Appendix D Geotechnical Report

Appendix

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GeoTek, Inc.
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(951) 710-1160 Office (951) 710-1167 Fax www.geotekusa.com

August 29, 2024
Project No. 2135.1-CR

Temecula Valley Charter School
30811 Garbani Road
Winchester, California 92596

Attention: Mr. Grant Becklund

Subject: **Updated Geotechnical Report**
Proposed Temecula Valley Charter School
Assessor's Parcel No. (APN) 472-210-002
35780 Washington Street
Avenue R-8 and 45th Street East
Winchester Area of Riverside County, California

References: See Page 12

Dear Mr. Becklund:

As requested, GeoTek, Inc. (GeoTek) has prepared this letter to update the referenced Update Geotechnical Evaluation prepared for the subject project by GeoTek (GeoTek, 2022).

Site Description

The subject property, identified as APN 472-210-002, is located at 35780 Washington Street in the Winchester area of Riverside County, California. (see Figure 1). The property is a roughly rectangular-shaped parcel measuring approximately 12 acres. The property is bounded to the north by Yates Road (paved), to the south by a vacant parcel of land, to the east by the San Diego Aqueduct (and associated improvements), and to the west by Washington Street (paved).

Based on a recent site reconnaissance, the site is currently vacant. Remnants of an existing concrete building pad, a barn, corrals and stables occupy a graded pad within the northeastern corner of the site. Underground improvements (septic tanks, leach fields, utilities, etc.) associated with this previous development are anticipated to be present in this area. Artificial fill (piles and mass placements) and debris were observed scattered across the site, especially in the northwest corner of the site.

Rock outcrops were observed in the eastern portion of the site (see Figures 2 and 3 of report dated July 18, 2022). Surface gradient across the site slopes moderately down to the northwest, with total relief on the order of approximately 55 feet. The property to the north has been developed as a single-family residential development. Based upon a review of recent aerial photopraphs and the recent site reconnaissnae, the site is essentially goetechnical unchanged since the issuance of the referenced report dated July 18, 2022.

Project Description

Based on review of the referenced *Public Use Permit 230001, Conceptional Grading Plan,* plot dated August 8, 2024, prepared by Grant Becklund Civil Engineering (Sheet Number 1), the proposed charter school complex will consist of a main building and several modular buildings, with approximately 54,000 square feet of classroom and administrative building space. Other associated improvements, such as sports courts, turf areas, playgrounds, patios, parking and drive aisle areas/fire lanes, hardscaping and landscaping are also planned (See Plate 1). For purposes of this evaluation, it is assumed that the main structure will be of concrete tilt-up panel construction which will incorporate concrete slab-on-grade floors, apart from the prefabricated modular buildings. Based on review of the referenced *Conceptional Grading Plan*, cuts and fills will be less than ten feet in height and retaining walls will be utilized.

Based on review and GeoTek's knowledge of the project, the proposed development remains essentially geotechnically unchanged since issuance of the referenced report (GeoTek, 2022).

Project Design

The 2022 California Building Code (CBC) has not introduced any changes to the procedures used to determine generalized geotechnical design recommendations, slope stability or for structural analysis or design. Based upon review, the recommendations contained in the referenced report (GeoTek, 2022) remain valid and applicable to the design and construction of the subject project, unless specifically superseded in this report. The following text provides a summary of some of the recommendations provided in the referenced report and updated as necessary herein.

Remedial Grading

Earthwork and grading should be performed in accordance with the applicable grading ordinances of the County of Riverside, the 2022 California Building Code (CBC) and recommendations contained in this report. The General Earthwork and Grading Specifications included in Appendix F of the referenced report dated July 18, 2022, outline general procedures and do not anticipate

all site-specific situations. In the event of conflict, the recommendations presented in the text of this report should supersede those contained in Appendix F of the referenced report.

Initial site preparation should commence with removal of debris, existing structures, pavements, underground utilities, foundations, slabs-on-grade, deleterious materials and vegetation within the limits of the planned improvements. Existing utilities, not planned for re-use, should be capped off at the property boundaries and removed. All materials generated by demolition and site clearing operations should be properly disposed of off-site. Voids resulting from removing any materials should be replaced with engineered fill materials with expansion characteristics similar to the onsite materials.

As stated in the referenced report (GeoTek, 2022), all undocumented fill materials, topsoil and the alluvium are considered unsuitable for the support of settlement-sensitive structures or additional fill in their current condition and should be subject to complete removal and recompaction below all areas to receive improvements. These areas include the new buildings, any wall footings, and pavement and hardscape areas.

The removals should generally extend down to bedrock materials (metamorphic bedrock). A representative of this firm should observe the bottom of all excavations. In areas where loose material is present in the bottom of the excavations, the removals should continue until competent natural bedrock is encountered.

In areas where compressible alluvium is present in the bottom of the excavations (i.e. areas of deeper alluvium within the northwest portion of the site), removals should continue until competent natural materials are encountered. At a minimum, an engineered fill blanket of three feet should underlie all structural footings and slabs on this site. Competent materials are defined as relatively non-porous natural soils with an in-place relative density of at least 85 percent.

Transition (i.e. cut/fill) lots should be overexcavated a minimum of five feet below proposed grades or to a depth of one-third the maximum fill thickness.

The horizontal extent of removals should extend at least five feet outside the footings and floor slabs, or a distance equal to the depth of overexcavation below the bottom of the structural elements, whichever is greater.

All remedial excavation bottoms should be reviewed by a representative of the geotechnical consultant. All remedial excavation removal bottoms should be relatively uniform native soil which is not visibly porous and having an in-place density of at least 85 percent of the soil's maximum dry density as determined by ASTM D 1557 test procedures. Following review and

approval of remedial excavations bottoms, it is recommended that the exposed subgrade soils beneath all surface improvements be proof rolled with a heavy rubber-tired piece of construction equipment approved by and in the presence of the geotechnical engineering representative. All soil that ruts or excessively deflects during proof rolling should be removed as recommended by the GeoTek representative.

Following proof rolling and removal of any unsuitable bearing soil, the exposed subgrade should be scarified to a depth of about 12 inches, be moisture conditioned to slightly above the soil's optimum moisture content and then be compacted to at least 90 percent of the soil's maximum dry density as determined by ASTM D1557 test procedures.

The on-site soils are generally considered suitable for reuse as engineered fill provided they are free from vegetation, debris, oversized materials (6-inch diameter or greater) and other deleterious material. All areas should be brought to final subgrade elevations with fill materials that are placed and compacted in general accordance with minimum project standards. Engineered fill should be placed in 6-to-8-inch loose lifts, moisture conditioned to slightly above the optimum moisture content and compacted to a minimum relative compaction of 90 percent as determined by ASTM D1557 test procedures.

If wet soils are encountered during remedial grading, methods for drying soils such as stockpiling or mixing with dry soils may be required to bring the soils to the required moisture content for placement as engineered fill. Placement of engineered fill should be observed and tested on a full-time basis by a GeoTek representative during grading activities.

Seismic Design Parameters

The site is located at approximately 33.6005 degrees Latitude and -117.0816 degrees Longitude. Due to the relatively dense nature of the subsurface soils (GeoTek, 2021), a Site Class "D" is considered appropriate for this site. Site spectral accelerations (S_a and S_1), for 0.2 and 1.0 second periods for a Class "D" site, was determined from the SEAOC/OSHPD web interface that utilizes the USGS web services and retrieves the seismic design data and presents that information in a report format. Using the ASCE 7-16 option on the SEAOC/OSHPD website results in the values for S_{M1} and S_{D1} reported as "null-See Section 11.4.8" (of ASCE 7-16). As noted in ASCE 7-16, Section 11.4.8, a site-specific ground motion procedure is recommended for Site Class D when the value S_1 exceeds 0.2. The value S_1 for the subject site exceeds 0.2.

For a site Class D, an exception to performing a site-specific ground motion analysis is allowed in ASCE 7-16 where S_1 exceeds 0.2 provided the value of the seismic response coefficient, Cs, is conservatively calculated by Eq 12.8-2 of ASCE 7-16 for values of T≤1.5Ts and taken as equal

to 1.5 times the value computed in accordance with either Eq. 12.8-3 for $T_L \geq T > 1.5Ts$ or Eq. 12.8-4 for $T > T_L$.

The results, based on the 2015 NEHRP and the 2022 CBC, are presented in the following table assuming that the exception as allowed in ASCE 7-16 is applicable to this project. If the exception is deemed not appropriate, a site-specific ground motion analysis will be required.

SITE SEISMIC PARAMETERS	
Mapped 0.2 sec Period Spectral Acceleration, S_s	1.5g
Mapped 1.0 sec Period Spectral Acceleration, S_1	0.6g
Site Coefficient for Site Class "D", F_a	1.0
Site Coefficient for Site Class "D", F_v	1.5
Maximum Considered Earthquake Spectral Response Acceleration for 0.2 Second, S_{MS}	1.5g
Maximum Considered Earthquake Spectral Response Acceleration for 1.0 Second, S_{M1}	0.9g
5% Damped Design Spectral Response Acceleration Parameter at 0.2 Second, S_{DS}	1.0g
5% Damped Design Spectral Response Acceleration Parameter at 1 second, S_{D1}	0.6g
Peak Ground Acceleration Adjusted for Site Class Effects, PGA_M	0.6g
Seismic Design Category	D

Shallow Foundation Design Recommendations

The foundation elements for the proposed buildings and structures should bear entirely in engineered fill soils or bedrock (not a combination of the two). Foundations should be designed in accordance with the 2022 CBC.

Foundation design criteria for a conventional foundation system, in general conformance with the 2022 CBC, are presented below. The grades site soils are anticipated to have a "Very Low" (0-20) to "Low" (21-50) expansion index in accordance with ASTM D 4829. Typical design criteria for the site based upon a "Very Low" and "Low" expansion index are tabulated below. These are minimal recommendations and are not intended to supersede the design by the project structural engineer.

Expansion index, Atterberg limits (if applicable) and soluble sulfate testing of the soils should be performed following site grading to evaluate the as-graded building pad conditions. Final recommendations should be based upon the actual as-graded soils conditions.

It should be noted that the criteria provided are based on soil support characteristics only. The structural engineer should design the slab and beam reinforcement based on actual loading conditions. A summary of the foundation design recommendations is presented in the following table.

Design Parameter	"Very Low" Expansion Index (0≤EI≤20)	"Low" Expansion Index (21≤EI≤50)
Foundation Depth or Minimum Perimeter Beam Depth (Inches below lowest adjacent grade)	One-Story – 12 Two-Story – 12	One-Story – 12 Two-Story – 18
Minimum Foundation Width (Inches)*	One-Story – 12 One-Story – 12	One-Story – 12 Two-Story – 15
Minimum Slab Thickness (actual)	4 inches – Actual	4 inches – Actual
Minimum Slab Reinforcing	6" x 6" – W1.4/W1.4 welded wire fabric or #3 bars on 24" centers placed in middle slab	6" x 6" – W2.9/W2.9 welded wire fabric or #3 bars on 18" centers placed in middle slab
Minimum Footing Reinforcement	Two No. 4 Reinforcing Bars, one top and one bottom	Two No. 4 Reinforcing Bars, one top and one bottom
Design Plasticity Index (PI)**	N/A	<15
Presaturation of Subgrade Soil (Percent of Optimum)	Minimum 100% to a depth of 12 inches	Minimum 110% to a depth of 12 inches

*Code minimums per Table 1809.7 of the 2022 CBC should be complied with.

**To be determined following grading.

The following criteria for design of foundations are preliminary and should be re-evaluated based on the results of additional laboratory testing of samples obtained at/near finish pad grade.

An allowable bearing capacity of 2,000 pounds per square foot (psf) may be used for design of continuous and perimeter footings 12 inches deep and 12 inches wide, and pad footings 24 inches square and 12 inches deep. This value may be increased by 400 pounds per square foot for each additional 12 inches in depth and 200 pounds per square foot for each additional 12 inches in width to a maximum value of 3,500 psf. Additionally, an increase of one-third may be applied when considering short-term live loads (e.g., seismic and wind loads).

Where the slab is to be designed as a beam on an elastic foundation or a mat foundation, a modulus of subgrade reaction (k-value) of 175 pounds per cubic inch (pci) may be considered

for design based on a presumed value for a 1-foot by 1-foot plate load test. Dependent upon how the mat slab is loaded, the subgrade modulus value may need to be geometrically modified.

Structural foundations may be designed in accordance with the 2022 CBC, and to withstand a total settlement of 1 inch and maximum differential settlement of one-half of the total settlement over a horizontal distance of 40 feet. These values assume that seismic settlement potential is not a significant constraint, and that appropriate remedial grading is performed and that, if necessary, a settlement monitoring program has been completed.

The passive earth pressure may be computed as an equivalent fluid having a density of 150 psf per foot of depth, to a maximum earth pressure of 2,000 psf for footings founded on engineered fill. A coefficient of friction between soil and concrete of 0.30 may be used with dead load forces. Pressure and frictional resistance can be combined without reduction,

A grade beam, a minimum of 12 inches wide and 12 inches deep, should be utilized across large entrances. The base of the grade beam should be at the same elevation as the bottom of the adjoining footings.

It is recommended that control joints be placed in two directions spaced approximately 24 to 36 times the thickness of the slab in inches. These joints are a widely accepted means to control cracks and should be reviewed by the project structural engineer.

Slab Moisture and Vapor Retarding System

A moisture and vapor retarding system should be placed below slabs-on-grade where moisture migration through the slab is undesirable. Guidelines for these are provided in the 2022 California Green Building Standards Code (CALGreen) Section 4.505.2, the 2022 CBC Section 1907.1 and ACI 360R-10. The vapor retarder design and construction should also meet the requirements of ASTM E1643. A portion of the vapor retarder design should be the implementation of a moisture vapor retardant membrane.

It should be realized that the effectiveness of the vapor retarding membrane can be adversely impacted because of construction related punctures (e.g., stake penetrations, tears, punctures from walking on the barrier placed atop the underlying aggregate layer, etc.). These occurrences should be limited as much as possible during construction. Thicker membranes are generally more resistant to accidental puncture than thinner ones. Products specifically designed for use as moisture/vapor retarders may also be more puncture resistant. Although the CBC specifies a 6-mil vapor retarder membrane, it is GeoTek's opinion that a minimum 10-mil thick membrane with joints properly overlapped and sealed should be considered, unless otherwise specified by the slab design professional. The membrane should consist of Stego wrap or equivalent.

Moisture and vapor retarding systems are intended to provide a certain level of resistance to vapor and moisture transmission through the concrete, but do not eliminate it. The acceptable level of moisture transmission through the slab is to a large extent based on the type of flooring used and environmental conditions. Ultimately, the vapor retarding system should be comprised of suitable elements to limit migration of water and reduce transmission of water vapor through the slab to acceptable levels. The selected elements should have suitable properties (i.e., thickness, composition, strength, and permeability) to achieve the desired performance level.

Moisture retarders can reduce, but not eliminate, moisture vapor rise from the underlying soils up through the slab. Moisture retarder systems should be designed and constructed in accordance with applicable American Concrete Institute, Portland Cement Association, Post-Tensioning Concrete Institute, ASTM and California Building Code requirements and guidelines.

GeoTek recommends that a qualified person, such as the flooring contractor, structural engineer, architect, and/or other experts specializing in moisture control within the building be consulted to evaluate the general and specific moisture and vapor transmission paths and associated potential impact on the proposed construction. That person (or persons) should provide recommendations relative to the slab moisture and vapor retarder systems and for migration of potential adverse impact of moisture vapor transmission on various components of the structures, as deemed appropriate.

In addition, the recommendations in this report and GeoTek's services in general are not intended to address mold prevention; since we, along with geotechnical consultants in general, do not practice in the field of mold prevention. If specific recommendations addressing potential mold issues are desired, then a professional mold prevention consultant should be contacted.

Miscellaneous Foundation Recommendations

To reduce moisture penetration beneath the slab on grade areas, utility trench excavations should be backfilled with engineered fill, lean concrete or concrete slurry where they intercept the perimeter footing or thickened slab edge.

Soils from the footing excavations should not be placed in the slab-on-grade areas unless properly compacted and tested. The excavations should be free of loose/sloughed materials and be neatly trimmed at the time of concrete placement.

Soil Sulfate Content

Based on the chemical test results presented in the referenced report dated July 18, 2022, the soluble sulfate test results on a sample obtained from the project site indicate a soluble sulfate content less than 0.1% by weight, which is considered "negligible" as per ACI 318. Based on the test results and Table 4.3.1 of ACI 318, no special recommendations for concrete are required for this project due to soil sulfate exposure.

Additional expansion index and soluble sulfate testing of the soils should be performed following the building pad grading operations to evaluate the as-graded conditions of the individual lots. Final recommendations should be based upon the as-graded soils conditions.

Soil Corrosivity

Corrosivity testing has not been performed for the on-site soils. Testing should be performed following site grading to assess the corrosivity levels of the building pad soils. Recommendations for protection of buried ferrous metal should be provided by a corrosion engineer.

Retaining Wall Design

The recommendations presented below are for cantilevered retaining walls. Active earth pressure may be used for retaining wall design, provided the top of the wall is not restrained from minor deflections. An equivalent fluid pressure approach may be used to compute the horizontal pressure against the wall. Appropriate fluid unit weights are given below for specific slope gradients of the retained material. These do not include other superimposed loading conditions such as traffic, structures, seismic events, or adverse geologic conditions.

ACTIVE EARTH PRESSURES	
Surface Slope of Retained Materials (horizontal : vertical)	Equivalent Fluid Pressure (pcf) Select Backfill* and Native Soils
Level	33
2:1	45

*The design pressures assume the backfill material has an expansion index less than or equal to 20, and a phi value of 30. Backfill zone includes area between back of the wall to a plane (1:1 horizontal: vertical) up from bottom of the wall foundation (on the backside of the wall) to the ground surface.

For walls with a retained height greater than six (6) feet, an incremental seismic pressure should be included into the wall design. Where needed, it is recommended that an equivalent fluid pressure of 20 pcf be added as an incremental seismic load for unrestrained walls with level backfill. This incremental seismic load may be assumed to be applied at a point 1/3H above the base of the wall.

Retaining Wall Backfill and Drainage

Retaining wall backfill should also include a minimum one (1) foot wide section of ¾- to 1-inch clean crushed rock (or an approved equivalent). The rock should be placed immediately adjacent to the back of the wall and extend up from a back drain to within approximately 24 inches of the finish grade. The upper 24 inches should consist of compacted on-site materials. The rock should be separated from the earth with filter fabric. The presence of other materials might necessitate revision of the parameters provided and modification of the wall designs. The backfill materials should be placed in lifts no greater than eight (8) inches in thickness and compacted to a minimum of 90% relative compaction as determined by ASTM D 1557 test procedures. Proper surface drainage needs to be provided and maintained.

As an alternative to the drain, rock and fabric, a pre-manufactured wall drainage product (example: Mira Drain 6000 or approved equivalent) may be used behind the retaining wall. The wall drainage product should extend from the base of the wall to within two (2) feet of the ground surface. The subdrain should be placed in direct contact with the wall drainage product. Retaining walls should be provided with an adequate pipe and gravel back drain system to help prevent buildup of hydrostatic pressures. Backdrains should consist of a four (4)-inch diameter perforated collector pipe (Schedule 40, SDR 35, or approved equivalent) embedded in a minimum of one (1) cubic foot per linear foot of ¾- to 1-inch clean crushed rock or an approved equivalent, wrapped in filter fabric (Mirafi 140N or an approved equivalent). The drain system should be connected to a suitable outlet. Waterproofing of site walls should be performed where moisture migration through the walls is undesirable.

Walls not exceeding two (2) feet in height do not require a backdrain. Walls from two (2) to four (4) feet in height may be drained using localized gravel packs behind weep holes at eight (8) feet maximum spacing (e.g., approximately 1.5 cubic feet of gravel in a woven plastic bag). Weep holes should be provided, or the head joints omitted in the first course of block extended above the ground surface. However, nuisance water may still collect in front of the wall.

Drain outlets should be maintained over the life of the project and should not be obstructed or plugged by adjacent improvements.

Restrained Retaining Walls

Retaining walls that will be restrained at the top that support level backfill or that have reentrant or male corners, should be designed for an equivalent at-rest fluid pressure of 65 pcf, plus any applicable surcharge loading. For areas of male or reentrant corners, the restrained wall design should extend a minimum distance of twice the height of the wall laterally from the corner, or a distance otherwise determined by the project structural engineer.

Additional Retaining Wall Design Considerations

- Wall design should consider the additional surcharge loads from superjacent slopes and/or footings, where appropriate.
- No backfill should be placed against concrete until minimum design strengths are evident by compression tests of cylinders.
- The retaining wall footing excavations, backcuts, and backfill materials should be approved by the project geotechnical engineer or their authorized representative.
- Positive separations should be provided in garden walls at horizontal distances not exceeding 20 feet.

Closure

This report is intended to be made a part of, and incorporated with, the referenced report (GeoTek, 2022). All conclusions, recommendations and limitations of the referenced report (GeoTek, 2021), except as amended in this report or future reports prepared by GeoTek for the project, remain valid and apply to this report.

The opportunity to be of continued service on this project is sincerely appreciated. If you should have any questions, please do not hesitate to call GeoTek's office.

Respectfully submitted,
GeoTek, Inc.

Edward H. LaMont
CEG 1892, Exp. 07/31/26
Principal Geologist

Bruce A. Hick
GE 2284, Exp. 12/31/24
Geotechnical Engineer

Attachments: Figure 1 – Site Location Map
Plate 1 – Conceptional Grading Plan

Distribution: (1) Addressee via email (one PDF file)

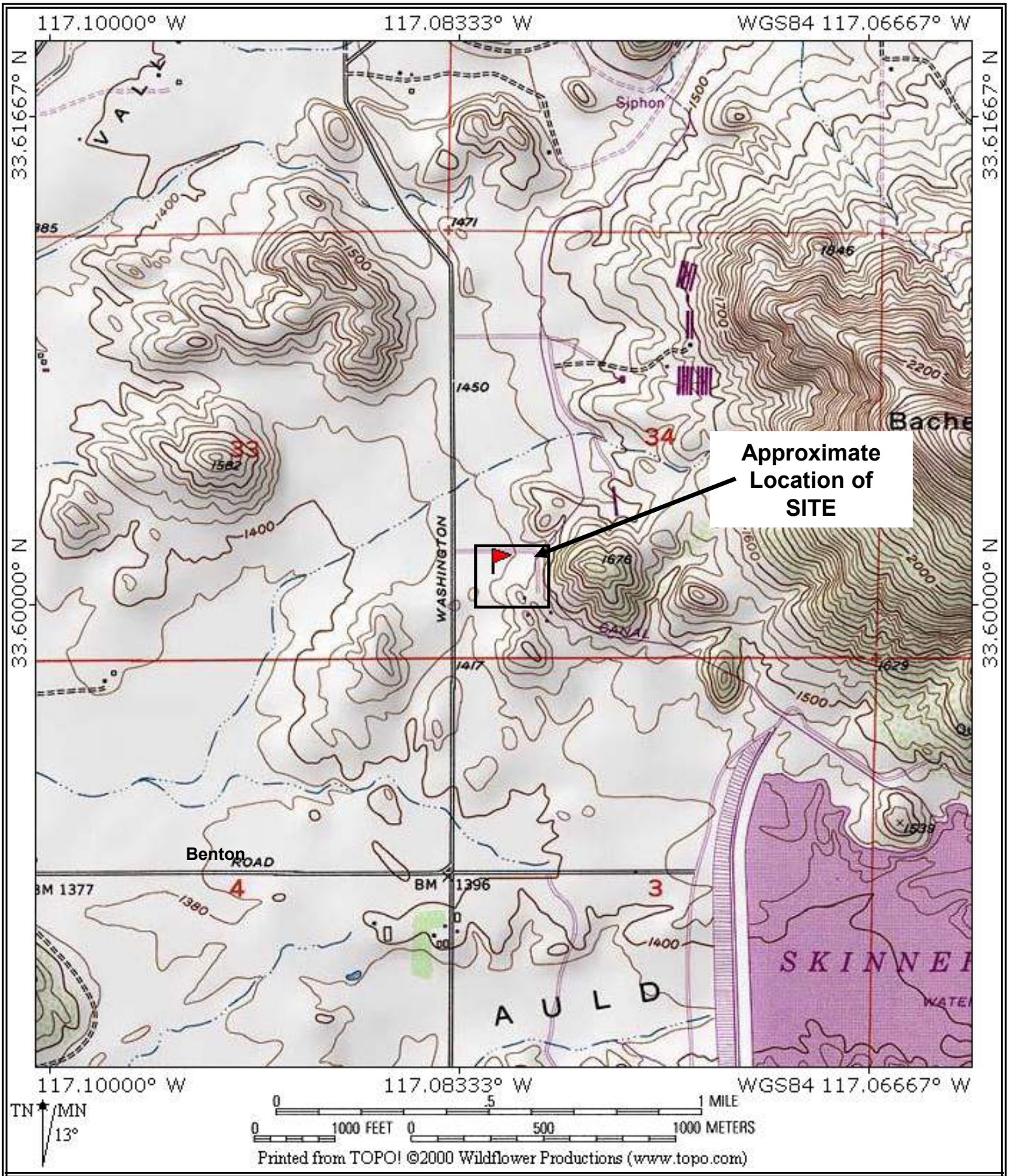
\\geotekfs1\Riverside\Projects\2100 to 2150\2135.1CR Temecula Valley Charter School 35780 Washington Street Winchester\2135.1CR Updated Geotechnical Report Temecula Valley Charter School.docx

REFERENCES

GeoTek, Inc., 2022, "Updated Geotechnical Evaluation, Proposed Temecula Valley Charter School, Assessor's Parcel No. (APN) 472-210-002, 35780 Washington Street, Winchester Area, Riverside County, California," Project No. 2135.1-CR, dated July 18.

Grant Becklund Civil Engineering, 2024, "Conceptional Grading Plan, Public Use Permit 230001, Temeculat Valley Charter School, County of Riverside" GD 24-19, 1 Sheet, plot dated August 18.

KNA Architecture, Inc., 2024, Improvement Plans, "Temecula Valley Charter School, Charter School Development, Winchester, CA." Project 19-116 TVCS Washington, Revision 1 dated July 23.



Temecula Valley Charter School
APN 472-210-002,
35780 Washington Street
Winchester Area, Riverside County, California

GeoTek Project No. 2135.1-CR

N

USGS 7.5-Minute Topographic Map

Figure 1

Site Location Map

GEOTEK

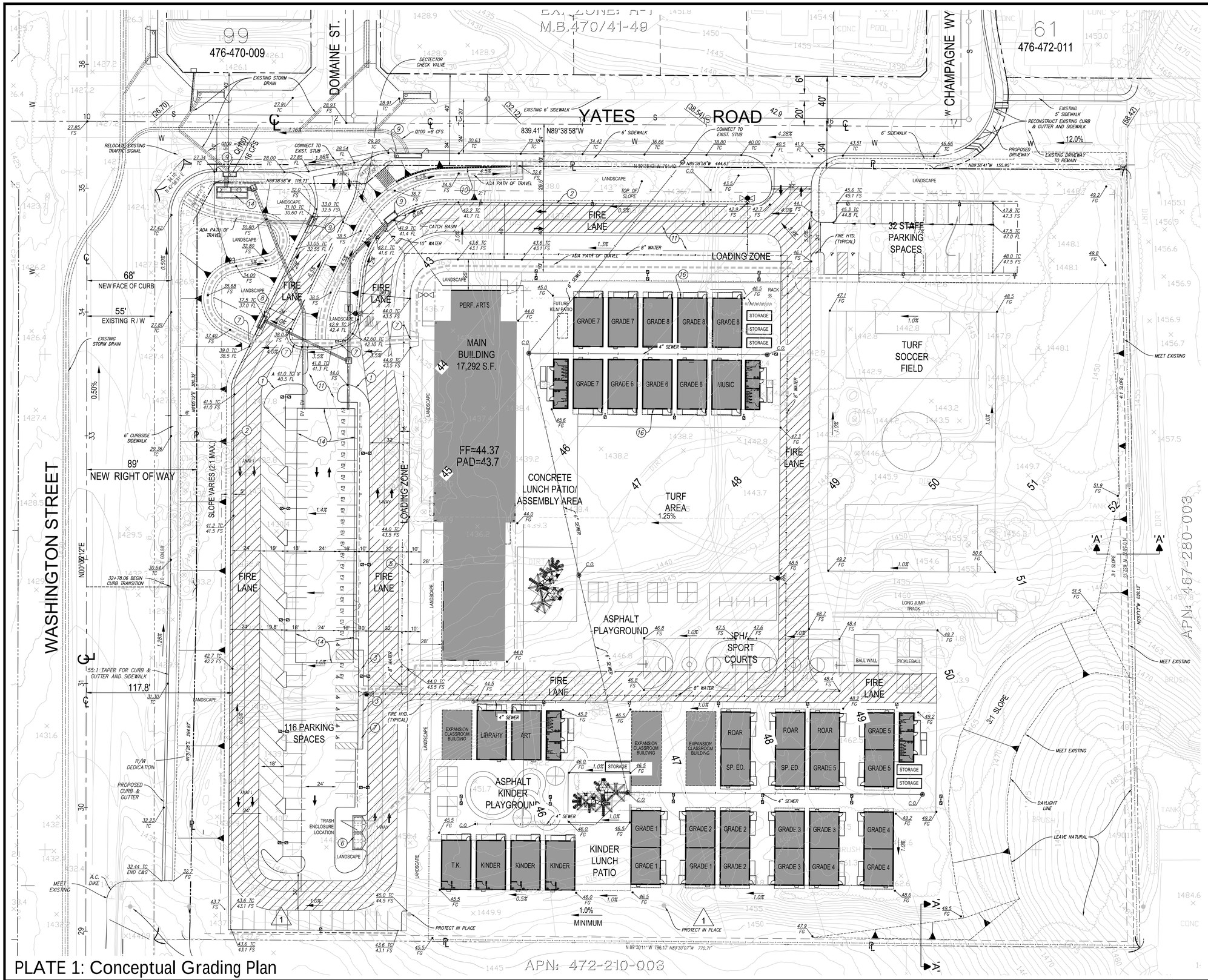


PLATE 1: Conceptual Grading Plan

PROJECT INFORMATION

- SITE IS NOT SUBJECT TO LIQUEFACTION
- FEMA ZONE DESTINATION: ZONE X

SCHOOL DISTRICT

TEMECULA VALLEY UNIFIED SCHOOL DISTRICT
31350 RANCHO VISTA RD.
TEMECULA, CA 92592
(909) 676-2661

SITE DRAINAGE SUMMARY:

	Q10 (CFS)	Q100 (CFS)
EXISTING CONDITION	15.7	25.6
PROPOSED CONDITION	7.9	7.4

DISCHARGE FROM PROPOSED CONDITION IS MITIGATED BY UNDERGROUND DETENTION SYSTEMS AND ORIFICES CONTROLLING OUTFLOW FROM THE SITE TO BE LESS THAN OUTFLOW FROM THE EXISTING CONDITION.

WATER QUALITY DESCRIPTION: THE SITE DOES NOT INFILTRATE. HARVEST & REVISE WAS ANALYZED AND DETERMINED TO BE NOT FEASIBLE. BIOTREATEMENT BMP WAS DETERMINED TO BE FEASIBLE. MODULAR WETLAND SYSTEMS PRODUCT WITH UNDERGROUND DETENTION SYSTEM HAS BEEN DESIGNED FOR THIS SITE.

PRELIMINARY EARTHWORK CALCULATIONS

EARTHWORK VOLUMES	CUT (CY)	FILL (CY)
RAW	50,000	50,000
TOTAL	50,000	50,000

NET = 0 CY IMPORT BALANCED SITE

THE ABOVE QUANTITIES DO NOT REFLECT OR ANDY SPECIAL CONDITIONS THAT MAY BE SPECIFIED IN THE PRELIMINARY SOILS REPORT AND ARE FOR REFERENCE AND FEE PURPOSES ONLY. SINCE THE ENGINEER CANNOT CONTROL THE EXACT METHOD OR MEANS USED BY THE CONTRACTOR DURING GRADING OPERATION, NOR CAN THE ENGINEER GUARANTEE THE EXACT SOIL CONDITION OVER THE ENTIRE SITE. THE ENGINEER ASSUMES NOT RESPONSIBILITY FOR FINAL EARTHWORK QUANTITIES FOR BIDDING, CONTRACT, AND CONSTRUCTION PURPOSES. IF IT APPEARS THERE WILL BE AN EXCESS OR SHORTAGE OF MATERIAL, THE CONTRACTOR MAY NOTIFY THE ENGINEER TO DETERMINE IF POSSIBLE GRADE ADJUSTMENTS CAN BE MADE TO ALLEVIATE SAID MATERIAL EXCESS OR SHORTAGE.

CONSTRUCTION NOTES:

1. CONSTRUCT 6" PCC CURB
2. CONSTRUCT 6" PCC CURB & GUTTER
3. CONSTRUCT 0" PCC CURB
4. CONSTRUCT 3' CONCRETE GUTTER
5. CONSTRUCT 4" THICK CONCRETE SIDEWALK
6. CONSTRUCT TRASH ENCLOSURE PER ARCHITECT'S PLANS
7. INSTALL TRUNCATED DOMES
8. INSTALL GRATE INLET
9. INSTALL CATCH BASIN
10. CONSTRUCT 6" PCC CURB
11. AC / AB PAVING
12. PCC / AB PAVING
13. NOT USED
14. INSTALL VAULT TYPE MODULAR WETLANDS SYSETM (WATER QUALITY UNIT)
15. CONSTRUCT 6' WIDE CONCRETE GUTTER
16. ALL MODULAR BUILDINGS PLACED ON ASPHALT PAVED AREAS WITH FOUNDATION SYSTEM. (TYPICAL)

BENCH MARK

NGS BENCHMARK DX5501: LOCATED AT BOREL ROAD AND AULD ROAD AT UTILITY POLE NUMBER 2328445E.
ELEV.= 1397.43 FEET (NAVD88)

UTILITIES

WATER/SEWER: EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE RD.
PERRIS, CA 92572-8300
(909) 928-3777

GAS: SOUTHERN CALIFORNIA GAS COMPANY
CENTRALIZED CORRESPONDENCE
P.O. BOX 3150
SAN DIMAS, CA 91773
(800) 427-2000

TELEPHONE: VERIZON
CUSTOMER SALES & SOLUTIONS CENTER
P.O. BOX 11328
ST. PETERSBURG, FL 33733
(800) 483-4000

ELECTRICAL: SOUTHERN CALIFORNIA EDISON COMPANY
26100 MENIFEE RD.
ROMOLAND, CA 92585
(909) 928-8207

CABLE: ADELPHIA CABLE
4077 W. STETSON AVE.
HEMET, CA 92545
(888) 883-1000

SCHOOL DISTRICT: TEMECULA UNIFIED SCHOOL DISTRICT
31350 RANCHO VISTA RD.
TEMECULA, CA 92592
(909) 676-2661

FIRE PROTECTION: RIVERSIDE COUNTY HEADQUARTERS
210 W. SAN JACINTO AVE.
PERRIS, CA 92570
(909) 940-6900

EASEMENT NOTE(S):

1 AN EASEMENT FOR UTILITIES IN FAVOR OF SO. CALIF. EDISON CO. & GENERAL TELEPHONE CO., REC. JAN. 6, 1961 PER INST. # 1422.

GEOTEK

LEGEND

- CENTERLINE
- PROPERTY LINE
- RIGHT-OF-WAY
- EDGE OF PAVEMENT
- EXISTING DIRT ROAD
- EXISTING CHAIN LINK FENCE
- EXISTING PIPE-RAIL FENCE
- EXISTING WIRE FENCE
- EXISTING WOOD RAIL FENCE
- PROP. RETAINING WALL
- EXISTING POWER POLE
- EXISTING GUY WIRE
- OHL EXISTING OVERHEAD LINE
- EXISTING DEPRESSION
- 1445 EXISTING CONTOURS
- 44 PROPOSED CONTOURS
- PROPOSED FIRE HYDRANT

Engineer			Revisions:	County	
Mark:	By:	Date:	Description:	Appr.	Date

Designed By: GB | Drawn By: BB | Checked By:

Principal

REGISTERED PROFESSIONAL ENGINEER GRANT W. BECKLUND No. 23737 Exp. 12/31/25 CIVIL STATE OF CALIFORNIA

Prepared Under The Supervision Of:
GRANT BECKLUND CIVIL ENGINEERING
30811 GARBANI ROAD WINCHESTER, CA 92596 (951) 288-0601
GRANT BECKLUND R.C.E. No. 23737 EXP. 12/31/2025
Date:

Reviewed By:
COUNTY OF RIVERSIDE
Date:

Scale: AS NOTED

Bench Mark: TOPO DATA AS NOTED ABOVE

COUNTY OF RIVERSIDE
PUBLIC USE PERMIT 230001
CONCEPTIONAL GRADING PLAN
TEMECULA VALLEY CHARTER SCHOOL

Sheet No. 1 OF 1 SHEET
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Plot date: 8/18/2024 | File name: