

THE BOARD OF SUPERVISORS OF THE COUNTY OF STANISLAUS  
BOARD ACTION SUMMARY

DEPT: Environmental Resources

BOARD AGENDA #: \*B-5

AGENDA DATE: April 18, 2017

**SUBJECT:**

Approval to Adopt Plans and Specifications for the New Geer Road Landfill Groundwater Extraction and Treatment System Installation Project, and Set the Bid Opening Date and Time for Wednesday, May 31, 2017, at 2:00 p.m.

**BOARD ACTION AS FOLLOWS:**

No. 2017-184

On motion of Supervisor Withrow, Seconded by Supervisor Olsen

and approved by the following vote,

Ayes: Supervisors: Olsen, Withrow, Monteith, DeMartini, and Chairman Chiesa

Noes: Supervisors: None

Excused or Absent: Supervisors: None

Abstaining: Supervisor: None

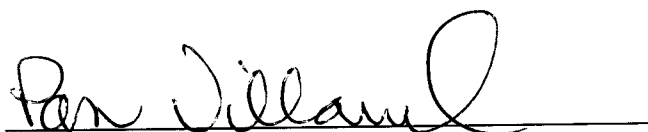
1)  Approved as recommended

2)  Denied

3)  Approved as amended

4)  Other:

MOTION:



ATTEST:

PAM VILLARREAL, Assistant Clerk

File No.

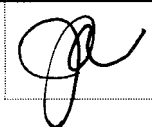
**THE BOARD OF SUPERVISORS OF THE COUNTY OF STANISLAUS  
AGENDA ITEM**

DEPT: Environmental Resources  
Urgent  Routine

BOARD AGENDA #: \*B-5

AGENDA DATE: April 18, 2017

CEO CONCURRENCE:



4/5 Vote Required: Yes  No

---

**SUBJECT:**

Approval to Adopt Plans and Specifications for the New Geer Road Landfill Groundwater Extraction and Treatment System Installation Project, and Set the Bid Opening Date and Time for Wednesday, May 31, 2017, at 2:00 p.m.

---

**STAFF RECOMMENDATIONS:**

1. Adopt the plans, specifications, and working details for the new Geer Road Landfill Groundwater Extraction and Treatment System Installation Project.
2. Direct the Department of Environmental Resources to send the "Notice Inviting Bids," electronically and by mail to trade journals and newspaper advertisement as required by law.
3. Authorize the Director of the Department of Environmental Resources, or designee, to oversee the public works of improvements associated with the new Geer Road Landfill Groundwater Extraction and Treatment System Installation Project.
4. Direct the Clerk of the Board to publish the attached "Invitation to Bidders (Contractors)" for the new Geer Road Landfill Groundwater Extraction and Treatment System Installation Project as required by law and set the deadline for submission of the bids as Wednesday, May 31, 2017, at 2:00 p.m.

**DISCUSSION:**

The Geer Road Landfill (Landfill) in Modesto, California, is owned jointly by Stanislaus County (County) and the City of Modesto and is managed by the Department of Environmental Resources. The Landfill was in operation from 1970 to 1990, providing disposal needs for the unincorporated County, the City of Modesto, as well as the other eight local cities.

Groundwater impacts in the form of volatile organic compounds have existed at the site since the mid-1980s. Since that time, corrective actions taken to address the impacts have included closing and capping the Landfill, installing and operating a landfill gas (LFG) extraction and flare system, expanding the LFG system, and installing and operating a groundwater extraction and treatment system (GWETS). Additional monitoring wells have been installed over time to assess groundwater conditions in and around the site.

Approval to Adopt Plans and Specifications for the New Geer Road Landfill Groundwater Extraction and Treatment System Installation Project, and Set the Bid Opening Date and Time for Wednesday, May 31, 2017, at 2:00 p.m.

---

On April 24, 2009, the Regional Water Quality Control Board (RWQCB) issued new Waste Discharge Requirements and the associated Monitoring and Reporting Program (MRP) Order Number R5-2009-0051 for the Landfill. The County was in the process of complying with the requirements when the RWQCB issued Cease and Desist Order R5-2011-0021 on April 8, 2011, requiring the County to optimize the existing LFG collection and control system and improve the existing GWETS. On April 8, 2011, the RWQCB also issued a revised MRP Order Number R5-2011-0022.

In December 2014, the County completed the third and final phase of upgrades to the LFG system at the Landfill, and on April 5, 2016, the County completed the Aeration Channel and Groundwater Conveyance System Installation and testing work necessary to enable the design of a new and improved GWETS. On November 30, 2016, the County submitted the 90% plans and specifications for the new GWETS to the RWQCB, and on February 17, 2017, the RWQCB issued a written approval of the new GWETS work. Completion of this work is the final phase of improvements required by the 2011 Cease and Desist Order, and this new GWETS system will replace the original system which is inefficient and incapable of forming a complete groundwater "capture" zone around the Landfill's border.

It should be noted, however, that when the RWQCB issued their written approval of the new GWETS installation, the approval came nearly 90 days after the County originally submitted the plans and specifications, versus the standard 30 days. The proposed timeline for the completion of the project, however, was not adjusted to account for this additional time the RWQCB took to approve the plans and specifications. County staff requested that the timeline be adjusted accordingly, however, RWQCB staff were unwilling to consider this request. Staff has worked to move this project along as quickly as possible and obtain the 100% plans and specifications, which include the RWQCBs final comments, but have been unable to obtain 100% electrical plans due to an uncertain tie-in timeline from the County's electrical service provider. Because of this, the Board of Supervisors is being asked to approve 100% plans and specifications for the GWETS and 90% preliminary electrical plans. State law requires that the electrical plans clearly be marked "90% Preliminary," which they are, and the bid document explains that the 100% electrical plans will be issued in an addendum to the bid once they are ready. If there is a delay in receiving the tie-in information from the County's electrical service provider, it may delay the project because the County must provide interested Contractors with the 100% Electrical Plans for their review at least 10 days before bids are due. Should this occur, the RWQCB will be advised accordingly as this would be an unforeseen circumstance outside the County's control.

The County's consultant, Tetra Tech BAS, prepared the engineer-stamped plans, specifications, and materials list (Attachments A and B) for the new Groundwater Extraction and Treatment System Installation Project (Project).

Approval to Adopt Plans and Specifications for the New Geer Road Landfill Groundwater Extraction and Treatment System Installation Project, and Set the Bid Opening Date and Time for Wednesday, May 31, 2017, at 2:00 p.m.

---

The following tentative schedule is provided:

Adopt Plans & Specifications	April 18, 2017
Advertise (Estimated dates, subject to change)	April 22, 2017 April 29, 2017 May 6, 2017
Receive Bids	May 31, 2017
Award Contract	July 18, 2017
Notice to Proceed	July 25, 2017
Complete Construction	April 3, 2018*

\*May not be completed until June 3, 2018, due to RWQCB delay

This Project is categorically exempt from the California Environmental Quality Act (CEQA), per the following: Section 21084 of the Public Resources Code requires that a list of classes of projects which have been determined not to have a significant effect on the environment and which shall, therefore, be exempt from the provisions of CEQA, be identified. In response to this requirement, the Secretary for Resources identified several classes of projects including the following: Section 15308, of Title 14 of the California Code of Regulations, Article 19: Categorical Exemptions: Class 8 consists of actions taken by regulatory agencies (such as the RWQCB), as authorized by State or local ordinance, to assure the maintenance, restoration, enhancement, or protection of the environment.

Following the bid opening, staff will return to the Board with a recommendation to award the contract(s) to the lowest acceptable bidder.

**POLICY ISSUE:**

Board of Supervisors approval is required for all contracts exceeding \$100,000.

**FISCAL IMPACT:**

This Project is estimated to require a one-time transfer of funds from the Fink Road Landfill Operating Budget of approximately \$2,750,000 to cover construction and quality assurance oversight costs which has been included in Proposed Budget.

Approval to Adopt Plans and Specifications for the New Geer Road Landfill Groundwater Extraction and Treatment System Installation Project, and Set the Bid Opening Date and Time for Wednesday, May 31, 2017, at 2:00 p.m.

---

<b>Cost of recommended action:</b>		\$ 2,750,000
<b>Source(s) of Funding:</b>		
Fink Road Landfill Fund Balance	2,750,000	
<b>Funding Total:</b>		\$ 2,750,000
<b>Net Cost to County General Fund</b>		\$ -

<b>Fiscal Year:</b>	2017-2018
<b>Budget Adjustment/Appropriations needed:</b>	No

**Fund Balance as of Feb 28, 2017**  
 Fink Road Landfill \$27,499,629

**BOARD OF SUPERVISORS' PRIORITY:**

The recommend actions support the Board's priorities of A Safe Community, A Healthy Community, and A Well Planned Infrastructure System, and the Efficient Delivery of Public Services. Landfill services are critical to supporting the Department's mission to promote a safe and healthy environment and improve the quality of life in the community through a balance of science, education, partnerships, and environmental regulation.

**STAFFING IMPACT:**

Existing staff will continue to oversee the work related to the project.

**CONTACT PERSON:**

Jami Aggers, Director of Environmental Resources Telephone: 209-525-6770

**ATTACHMENT(S):**

- A. Engineer-stamped plans, specifications, and materials list: New Groundwater Extraction and Treatment System Installation (Available from the Clerk)
- B. Groundwater Extraction and Treatment System Installation drawings
- C. Invitation to Bidders (Contractors)

ATTACHMENTS AVAILABLE  
FROM YOUR CLERK

**Attachment A  
Engineer-stamped  
plans,  
specifications, and  
materials list: New  
Groundwater  
Extraction and  
Treatment System  
Installation are  
Available from Clerk**

# Attachment B

# STANISLAUS COUNTY

MODESTO, CALIFORNIA

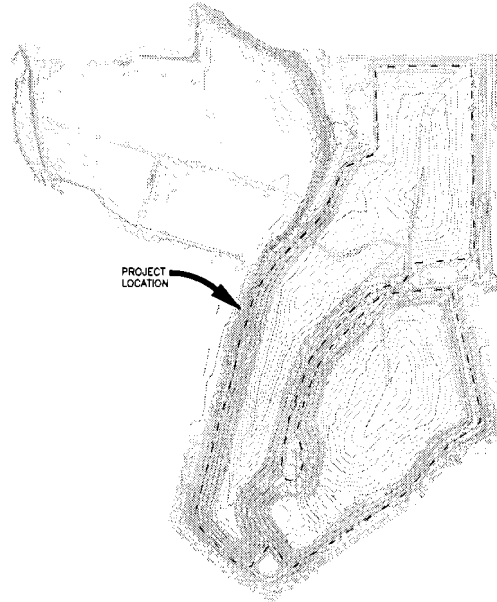
## GEER ROAD LANDFILL

MARCH 2017

### CONSTRUCTION OF THE GROUNDWATER EXTRACTION AND TREATMENT SYSTEM



VICINITY MAP  
NTS



PROJECT LOCATION

#### SHEET INDEX

SHEET NO.	
1	TITLE SHEET
2	SITE PLAN/INDEX TO PLAN SHEETS
3	HEADER ALIGNMENT
4	HEADER ALIGNMENT
5	HEADER ALIGNMENT
6	HEADER ALIGNMENT
7	GWETS IMPROVEMENTS
8	DETAILS
9	DETAILS
10	DETAILS
11	DETAILS
12	PROCESS FLOW DIAGRAM
E1	SINGLE LINE AND PANEL SCHEDULE
E2	TREATMENT PLANT ELECTRICAL PLAN

DIRECTOR OF ENVIRONMENTAL RESOURCES:

JAMI AGGERS, M.A., R.E.H.S.

DATE

PREPARED UNDER THE SUPERVISION OF:

GREG ACOSTA, P.E.

3/24/17

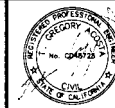
DATE

#### NOTES:

- 1) THE TOPOGRAPHIC SURVEY (CONTOURS) SHOWN ON THESE DRAWINGS WAS PROVIDED BY STANISLAUS COUNTY, DATED 2015. SURVEYING WAS PERFORMED IN MARCH 2015 TO VERIFY KEY LOCATIONS OF EXISTING LANDMARKS.
- 2) THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING LOCATIONS AND DEPTHS OF THE EXISTING LANDFILL GWETS HEADER AND LATERALS AND TO PROTECT IN PLACE.
- 3) ANY DAMAGE CAUSED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE COUNTY. THIS INCLUDES, BUT IS NOT LIMITED TO, THE LANDFILL GAS COLLECTION, MONITORING, AND TREATMENT SYSTEM, EXISTING GROUNDWATER WELLS, DRAINAGE IMPROVEMENTS, AND ACCESS ROADS.

NO.	REVISION DESCRIPTION	BY:

**TETRA TECH BAS**  
1360 Valley Vista Drive, Diamond Bar, CA 91765  
TEL 909.860.7777 FAX 909.860.8017



GEER ROAD LANDFILL

TITLE SHEET

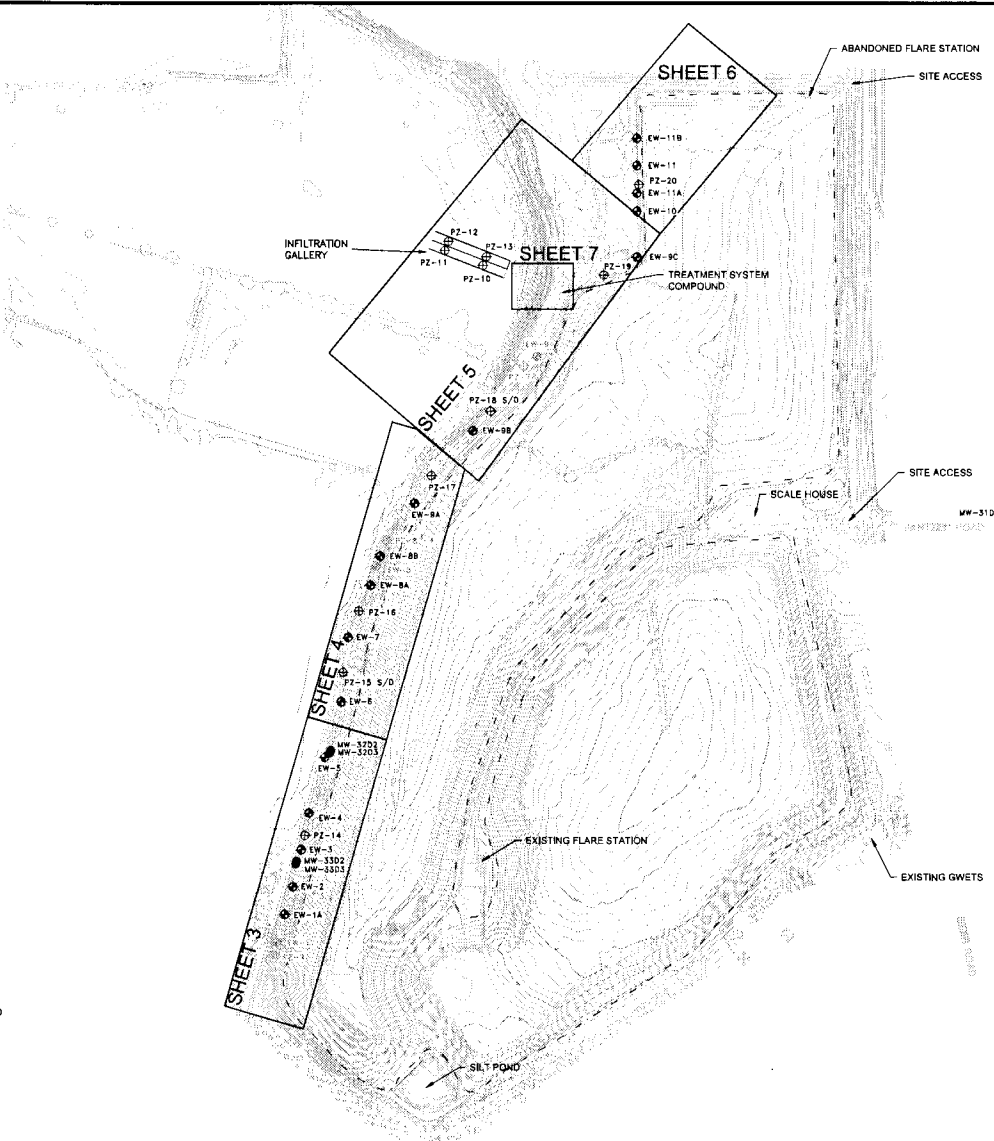
DESIGNED BY: FCANNS	SCALE: AS SHOWN	FILE NO.	SHEET 1.DWG
DRAWN BY: FCANNS	DATE: 03-2017		
CHECKED BY: FCANNS	DATE: 03-2017		
APPROVED BY: TGA	DATE: 03-2017	SHEET 1	OF 12

ATTACHMENT B



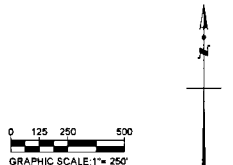
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
NOTES

1. SEDIMENT FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING STRUCTURAL CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE.
2. STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TRACKING, OR WIND.
3. APPROPRIATE BMP'S FOR CONSTRUCTION-RELATED MATERIALS, WASTES, AND SPILLS SHALL BE IMPLEMENTED TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTIES BY WIND OR RUNOFF.
4. RUNOFF FROM EQUIPMENT AND VEHICLE WASHING SHALL BE CONTAINED AT CONSTRUCTION SITES UNLESS TREATED TO REDUCE OR REMOVE SEDIMENT AND OTHER POLLUTANTS.
5. ALL CONSTRUCTION CONTRACTOR AND SUBCONTRACTOR PERSONNEL ARE TO BE MADE AWARE OF THE REQUIRED BEST MANAGEMENT PRACTICES AND GOOD HOUSEKEEPING MEASURES FOR THE PROJECT SITE AND ANY ASSOCIATED CONSTRUCTION STAGING AREAS.
6. AT THE END OF EACH DAY OF CONSTRUCTION ACTIVITY, ALL CONSTRUCTION DEBRIS AND WASTE MATERIALS SHALL BE COLLECTED AND PROPERLY DISPOSED OF IN TRASH OR RECYCLE BINS.
7. CONSTRUCTION SITES SHALL BE MAINTAINED IN SUCH A CONDITION THAT AN ANTICIPATED STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE. DISCHARGES OF MATERIAL OTHER THAN STORMWATER ONLY WHEN NECESSARY FOR PERFORMANCE AND COMPLETION OF CONSTRUCTION PRACTICES AND WHERE THEY DO NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF ANY WATER QUALITY STANDARD, CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR NUISANCE OR CONTAIN A HAZARDOUS SUBSTANCE IN A QUANTITY REPORTABLE UNDER FEDERAL REGULATIONS 40 CFR PARTS 117 AND 302.
8. POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINTS, STAINS, SEALANTS, GLUES, LINES, PESTICIDES, HERBICIDES, WOOD PRESERVATIVES AND SOLVENTS; ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS; FUELS, OILS, LUBRICANTS, AND HYDRAULIC FLUIDS; RADIATOR OR BATTERY FLUIDS; FERTILIZERS, VEHICLE/EQUIPMENT WASH WATER AND CONCRETE WASH WATER; CONCRETE, DETERGENT OR FLOOR TABLE WASTES; WASTES FROM ANY ENGINE EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING AND SUPERCHLORINATED POTABLE WATER LINE FLUSHING. DURING CONSTRUCTION, PERMITTEE SHALL DISPOSE OF SUCH MATERIALS IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON-SITE, PHYSICALLY SEPARATED FROM POTENTIAL STORMWATER RUNOFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.
9. DEWATERING OF CONTAMINATED GROUNDWATER, OR DISCHARGING CONTAMINATED SOILS VIA GROUND SURFACE DISCHARGE IS PROHIBITED. DEWATERING OF NON-CONTAMINATED GROUNDWATER REQUIRES A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FROM THE RESPECTIVE STATE REGIONAL WATER QUALITY CONTROL BOARD.
10. GRADED AREAS ON THE PERMITTED AREA PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPES AT THE CONCLUSION OF EACH WORKING DAY. DRAINAGE IS TO BE DIRECTED TOWARD DESILTING FACILITIES.
11. THE PERMITTEE AND CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION.
12. THE PERMITTEE AND CONTRACTOR SHALL INSPECT THE EROSION CONTROL WORK AND ENSURE THAT THE WORK IS IN ACCORDANCE WITH THE APPROVED PLANS.
13. THE PERMITTEE SHALL NOTIFY ALL GENERAL CONTRACTORS, SUBCONTRACTORS, MATERIAL SUPPLIERS, LESSEES, AND PROPERTY OWNERS THAT DUMPING CHEMICALS INTO THE STORM DRAIN SYSTEM OR THE WATERSHED IS PROHIBITED.
14. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
15. ALL REMOVABLE EROSION PROTECTIVE DEVICES SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE 5-DAY RAIN PROBABILITY FORECAST EXCEEDS 40%.
16. SEDIMENTS FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING AN EFFECTIVE COMBINATION OF EROSION AND SEDIMENT CONTROLS TO THE MAXIMUM EXTENT PRACTICAL AND STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES OF ADJACENT PROPERTIES VIA RUNOFF.
17. APPROPRIATE BMP'S FOR CONSTRUCTION-RELATED MATERIALS, WASTE, SPILLS OR RESIDUES SHALL BE IMPLEMENTED AND RETAINED ON SITE TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTY BY WIND OR RUNOFF.



CONSTRUCTION NOTES

- 1 PROTECT IN PLACE
- 2 INSTALL EXTRACTION WELL ASSEMBLY PER SCHEDULE
- 3 INSTALL 4" HDPE HEADER AND ELECTRICAL CONDUIT PER
- 4 TIE IN TO EXISTING 6" HDPE HEADER AND CONSTRUCT EXTRACTION WELL TO HEADER CONNECTION PER
- 5 TIE IN TO NEW 4" HDPE HEADER AND CONSTRUCT EXTRACTION WELL TO HEADER CONNECTION PER
- 6 CLEAR & GRUB/GRADING FOR NEW HDPE PIPE AND INFILTRATION GALLERY
- 7 CONSTRUCT INFILTRATION GALLERY PER
- 8 INSTALL INFILTRATION GALLERY ISOLATION VALVES PER
- 9 INSTALL GROUNDWATER TREATMENT SYSTEM
- 10 INSTALL EQUALIZATION (EQ) TANK
- 11 INSTALL SKID MOUNTED BAG FILTER HOUSING (PROVIDED BY OTHERS)
- 12 INSTALL TREATMENT SYSTEM BUILDING
- 13 INSTALL TREATMENT SYSTEM COMPOUND FENCING PER
- 14 INSTALL 3/4" CRUSHED GRAVEL
- 15 INSTALL STEEL BOLLARDS PER
- 16 INSTALL TREATED EFFLUENT TANK
- 17 CONSTRUCT AIR RELIEF VALVE PER
- 18 INSTALL CLEAN-OUT PER
- 19 INSTALL ELECTRICAL PER
- 20 INSTALL 6" HDPE EFFLUENT PIPE PER
- 21 INSTALL ISOLATION VALVE AND CHECK VALVE PER
- 22 INSTALL BACKWASH TANK
- 23 INSTALL NEW PIEZOMETER PER SCHEDULE
- 24 INSTALL NEW MONITORING WELL PER SCHEDULE
- 25 CONSTRUCT SLAB PER



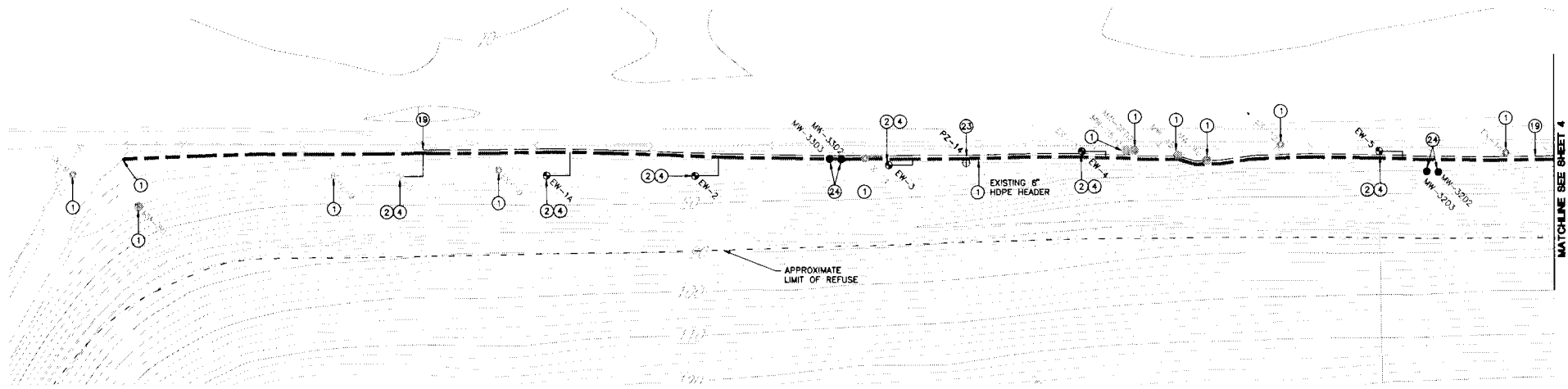
LEGEND

- EXISTING CONTOUR
- APPROXIMATE LOCATION OF PROPERTY LINE
- EXISTING FENCE
- APPROXIMATE LIMIT OF REFUSE
- PROPOSED UNDERGROUND PIPE PER PLAN
- EXISTING HEADER ALIGNMENT
- PROPOSED ELECTRICAL CONDUIT
- EXISTING MONITORING WELL
- EXISTING EXTRACTION WELL
- EXISTING PIEZOMETER
- FORMERLY NEW-1 EXISTING VERIFICATION TESTING EXTRACTION WELL (NEW-1, NEW-8, NEW-9 INSTALLED IN 2015)
- NEW EXTRACTION WELL
- NEW PIEZOMETER
- NEW MONITORING WELL

NO.	REVISION DESCRIPTION	BY:

<b>TETRA TECH BAS</b> 1360 Valley Vista Drive, Diamond Bar, CA 91765 TEL 909.860.7777 FAX 909.860.8017			TETRA TECH BAS No. 024572 STATE OF CALIFORNIA		
GEER ROAD LANDFILL			SITE PLAN		
DESIGNED BY:	FCANHS	SCALE:	AS SHOWN	DATE:	05-2017
DRAWN BY:	FCANHS	CHECKED BY:	FCANHS	FILE NO.:	SHEET 2.DWG
APPROVED BY:	TGA	DATE:	03-2017	SHEET	2 OF 12

13/10/2017 08:00 AM 13/10/2017 08:00 AM 13/10/2017 08:00 AM 13/10/2017 08:00 AM 13/10/2017 08:00 AM 13/10/2017 08:00 AM 13/10/2017 08:00 AM



MATCHLINE SEE SHEET 4

**CONSTRUCTION NOTES**

- |                                                                                            |                                                  |
|--------------------------------------------------------------------------------------------|--------------------------------------------------|
| 1 PROTECT IN PLACE                                                                         | 13 INSTALL TREATMENT SYSTEM COMPOUND FENCING PER |
| 2 INSTALL EXTRACTION WELL ASSEMBLY PER SCHEDULE                                            | 14 INSTALL 3/4" CRUSHED GRAVEL                   |
| 3 INSTALL 4" HDPE HEADER AND ELECTRICAL CONDUIT PER                                        | 15 INSTALL STEEL BOLLARDS PER                    |
| 4 TIE IN TO EXISTING 8" HDPE HEADER AND CONSTRUCT EXTRACTION WELL TO HEADER CONNECTION PER | 16 INSTALL TREATED EFFLUENT TANK                 |
| 5 TIE IN TO NEW 4" HDPE HEADER AND CONSTRUCT EXTRACTION WELL TO HEADER CONNECTION PER      | 17 CONSTRUCT AIR RELIEF VALVE PER                |
| 6 CLEAR & GRUBBING FOR NEW HDPE PIPE AND INFILTRATION GALLERY                              | 18 INSTALL CLEAN-OUT PER                         |
| 7 CONSTRUCT INFILTRATION GALLERY PER                                                       | 19 INSTALL ELECTRICAL PER                        |
| 8 INSTALL INFILTRATION GALLERY ISOLATION VALVES PER                                        | 20 INSTALL 8" HDPE EFFLUENT PIPE PER             |
| 9 INSTALL GROUNDWATER TREATMENT SYSTEM                                                     | 21 INSTALL ISOLATION VALVE AND CHECK VALVE PER   |
| 10 INSTALL EQUALIZATION (EQ) TANK                                                          | 22 INSTALL BACKWASH TANK                         |
| 11 INSTALL SKID MOUNTED BAG FILTER HOUSING (PROVIDED BY OTHERS)                            | 23 INSTALL NEW PIEZOMETER PER SCHEDULE           |
| 12 INSTALL TREATMENT SYSTEM BUILDING                                                       | 24 INSTALL NEW MONITORING WELL PER SCHEDULE      |
|                                                                                            | 26 CONSTRUCT SLAB PER                            |



**LEGEND**

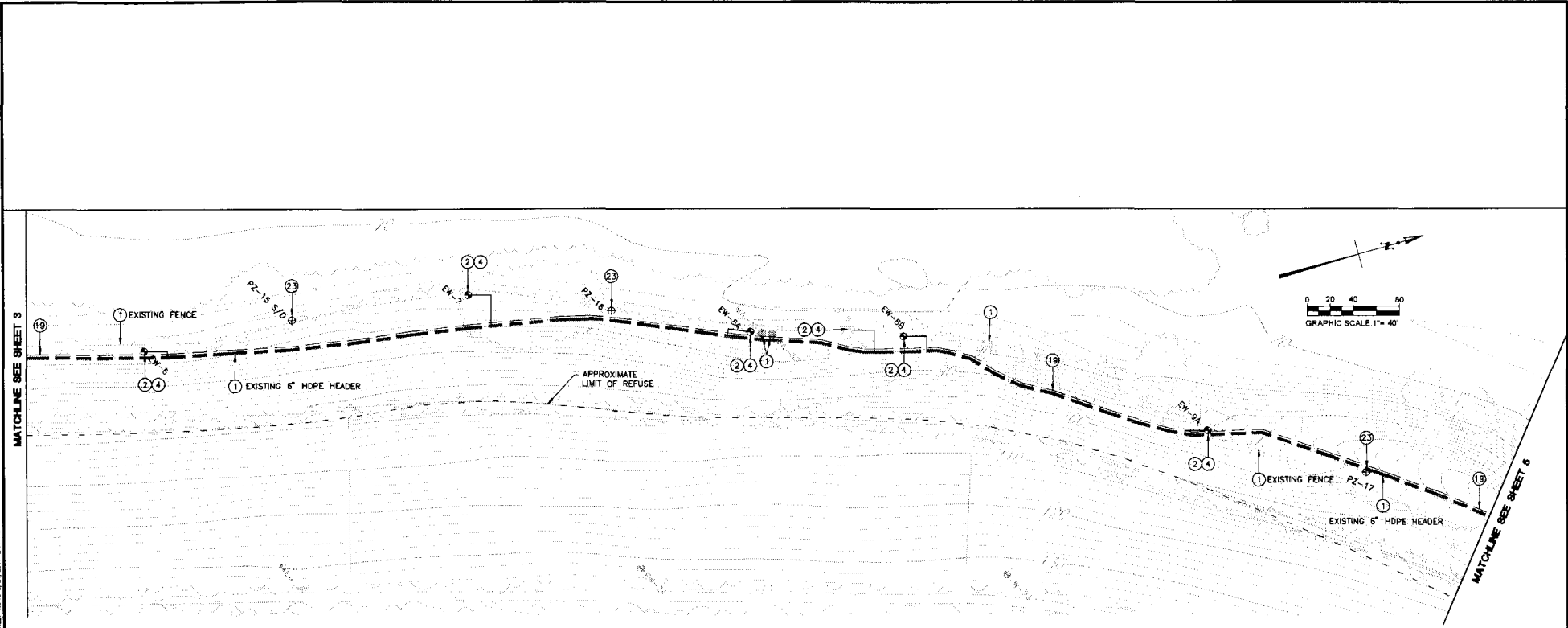
- |  |                                                                                                            |
|--|------------------------------------------------------------------------------------------------------------|
|  | EXISTING CONTOUR                                                                                           |
|  | APPROXIMATE LOCATION OF PROPERTY LINE                                                                      |
|  | EXISTING FENCE                                                                                             |
|  | APPROXIMATE LIMIT OF REFUSE                                                                                |
|  | PROPOSED UNDERGROUND PIPE PER PLAN                                                                         |
|  | EXISTING HEADER ALIGNMENT                                                                                  |
|  | PROPOSED ELECTRICAL CONDUIT                                                                                |
|  | EXISTING MONITORING WELL                                                                                   |
|  | EXISTING EXTRACTION WELL                                                                                   |
|  | EXISTING PIEZOMETER                                                                                        |
|  | FORMERLY NEW-1<br>EXISTING VERIFICATION TESTING EXTRACTION WELL<br>(NEW-1, NEW-8, NEW-9 INSTALLED IN 2015) |
|  | NEW EXTRACTION WELL                                                                                        |
|  | NEW PIEZOMETER                                                                                             |
|  | NEW MONITORING WELL                                                                                        |

NO.	REVISION DESCRIPTION	BY:

**TETRA TECH BAS**  
 1340 Valley Vista Drive, Diamond Bar, CA 91765  
 TEL 909.860.7777 FAX 909.860.8017



GEER ROAD LANDFILL			
HEADER ALIGNMENT			
DESIGNED BY: FCANHS	SCALE: AS SHOWN	DATE: 03-2017	FILE NO. SHEET 3 DWG.
DRAWN BY: FCANHS	CHECKED BY: FCANHS	DATE: 03-2017	APPROVED BY: TOA
		DATE: 03-2017	SHEET 3 OF 12



**CONSTRUCTION NOTES**

- |                                                                                            |                                                  |      |
|--------------------------------------------------------------------------------------------|--------------------------------------------------|------|
| 1 PROTECT IN PLACE                                                                         | 13 INSTALL TREATMENT SYSTEM COMPOUND FENCING PER | 4-19 |
| 2 INSTALL EXTRACTION WELL ASSEMBLY PER SCHEDULE                                            | 14 INSTALL 3/4" CRUSHED GRAVEL                   |      |
| 3 INSTALL 4" HDPE HEADER AND ELECTRICAL CONDUIT PER                                        | 15 INSTALL STEEL BOLLARDS PER                    | 2-18 |
| 4 TIE IN TO EXISTING 6" HDPE HEADER AND CONSTRUCT EXTRACTION WELL TO HEADER CONNECTION PER | 16 INSTALL TREATED EFFLUENT TANK                 | 8-17 |
| 5 TIE IN TO NEW 4" HDPE HEADER AND CONSTRUCT EXTRACTION WELL TO HEADER CONNECTION PER      | 17 CONSTRUCT AIR RELIEF VALVE PER                | 3-19 |
| 6 CLEAR & GRUB/GRADING FOR NEW HDPE PIPE AND INFILTRATION GALLERY                          | 18 INSTALL CLEAN-OUT PER                         | 4-19 |
| 7 CONSTRUCT INFILTRATION GALLERY PER                                                       | 19 INSTALL ELECTRICAL PER                        | 3-19 |
| 8 INSTALL INFILTRATION GALLERY ISOLATION VALVES PER                                        | 20 INSTALL 6" HDPE EFFLUENT PIPE PER             | 2-19 |
| 9 INSTALL GROUNDWATER TREATMENT SYSTEM                                                     | 21 INSTALL ISOLATION VALVE AND CHECK VALVE PER   | 3-19 |
| 10 INSTALL EQUALIZATION (EQ) TANK                                                          | 22 INSTALL BACKWASH TANK                         | 7-16 |
| 11 INSTALL SH20 MOUNTED BAG FILTER HOUSING (PROVIDED BY OTHERS)                            | 23 INSTALL NEW PIEZOMETER PER SCHEDULE           | 2-17 |
| 12 INSTALL TREATMENT SYSTEM BUILDING                                                       | 24 INSTALL NEW MONITORING WELL PER SCHEDULE      | 3-17 |
|                                                                                            | 25 CONSTRUCT SLAB PER                            | 3-19 |

**LEGEND**

- EXISTING CONTOUR
- - - - - APPROXIMATE LOCATION OF PROPERTY LINE
- EXISTING FENCE
- - - - - APPROXIMATE LIMIT OF REFUSE
- PROPOSED UNDERGROUND PIPE PER PLAN
- EXISTING HEADER ALIGNMENT
- PROPOSED ELECTRICAL CONDUIT
- EW-10 EXISTING MONITORING WELL
- EW-13 EXISTING EXTRACTION WELL
- EW-4 EXISTING EXTRACTION WELL
- EW-1 EXISTING VERIFICATION TESTING EXTRACTION WELL (NEW-1, NEW-8, NEW-9 INSTALLED IN 2015)
- EW-1A NEW EXTRACTION WELL
- PZ-20 NEW PIEZOMETER
- MW-31D3 NEW MONITORING WELL

C:\GIS\PROJECTS\2015\2015\_03\2015\_03\_01\2015\_03\_01\_001.dwg 2/2/2017 2:44 PM

NO.	REVISION DESCRIPTION	BY


**TETRA TECH BAS**  
 1360 Valley Vista Drive, Diamond Bar, CA 91765  
 TEL 909.860.7777 FAX 909.860.8017



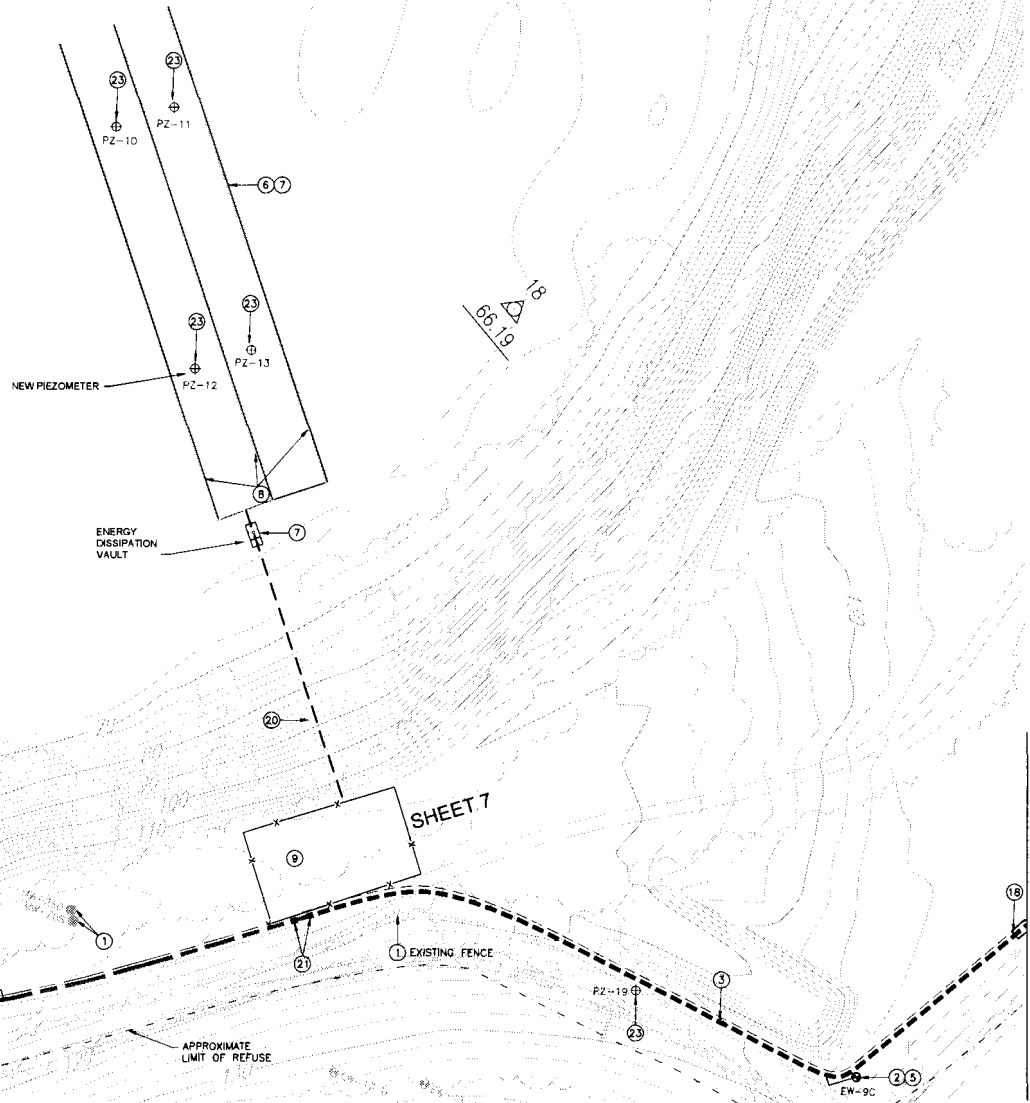
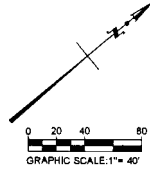
<b>GEER ROAD LANDFILL</b>			
<b>HEADER ALIGNMENT</b>			
DESIGNED BY: FCANHS	SCALE: AS SHOWN	DATE: 03-2017	FILE NO.: SHEET 4.DWG
DRAWN BY: FCANHS	CHECKED BY: FCANHS	DATE: 03-2017	SHEET 4 OF 12
APPROVED BY: TGA			

**CONSTRUCTION NOTES**

- 1 PROTECT IN PLACE
- 2 INSTALL EXTRACTION WELL ASSEMBLY PER SCHEDULE
- 3 INSTALL 4" HDPE HEADER AND ELECTRICAL CONDUIT PER
- 4 TIE IN TO EXISTING 6" HDPE HEADER AND CONSTRUCT EXTRACTION WELL TO HEADER CONNECTION PER
- 5 TIE IN TO NEW 4" HDPE HEADER AND CONSTRUCT EXTRACTION WELL TO HEADER CONNECTION PER
- 6 CLEAR & GRUB/GRADING FOR NEW HDPE PIPE AND INFILTRATION GALLERY
- 7 CONSTRUCT INFILTRATION GALLERY PER
- 8 INSTALL INFILTRATION GALLERY ISOLATION VALVES PER
- 9 INSTALL GROUNDWATER TREATMENT SYSTEM
- 10 INSTALL EQUALIZATION (EQ) TANK
- 11 INSTALL SKID MOUNTED BAG FILTER HOUSING (PROVIDED BY OTHERS)
- 12 INSTALL TREATMENT SYSTEM BUILDING
- 13 INSTALL TREATMENT SYSTEM COMPOUND FENCING PER
- 14 INSTALL 3/4" CRUSHED GRAVEL
- 15 INSTALL STEEL BOLLARDS PER
- 16 INSTALL TREATED EFFLUENT TANK
- 17 CONSTRUCT AIR RELIEF VALVE PER
- 18 INSTALL CLEAN-OUT PER
- 19 INSTALL ELECTRICAL PER
- 20 INSTALL 6" HDPE EFFLUENT PIPE PER
- 21 INSTALL ISOLATION VALVE AND CHECK VALVE PER
- 22 INSTALL BACKWASH TANK
- 23 INSTALL NEW PIEZOMETER PER SCHEDULE
- 24 INSTALL NEW MONITORING WELL PER SCHEDULE
- 25 CONSTRUCT SLAB PER

**LEGEND**

- EXISTING CONTOUR
- - - - - APPROXIMATE LOCATION OF PROPERTY LINE
- - - - - EXISTING FENCE
- - - - - APPROXIMATE LIMIT OF REFUSE
- ==== PROPOSED UNDERGROUND PIPE PER PLAN
- ==== EXISTING HEADER ALIGNMENT
- PROPOSED ELECTRICAL CONDUIT
- ⊕ MW-31D3 EXISTING MONITORING WELL
- ⊕ EW-1A EXISTING EXTRACTION WELL
- ⊕ PZ-1 EXISTING PIEZOMETER
- ⊕ EW-1 EXISTING VERIFICATION TESTING EXTRACTION WELL (NEW-1, NEW-8, NEW-9 INSTALLED IN 2015)
- ⊕ EW-1A NEW EXTRACTION WELL
- ⊕ PZ-20 NEW PIEZOMETER
- MW-31D3 NEW MONITORING WELL



MATCHLINE SEE SHEET 4

MATCHLINE SEE SHEET 8

NO.	REVISION DESCRIPTION	BY:

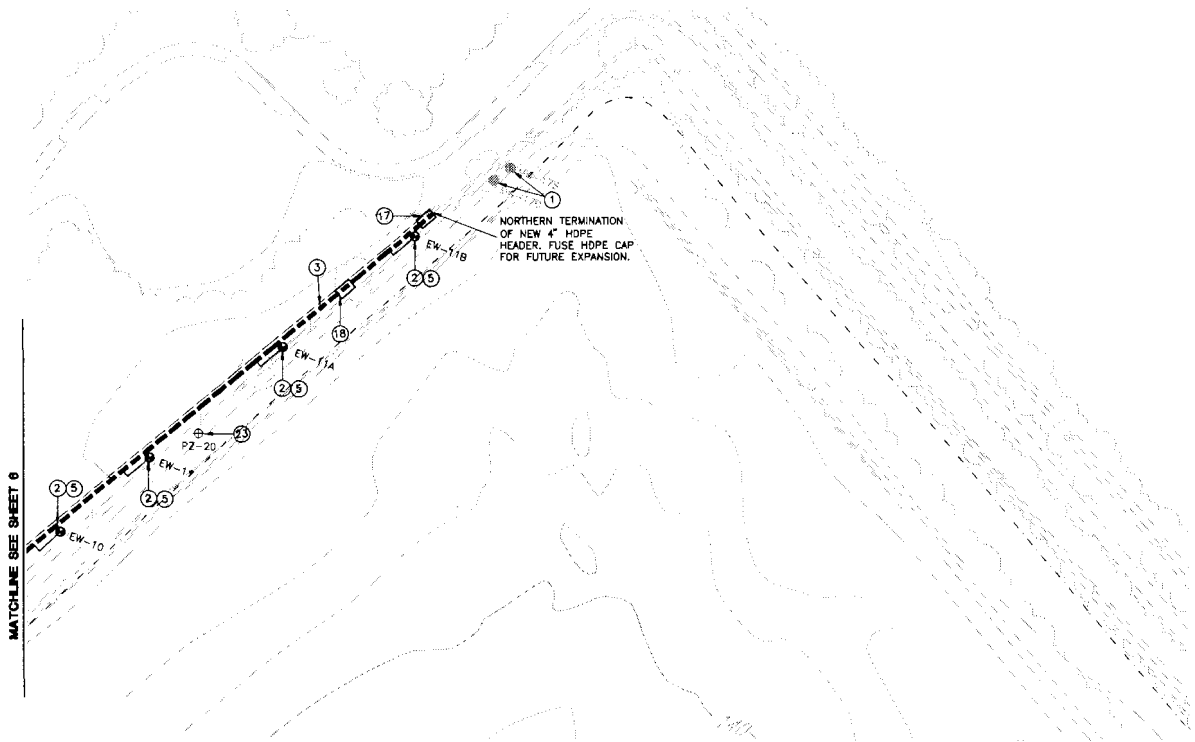
**TETRA TECH BAS**  
 1380 Valley Vista Drive, Diamond Bar, CA 91765  
 TEL 909.860.7777 FAX 909.860.8017



GEER ROAD LANDFILL			
HEADER ALIGNMENT			
DESIGNED BY	FCANHS	SCALE	AS SHOWN
DRAWN BY	FCANHS	DATE	03-2017
CHECKED BY	FCANHS	DATE	03-2017
APPROVED BY	TGA	DATE	03-2017
		FILE NO.	SHEET 5 DWG
		SHEET 5 OF 12	

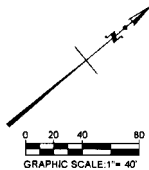
DATE PLOTTED: 03/28/2017 10:58 AM; PLOTTER: HP DesignJet T1100; FILE: C:\PROJECTS\GEER ROAD LANDFILL\DRAWINGS\2015-0116 - GEER ROAD LANDFILL\DWG\HEADER ALIGNMENT.dwg; USER: GREGORY; SHEET: 5 OF 12

15.000000 COUNTY OF SAN DIEGO LANDFILL CONTRACT 2015-2016 CD 2015-00025 DESIGN (MWD) 2017.02.09 08:49:00 AM 3/2/2017 2:48 PM



MATCHLINE SEE SHEET 0

1  
 NORTHERN TERMINATION  
 OF NEW 4" HDPE  
 HEADER. FUSE HDPE CAP  
 FOR FUTURE EXPANSION.



### CONSTRUCTION NOTES

- 1 PROTECT IN PLACE
- 2 INSTALL EXTRACTION WELL ASSEMBLY PER SCHEDULE
- 3 INSTALL 4" HDPE HEADER AND ELECTRICAL CONDUIT PER
- 4 TIE IN TO EXISTING 6" HDPE HEADER AND CONSTRUCT EXTRACTION WELL TO HEADER CONNECTION PER
- 5 TIE IN TO NEW 4" HDPE HEADER AND CONSTRUCT EXTRACTION WELL TO HEADER CONNECTION PER
- 6 CLEAR & GRUB/GRADING FOR NEW HDPE PIPE AND INFILTRATION GALLERY
- 7 CONSTRUCT INFILTRATION GALLERY PER
- 8 INSTALL INFILTRATION GALLERY ISOLATION VALVES PER
- 9 INSTALL GROUNDWATER TREATMENT SYSTEM
- 10 INSTALL EQUALIZATION (EQ) TANK
- 11 INSTALL SKID MOUNTED BAG FILTER HOUSING (PROVIDED BY OTHERS)
- 12 INSTALL TREATMENT SYSTEM BUILDING
- 13 INSTALL TREATMENT SYSTEM COMPOUND FENCING PER
- 14 INSTALL 1/2" CRUSHED GRAVEL
- 15 INSTALL STEEL BOLLARDS PER
- 16 INSTALL TREATED EFFLUENT TANK
- 17 CONSTRUCT AIR RELIEF VALVE PER
- 18 INSTALL CLEAN-OUT PER
- 19 INSTALL ELECTRICAL PER
- 20 INSTALL 6" HDPE EFFLUENT PIPE PER
- 21 INSTALL ISOLATION VALVE AND CHECK VALVE PER
- 22 INSTALL BACKWASH TANK
- 23 INSTALL NEW PIEZOMETER PER SCHEDULE
- 24 INSTALL NEW MONITORING WELL PER SCHEDULE
- 25 CONSTRUCT SLAB PER

### LEGEND

- EXISTING CONTOUR
- APPROXIMATE LOCATION OF PROPERTY LINE
- EXISTING FENCE
- APPROXIMATE LIMIT OF REFUSE
- PROPOSED UNDERGROUND PIPE PER PLAN
- EXISTING HEADER ALIGNMENT
- PROPOSED ELECTRICAL CONDUIT
- EXISTING MONITORING WELL
- EXISTING EXTRACTION WELL
- EXISTING PIEZOMETER
- FORMERLY NEW-1 EXISTING VERIFICATION TESTING EXTRACTION WELL (NEW-1, NEW-8, NEW-9 INSTALLED IN 2015)
- EW-1A NEW EXTRACTION WELL
- PZ-20 NEW PIEZOMETER
- MW-31D3 NEW MONITORING WELL

### GEER ROAD LANDFILL

### HEADER ALIGNMENT

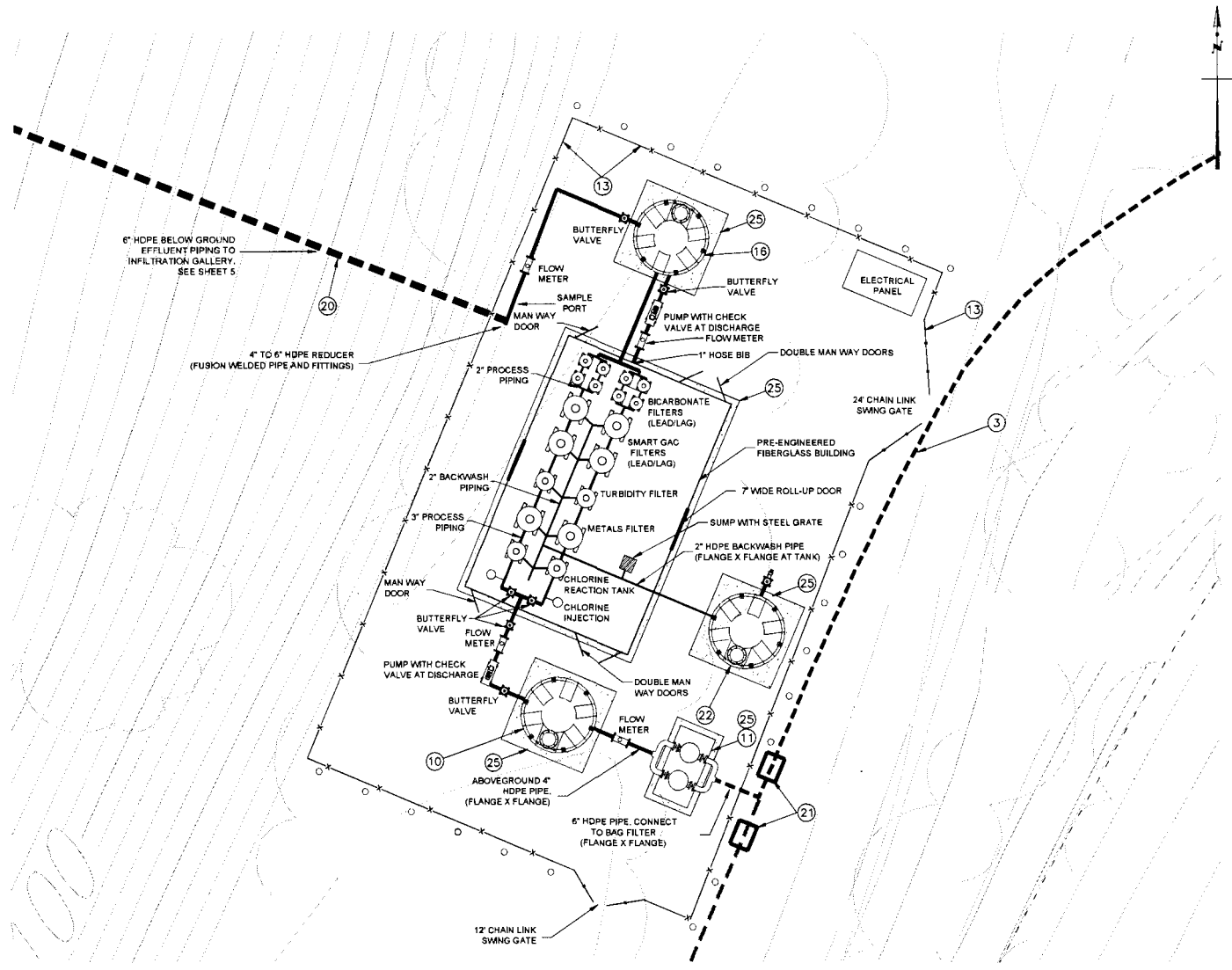
**TETRA TECH BAS**  
 1360 Valley Vista Drive, Diamond Bar, CA 91765  
 TEL 909.860.7777 FAX 909.860.8017



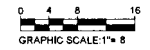
DESIGNED BY	FCANHS	SCALE	AS SHOWN
DRAWN BY	FCANHS	DATE	03-2017
CHECKED BY	FCANHS	FILE NO.	SHEET 6.DWG
APPROVED BY	TGA	DATE	03-2017
		SHEET	6 OF 12

NO.	REVISION DESCRIPTION	BY:

C:\PROJECTS\CONTRACTS\2015\15-0118\_GW\_1515\DWG\GWETS IMPROVEMENTS\DWG\_1515\_0317.DWG (DATE: 03/24/2017 2:48 PM)



- ### CONSTRUCTION NOTES
- 1 PROTECT IN PLACE
  - 2 INSTALL EXTRACTION WELL ASSEMBLY PER SCHEDULE
  - 3 INSTALL 4" HDPE HEADER AND ELECTRICAL CONDUIT PER
  - 4 TIE IN TO EXISTING 6" HDPE HEADER AND CONSTRUCT EXTRACTION WELL TO HEADER CONNECTION PER
  - 5 TIE IN TO NEW 4" HDPE HEADER AND CONSTRUCT EXTRACTION WELL TO HEADER CONNECTION PER
  - 6 CLEAR & GRUB/GRADING FOR NEW HDPE PIPE AND INFILTRATION GALLERY
  - 7 CONSTRUCT INFILTRATION GALLERY PER
  - 8 INSTALL INFILTRATION GALLERY ISOLATION VALVES PER
  - 9 INSTALL GROUNDWATER TREATMENT SYSTEM
  - 10 INSTALL EQUALIZATION (EQ) TANK
  - 11 INSTALL SKID MOUNTED BAG FILTER HOUSING (PROVIDED BY OTHERS)
  - 12 INSTALL TREATMENT SYSTEM BUILDING
  - 13 INSTALL TREATMENT SYSTEM COMPOUND FENCING PER
  - 14 INSTALL 1/2" CRUSHED GRAVEL
  - 15 INSTALL STEEL BOLLARDS PER
  - 16 INSTALL TREATED EFFLUENT TANK
  - 17 CONSTRUCT AIR RELIEF VALVE PER
  - 18 INSTALL CLEAN-OUT PER
  - 19 INSTALL ELECTRICAL PER
  - 20 INSTALL 6" HDPE EFFLUENT PIPE PER
  - 21 INSTALL ISOLATION VALVE AND CHECK VALVE PER
  - 22 INSTALL BACKWASH TANK
  - 23 INSTALL NEW PIEZOMETER PER SCHEDULE
  - 24 INSTALL NEW MONITORING WELL PER SCHEDULE
  - 25 CONSTRUCT SLAB PER



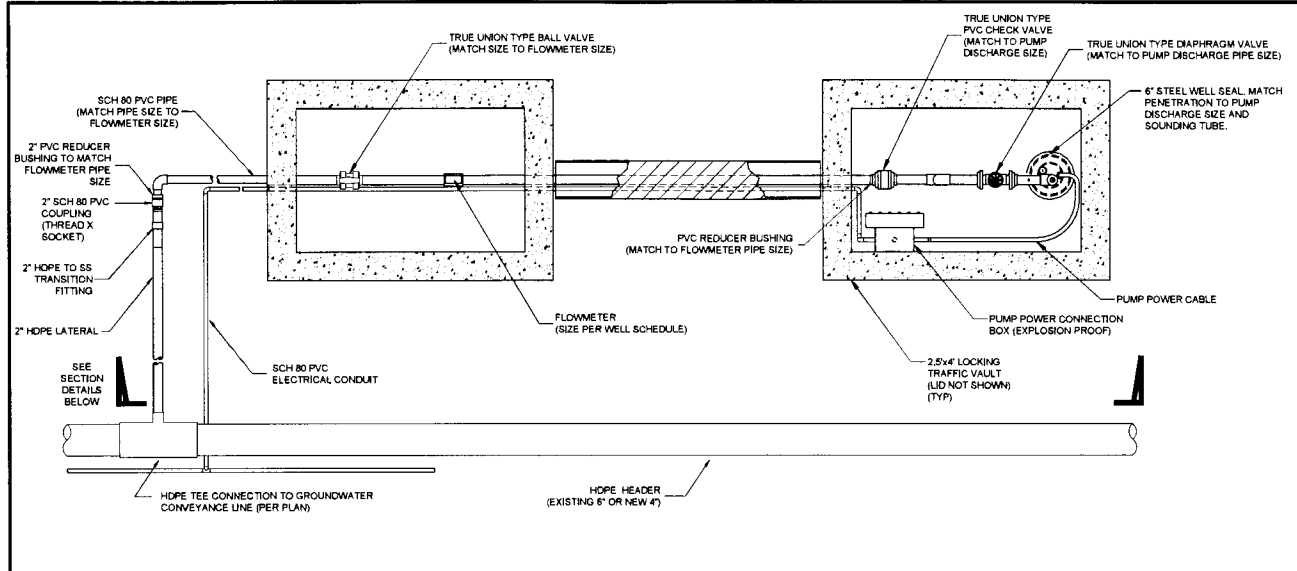
- ### LEGEND
- EXISTING CONTOUR
  - APPROXIMATE LOCATION OF PROPERTY LINE
  - EXISTING FENCE
  - APPROXIMATE LIMIT OF REFUSE
  - PROPOSED UNDERGROUND PIPE PER PLAN
  - EXISTING HEADER ALIGNMENT
  - PROPOSED ELECTRICAL CONDUIT
  - EXISTING MONITORING WELL
  - EXISTING EXTRACTION WELL
  - EXISTING PIEZOMETER
  - FORMERLY NEW-1 EXISTING VERIFICATION TESTING EXTRACTION WELL (NEW-1, NEW-8, NEW-9 INSTALLED IN 2015)
  - NEW EXTRACTION WELL
  - NEW PIEZOMETER
  - NEW MONITORING WELL

NO.	REVISION DESCRIPTION	BY:

**TETRA TECH BAS**  
 1360 Valley Vista Drive, Diamond Bar, CA 91765  
 TEL 909.860.7777 FAX 909.860.8017

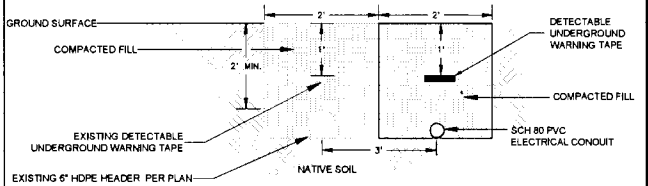


GEER ROAD LANDFILL			
GWETS IMPROVEMENTS			
DESIGNED BY	FCANHS	SCALE	AS SHOWN
DRAWN BY	FCANHS	DATE	03-2017
CHECKED BY	FCANHS	DATE	03-2017
APPROVED BY	TGA	DATE	03-2017
FILE NO.			SHEET 7 OF 12



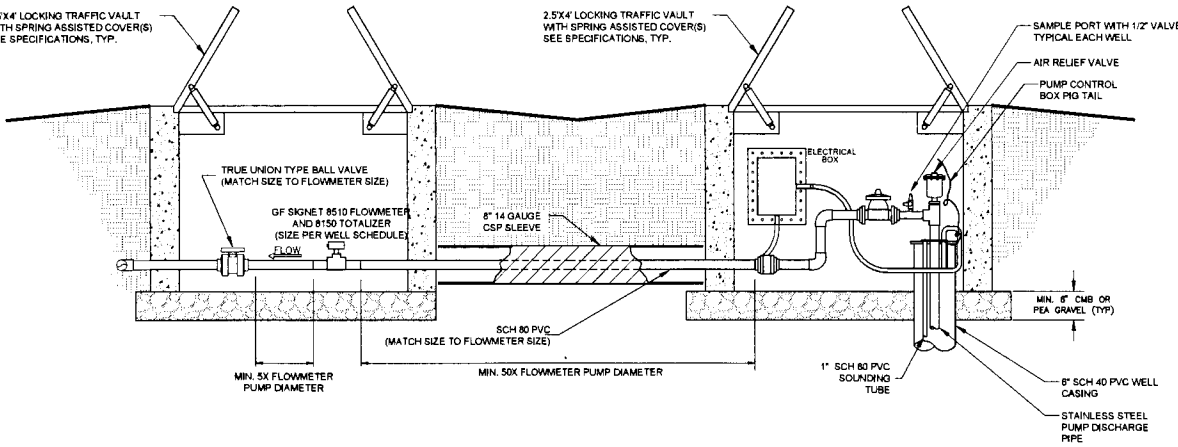
INFILTRATION GALLERY ISOLATION VALVE DETAIL

2  
8



SOUTHERN ELECTRICAL TRENCH  
SCALE: NTS

3  
8



EXTRACTION WELL DETAIL  
SCALE: NTS

1  
8

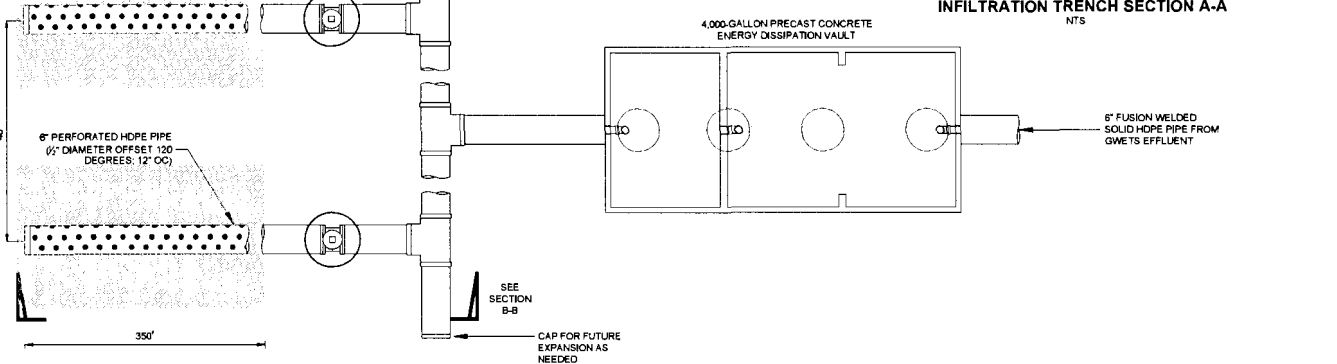
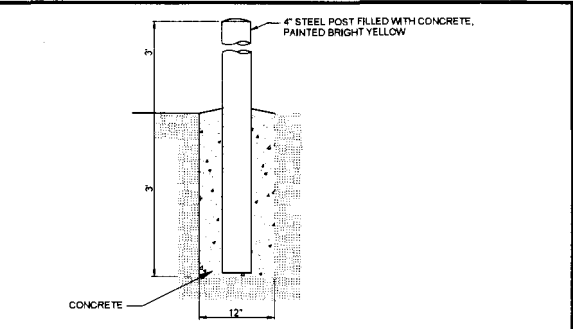
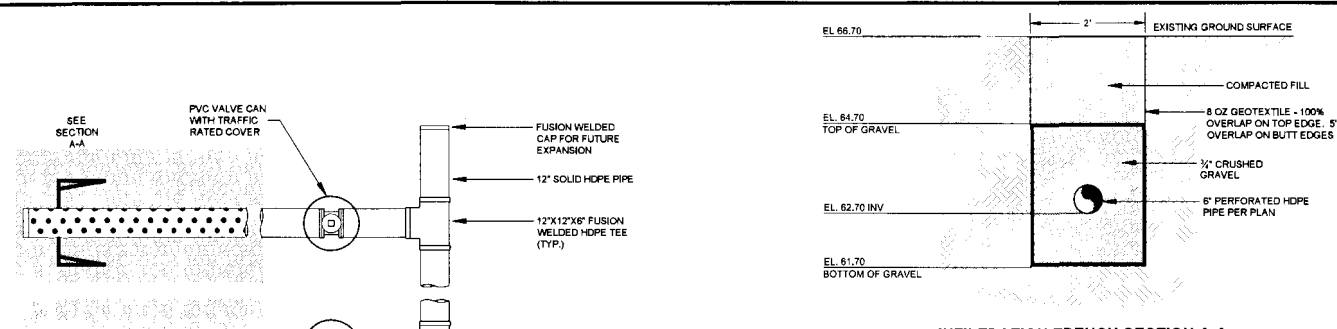
150000000 CONCRETE 2000 3/15/2017 00:00 2000 3/15/2017 00:00 2000 3/15/2017 00:00 2000 3/15/2017 00:00 2000 3/15/2017 00:00

NO.	REVISION DESCRIPTION	BY

**TETRA TECH BAS**  
 1360 Valley Vista Drive, Diamond Bar, CA 91765  
 TEL 909.860.7777 FAX 909.860.8017

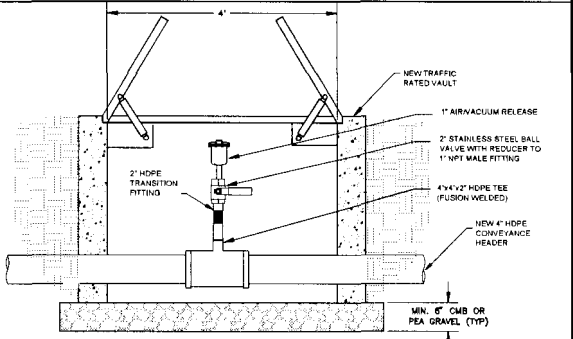
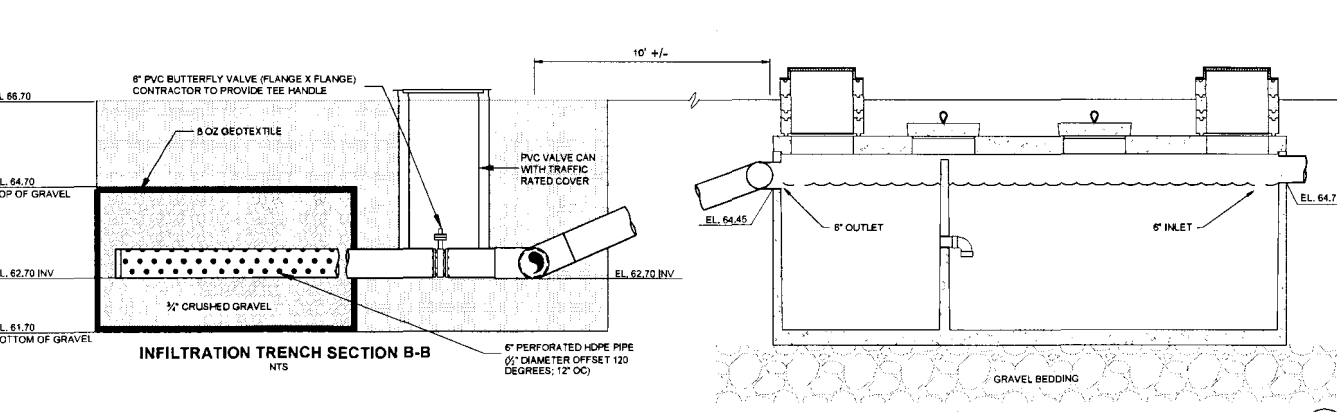


GEER ROAD LANDFILL			
DETAILS			
DESIGNED BY:	F. CANHS	SCALE:	AS SHOWN
DRAWN BY:	F. CANHS	DATE:	03-2017
CHECKED BY:	F. CANHS	DATE:	03-2017
APPROVED BY:	TGA	DATE:	03-2017
FILE NO.	SHEET & DWG.	SHEET	8 OF 12



2  
9

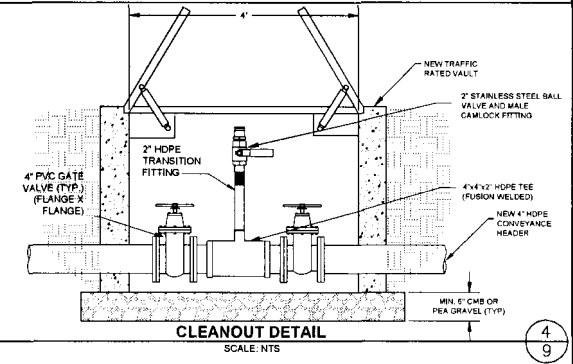
TYPICAL BOLLARD DETAIL  
SCALE: NTS



3  
9

AIR RELIEF VALVE DETAIL  
SCALE: NTS

1  
9



4  
9

CLEANOUT DETAIL  
SCALE: NTS

20240815 09:42:33 AM  
 USER: daniel.d...  
 PROJECT: GEOR ROAD LANDFILL...  
 SHEET: 9 OF 11  
 DATE: 03/20/17  
 TIME: 09:42:33 AM

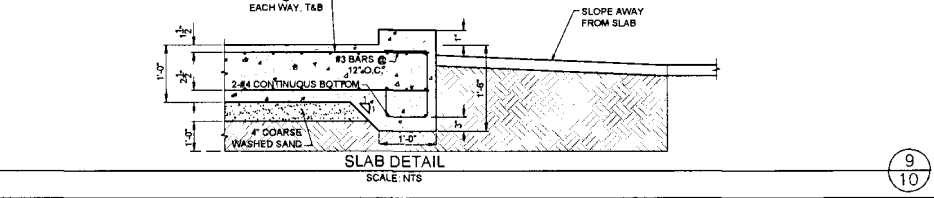
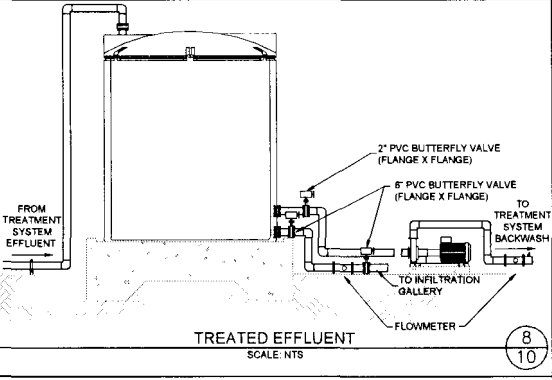
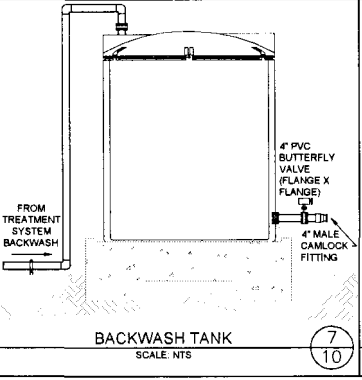
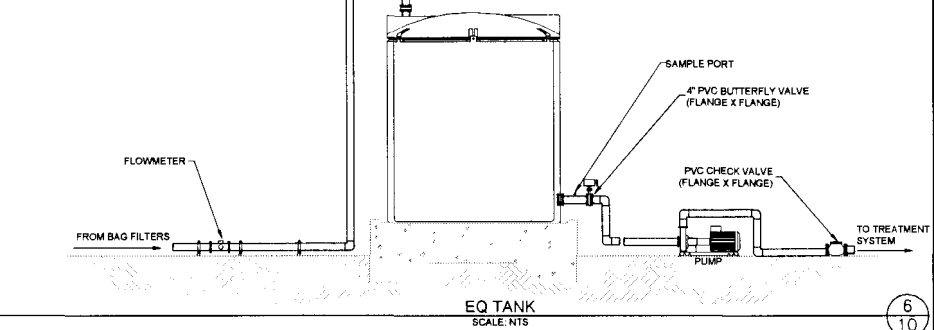
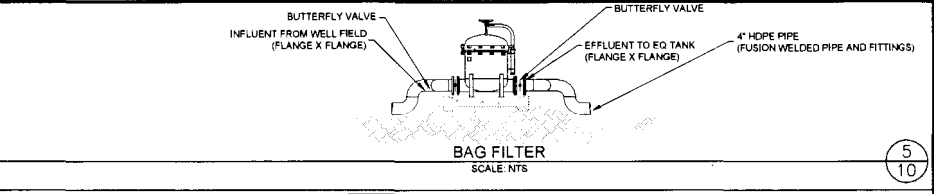
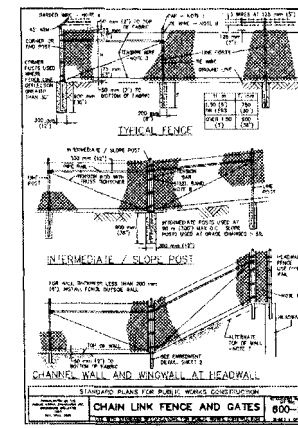
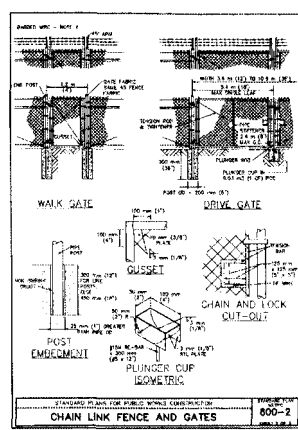
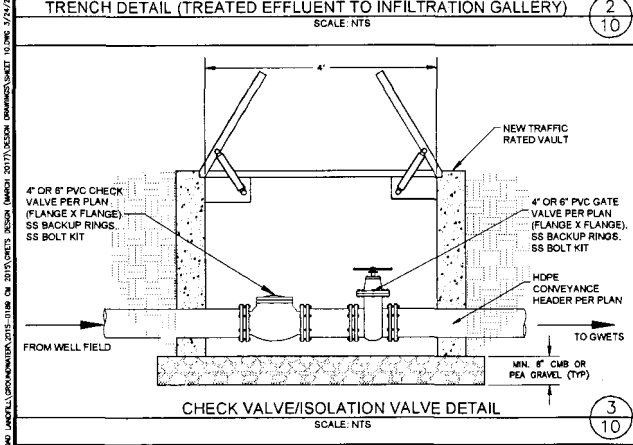
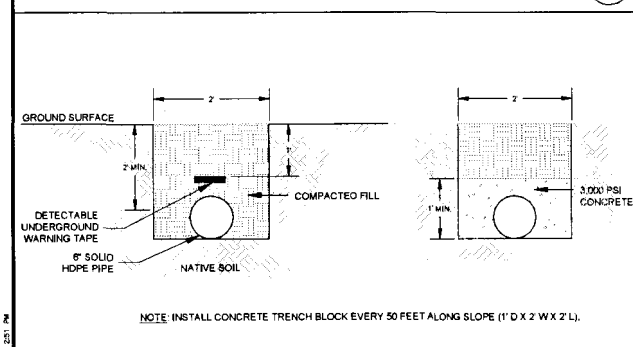
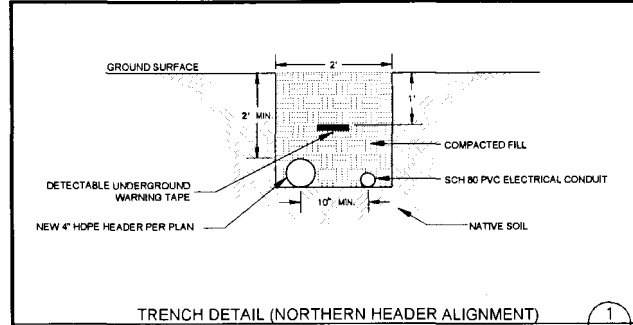
NO.	REVISION DESCRIPTION	BY


**TETRA TECH BAS**  
 1340 Valley Vista Drive, Diamond Bar, CA 91765  
 TEL 909.860.7777 FAX 909.860.8017



GEOR ROAD LANDFILL DETAILS			
DESIGNED BY: FCA/HS	SCALE: AS SHOWN	FILE NO.	SHEET 9 OF 11
DRAWN BY: FCA/HS	DATE: 03/20/17		
CHECKED BY: FCA/HS	DATE: 03/20/17		
APPROVED BY: TGA	DATE: 03/20/17		





NO.	REVISION DESCRIPTION	BY

**TE** TETRA TECH BAS  
1340 Valley Vista Drive, Diamond Bar, CA 91765  
TEL 909.860.7777 FAX 909.860.8017

REGISTERED PROFESSIONAL ENGINEER  
GREGORY A. GREGORY  
No. 024873  
Exp. 12/31/2018  
CALIFORNIA

GEER ROAD LANDFILL		
DETAILS		
DESIGNED BY	SCALE	AS SHOWN
FCANHS		
DRAWN BY	DATE	FILE NO.
FCANHS	03-2017	SHEET 10 DWG
CHECKED BY	DATE	
FCANHS	03-2017	
APPROVED BY	DATE	
TGA	03-2017	SHEET 10 OF 12

DATE PLOTTED: 03/15/2017 10:45:58 AM  
 PLOTTER: HP DesignJet T1130  
 PLOT SCALE: 1/8" = 1'-0"  
 PLOT SHEET: 10 OF 12  
 PLOT PATH: C:\Users\jgallagher\AppData\Local\Temp\201703151045581130\10.DWG

NEW EXTRACTION WELL SCHEDULE								
WELL ID	WELL CASING DIAMETER SCH 40 (IN)	SCREEN INTERVAL** (BGS)	FLOW (GPM)	GRUNDFOS RED-FLO3 EXTRACTION PUMP MODEL NUMBER	HORSE POWER	PUMP DISCHARGE (IN)	MOTOR LEAD PART NUMBER	FLOW METER SIZE (IN)
EW-1*	6	15-35	18	22SQE07 - 110NE	0.75	1.50	11200242	0.75
EW-1A	6	15-35	6	10SQE05 - 100NE	0.50	1.25	11200242	0.50
EW-2	6	15-35	6	10SQE05 - 100NE	0.50	1.25	11200242	0.50
EW-3	6	15-35	6	10SQE05 - 100NE	0.50	1.25	11200242	0.50
EW-4	6	15-35	6	10SQE05 - 100NE	0.50	1.25	11200242	0.50
EW-5	6	15-35	6	10SQE05 - 100NE	0.50	1.25	11200242	0.50
EW-6	6	15-35	6	10SQE05 - 100NE	0.50	1.25	11200242	0.50
EW-7	6	15-35	6	10SQE05 - 100NE	0.50	1.25	11200242	0.50
EW-8A	6	15-35	1	10SQE05 - 100NE	0.50	1.25	11200242	0.50
EW-8*	6	15-35	1	10SQE05 - 100NE	0.50	1.25	11200242	0.50
EW-8B	6	15-35	1	10SQE05 - 100NE	0.50	1.25	11200242	0.50
EW-8A	6	55-75	11	10SQE05 - 140NE	0.50	1.25	11200242	0.50
EW-9B	6	55-75	11	10SQE05 - 140NE	0.50	1.25	11200242	0.50
EW-9*	6	55-75	11	10SQE05 - 140NE	0.50	1.25	11200242	0.50
EW-9C	6	70-90	11	10SQE05 - 140NE	0.50	1.25	11200242	0.50
EW-10	6	70-90	11	10SQE05 - 140NE	0.50	1.25	11200242	0.50
EW-11	6	70-90	15	22SQE07 - 110NE	0.75	1.50	11200242	0.75
EW-11A	6	70-90	15	22SQE07 - 110NE	0.75	1.50	11200242	0.75
EW-11B	6	70-90	15	22SQE07 - 110NE	0.75	1.50	11200242	0.75

NOTES:  
 \* WELLS EW-1, EW-8, AND EW-9 WERE CONSTRUCTED AS PART OF VERIFICATION TESTING ACTIVITIES  
 \*\* SCREEN INTERVALS ARE ESTIMATED AND WILL BE ADJUSTED BASED ON LITHOLOGY, SIEVE ANALYSIS, AND FIELD CONDITIONS ENCOUNTERED

**NEW EXTRACTION WELL SCHEDULE**

SCALE: NTS

1  
11

NEW MONITORING WELL SCHEDULE			
WELL ID	WELL CASING DIAMETER SCH 40 (IN)	SCREEN INTERVAL (BGS)	NOTES
MW-31D2	2	135-150	
MW-31D3	2	180-195	
MW-32D2	2	75-90	
MW-32D3	2	120-135	
MW-33D2	2	75-90	
MW-33D3	2	120-135	

**NEW MONITORING WELL SCHEDULE**

SCALE: NTS

3  
11

NEW PIEZOMETER SCHEDULE			
WELL ID	WELL CASING DIAMETER SCH 40 (IN)	SCREEN INTERVAL (BGS)	NOTES
PZ-10	2	5-30	
PZ-11	2	5-30	
PZ-12	2	5-30	
PZ-13	2	5-30	
PZ-14	2	15-35	
PZ-15 S/D	2	SHALLOW: 15-35 DEEP: 40-80	NESTED PIEZOMETER
PZ-16	2	15-35	
PZ-17	2	55-75	
PZ-18 S/D	2	SHALLOW: 55-75 DEEP: 100-120	NESTED PIEZOMETER
PZ-19	2	70-90	
PZ-20	2	70-90	

**NEW PIEZOMETER SCHEDULE**

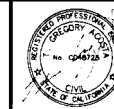
SCALE: NTS

2  
11

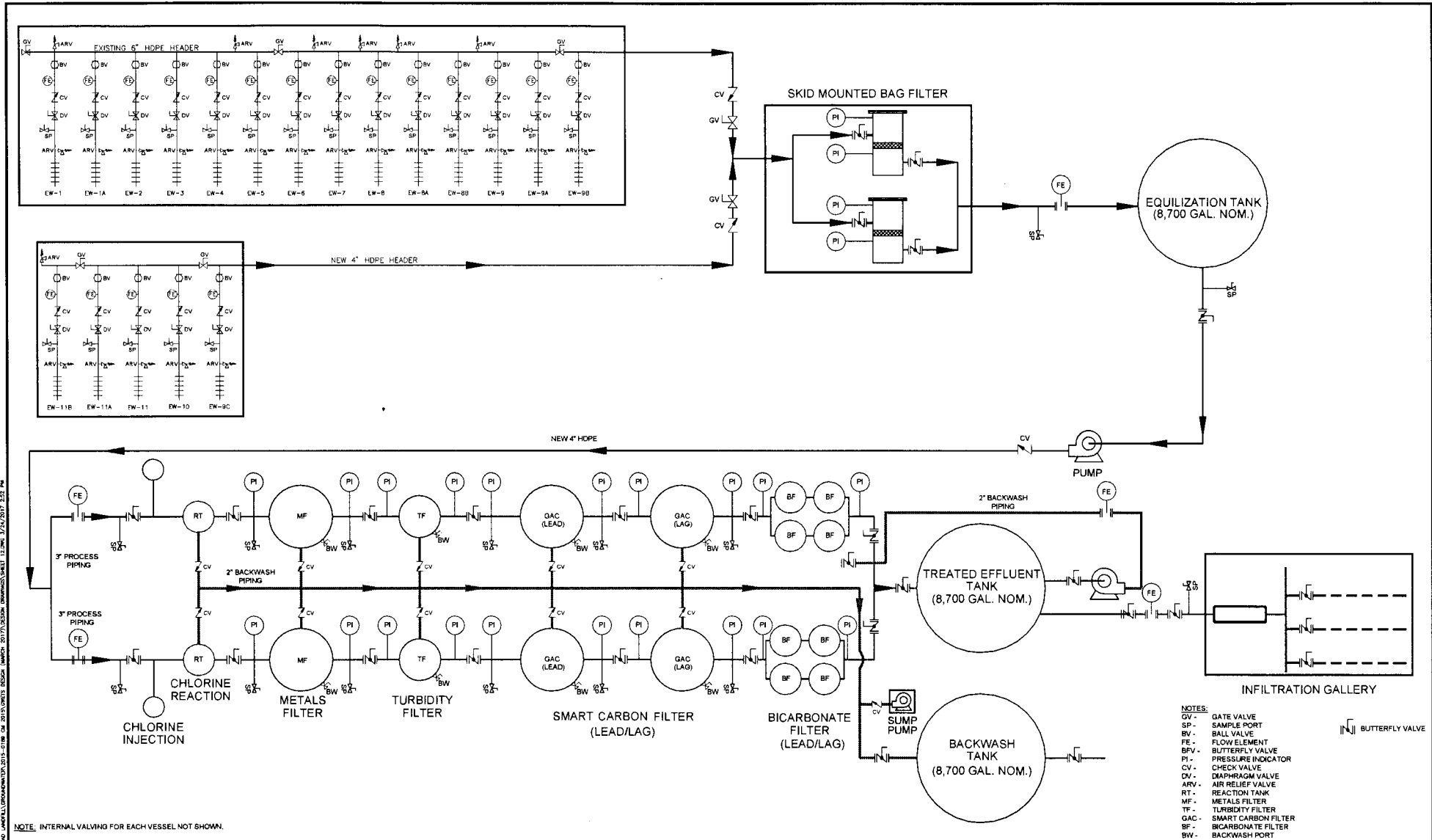
ALTAIR CONSULTING ENGINEERS 1000 JARVIS ROAD, SUITE 200, SAN FRANCISCO, CA 94133 (415) 435-1000 FAX (415) 435-1001

NO.	REVISION	DESCRIPTION	BY:

**TETRA TECH BAS**  
 1360 Valley View Drive, Diamond Bar, CA 91763  
 TEL 909.860.7777 FAX 909.860.8017



GEER ROAD LANDFILL			
DETAILS			
DESIGNED BY	FCANHS	SCALE	AS SHOWN
DRAWN BY	FCANHS	DATE	03-2017
CHECKED BY	FCANHS	DATE	03-2017
APPROVED BY	TGA	DATE	03-2017
FILE NO.		SHEET 11 OF 12	



CUSTOMER'S COMPANY LOGO AND LABEL INFORMATION TO BE ADDED TO THIS SHEET BY THE USER. DATE: 03/2017. SHEET: 12 OF 12. SHEET TITLE: PROCESS FLOW DIAGRAM. SHEET NUMBER: 12 OF 12. SHEET DATE: 03/2017.

NOTE: INTERNAL VALVING FOR EACH VESSEL NOT SHOWN.

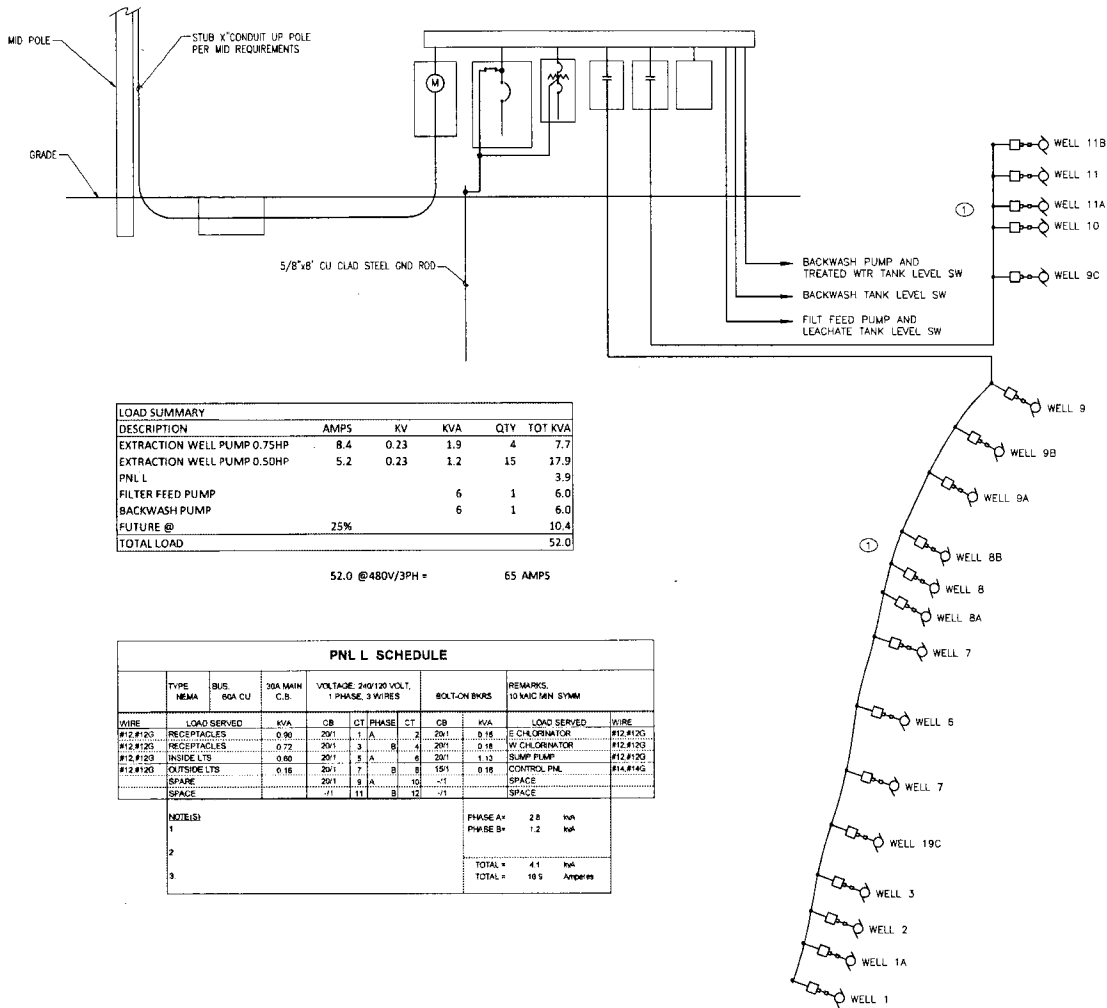
- NOTES:**
- GV - GATE VALVE
  - SP - SAMPLE PORT
  - BV - BALL VALVE
  - FE - FLOW ELEMENT
  - BFV - BUTTERFLY VALVE
  - PI - PRESSURE INDICATOR
  - CV - CHECK VALVE
  - DV - DIAPHRAGM VALVE
  - ARV - AIR RELIEF VALVE
  - RT - REACTION TANK
  - MF - METALS FILTER
  - TF - TURBIDITY FILTER
  - GAC - SMART CARBON FILTER
  - BF - BICARBONATE FILTER
  - BW - BACKWASH PORT
- BUTTERFLY VALVE

NO.	REVISION DESCRIPTION	BY

**TETRA TECH BAS**  
 1360 Valley Vista Drive, Diamond Bar, CA 91765  
 TEL 909.860.7777 FAX 909.860.8017



GEER ROAD LANDFILL			
PROCESS FLOW DIAGRAM			
DESIGNED BY: FCA/HS	SCALE: AS SHOWN	DATE: 03-2017	FILE NO.: SHEET 12.DWG
DRAWN BY: FCA/HS	CHECKED BY: FCA/HS	DATE: 03-2017	SHEET 12 OF 12
APPROVED BY: TGA	DATE: 03-2017		



**KEYNOTES**

- SEE SH 2 AND FOLLOWING FOR LOCATION OF WELLS. SEE SH 8 FOR HP OF WELL PUMPS.

LOAD SUMMARY					
DESCRIPTION	AMPS	KV	KVA	QTY	TOT KVA
EXTRACTION WELL PUMP 0.75HP	8.4	0.23	1.9	4	7.7
EXTRACTION WELL PUMP 0.55HP	5.2	0.23	1.2	15	17.9
PNL L					3.9
FILTER FEED PUMP			6	1	6.0
BACKWASH PUMP			6	1	6.0
FUTURE @	75%				10.4
<b>TOTAL LOAD</b>					<b>52.0</b>

52.0 @ 480V/3PH = 65 AMPS

PNL L SCHEDULE											
TYPE	BUS	3ØA MAIN	VOLTAGE 240/120 VOLT.	1 PHASE 3 WIRES			BOLT-ON BURS		REMARKS.		
WIRE	NEGA	ØGA CU	C.B.	ØB	ØT	ØA	ØB	KVA	LOAD SERVED	WIRE	
#12.#12Ø			0.90	2Ø1	1	A	2	2Ø1	0.18	E CHLORINATOR	#12.#12Ø
#12.#12Ø			0.72	2Ø1	3	B	4	2Ø1	0.18	W CHLORINATOR	#12.#12Ø
#12.#12Ø			0.90	2Ø1	5	A	4	2Ø1	1.13	SUMP PUMP	#12.#12Ø
#12.#12Ø			0.16	2Ø1	7	B	8	1Ø1	0.16	CONTROL PNL	#14.#14Ø
SPACE				2Ø1	9	A	10	-1		SPACE	
SPACE				-1	11	B	12	-1		SPACE	
NOTES:								PHASE A =	2.8	kVA	
								PHASE B =	1.2	kVA	
								TOTAL =	4.1	kVA	
								TOTAL =	10.5	AMPERES	

ELECTRICAL RISER DIAGRAM

NTS

**90% PRELIMINARY**

**TETRA TECH BAS**  
1340 Valley Vista Drive, Diamond Bar, CA 91765  
TEL 909.840.7777 FAX 909.840.8017

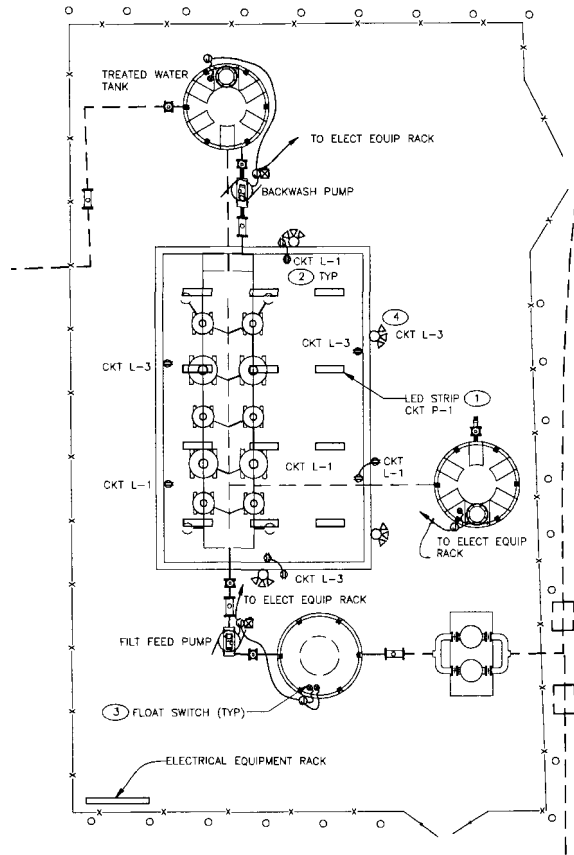
**PRELIMINARY**

GEER ROAD LANDFILL			
SINGLE LINE & PNL SCHEDULE			
DESIGNED BY: MB	SCALE AS SHOWN	DATE: 2-14-2017	FILE NO: 1606E1.DWG
DRAWN BY: MB		DATE: 2-14-2017	
CHECKED BY: MB		DATE: 2-14-2017	
APPROVED BY:			SHEET E1 OF

C:\USERS\MARC\_BURGESS\APPDATA\LOCAL\TEMPORARY\1606E1.DWG 2/17/2017 4:03 PM

KEYNOTES

- LED SURFACE AMBIENT LUMINAIRE, 4' LONG, 5000 LUMENS, 3500K COLOR TEMPERATURE, ACRYLIC LENS, SUSPENDED MOUNT, MULTIVOLTAGE DRIVER, CREE L54 50L 35K WITH ACS-12/3-48-0149-09, ADJUSTABLE CABLE SUPPORT KIT W/ 12/3 SUT POWER FEED, MOUNT 18" BELOW CEILING. (UNIT IS DIMMABLE, BUT THIS THIS OPTION IS NOT TO BE USED.)
- 120V, 20A U-GROUND GFCI FED SPEC GRADE DUPLEX OUTLET WITH DEVICE COVER UL LISTED WP WITH PLUG INSERTED, INSTALL 2' ABOVE FLOOR OR GRADE.
- PROVIDE MECHANICAL TILT FLOAT LEVEL SWITCH WITH SPOT, FORM C CONTACT, WEIGHT TETHER, ABS SHELL AND SLOW CABLE. UNITS SHALL BE OEMS W CRE 40 W SUPPORT CABLE WITH J-HOOK ADJACENT TO TANK HATCH.
- LED FLOODLIGHT WITH MOTION SENSOR AND PHOTO SENSOR, AND 3 ADJUSTABLE HEADS. MOTION SENSOR SHALL HAVE 180 DEGREE DETECTION AND 70' FORWARD RANGE, AND ADDITIONAL DOWNWARD PERIMETER PROTECTION. LITHONIA OFLR9 MO WH.



CLIENTS NAME: GEORGETOWN WATER TREATMENT PLANT, 10000 S. 100TH ST., GEORGETOWN, WA 98520. DATE: 2/14/2017. SHEET: E2 OF 2.

NO	REVISION DESCRIPTION	BY

**90% PRELIMINARY**

**TETRA TECH BAS**  
 1340 Valley Vista Drive, Diamond Bar, CA 91765  
 TEL 909.840.7777 FAX 909.840.8017

**PRELIMINARY**

GEER ROAD LANDFILL			
TREATMENT PLANT ELECTRICAL PLAN			
DESIGNED BY: MB	SCALE: AS SHOWN	DATE: 2-14-2017	FILE NO: 16006 E2.DWG
DRAWN BY: MB		DATE: 2-14-2017	
CHECKED BY: MB		DATE: 2-14-2017	
APPROVED BY:		DATE:	SHEET <b>E2</b> OF

# Attachment C

## **Newspaper Advertisement**

### **INVITATION TO CONTRACTORS** **“GEER ROAD LANDFILL GROUNDWATER EXTRACTION AND TREATMENT SYSTEM CONSTRUCTION PROJECT”**

Owner is Stanislaus County Department of Environmental Resources, Modesto, CA. Sealed bids are due before 2:00 P.M., May 31, 2017, to the Clerk of the Board of Supervisors, 1010 10<sup>th</sup> Street, Ste. 6700, Modesto, CA 95354. Project contact is Julie Mendoza, [jmendoza@envres.org](mailto:jmendoza@envres.org) or Fax: 209-525-6773. The work to be accomplished includes constructing a new groundwater extraction and treatment System (GWETS) at the Geer Road Landfill. The work will occur on the western portion of the landfill and on the county-owned Triangle Ranch Property. Work includes installing new groundwater extraction wells, piezometers, conveyance lines, a new treatment system, infiltration gallery, and associated electrical components as presented in the Construction Plans and Specifications. Plans and specifications are available FOR VIEWING, DOWNLOADING AND ORDERING on [www.modestoplanroom.com](http://www.modestoplanroom.com) and follow the links. You can also find information for this project at the Modesto Reprographics webpage at [www.modestoreprographics.com](http://www.modestoreprographics.com). Paper copies are available from Modesto Reprographics. Call (209) 544-2400 for questions regarding the purchase of plans and specifications.

**DECLARATION OF PUBLICATION  
(C.C.P. S2015.5)**

**COUNTY OF STANISLAUS  
STATE OF CALIFORNIA**

I am a citizen of the United States and a resident Of the County aforesaid; I am over the age of Eighteen years, and not a party to or interested In the above entitle matter. I am a printer and Principal clerk of the publisher of THE MODESTO BEE, printed in the City of MODESTO, County of STANISLAUS, State of California, daily, for which said newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of STANISLAUS, State of California, Under the date of February 25, 1951, Action No. 46453; that the notice of which the annexed is a printed copy, has been published in each issue there of on the following dates, to wit:

Apr 23, 2017, Apr 30, 2017, May 07, 2017

-----  
I certify (or declare) under penalty of perjury That the foregoing is true and correct and that This declaration was executed at

MODESTO, California on

May 7th, 2017

(By Electronic Facsimile Signature)

Cynthia A. Williams

**INVITATION TO CONTRACTORS  
"GEER ROAD LANDFILL  
GROUNDWATER EXTRACTION AND  
TREATMENT SYSTEM  
CONSTRUCTION PROJECT"**

Owner is Stanislaus County Department of Environmental Resources, Modesto, CA. Sealed bids are due before 2:00 P.M., May 31, 2017, to the Clerk of the Board of Supervisors, 1010 10 th Street, Ste. 6700, Modesto, CA 95354. Project contact is Julie Mendoza, jmendoza@envres.org or Fax: 209-525-6773. The work to be accomplished includes constructing a new groundwater extraction and treatment system (GWETS) at the Geer Road Landfill. The work will occur on the western portion of the landfill and on the county-owned Triangle Ranch Property. Work includes installing new groundwater extraction wells, piezometers, conveyance lines, a new treatment system, infiltration gallery, and associated electrical components as presented in the Construction Plans and Specifications. Plans and specifications are available FOR VIEWING, DOWNLOADING AND ORDERING on [www.modestoplanroom.com](http://www.modestoplanroom.com) and follow the links. You can also find information for this project at the Modesto Repragraphics webpage at [www.modestorepragraphics.com](http://www.modestorepragraphics.com). Paper copies are available from Modesto Repragraphics. Call (209) 544-2400 for questions regarding the purchase of plans and specifications.  
Pub Dates April 23, 30 and May 7, 2017