maintenance.** The designated area should be well away from streams or storm drain inlets, and bermed if necessary. Make major repairs off site.

✓ **Keep materials out of the rain - prevent runoff contamination at the source.** Cover exposed piles of soil or construction materials with plastic sheeting or temporary roofs.

✓ **Keep pollutants off exposed surfaces.** Place trash cans and recycling receptacles around the site to minimize litter.

✓ **Dry sweep paved surfaces** that drain to storm drains, creeks, or channels. If pavement flushing is necessary, use silt ponds or other techniques to trap sediment and other pollutants.

✓ **Clean up leaks, drips and other spills immediately** so they do not contaminate soil or groundwater or leave residue on paved surfaces. Use dry cleanup methods whenever possible. If you must use water, use just enough to keep the dust down.

✓ **Cover and maintain dumpsters.** Check frequently for leaks. Place dumpsters under roofs or cover with tarps or plastic sheeting secured around the outside of the dumpster. A plastic liner is recommended to prevent leakage of liquids. **Never clean out a dumpster by hosing it down on the construction site.**

✓ **Make sure portable toilets are maintained in good working order** by the leasing company and that wastes are disposed of properly. Check toilets frequently for leaks.

Materials/waste handling

✓ **Practice source reduction -- minimize waste when you order materials.** Order only the amount you need to finish the job.

✓ **Use recyclable materials** whenever possible. Arrange for pick-up of recyclable materials such as concrete, asphalt, scrap metal, solvents, degreasers, cleared vegetation, paper, rock, and vehicle maintenance materials such as used oil, antifreeze, batteries, and tires.

✓ **Dispose of all wastes and demolition debris properly.** Many construction materials and wastes can be recycled, including solvents, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation. Materials and debris that cannot be recycled must be taken to an appropriate landfill or disposed of as hazardous waste. **Never bury waste materials or leave them in the street or near a creek or stream bed.**

Heavy Equipment Operation

Site planning and preventive vehicle maintenance

✓ Designate a completely contained area of the construction site, well away from streams or storm drain inlets, for auto and equipment parking, refueling, and routine vehicle and equipment maintenance.

✓ Maintain all vehicles and heavy equipment. Inspect frequently for and repair leaks.

✓ Perform major maintenance, repair jobs, and vehicle and equipment washing off site.

✓ If you must drain and replace motor oil, radiator coolant, or other fluids on site, use drip pans or drop cloths to catch drips and spills. Collect all spent fluids, store in separate containers, and recycle whenever possible, or dispose of fluids as hazardous waste.

✓ Do not use diesel oil to lubricate or clean equipment or parts.

✓ Recycle used vehicle batteries.

Clean up spills immediately when they happen

✓ Never hose down "dirty" pavement or impermeable surfaces where fluids have spilled. Use dry cleanup methods (absorbent materials, cat litter, and/or rags) whenever possible. If you must use water, use just enough to keep the dust down.

✓ Sweep up spilled dry materials immediately. Never attempt to "wash them away" with water, or bury them. Use as little water as possible for dust control.

✓ Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.

✓ Report significant spills to the appropriate spill response agencies immediately. You are required by law to report all significant releases of hazardous materials, including oil. To report a spill, call the following agencies: 1) Dial 911 or your local emergency response number, 2) Call the Governor's Office of Emergency Services Warning Center, (800) 852-7550 (24 hours).

Earth-Moving Activities

During Construction

✓ Remove existing vegetation only when absolutely necessary.

✓ Seed or plant *temporary* vegetation for erosion control on slopes or where construction is not immediately planned.

✓ Protect downslope drainage courses, streams, and storm drains with hay bales, temporary drainage swales, silt fences, berms or storm drain inlet filters.

✓ Use check dams or ditches to divert runoff around excavations and graded areas.

✓ Cover stockpiles and excavated soil with secured tarps or plastic sheeting.

✓ Properly monitor and maintain all erosion and sediment controls.

✓ Properly report failures of erosion and sediment controls to the local stormwater authority.

General Business Practices

✓ Schedule excavation and grading work for dry weather.

✓ Perform major equipment repairs away from the job site.

✓ When refueling or when vehicle/equipment maintenance must be done on site, work within a completely bermed area away from storm drains.

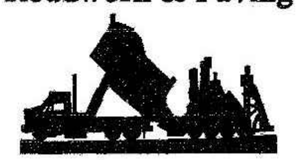
✓ Do not use diesel oil to lubricate or clean equipment or parts.

Watch for soil and ponded groundwater that may be contaminated.

If any of these conditions are observed, test for contamination and contact the Regional Water Quality Control Board:

- Unusual soil conditions, discoloration, or odor
- Abandoned underground tanks
- Abandoned wells
- Buried barrels, debris, or trash.

Roadwork & Paving



✓ Develop and implement erosion/sediment control plans for roadway embankments.

✓ Schedule excavation and grading work for dry weather.

✓ Check all equipment for leaks and repair leaking equipment promptly.

✓ Perform major maintenance, repairs, and washing of equipment away from the construction site.

✓ When refueling or vehicle/equipment maintenance must be done on site, designate a completely contained area away from storm drains and creeks.

✓ Do not use diesel oil to lubricate or clean equipment or parts.

✓ Recycle used oil, batteries, concrete, broken asphalt, etc. whenever possible.

✓ Train employees in using these best management practices.

During Construction

✓ Avoid paving and seal coating in wet weather, or when rain is forecast before fresh pavement will have time to cure.

✓ Cover and seal catch basins and manholes when applying seal coat, slurry seal, fog seal, etc.

✓ Use check dams, ditches, or berms to divert runoff around excavations.

✓ Never wash excess material from exposed- aggregate concrete or similar treatments into a street or storm drain. Collect and recycle, or dispose to dirt area.

✓ Cover stockpiles and other construction materials with plastic tarps. Protect from rainfall and prevent runoff with temporary roofs or plastic sheets and berms.

✓ Catch drips from paver with drip pans or absorbent material (cloth, rags, etc.) placed under machine when not in use.

✓ Clean up all spills and leaks using "dry" methods (with absorbent materials/rags), or dig up and remove contaminated soil.

✓ Collect and recycle or appropriately dispose of excess abrasive gravel or sand.

✓ Avoid over-application by water trucks for dust control.

Asphalt/Concrete Removal

✓ Avoid creating excess dust when breaking asphalt or concrete.

✓ After breaking up old pavement, be sure to remove all chunks and pieces from the site.

✓ Make sure broken pavement does not come in contact with rainfall or runoff.

✓ Protect nearby storm drain inlets during saw-cutting. Shovel or vacuum saw-cut slurry deposits and remove from the site.

✓ Never hose down streets to clean up tracked dirt. Use dry sweep methods.

Fresh Concrete & Mortar Application

General Business Practices

✓ Both at your yard and the construction site, always store both dry and wet materials under cover, protected from rainfall and runoff. Protect dry materials from wind.

✓ Secure bags of cement after they are open. Be sure to keep wind-blown cement powder away from gutters, storm drains, rainfall, and runoff.

✓ Wash out concrete mixers only in designated wash-out areas in your yard, where the water will flow into containment ponds or onto dirt. Let concrete harden and dispose of as garbage. Whenever possible, recycle washout by pumping back into mixers for reuse. **Never dispose of washout into the street, storm drains, drainage ditches, or streams.**

During Construction

✓ Don't mix up more fresh concrete or cement than you will use in a day.

✓ Set up and operate small mixers on tarps or heavy plastic drop cloths.

✓ When cleaning up after driveway or sidewalk construction, wash fines onto dirt areas, not down the driveway or into the street or storm drain.

✓ Prevent aggregate wash from driveway/patio construction from entering storm drains. Hose aggregate wash onto dirt areas and spade into dirt.

✓ Place hay bales or other erosion controls downslope to capture runoff carrying mortar or cement before it reaches the storm drain.

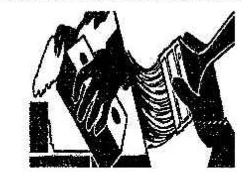
✓ When breaking up paving, be sure to pick up all the pieces and dispose properly.

✓ Recycle large chunks of broken concrete at a landfill.

✓ Dispose of small amounts of excess dry concrete, grout, and mortar in the trash.

✓ Never bury solid or hazardous waste material.

Painting & Application of Solvents & Adhesives



Handling Paint Products

✓ **Keep all liquid paint products and wastes away from the gutter, street, and storm drains.** Liquid residues from paints, thinners, solvents, glues, and cleaning fluids are hazardous wastes and must be disposed of at a hazardous waste collection facility (contact your local stormwater program).

Painting cleanup

✓ **Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.**

✓ **For water-based paints,** paint out brushes to the extent possible. Rinse to the sanitary sewer once you have gained permission from the local wastewater treatment authority. Never pour paint down a drain.

✓ **For oil-based paints,** paint out brushes to the extent possible and clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids and residue as hazardous waste.

Paint removal

✓ **Paint chips and dust from non-hazardous dry stripping and sand blasting** may be swept up or collected in plastic drop cloths and disposed of as trash.

✓ **Chemical paint stripping residue** and chips and dust from **marine paints or paints containing lead or tributyl tin** must be disposed of as hazardous wastes.

✓ When stripping or cleaning **building exteriors** with high-pressure water, **block storm drains.** Wash water onto a dirt area and spade into soil. Or, check with the local wastewater treatment authority to find out if you can collect (mop or vacuum) building cleaning water and dispose to the sanitary sewer. Sampling of the water may be required to assist the wastewater treatment authority in making its decision.

Recycle/reuse leftover paints whenever possible.

✓ Recycle or dispose of excess **water-based paint** at a household hazardous waste collection facility, or use up. When they are thoroughly dry, empty paint cans, used brushes, rags, and drop cloths may be disposed of as garbage in a sanitary landfill.

✓ Reuse leftover **oil-based paint.** Dispose of excess liquid, including sludges, as hazardous waste.

✓ Small quantity generators should check with the San Mateo County Environmental Health Division regarding recycling or hazardous waste disposal.

✓ Unopened cans of paint may be able to be returned to the paint vendor. Check with the vendor regarding its "buy-back" policy.

Landscaping, Gardening, and Pool Maintenance

✓ Protect stockpiles and landscaping materials from wind and rain by storing them under tarps or secured plastic sheeting.

✓ Store pesticides, fertilizers, and other chemicals indoors or in a shed or storage cabinet.

✓ Schedule grading and excavation projects for dry weather.

✓ Use temporary check dams or ditches to divert runoff away from storm drains.

✓ Protect storm drain inlets with hay bales, berms, filter mats or other inlet protection measures.

✓ **Revegetation is an excellent form of erosion control for any site.**

Landscaping/Garden Maintenance

✓ Use up pesticides and follow label directions. Rinse containers, and use rinsewater as product. Dispose of rinsed containers in the trash.

✓ Dispose of unused pesticides as hazardous waste.

✓ Collect lawn and garden clippings, pruning waste, and tree trimmings. Chip if necessary, and compost.

✓ Do not place yard waste in gutters. In communities with curbside yard waste recycling, leave clippings and pruning waste for pickup in approved bags or containers. Or, take to a landfill that composts yard waste.

✓ **Do not blow or rake leaves, etc. into the street.**

Pool/Fountain/Spa Maintenance

✓ Never discharge chlorinated pool or spa water to a street or storm drain.

✓ When emptying a pool or spa, let chlorine dissipate for 5 to 7 days. Then recycle water by draining it gradually onto a landscaped area, or drain the dechlorinated water to a storm drain.

✓ Chlorinated water may be to discharged to the sanitary sewer (if allowed by the local sewage treatment authority) by running a hose to a utility sink or sewer pipe cleanout junction.

✓ **Do not use copper-based algaecides.** Control algae with chlorine or other alternatives to copper-based pool chemicals. **Copper is harmful to aquatic life and cannot be completely removed by the sewage treatment plant.**

Storm drain polluters may be liable for fines of up to $25,000 per day!

SOIL
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927 ARGUELLO STREET
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DATE:

REVISIONS:

REGISTERED PROFESSIONAL ENGINEER
SCOTT M. TAYLOR
C 58276
CIVIL & GEOTECHNICAL
STATE OF CALIFORNIA

BEST MANAGEMENT PRACTICES
JOHN VANEK
610 STANLEY LANE
EL SOBRANTE, CA 94803

Client Project No.	
SEC Project No.	17-012
Date	03/15/2018
Designed By:	SMT
Drawn By:	SMT
Checked By:	RDM
Scale:	AS SHOWN
Sheet:	C-8

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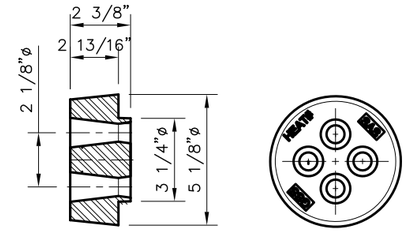
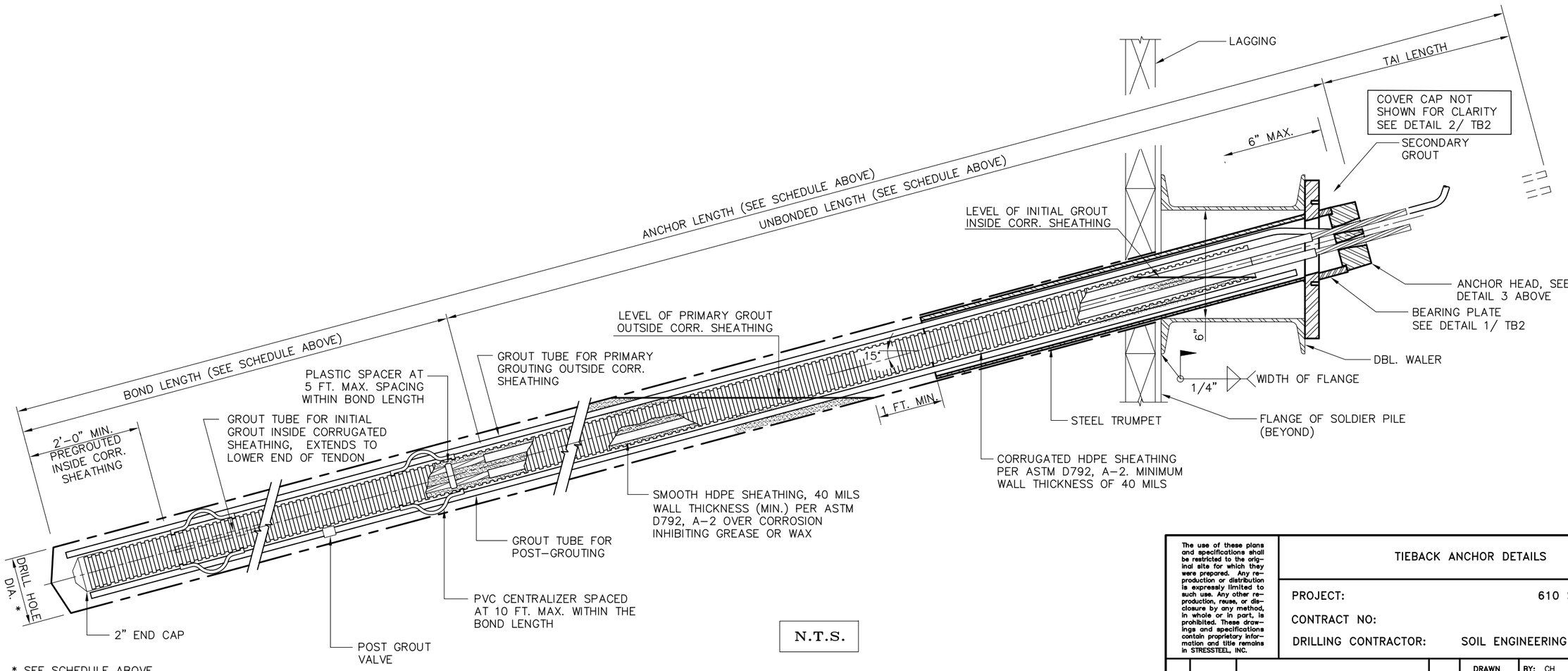
NO. OF TIEBACKS	MAX. DESIGN LOAD	MAX. TEST LOAD	LOCK–OFF LOAD	NO. OF 0.6" DIA. STRANDS	INCLI–NATION	DRILL HOLE DIAMETER, MIN.	BOND LENGTH	UNBONDED LENGTH	TAIL LENGTH	ANCHOR LENGTH	CORRUGATED SHEATHING
_ EA.	33 KIPS	44 KIPS	33 KIPS	1	15 DEG.	6"	15 FT.	15 FT.	5 FT.	35 FT.	2" I.D. 2 3/8" O.D.
_ EA.	66 KIPS	88 KIPS	66 KIPS	2	15 DEG.	6"	23 FT.	15 FT.	5 FT.	43 FT.	2" I.D. 2 3/8" O.D.
_ EA.	99 KIPS	132 KIPS	99 KIPS	3	15 DEG.	6"	30 FT.	15 FT.	5 FT.	50 FT.	2" I.D. 2 3/8" O.D.
_ EA.	TOTAL										

2 TIEBACK SCHEDULE ⚠1



3 ANCHOR HEAD SAS 4.6, RECESSED



N.T.S.

1 TIEBACK ELEVATION

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TIEBACK ANCHOR DETAILS

PROJECT: 610 STANLEY LANE

CONTRACT NO: ---

DRILLING CONTRACTOR: SOIL ENGINEERING CONSTUCTION

NO.	DATE	REVISION	BY			
				DRAWN	BY: CH	DATE: 6/21/18
⚠1	6/26/18	REVISED TIEBACK SCHEDULE	CH	CHECKED	BY: FO	DATE: 6/21/18
				STRESSTEEL BID NO. QS18–462		

Stressteel, Inc.
47375 Fremont Blvd.
Fremont, CA 94538
(888) 284-8752

DRAWING NO.: TB1 REV. 1