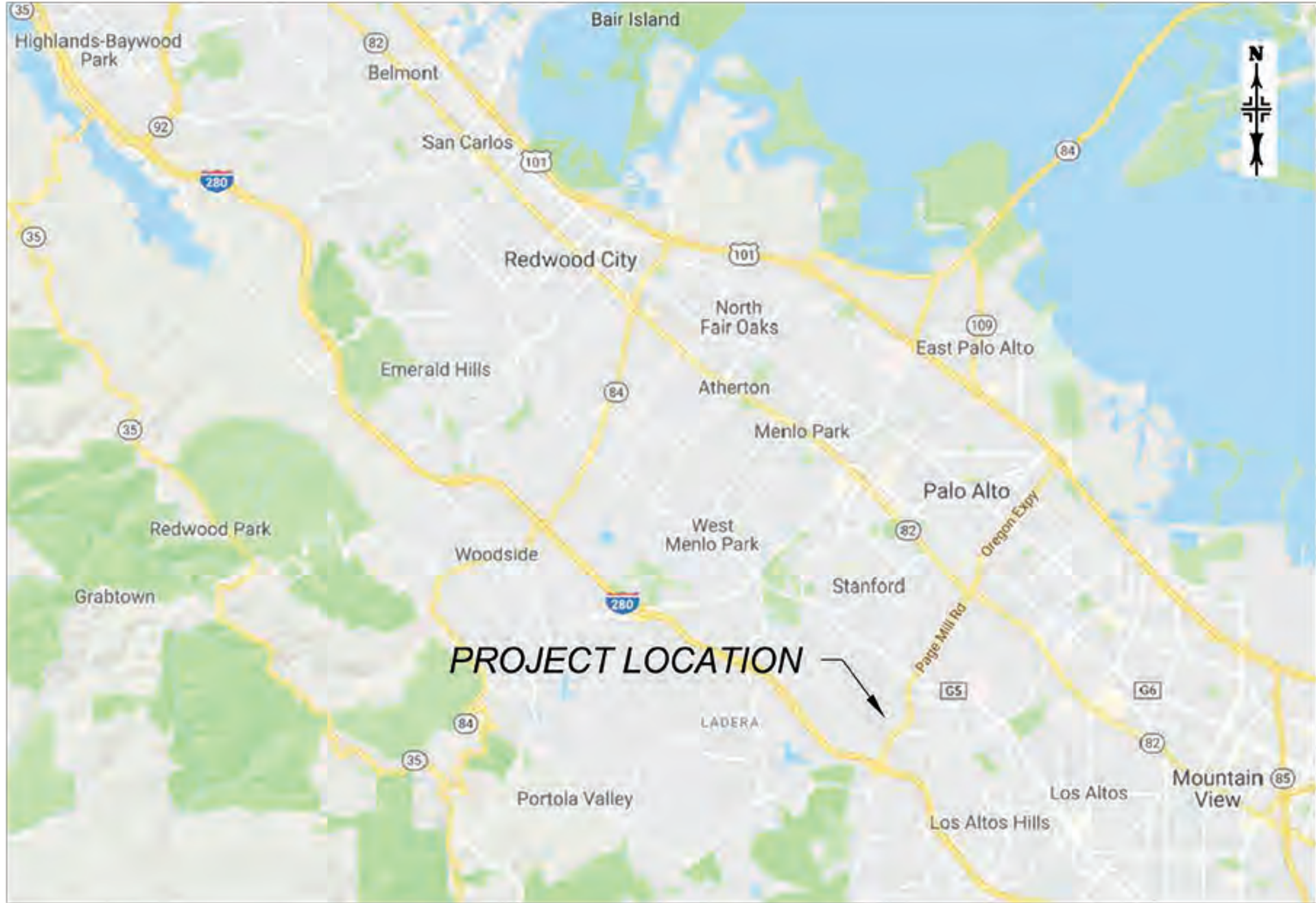


STANFORD UNIVERSITY HABITAT CONSERVATION PLAN
UPPER QUARRY CALIFORNIA RED-LEGGED FROG
HABITAT RESTORATION AND MONITORING PLAN

SANTA CLARA COUNTY, CALIFORNIA

STANFORD UNIVERSITY

LAND USE AND ENVIRONMENTAL PLANNING



PROJECT VICINITY MAP
(NOT TO SCALE)



PROJECT LOCATION MAP
(NOT TO SCALE)

CONTACTS

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HANFORD ARC	STEVE ARY, PROJECT MANAGER	(707) 971-8246
cbec, inc.	CHRIS CAMPBELL, PROJECT DIRECTOR	(916) 668-5232
cbec, inc.	BEN TABER, PROJECT ENGINEER	(916) 668-5247

GRADING AREA	NUMBER	FEATURE DESCRIPTION	AREA, FT²	AREA, AC	CUT, CY	FILL, CY	IMPORT, CY	EXPORT, CY	MAX CUT DEPTH, FT	MAX FILL DEPTH, FT
ACCESS	1	EXISTING ACCESS ROAD	11,647	0.27	0.00	0.00				
	2	STAGING AREA	4,084	0.09	0.00	0.00			0.0	0.0
	3	TEMPORARY CONSTRUCTION ACCESS, EXCLUDING PONDS AND DEBRIS CLEANUP AREAS	7,065	0.16	0.00	0.00				
DEBRIS CLEANUP AREA	4	DEBRIS CLEANUP AREA, RIGHT BANK DEBRIS (SOIL/CONCRETE REMOVAL)	268	0.01	12.55			12.55		
	5	DEBRIS CLEANUP AREA, [EXCLUDING SOIL/CONCRETE REMOVAL]	1,220	0.03	20.63				4.2	3.1
	6	DEBRIS CLEANUP AREA, CONST. ACCESS QUARRY ROCK ROAD DRESSING	732*	0.02*	13.56	13.56				
POND GRADING	7	DEBRIS CLEANUP AREA, POST ACCESS BANK REHABILITATION	422*	0.01*		18.75				
	8	POND GRADING, EXCAVATION	2,361	0.05	178.20				5.0	0.5
	9	POND GRADING, WETLAND SOD IN SHALLOW ZONE	714*	0.02*		13.22				
CLAY RETENTION BARRIER	10	POND GRADING, LARGE QUARRY ROCK BACKFILL (MAXIMUM)			5.11	5.11				
	11	CLAY RETENTION BARRIER	25	0.00	4.63				5.0	5.0
	12	CLAY RETENTION BARRIER, GRANULAR BENTONITE BACKFILL (IMPORT)				1.14	1.14			
SPOILS	13	CLAY RETENTION BARRIER, NATIVE SOIL BACKFILL				3.49				
	14	SPOILS AREA TOP GRADING/STRIPPING	11,754	0.27	217.67	217.67			0.5	3.0
	15	EXCESS SPOILS FROM POND GRADING AREA	11,754*	0.27*		164.98				
	16	EXCESS SPOILS FROM DEBRIS CLEANUP AREA				1.88				
	17	EXCESS SPOILS FROM CLAY RETENTION BARRIER				1.14				
TOTALS			38,424	0.88	452.34	440.93	1.14	12.55		

* = AREA NOT INCLUDED IN TOTALS SUMMATION. AREA ACCOUNTED FOR IN OTHER FEATURES.

Sheet List Table	
Sheet Number	Sheet Title
C1	COVER
C2	SITE PLAN
C3	SECTIONS (1 OF 2)
C4	SECTIONS (2 OF 2)
C5	GEOLOGIC HAZARDS PLAN
L1.0	TREE DISPOSITION AND PROTECTION PLAN
L1.1	RIPARIAN TREE & SHRUB PLANTING PLAN
BMP-1	BEST MANAGEMENT PRACTICES AND EROSION CONTROL SHEET DETAILS SHEET 1
BMP-2	BEST MANAGEMENT PRACTICES AND EROSION CONTROL SHEET DETAILS SHEET 2

PROJECT PURPOSE:

THE PROJECT IMPLEMENTS THE STANFORD HABITAT CONSERVATION PLAN BY CREATING NEW HABITAT TO SUPPORT AND INCREASE THE CALIFORNIA RED-LEGGED FROG (CRLF) POPULATION ON STANFORD LANDS. THE PROJECT SITE IS AN ABANDONED QUARRY IN THE STANFORD FOOTHILLS, WITHIN AN EXISTING CONSERVATION EASEMENT.

THE PROJECT PROPOSES TO CREATE UP TO FOUR NEW CRLF BREEDING HABITAT PONDS WITHIN THE ESTABLISHED FORESTED WETLAND/RIPARIAN CORRIDOR ON THE SITE. EACH OF THESE PONDS WILL HAVE AN EXCAVATED AREA OF APPROXIMATELY 400-600 SQUARE FEET WITH A MAXIMUM DEPTH OF 5 FEET. THE DESIGN OF THESE PONDS INCLUDES APPROXIMATELY 60% OPEN WATER AND 40% WETLAND VEGETATION, AS WELL AS THE ADDITION OF HABITAT STRUCTURAL ELEMENTS. THESE PONDS WILL USE GROUNDWATER TO MAINTAIN THE NECESSARY PONDING DEPTH AND DURATION FOR CRLF BREEDING HABITAT.



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eco engineering

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CALIFORNIA
STANFORD UNIVERSITY HCP
UPPER QUARRY CALIFORNIA RED-LEGGED FROG
HABITAT RESTORATION AND MONITORING PLAN
COVER SHEET

PALO ALTO

JOB NUMBER
15-1009-3

DATE

SHEET
C1
1 OF 5

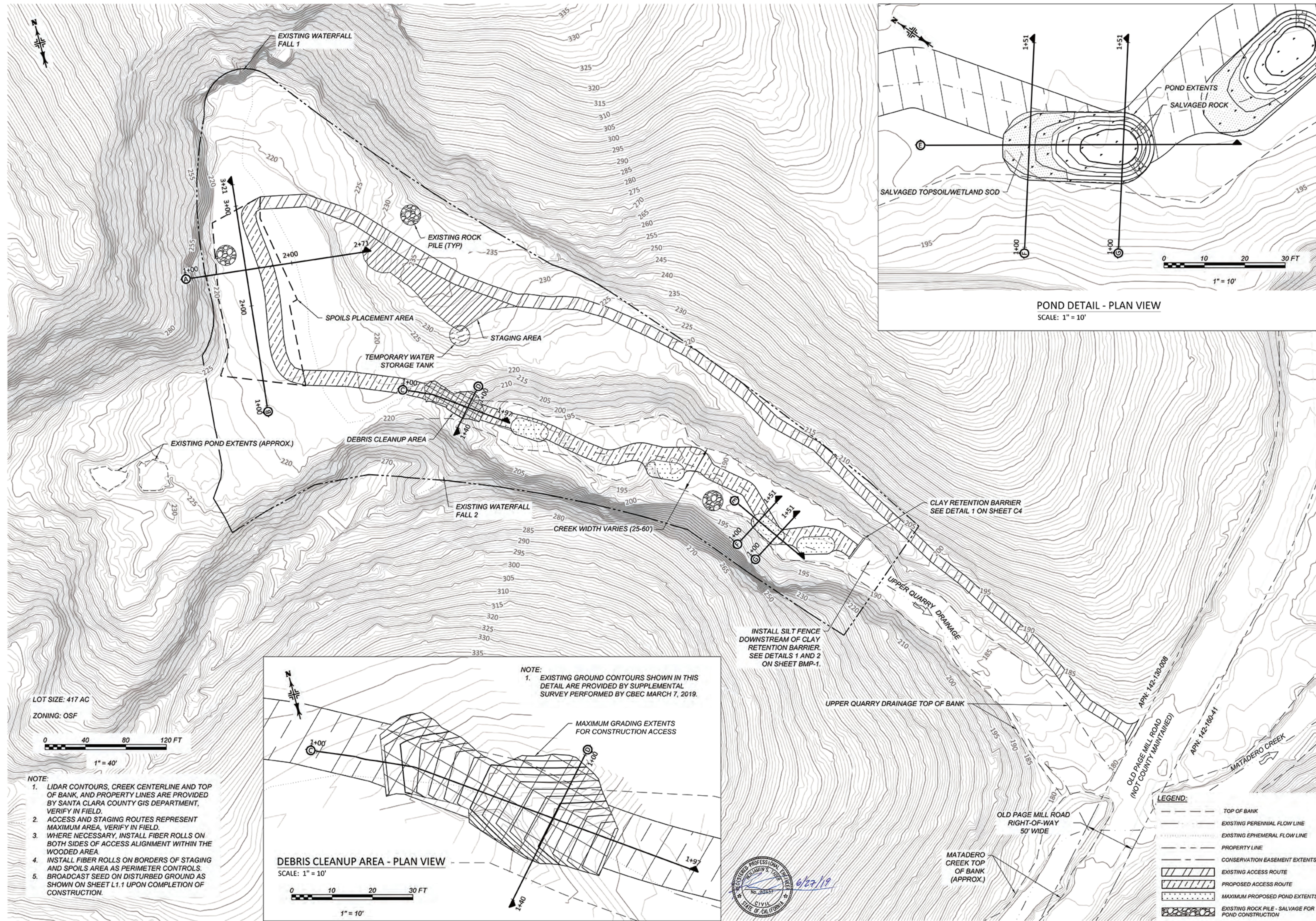
A B C D E

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3

4



LOT SIZE: 417 AC
ZONING: OSF
0 40 80 120 FT
1" = 40'

- NOTE:
1. LIDAR CONTOURS, CREEK CENTERLINE AND TOP OF BANK, AND PROPERTY LINES ARE PROVIDED BY SANTA CLARA COUNTY GIS DEPARTMENT, VERIFY IN FIELD.
 2. ACCESS AND STAGING ROUTES REPRESENT MAXIMUM AREA, VERIFY IN FIELD.
 3. WHERE NECESSARY, INSTALL FIBER ROLLS ON BOTH SIDES OF ACCESS ALIGNMENT WITHIN THE WOODED AREA.
 4. INSTALL FIBER ROLLS ON BORDERS OF STAGING AND SPOILS AREA AS PERIMETER CONTROLS.
 5. BROADCAST SEED ON DISTURBED GROUND AS SHOWN ON SHEET L1.1 UPON COMPLETION OF CONSTRUCTION.

NOTE:
1. EXISTING GROUND CONTOURS SHOWN IN THIS DETAIL ARE PROVIDED BY SUPPLEMENTAL SURVEY PERFORMED BY CBEC MARCH 7, 2019.

DEBRIS CLEANUP AREA - PLAN VIEW
SCALE: 1" = 10'
0 10 20 30 FT
1" = 10'

POND DETAIL - PLAN VIEW
SCALE: 1" = 10'

- LEGEND:
- TOP OF BANK
 - EXISTING PERENNIAL FLOW LINE
 - EXISTING EPHEMERAL FLOW LINE
 - PROPERTY LINE
 - CONSERVATION EASEMENT EXTENTS
 - EXISTING ACCESS ROUTE
 - PROPOSED ACCESS ROUTE
 - MAXIMUM PROPOSED POND EXTENTS
 - EXISTING ROCK PILE - SALVAGE FOR POND CONSTRUCTION



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HABITAT RESTORATION AND MONITORING PLAN
SITE PLAN

PALO ALTO

JOB NUMBER	15-1009-3
DATE	JUNE 2019
SHEET	C2

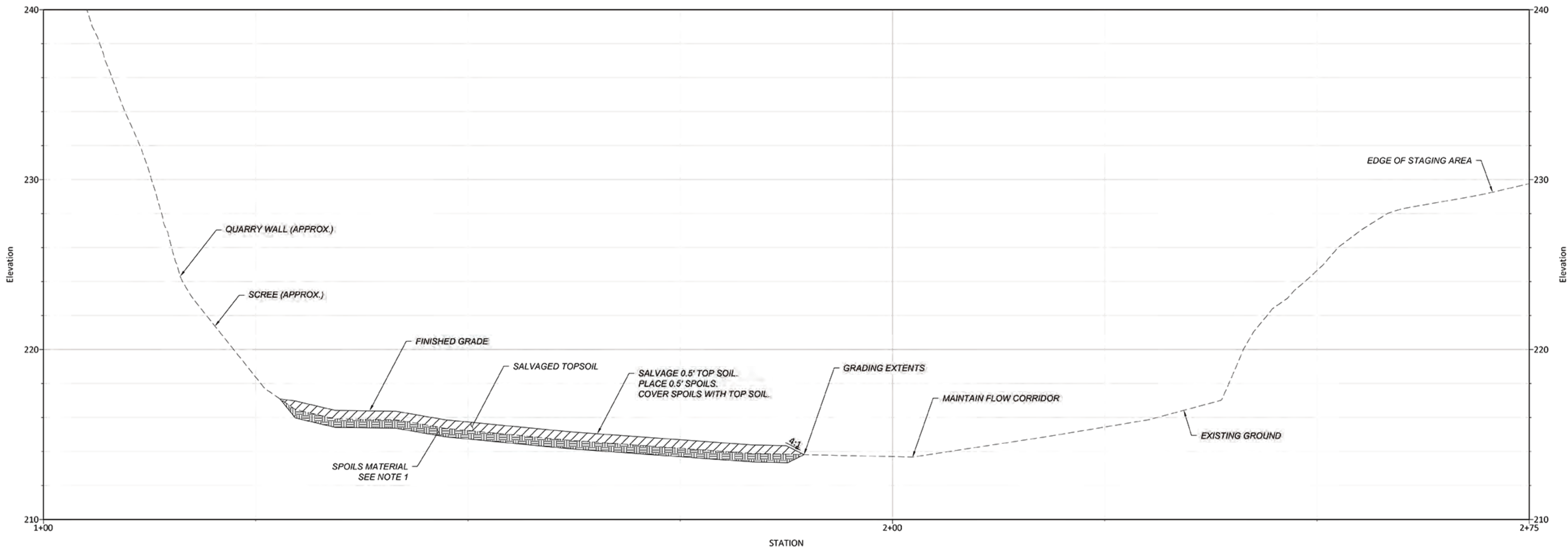
2 OF 5

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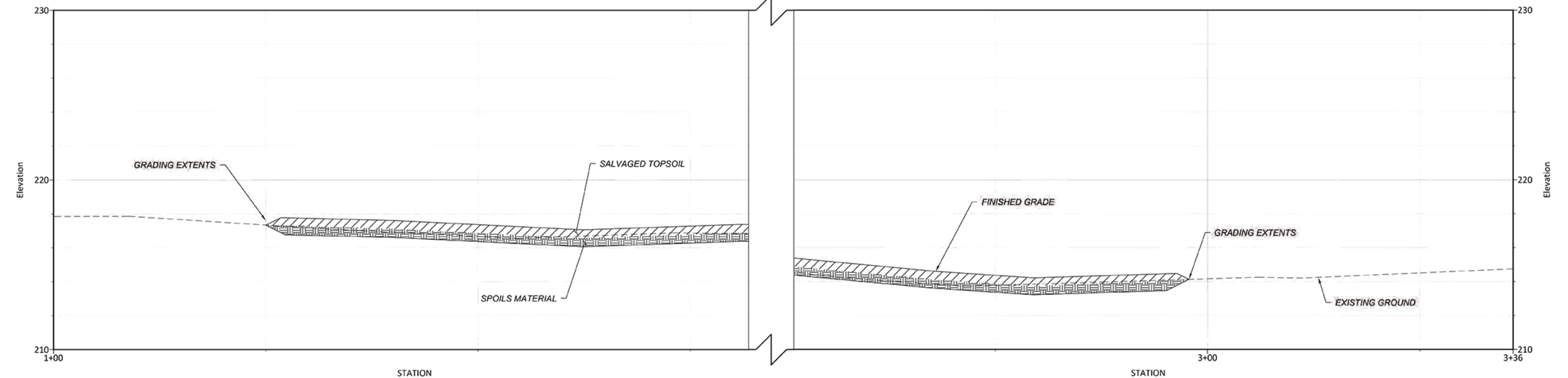
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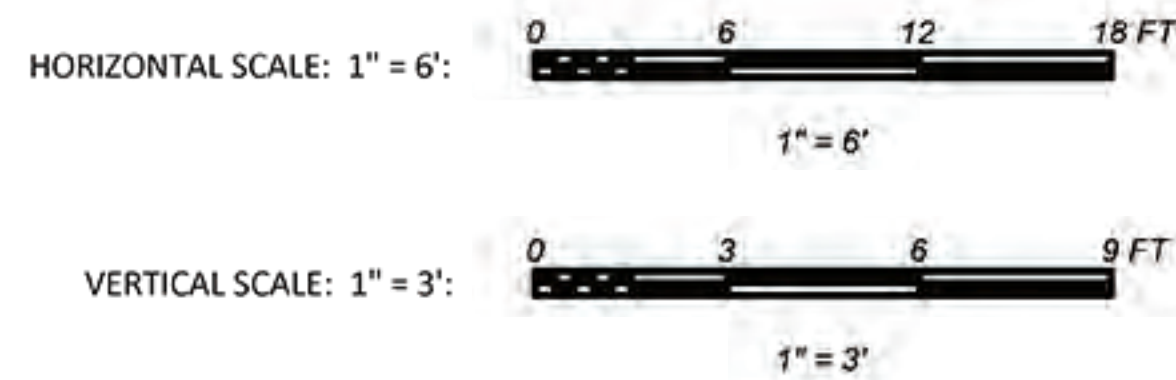
4



A
C2 TYPICAL SECTION A
SCALE: H1" = 6'; V1" = 3'



B
C2 TYPICAL SECTION B
SCALE: H1" = 6'; V1" = 3'

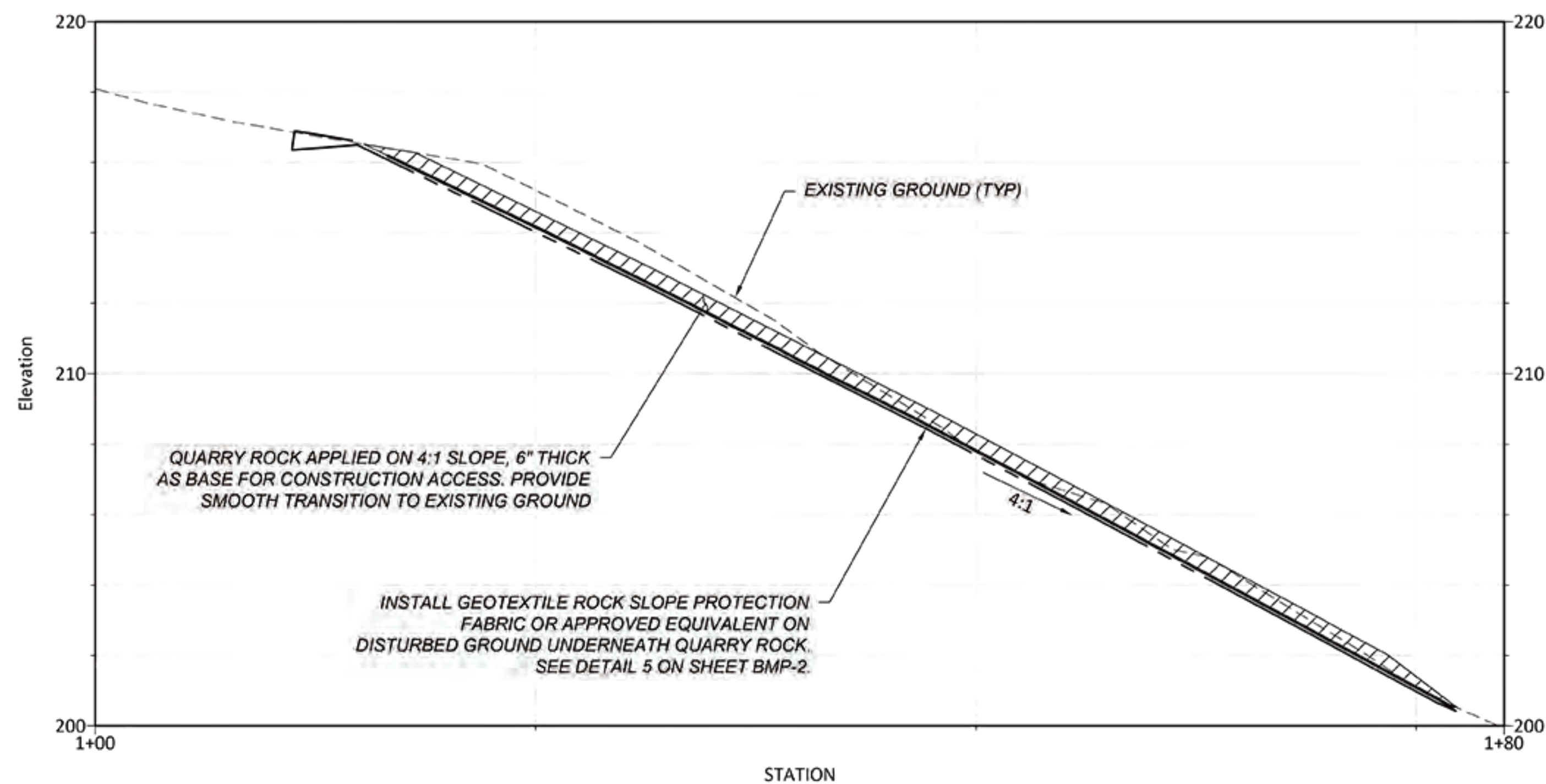


- NOTES:
1. COMPACT FILL IN 6" LIFTS USING TRACKED EQUIPMENT OR SIMILAR. COMPACT UP TO 80% RELATIVE COMPACTION.
 2. SPOILS PILE DEPTH MAY VARY BETWEEN 0.5' AND 3' TO MAINTAIN THE FLOW CORRIDOR, SECTIONS REPRESENT THE MAXIMUM ALLOWABLE DISTURBANCE AREA.



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CALIFORNIA	STANFORD UNIVERSITY HCP UPPER QUARRY CALIFORNIA RED-LEGGED FROG HABITAT RESTORATION AND MONITORING PLAN SECTIONS (1 OF 2)
PALO ALTO	JOB NUMBER 15-1009-3
	DATE ---
	SHEET C3 3 OF 5

1

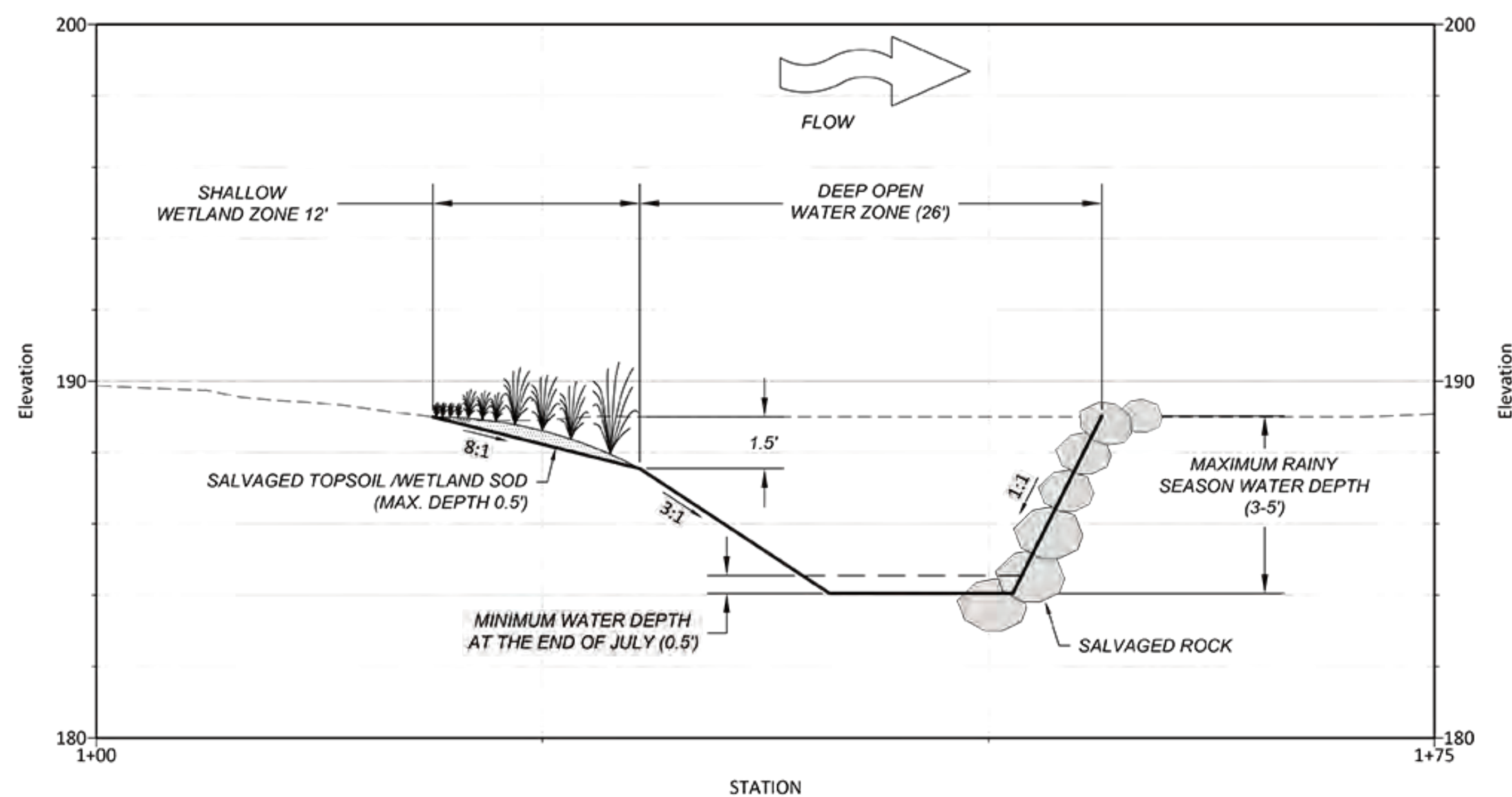


C
C2 TYPICAL SECTION C
SCALE: H1" = 6'; V1" = 3'

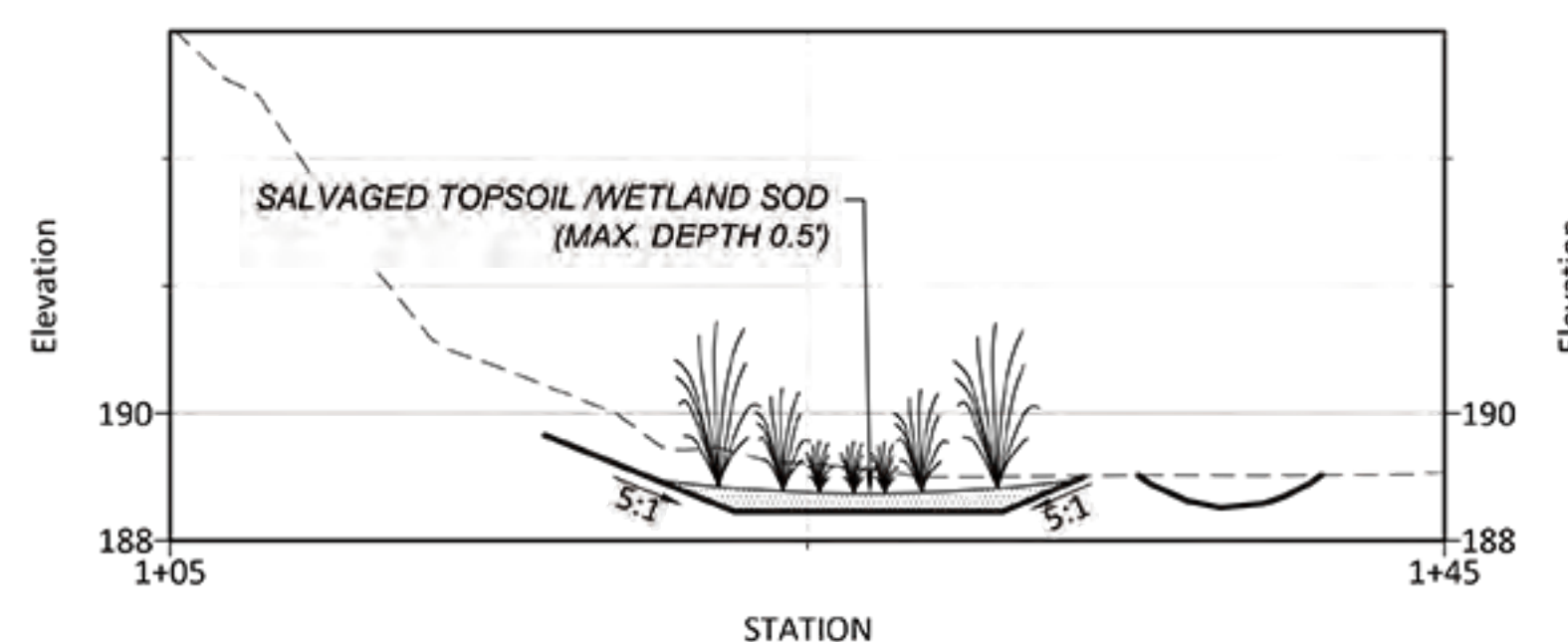
D
C2 TYPICAL SECTION D - INTERIM CONDITION
SCALE: H1" = 6'; V1" = 3'

D
C2 TYPICAL SECTION D - FINISHED CONDITION
SCALE: H1" = 6'; V1" = 3'

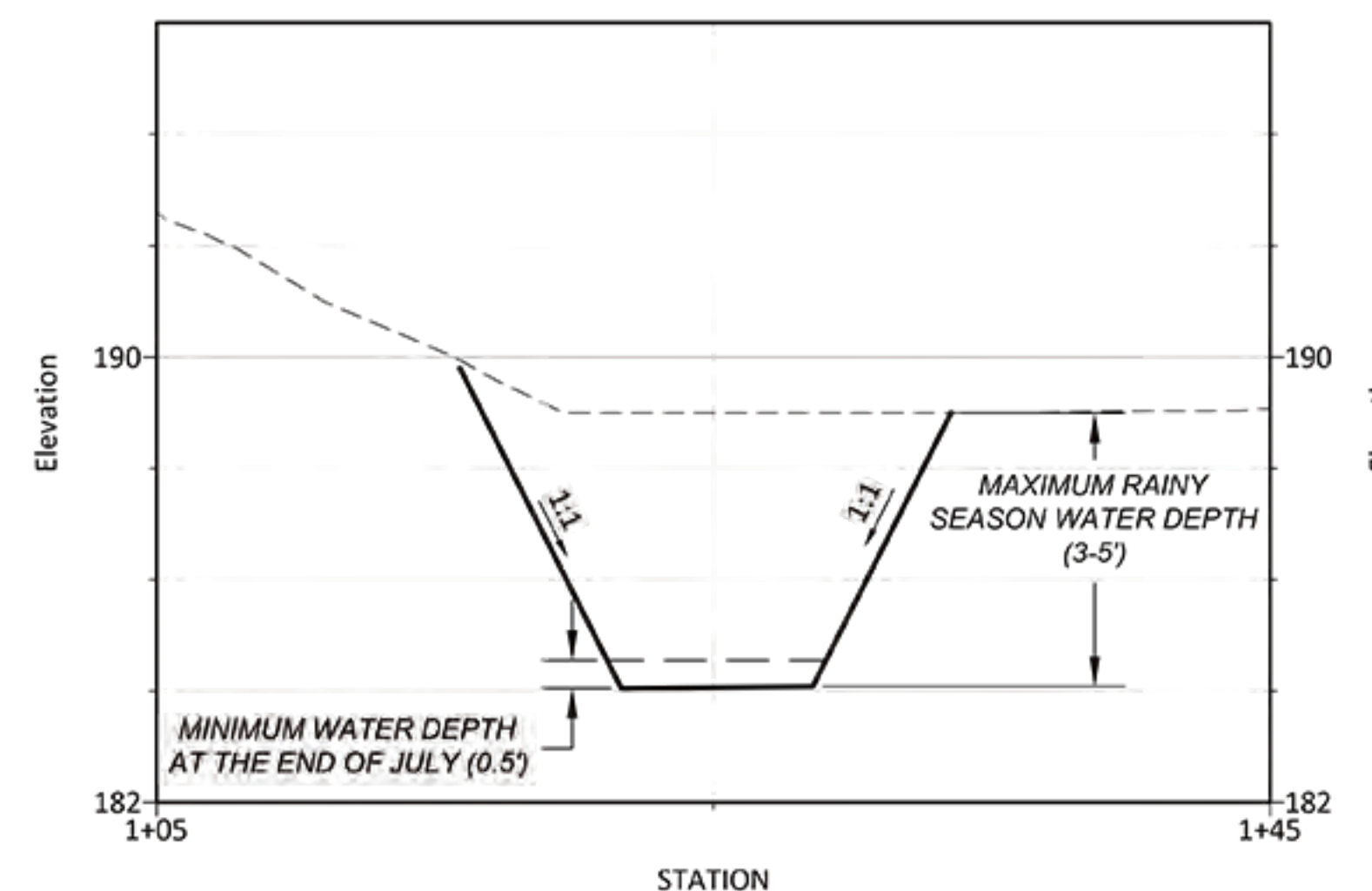
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E
C2 TYPICAL SECTION E
SCALE: H1" = 6'; V1" = 3'



F
C2 TYPICAL SECTION F
SCALE: H1" = 6'; V1" = 3'

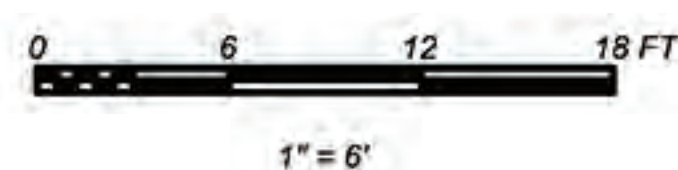


G
C2 TYPICAL SECTION G
SCALE: H1" = 6'; V1" = 3'

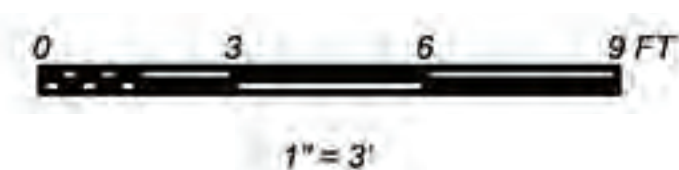
3

- NOTE:
1. CUT TEMPORARY ACCESS GRADE DURING CONSTRUCTION. AFTER CONSTRUCTION, FILL SLOPES TO MEET FINISHED GRADE.
 2. EXCAVATE TRENCH TO DIMENSIONS SHOWN. MIX BENTONITE GRANULES (VOLCLAY CG50 OR APPROVED EQUIVALENT) WITH EXCAVATED MATERIAL. CREATE WELL-HOMOGENIZED MIXTURE OF SOIL AND BENTONITE PER ENGINEER'S RECOMMENDATION WITH APPLICATION RATE OR 8 LB/SQ.FT IN 6" LIFTS, OR SIMILAR VOLUME RATIO OF 4:1 SOIL TO BENTONITE RATIO.
 3. COMPACT FINISHED GRADE FILL SLOPES IN ACCESS ROUTE TO 90% RELATIVE COMPACTION.

HORIZONTAL SCALE: 1" = 6':

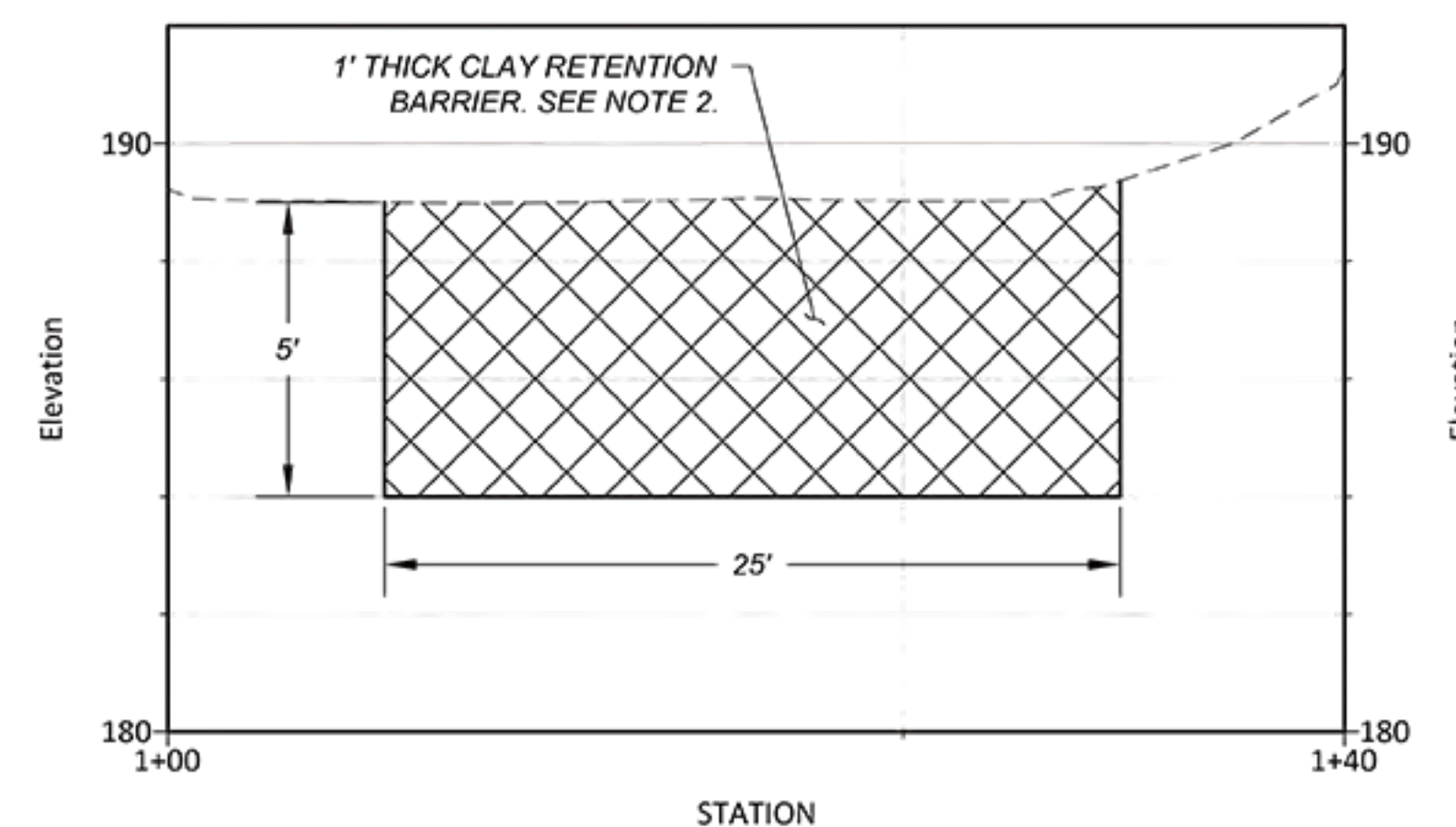


VERTICAL SCALE: 1" = 3':



1" = 6'

1" = 3'

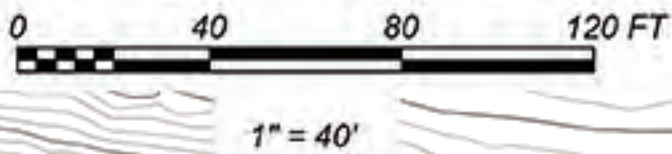


1
C2 CLAY RETENTION BARRIER
SCALE: H1" = 6'; V1" = 3'

4



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						DATE ---
						SHEET C4
						4 OF 5



LEGEND:	
	LANDSLIDE HAZARD AREA
	LIQUEFACTION HAZARD AREA

NOTE:
1. LIDAR CONTOURS AND GEOLOGIC HAZARD AREAS ARE PROVIDED BY SANTA CLARA COUNTY GIS DEPARTMENT, VERIFY IN FIELD.

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UPPER QUARRY CALIFORNIA RED-LEGGED FROG
HABITAT RESTORATION AND MONITORING PLAN
GEOLOGIC HAZARDS PLAN

JOB NUMBER	15-1009-3
DATE	---
SHEET	C5
	5 OF 5

1

2

3

4

LEGEND:

PROJECT BOUNDARY (4.0 AC)

NATIVE RIPARIAN PLANTING AREA (0.37 AC)

LATH & FLAGGING TAPE TO DELINEATE EDGE OF CONSTRUCTION

EXISTING ACCESS ROAD

SOILS PLACEMENT AREA (0.27 AC)

STAGING AREA (0.09 AC)

TEMPORARY CONSTRUCTION ACCESS (15 FT WIDE) (0.19 AC)

WILLOW DOMINATED RIPARIAN FOREST HABITAT (1.06 AC)

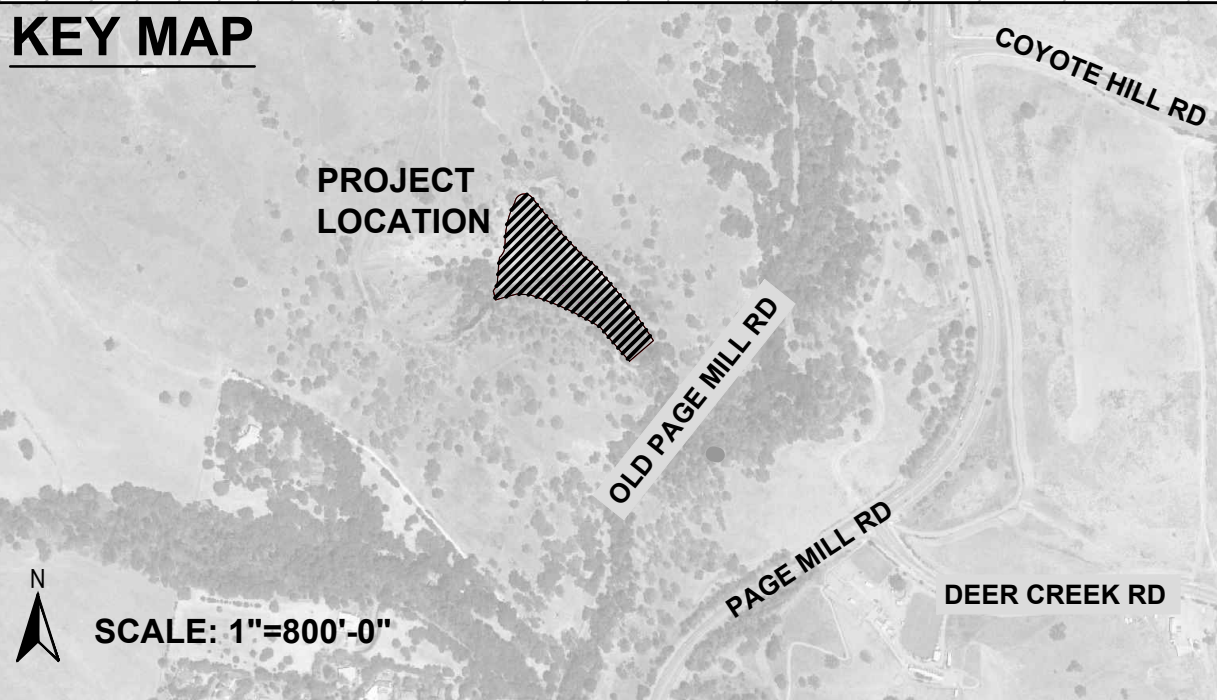
EXISTING PROTECTED TREE TO REMAIN

EXISTING PROTECTED TREE TO BE REMOVED

DEBRIS CLEANUP AREA (0.03 AC)

CRLF POND CREATION SITES (0.005 AC/20 CY OF FILL)*

*PERMANENT FILLS WITHIN JURISDICTIONAL WATERS OF THE U.S.



TREE DISPOSITION & PRESERVATION TABLE*

TAG #	BOTANICAL NAME	COMMON NAME	DBH (IN)	REMOVE/PRESERVE	NOTES
3708	<i>SALIX LAEVIGATA</i>	RED WILLOW	26	REMOVE	TREE IS PROXIMAL TO DEBRIS CLEANUP AREA
3707	<i>SALIX LAEVIGATA</i>	RED WILLOW	24	REMOVE	TREE IS PROXIMAL TO DEBRIS CLEANUP AREA
3709	<i>SALIX LAEVIGATA</i>	RED WILLOW	15, 17	PRESERVE	TREE IS WITHIN 10 FEET OF ACCESS TRAIL
3710	<i>SALIX LAEVIGATA</i>	RED WILLOW	14	REMOVE	REMOVAL AT GRADE
3711	<i>SALIX LAEVIGATA</i>	RED WILLOW	24, 11, 7	REMOVE	24 INCH TRUNK TO BE REMOVED, 11 AND 7 INCH TRUNKS TO BE PRESERVED
3712	<i>SALIX LAEVIGATA</i>	RED WILLOW	12, 11	REMOVE	REMOVAL AT GRADE
3713	<i>SALIX LAEVIGATA</i>	RED WILLOW	11, 7	REMOVE	REMOVAL AT GRADE
3714	<i>SALIX LAEVIGATA</i>	RED WILLOW	14	REMOVE	TREE IS PROSTRATE, REMOVAL AT GRADE
3715	<i>SALIX LAEVIGATA</i>	RED WILLOW	13, 9	REMOVE	PROSTRATE 13 INCH TRUNK TO BE REMOVED, UPRIGHT 9 INCH TRUNK TO BE PRESERVED
3716	<i>QUERCUS AGRIFOLIA</i>	COAST LIVE OAK	16	REMOVE	TREE IS PROSTRATE AND UPROOTED BUT ALIVE, REMOVAL AT GRADE
3717	<i>SALIX LAEVIGATA</i>	RED WILLOW	12, 10	REMOVE	12 INCH TRUNK TO BE REMOVED, 10 INCH TRUNK TO BE PRESERVED
TOTAL NUMBER OF PROTECTED-STATUS TREES IN WORK AREA					11
TOTAL NUMBER OF PROTECTED-STATUS TREES TO BE REMOVED					10

*THIS TABLE ONLY INCLUDES PROTECTED-STATUS TREES PER SANTA CLARA COUNTY ORDINANCE, SECTION C16-3.

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H. T. HARVEY & ASSOCIATES

Ecological Consultants

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STANFORD UNIVERSITY HCP
UPPER QUARRY CALIFORNIA RED-LEGGED FROG
HABITAT RESTORATION AND MONITORING PLAN
TREE DISPOSITION AND PROTECTION PLAN

JOB NUMBER
3671-05

DATE
3/15/2019

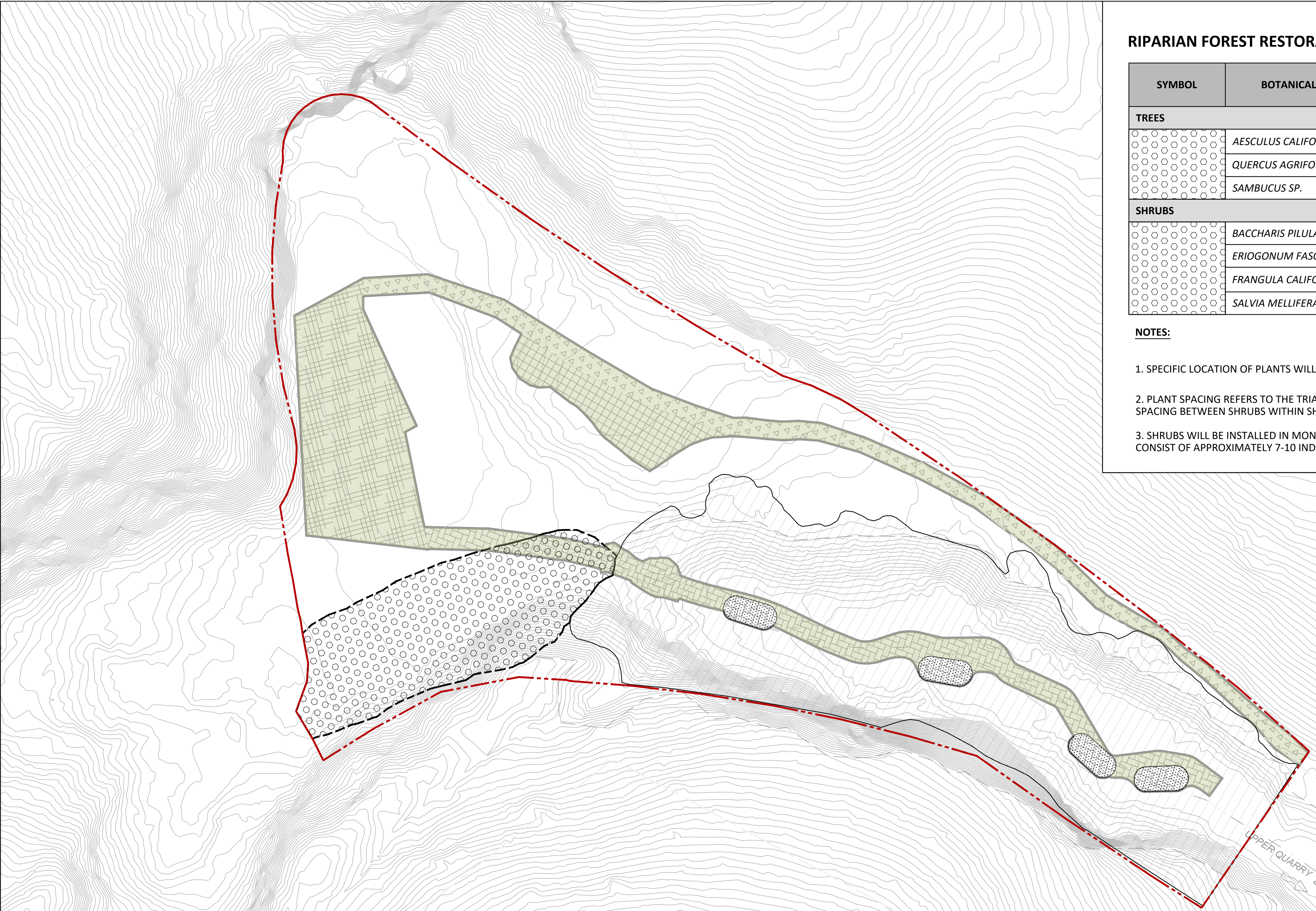
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1 OF 2

1

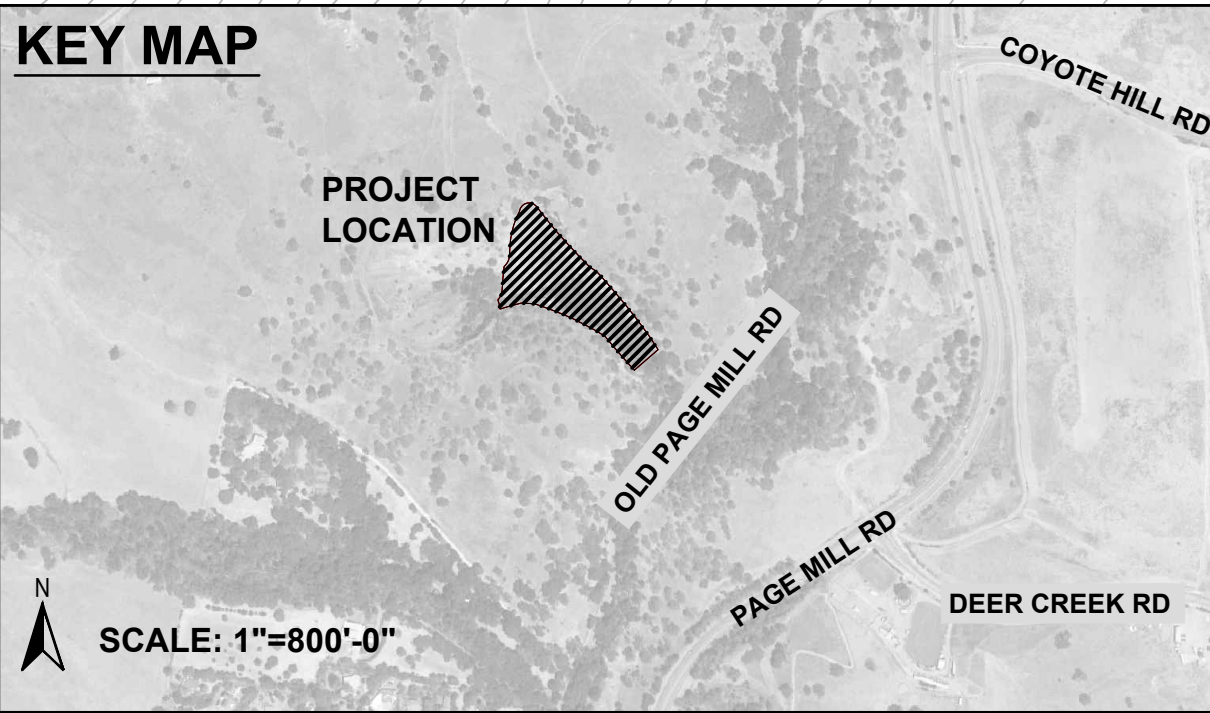
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4



- LEGEND:**
- PROJECT BOUNDARY (4.0 AC)
 - NATIVE RIPARIAN PLANTING AREA (0.37 AC)
 - EXISTING ACCESS ROAD
 - SOILS PLACEMENT AREA (0.27 AC)
 - STAGING AREA (0.09 AC)
 - TEMPORARY CONSTRUCTION ACCESS (15 FT WIDE) (0.19 AC)
 - WILLOW DOMINATED RIPARIAN FOREST HABITAT (1.06 AC)
 - SEEDED AREA
 - CRLF POND CREATION SITES (0.005 AC/20 CY OF FILL)*



*PERMANENT FILLS WITHIN JURISDICTIONAL WATERS OF THE U.S.

RIPARIAN FOREST RESTORATION PLANT SCHEDULE

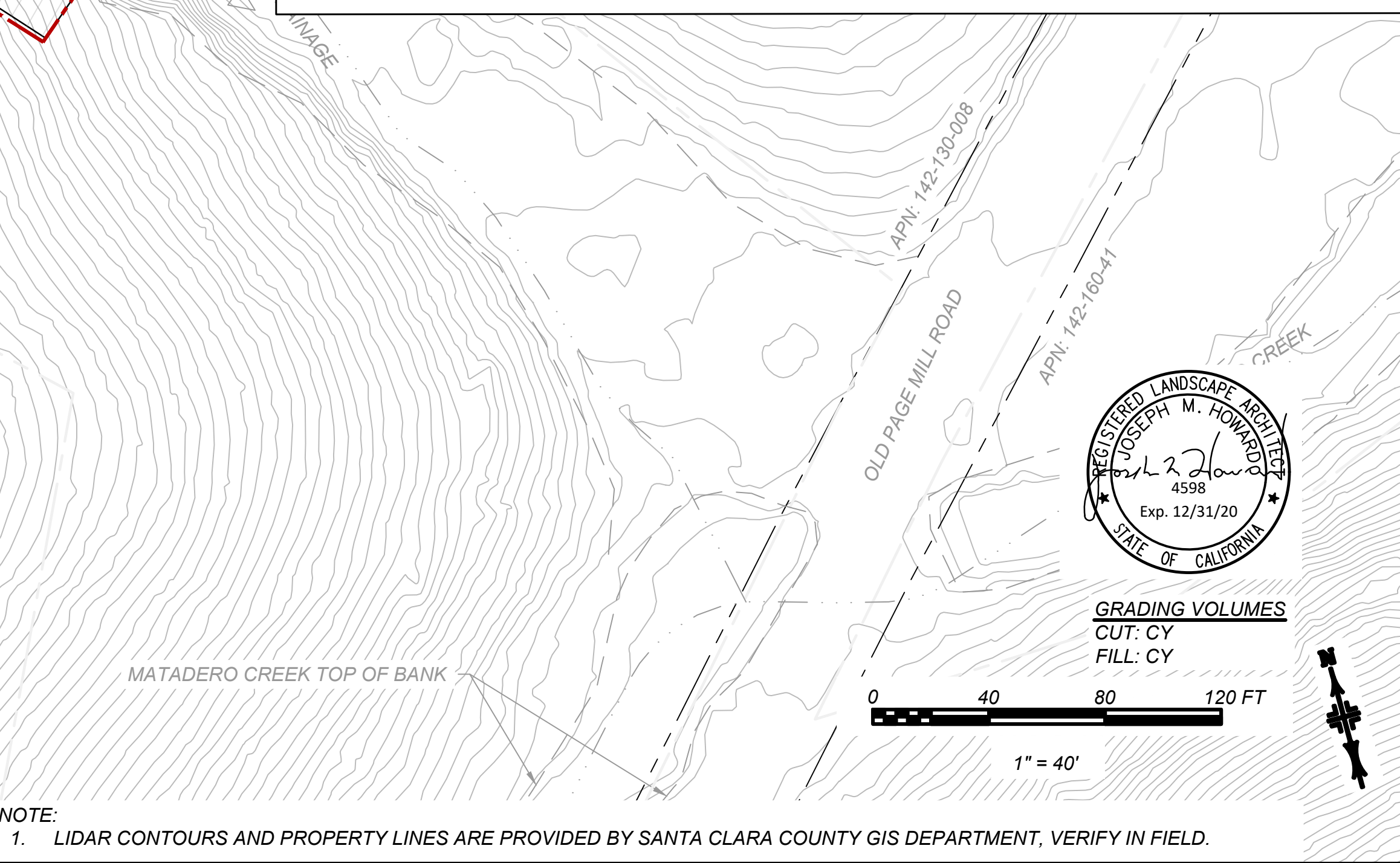
SYMBOL	BOTANICAL NAME	COMMON NAME	CONTAINER SIZE	WUCOLS	PLANT SPACING (TRIANGULAR FEET ON CENTER)	QUANTITY
TREES						
	AESCULUS CALIFORNICA	CALIFORNIA BUCKEYE	TREEPOT 4	VL	12	39
	QUERCUS AGRIFOLIA	COAST LIVE OAK	TREEPOT 4	VL	15	33
	SAMBUCUS SP.	ELDERBERRY	TREEPOT 4	L	10	56
SHRUBS						
	BACCHARIS PILULARIS	COYOTE BRUSH	1 GAL	L	8	26
	ERIOGONUM FASCICULATUM	BUCKWHEAT	1 GAL	VL	6	13
	FRANGULA CALIFORNICA	CALIFORNIA COFFEEBERRY	1 GAL	L	6	52
	SALVIA MELLIFERA	BLACK SAGE	1 GAL	L	6	22

- NOTES:**
- SPECIFIC LOCATION OF PLANTS WILL BE FLAGGED IN THE FIELD BY A RESTORATION ECOLOGIST.
 - PLANT SPACING REFERS TO THE TRIANGULAR SPACING BETWEEN TREES THROUGHOUT THE RIPARIAN RESTORATION AREA AND TO THE TRIANGULAR SPACING BETWEEN SHRUBS WITHIN SHRUB CLUSTERS.
 - SHRUBS WILL BE INSTALLED IN MONOSPECIFIC CLUSTERS. THEY WILL COVER APPROXIMATELY 25% OF THE RIPARIAN RESTORATION AREA AND WILL CONSIST OF APPROXIMATELY 7-10 INDIVIDUALS PER SPECIES CLUSTER.

SEEDING SCHEDULE

SYMBOL	BOTANICAL NAME	COMMON NAME	PURE LIVE SEED IBS PER ACRE
	ACMISPON GLABER	DEERWEED	2
	ARTEMISIA CALIFORNICA	CALIFORNIA SAGEBRUSH	1
	BROMUS CARINATUS	CALIFORNIA BROME	5
	ELYMUS GLAUCUS	BUCKLEY BLUE	5
	ERIOPHYLLUM CONFERTIFLORUM	GOLDEN YARROW	2
	ESCHSCHOLZIA CALIFORNICA	CALIFORNIA POPPY	3
	FESTUCA MICROSTACHYS	THREE WEEKS FESCUE	4
	HORDEUM BRACHYANTHERUM	MEADOW BARLEY	5
	LUPINUS SUCCULENTUS	ARROYO LUPINE	3
	SALVIA MELLIFERA	BLACK SAGE	2
	TOTAL		32

- NOTES:**
- BROADCAST SEED AND APPLY STRAW TO ALL DISTURBED UPLAND HABITAT.



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CALIFORNIA
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UPPER QUARRY CALIFORNIA RED-LEGGED FROG
HABITAT RESTORATION AND MONITORING PLAN
RIPARIAN TREE & SHRUB PLANTING PLAN

PALO ALTO

JOB NUMBER
3671-05

DATE
3/15/2019

SHEET
L1.1
2 OF 2

3

CASQA Detail TC-1



4

CASQA Detail EC-10

* Length per ABAG Design Standards

Source for Graphics: California Stormwater BMP Handbook, California Stormwater Quality Association, January 2003.
Available from www.cabmphandbooks.com.

1

CASQA Detail SE-1

2

CASQA Detail SE-1

OPTIONAL MAINTENANCE OPENING DETAIL
(SEE NOTE 11)

STANDARD BEST MANAGEMENT PRACTICE NOTES

1. **Solid and Demolition Waste Management:** Provide designated waste collection areas and containers on site away from streets, gutters, storm drains, and waterways, and arrange for regular disposal. Waste containers must be watertight and covered at all times except when waste is deposited. Refer to Erosion & Sediment Control Field Manual, 4th Edition (page C-3) or latest.
2. **Hazardous Waste Management:** Provide proper handling and disposal of hazardous wastes by a licensed hazardous waste material hauler. Hazardous wastes shall be stored and properly labeled in sealed containers constructed of suitable materials. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-5 to C-6) or latest.
3. **Spill Prevention and Control:** Provide proper storage areas for liquid and solid materials, including chemicals and hazardous substances, away from streets, gutters, storm drains, and waterways. Spill control materials must be kept on site where readily accessible. Spills must be cleaned up immediately and contaminated soil disposed properly. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-7 to C-8, C-13 to C-14) or latest.
4. **Vehicle and Construction Equipment Service and Storage:** An area shall be designated for the maintenance, where on-site maintenance is required, and storage of equipment that is protected from stormwater run-on and runoff. Measures shall be provided to capture any waste oils, lubricants, or other potential pollutants and these wastes shall be properly disposed of off site. Fueling and major maintenance/repair, and washing shall be conducted off-site whenever feasible. Refer to Erosion & Sediment Control Field Manual, 4th Edition (page C-9) or latest.
5. **Material Delivery, Handling and Storage:** In general, materials should not be stockpiled on site. Where temporary stockpiles are necessary and approved by the County, they shall be covered with secured plastic sheeting or tarp and located in designated areas near construction entrances and away from drainage paths and waterways. Barriers shall be provided around storage areas where materials are potentially in contact with runoff. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-11 to C-12) or latest.
6. **Handling and Disposal of Concrete and Cement:** When concrete trucks and equipment are washed on-site, concrete wastewater shall be contained in designated containers or in a temporary lined and watertight pit where wasted concrete can harden for later removal. If possible have concrete contractor remove concrete wash water from site. In no case shall fresh concrete be washed into the road right-of-way. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-15 to C-16) or latest.
7. **Pavement Construction Management:** Prevent or reduce the discharge of pollutants from paving operations, using measures to prevent run-on and runoff pollution and properly disposing of wastes. Avoid paving in the wet season and reschedule paving when rain is in the forecast. Residue from saw-cutting shall be vacuumed for proper disposal. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-17 to C-18) or latest.
8. **Contaminated Soil and Water Management:** Inspections to identify contaminated soils should occur prior to construction and at regular intervals during construction. Remediating contaminated soil should occur promptly after identification and be specific to the contaminant identified, which may include hazardous waste removal. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-19 to C-20) or latest.
9. **Sanitary/Septic Water Management:** Temporary sanitary facilities should be located away from drainage paths, waterways, and traffic areas. Only licensed sanitary and septic waste haulers should be used. Secondary containment should be provided for all sanitary facilities. Refer to Erosion & Sediment Control Field Manual, 4th Edition (page C-21) or latest.
10. **Inspection & Maintenance:** Areas of material and equipment storage sites and temporary sanitary facilities should be inspected weekly. Problem areas shall be identified and appropriate additional and/or alternative control measures implemented immediately, within 24 hours of the problem being identified.

STANDARD EROSION CONTROL NOTES

- 1. Sediment Control Management:**
- Tracking Prevention & Clean Up:** Activities shall be organized and measures taken as needed to prevent or minimize tracking of soil onto the public street system. A gravel or proprietary device construction entrance/exit is required for all sites. Clean up of tracked material shall be provided by means of a street sweeper prior to an approaching rain event, or at least once at the end of each workday that material is tracked, or, more frequently as determined by the County Inspector. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages B-31 to B-33) or latest.
- Storm Drain Inlet and Catch Basin Inlet Protection:** All inlets within the vicinity of the project and within the project limits shall be protected with gravel bags placed around inlets or other inlet protection. At locations where exposed soils are present, staked fiber roles or staked silt fences can be used. Inlet filters are not allowed due to clogging and subsequent flooding. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages B-49 to B-51) or latest.
- Storm Water Runoff:** No storm water runoff shall be allowed to drain in to the existing and/or proposed underground storm drain system or other above ground watercourses until appropriate erosion control measures are fully installed.
- Dust Control:** The contractor shall provide dust control in graded areas as required by providing wet suppression or chemical stabilization of exposed soils, providing for rapid clean up of sediments deposited on paved roads, furnishing construction road entrances and vehicle wash down areas, and limiting the amount of areas disturbed by clearing and earth moving operations by scheduling these activities in phases.
- Stockpiling:** Excavated soils shall not be placed in streets or on paved areas. Borrow and temporary stockpiles shall be protected with appropriate erosion control measures (tarps, straw bales, silt fences, ect.) to ensure silt does not leave the site or enter the storm drain system or neighboring watercourse.
2. **Erosion Control:** During the rainy season, all disturbed areas must include an effective combination of erosion and sediment control. It is required that temporary erosion control measures are applied to all disturbed soil areas prior to a rain event. During the non-rainy season, erosion control measures must be applied sufficient to control wind erosion at the site.
3. **Inspection & Maintenance:** Disturbed areas of the Project's site, locations where vehicles enter or exit the site, and all erosion and sediment controls that are identified as part of the Erosion Control Plans must be inspected by the Contractor before, during, and after storm events, and at least weekly during seasonal wet periods. Problem areas shall be identified and appropriate additional and/or alternative control measures implemented immediately, within 24 hours of the problem being identified.
4. **Project Completion:** Prior to project completion and signoff by the County Inspector, all disturbed areas shall be reseeded, planted, or landscaped to minimize the potential for erosion on the subject site.
5. It shall be the Owner's/Contractor's responsibility to maintain control of the entire construction operation and to keep the entire site in compliance with the erosion control plan.
6. Erosion and sediment control best management practices shall be operable year round or until vegetation is fully established on landscaped surfaces.

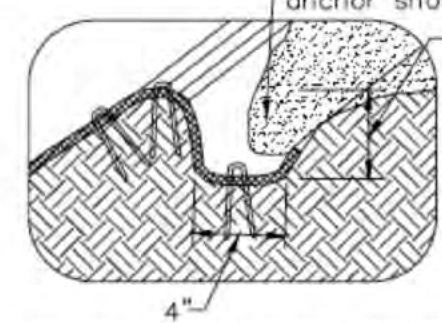
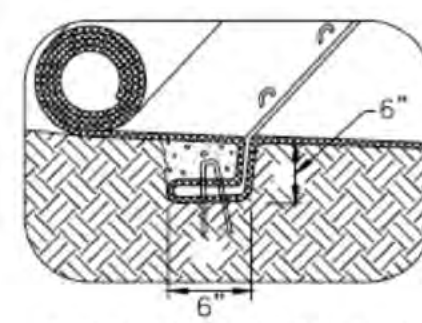
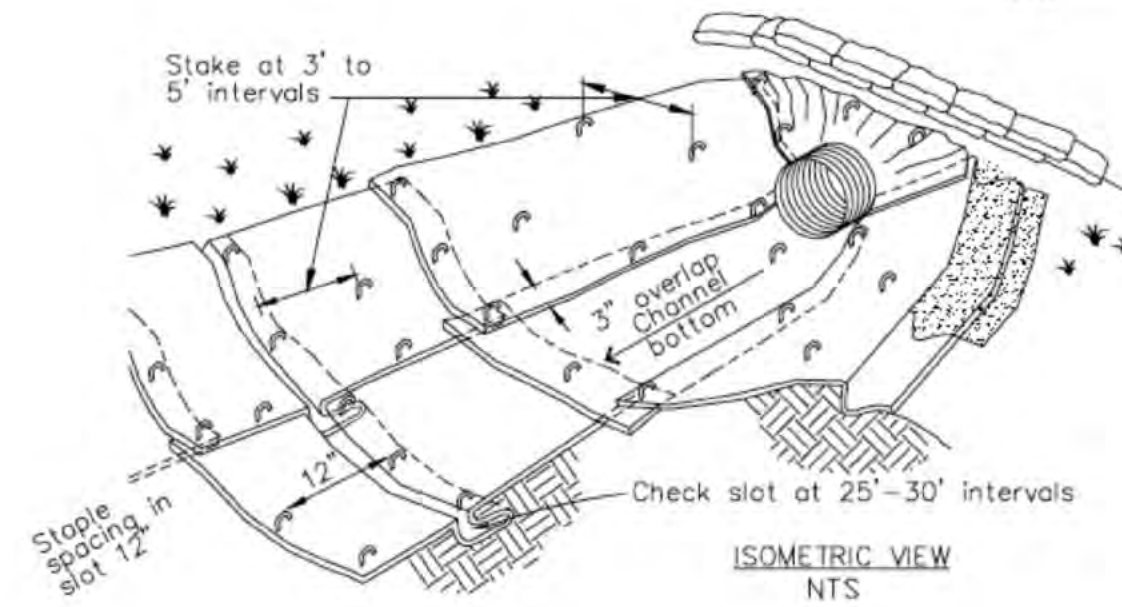
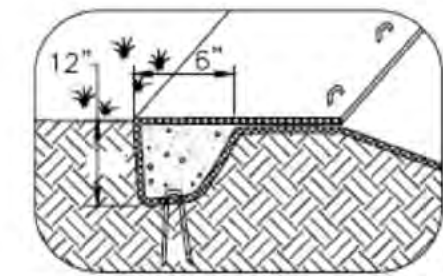
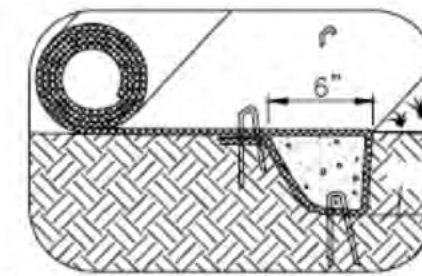
Project Information



7

Geotextiles and Mats

CASQA Detail EC-7



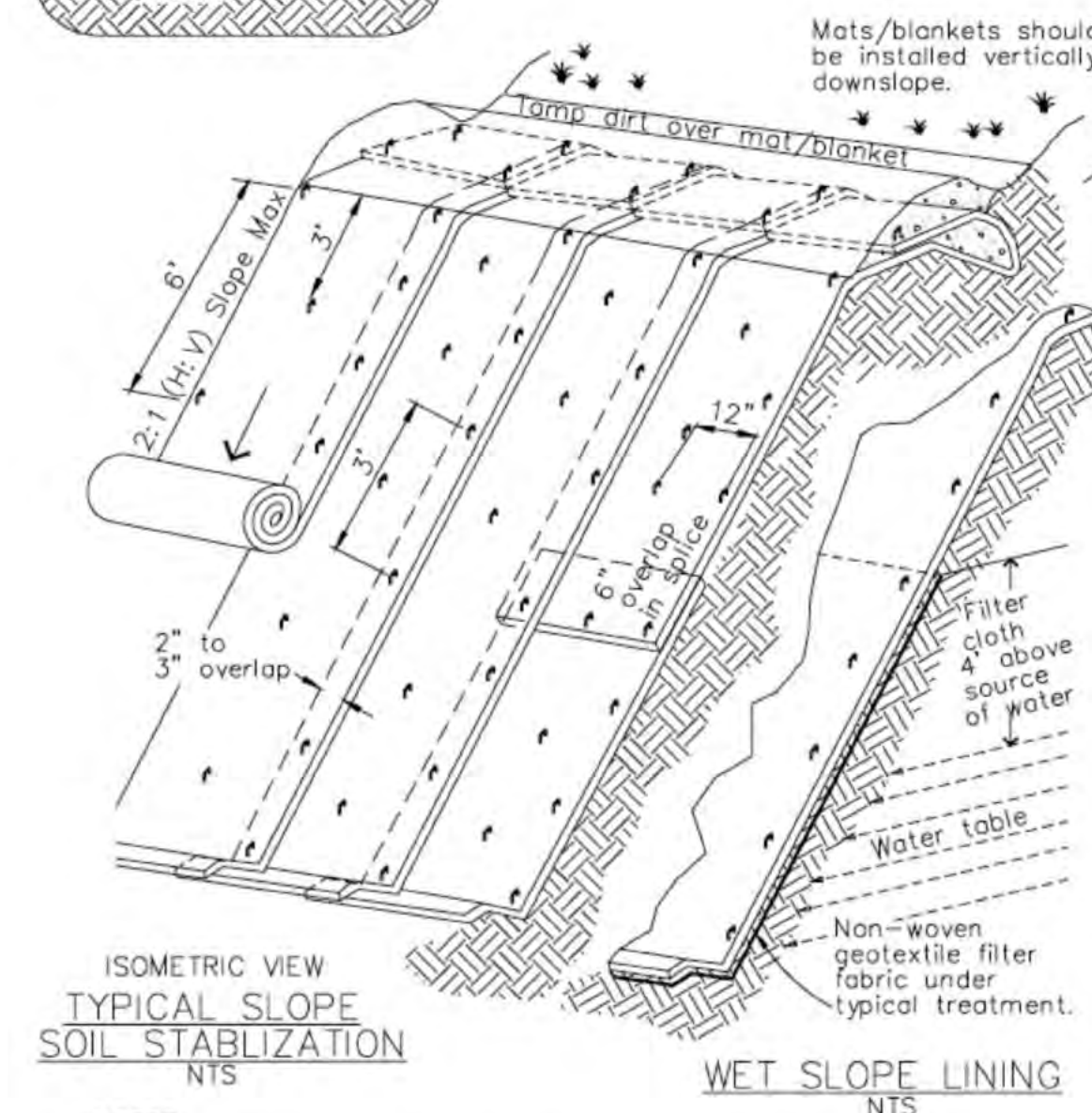
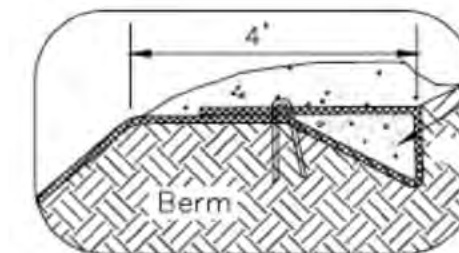
- NOTES:
1. Check slots to be constructed per manufacturers specifications.
 2. Staking or stapling layout per manufacturers specifications.
 3. Install per manufacturer's recommendations

TYPICAL INSTALLATION DETAIL

5

Geotextiles and Mats

CASQA Detail EC-7



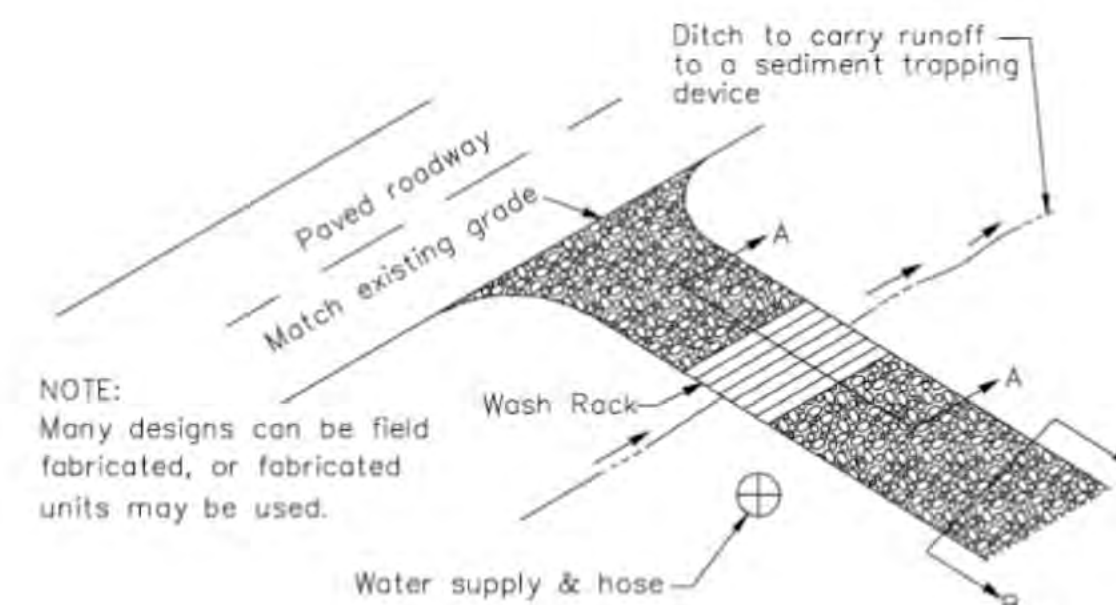
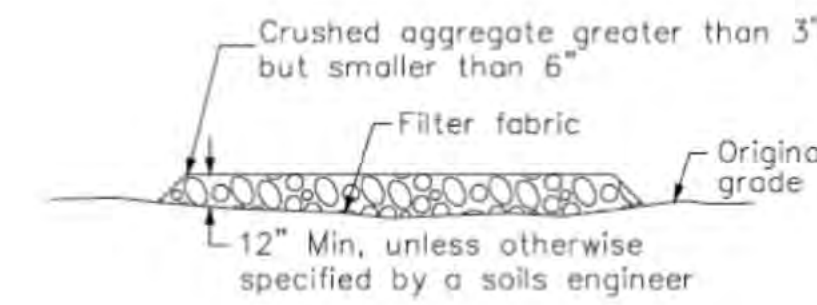
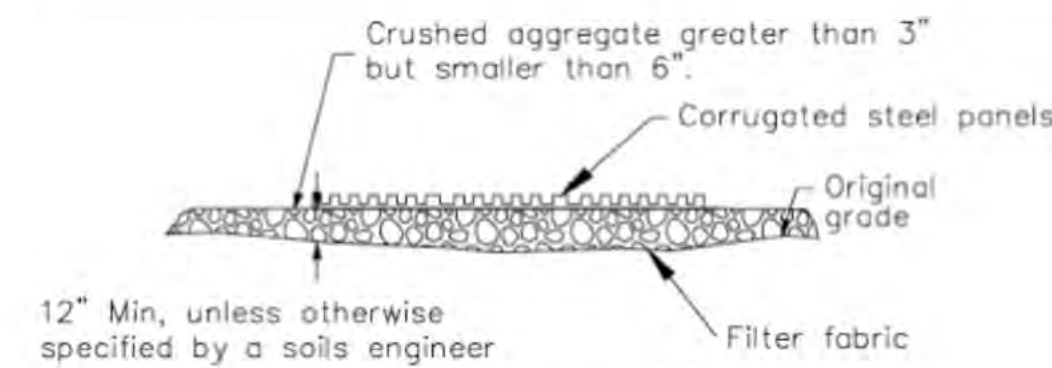
- NOTES:
1. Slope surface shall be free of rocks, clods, sticks and grass. Mats/blanks shall have good soil contact.
 2. Lay blankets loosely and stake or staple to maintain direct contact with the soil. Do not stretch.
 3. Install per manufacturer's recommendations

TYPICAL INSTALLATION DETAIL

3

Entrance/Outlet Tire Wash

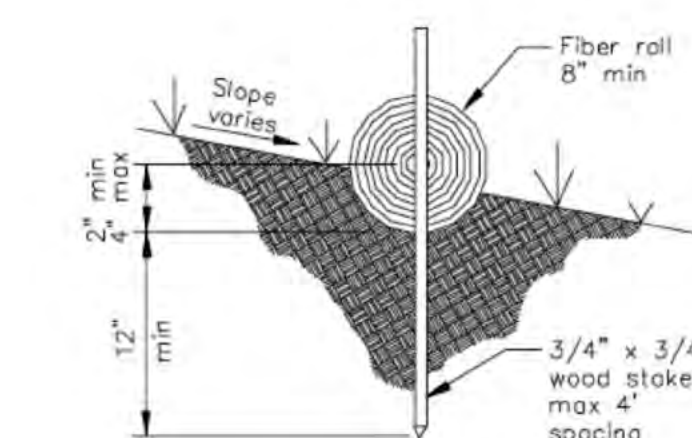
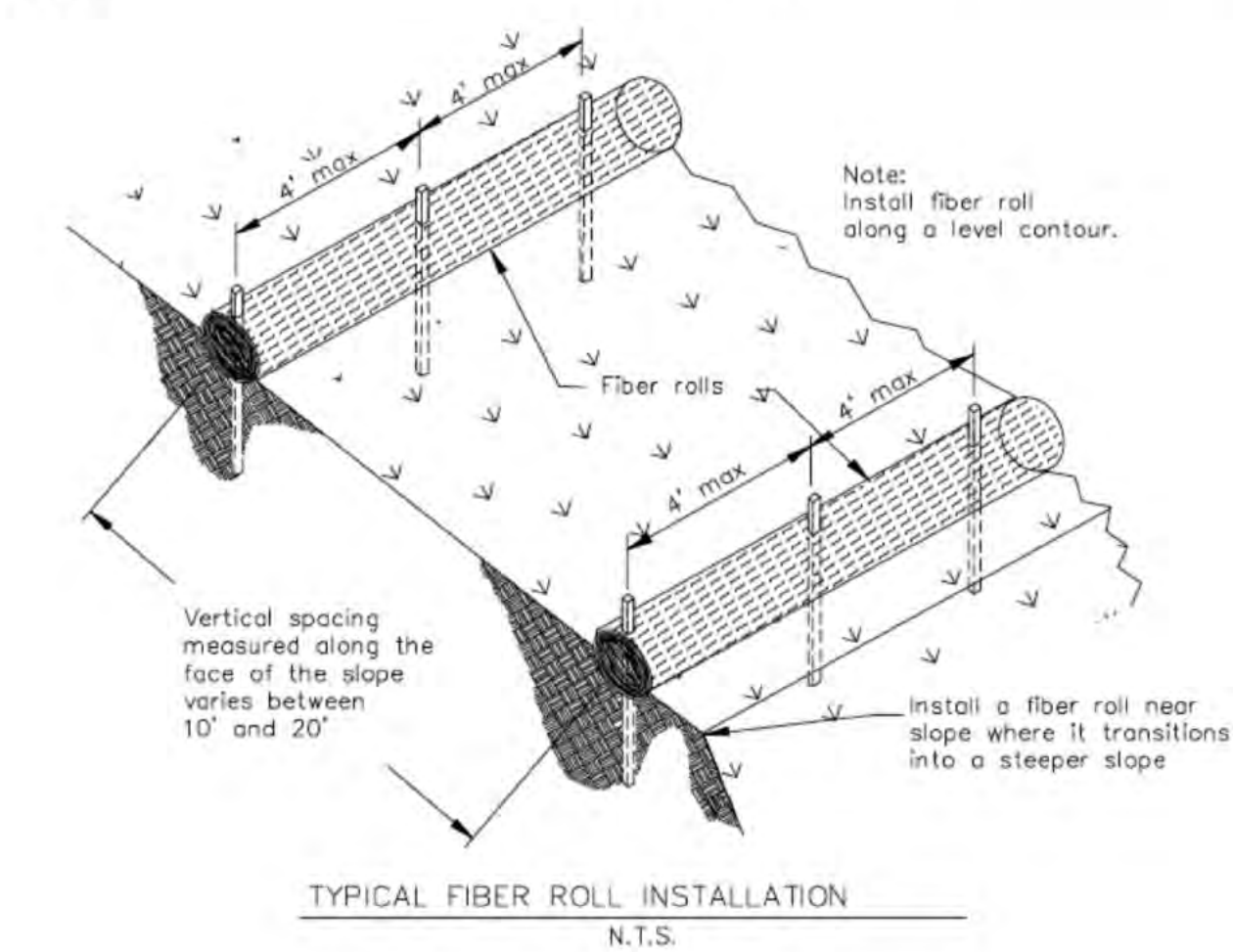
CASQA Detail TC-3

TYPICAL TIRE WASH
NOT TO SCALE

1

Fiber Rolls

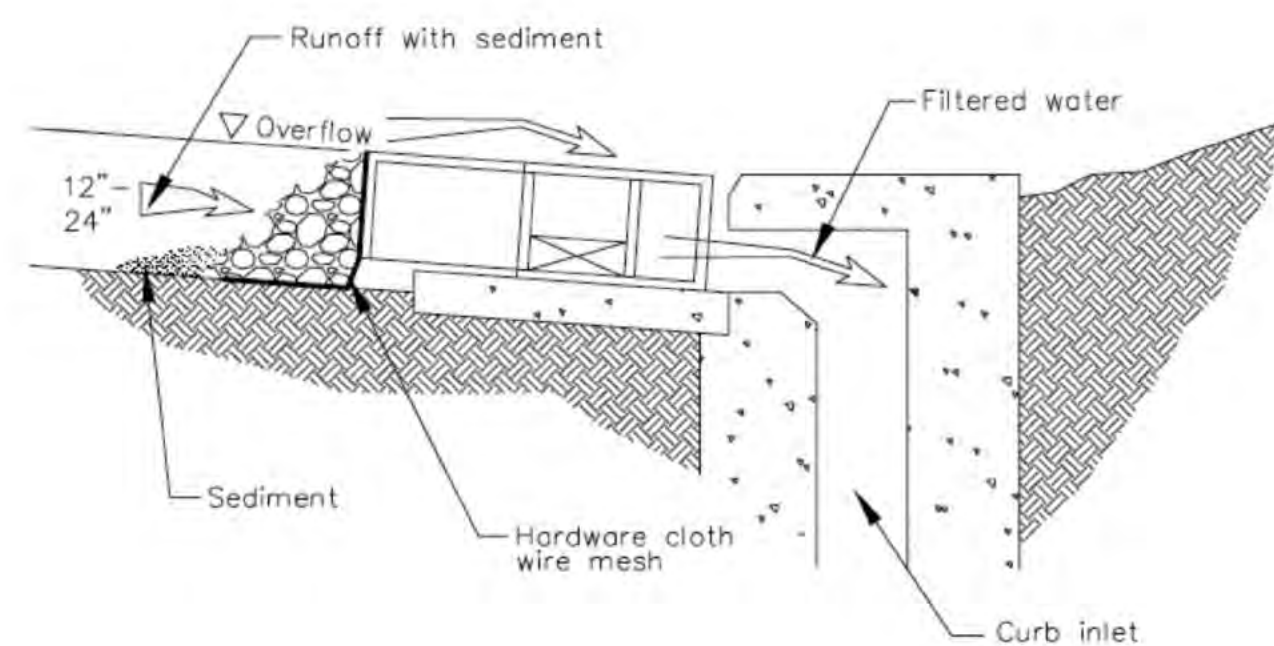
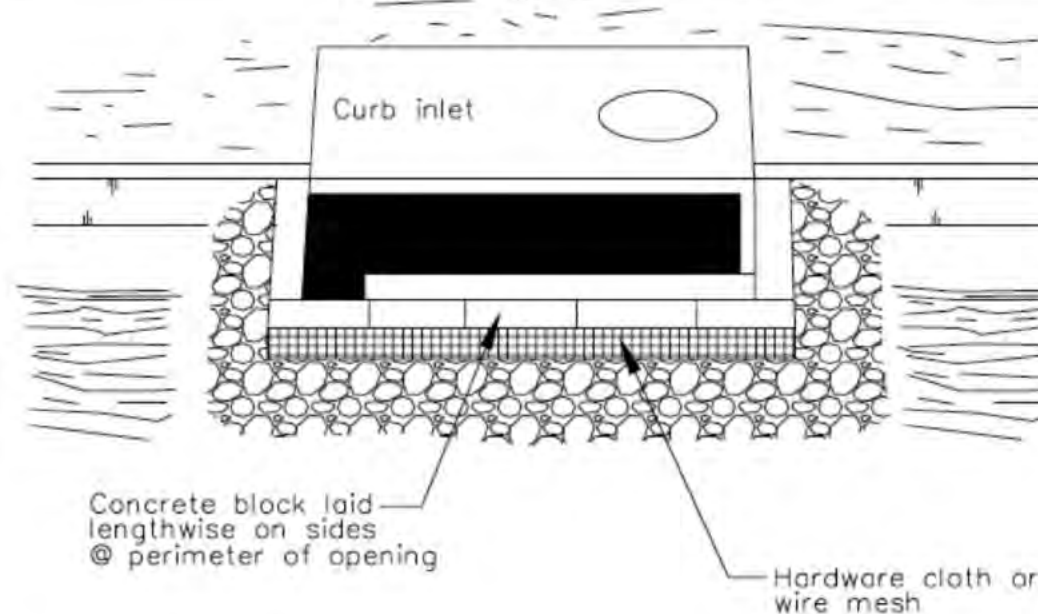
CASQA Detail SE-5

ENTRENCHMENT DETAIL
N.T.S.

8

Storm Drain Inlet Protection

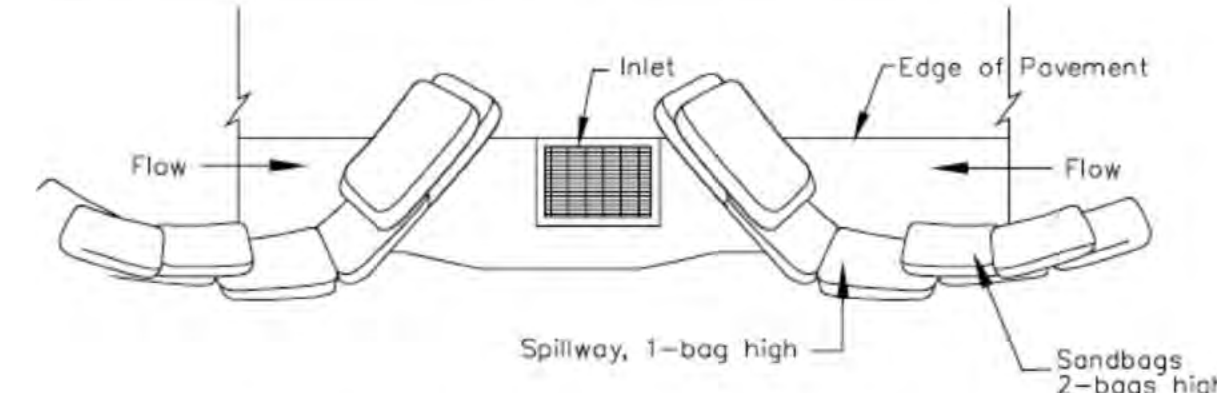
CASQA Detail SE-10

DI PROTECTION - TYPE 4
NOT TO SCALE

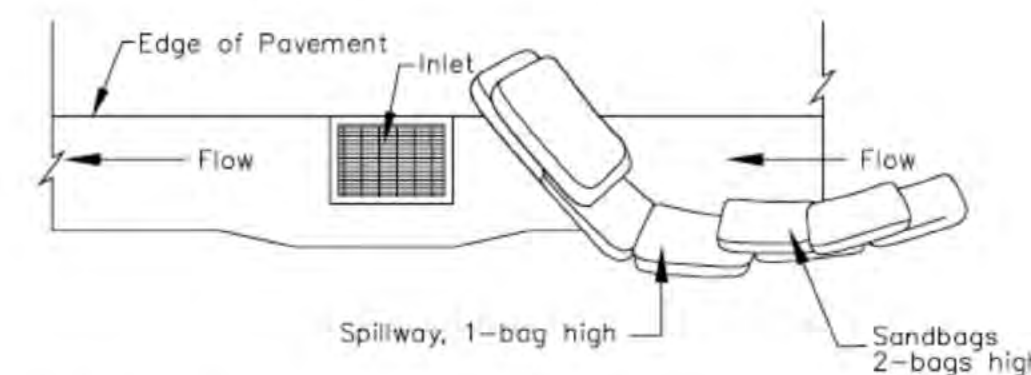
6

Storm Drain Inlet Protection

CASQA Detail SE-10



TYPICAL PROTECTION FOR INLET ON SUMP



TYPICAL PROTECTION FOR INLET ON GRADE

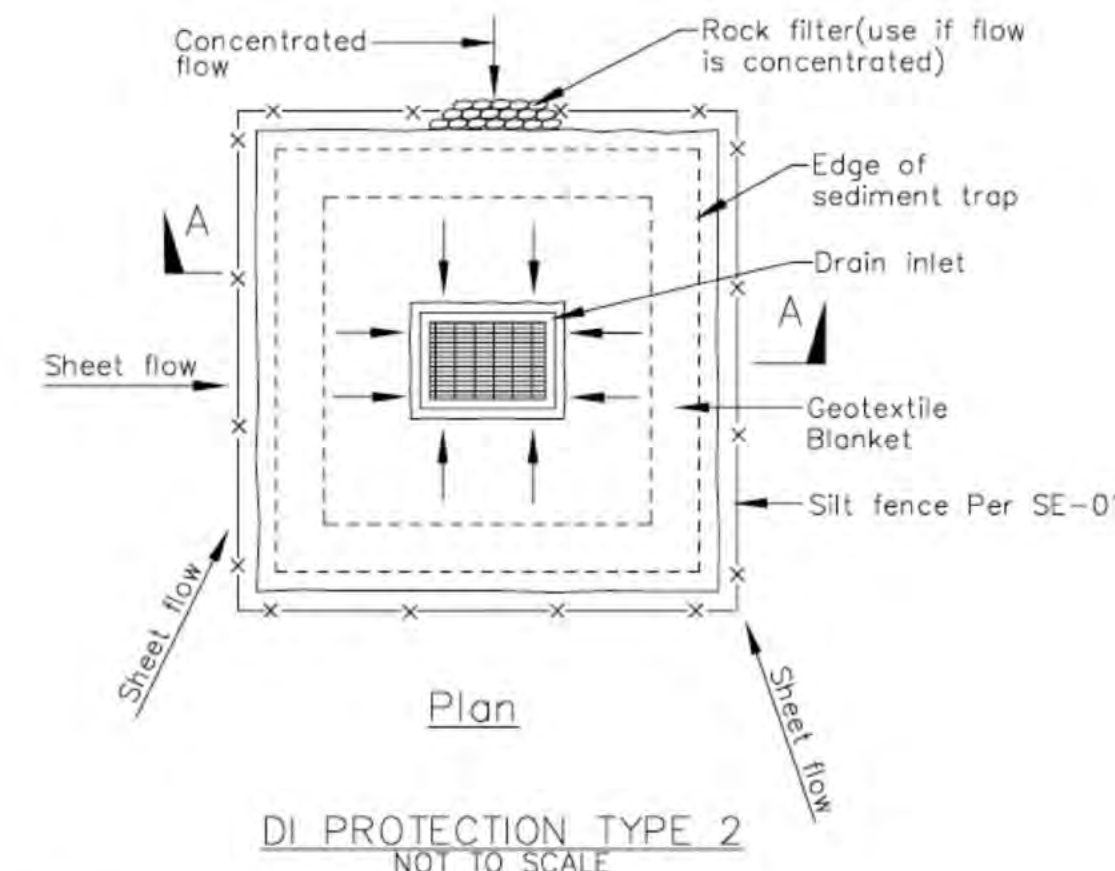
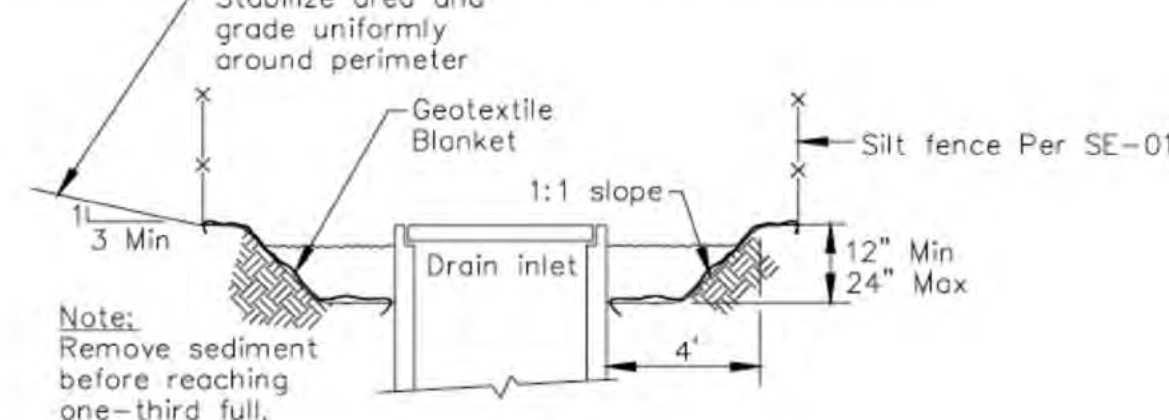
- NOTES:
1. Intended for short-term use.
 2. Use to inhibit non-storm water flow.
 3. Allow for proper maintenance and cleanup.
 4. Bags must be removed after adjacent operation is completed
 5. Not applicable in areas with high silts and clays without filter fabric.

DI PROTECTION TYPE 3
NOT TO SCALE

4

Storm Drain Inlet Protection

CASQA Detail SE-10

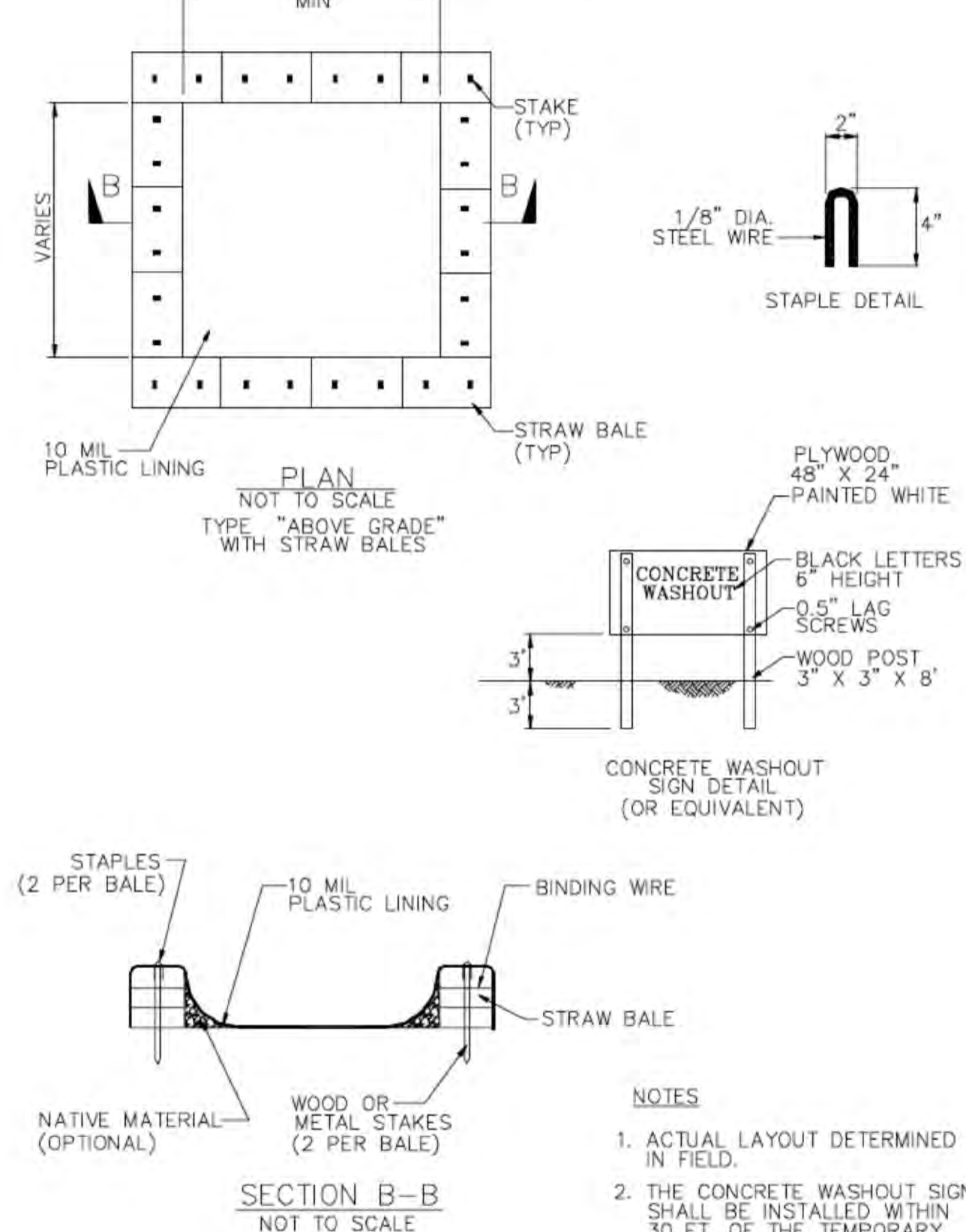


- Notes
1. For use in cleared and grubbed and in graded areas.
 2. Shape basin so that longest inflow area faces longest length of trap.
 3. For concentrated flows, shape basin in 2:1 ratio with length oriented towards direction of flow.

2

Concrete Waste Management

CASQA Detail WM-8



Source for Graphics: California Stormwater BMP Handbook, California Stormwater Quality Association, January 2003.
Available from www.cabmphandbooks.com.

