

**San Mateo Landfill Closure,
Phase II
&
Seal Point Park**

Scope of Work



- Landfill Closure Phase I
- New 13 Acre Wetlands
- Remove “Objectionable” Material
 - Logs, concrete, contaminated soil
- Landfill Closure Phase II
- Post-closure development (Seal Point Park)
 - Dog Park
 - Windsurf and kayak launch facilities
 - San Francisco Bay Trail and other trails/paths
 - Restrooms and maintenance facility



Wetlands Construction

- Dug out 70,000 CY landfill material
- Construction debris & logs
- Composted vegetation
- Very wet conditions
- Drainage features
- Stockpiled material for building landfill cap
 - Exploration
 - Drying
 - Segregation























Debris removal

- Logs to Class I site
- Concrete and brick to recycle facility
- Lead-impacted soil to Class III
(CA Hazardous Waste, non-RCRA)





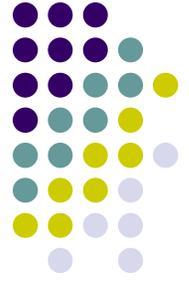






Landfill Closure Phase II

- 24” minimum Foundation Layer
 - recycled “native” material
 - screened and segregated
 - 6” – minus gradation
- Geosynthetic Clay Liner (GCL)
- 18” minimum Erosion Protective Layer
 - Imported clayey sand with rounded particles
 - Clean environmentally and no glass



Landfill Cap Concerns

- Foundation and erosion layer thickness
- GCL edge anchorage and overlap
- Integrity of GCL
- Minimize GCL penetrations
- Integrity of GCL penetrations
- Landfill gas migration into buildings
 - LFGM seal (Liquid Boot)
 - Gas capture system
 - Alarm system
- Prepare for and control post-closure development when Park is constructed











POWERTRACK

POWER RACK 800













2004 6 18



2004 6 18



2004 7 13



2004 7 14



2004 7 16



2004 7 19



2004 7 19



2004 7 19



2004 7 20



2004 7 20



2004 7 20



2004 7 20



2004 7 20



2004 7 22



2004 7 22



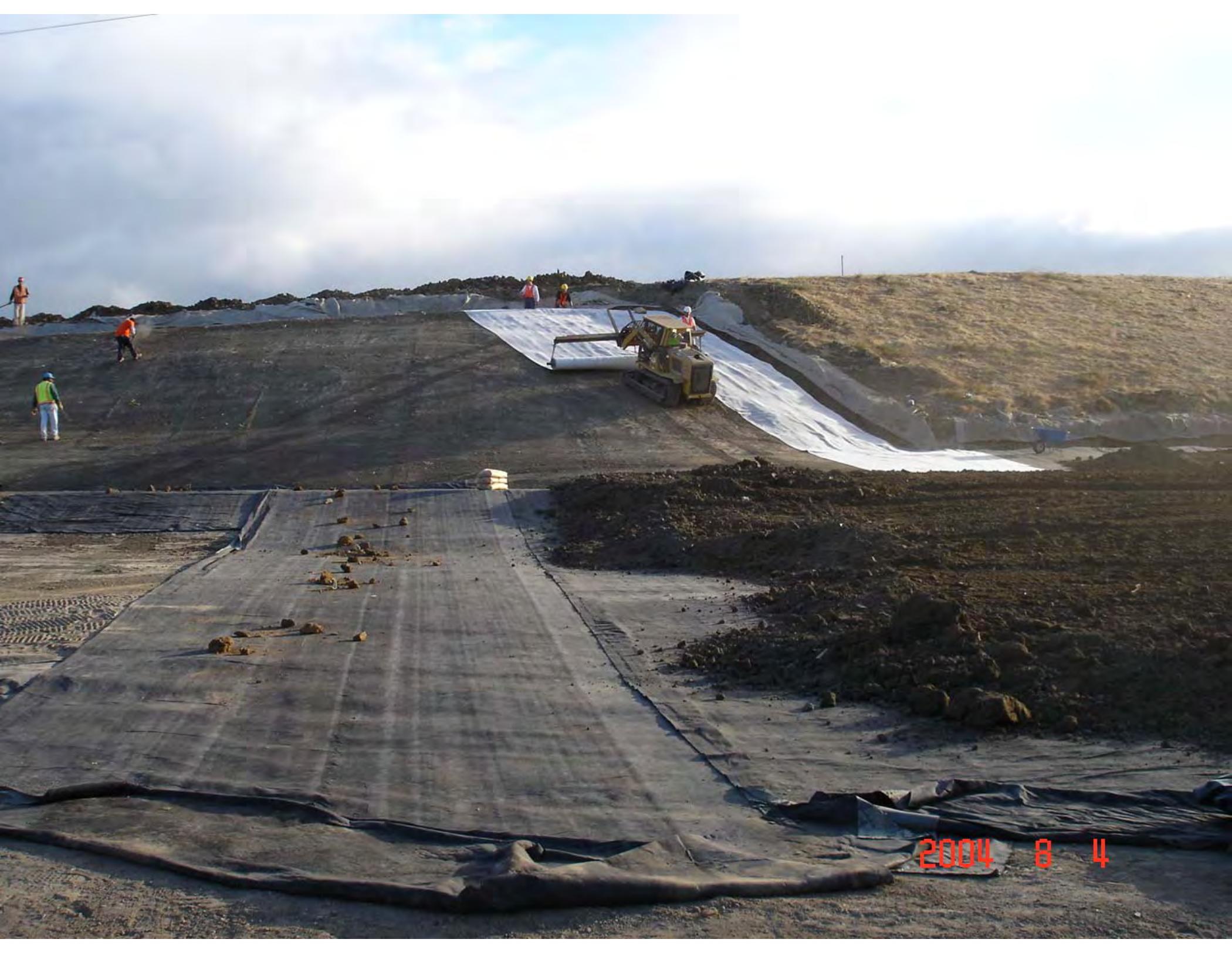
2004 7 26



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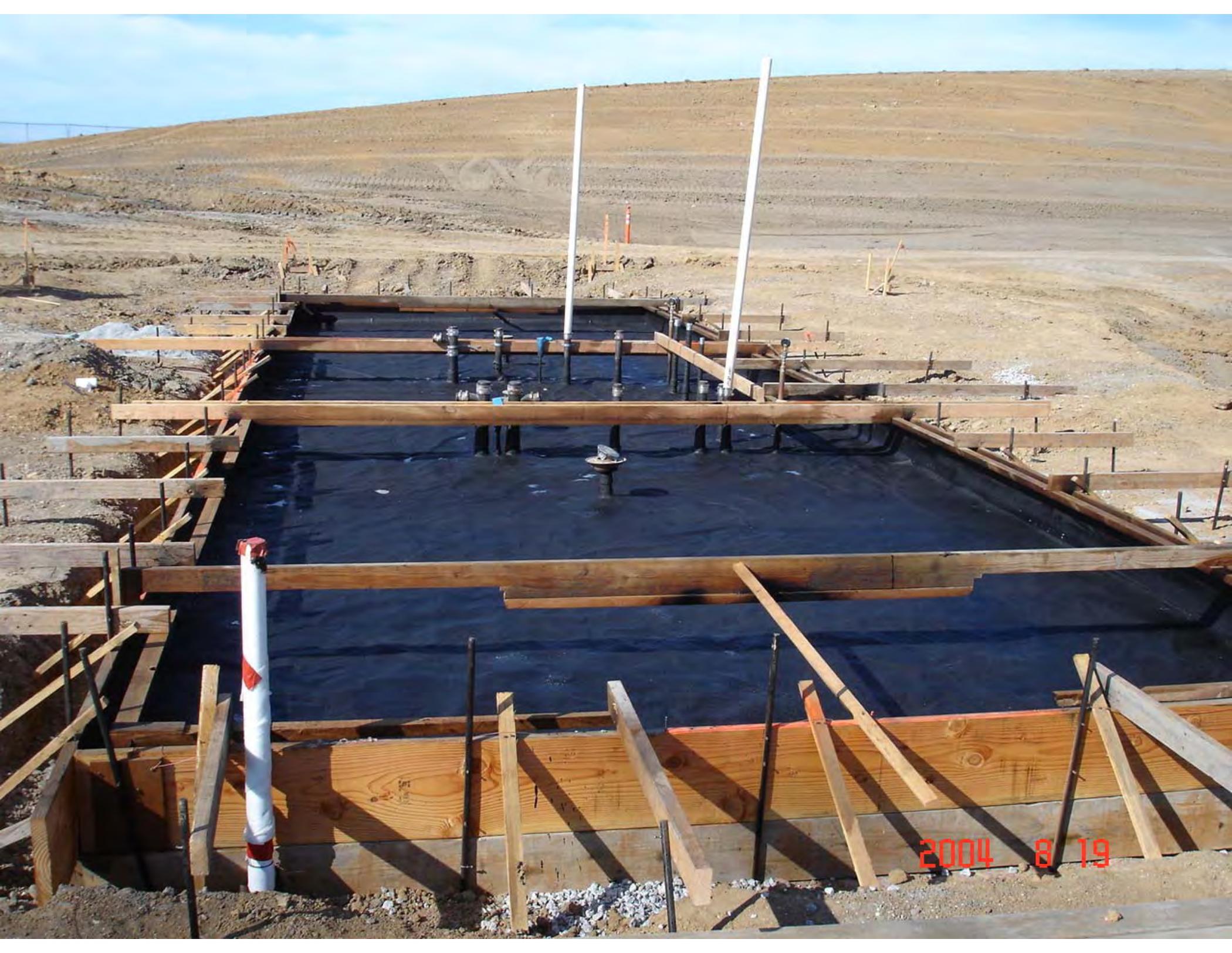
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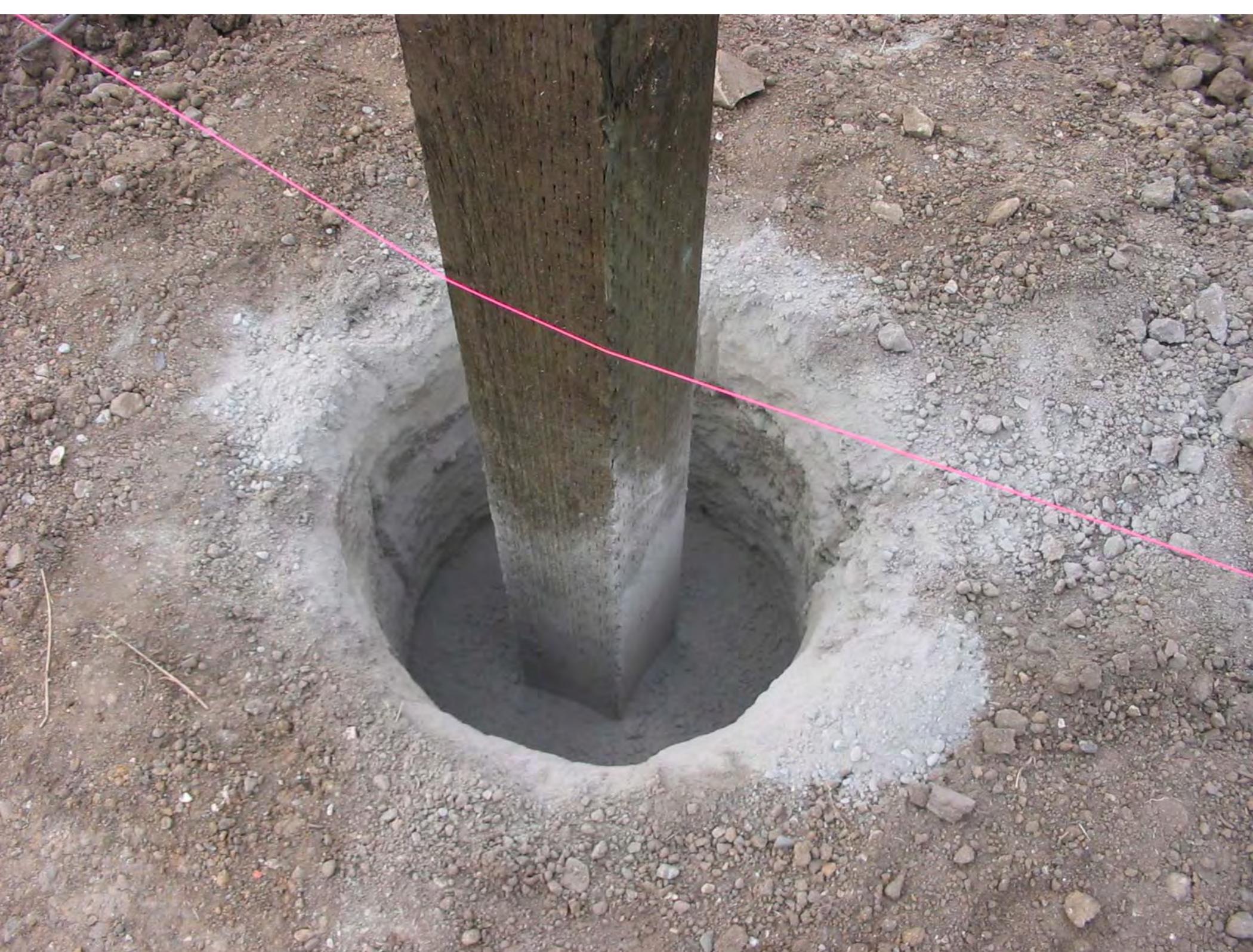
Post-Closure Development



2004 8 23









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2005 4 12

Construction Quality Assurance Report

Phase II East Third Avenue Landfill Closure Project





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2004 7 19



2004 8 20



2004 7 30



2004 8 18



2004 7 28



2004 7 28



2004 7 20



2004 8 19



2004 8 19



2004 8 23

**CITY OF SAN MATEO
EAST 3RD AVENUE LANDFILL CLOSURE PROJECT
PHASE 2
Project No. 460531**

REPORT NO.: DFR #42

DATE: July 21st, 2004, Wednesday
M T W TH F S SU (CIRCLE DAY)

SHIFT HOURS 06.50am | 16.50pm
START STOP

CQA HOURS: 7.0 Hrs QA: HOURS: 1.0 Hrs

ASSISTANT ENGINEER'S DAILY

Gee Hayre – CQA Monitor, Kleinfelder Inc.

REPORT

42

(LOCATION & DESCRIPTION OF OPERATION)

GCL installation at foundation layer between Sta 26+00 to Sta 23+00 Southeast of foundation layer. Document certified payroll records. Pipe installation & backfill @ storm drains. Pankow builders haul import material from San Mateo Library as directed by CC. Concrete pour at outdoor ramp to windsurfing ramp.

Arrived on site at 06.50am for observation and review for activities related with progress for foundation construction & CQA & QA related procedures to date.

At 07.00am monitored daily progress for equipment and labor inventory documentation for Certified Payroll Labor attendances required on a daily basis for information in accordance with contract specifications section 1776.

At 07.20am observed concrete pour at windsurfing ramp, prior placement observed the contractor had adequately dampened substrate and thoroughly water blasted all forms to eliminate traces of salt and other bay water deposits. The contractor placed 1st truck using a concrete pump with a slump observed to be with the 4" limit. I observed there was no freestanding water prior to placement with the contractor using a vibrator to compact and consolidate in place.

At 07.40am met with JD. Simbeck (Manufacturers Representative) to discuss GCL installation schedule at foundation layer between Sta 26+00 to Sta 23+00 South/East side of site including the PG&E towers.

At 08.10am JD.Simbeck (manufacturers representative) confirmed in writing that the surface on which the GCL will be installed is acceptable and submitted a signed certificate for the acceptable subgrade surface. The Installer confirmed the surface was firm and unyielding without any abrupt changes and freestanding surface water.

At 08.20am the installation contractor (JD Simbeck) used a forklift with a spreader bar and core pipe attachment for the on-site handling and installation process. During placement all GCL rolls were able to rotate freely around the core pipe. I verified panels were placed on the foundation with minimal wrinkles and anchored in place with sand bags to prevent movement by the wind. The GCL was placed beginning in the anchor trenches covering the entire trench floor but not extending up the rear wall.

The installer cut around penetrations (catch basins) with a sharp utility knife during the cutting process in accordance with required contractor specifications.

Throughout the entire day observed contractor Stevens Creek continue placing final cover layer (vegetative layer/San Mateo library import) by using two (2) loaders & two (2) scrapers pushing a minimum 12-inch thick layer above the GCL ahead of all the operating equipment. The contractor continued to place a minimum 1-foot thick cover layer to protect GCL from stresses from equipment damage.

During the soil placement the contractor utilized a manual crew to selectively remove oversize particles of angular stones and other foreign matter that could damage the GCL. I observed and inspected range of depth to final cover to be within the minimum 12" depth.

Beginning at 09.30am and throughout the entire day all cover layer soil from the San Mateo Library transported and hauled on to site dumped directly onto cover layer material above GCL.

At 10.00am documented CQA correspondence chart in accordance with GCL placement As-built schedule.

At 11.00am observed the contractor backfill and consolidate at both anchor trenches at slope and anchor trench at south compacting in place using jumping jacks.

At 11.20am observed finish to concrete pour at windsurfing ramp, the contractor had applied a 3/4" deep, 1" wide heavy grooved tool finish on the surface of the ramp. I also observed the contractor apply several coats of curing compound on to exposed concrete finish.

At 13.00pm observed the contractor smooth out final foundation layer between Sta 20+00 to Sta 23+00 with a smooth-drum compactor to remove wheel ruts and other abrupt grade changes prior to GCL installation.

At 13.30pm met at construction site office to discuss any GCL related CQA issues.

At 14.00pm observed the contractor cut around penetrations (PG&E Towers) at Sta 22+50 using a sharp utility knife for the cutting process and a bead of Bentonite at concrete bases and GCL in accordance with required contractor specifications.

At 14.15pm contractor Kent Jackson informed me scheduled GCL delivery had been delayed and will be arriving later early tomorrow morning.

At 14.30pm observed installation contractor transport 2 GCL rolls to storm drain trench area (Trench J) West side of the site in their original packaging. The contractor used a forklift with a spreader bar and core pipe attachment for the on-site handling and installation process. I observed the contractor verify that the edge of the panel is installed in the storm

drainage trench with a minimum 2ft overlap at either side of trench.

At 15.00pm observed the Installer and contractor continue to lay GCL and maintain placement of cover soil in tandem with GCL placement within the required four (4) hour time limit for cover layer vegetative placement.

To the best of my knowledge all construction throughout the day followed the established CQA procedures and was constructed in accordance with the construction documents, drawings and specifications.

At 16.00pm observed the installer cover edges of GCL with waterproof plastic sheeting held in place with sand bags. Later JD. Simbeck informed he had placed a total of 28 rolls covering an estimated area of 63,000sq.ft. The installer performed (five) 5 repairs along the north trench at the toe slope tie-in for existing GCL and also repaired area of damage caused by posi-track during installation with 2'x5' patches.

Later in the afternoon updated construction activity and documented daily field report and departed site at 16.50pm.

Note:			HOURS - ITEM NO.							WEATHER Overcast/Sunny (78f) Windy all day
EQUIPMENT AND/OR LABOR:			1. Screening	2. Haul to screen	3. Site general	4. Prep - Fdn			Coordination	
EQUIPMENT NUMBER	NUMBER OF PERSONS	DESCRIPTION (OF EQUIPMENT/LABOR)								
Cat 627B	1	Scraper #272				8				
Cat 627B	1	Scraper #271				8				
Cat 815B	1	Compactor #154				8				
Cat D6Rx1		Dozer #601								Idle
Cat 14H	1	Grader #143				8				
Cat 301.8		Small Excavator								Idle
Cat 980B	1	Loader #982				8				
Cat D8H		Loader #804								Idle
MF 650	1	Small Loader #652			8					
TLK 760		Backhoe #761								Idle
Kobelco SK		Backhoe - Mark III								Idle
Fermac	1	Loader 650B			8					
Dyna Pac	1	CA -30 - Roller				8				
CP-563E		Sheep foot Roller Cat								Idle
Kawasaki	1	Small Tractor			8					
BWA2 PDB		Bomag Sheepfoot								Idle
580L - Case	2	Backhoe x 2			8					
WA - 250	1	Komatsu - Loader								
Cat TH83	1	Forklift RL			8					
Cat TH 103	1	Forklift			8					
Cat- 4810	1	Posi-Track 4810			8					
10-Wheeler	1	Truck			8					
6-Wheeler	1	Truck			8					
Water Truck	2				8					
Water Tank	1				8					
Manual Labor	8	Trenching, backfill, compaction			8					Backfill & compaction @ SD Trenches, Anchor trenches

City of San Mateo
"Punchlist"
 Date 02.01.05

PROJECT INFORMATION	
Project:	East Third Avenue Landfill Closure Phase II
Location:	Seal Point Park, 3rd Avenue San Mateo, CA
Contractor:	Robert A. Bothman

CONTRACT INFORMATION	
Contract Number:	460531
Contract Duration:	180 Days
Start Date:	April 15th, 2004
Finish Date:	October 13th, 2004
Revised Duration:	
Revised End Date:	

The Following Items are to be Corrected or Completed to Comply with the Contract Documents		
Item #	Description of Work Item	Cleared
1	North side of shell trail / parking area G.C.L torn @ Sta 22+50, Ele-162	X
2	South side of shell trail / parking area G.C.L torn @ Sta 22+60, Ele-161	X
3	Remove oversize particles in 3% slope @ hilltop fill	
4	Raise precast drop inlets @ utility trench Sta 25+00	
5	Adjust contour to allow for adequate drainage PG&E tower (9/68) Sta 23+00	X
6	Lower vegetative cover layer 1"- 3" at PG&E tower (48/200) footing Sta 20+00	X
7	Finish GCL connection at PG&E tower footing(1/9) Sta 08+00	X
8	Remove oversize material and debris from both North slope & South end of landfill	
9	Rut @ hilltop - Amy's trail entrance	
10	Repair or replace damaged cast iron drainage grate @ drop inlet Sta 24+00	
11	Missing 1/2" step @ entrance door, window head & sill (Maintenance Bldg) A1/2.3	X
12	Adjust grade at precast drop inlet North of Sta 08+00 to facilitate proper drainage	
13	Patch minor surface defects @ concrete seat wall (outlook point)	
14	Remove all construction debris (rebar, concrete) @ riprap outdoor classroom	
15	Concrete band (bay trail & parking area) 2400 Lft missing smooth dowel @ joints	
16	Missing 4" diameter PVC drain pipe @ end of hillside wall	X
17	Repair road surface @ bottom of existing gravel access road	
18	Fill scarred traffic areas (ruts) @ hillside	
19	Repair honeycomb conditions @ maintenance, windsurfing restroom bldgs	
20	Repair base failures @ entrance circle (replace 1x3 crushed rock & reconsolidate)	X
21	Repair copolymer DGP at bay trail surface areas Southeast of dog park resroom	
22	Adjust grade and repair lip @ concrete pad (trash enclosure)	
23	Repair drainage V-ditch along existing gravel access road	
24	Adjust Bird Barrier S.S cable & wire in accordance with typical parallel spacing	
25	Add pipe extension @ 2" diameter steel pipe frame at both ends (entry kiosk)	
26	Brige gap (T & G) above metal coiling door @ maintenance building	
27	Repair aligator cracks @ entrance driveway circle adjacent entry kiosk	

**San Mateo Landfill Phase II
CQA GCL Correspondence Chart**

Product	Arrival	Roll	Cert	Size	Installed	Panel	Location Type
Claymax 200R	07.23.04	3280	187810	150.0 x 15.0	07.23.04	85	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3281	187810	150.0 x 15.0	07.23.04	101	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3282	187810	150.0 x 15.0	07.23.04	104,105	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3283	187810	150.0 x 15.0	07.23.04	83	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3284	187810	150.0 x 15.0	07.23.04	79/80	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3285	187810	150.0 x 15.0	07.23.04	82	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3286	187810	150.0 x 15.0	07.23.04	86	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3287	187810	150.0 x 15.0	07.23.04	103	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3288	187810	150.0 x 15.0	07.23.04	84	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3289	187810	150.0 x 15.0	07.23.04	78/79	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3290	187810	150.0 x 15.0	07.23.04	98	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3291	187810	150.0 x 15.0	07.23.04	102	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3292	187810	150.0 x 15.0	07.23.04	90	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3293	187810	150.0 x 15.0	07.23.04	80/81	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3294	187810	150.0 x 15.0	07.23.04	105/106	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3266	187809	150.0 x 15.0	07.26.04	81	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3275	187809	150.0 x 15.0	07.26.04	85	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3301	187809	150.0 x 15.0	07.26.04	83	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3302	187809	150.0 x 15.0	07.23.04	108	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3303	187809	150.0 x 15.0	07.26.04	79	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3304	187809	150.0 x 15.0	07.26.04	78	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3305	187809	150.0 x 15.0	07.27.04	104/105	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3306	187809	150.0 x 15.0	07.27.04	99/100	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3314	187809	150.0 x 15.0	07.26.04	80	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3315	187809	150.0 x 15.0	07.26.04	82	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3316	187809	150.0 x 15.0	07.27.04	103/104	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3317	187809	150.0 x 15.0	07.26.04	84	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3318	187809	150.0 x 15.0	07.27.04	106/107	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3364	187809	150.0 x 15.0	07.26.04	77	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3365	187809	150.0 x 15.0	07.23.04	107/108	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3169	187811	150.0 x 15.0	07.26.04	86	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3175	187811	150.0 x 15.0	07.23.04	94	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3176	187811	150.0 x 15.0	07.23.04	97	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3177	187811	150.0 x 15.0	07.23.04	88	Foundation Layer - See As-Built Sketch
Claymax 200R	07.23.04	3178	187811	150.0 x 15.0	07.23.04	87	Foundation Layer - See As-Built Sketch

SIGNATURE

Assistant Engineer

TITLE CQA Monitor



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