

California Regional Water Quality Control Board
Santa Ana Region

Staff Report

November 21, 2008

ITEM: 8

SUBJECT: Amendments to Waste Discharge Requirements for the California Street Landfill, City of Redlands, San Bernardino County, Order No. R8-2008-0094

DISCUSSION:

The City of Redlands, (hereinafter discharger), owns and operates the California Street Landfill (CSL), a Class III municipal solid waste (MSW) landfill located at 2151 Nevada Street, Redlands.

The applicable regulations governing the discharge of non-hazardous MSW to land are contained in Division 2, Title 27, California Code of Regulations (Title 27) and the Code of Federal Regulations Subpart D of Part 258 of Title 40 (Subtitle D). Landfill operations at the CSL are currently regulated under waste discharge requirements (WDRs) Order No. R8-2004-0008.

On April 22, 2008, the discharger submitted a full Report of Waste Discharge (ROWD) in the form of a Joint Technical Document (JTD) for the renewal of the existing Solid Waste Facility Permit issued by the California Integrated Waste Management Board, for the proposed Phase 2 expansion, and for the proposed acceptance of incidental treated woodwaste (TWW) and designated waste, as approved by the Executive Officer of the Regional Board, at CSL. The 2008 JTD has proposed the use of a double composite liner system for Phase 2 and the remaining expansion projects (Phases 3 and 4) at the landfill site. The proposed double composite liner system design far exceeds the applicable federal and state regulations for prescriptive liner standard design for MSW landfills.

The existing WDRs for the CSL are being amended to comply with more recent state laws for the acceptance of treated wood waste (TWW) at Class III MSW landfills.

Background

"Treated wood," as defined in California Health and Safety Code (CHSC) §25150.7, means wood that has been treated with a chemical preservative for the purposes of protecting wood against insects, microorganisms, fungi, and other environmental conditions that can lead to decay of the wood, and the chemical preservative is registered pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

Under federal law, wood treated with chemical preservatives registered under the FIFRA is exempted from hazardous waste classification and can be disposed of in any landfill. California has its own disposal requirements for TWW that are stricter than federal rules. Therefore, even though TWW is not subject to regulation as a hazardous

waste under the federal act, it has been managed as a hazardous waste in California. Prior to January 1, 2005, state hazardous waste control laws required that TWW be disposed of in a Class I hazardous waste landfill, unless it was granted a hazardous waste variance by the State Department of Toxic Substances Control (DTSC). TWW that was granted a variance could be disposed of in a Class III MSW landfill. Under the California Water Code (CWC) §13173, TWW that had been granted a hazardous waste variance was considered a designated waste (Class II waste), which could only be disposed of in a composite-lined Class III landfill after a waiver for such disposal had been granted by a regional board under Title 27 §20200(a)(1).

Assembly Bill 1353 (State Law for the Management and Disposal of TWW)

Improper handling and disposal of TWW can cause significant health and environmental hazards. In order to manage TWW in a safe and effective manner, Assembly Bill 1353 (AB 1353), a state law that governs the disposal of TWW, became effective on January 1, 2005. This law negates all existing hazardous waste variances for TWW formerly granted by the DTSC, and requires TWW to be disposed of in either:

1. A Class I hazardous waste landfill, or
2. A Class III landfill that meets the following three conditions:
 - a. The landfill has at least one composite-lined unit that meets all requirements applicable to the disposal of municipal solid waste (MSW) in California after October 9, 1993. All TWW shall be disposed of at a composite-lined unit, equipped with a composite liner and leachate collection and removal system, of an MSW landfill.
 - b. The landfill must be regulated by WDRs that specifically allow discharges of TWW, as defined in California Health and Safety Code (CHSC) §25150.7(b), or designated waste, as defined in California Water Code (CWC) §13173. All TWW accepted at a MSW landfill must be managed to prevent scavenging and must assure compliance with CHSC §25150.7(d)(2) for the management and disposal of TWW to minimize impacts to soil and water.
 - c. Groundwater monitoring of the composite-lined unit(s) to be used for TWW disposal does not indicate a verified release of any contaminants to groundwater.

Under AB 1353, TWW would be managed and disposed of as a solid waste at a Class III MSW landfill that meets the conditions listed above (CHSC §25150.8), not as a hazardous waste, which thereby exempts it from the state hazardous waste control laws.

This order amends the existing WDRs for the CSL to require the discharger to comply with necessary provisions, monitoring, and reporting requirements for the management and disposal of TWW and designated waste, as approved by the Executive Officer of the Regional Board.

All terms and conditions contained in the existing WDRs for the CSL that are not amended by this order shall remain in effect and unchanged.

RECOMMENDATION:

Adopt Order No. R8-2008-0094 as presented.

Comments were solicited from the following agencies:

State Water Resources Control Board, Division of Water Quality – Leslie Graves

State Water Resources Control Board, Office of Chief Counsel – David Rice

California Integrated Waste Management Board, Sacramento – Scott Walker

State Department of Health Services, San Bernardino – Heather Collins

State Department of Toxic Substances Control, Cypress - Karen Baker

City of Redlands Quality of Life Department – Gary Van Dorst

San Bernardino County Department of Public Health, Environmental Health Services Div., LEA – Jane Brinkerhoff

California Regional Water Quality Control Board
Santa Ana Region

ORDER NO. R8-2008-0094

Amending Waste Discharge Requirements for
California Street Landfill
City of Redlands, San Bernardino County

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Regional Board), finds that:

1. The City of Redlands (the City, hereinafter discharger) has owned and operated the California Street Landfill (CSL) since 1970. The CSL is located at 2151 Nevada Street, Redlands, in the Southeast $\frac{1}{4}$ of the Southeast $\frac{1}{4}$ of Section 8, and the North $\frac{1}{2}$ of Section 17, T1S, R3W, SBB&M (latitude $34^{\circ} 5'20''N$, longitude $117^{\circ}13'30''W$). The CSL is designated as a Class III landfill, accepting non-hazardous municipal solid waste (MSW). The landfill site encompasses 115 acres, 63 acres of which are unlined, 8.5 acres of which are single composite-lined, and the remaining 43.5 acres of which will be double composite-lined. The permitted disposal areas are shown on **Attachment 1**, which is hereby made a part of this Order.
2. The discharge of MSW to land at CSL is currently regulated under waste discharge requirements (WDRs), Order No. R8-2004-0008. Under Order No. R8-2004-0008, the City is permitted to accept dewatered sewage or water treatment sludge, as defined under §20220(c), Title 27 of the California Code of Regulations (27 CCR), for disposal at the landfill site.
3. On January 1, 2005, Assembly Bill 1353 (AB 1353), a state law that governs the disposal of treated wood waste (TWW), became effective. "Treated wood," as defined in California Health and Safety Code (CHSC) §25150.7, means wood that has been treated with a chemical preservative for the purposes of protecting wood against insects, microorganisms, fungi, and other environmental conditions that can lead to decay of the wood, and the chemical preservative is registered pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. Sec. 136 and following). This may include, but is not limited to, waste wood that has been treated with chromated copper arsenate, pentachlorophenol, creosote, acid copper chromate, ammoniacal copper arsenate, ammoniacal copper zinc arsenate, or chromated zinc chloride.
4. This law negates all existing hazardous waste variances for TWW formerly granted by the Department of Toxic Substances Control (DTSC), and requires TWW to be disposed of in either:

- a. A Class I hazardous waste landfill, or
- b. A Class III landfill that meets the following three conditions:
 - i. The landfill has at least one composite-lined unit that meets all requirements applicable to the disposal of municipal solid waste (MSW) in California after October 9, 1993. All TWW shall be disposed of at a composite-lined unit of an MSW landfill.
 - ii. The landfill must be regulated by WDRs that specifically allow discharges of TWW, as defined in California Health and Safety Code (CHSC) §25150.7(b), or designated waste, as defined in California Water Code (CWC) §13173. All TWW accepted at a MSWLF must be managed to prevent scavenging and must assure compliance with CHSC §25150.7(d)(2).
 - iii. Groundwater monitoring of the composite-lined unit(s) to be used for TWW disposal does not indicate a verified release of contaminants to groundwater.
5. AB 1353 does not affect the existing law (CHSC, §25143.1.5) applying to the disposal of utility poles. CHSC, §25143.1.5 allows MSW landfills to accept TWW generated by the utility industries for disposal at composite-lined units if so authorized in the facilities' WDRs.
6. Currently, the existing WDRs for CSL do not include any provisions that allow the acceptance of TWW, as defined in CHSC §§25143.1.5 and 25150.7, or designated waste, as defined in CWC §13173, other than the dewatered sewage and water treatment sludge.
7. On April 22, 2008, the City submitted a full Report of Waste Discharge (ROWD) in the form of a Joint Technical Document (JTD) for the renewal of the existing Solid Waste Facility Permit issued by the California Integrated Waste Management Board, for the proposed Phase 2 expansion, and for the proposed discharge of designated waste and incidental TWW at CSL. The City has specifically requested that the Regional Board amend the existing WDRs for the CSL to allow the acceptance of TWW and designated waste at the site. Regional Board staff deemed the 2008 JTD complete on August 28, 2008.
8. The Regional Board has reviewed the 2008 JTD and has determined that the site meets the conditions listed in Finding 4.b, above, as follows:
 - a. The permitted disposal area at the CSL consists of 63 acres of unlined area, known as the East Side and West Side Landfills; 8.5 acres of single composite-lined unit (WMU), Phase 1; and 43.5 acres of proposed double composite-lined WMUs (Phases 2 through 4). The City has plans to complete construction of the 43.5 acres of double composite-lined units, including a leachate collection and removal system, over the next 30 years for the codisposal of MSW, TWW, and

approved designated waste, such as water and sewage treatment sludge. All of the composite-lined WMUs have met or must meet the applicable state and federal regulations pertaining to the disposal of non-hazardous MSW and approved designated wastes. The profile of the proposed double composite liner system for Phases 2 through 4 is described and illustrated on **Attachment 2**, which is hereby made a part of this order.

- b. The City has submitted management and disposal plans for TWW, in compliance with CHSC §25150.7(d)(2), and for water treatment sludge. These plans are included in Section 5.5 of the 2008 JTD.
 - c. Water quality at the site is currently monitored under a Detection Monitoring Program (DMP) in accordance with the parameters and schedules set forth in Monitoring and Reporting Program (M&RP) No. R8-2004-0008. Water quality monitoring, sampling, and analyses are conducted and reported on a quarterly basis. The water quality monitoring program for CSL currently includes groundwater and unsaturated (vadose) zone monitoring. An evaluation of the existing groundwater monitoring data for the entire site has not indicated a release of contaminants to groundwater.
9. In order to fully comply with AB 1353 and the CHSC for TWW disposal, Order No. R8-2004-0008 must be amended to allow the acceptance of TWW at the CSL.
 10. This order amends the existing WDRs for the CSL to require the discharger to comply with necessary provisions, monitoring, and reporting requirements for the disposal of TWW and designated wastes, as approved by the Executive Officer of the Regional Board, at the landfill site.
 11. This project involves the amendment of waste discharge requirements for an existing facility for which revised waste discharge requirements are needed to comply with new and existing state laws, and as such, is exempt from the California Environmental Quality Act (Public Resources Code, §21100 et seq.) in accordance with CCR §15301, Chapter 3, Title 14.
 12. The Regional Board has notified the discharger and interested agencies and persons of the Board's intent to amend the waste discharge requirements previously adopted for the discharger, and has provided them with an opportunity to submit their written comments and recommendations.
 13. The Regional Board, in a public meeting, heard and considered all comments pertaining to the proposed amendment of the existing waste discharge requirements for CSL.

IT IS HEREBY ORDERED THAT the discharger shall comply with the following amended requirements:

1. Add the following as Discharge Specifications A.8 through A.10 of Order No. R8-2004-0008:
 8. **Treated wood waste¹ (TWW) and designated waste, as approved by the Executive Officer of the Regional Board, shall only be disposed of at composite-lined WMUs meeting all the requirements for a composite liner and leachate collection and removal system described under Discharge Prohibitions B.2 of Order No. R8-2004-0008.**
 9. **If monitoring at the composite-lined portion of a landfill unit that has received TWW indicates a verified release, the disposal of TWW to that landfill unit shall immediately cease until corrective action, implementing the requirements of Title 27 §20385, results in cessation of the release.**
 10. **The discharger shall manage and dispose of TWW and approved designated waste in accordance with the site's approved management and disposal plans for these wastes and all requirements of CHSC §§25143.1.5 and 25150.7 for TWW.**
2. Replace Discharge Prohibitions B.2 and B.3 of Order No. R8-2004-0008 with the following:
 2. **Containment Systems Installed Beyond the Existing Footprint – The discharges of waste to any area of the CSL beyond the existing footprint (see Finding 26 of Order No. R8-2004-0008) of the site is prohibited unless approved by the Regional Board, and such discharge is to an area equipped with a containment system that is constructed in accordance with the standard of the industry, and that meets the additional requirements for both liners and leachate collection systems in accordance with an approved JTD or JTD addendum, and any additional requirements of 27 CCR §20080, §20330, and §20340, and State Board Resolution No. 93-62.**
 3. **The discharge of hazardous waste² and unapproved designated waste³ at the site is prohibited. The discharge of any TWW that has been removed from electric, gas, or telephone service and is subject to regulation as a hazardous waste under the federal act is prohibited.**

¹ Treated wood waste as defined in CHSC §§25143.1.5 and 25150.7.

² Hazardous waste as defined under the state hazardous waste control laws.

³ Designated waste as defined in CWC §13173.

3. Replace Provisions C.9 of Order No. R8-2004-0008 with the following:
 9. **All water and sewage treatment sludge disposed of at the site shall be segregated from public access and shall meet the following criteria:**
 - a. **The sludge does not contain any wastes at hazardous levels⁴;**
 - b. **The sludge contains at least 20 percent solids (by weight) if primary sludge, or at least 15 percent solids if secondary sludge, or mixtures of primary and secondary sludges; and**
 - c. **A minimum solids to liquid ratio of 5:1 by weight shall be maintained to ensure that the codisposal will not exceed the initial moisture holding capacity of the nonhazardous solid waste, or a solids to liquid ratio as determined by the Executive Officer of the Regional Board based on site specific conditions.**
4. Add the following as Monitoring Program B.2.f of Monitoring and Reporting Program (M&RP) No. R8-2004-0008 for the CSL:
 - f. **The discharger shall keep a permanent log of the daily incoming quantity, source(s), and disposal area of TWW and any approved designated waste accepted at the site.**
5. Add the following as Reporting C.4.c of M&RP No. R8-2004-0008 for the CSL:
 - c. **General site monitoring (pursuant to paragraph B.2.f of this M&RP) – The Discharger shall submit the total waste load quantity of MSW, TWW, and approved designated waste accepted at the site for the monitoring periods and reporting due dates specified in Attachment D, Table 5 of this M&RP. A summary of the site’s TWW and designated waste management and disposal practices verifying compliance with the approved plans shall also be included.**
6. Replace Attachment D, Table 1 of Order No. R8-2004-0008 with the following:

⁴ Hazardous waste as defined under the state hazardous waste control laws.

Attachment D - Table 1

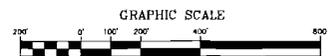
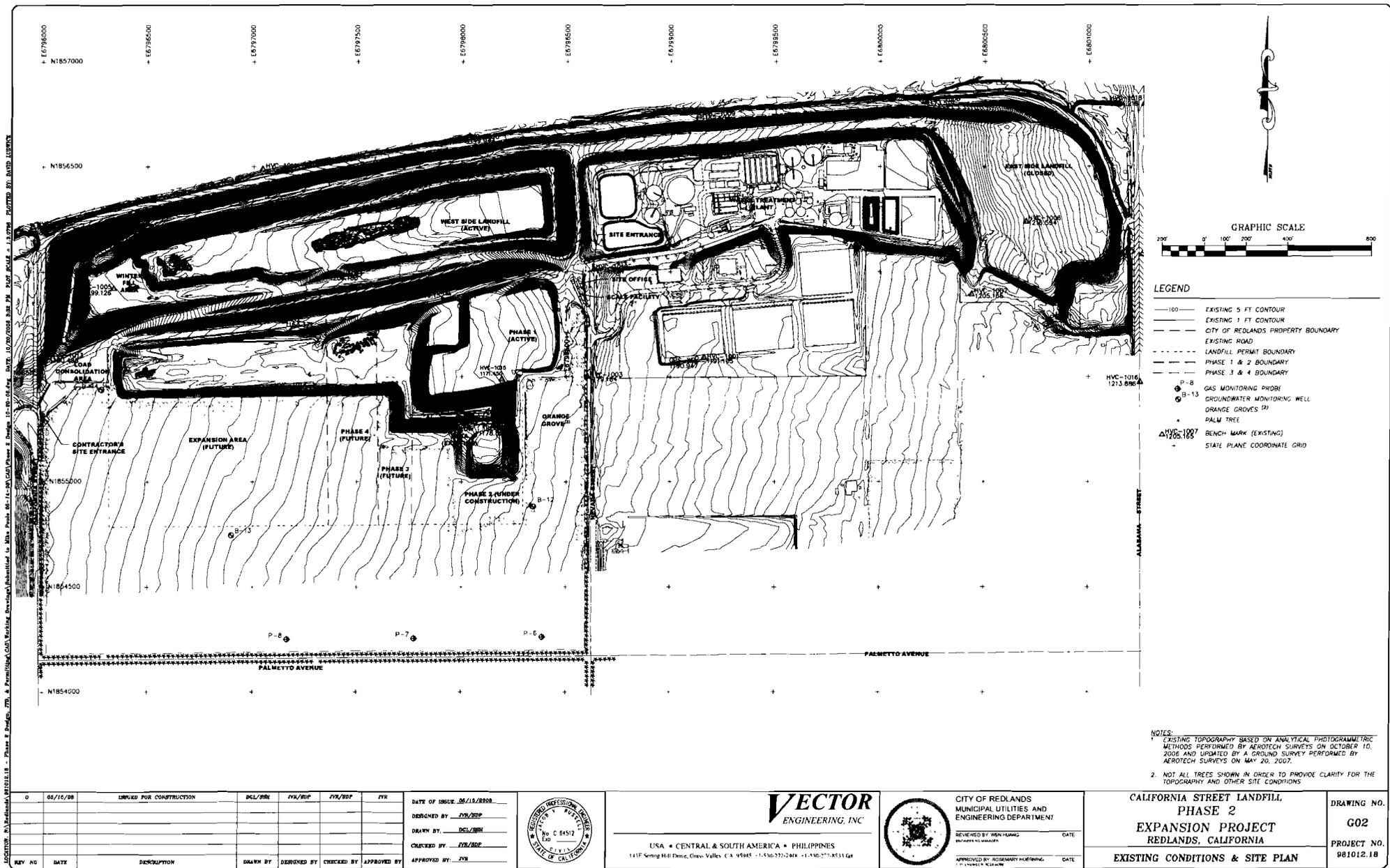
<u>Program</u>	<u>Monitoring Parameters</u>	<u>Monitoring Frequency</u>
Detection monitoring	pH, total dissolved solids, chloride, sulfate, nitrate (as nitrogen), bicarbonate, carbonate, chemical oxygen demand (COD), hydroxide, dissolved carbon dioxide, total alkalinity, perchlorate , and 47 Appendix I VOCs ⁷	Quarterly
COC-List 1 analysis ⁸	General minerals ⁹ and Appendix II constituents ¹⁰	Once every five years
COC-List 2 analysis ¹¹	¹²	Once every five years
Vadose zone monitoring	Methane (field), total gaseous non-methane organic (TGNMO), and the 17 core group VOCs per SCAQMD Rule 1150.1	Quarterly
Surface water monitoring ¹³	pH, total dissolved solids, chloride, sulfate, nitrate (as nitrogen), bicarbonate, carbonate, chemical oxygen demand (COD), hydroxide, dissolved carbon dioxide, total alkalinity, and 47 Appendix I VOCs ⁷	Quarterly
Leachate monitoring	General minerals ⁹ and Appendix II constituents ¹⁰ (see also paragraph B.1.b.v of M&RP No. R8-2004-0008)	Annually

7. All terms and conditions contained in the existing WDRs for the CSL that are not amended by this order shall remain in effect and unchanged. Amended or revised requirements contained in this order supersede any conflicting provisions in the existing WDRs.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on November 21, 2008.



Gerard J. Thibeault
Executive Officer



LEGEND

- 100 --- EXISTING 5 FT CONTOUR
- EXISTING 1 FT CONTOUR
- CITY OF REDLANDS PROPERTY BOUNDARY
- EXISTING ROAD
- LANDFILL PERMIT BOUNDARY
- PHASE 1 & 2 BOUNDARY
- PHASE 3 & 4 BOUNDARY
- P-8 GAS MONITORING PROBE
- B-13 GROUNDWATER MONITORING WELL ORANGE GROVES (P)
- PALM TREE
- Δ 1075.1087 BENCH MARK (EXISTING)
- + STATE PLANE COORDINATE GRID

NOTES:

- EXISTING TOPOGRAPHY BASED ON ANALYTICAL PHOTOGRAMMETRIC METHODS PERFORMED BY AEROTECH SURVEYS ON OCTOBER 10, 2006 AND UPDATED BY A GROUND SURVEY PERFORMED BY AEROTECH SURVEYS ON MAY 20, 2007.
- NOT ALL TREES SHOWN IN ORDER TO PROVIDE CLARITY FOR THE TOPOGRAPHY AND OTHER SITE CONDITIONS.

LOCATION: N:\Redlands\081012.18 - Phase 2 Project.dwg, 177, & Project\USA\CA\Working\Drawings\Submittal to RBK\Draw 08-11-08 CAD\Draw 2 Draw 10-00-06.dwg DATE: 10-00-06 08:38 PM PLOT SCALE: 1/8"=1'-0" PLOTTED BY: NATHAN LUTHEKE

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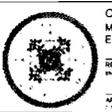
DATE OF ISSUE: 05/15/08
 DESIGNED BY: FYK/BDF
 DRAWN BY: DCL/SBH
 CHECKED BY: FYK/BDF
 APPROVED BY: FYK



VECTOR ENGINEERING, INC.

USA • CENTRAL & SOUTH AMERICA • PHILIPPINES

1415 Spring Hill Drive, Grass Valley, CA 95945 • (530) 272-2494 • (530) 272-8533 fax



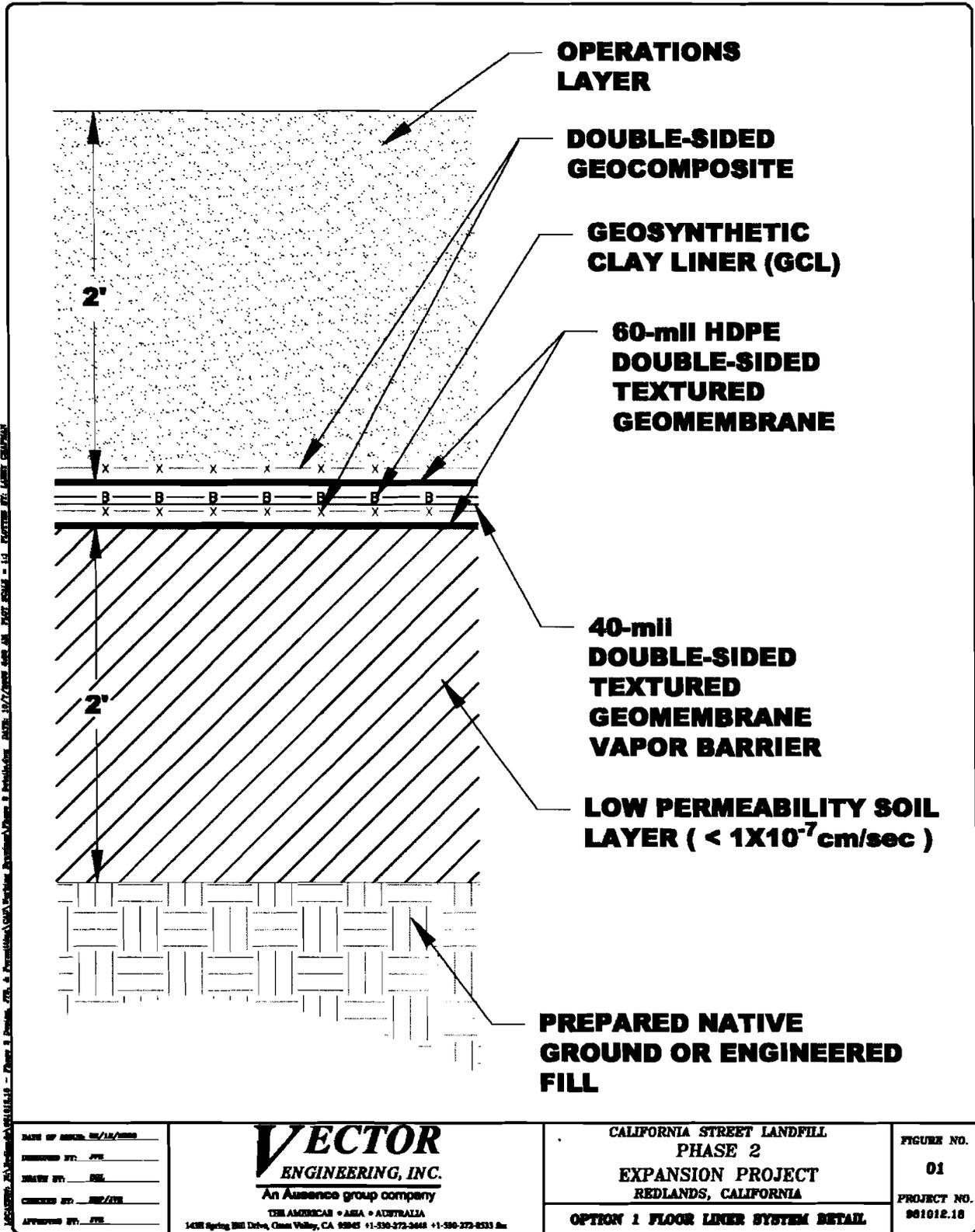
CITY OF REDLANDS
 MUNICIPAL UTILITIES AND
 ENGINEERING DEPARTMENT

REVIEWED BY: IREN HANG DATE: _____
 PROJECT NO: G002

APPROVED BY: ROSEMARY HARRING DATE: _____

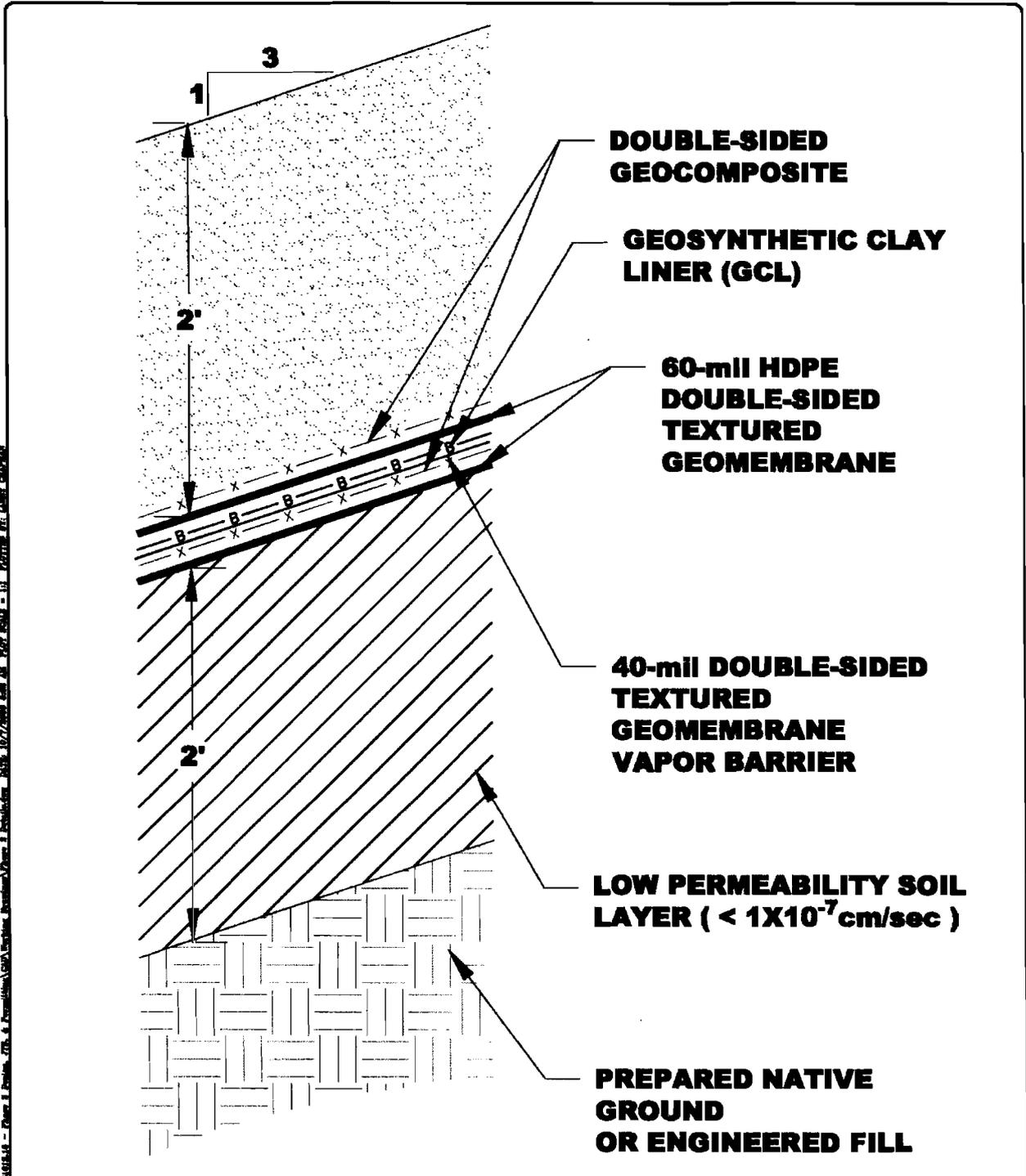
CALIFORNIA STREET LANDFILL PHASE 2 EXPANSION PROJECT REDLANDS, CALIFORNIA	DRAWING NO. G02
	PROJECT NO. 981012.18

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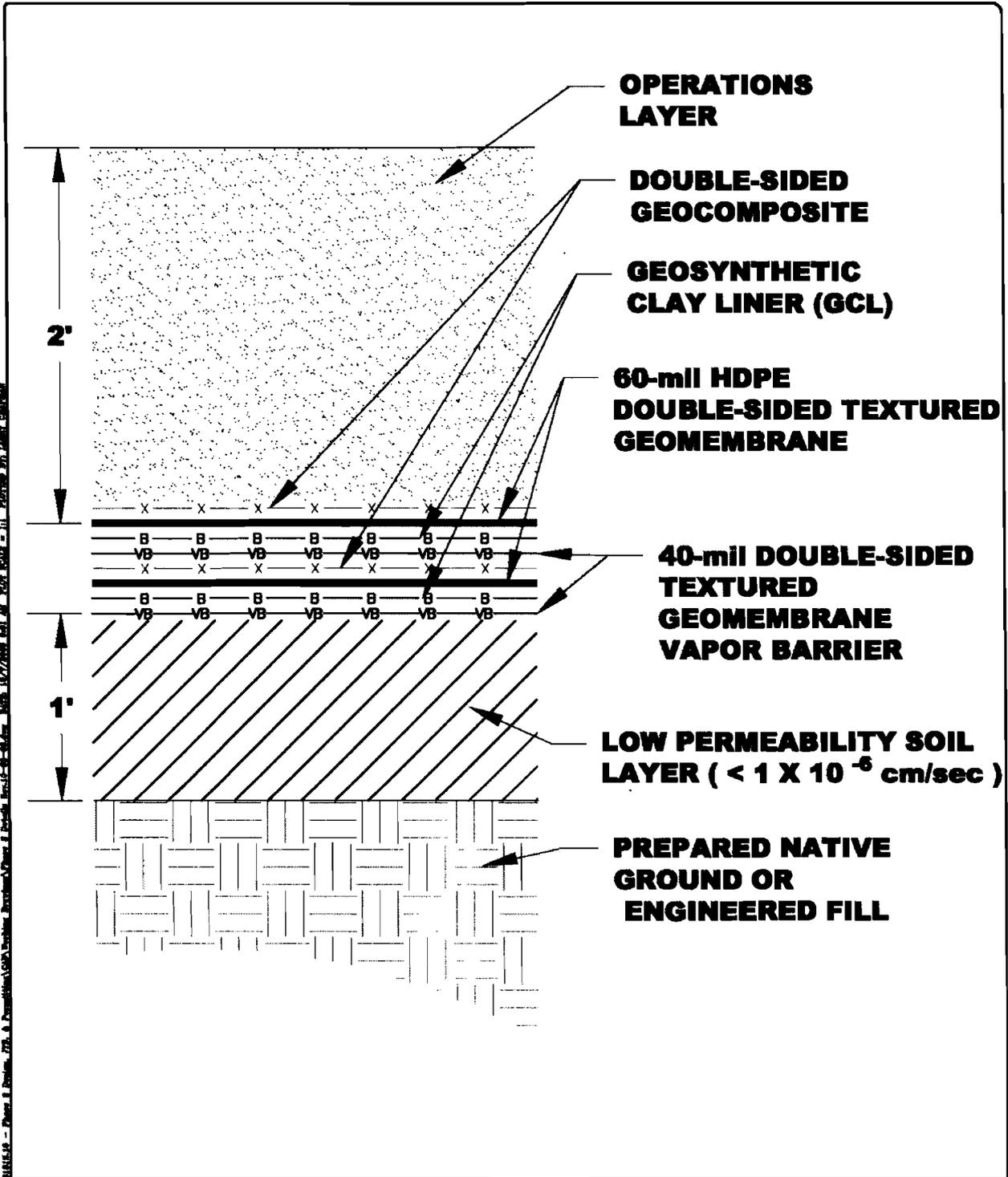
I:\Projects\2008\061012.18 - Phase 2 Design - C75 - 4 - Final\061012.18 - Phase 2 Design - C75 - 4 - Final\061012.18 - Phase 2 Design - C75 - 4 - Final.dwg - 19/07/2008 09:48 AM - PLOT: 061012.18 - 19 - VECTOR BY: JRP/JFE

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<p>DATE OF REVISION: 05/15/2008</p> <p>DRAWN BY: JTB</p> <p>CHECKED BY: JTB/JTB</p> <p>APPROVED BY: JTB</p>	<p>VECTOR ENGINEERING, INC. An Ausenco group company THE AMERICAS • ASIA • AUSTRALIA 1438 Spring Hill Drive, Glen Valley, CA 94045 +1-510-372-3448 +1-310-272-8333 fax</p>	<p>CALIFORNIA STREET LANDFILL PHASE 2 EXPANSION PROJECT REDLANDS, CALIFORNIA</p> <p>OPTION 1 SIDE SLOPE LINER SYSTEM DETAIL</p>	<p>FIGURE NO. 02</p> <p>PROJECT NO. 981012.18</p>
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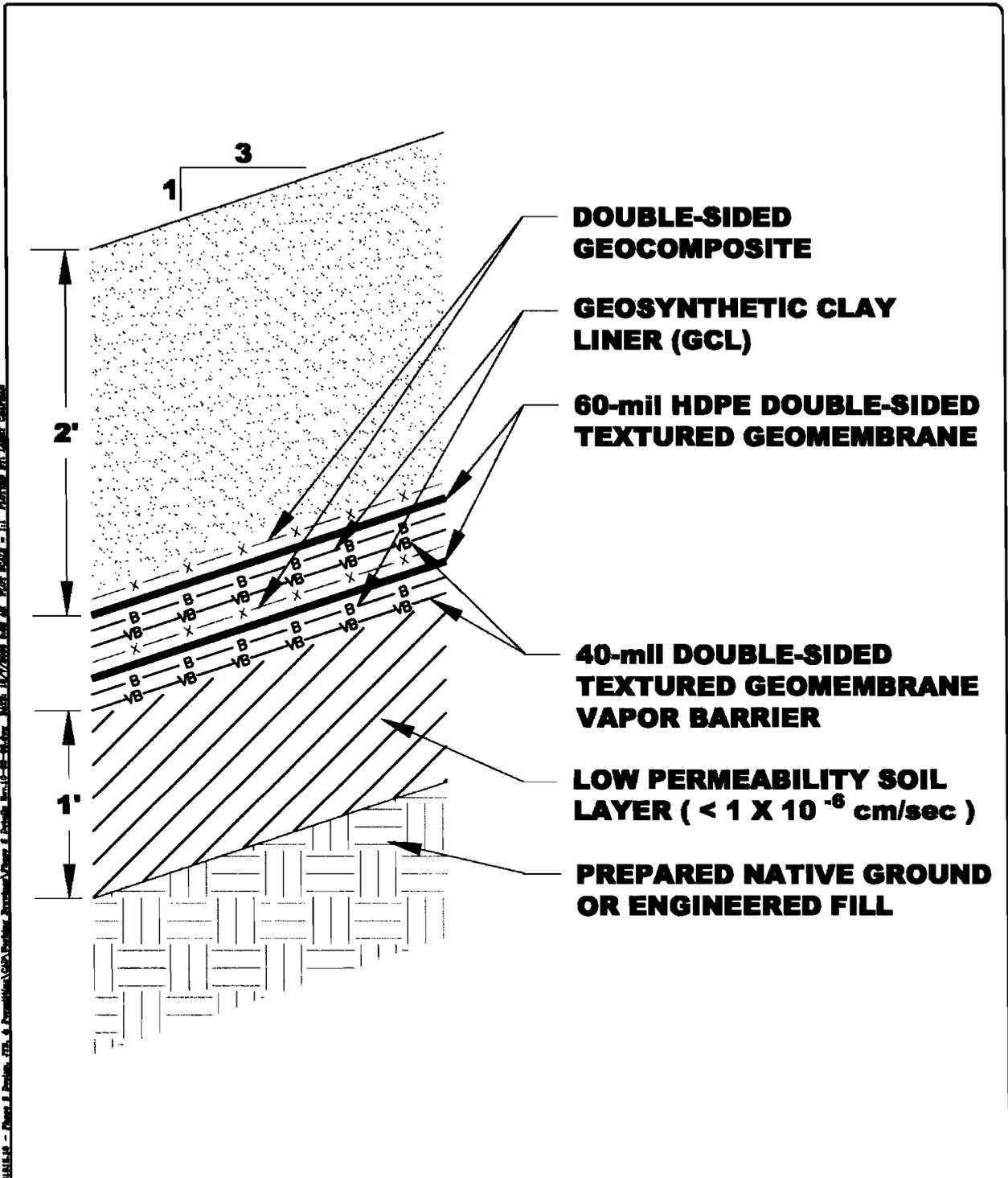
DATE OF REVISION: 10/05/2008
DESIGNED BY: TVE
DRAWN BY: JMC
CHECKED BY: TVE
APPROVED BY: TVE

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CALIFORNIA STREET LANDFILL
 PHASE 2
 EXPANSION PROJECT
 REDLANDS, CALIFORNIA
OPTION 2 FLOOR LINER SYSTEM DETAIL

FIGURE NO. 03
PROJECT NO. 081012.18

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CHECKED BY:	TYE
APPROVED BY:	TYE

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CALIFORNIA STREET LANDFILL
 PHASE 2 LINER
 SYSTEMS DESIGN
 REDLANDS, CALIFORNIA

FIGURE NO.
04
 PROJECT NO.
 081012.18

OPTION 2 SIDE SLOPE LINER DETAIL

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