VALLEY CENTER

FIRE PROTECTION DISTRICT



BOARD OF DIRECTORS' SPECIAL MEETING VCMWD Board Room

Zoom Meeting ID: 859 712 4912 Pass Code: 185394 with Live Stream to VCFPD Facebook Page for COVID-19 Prevention

> 6:00 p.m. Thursday – April 7, 2022

Valley Center Fire Protection District Board of Directors SPECIAL MEETING AGENDA April 7, 2022 / 6:00 P.M. This Meeting will be cast on Zoom Join Zoom Meeting

https://us02web.zoom.us/j/8597124912?pwd=Rm9KR0dSZWYyMml0ZGtvcGJsU29VZz09

Meeting ID: 859 712 4912 Passcode: 185394 One tap mobile +16699009128,,8597124912#,,,,,,0#,,185394# US (San Jose) Dial by your location +1 669 900 9128 US (San Jose) Access Number: 859 712 4912 Pass Code: 185394 For COVID-19 Prevention with Live Stream to VCFPD Facebook Page Valley Center Municipal Water District Board Room 29300 Valley Center Rd Valley Center, CA 92082

1. CALL TO ORDER

2. ROLL CALL

3. PLEDGE OF ALLEGIANCE

4. PROPOSAL TO ADOPT RESOLUTION NO. 2022-17

Consideration to Approve Resolution NO. 2022-17 to Implement Teleconferencing Requirements During a Proclaimed State of Emergency Under Government Code Section 54953.

5. PUBLIC COMMENT

Any member of the Public may speak on any matter that is <u>not</u> on the Agenda. However, under State law, no decisions or actions can be taken and any such matters will be referred to the next meeting. Public comment will be via Zoom.

6. PROCLAMATIONS AND PRESENTATIONS

A. Presentation by Joe and Robin Bilglione from Biglione Construction with Erickson-Hall Construction present for questions and answers.

7. NEW BUSINESS

A. Staff report by Chief Napier and a proposal to adopt Resolution 2022-18 To Approve Agreement Between the District and Design Builder - Erickson-Hall Construction Company

8. BOARD OF DIRECTORS COMMENTS

9. ADJOURNMENT

Upon request, this agenda will be made available in appropriate alternative formats to persons with disabilities, as required by Section 202 of the Americans with Disabilities Act of 1990. Any person with a disability who requires a modification or accommodation in order to participate in a meeting should direct such request to the Board Secretary at (760) 751-7600, at least 48 hours before the meeting, if possible

NEXT REGULAR MEETING: April 21, 2022



VALLEY CENTER FIRE PROTECTION DISTRICT

28234 Lilac Road, Valley Center, CA 92082 (760) 751-7600 Fax (760) 749-3892 Website: vcfpd.org



VALLEY CENTER FIRE PROTECTION DISTRICT RESOLUTION 2022-17

RESOLUTION TO IMPLEMENT TELECONFERENCING REQUIREMENTS DURING A PROCLAIMED STATE OF EMERGENCY UNDER GOVERNMENT CODE SECTION 54953.

WHEREAS, the Ralph M. Brown Act requires that all meetings of a legislative body of a local agency be open and public and that any person may attend and participate in such meetings;

WHEREAS, the Brown Act allows for legislative bodies to hold meetings by teleconference, but imposes specific requirements for doing so;

WHEREAS, on March 17, 2020, in order to address the need for public meetings during the present public health emergency, Governor Newsom issued Executive Order No. N-29-20, suspending the Act's teleconferencing requirements; and

WHEREAS, on June 1, 2021, Governor Newsom issued Executive Order No. N-8-21, continuing the suspension of the Brown Act's teleconferencing requirements through September 30, 2021; and

WHEREAS, these Executive Orders allowed legislative bodies to meet virtually as long as certain notice and accessibility requirements were met; and

WHEREAS, the State Legislature amended the Brown Act through Assembly Bill No. 361 (AB 361) on September 16, 2021; and

WHEREAS, AB 361 amended the Brown Act so that a local agency may use teleconferencing without complying with the regular teleconferencing requirements of the Act, where the legislative body holds a meeting during a proclaimed state of emergency and makes certain findings; and

WHEREAS, Government Code section 54953 requires that the legislative body make additional findings every 30 days in order to continue such teleconferencing.

NOW THEREFORE, the legislative body of the Valley Center Fire Protection District hereby finds, determines, declares, orders, and resolves as follows:

Valley Center Fire Station 1 28234 Lilac Road Valley Center, CA 92082 Valley Center Fire Station 2 28205 N. Lake Wohlford Road Valley Center, CA 92082

- 1. That the foregoing recitals are true and correct and incorporates them by this reference.
- 2. The Board of Directors of the Valley Center Fire Protection District (District) finds, by a majority vote, the following:

a. That there exists a proclaimed state of emergency; AND either:

- b. The Board of Directors of the Valley Center Fire Protection District is meeting for the purpose of determining one of the following, or more than 30 days have passed since the Board met and determined one of the following and the Board now re-determines one of the following:
 - i. State or local officials have imposed or recommended measures to promote social distancing; OR
 - ii. As a result of the emergency, meeting in person would present imminent risks to the health or safety of attendees.

OR

- c. This Board of Directors has made the determination set forth in subdivision (b), above within the last 30 days and now makes the following determination:
 - i. The Board of Directors of the Valley Center Fire Protection District has reconsidered the circumstances of the state of emergency; AND
 - ii. Any of the following circumstances exist:
 - 1. The state of emergency continues to directly impact the ability of the members to meet safely in person.
 - 2. State or local officials continue to impose or recommend measures to promote social distancing.
- 3. The District Fire Chief or his designee is authorized to take all steps and perform all actions necessary to execute and implement this Resolution in compliance with Government Code section 54953.
- 4. That this Resolution shall take effect immediately upon its adoption.

PASSED AND ADOPTED by The Board of Directors of the Valley Center Fire Protection District on this 7th day of April, 2022, by the following vote:

AYES: NOES: ABSENT: ABSTAIN:

Signature:

Phil Bell, President, Valley Center Fire Protection District

Signature Attest:

Regina Roberts, Secretary, Valley Center Fire Protection District

Valley Center Fire Station 1 28234 Lilac Road Valley Center, CA 92082

Valley Center Fire Station 2 28205 N. Lake Wohlford Road Valley Center, CA 92082

VALLEY CENTER FIRE PROTECTION DISTRICT

BOARD OF DIRECTORS' PACKET

PROCLAMATIONS AND PRESENTATIONS

TEMPORARY FIRE STATION NO. 3 AND REMODEL WORK DESIGN-BUILD CONTRACT

Why Design-Build

- Alternate Delivery Process Involves the Contractor during the design phase
- Team approach, owner/design team/contractor, working together to achieve project goals
- Contractor becomes a project stakeholder with a vested interest in project success
- Contractor provides valuable technical input during the design phase

Results in a "Best Value" project delivery

Design-Build Process

- Hire a design-build entity that includes a design team and a construction team
- The design team provides a design meeting the owner's criteria
- Throughout the design process, the construction team and the owner provide feedback
- The design team, construction team and owner approve the final design documents
- The design-build entity provides the owner a Guaranteed Maximum Price (GMP) for the project and upon approval from the owner, proceeds to construct the project

Benefits of Design-Build

- Shifts the liability associated with design and the risk for cost containment and project completion to the design-build entity
- Allows the owner to select a design-build entity based on qualifications and cost (best value), not just low bid

Single point of responsibility

Benefits of Design-Build

- Price certainty
- Avoid conflicts and disputes
- Faster project delivery
- Design-Builder responsible for compliance with contracting, payment and reporting requirements

Benefits of Design-Build

- Construction team involvement in design process allows for:
 - Constructability feedback and the owner decides which priorities are most important
 - Value engineering and the owner can weigh cost of project components against their desirability

Local Examples of Design-Build Projects - Vista Fire Station No.5



Vista Fire Station No.6



Overview

- Hired Biglione Construction Management (BCM) in 2018 to:
 - Assist with site selection process for Fire Station No. 3 and oversee the preparation of studies related to property acquisition and for use in RFP for Design-Build services
 - Assist with the two-step recruitment and selection of potential design builders, in accordance with the requirements of State Law
 - Provide owner's representative services to the District during design and construction.

Process to Date

- The District owns the approximately 10-acre property located northwest of the intersection of Cole Grade Road and Cole Grade Lane
- The District completed a number of property studies that were used to solicit proposals
- The District completed the two-step recruitment process for design builders

Funding Sources for Projects

- District Mitigation Funds \$350,000
- State Budget Allocation \$680,000
- Desmond's and COVID Grants \$279,200
- Fire Foundation Commitment \$576,000

TOTAL \$1,885,200

Scope Refinement

- On January 18, the District received a proposal from Erickson-Hall Construction Co., a local Escondido-based firm that is very experienced and specializes in design-build fire station work
- Erickson-Hall, District staff and BCM staff worked together to prioritize and define the remodel work and negotiate the cost of design and preconstruction services
- The proposed Design-Build Contract incorporates the scope refinement

Station 1 Improvement Priority List

- Increase the height of the front app bay doors and provide automatic openers for rear doors
- Install a new compressor and compressor enclosure, with compressed air to app bays
- Design and install a new HVAC system throughout the main fire station building
- Reconfigure the dorm space, crew restroom and kitchen, including moving refrigerators out of the app bay

Station 2 Improvement Priority List

- Increase the height of all app bay doors
- Design and install a new HVAC system
- Reconfigure dorm space to improve functionality and comfort
- Remodel the kitchen to provide space for three refrigerators
- Provide a screened in area with a half-wall and exercise flooring for the rear patio area
- Replace and expand the concrete area in the rear of the station

Temporary Fire Station 3



Design-Build Contract

- The standard American Institute of Architects (AIA) Design-Build contract template was used as the basis for the contract that is being presented to the Board
- The Board's attorney reviewed and made revisions to the standard template
- The proposed contract is addresses both design and construction issues

Design-Build Contract

- The initial contract only approves the costs of design and preconstruction costs (\$502,980)
- When the design is complete and the designbuilder provides a cost proposal, an amendment to the contract will be reviewed by the Board
- The amendment will be a simple document establishing a Guaranteed Maximum Price for the project(s)

Preconstruction Costs

 Exhibit D to the proposed contract includes all of the costs to design and provide construction costs (the Guaranteed Maximum Price) for Temporary Fire Station No. 3 and the Priority Projects for Fire Station No. 1 and 2

Preconstruction Cost Summary

- Design Temp. Fire Station 3
- Design Remodel Work Sta. 1
- Design Remodel Work Sta. 2

\$234,500 \$90,000 \$71,500

- D–B Pre–Construction Services
- D–B Design Contingency
- D-B Fee
- Liability Insurance @1%
- Total Preconstruction Services

\$47,000 \$25,000 \$30,000 \$4,980 \$502,980

Budget

- Exhibit D commits a large portion (27%) of the available budget (\$1,880,000) to design
- Investing in design and preconstruction allows the District flexibility to move forward with the project(s) as funding becomes available
- Multiple contract amendments are possible to address the construction of the projects

Project Schedule

- Award of D-B Contract April 7, 2022
- Design Dev. Complete May 5, 2022
- Construction Docs Complete June 2, 2022
- County Permits Issued** Aug. 19, 2022
- GMP Proposal

Sept. 15, 2022

Substantial Completion

Jan. 27, 2022



More Local Examples of Design Build Projects >>> Sendero Fire Station, Orange County

Chula Vista Fire Station No. 10



Vista Fire Station No.1 Renovation



Questions and Answers

- Projects/Process
- Design-Builder
- Contract
- Budget
- Schedule

Design-Build Delivery Method

General

- 1. Has contract already been reviewed by legal? Yes, Fred Pfister reviewed and modified the contract to enhance the protection of the VCFPD.
- 2. How closely involved has the VCFPD project team been involved in the details of the project so far? All of the details of the project so far have been developed by the VCFPD project team. After the contract is executed, the design-builder's team will start working on the project. The VCFPD team will stay very involved as the designs are developed. The progressive design-build delivery method promotes working as a team to achieve the project's goals to ensure the owner (VCFPD) gets the best project for a fair price.
- Does Erickson-Hall have examples of similar work they have done in our back-country environment? Erickson-Hall recently completed the Harmony Grove Fire Station for Rancho Santa Fe Fire Protection District. This project is located on the edge of a new planned community at the wildland interface.
- 4. Have total project costs been defined? (Examples: power, water access/easements to property, meter, hydrant, permit fees, etc.) VCFPD is entering into this contract with Erickson-Hall in two steps. The first step, approval of the framework of the contract and approval of the cost for the design portion only will be considered by the Board this week. Once there is a conceptual design, the utility costs and permit fees can be defined. Further, any easements necessary for utilities can be pursued.
- 5. What is the percentage of rework that will be required when the permanent station goes into place? The conceptual design for the temporary station was developed with the intent that no rework will be required to construct the permanent station. The conceptual design does not locate the temporary station in the area needed for construction of the permanent station.
- 6. Will work on station 1 and 2 be done parallel to Station 3? The work is planned to occur at the same time. This will achieve cost savings as the same Erickson-Hall staff will oversee all of the work. Should they be done sequentially? What is our priority? Is 9 months a realistic time frame? The 9 month construction time frame is realistic. The unknown in the schedule is how long the County will take to permit the projects.
- 7. What are our budget sources for the \$1.8M? *Mitigation: \$350,000 *State Assembly Funds: \$680,000 *Grants and ARPA Funds: \$279,200 *Valley Center Fire Foundation Funds: \$576,000 Total: \$1,885,200
- 8. What is the budget source for contingency funds? The proposed contract includes a \$25,000 design contingency (Exhibit D). After the projects are designed and bid to subcontractors, Erickson-Hall will propose a Guaranteed Maximum Price (GMP) for the work. The GMP will

include a construction contingency. The \$1.8 million budget includes all contingency funds. No additional money is required to fund the contingency. It is important to understand that all of the Station 1 and 2 improvements on the updated list (Exhibit C) will be designed in the initial phase and a GMP will be provided for each project. Only those projects that can be completed within the budget will be constructed.

Nova Geologic Study

- 9. Will NOVA be involved in construction operation? Not known at this time. Erickson-Hall has not solicited bids for the geotechnical work for the construction operation. NOVA will be considered for this work, probably along with several other firms.
- 10. Did we receive SME (subject matter expert) input, clarification on the NOVA Geotechnical report? The NOVA Geotechnical Report was prepared under contract to VCFPD as part of the due diligence process for property acquisition. Additional work was done to provide geotechnical recommendations for construction and for septic system design.
- 11. NOVA doc: Section 6.3.3 Metals: Design consideration that soil may be very corrosive to ferrous metals. One of the purposes of geotechnical study is to provide information to the design professionals to ensure their design is compatible with soils conditions on the property.
- 12. Nova 6.5.4 General slab Design
- 13. Nova 6.7.3 Design for utilities
- 14. Nova 9.2 it is assumed that Nova will be involved during design phase for consulting & review; also for construction monitoring in the form of testing and observation. A geotechnical firm will be involved to review the design (to ensure it conforms to NOVA's recommendations) and to provide testing and observation during construction.

Contract Document

- 15. What are the total contract costs? The contract is for design only and the cost is \$502,980.
- 16. When will the detailed 'design/build documents be provided? The schedule anticipates the design will be permitted August 19, 2022.
- 17. What is the risk that something of significant cost/time impact, was missed in our RFP, and will not be identified until the design/build documents are provided? The main risk is that the County will require changes to the project concept or take a long time to permit the plans.
- 18. What is our contingency for overages? Once the design is complete and VCFPD enters into the Design-Build Amendment with Erickson-Hall, "contingency" will be built into the GMP. At that time Erickson-Hall will be responsible for cost overruns, unless they are due to some unknown subsurface conditions that is not known until construction starts.

Exhibit C – Owner's program documents are referenced throughout the contract.

- 19. Item 1.1. Owner's Criteria...set forth in Exhibit C.
- Exhibit C in the packet shows improvements planned for station 1 and 2. Is there more detail? No, more details will be developed as the design progresses. VCFPD project staff will be involved throughout the design process.
- 21. 2.1.3 Compensation for Reimbursable Expenses Prior to Edecution of Design-Build Amendment (expenses fully defined? Costed?) The only reimbursable expenses are permit and utility fees, printing and other expenses if authorized in advance. VCFPD is contracting with Erickson-Hall at this time to refine the conceptual design, so that permit and utility fees can be fully defined. Reproduction reimbursable costs will only be incurred for paper copies of plans requested by agencies or VCFPD.
- 22. **7.2.3** Owner shall promptly obtain easements, zoning variance.." What is the status of this effort? The Project Team met with County staff and we believe we can make revisions to the conceptual project design to avoid the need for any easements, unless the utility design, which will occur in the next phase, necessitates an easement. County staff has indicated that only building permits are required to implement the project(s).
- 23. 9.1 Contract sum is stated in the Design Build amendment. Where is this amendment? The tentative project schedule indicates that on September 15, 2022, Erickson-Hall will provide the GMP proposal. The amendment will come to the VCFPD Board following receipt of that proposal.

Exhibit D

- 24. All compensation for work performed prior to execution of Design-Build Amendment is specified here.
- 25. **25% of budget is pre**-construction costs.. Is that standard? No, the design cost is high because of all the small remodel projects.
- 26. Item 36 is incomplete Item 36 in Exhibit D is for information only, at this time, VCFPD is only entering into a contract for design and pre-construction services.

Pre-screening Checklist

27. What is the purpose of this document in the packet? This was an Attachment to the RFP.

Construction Approach

28. Can we complete the grading, upper pad, and one permanent building with current funding sources? No, only the temporary station pad and improvements can be provided with the current funding.

- 29. Is the planned approach to grade two levels? Why? The site is steep and the cost to create a single pad on one level when it is not necessary did not make economic sense.
- 30. Is it feasible to grade the finish pad to completion with enough space for temp buildings and not require a second pad? The two pad approach is more economical and keeps the temporary improvements away from the area of work for the permanent station.
- 31. Will we need two septic system? With two pads? There will be one septic system to serve both the temporary and permanent site.
- 32. Will the planed bio system be adequate for the total plant? The biofiltration system may need to be expanded for the permanent station, but there is adequate space near the biofiltration system for the temporary station.
- 33. Can we build the administration building when finish grading complete? Money? There is no space on the pad designed for the temporary station to locate the administration building.
- 34. Do we have/require easements on Cole Grade Lane? VCFPD does not have an access easement to Cole Grade Lane, but it is not necessary. Access to the permanent and temporary stations is planned to be directly from Cole Grade Road.
- 35. How is access to Cole Grade Road and Cole Grade Lane planned? Direct access, via on-site driveways, is planned to Cole Grade Road only.

	EXHIBIT D			
	ATTACHMENT 07 Rvsd. 3/10/2022	ATTACHMENT 07 Rvsd. 3/10/2022		
	Preliminary Cost Worksheet			
#		Subtotals	Totals	
1	Preconstruction Services			
2	Design Team (Architect and Subconsultants)			
3	Temporary Fire Station #3 - Cole Grade Rd.	400 100		
4	Schematic Design	\$73,166		
5	Design Development	\$80,667		
6	Construction Documents	\$80,667	4000 000	
	Subtotal		\$234,50	
8	Fire Station #1 Remodel - Lilac Rd.			
9	App Bay Doors (front only) and Auto Opener for Rear - BASE BID	\$43,000		
10	Air Compressor and Enclosure - ALTERNATE	\$10,000		
11	HVAC Replacement (both sides) - ALTERNATE	\$10,000		
12	Dormitory and Day Room Remodel - ALTERNATE	\$12,000		
13	Kitchen and Restroom Remodel - ALTERNATE	\$15,000		
14	Subtotal		\$90,00	
15	Fire Station #2 Remodel - N. Lake Wohlford Rd.			
16	App Bay Doors (front and rear) - BASE BID	\$27,000	_	
17	HVAC Replacement (both sides) - ALTERNATE	\$12,000		
18	Dormitory Remodel - ALTERNATE	\$12,000		
19	Kitchen Remodel for Refrigerator Relocation - ALTERNATE	\$10,000		
20	Screened Porch at Rear Patio Area - ALTERNATE	\$7,500		
21	Concrete Replacement at Rear of Station - ALTERNATE	\$3,000		
22	Subtotal		\$71,50	
	Note: Do not include design team construction administration services in the			
23	preconstruction services budget	TBD		
24				
25	Design Builder (DB)			
26	DB Cost for Preconstruction Services (provide breakdown on separate sheet)	\$47,000		
27	Proposed DB Design Contingency	\$25,000		
28	Proposed DB Fee for All Pre-Construction Services	\$30,000		
29	Subtotal		\$102.00	
30				
31	Subtotal Preconstruction Services Budget		\$498,00	
32	1% Liability Insurance on Preconstruction Services		\$4.98	
33	Total Preconstruction Services Budget		\$502,98	
34				
35	Construction Services			
	General Conditions/General Requirements (provide monthly breakdown on			
36	separate sheet, identify staffing levels and hours). To be confirmed at creation of	\$144,105		
37	Proposed DB Contingency (percentage)	10%		
38	Proposed DB Fee for Construction (percentage)	6.00%		
39		-		
40	Bonds and Insurance			
41	COC (All-Risk) Coverage to be guoted at creation of GMP	TBD		
42	Liability Insurance (1.0%)	1.0%		
_				

NEW BUSINESS

BOARD OF DIRECTORS' PACKET

VALLEY CENTER FIRE PROTECTION DISTRICT




Valley Center Fire Protection District

Staff Report

Prepared by: Josef G. Napier Fire Chief, VCFPD Special Meeting Date: 04/07/2022

Approved by: Pending Board Action

Agenda: Action Item Location: Special Board Meeting

SUBJECT: Temporary Fire Station 3 and Fire Station Construction Projects

RECOMMENDATION:

It is the recommendation of the Valley Center Fire Protection District Fire Chief to engage into a design build contract with Erickson-Hall Construction utilizing a combination of California State appropriated general funds, Valley Center Fire Protection District mitigation funds and Valley Center Fire Foundation Funds to develop and install temporary Fire Station 3 on Cole Grade Road and complete facilities upgrades and deferred maintenance on Fire Station 1 and 2.

PRIOR BOARD ACTION:

On March 15, 2017, a Standards of Cover Report and Deployment Study was presented and adopted by the Valley Center Fire Protection District Board of Directors. In that Study, it was identified that a third Fire Station should be located at Cole Grade Road and Cole Grade Lane, equipped with a Type 1 Apparatus and staffed with a Captain, Engineer and Firefighter-Paramedic to provide better Fire Protection and ALS EMS Services to the community.

On August 27, 2021 the District purchased the property for \$330,000 utilizing District mitigation funds to place Fire Station 3 on Cole Grade Road and Cole Grade Lane. On August 19, 2021 by Resolution 2021-14, the District committed \$350,000 from District mitigation funds to construct Temporary Fire Station 3 and provide Fire Facility Upgrades to Fire Station 1 and 2. On September 16, 2021, Assembly Member Marie Waldron presented a California State budget allocation award to the Valley Center Fire Protection District of \$1,060,000.00 which was deposited into the general operating fund. A portion of the total award for the Temporary Fire Station 3 and Fire Facility Upgrades was set at \$680,000 which will be drafted from the general operating fund. To date, grants received from Supervisor Desmond's Office and the District's allocation of COVID 19 ARPA funds for Temporary Fire Station 3 and Fire Facility Upgrades are committed at \$279,200 and the Valley Center Fire Foundation has committed \$576,000 to construct Temporary Fire Station 3 and provide Fire Facility Upgrades to Fire Station 1 and 2.

STATEMENT ON THE SUBJECT:

It is the recommendation of Fire Chief Napier that the Valley Center Fire Protection District Board of Directors should authorize the capital budget be adjusted for FY2021-2022 and capital funds allocated for FY2022-2023 to contract for design build and construction services with Erickson-Hall Construction for \$1,800,000 dollars.

FISCAL IMPACT:

The total contracted fiscal impact of the Erickson-Hall design build and construction contract for Temporary Fire Station 3 and Fire Facility Upgrades is \$1,800,000.00. The total accessible funding for the projected Temporary Fire Station 3 and Fire Facility Upgrades to Fire Station 1 and 2 from all available funding sources is \$1,885,200.00.

CONCLUSION:

The positive outcome from the successful relationship that will be built between the Valley Center Fire Protection District and Erickson-Hall Construction will result in the long awaited operational third fire station which will provide the enhanced Fire Protection and ALS EMS services needed to an underserved response area and increased reliability to our community. It will also provide our current Fire Stations with the much-needed facilities upgrades and deferred maintenance updates to improve our ability to serve the community at the highest possible level and improve the quality of life of our Firefighters in the Stations through modern innovations.



VALLEY CENTER FIRE PROTECTION DISTRICT

RESOLUTION NO. 2022-18

RESOLUTION OF THE BOARD OF DIRECTORS OF VALLEY CENTER FIRE PROTECTION DISTRICT TO APPROVE THE AGREEMENT BETWEEN THE DISTRICT AND DESIGN BUILDER - ERICKSON-HALL CONSTRUCTION COMPANY

WHEREAS, there has been presented to the District an Agreement between Valley Center Fire Protection District and Erickson-Hall Construction Company in the form and content attached hereto, and

WHEREAS, it is in the best interest of the Valley Center Fire Protection District that said Agreement be approved.

NOW, THEREFORE, the Board of Directors of Valley Center Fire Protection District does hereby adopt and approve the Agreement; and

It is FURTHER RESOLVED, that the Fire Chief is hereby authorized and directed to execute the Agreement on behalf of the District.

Adopted this 7th day of April 2022.

Gina Roberts, Secretary

AIA Document A141[®] – 2014

Standard Form of Agreement Between Owner and Design-Builder

AGREEMENT made as of the day of in the year (*In words, indicate day, month and year.*)

BETWEEN the Owner: *(Name, legal status, address and other information)*

Valley Center Fire Protection District 28234 Lilac Road Valley Center, CA 92082

and the Design-Builder: (Name, legal status, address and other information)

Erickson-Hall Construction Co. 500 Corporate Drive Escondido, CA 92029

for the following Project: (Name, location and detailed description)

Valley Center Temporary Fire Station No. 3 and Fire Station No. 1 and 2 Renovations Temporary Fire Station No. 3 APN 133-220-38, located in the community of Valley Center, northwest of the intersection of Cole Grade Road and Cole Grade Lane

Fire Station No. 1 28234 Lilac Road Valley Center, CA 92082

Init.

1

Fire Station No. 2 28205 N. Wohlford Lake Road Valley Center, CA 92082

Design and build a temporary fire station to serve the community of Valley Center. In addition, design and build agreed upon renovations to Fire Station No. 1 and 2. The Project will include all design, engineering, permits, grading, construction, materials, labor, observation, inspection and testing. Design-Builder will be responsible for obtaining all required permits, including federal, state and local governance as well as coordination with all utilities and other regulatory agencies, start-up commissioning required for occupancy and operations. All permits, fees and utility fees shall be paid by the Owner. Costs for reimbursable expenses, such as paper sets of plans requested by agencies or the Owner, shall be paid by the Owner. Design-Builder shall perform all work and provide all documents described in the Owner's Program Documents, which are attached as Exhibit C.

The Owner and Design-Builder agree as follows.

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An Additions and Deletions Report that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Consultation with an attorney is also encouraged with respect to professional licensing requirements in the jurisdiction where the Project is located.

TABLE OF ARTICLES

- **GENERAL PROVISIONS** 1
- **COMPENSATION AND PROGRESS PAYMENTS** 2
- 3 GENERAL REQUIREMENTS OF THE WORK OF THE DESIGN-BUILD CONTRACT
- WORK PRIOR TO EXECUTION OF THE DESIGN-BUILD AMENDMENT 4
- 5 WORK FOLLOWING EXECUTION OF THE DESIGN-BUILD AMENDMENT
- CHANGES IN THE WORK 6
- **OWNER'S RESPONSIBILITIES** 7
- TIME 8
- 9 PAYMENT APPLICATIONS AND PROJECT COMPLETION
- 10 PROTECTION OF PERSONS AND PROPERTY
- 11 UNCOVERING AND CORRECTION OF WORK
- 12 **COPYRIGHTS AND LICENSES**
- 13 **TERMINATION OR SUSPENSION**
- **CLAIMS AND DISPUTE RESOLUTION** 14
- 15 **MISCELLANEOUS PROVISIONS**
- SCOPE OF THE AGREEMENT 16

TABLE OF EXHIBITS

- **DESIGN-BUILD AMENDMENT** Α
- В INSURANCE AND BONDS
- С OWNER'S PROGRAM DOCUMENTS

D COMPENSATION FOR WORK COMPLETED PRIOR TO DESIGN-BUILD AMENDMENT

ARTICLE 1 GENERAL PROVISIONS

§ 1.1 Owner's Criteria

This Agreement is based on the Owner's Criteria set forth in this Section 1.1.

(Note the disposition for the following items by inserting the requested information or a statement such as "not applicable" or "unknown at time of execution." If the Owner intends to provide a set of design documents, and the requested information is contained in the design documents, identify the design documents and insert "see Owner's design documents" where appropriate.)

§ 1.1.1 The Owner's program for the Project:

(Set forth the program, identify documentation in which the program is set forth, or state the manner in which the program will be developed.)

AIA Document A141[™] - 2014. Copyright © 2004 and 2014 by The American Institute of Architects. All rights reserved. The "American Institute of Architects." "AIA. the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 2 14:24:21 ET on 03/23/2022 under Order No.2114287171 which expires on 02/03/2023, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org. User Notes: (1365848397)

are set forth in the Owner's Program Documents, Exhibit C

§ 1.1.2 The Owner's design requirements for the Project and related documentation: (Identify below, or in an attached exhibit, the documentation that contains the Owner's design requirements, including any performance specifications for the Project.)

are set forth in the Owner's Program Documents, Exhibit C

§ 1.1.3 The Project's physical characteristics:

(Identify or describe, if appropriate, size, location, dimensions, or other pertinent information, such as geotechnical reports; site, boundary and topographic surveys; traffic and utility studies; availability of public and private utilities and services; legal description of the site; etc.)

are set forth in the Owner's Program Documents, Exhibit C

§ 1.1.4 The Owner's anticipated Sustainable Objective for the Project, if any:

(Identify the Owner's Sustainable Objective for the Project such as Sustainability Certification, benefit to the environment, enhancement to the health and well-being of building occupants, or improvement of energy efficiency. If the Owner identifies a Sustainable Objective, incorporate AIA Document A141TM–2014, Exhibit C, Sustainable Projects, into this Agreement to define the terms, conditions and Work related to the Owner's Sustainable Objective.)

Not applicable

§ 1.1.5 Incentive programs the Owner intends to pursue for the Project, including those related to the Sustainable Objective, and any deadlines for receiving the incentives that are dependent on, or related to, the Design-Builder's services, are as follows:

(Identify incentive programs the Owner intends to pursue for the Project and deadlines for submitting or applying for the incentive programs.)

Not applicable

§ 1.1.6 The Owner's budget for the Work to be provided by the Design-Builder is set forth below: (Provide total for Owner's budget, and if known, a line item breakdown of costs.)

The Owner's budget for design and construction costs, including, but not limited to design fees, construction, supervisions, labor, materials, bonds and insurance is \$1,880,000. This budget does not include permit costs, fees and utility fees.

§ 1.1.7 The Owner's design and construction milestone dates:

Design phase milestone dates: .1

> Notice of Award, April 8, 2022 Design Development Completed, May 5, 2022 Construction Documents Completed, June 2, 2022 County Permits Issued, August 19, 2022 Bidding Completed, September 8, 2022

.2 Submission of Design-Builder Proposal:

GMP Proposal, September 15, 2022

- .3 Phased completion dates:
- Substantial Completion date: .4
- AIA Document A141[™] 2014. Copyright © 2004 and 2014 by The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA, the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 3 14:24:21 ET on 03/23/2022 under Order No.2114287171 which expires on 02/03/2023, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org. (1365848397) User Notes:

Substantial Completion, January 27, 2023

.5 Other milestone dates:

> Note that Bidding Completed, GMP Proposal and Substantial Completion dates are based on the "County Permits Issued" milestone date. Changes to that date may result in the need to revise the balance of the dates.

§ 1.1.8 The Owner requires the Design-Builder to retain the following Architect, Consultants and Contractors at the Design-Builder's cost:

(List name, legal status, address and other information.)

.1 Architect

PBK-WLC 8163 Rochester Avenue, Suite 100 Rancho Cucamonga, CA 91730

.2 Consultants

.3 Contractors

Init.

1

§ 1.1.9 Additional Owner's Criteria upon which the Agreement is based: (Identify special characteristics or needs of the Project not identified elsewhere, such as historic preservation requirements.)

The Design-Builder is required to comply with California Public Contract Code (Section 22160, et. Seq.) and Labor Code (Section 1770, et. Seq.), including all consultants, subconsultants and subcontractors. The required compliance includes adhering to skilled and trained workforce provisions of California state law and California State regulations and adhering to prevailing wage payment and reporting requirements.

The Design-Builder is required to post payment and performance bonds in the same amount.

The Design-Builder is required to comply with Public Contract Code bidding and subcontracting requirements.

Five percent retention is required and the Design-Builder may not require the retention of more than five percent in contracts with its subcontractors.

§ 1.1.10 The Design-Builder shall confirm that the information included in the Owner's Criteria complies with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities applicable to the Work and the Contract ("Applicable Laws").

§ 1.1.10.1 If the Owner's Criteria conflicts with Applicable Laws the Design-Builder shall notify the Owner of the conflict.

§ 1.1.11 If there is a change in the Owner's Criteria, the Owner and the Design-Builder shall execute a Modification in accordance with Article 6.

§ 1.1.12 If the Owner and Design-Builder intend to transmit Instruments of Service or any other information or documentation in digital form, they shall endeavor to establish necessary protocols governing such transmissions. Unless otherwise agreed, the parties will use AIA Document E203TM_2013 to establish the protocols for the development, use, transmission, and exchange of digital data and building information modeling.

Δ

§ 1.2 Project Team

§ 1.2.1 The Owner identifies the following representative in accordance with Section 7.1.1: *(List name, address and other information.)*

Robin and Joe Biglione Biglione Construction Management, Inc. 5894 Ranch View Road Oceanside, CA 92057

§ 1.2.2 The persons or entities, in addition to the Owner's representative, who are required to review the Design-Builder's Submittals are as follows: *(List name, address and other information.)*

N/A

§ 1.2.3 The Owner will retain the following consultants and separate contractors: *(List discipline, scope of work, and, if known, identify by name and address.)*

N/A

§ 1.2.4 The Design-Builder identifies the following representative in accordance with Section 3.1.2: (*List name, address and other information.*)

Nathan Complin Erickson-Hall Construction Co. 500 Corporate Drive Escondido, CA 92029

§ 1.2.5 Neither the Owner's nor the Design-Builder's representative shall be changed without ten days' written notice to the other party.

§ 1.3 Binding Dispute Resolution

For any Claim subject to, but not resolved by, mediation pursuant to Section 14.3, the method of binding dispute resolution shall be the following:

(Check the appropriate box. If the Owner and Design-Builder do not select a method of binding dispute resolution below, or do not subsequently agree in writing to a binding dispute resolution other than litigation, Claims will be resolved by litigation in a court of competent jurisdiction.)

- [X] Arbitration pursuant to Section 14.4
- [] Litigation in a court of competent jurisdiction
- [] Other: *(Specify)*

§ 1.4 Definitions

§ 1.4.1 Design-Build Documents. The Design-Build Documents consist of this Agreement between Owner and Design-Builder and its attached Exhibits (hereinafter, the "Agreement"); other documents listed in this Agreement; and Modifications issued after execution of this Agreement. A Modification is (1) a written amendment to the Contract signed by both parties, including the Design-Build Amendment, (2) a Change Order, or (3) a Change Directive.

Init.

AIA Document A141[™] – 2014. Copyright © 2004 and 2014 by The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:24:21 ET on 03/23/2022 under Order No.2114287171 which expires on 02/03/2023, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents[®] Terms of Service. To report copyright violations, e-mail copyright@aia.org. User Notes: (1365848397)

§ 1.4.2 The Contract. The Design-Build Documents form the Contract. The Contract represents the entire and integrated agreement between the parties and supersedes prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Design-Build Documents shall not be construed to create a contractual relationship of any kind between any persons or entities other than the Owner and the Design-Builder.

§ 1.4.3 The Work. The term "Work" means the design, construction and related services required to fulfill the Design-Builder's obligations under the Design-Build Documents, whether completed or partially completed, and includes all labor, materials, equipment and services provided or to be provided by the Design-Builder. The Work may constitute the whole or a part of the Project.

§ 1.4.4 The Project. The Project is the total design and construction of which the Work performed under the Design-Build Documents may be the whole or a part, and may include design and construction by the Owner and by separate contractors.

§ 1.4.5 Instruments of Service. Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Design-Builder, Contractor(s), Architect, and Consultant(s) under their respective agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, digital models and other similar materials.

§ 1.4.6 Submittal. A Submittal is any submission to the Owner for review and approval demonstrating how the Design-Builder proposes to conform to the Design-Build Documents for those portions of the Work for which the Design-Build Documents require Submittals. Submittals include, but are not limited to, shop drawings, product data, and samples. Submittals are not Design-Build Documents unless incorporated into a Modification.

§ 1.4.7 Owner. The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Design-Build Documents as if singular in number. The term "Owner" means the Owner or the Owner's authorized representative.

§ 1.4.8 Design-Builder. The Design-Builder is the person or entity identified as such in the Agreement and is referred to throughout the Design-Build Documents as if singular in number. The term "Design-Builder" means the Design-Builder or the Design-Builder's authorized representative.

§ 1.4.9 Consultant. A Consultant is a person or entity providing professional services for the Design-Builder for all or a portion of the Work, and is referred to throughout the Design-Build Documents as if singular in number. To the extent required by the relevant jurisdiction, the Consultant shall be lawfully licensed to provide the required professional services.

§ 1.4.10 Architect. The Architect is a person or entity providing design services for the Design-Builder for all or a portion of the Work, and is lawfully licensed to practice architecture in the applicable jurisdiction. The Architect is referred to throughout the Design-Build Documents as if singular in number.

§ 1.4.11 Contractor. A Contractor is a person or entity performing all or a portion of the construction, required in connection with the Work, for the Design-Builder. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Contractor is referred to throughout the Design-Build Documents as if singular in number and means a Contractor or an authorized representative of the Contractor.

§ 1.4.12 Confidential Information. Confidential Information is information containing confidential or business proprietary information that is clearly marked as "confidential."

§ 1.4.13 Contract Time. Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, as set forth in the Design-Build Amendment for Substantial Completion of the Work.

Init.

1

§ 1.4.14 Day. The term "day" as used in the Design-Build Documents shall mean calendar day, including weekdays, weekends, and holidays, unless otherwise specifically defined.

AIA Document A141[™] - 2014. Copyright © 2004 and 2014 by The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA, the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 6 14:24:21 ET on 03/23/2022 under Order No.2114287171 which expires on 02/03/2023, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org. User Notes: (1365848397)

§ 1.4.15 Contract Sum. The Contract Sum is the amount to be paid to the Design-Builder for performance of the Work after execution of the Design-Build Amendment, as identified in Article A.1 of the Design-Build Amendment.

ARTICLE 2 COMPENSATION AND PROGRESS PAYMENTS

§ 2.1 Compensation for Work Performed Prior To Execution of Design-Build Amendment

§ 2.1.1 Unless otherwise agreed, payments for Work performed prior to Execution of the Design-Build Amendment shall be made monthly. For the Design-Builder's performance of Work prior to the execution of the Design-Build Amendment, the Owner shall compensate the Design-Builder as follows:

(Insert amount of, or basis for, compensation, including compensation for any Sustainability Services, or indicate the exhibit in which the information is provided. If there will be a limit on the total amount of compensation for Work performed prior to the execution of the Design-Build Amendment, state the amount of the limit.)

The maximum compensation for Work performed prior to execution of the Design-Build Amendment is \$502,980. Exhibit D includes a breakdown of the Compensation for Work Completed Prior to Design-Build Amendment. The Design-Builder shall submit a monthly invoice detailing the Work progress against the tasks set forth in Exhibit D.

§ 2.1.2 The hourly billing rates for services of the Design-Builder and the Design-Builder's Architect, Consultants and Contractors, if any, are set forth below. (If applicable, attach an exhibit of hourly billing rates or insert them below.)

N/A

Individual or Position

Rate

§ 2.1.3 Compensation for Reimbursable Expenses Prior To Execution of Design-Build Amendment

§ 2.1.3.1 All compensation for Work performed prior to execution of Design-Build Amendment is specified in Exhibit D. Reimbursable Expenses are in addition to compensation set forth in Section 2.1.1 and 2.1.2 and include expenses, directly related to the Project, incurred by the Design-Builder, and Design-Builder's Architect, Consultant, and Contractors, as follows:

(Paragraphs deleted)

Fees paid for securing approval of authorities having jurisdiction over the Project; 1

(Paragraph deleted)

2 Printing, reproductions, and plots;

(Paragraphs deleted)

3 Other Project related expenditures, if authorized in advance by the Owner.

(Paragraph deleted)

§2.1.3.2 For Reimbursable Expenses, the compensation shall be the expenses the Design Builder and the Design Builder's Architect, Consultants and Contractors incurred with no mark up.

§ 2.1.4 Payments to the Design-Builder Prior To Execution of Design-Build Amendment

§ 2.1.4.1 Payments are due and payable upon presentation of the Design-Builder's invoice. (Paragraphs deleted)

§ 2.1.4.2 Records of Reimbursable Expenses and services performed on the basis of hourly rates shall be available to the Owner at mutually convenient times for a period of two years following execution of the Design-Build Amendment or termination of this Agreement, whichever occurs first.

§ 2.2 Contract Sum and Payment for Work Performed After Execution of Design-Build Amendment

For the Design-Builder's performance of the Work after execution of the Design-Build Amendment, the Owner shall pay to the Design-Builder the Contract Sum in current funds as agreed in the Design-Build Amendment.

ARTICLE 3 GENERAL REQUIREMENTS OF THE WORK OF THE DESIGN-BUILD CONTRACT

§ 3.1 General

Init.

1

§ 3.1.1 The Design-Builder shall comply with any applicable licensing requirements in the State of California.

§ 3.1.2 The Design-Builder shall designate in writing a representative who is authorized to act on the Design-Builder's behalf with respect to the Project.

§ 3.1.3 The Design-Builder shall perform the Work in accordance with the Design-Build Documents. The Design-Builder shall not be relieved of the obligation to perform the Work in accordance with the Design-Build Documents by the activities, tests, inspections or approvals of the Owner. All Work shall be performed in a professional manner and Design-Builder shall employ methods that are generally accepted and used within the industry, and in accordance with industry standards.

§ 3.1.3.1 The Design-Builder shall perform the Work in compliance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities. If the Design-Builder performs Work contrary to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, the Design-Builder shall assume responsibility for such Work and shall bear the costs attributable to correction.

§ 3.1.3.2 Neither the Design-Builder nor any Contractor, Consultant, or Architect shall be obligated to perform any act which they believe will violate any applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities. If the Design-Builder determines that implementation of any instruction received from the Owner, including those in the Owner's Criteria, would cause a violation of any applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Design-Builder shall notify the Owner in writing. Upon verification by the Owner that a change to the Owner's Criteria is required to remedy the violation, the Owner and the Design-Builder shall execute a Modification in accordance with Article 6.

§ 3.1.4 The Design-Builder shall be responsible to the Owner for acts and omissions of the Design-Builder's employees, Architect, Consultants, Contractors, and their agents and employees, and other persons or entities performing portions of the Work.

§ 3.1.5 General Consultation. No less than once a month, Design-Builder shall schedule and conduct periodic meetings with the Owner to review matters such as procedures, progress, coordination, and scheduling of the Work. The Design-Builder shall prepare and distribute minutes for the meetings to the attendees.

§ 3.1.6 When applicable law requires that services be performed by licensed professionals, the Design-Builder shall provide those services through qualified, licensed professionals. The Owner understands and agrees that the services of the Design-Builder's Architect and the Design-Builder's other Consultants are performed in the sole interest of, and for the exclusive benefit of, the Design-Builder. Notwithstanding anything to the contrary, each agreement with Design-Builder's Architect, Consultants, and Contractors shall provide that Owner is and shall be a third-party beneficiary of such contract or subcontract, and that the Owner shall have the right, but not the obligation, to assert claims directly against the Architect, Consultants, and Contractors for breach of contract or warranties, negligence, and other claims arising out of, or related to, the Work or the Project.

§ 3.1.7 The Design-Builder, with the assistance of the Owner, shall prepare and file documents required to obtain necessary approvals of governmental authorities having jurisdiction over the Project.

§ 3.1.8 Progress Reports

§ 3.1.8.1 The Design-Builder shall keep the Owner informed of the progress and quality of the Work. On a monthly basis, or otherwise as agreed to by the Owner and Design-Builder, the Design-Builder shall submit written progress reports to the Owner, showing estimated percentages of completion and other information identified below:

- .1 Work completed for the period;
- .2 Project schedule status;
- .3 Submittal schedule and status report, including a summary of outstanding Submittals;
- .4 Responses to requests for information to be provided by the Owner;
- .5 Approved Change Orders and Change Directives;
- .6 Pending Change Order and Change Directive status reports;
- .7 Tests and inspection reports;
- .8 Status report of Work rejected by the Owner;
- .9 Status of Claims previously submitted in accordance with Article 14;
- .10 Cumulative total of the Cost of the Work to date including the Design-Builder's compensation and Reimbursable Expenses, if any;

AlA Document A141[™] – 2014. Copyright © 2004 and 2014 by The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:24:21 ET on 03/23/2022 under Order No.2114287171 which expires on 02/03/2023, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents[®] Terms of Service. To report copyright violations, e-mail copyright@aia.org. User Notes: (1365848397)

- .11 Current Project cash-flow and forecast reports; and
- Additional information as agreed to by the Owner and Design-Builder. .12

§ 3.1.8.2 In addition, where the Contract Sum is the Cost of the Work with or without a Guaranteed Maximum Price, the Design-Builder shall include the following additional information in its progress reports:

- .1 Design-Builder's work force report;
- .2 Equipment utilization report; and
- .3 Cost summary, comparing actual costs to updated cost estimates.

§ 3.1.9 Design-Builder's Schedules

§ 3.1.9.1 The Design-Builder, promptly after execution of this Agreement, shall prepare and submit for the Owner's information a schedule for the Work. The schedule, including the time required for design and construction, shall not exceed time limits current under the Design-Build Documents, shall be revised at appropriate intervals as required by the conditions of the Work and Project, shall be related to the entire Project to the extent required by the Design-Build Documents, shall provide for expeditious and practicable execution of the Work, and shall include allowances for periods of time required for the Owner's review and for approval of submissions by authorities having jurisdiction over the Project.

§ 3.1.9.2 The Design-Builder shall perform the Work in general accordance with the most recent schedules submitted to the Owner.

§ 3.1.10 Certifications. Upon the Owner's written request, the Design-Builder shall obtain from the Architect, Consultants, and Contractors, and furnish to the Owner, certifications with respect to the documents and services provided by the Architect, Consultants, and Contractors (a) that, to the best of their knowledge, information and belief, the documents or services to which the certifications relate (i) are consistent with the Design-Build Documents, except to the extent specifically identified in the certificate, and (ii) comply with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities governing the design of the Project; and (b) that the Owner and its consultants shall be entitled to rely upon the accuracy of the representations and statements contained in the certifications. The Design-Builder's Architect, Consultants, and Contractors shall not be required to execute certificates or consents that would require knowledge, services or responsibilities beyond the scope of their services.

§ 3.1.11 Design-Builder's Submittals

Init.

1

§ 3.1.11.1 Prior to submission of any Submittals, the Design-Builder shall prepare a Submittal schedule, and shall submit the schedule for the Owner's approval. The Owner's approval shall not unreasonably be delayed or withheld. The Submittal schedule shall (1) be coordinated with the Design-Builder's schedule provided in Section 3.1.9.1, (2) allow the Owner reasonable time to review Submittals, and (3) be periodically updated to reflect the progress of the Work. If the Design-Builder fails to submit a Submittal schedule, the Design-Builder shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of Submittals.

§ 3.1.11.2 By providing Submittals the Design-Builder represents to the Owner that it has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so and (3) checked and coordinated the information contained within such Submittals with the requirements of the Work and of the Design-Build Documents.

§ 3.1.11.3 The Design-Builder shall perform no portion of the Work for which the Design-Build Documents require Submittals until the Owner has approved the respective Submittal.

§ 3.1.11.4 The Work shall be in accordance with approved Submittals except that the Design-Builder shall not be relieved of its responsibility to perform the Work consistent with the requirements of the Design-Build Documents. The Work may deviate from the Design-Build Documents only if the Design-Builder has notified the Owner in writing of a deviation from the Design-Build Documents at the time of the Submittal and a Modification is executed authorizing the identified deviation. The Design-Builder shall not be relieved of responsibility for errors or omissions in Submittals by the Owner's approval of the Submittals.

§ 3.1.11.5 All professional design services or certifications to be provided by the Design-Builder, including all drawings, calculations, specifications, certifications, shop drawings and other Submittals, shall contain the signature and seal of the licensed design professional preparing them. Submittals related to the Work designed or certified by the licensed design professionals, if prepared by others, shall bear the licensed design professional's written approval. The Owner and its consultants shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals.

§ 3.1.12 Warranty. The Design-Builder warrants to the Owner that materials and equipment furnished under the Contract will be of good quality and new unless the Design-Build Documents require or permit otherwise. The Owner has requested that the Design-Builder include modular trailers purchased by Owner, which are in used condition. Owner agrees that Design-Builder is not responsible for warranties related to the modular trailers.

The Design-Builder further warrants that the Work will conform to the requirements of the Design-Build Documents and will be free from defects and that all materials selected by Design-Builder, Architect, Consultants, and Contractors will be suitable for the purposes indicated in the Design-Build Documents. Work, materials, or equipment not conforming to these requirements may be considered defective. If required by Owner, the Design-Builder shall furnish satisfactory evidence as to the kind and quality of materials and equipment sourced for the Project. Design-Builder

premises and replace all defective materials and equipment as determined by the the Work or not. The allocation of the cost and expense for the removal or and equipment shall be determined in good faith by the Owner and Design-Builder the cost of repairing all Work destroyed or damaged by such removal or

by

remedy for damage or defect caused by: (1) abuse of or alterations to the or a party under its supervision of control; (2) improper or insufficient by Owner; or, (3) normal wear and tear and normal usage.

§ 3.1.13 Royalties, Patents and Copyrights

§ 3.1.13.1 The Design-Builder shall pay all royalties and license fees.

§ 3.1.13.2 The Design-Builder shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and its separate contractors and consultants harmless from loss on account thereof, but shall not be responsible for such defense or loss when a particular design, process or product of a particular manufacturer or manufacturers is required by the Owner, or where the copyright violations are required in the Owner's Criteria. However, if the Design-Builder has reason to believe that the design, process or product required in the Owner's Criteria is an infringement of a copyright or a patent, the Design-Builder shall be responsible for such loss unless such information is promptly furnished to the Owner. If the Owner receives notice from a patent or copyright, attributable to the Design-Builder, the Owner shall give prompt written notice to the Design-Builder.

§ 3.1.14 Indemnification

§ 3.1.14.1 To the fullest extent permitted by law, the Design-Builder shall indemnify, hold harmless, defend and reimburse the Owner and the members, agents, employees, officers, directors, and successors of any of them, from, for and against any and all suits, actions, awards, penalties, liabilities, claims, damages, losses and expenses, including but not limited to attorneys' fees and expert witness' fees, arising out of or resulting from performance of the Work, whether directly incurred or resulting from third-party claims, but only to the extent caused by: (1) the negligent acts or omissions of the Design-Builder, Architect, a Consultant, a Contractor, or (2) the failure of Design-Builder, Architect, Consultant, Contractor, or anyone directly or indirectly employed by them or anyone for whose acts they may be liable, to perform in accordance with the Contract. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Section 3.1.14.

§ 3.1.14.2 The indemnification obligation under this Section 3.1.14 shall not be limited by a limitation on amount or type of damages, compensation, or benefits payable by or for Design-Builder, Architect, a Consultant, a Contractor, or anyone directly or indirectly employed by them, under workers' compensation acts, disability benefit acts or other employee benefit acts.

§ 3.1.15 Contingent Assignment of Agreements

§ 3.1.15.1 Each agreement for a portion of the Work is assigned by the Design-Builder to the Owner, provided that

AIA Document A141[™] – 2014. Copyright © 2004 and 2014 by The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:24:21 ET on 03/23/2022 under Order No.2114287171 which expires on 02/03/2023, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents[®] Terms of Service. To report copyright violations, e-mail copyright@aia.org. User Notes: (1365848397)

- .1 assignment is effective only after termination of the Contract by the Owner for cause, pursuant to Sections 13.1.4 or 13.2.2, and only for those agreements that the Owner accepts by written notification to the Design-Builder and the Architect, Consultants, and Contractors whose agreements are accepted for assignment; and
- .2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

When the Owner accepts the assignment of an agreement, the Owner assumes the Design-Builder's rights and obligations under the agreement, except that the assumption of obligations under the agreement does not release Design-Builder from liability for damages attributable to breaches of the agreement.

§ 3.1.15.2 Upon such assignment, if the Work has been suspended for more than 30 days, the compensation under the assigned agreement shall be equitably adjusted for increases in cost resulting from the suspension.

§ 3.1.15.3 Upon such assignment to the Owner under this Section 3.1.15, the Owner may further assign the agreement to a successor design-builder or other entity. If the Owner assigns the agreement to a successor design-builder or other entity, the Owner shall nevertheless remain legally responsible for all of the successor design-builder's or other entity's obligations under the agreement.

§ 3.1.16 Design-Builder's Insurance and Bonds. The Design-Builder shall purchase and maintain insurance and provide bonds as set forth in Exhibit B.

ARTICLE 4 WORK PRIOR TO EXECUTION OF THE DESIGN-BUILD AMENDMENT

§ 4.1 General

§ 4.1.1 Any information submitted by the Design-Builder, and any interim decisions made by the Owner, shall be for the purpose of facilitating the design process and shall not modify the Owner's Criteria unless the Owner and Design-Builder execute a Modification.

§ 4.1.2 The Design-Builder shall advise the Owner on proposed site use and improvements, selection of materials, and building systems and equipment. The Design-Builder shall also provide the Owner with recommendations, consistent with the Owner's Criteria, on constructability; availability of materials and labor; time requirements for procurement, installation and construction; and factors related to construction cost including, but not limited to, costs of alternative designs or materials, preliminary budgets, life-cycle data, and possible cost reductions.

§ 4.2 Evaluation of the Owner's Criteria

§ 4.2.1 The Design-Builder shall schedule and conduct meetings with the Owner and any other necessary individuals or entities to discuss and review the Owner's Criteria as set forth in Section 1.1. The Design-Builder shall thereafter again meet with the Owner to discuss a preliminary evaluation of the Owner's Criteria. The preliminary evaluation shall address possible alternative approaches to design and construction of the Project and include the Design-Builder's recommendations, if any, with regard to accelerated or fast-track scheduling, procurement, or phased construction. The preliminary evaluation shall consider cost information, constructability, and procurement and construction scheduling issues.

§ 4.2.2 After the Design-Builder meets with the Owner and presents the preliminary evaluation, the Design-Builder shall provide a written report to the Owner, summarizing the Design-Builder's evaluation of the Owner's Criteria. The report shall also include

- allocations of program functions, detailing each function and their square foot areas; .1
- .2 a preliminary estimate of the Cost of the Work, and, if necessary, recommendations to adjust the Owner's Criteria to conform to the Owner's budget;
- .3 a preliminary schedule, which shall include proposed design milestones; dates for receiving additional information from, or for work to be completed by, the Owner; anticipated date for the Design-Builder's Proposal; and dates of periodic design review sessions with the Owner; and
- .4 the following:

(List additional information, if any, to be included in the Design-Builder's written report.)

N/A

Init.

1

AIA Document A141[™] - 2014. Copyright © 2004 and 2014 by The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA, the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 11 14:24:21 ET on 03/23/2022 under Order No.2114287171 which expires on 02/03/2023, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org. User Notes: (1365848397)

§ 4.2.3 The Owner shall review the Design-Builder's written report and, if acceptable, provide the Design-Builder with written consent to proceed to the development of the Preliminary Design as described in Section 4.3. The consent to proceed shall not be understood to modify the Owner's Criteria unless the Owner and Design-Builder execute a Modification.

§ 4.3 Preliminary Design

§ 4.3.1 Upon the Owner's issuance of a written consent to proceed under Section 4.2.3, the Design-Builder shall prepare and submit a Preliminary Design to the Owner. The Preliminary Design shall include a report identifying any deviations from the Owner's Criteria, and shall include the following:

- .1 Confirmation of the allocations of program functions;
- .2 Site plan;
- .3 Building plans, sections and elevations;
- .4 Structural system;
- .5 Selections of major building systems, including but not limited to mechanical, electrical and plumbing systems; and
- .6 Outline specifications or sufficient drawing notes describing construction materials.

The Preliminary Design may include some combination of physical study models, perspective sketches, or digital modeling.

§ 4.3.2 The Owner shall review the Preliminary Design and, if acceptable, provide the Design-Builder with written consent to proceed to development of the Construction Drawings. The Preliminary Design shall not modify the Owner's Criteria unless the Owner and Design-Builder execute a Modification.

§ 4.4 Construction Documents

§ 4.4.1 Upon

(Paragraphs deleted)

approval of the Preliminary Design, the Design-Builder shall prepare Construction Documents. The Construction Documents shall establish the quality levels of materials and systems required. The Construction Documents shall be consistent with the Design-Build Documents.

§ 4.4.2 The Design-Builder shall provide the Construction Documents to the Owner for the Owner's information. If the Owner discovers any deviations between the Construction Documents and the Design-Build Documents, the Owner shall promptly notify the Design-Builder of such deviations in writing. The Construction Documents shall not modify the Design-Build Documents unless the Owner and Design-Builder execute a Modification. The failure of the Owner to discover any such deviations shall not relieve the Design-Builder of the obligation to perform the Work in accordance with the Design-Build Documents.

4.5 Design-Builder's Proposal

(Paragraph deleted)

Init.

1

§ 4.5.1 Upon the Owner's issuance of a written consent to proceed, the Design-Builder shall prepare and submit the Design-Builder's Proposal to the Owner. The Owner's written consent to proceed with the Design-Builder's Proposal may occur prior to the completion of the Construction Documents, provided the timing is mutually agreed upon by the Owner and the Design-Builder. The Design-Builder's Proposal shall include the following:

- .1 A list of the Preliminary Design documents and other information, including the Design-Builder's clarifications, assumptions and deviations from the Owner's Criteria, upon which the Design-Builder's Proposal is based;
- .2 The proposed Contract Sum, including the compensation method and, if based upon the Cost of the Work plus a fee, a written statement of estimated cost organized by trade categories, allowances, contingencies, Design-Builder's Fee, and other items that comprise the Contract Sum;
- .3 The proposed date the Design-Builder shall achieve Substantial Completion;
- .4 An enumeration of any qualifications and exclusions, if applicable;
- .5 A list of the Design-Builder's key personnel, Contractors and suppliers; and
- .6 The date on which the Design-Builder's Proposal expires.

§ 4.5.2 Submission of the Design-Builder's Proposal shall constitute a representation by the Design-Builder that it has visited the site and become familiar with local conditions under which the Work is to be completed.

§ 4.5.3 If the Owner and Design-Builder agree on a proposal, the Owner and Design-Builder shall execute the Design-Build Amendment setting forth the terms of their agreement.

ARTICLE 5 WORK FOLLOWING EXECUTION OF THE DESIGN-BUILD AMENDMENT

(Paragraph deleted)

§ 5.1 Construction

§ 5.1.1 Commencement. Except as permitted in Section 5.1.2, construction shall not commence prior to execution of the Design-Build Amendment and Owner's approval of the Construction Documents.

§ 5.1.2 If the Owner and Design-Builder agree in writing, construction may proceed prior to the execution of the Design-Build Amendment. However, such authorization shall not waive the Owner's right to reject the Design-Builder's Proposal or otherwise limit Owner's rights and remedies under this Contract.

(Paragraph deleted)

§ 5.1.3 The Design-Builder shall supervise and direct the Work, using the Design-Builder's best skill and attention. The Design-Builder shall be solely responsible for, and have control over, construction means, methods, techniques, sequences and procedures, and for coordinating all portions of the Work under the Contract, unless the Design-Build Documents give other specific instructions concerning these matters.

§ 5.1.4 The Design-Builder shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work. Design-Builder shall notify Owner in writing, before commencement of any portion of the Work, of any defect, deficiency, or incompatibility of any portion of the Project performed by others, which defect, deficiency, or incompatibility would in any manner affect the performance or quality of the Work. The failure to notify Owner shall preclude Design-Builder from any claim, which otherwise may have been available under this Contract for additional compensation, damages, or extension of time.

§ 5.2 Labor and Materials

§ 5.2.1 Unless otherwise provided in the Design-Build Documents, the Design-Builder shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services, necessary for proper execution and completion of the Work, whether temporary or permanent, and whether or not incorporated or to be incorporated in the Work.

§ 5.2.2 When a material or system is specified in the Design-Build Documents, the Design-Builder may make substitutions only in accordance with Article 6.

§ 5.2.3 The Design-Builder shall enforce strict discipline and good order among the Design-Builder's employees and other persons carrying out the Work. The Design-Builder shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them.

(Paragraphs deleted)

§ 5.3 Taxes

The Design-Builder shall pay sales, consumer, use and similar taxes, for the Work provided by the Design-Builder, that are legally enacted when the Design-Build Amendment is executed, whether or not yet effective or merely scheduled to go into effect.

§ 5.4 Permits, Fees, Notices and Compliance with Laws

§ 5.4.1 Unless otherwise provided in the Design-Build Documents, the Design-Builder shall secure and the Owner shall pay for the building permit as well as any other permits, fees, licenses, and inspections by government agencies, necessary for proper execution of the Work and Substantial Completion of the Project.

§ 5.4.2 The Design-Builder shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, applicable to performance of the Work.

§ 5.4.3 Concealed or Unknown Conditions. If the Design-Builder encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Design-Build Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Design-Build Documents, the Design-Builder shall promptly provide notice to the Owner before conditions are disturbed and in no event later than 21 days after first observance of the conditions. The Owner shall promptly investigate such conditions and, if the Owner determines that they differ materially and cause an increase or decrease in the Design-Builder's cost of, or time required for, performance of any part of the Work, shall recommend an equitable adjustment in the Contract Sum or Contract Time, or both. If the Owner determines that the conditions at the site are not materially different from those indicated in the Design-Builder in writing, stating the reasons. If the Design-Builder disputes the Owner's determination or recommendation, the Design-Builder may proceed as provided in Article 14.

§ 5.4.4 If, in the course of the Work, the Design-Builder encounters human remains, or recognizes the existence of burial markers, archaeological sites, or wetlands, not indicated in the Design-Build Documents, the Design-Builder shall immediately suspend any operations that would affect them and shall notify the Owner. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Design-Builder shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Article 14.

§ 5.5 Allowances

§ 5.5.1 The Design-Builder shall include in the Contract Sum all allowances stated in the Design-Build Documents. Items covered by allowances shall be supplied for such amounts, and by such persons or entities as the Owner may direct, but the Design-Builder shall not be required to employ persons or entities to whom the Design-Builder has reasonable objection.

§ 5.5.2 Unless otherwise provided in the Design-Build Documents,

- .1 allowances shall cover the cost to the Design-Builder of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;
- .2 the Design-Builder's costs for unloading and handling at the site, labor, installation costs, overhead, profit, and other expenses contemplated for stated allowance amounts, shall be included in the Contract Sum but not in the allowances; and
- .3 whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 5.6.2.1 and (2) changes in Design-Builder's costs under Section 5.6.2.

§ 5.5.3 The Owner shall make selections of materials and equipment with reasonable promptness for allowances requiring Owner selection.

(Paragraphs deleted)

§ 5.6 Key Personnel, Contractors and Suppliers

§ 56..1 The Design-Builder shall not employ personnel, or contract with Contractors or suppliers to whom the Owner has made reasonable and timely objection. The Design-Builder shall not be required to contract with anyone to whom the Design-Builder has made reasonable and timely objection.

§ 5.6.2

(Paragraphs deleted)

If the Design-Builder changes any of the personnel, Contractors or suppliers identified in the Design-Build Amendment, the Design-Builder shall notify the Owner and provide the name and qualifications of the new personnel, Contractor or supplier. The Owner may reply within 14 days to the Design-Builder in writing, stating (1) whether the Owner has reasonable objection to the proposed personnel, Contractor or supplier or (2) that the Owner requires additional time to review. Failure of the Owner to reply within the 14-day period shall constitute notice of no reasonable objection.

Init.

AIA Document A141[™] – 2014. Copyright © 2004 and 2014 by The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:24:21 ET on 03/23/2022 under Order No.2114287171 which expires on 02/03/2023, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents[®] Terms of Service. To report copyright violations, e-mail copyright@aia.org. User Notes: (1365848397)

§ 5.6.3 Except for those persons or entities already identified or required in the Design-Build Amendment, the Design-Builder, as soon as practicable after execution of the Design-Build Amendment, shall furnish in writing to the Owner the names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each principal portion of the Work. The Owner may reply within 14 days to the Design-Builder in writing stating (1) whether the Owner has reasonable objection to any such proposed person or entity or (2) that the Owner requires additional time for review. Failure of the Owner to reply within the 14-day period shall constitute notice of no reasonable objection.

(Paragraphs deleted)

§ 5.6.3.1 If the Owner has reasonable objection to a person or entity proposed by the Design-Builder, the Design-Builder shall propose another to whom the Owner has no reasonable objection. If the rejected person or entity was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute person or entity's Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Design-Builder has acted promptly and responsively in submitting names as required.

(Paragraph deleted)

§ 5.7 Documents and Submittals at the Site

The Design-Builder shall maintain at the site for the Owner one copy of the Design-Build Documents and a current set of the Construction Documents, in good order and marked currently to indicate field changes and selections made during construction, and one copy of approved Submittals. The Design-Builder shall deliver these items to the Owner in accordance with Section 9.10.2 as a record of the Work as constructed.

§ 5.8 Use of Site

The Design-Builder shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, lawful orders of public authorities, and the Design-Build Documents, and shall not unreasonably encumber the site with materials or equipment.

(Paragraph deleted)

§ 5.9 Cutting and Patching

The Design-Builder shall not cut, patch or otherwise alter fully or partially completed construction by the Owner or a separate contractor except with written consent of the Owner and of such separate contractor; such consent shall not be unreasonably withheld. The Design-Builder shall not unreasonably withhold from the Owner or a separate contractor the Design-Builder's consent to cutting or otherwise altering the Work.

§ 5.10 Cleaning Up

(Paragraphs deleted)

§ 5.10.1 The Design-Builder shall keep the premises and surrounding area free from accumulation of waste materials or rubbish caused by operations under the Contract. At completion of the Work, the Design-Builder shall remove waste materials, rubbish, the Design-Builder's tools, construction equipment, machinery and surplus materials from and about the Project.

§ 5.10.2 If the Design-Builder fails to clean up as provided in the Design-Build Documents, the Owner may do so and Owner shall be entitled to reimbursement from the Design-Builder.

(Paragraphs deleted)

§ 5.11 Access to Work

The Design-Builder shall provide the Owner and its separate contractors and consultants access to the Work in preparation and progress wherever located. The Design-Builder shall notify the Owner regarding Project safety criteria and programs, which the Owner, and its contractors and consultants, shall comply with while at the site.

(Paragraphs deleted)

AIA Document A141[™] – 2014. Copyright © 2004 and 2014 by The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:24:21 ET on 03/23/2022 under Order No.2114287171 which expires on 02/03/2023, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents[®] Terms of Service. To report copyright violations, e-mail copyright@aia.org. User Notes: (1365848397)

§ 5.12 Construction by Owner or by Separate Contractors

§ 5.12.1 Owner's Right to Perform Construction and to Award Separate Contracts

§ 5.12.1.1 The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces; and to award separate contracts in connection with other portions of the Project, or other construction or operations on the site, under terms and conditions identical or substantially similar to this Contract, including those terms and conditions related to insurance and waiver of subrogation. The Owner shall notify the Design Builder promptly after execution of any separate contract. If the Design-Builder claims that delay or additional cost is involved because of such action by the Owner, the Design-Builder shall make a Claim as provided in Article 14.

(Paragraph deleted)

§ 5.12.1.2 When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Design-Builder" in the Design-Build Documents in each case shall mean the individual or entity that executes each separate agreement with the Owner.

(Paragraphs deleted)

§ 5.12.1.3 The Owner shall provide for coordination of the activities of the Owner's own forces, and of each separate contractor, with the Work of the Design-Builder, who shall cooperate with them. The Design-Builder shall participate with other separate contractors and the Owner in reviewing their construction schedules. The Design-Builder shall make any revisions to the construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Design-Builder, separate contractors and the Owner until subsequently revised.

§ 5.12.1.4 Unless otherwise provided in the Design-Build Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces or separate contractors, the Owner shall be deemed to be subject to the same obligations, and to have the same rights, that apply to the Design-Builder under the Contract.

(Paragraph deleted)

§ 5.13 Mutual Responsibility

(Paragraphs deleted)

§ 5.13.1 The Design-Builder shall afford the Owner and separate contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Design-Builder's construction and operations with theirs as required by the Design-Build Documents.

(Paragraphs deleted)

§ 5.13.2 If part of the Design-Builder's Work depends upon construction or operations by the Owner or a separate contractor, the Design-Builder shall, prior to proceeding with that portion of the Work, prepare a written report to the Owner, identifying apparent discrepancies or defects in the construction or operations by the Owner or separate contractor that would render it unsuitable for proper execution and results of the Design-Builder's Work. Failure of the Design-Builder to report shall constitute an acknowledgment that the Owner's or separate contractor's completed or partially completed construction is fit and proper to receive the Design-Builder's Work, except as to defects not then reasonably discoverable.

(Paragraphs deleted)

§ 5.13.3 The Design-Builder shall reimburse the Owner for costs the Owner incurs that are payable to a separate contractor because of the Design-Builder's delays, improperly timed activities or defective construction. The Owner shall be responsible to the Design-Builder for costs the Design-Builder incurs because of a separate contractor's delays, improperly timed activities, damage to the Work or defective construction.

(Paragraph deleted)

§ 5.13.4 The Design-Builder shall promptly remedy damage the Design-Builder wrongfully causes to completed or partially completed construction or to property of the Owner or separate contractors as provided in Section 10.2.5.

(Paragraphs deleted)

§ 5.13.5 The Owner and each separate contractor shall have the same responsibilities for cutting and patching the Work as the Design-Builder has with respect to the construction of the Owner or separate contractors in Section 5.10.

§ 5.14 Owner's Right to Clean Up

If a dispute arises among the Design-Builder, separate contractors and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and will allocate the cost among those responsible.

ARTICLE 6 CHANGES IN THE WORK

§ 6.1 General

§ 6.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order or Change Directive, subject to the limitations stated in this Article 6 and elsewhere in the Design-Build Documents.

§ 6.1.2 A Change Order shall be based upon agreement between the Owner and Design-Builder. The Owner may issue a Change Directive without agreement by the Design-Builder.

§ 6.1.3 Changes in the Work shall be performed under applicable provisions of the Design-Build Documents, and the Design-Builder shall proceed promptly, unless otherwise provided in the Change Order or Change Directive.

§ 6.2 Change Orders

A Change Order is a written instrument signed by the Owner and Design-Builder stating their agreement upon all of the following:

- .1 The change in the Work;
- .2 The amount of the adjustment, if any, in the Contract Sum or, if prior to execution of the Design-Build Amendment, the adjustment in the Design-Builder's compensation; and
- .3 The extent of the adjustment, if any, in the Contract Time.

§ 6.3 Change Directives

Init.

1

§ 6.3.1 A Change Directive is a written order signed by the Owner directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or, if prior to execution of the Design-Build Amendment, the adjustment in the Design-Builder's compensation, or Contract Time. The Owner may by Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Sum or, if prior to execution of the Design-Build Amendment, the adjustment in the Design-Builder's compensation, and Contract Time being adjusted accordingly.

§ 6.3.2 A Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

§ 6.3.3 If the Change Directive provides for an adjustment to the Contract Sum or, if prior to execution of the Design-Build Amendment, an adjustment in the Design-Builder's compensation, the adjustment shall be based on one of the following methods:

- .1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- .2 Unit prices stated in the Design-Build Documents or subsequently agreed upon;
- .3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
- .4 As provided in Section 6.3.7.

§ 6.3.4 If unit prices are stated in the Design-Build Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed in a proposed Change Order or Change Directive so that application of such unit prices to quantities of Work proposed will cause substantial inequity to the Owner or Design-Builder, the applicable unit prices shall be equitably adjusted.

§ 6.3.5 Upon receipt of a Change Directive, the Design-Builder shall promptly proceed with the change in the Work involved and advise the Owner of the Design-Builder's agreement or disagreement with the method, if any, provided in the Change Directive for determining the proposed adjustment in the Contract Sum or, if prior to execution of the Design-Builder's compensation, or Contract Time.

§ 6.3.6 A Change Directive signed by the Design-Builder indicates the Design-Builder's agreement therewith, including adjustment in Contract Sum or, if prior to execution of the Design-Build Amendment, the adjustment in the

Design-Builder's compensation, and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

§ 6.3.7 If the Design-Builder does not respond promptly or disagrees with the method for adjustment in the Contract Sum or, if prior to execution of the Design-Build Amendment, the method for adjustment in the Design-Builder's compensation, the Owner shall determine the method and the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase, an amount for overhead and profit as set forth in the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount. In such case, and also under Section 6.3.3.3, the Design-Builder shall keep and present, in such form as the Owner may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Design-Build Documents, costs for the purposes of this Section 6.3.7 shall be limited to the following:

- .1 Additional costs of professional services;
- .2 Costs of labor, including social security, unemployment insurance, fringe benefits required by agreement or custom, and workers' compensation insurance;
- .3 Costs of materials, supplies and equipment, including cost of transportation, whether incorporated or consumed;
- .4 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Design-Builder or others;
- .5 Costs of premiums for all bonds and insurance, permit fees, and sales, use or similar taxes related to the Work; and
- .6 Additional costs of supervision and field office personnel directly attributable to the change.

§ 6.3.8 The amount of credit to be allowed by the Design-Builder to the Owner for a deletion or change that results in a net decrease in the Contract Sum or, if prior to execution of the Design-Build Amendment, in the Design-Builder's compensation, shall be actual net cost. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

§ 6.3.9 Pending final determination of the total cost of a Change Directive to the Owner, the Design-Builder may request payment for Work completed under the Change Directive in Applications for Payment. The Owner will make an interim determination for purposes of certification for payment for those costs deemed to be reasonably justified. The Owner's interim determination of cost shall adjust the Contract Sum or, if prior to execution of the Design-Builder Amendment, the Design-Builder's compensation, on the same basis as a Change Order, subject to the right of Design-Builder to disagree and assert a Claim in accordance with Article 14.

§ 6.3.10 When the Owner and Design-Builder agree with a determination concerning the adjustments in the Contract Sum or, if prior to execution of the Design-Build Amendment, the adjustment in the Design-Builder's compensation and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Owner and Design-Builder shall execute a Change Order. Change Orders may be issued for all or any part of a Change Directive.

ARTICLE 7 OWNER'S RESPONSIBILITIES

§ 7.1 General

§ 7.1.1 The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all Project matters requiring the Owner's approval or authorization.

§ 7.1.2 The Owner shall render decisions in a timely manner and in accordance with the Design-Builder's schedule agreed to by the Owner. The Owner shall furnish to the Design-Builder, within 15 days after receipt of a written request, information necessary and relevant for the Design-Builder to evaluate, give notice of or enforce mechanic's lien rights. Such information shall include a correct statement of the record legal title to the property on which the Project is located, usually referred to as the site, and the Owner's interest therein.

§ 7.2 Information and Services Required of the Owner

§ 7.2.1 The Owner shall furnish information or services required of the Owner by the Design-Build Documents with reasonable promptness.

§ 7.2.2 The Owner shall provide, to the extent under the Owner's control and if not required by the Design-Build Documents to be provided by the Design-Builder, the results and reports of prior tests, inspections or investigations conducted for the Project involving structural or mechanical systems; chemical, air and water pollution; hazardous materials; or environmental and subsurface conditions and information regarding the presence of pollutants at the Project site. Upon receipt of a written request from the Design-Builder, the Owner shall also provide surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site under the Owner's control.

§ 7.2.3 The Owner shall promptly obtain easements, zoning variances, and legal authorizations or entitlements regarding site utilization where essential to the execution of the Project.

§ 7.2.4 The Owner shall cooperate with the Design-Builder in securing building and other permits, licenses and inspections.

§ 7.2.5 The services, information, surveys and reports required to be provided by the Owner under this Agreement, shall be furnished at the Owner's expense, and except as otherwise specifically provided in this Agreement or elsewhere in the Design-Build Documents or to the extent the Owner advises the Design-Builder to the contrary in writing, the Design-Builder shall be entitled to rely upon the accuracy and completeness thereof. In no event shall the Design-Builder be relieved of its responsibility to exercise proper precautions relating to the safe performance of the Work.

§ 7.2.6 If the Owner observes or otherwise becomes aware of a fault or defect in the Work or non-conformity with the Design-Build Documents, the Owner shall give prompt written notice thereof to the Design-Builder.

§ 7.2.7 Intentionally deleted.

§ 7.2.8 Except as otherwise provided in the Design-Build Documents or when direct communications have been specially authorized, the Owner shall communicate through the Design-Builder with persons or entities employed or retained by the Design-Builder.

§ 7.2.9 Intentionally deleted.

§ 7.2.10 Intentionally deleted.

§ 7.3 Submittals

§ 7.3.1 The Owner shall review and approve or take other appropriate action on Submittals. Review of Submittals is not conducted for the purpose of determining the accuracy and completeness of other details, such as dimensions and quantities; or for substantiating instructions for installation or performance of equipment or systems; or for determining that the Submittals are in conformance with the Design-Build Documents, all of which remain the responsibility of the Design-Builder as required by the Design-Build Documents. The Owner's action will be taken in accordance with the submittal schedule approved by the Owner or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Owner's judgment to permit adequate review. The Owner's review of Submittals shall not relieve the Design-Builder of the obligations under Sections 3.1.11, 3.1.12, and 5.2.3. The Owner's review of Submittals shall not relieve the Design-Builder of the obligations under the Contract. The Owner's review shall not constitute approval of safety precautions or, unless otherwise specifically stated by the Owner, of any construction means, methods, techniques, sequences or procedures. The Owner's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

§ 7.3.2 Upon review of the Submittals required by the Design-Build Documents, the Owner shall notify the Design-Builder of any non-conformance with the Design-Build Documents the Owner discovers.

§ 7.4 Visits to the site by the Owner shall not be construed to create an obligation on the part of the Owner to make on-site inspections to check the quality or quantity of the Work. The Owner shall neither have control over or charge of, nor be responsible for, the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, because these are solely the Design-Builder's rights and responsibilities under the Design-Build Documents.

Init. 1

AIA Document A141[™] - 2014. Copyright © 2004 and 2014 by The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA, the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 19 14:24:21 ET on 03/23/2022 under Order No.2114287171 which expires on 02/03/2023, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org. User Notes: (1365848397)

§ 7.5 The Owner shall not be responsible for the Design-Builder's failure to perform the Work in accordance with the requirements of the Design-Build Documents. The Owner shall not have control over or charge of, and will not be responsible for acts or omissions of the Design-Builder, Architect, Consultants, Contractors, or their agents or employees, or any other persons or entities performing portions of the Work for the Design-Builder.

§ 7.6 The Owner has the authority to reject Work that does not conform to the Design-Build Documents. The Owner shall have authority to require inspection or testing of the Work in accordance with Section 15.5.2, whether or not such Work is fabricated, installed or completed. However, neither this authority of the Owner nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Owner to the Design-Builder, the Architect, Consultants, Contractors, material and equipment suppliers, their agents or employees, or other persons or entities performing portions of the Work.

§ 7.7 The Owner shall determine the date or dates of Substantial Completion in accordance with Section 9.8 and the date of final completion in accordance with Section 9.10.

§ 7.8 Owner's Right to Stop Work

If the Design-Builder fails to correct Work which is not in accordance with the requirements of the Design-Build Documents as required by Section 11.2 or persistently fails to carry out Work in accordance with the Design-Build Documents, the Owner may issue a written order to the Design-Builder to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Design-Builder or any other person or entity, except to the extent required by Section 5.13.1.3.

§ 7.9 Owner's Right to Carry Out the Work

If the Design-Builder defaults or neglects to carry out the Work in accordance with the Design-Build Documents and fails within a ten-day period after receipt of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such deficiencies. In such case, an appropriate Change Order shall be issued deducting from payments then or thereafter due the Design-Builder the reasonable cost of correcting such deficiencies, including, but not limited to, the Owner's attorney's fees, related costs, disbursements and expenses. If payments then or thereafter due the Design-Builder to cover such amounts, the Design-Builder shall pay the difference to the Owner. The right of the Owner to correct deficiencies in the Work shall not give rise to any duty on the part of the Owner to exercise this right for the benefit of the Design-Builder or any other person or entity and shall not affect the Design-Builder's contractual duties under this Contract, including its warranty obligations.

ARTICLE 8 TIME

Init.

1

§ 8.1 Progress and Completion

§ 8.1.1 Time limits stated in the Design-Build Documents are of the essence of the Contract. By executing the Design-Build Amendment the Design-Builder confirms that the Contract Time is a reasonable period for performing the Work.

§ 8.1.2 The Design-Builder shall not, except by agreement of the Owner in writing, commence the Work prior to the effective date of insurance, other than property insurance, required by this Contract. The Contract Time shall not be adjusted as a result of the Design-Builder's failure to obtain insurance required under this Contract. Owner shall provide Design-Builder with a Notice to Commence Work and Design-Builder shall commence work within 5 working days of receiving the Notice.

§ 8.1.3 The Design-Builder shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

§ 8.2 Delays and Extensions of Time

§ 8.2.1 If the Design-Builder is delayed at any time in the commencement or progress of the Work by an act or neglect of the Owner or of a consultant or separate contractor employed by the Owner; or by changes ordered in the Work by the Owner; or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties or other causes beyond the Design-Builder's control; or by delay authorized by the Owner pending mediation and binding dispute resolution or by other causes that the Owner determines may justify delay, then the Contract Time shall be extended by Change Order for such reasonable time as the Owner may determine.

§ 8.2.2 Claims relating to time shall be made in accordance with applicable provisions of Article 14.

§ 8.2.3 This Section 8.2 does not preclude recovery of damages for delay by either party under other provisions of the Design-Build Documents.

ARTICLE 9 PAYMENT APPLICATIONS AND PROJECT COMPLETION

§ 9.1 Contract Sum

The Contract Sum is stated in the Design-Build Amendment.

§ 9.2 Schedule of Values

Where the Contract Sum is based on a stipulated sum or Guaranteed Maximum Price, the Design-Builder, at least ten days prior to the first Application for Payment after execution of the Design-Build Amendment shall submit to the Owner a schedule of values allocating the entire Contract Sum to the various portions of the Work and prepared in such form and supported by such data to substantiate its accuracy as the Owner may require. This schedule, unless objected to by the Owner, shall be used as a basis for reviewing the Design-Builder's Applications for Payment.

§ 9.3 Applications for Payment

§ 9.3.1 At least ten days before the date established for each progress payment, the Design-Builder shall submit to the Owner an itemized Application for Payment for completed portions of the Work. The application shall be notarized, if required, and supported by data substantiating the Design-Builder's right to payment as the Owner may require, such as copies of requisitions from the Architect, Consultants, Contractors, and material suppliers, and shall reflect retainage if provided for in the Design-Build Documents.

§ 9.3.1.1 As provided in Section 6.3.9, Applications for Payment may include requests for payment on account of changes in the Work that have been properly authorized by Change Directives, or by interim determinations of the Owner, but not yet included in Change Orders.

§ 9.3.1.2 Applications for Payment shall not include requests for payment for portions of the Work for which the Design-Builder does not intend to pay the Architect, Consultant, Contractor, material supplier, or other persons or entities providing services or work for the Design-Builder, unless such Work has been performed by others whom the Design-Builder intends to pay.

§ 9.3.2 Unless otherwise provided in the Design-Build Documents, payments shall be made for services provided as well as materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Design-Builder with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage and transportation to the site for such materials and equipment stored off the site.

§ 9.3.3 The Design-Builder warrants that title to all Work, other than Instruments of Service, covered by an Application for Payment will pass to the Owner no later than the time of payment. The Design-Builder further warrants that, upon submittal of an Application for Payment, all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Design-Builder's knowledge, information and belief, be free and clear of liens, claims, security interests or encumbrances in favor of the Design-Builder, Architect, Consultants, Contractors, material suppliers, or other persons or entities entitled to make a claim by reason of having provided labor, materials and equipment relating to the Work.

§ 9.4 Certificates for Payment

The Owner shall, within seven days after receipt of the Design-Builder's Application for Payment, issue to the Design-Builder a Certificate for Payment indicating the amount the Owner determines is properly due, and notify the Design-Builder in writing of the Owner's reasons for withholding certification in whole or in part as provided in Section 9.5.1.

AIA Document A141[™] – 2014. Copyright © 2004 and 2014 by The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:24:21 ET on 03/23/2022 under Order No.2114287171 which expires on 02/03/2023, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org. User Notes: (1365848397)

§ 9.5 Decisions to Withhold Certification

§ 9.5.1 The Owner may withhold a Certificate for Payment in whole or in part to the extent reasonably necessary to protect the Owner due to the Owner's determination that the Work has not progressed to the point indicated in the Design-Builder's Application for Payment, or the quality of the Work is not in accordance with the Design-Build Documents. If the Owner is unable to certify payment in the amount of the Application, the Owner will notify the Design-Builder as provided in Section 9.4. If the Design-Builder and Owner cannot agree on a revised amount, the Owner will promptly issue a Certificate for Payment for the amount that the Owner deems to be due and owing. The Owner may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued to such extent as may be necessary to protect the Owner from loss for which the Design-Builder is responsible because of

- .1 defective Work, including design and construction, not remedied;
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims unless security acceptable to the Owner is provided by the Design-Builder;
- .3 failure of the Design-Builder to make payments properly to the Architect, Consultants, Contractors or others, for services, labor, materials or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 damage to the Owner or a separate contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- .7 repeated failure to carry out the Work in accordance with the Design-Build Documents.

§ 9.5.2 When the above reasons for withholding certification are removed, certification will be made for amounts previously withheld.

§ 9.5.3 If the Owner withholds certification for payment under Section 9.5.1.3, the Owner may, at its sole option, issue joint checks to the Design-Builder and to the Architect or any Consultants, Contractor, material or equipment suppliers, or other persons or entities providing services or work for the Design-Builder to whom the Design-Builder failed to make payment for Work properly performed or material or equipment suitably delivered.

§ 9.6 Progress Payments

§ 9.6.1 After the Owner has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Design-Build Documents.

§ 9.6.2 The Design-Builder shall pay each Architect, Consultant, Contractor, and other person or entity providing services or work for the Design-Builder no later than the time period required by applicable law, but in no event more than seven days after receipt of payment from the Owner the amount to which the Architect, Consultant, Contractor, and other person or entity providing services or work for the Design-Builder is entitled, reflecting percentages actually retained from payments to the Design-Builder on account of the portion of the Work performed by the Architect, Consultant, Contractor, or other person or entity. The Design-Builder shall, by appropriate agreement with each Architect, Consultant, Contractor, and other person or entity providing services or work for the Design-Builder shall, by appropriate agreement with each Architect, Consultant, Contractor, and other person or entity providing services or work for the Design-Builder shall, by appropriate agreement with each Architect, Consultant, Contractor, and other person or entity providing services or work for the Design-Builder to make payments to subconsultants and subcontractors in a similar manner.

§ 9.6.3 The Owner will, on request and if practicable, furnish to the Architect, a Consultant, Contractor, or other person or entity providing services or work for the Design-Builder, information regarding percentages of completion or amounts applied for by the Design-Builder and action taken thereon by the Owner on account of portions of the Work done by such Architect, Consultant, Contractor or other person or entity providing services or work for the Design-Builder.

§ 9.6.4 The Owner has the right to request written evidence from the Design-Builder that the Design-Builder has properly paid the Architect, Consultants, Contractors, or other person or entity providing services or work for the Design-Builder, amounts paid by the Owner to the Design-Builder for the Work. If the Design-Builder fails to furnish such evidence within seven days, the Owner shall have the right to contact the Architect, Consultants, and Contractors to ascertain whether they have been properly paid. The Owner shall have no obligation to pay or to see to the payment of money to a Consultant or Contractor, except as may otherwise be required by law.

AIA Document A141[™] – 2014. Copyright © 2004 and 2014 by The American Institute of Architects. All rights reserved. The "American Institute of Architects, "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:24:21 ET on 03/23/2022 under Order No.2114287171 which expires on 02/03/2023, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents[®] Terms of Service. To report copyright violations, e-mail copyright@aia.org. User Notes: (1365848397)

§ 9.6.5 Design-Builder payments to material and equipment suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.

§ 9.6.6 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Design-Build Documents.

§ 9.6.7 Unless the Design-Builder provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Design-Builder for Work properly performed by the Architect, Consultants, Contractors and other person or entity providing services or work for the Design-Builder, shall be held by the Design-Builder for the Architect and those Consultants, Contractors, or other person or entity providing services or work for the Design-Builder, for which payment was made by the Owner. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Design-Builder, shall create any fiduciary liability or tort liability on the part of the Design-Builder for breach of trust or shall entitle any person or entity to an award of punitive damages against the Design-Builder for breach of the requirements of this provision.

§ 9.7 Failure of Payment

If the Owner does not issue a Certificate for Payment, through no fault of the Design-Builder, within the time required by the Design-Build Documents, then the Design-Builder may, upon seven additional days' written notice to the Owner, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Design-Builder's reasonable costs of shut-down, delay and start-up, plus interest as provided for in the Design-Build Documents.

§ 9.8 Substantial Completion

Init.

1

§ 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Design-Build Documents so that the Owner can occupy or utilize the Work for its intended use. The date of Substantial Completion is the date certified by the Owner in accordance with this Section 9.8.

§ 9.8.2 When the Design-Builder considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Design-Builder shall prepare and submit to the Owner a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Design-Builder to complete all Work in accordance with the Design-Build Documents.

§ 9.8.3 Upon receipt of the Design-Builder's list, the Owner shall make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Owner's inspection discloses any item, whether or not included on the Design-Builder's list, which is not sufficiently complete in accordance with the Design-Build Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Design-Builder shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Owner. In such case, the Design-Builder shall then submit a request for another inspection by the Owner to determine Substantial Completion.

§ 9.8.4 Prior to issuance of the Certificate of Substantial Completion under Section 9.8.5, the Owner and Design-Builder shall discuss and then determine the parties' obligations to obtain and maintain property insurance following issuance of the Certificate of Substantial Completion.

§ 9.8.5 When the Work or designated portion thereof is substantially complete, the Design-Builder will prepare for the Owner's signature a Certificate of Substantial Completion that shall, upon the Owner's signature, establish the date of Substantial Completion; establish responsibilities of the Owner and Design-Builder for security, maintenance, heat, utilities, damage to the Work and insurance; and fix the time within which the Design-Builder shall finish all items on the list accompanying the Certificate. Warranties required by the Design-Build Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 9.8.6 The Certificate of Substantial Completion shall be submitted by the Design-Builder to the Owner for written acceptance of responsibilities assigned to it in the Certificate. Upon the Owner's acceptance, and consent of surety, if any, the Owner shall make payment of retainage applying to the Work or designated portion thereof. Payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Design-Build Documents.

§ 9.9 Partial Occupancy or Use

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Design-Builder, provided such occupancy or use is consented to, by endorsement or otherwise, by the insurer providing property insurance and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Design-Builder have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Design-Build Documents. When the Design-Builder considers a portion substantially complete, the Design-Builder shall prepare and submit a list to the Owner as provided under Section 9.8.2. Consent of the Design-Builder to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Design-Builder.

§ 9.9.2 Immediately prior to such partial occupancy or use, the Owner and Design-Builder shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

§ 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Design-Build Documents.

§ 9.10 Final Completion and Final Payment

§ 9.10.1 Upon receipt of the Design-Builder's written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Owner will promptly make such inspection. When the Owner finds the Work acceptable under the Design-Build Documents and the Contract fully performed, the Owner will, subject to Section 9.10.2, promptly issue a final Certificate for Payment.

§ 9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Design-Builder submits to the Owner (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work, for which the Owner or the Owner's property might be responsible or encumbered, (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Design-Build Documents to remain in force after final payment is currently in effect, (3) a written statement that the Design-Builder knows of no substantial reason that the insurance will not be renewable to cover the period required by the Design-Build Documents, (4) consent of surety, if any, to final payment, (5) as-constructed record copy of the Construction Documents marked to indicate field changes and selections made during construction, (6) manufacturer's warranties, product data, and maintenance and operations manuals, and (7) if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts, or releases and waivers of liens, claims, security interests, or encumbrances, arising out of the Contract, to the extent and in such form as may be designated by the Owner. If an Architect, a Consultant, or a Contractor, or other person or entity providing services or work for the Design-Builder, refuses to furnish a release or waiver required by the Owner, the Design-Builder may furnish a bond satisfactory to the Owner to indemnify the Owner against such liens, claims, security interests, or encumbrances. If such liens, claims, security interests, or encumbrances remains unsatisfied after payments are made, the Design-Builder shall refund to the Owner all money that the Owner may be compelled to pay in discharging such liens, claims, security interests, or encumbrances, including all costs and reasonable attorneys' fees.

§ 9.10.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Design-Builder or by issuance of Change Orders affecting final completion, the Owner shall, upon application by the Design-Builder, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Design-Build Documents, and if bonds have been furnished, the written consent of surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Design-Builder to the Owner prior to issuance of payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

§ 9.10.4 The making of final payment shall constitute a waiver of Claims by the (Paragraphs deleted) Owner.

Init. 1

AIA Document A141[™] - 2014. Copyright © 2004 and 2014 by The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA, the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 24 14:24:21 ET on 03/23/2022 under Order No.2114287171 which expires on 02/03/2023, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org. User Notes: (1365848397)

§ 9.10.5 Acceptance of final payment by the Design-Builder shall constitute a waiver of claims by the Design-Builder except those previously made in writing and identified by the Design-Builder as unsettled at the time of final Application for Payment.

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

§ 10.1 Safety Precautions and Programs

The Design-Builder shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract. In addition, Design-Builder shall be responsible for the security and protection of its equipment, supplies and tools used in connection the Work.

§ 10.2 Safety of Persons and Property

§ 10.2.1 The Design-Builder shall be responsible for precautions for the safety of, and reasonable protection to prevent damage, injury or loss to

- .1 employees on the Work and other persons who may be affected thereby;
- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of the Design-Builder or the Architect, Consultants, or Contractors, or other person or entity providing services or work for the Design-Builder; and
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, or structures and utilities not designated for removal, relocation or replacement in the course of construction.

§ 10.2.2 The Design-Builder shall comply with, and give notices required by, Applicable Laws, and lawful orders of public authorities, bearing on safety of persons or property, or their protection from damage, injury or loss.

10.2.3 The general implement, erect, and maintain, as required by existing conditions and performance f the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations, and notify owners and users of adjacent sites and utilities of the safeguards and protections.

§ 10.2.4 When use or storage of explosives or other hazardous materials or equipment, or unusual methods, are necessary for execution of the Work, the Design-Builder shall exercise utmost care, and carry on such activities under supervision of properly qualified personnel.

§ 10.2.5 The Design-Builder shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Design-Build Documents) to property referred to in Sections 10.2.1.2 and 10.2.1.3, caused in whole or in part by the Design-Builder, the Architect, a Consultant, a Contractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Design-Builder is responsible under Sections 10.2.1.2 and 10.2.1.3; except damage or loss attributable to acts or omissions of the Owner, or anyone directly or indirectly employed by the Owner, or by anyone for whose acts the Owner may be liable, and not attributable to the fault or negligence of the Design-Builder. The foregoing obligations of the Design-Builder are in addition to the Design-Builder's obligations under Section 3.1.14.

§ 10.2.6 The Design-Builder shall designate a responsible member of the Design-Builder's organization, at the site, whose duty shall be the prevention of accidents. This person shall be the Design-Builder's superintendent unless otherwise designated by the Design-Builder in writing to the Owner.

§ 10.2.7 The Design-Builder shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

§ 10.2.8 Injury or Damage to Person or Property. If the Owner or Design-Builder suffers injury or damage to person or property because of an act or omission of the other, or of others for whose acts such party is legally responsible, written notice of the injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

AIA Document A141[™] – 2014. Copyright © 2004 and 2014 by The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:24:21 ET on 03/23/2022 under Order No.2114287171 which expires on 02/03/2023, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org. User Notes: (1365848397)

§ 10.3 Hazardous Materials

§ 10.3.1 The Design-Builder is responsible for compliance with any requirements included in the Design-Build Documents regarding hazardous materials. If the Design-Builder encounters a hazardous material or substance not addressed in the Design-Build Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Design-Builder, the Design-Builder shall, upon recognizing the condition, immediately stop Work in the affected area and report the condition to the Owner in writing.

§ 10.3.2 Upon receipt of the Design-Builder's written notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Design-Builder and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Design-Build Documents, the Owner shall furnish in writing to the Design-Builder the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of such material or substance or who are to perform tests verifying the presence or absence. The Design-Builder will promptly reply to the Owner in writing stating whether or not the Design-Builder has reasonable objection to the persons or entities proposed by the Owner. If the Design-Builder has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Design-Builder has no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Design-Builder. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased in the amount of the Design-Builder's reasonable additional costs of shut-down, delay and start-up.

§ 10.3.3 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Design-Builder, the Architect, Consultants, and Contractors, and employees of any of them, from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area, if in fact the material or substance presents the risk of bodily injury or death as described in Section 10.3.1 and has not been rendered harmless, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to, or destruction of, tangible property (other than the Work itself), except to the extent that such damage, loss or expense is due to the fault or negligence of the party seeking indemnity.

§ 10.3.4 The Owner shall not be responsible under this Section 10.3 for materials or substances the Design-Builder brings to the site unless such materials or substances are required by the Owner's Criteria. The Owner shall be responsible for materials or substances required by the Owner's Criteria, except to the extent of the Design-Builder's fault or negligence in the use and handling of such materials or substances.

§ 10.3.5 The Design-Builder shall indemnify the Owner for the cost and expense the Owner incurs (1) for remediation of a material or substance the Design-Builder brings to the site and negligently handles, or (2) where the Design-Builder fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.

§ 10.3.6 If, without negligence on the part of the Design-Builder, the Design-Builder is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Design-Build Documents, the Owner shall indemnify the Design-Builder for all cost and expense thereby incurred.

§ 10.4 Emergencies

Init.

1

In an emergency affecting safety of persons or property, the Design-Builder shall act, at the Design-Builder's discretion, to prevent threatened damage, injury or loss.

ARTICLE 11 UNCOVERING AND CORRECTION OF WORK

§ 11.1 Uncovering of Work

The Owner may request to examine a portion of the Work that the Design-Builder has covered to determine if the Work has been performed in accordance with the Design-Build Documents. If such Work is in accordance with the Design-Build Documents, the Owner and Design-Builder shall execute a Change Order to adjust the Contract Time and Contract Sum, as appropriate. If such Work is not in accordance with the Design-Build Documents, the costs of uncovering and correcting the Work shall be at the Design-Builder's expense and the Design-Builder shall not be

entitled to a change in the Contract Time unless the condition was caused by the Owner or a separate contractor in which event the Owner shall be responsible for payment of such costs and the Contract Time will be adjusted as appropriate.

§ 11.2 Correction of Work

§ 11.2.1 Before or After Substantial Completion. The Design-Builder shall promptly correct Work rejected by the Owner or failing to conform to the requirements of the Design-Build Documents, whether discovered before or after Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for any design consultant employed by the Owner whose expenses and compensation were made necessary thereby, and the Owner's attorneys' fees and related costs and disbursement, which costs shall be at the Design-Builder's expense.

§ 11.2.2 After Substantial Completion

§ 11.2.2.1 In addition to the Design-Builder's obligations under Section 3.1.12, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 9.9.1, or by terms of an applicable special warranty required by the Design-Build Documents, any of the Work is found not to be in accordance with the requirements of the Design-Build Documents, the Design-Builder shall correct it promptly after receipt of written notice from the Owner to do so unless the Owner has previously given the Design-Builder a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of the Work, if the Owner fails to notify the Design-Builder and give the Design-Builder and poportunity to make the correction, the Owner waives the rights to require correction by the Design-Builder and to make a claim for breach of warranty. If the Design-Builder fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner, the Owner may correct it in accordance with Section 7.9.

§ 11.2.2.2 The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

§ 11.2.2.3 The one-year period for correction of Work shall not be extended by corrective Work performed by the Design-Builder pursuant to this Section 11.2.

§ 11.2.3 The Design-Builder shall remove from the site portions of the Work that are not in accordance with the requirements of the Design-Build Documents and are neither corrected by the Design-Builder nor accepted by the Owner.

§ 11.2.4 The Design-Builder shall bear the cost of correcting destroyed or damaged construction of the Owner or separate contractors, whether completed or partially completed, caused by the Design-Builder's correction or removal of Work that is not in accordance with the requirements of the Design-Build Documents.

§ 11.2.5 Nothing contained in this Section 11.2 shall be construed to establish a period of limitation with respect to other obligations the Design-Builder has under the Design-Build Documents. Establishment of the one-year period for correction of Work as described in Section 11.2.2 relates only to the specific obligation of the Design-Builder to correct the Work, and has no relationship to the time within which the obligation to comply with the Design-Build Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Design-Builder's liability with respect to the Design-Builder's obligations other than specifically to correct the Work.

§ 11.3 Acceptance of Nonconforming Work

If the Owner prefers to accept Work that is not in accordance with the requirements of the Design-Build Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

ARTICLE 12 COPYRIGHTS AND LICENSES

Init.

1

§ 12.1 Drawings, specifications, and other documents furnished by the Design-Builder, including those in electronic form, are Instruments of Service. The Design-Builder, and the Architect, Consultants, Contractors, and any other person or entity providing services or work for any of them, shall be deemed the authors and owners of their respective

Instruments of Service, including the Drawings and Specifications, and shall retain all common law, statutory and other reserved rights, including copyrights. Submission or distribution of Instruments of Service to meet official regulatory requirements, or for similar purposes in connection with the Project, is not to be construed as publication in derogation of the reserved rights of the Design-Builder and the Architect, Consultants, and Contractors, and any other person or entity providing services or work for any of them.

§ 12.2 The Design-Builder and the Owner warrant that in transmitting Instruments of Service, or any other information, the transmitting party is the copyright owner of such information or has permission from the copyright owner to transmit such information for its use on the Project.

§ 12.3 Upon execution of the Agreement, the Design-Builder grants to the Owner a limited, irrevocable and non-exclusive license to use the Instruments of Service solely and exclusively for purposes of constructing, using, maintaining, altering and adding to the Project, provided that the Owner substantially performs its obligations, including prompt payment of all sums when due, under the Design-Build Documents. The license granted under this section permits the Owner to authorize its consultants and separate contractors to reproduce applicable portions of the Instruments of Service solely and exclusively for use in performing services or construction for the Project. If the Design-Builder rightfully terminates this Agreement for cause as provided in Section 13.1.4 or 13.2.1 the license granted in this Section 12.3 shall terminate.

§ 12.3.1 The Design-Builder shall obtain non-exclusive licenses from the Architect, Consultants, and Contractors, that will allow the Design-Builder to satisfy its obligations to the Owner under this Article 12. The Design-Builder's licenses from the Architect and its Consultants and Contractors shall also allow the Owner, in the event this Agreement is terminated for any reason other than the default of the Owner or in the event the Design-Builder's Architect, Consultants, or Contractors terminate their agreements with the Design-Builder for cause, to obtain a limited, irrevocable and non-exclusive license solely and exclusively for purposes of constructing, using, maintaining, altering and adding to the Project, provided that the Owner (1) agrees to pay to the Architect, Consultant or Contractor all amounts due, and (2) provide the Architect, Consultant or Contractor from all costs and expenses, including the cost of defense, related to claims and causes of action asserted by any third person or entity to the extent such costs and expenses arise from the Owner's alteration or use of the Instruments of Service.

§ 12.3.2 In the event the Owner alters the Instruments of Service without the author's written authorization or uses the Instruments of Service without retaining the authors of the Instruments of Service, the Owner releases the Design-Builder, Architect, Consultants, Contractors and any other person or entity providing services or work for any of them, from all claims and causes of action arising from or related to such uses. The Owner, to the extent permitted by law, further agrees to indemnify and hold harmless the Design-Builder, Architect, Consultants, Contractors and any of them, from all costs and expenses, including the cost of defense, related to claims and causes of action asserted by any third person or entity to the extent such costs and expenses arise from the Owner's alteration or use of the Instruments of Service under this Section 12.3.2. The terms of this Section 12.3.2 shall not apply if the Owner rightfully terminates this Agreement for cause under Sections 13.1.4 or 13.2.2.

ARTICLE 13 TERMINATION OR SUSPENSION

Init.

1

§ 13.1 Termination or Suspension Prior to Execution of the Design-Build Amendment

§ 13.1.1 If the Owner fails to make payments to the Design-Builder for Work prior to execution of the Design-Build Amendment in accordance with this Agreement, such failure shall be considered substantial nonperformance and cause for termination or, at the Design-Builder's option, cause for suspension of performance of services under this Agreement. If the Design-Builder elects to suspend the Work, the Design-Builder shall give seven days' written notice to the Owner before suspending the Work. In the event of a suspension of the Work, the Design-Builder shall have no liability to the Owner for delay or damage caused by the suspension of the Work. Before resuming the Work, the Design-Builder shall be paid all sums due prior to suspension and any expenses incurred in the interruption and resumption of the Design-Builder's Work. The Design-Builder's compensation for, and time to complete, the remaining Work shall be equitably adjusted.

§ 13.1.2 If the Owner suspends the Project, the Design-Builder shall be compensated for the Work performed prior to notice of such suspension. When the Project is resumed, the Design-Builder shall be compensated for expenses

incurred in the interruption and resumption of the Design-Builder's Work. The Design-Builder's compensation for, and time to complete, the remaining Work shall be equitably adjusted.

§ 13.1.3 If the Owner suspends the Project for more than 90 cumulative days for reasons other than the fault of the Design-Builder, the Design-Builder may terminate this Agreement by giving not less than seven days' written notice.

§ 13.1.4 Either party may terminate this Agreement upon not less than fourteen days' written notice should the other party fail substantially to perform in accordance with the terms of this Agreement through no fault of the party initiating the termination.

§ 13.1.5 The Owner may terminate this Agreement upon not less than seven days' written notice to the Design-Builder for the Owner's convenience and without cause.

§ 13.1.6 In the event of termination not the fault of the Design-Builder, the Design-Builder shall be compensated for Work performed prior to termination, together with Reimbursable Expenses then due and any other expenses directly attributable to termination for which the Design-Builder is not otherwise compensated. In no event shall the Design-Builder's compensation under this Section 13.1.6 be greater than the compensation set forth in Section 2.1.

§ 13.2 Termination or Suspension Following Execution of the Design-Build Amendment

§ 13.2.1 Termination by the Design-Builder

§ 13.2.1.1 The Design-Builder may terminate the Contract if the Work is stopped for a period of 60 consecutive days through no act or fault of the Design-Builder, the Architect, a Consultant, or a Contractor, or their agents or employees, or any other persons or entities performing portions of the Work under direct or indirect contract with the Design-Builder, for any of the following reasons:

- Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be .1 stopped;
- .2 An act of government, such as a declaration of national emergency that requires all Work to be stopped;
- .3 Because the Owner has not issued a Certificate for Payment and has not notified the Design-Builder of the reason for withholding certification as provided in Section 9.5.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Design-Build Documents; or
- § 13.2.1.2 Intentionally deleted.
- § 13.2.1.3 Intentionally deleted.
- § 13.2.1.4 Intentionally deleted.

Init.

1

§ 13.2.2 Termination by the Owner For Cause

- § 13.2.2.1 The Owner may terminate the Contract if the Design-Builder
 - .1 fails to submit the Proposal by the date required by this Agreement, or if no date is indicated, within a reasonable time consistent with the date of Substantial Completion;
 - .2 repeatedly refuses or fails to supply an Architect, or enough properly skilled Consultants, Contractors, or workers or proper materials;
 - .3 fails to make payment to the Architect, Consultants, or Contractors for services, materials or labor in accordance with their respective agreements with the Design-Builder;
 - repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful .4 orders of a public authority; or
 - .5 is otherwise guilty of substantial breach of a provision of the Design-Build Documents.

§ 13.2.2.2 When any of the above reasons exist, the Owner may without prejudice to any other rights or remedies of the Owner and after giving the Design-Builder and the Design-Builder's surety, if any, seven days' written notice, terminate employment of the Design-Builder and may, subject to any prior rights of the surety:

- Exclude the Design-Builder from the site and take possession of all materials, equipment, tools, and .1 construction equipment and machinery thereon owned by the Design-Builder;
- .2 Accept assignment of the Architect, Consultant and Contractor agreements pursuant to Section 3.1.15; and

Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request .3 of the Design-Builder, the Owner shall furnish to the Design-Builder a detailed accounting of the costs incurred by the Owner in finishing the Work.

§ 13.2.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 13.2.2.1, the Design-Builder shall not be entitled to receive further payment until the Work is finished.

§ 13.2.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Design-Builder. If such costs and damages exceed the unpaid balance, the Design-Builder shall pay the difference to the Owner. The obligation for such payments shall survive termination of the Contract.

§ 13.2.3 Suspension by the Owner for Convenience

§ 13.2.3.1 The Owner may, without cause, order the Design-Builder in writing to suspend, delay or interrupt the Work in whole or in part for such period of time as the Owner may determine.

§ 13.2.3.2 The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay or interruption as described in Section 13.2.3.1. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent

- .1 that performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Design-Builder is responsible; or
- .2 that an equitable adjustment is made or denied under another provision of the Contract.

§ 13.2.4 Termination by the Owner for Convenience

§ 13.2.4.1 The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.

§ 13.2.4.2 Upon receipt of written notice from the Owner of such termination for the Owner's convenience, the Design-Builder shall

- .1 cease operations as directed by the Owner in the notice;
- .2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and.
- .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing Project agreements, including agreements with the Architect, Consultants, Contractors, and purchase orders, and enter into no further Project agreements and purchase orders.

§ 13.2.4.3 In case of such termination for the Owner's convenience, the Design-Builder shall be entitled to receive payment for Work executed, and costs incurred by reason of such termination, along with reasonable overhead and profit on the Work not executed.

ARTICLE 14 CLAIMS AND DISPUTE RESOLUTION

§ 14.1 Claims

§ 14.1.1 Definition. A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Design-Builder arising out of or relating to the Contract. The responsibility to substantiate Claims shall rest with the party making the Claim.

§ 14.1.2 Time Limits on Claims. The Owner and Design-Builder shall commence all claims and causes of action, whether in contract, tort, breach of warranty or otherwise, against the other, arising out of or related to the Contract in accordance with the requirements of the binding dispute resolution method selected in Section 1.3, within the time period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Design-Builder waive all claims and causes of action not commenced in accordance with this Section 14.1.2.

§ 14.1.3 Notice of Claims

Init.

1

§ 14.1.3.1 Prior To Final Payment. Prior to Final Payment, Claims by either the Owner or Design-Builder must be initiated by written notice to the other party within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later.

§ 14.1.3.2 Claims Arising After Final Payment. After Final Payment, Claims by either the Owner or Design-Builder that have not otherwise been waived pursuant to Sections 9.10.4 or 9.10.5, must be initiated by prompt written notice to the other party. The notice requirement in Section 14.1.3.1 and the Initial Decision requirement as a condition precedent to mediation in Section 14.2.1 shall not apply.

§ 14.1.4 Continuing Contract Performance. Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Section 9.7 and Article 13, the Design-Builder shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Design-Build Documents.

§ 14.1.5 Claims for Additional Cost. If the Design-Builder intends to make a Claim for an increase in the Contract Sum, written notice as provided herein shall be given before proceeding to execute the portion of the Work that relates to the Claim. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.4.

§ 14.1.6 Claims for Additional Time

§ 14.1.6.1 If the Design-Builder intends to make a Claim for an increase in the Contract Time, written notice as provided herein shall be given. The Design-Builder's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay, only one Claim is necessary.

§ 14.1.6.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated, and had an adverse effect on the scheduled construction.

§ 14.1.7 Claims for Consequential Damages

The Design-Builder and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes

- damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, .1 business and reputation, and for loss of management or employee productivity or of the services of such persons; and
- .2 damages incurred by the Design-Builder for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 13. Nothing contained in this Section 14.1.7 shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of the Design-Build Documents.

§ 14.2 Initial Decision

§ 14.2.1 An initial decision shall be required as a condition precedent to mediation of all Claims between the Owner and Design-Builder initiated prior to the date final payment is due, excluding those arising under Sections 10.3 and 10.4 of the Agreement and Sections B.3.2.9 and B.3.2.10 of Exhibit B to this Agreement, unless 30 days have passed after the Claim has been initiated with no decision having been rendered. Unless otherwise mutually agreed in writing, the Owner shall render the initial decision on Claims.

§ 14.2.2 Procedure

Init.

1

§ 14.2.2.1 Claims Initiated by the Owner. If the Owner initiates a Claim, the Design-Builder shall provide a written response to Owner within ten days after receipt of the notice required under Section 14.1.3.1. Thereafter, the Owner shall render an initial decision within ten days of receiving the Design-Builder's response: (1) withdrawing the Claim in whole or in part, (2) approving the Claim in whole or in part, or (3) suggesting a compromise.

§ 14.2.2.2 Claims Initiated by the Design-Builder. If the Design-Builder initiates a Claim, the Owner will take one or more of the following actions within ten days after receipt of the notice required under Section 14.1.3.1: (1) request additional supporting data, (2) render an initial decision rejecting the Claim in whole or in part, (3) render an initial decision approving the Claim, (4) suggest a compromise or (5) indicate that it is unable to render an initial decision because the Owner lacks sufficient information to evaluate the merits of the Claim.

§ 14.2.3 In evaluating Claims, the Owner may, but shall not be obligated to, consult with or seek information from persons with special knowledge or expertise who may assist the Owner in rendering a decision. The retention of such persons shall be at the Owner's expense.

§ 14.2.4 If the Owner requests the Design-Builder to provide a response to a Claim or to furnish additional supporting data, the Design-Builder shall respond, within ten days after receipt of such request, and shall either (1) provide a response on the requested supporting data, (2) advise the Owner when the response or supporting data will be furnished or (3) advise the Owner that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Owner will either reject or approve the Claim in whole or in part.

§ 14.2.5 The Owner's initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) identify any change in the Contract Sum or Contract Time or both. The initial decision shall be final and binding on the parties but subject to mediation and, if the parties fail to resolve their dispute through mediation, to binding dispute resolution.

§ 14.2.6 Either party may file for mediation of an initial decision at any time, subject to the terms of Section 14.2.6.1.

§ 14.2.6.1 Either party may, within 30 days from the date of an initial decision, demand in writing that the other party file for mediation within 60 days of the initial decision. If such a demand is made and the party receiving the demand fails to file for mediation within the time required, then both parties waive their rights to mediate or pursue binding dispute resolution proceedings with respect to the initial decision.

§ 14.2.7 In the event of a Claim against the Design-Builder, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Design-Builder's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

§ 14.2.8 If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

§ 14.3 Mediation

§ 14.3.1 Claims, disputes, or other matters in controversy arising out of or related to the Contract, except those waived as provided for in Sections 9.10.4, 9.10.5, and 14.1.7, shall be subject to mediation as a condition precedent to binding dispute resolution.

§ 14.3.2 The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration proceeding is stayed pursuant to this Section 14.3.2, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.

§ 14.3.3 The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction.

§ 14.4 Arbitration

§ 14.4.1 If the parties have selected arbitration as the method for binding dispute resolution in Section 1.3, any Claim subject to, but not resolved by, mediation shall be subject to arbitration which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of the Agreement. A demand for arbitration shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the arbitration. The party filing a notice of demand for arbitration must assert in the demand all Claims then known to that party on which arbitration is permitted to be demanded.

AIA Document A141[™] - 2014. Copyright © 2004 and 2014 by The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA, the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 32 14:24:21 ET on 03/23/2022 under Order No.2114287171 which expires on 02/03/2023, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents® Terms of Service. To report copyright violations, e-mail copyright@aia.org. User Notes: (1365848397)

§ 14.4.1.1 A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the Claim would be barred by the applicable statute of limitations or statute of repose. For statute of limitations or statute of repose purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the Claim.

§ 14.4.2 The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction.

§ 14.4.3 The foregoing agreement to arbitrate, and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement, shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

§ 14.4.4 Consolidation or Joinder

§ 14.4.1 Either party, at its sole discretion, may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation, (2) the arbitrations to be consolidated substantially involve common questions of law or fact, and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

§ 14.4.2 Either party, at its sole discretion, may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of any claim, dispute or other matter in question not described in the written consent.

§ 14.4.3 The Owner and Design-Builder grant to any person or entity made a party to an arbitration conducted under this Section 14.4, whether by joinder or consolidation, the same rights of joinder and consolidation as the Owner and Design-Builder under this Agreement.

ARTICLE 15 MISCELLANEOUS PROVISIONS

§ 15.1 Governing Law

The Contract shall be governed by the law of the place where the Project is located except that, if the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 14.4.

§ 15.2 Successors and Assigns

§ 15.2.1 The Owner and Design-Builder, respectively, bind themselves, their partners, successors, assigns and legal representatives to the covenants, agreements and obligations contained in the Design-Build Documents. Except as provided in Section 15.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 15.2.2 The Owner may, without consent of the Design-Builder, assign the Contract to a lender providing construction financing for the Project, if the lender assumes the Owner's rights and obligations under the Design-Build Documents. The Design-Builder shall execute all consents reasonably required to facilitate such assignment.

§ 15.2.3 If the Owner requests the Design-Builder, Architect, Consultants, or Contractors to execute certificates, other than those required by Section 3.1.10, the Owner shall submit the proposed language of such certificates for review at least 14 days prior to the requested dates of execution. If the Owner requests the Design-Builder, Architect, Consultants, or Contractors to execute consents reasonably required to facilitate assignment to a lender, the Design-Builder, Architect, Consultants, or Contractors shall execute all such consents that are consistent with this Agreement, provided the proposed consent is submitted to them for review at least 14 days prior to execution. The Design-Builder, Architect, Consultants, and Contractors shall not be required to execute certificates or consents that would require knowledge, services or responsibilities beyond the scope of their services.

§ 15.3 Written Notice

Written notice shall be deemed to have been duly served if delivered in person to the individual, to a member of the firm or entity, or to an officer of the corporation for which it was intended; or if delivered at, or sent by registered or
certified mail or by courier service providing proof of delivery to, the last business address known to the party giving notice.

§ 15.4 Rights and Remedies

§ 15.4.1 Duties and obligations imposed by the Design-Build Documents, and rights and remedies available thereunder, shall be in addition to and not a limitation of duties, obligations, rights and remedies otherwise imposed or available by law.

§ 15.4.2 No action or failure to act by the Owner or Design-Builder shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed in writing.

§ 15.5 Tests and Inspections

§ 15.5.1 Tests, inspections and approvals of portions of the Work shall be made as required by the Design-Build Documents and by applicable laws, statutes, ordinances, codes, rules and regulations or lawful orders of public authorities. Unless otherwise provided, the Design-Builder shall make arrangements for such tests, inspections and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections and approvals. The Design-Builder shall give the Owner timely notice of when and where tests and inspections are to be made so that the Owner may be present for such procedures. The Owner shall bear costs of (1) tests, inspections or approvals that do not become requirements until after bids are received or negotiations concluded, and (2) tests, inspections or approvals where building codes or applicable laws or regulations prohibit the Owner from delegating their cost to the Design-Builder.

§ 15.5.2 If the Owner determines that portions of the Work require additional testing, inspection or approval not included under Section 15.5.1, the Owner will instruct the Design-Builder to make arrangements for such additional testing, inspection or approval by an entity acceptable to the Owner, and the Design-Builder shall give timely notice to the Owner of when and where tests and inspections are to be made so that the Owner may be present for such procedures. Such costs, except as provided in Section 15.5.3, shall be at the Owner's expense.

§ 15.5.3 If such procedures for testing, inspection or approval under Sections 15.5.1 and 15.5.2 reveal failure of the portions of the Work to comply with requirements established by the Design-Build Documents, all costs made necessary by such failure shall be at the Design-Builder's expense.

§ 15.5.4 Required certificates of testing, inspection or approval shall, unless otherwise required by the Design-Build Documents, be secured by the Design-Builder and promptly delivered to the Owner.

§ 15.5.5 If the Owner is to observe tests, inspections or approvals required by the Design-Build Documents, the Owner will do so promptly and, where practicable, at the normal place of testing.

§ 15.5.6 Tests or inspections conducted pursuant to the Design-Build Documents shall be made promptly to avoid unreasonable delay in the Work.

§ 15.6 Confidential Information

If the Owner or Design-Builder transmits Confidential Information, the transmission of such Confidential Information constitutes a warranty to the party receiving such Confidential Information that the transmitting party is authorized to transmit the Confidential Information. If a party receives Confidential Information, the receiving party shall keep the Confidential Information strictly confidential and shall not disclose it to any other person or entity except as set forth in Section 15.6.1.

§ 15.6.1 A party receiving Confidential Information may disclose the Confidential Information as required by law or court order, including a subpoena or other form of compulsory legal process issued by a court or governmental entity. A party receiving Confidential Information may also disclose the Confidential Information to its employees, consultants or contractors in order to perform services or work solely and exclusively for the Project, provided those employees, consultants and contractors are subject to the restrictions on the disclosure and use of Confidential Information as set forth in this Contract.

AIA Document A141[™] - 2014. Copyright © 2004 and 2014 by The American Institute of Architects. All rights reserved. The "American Institute of Architects," "AIA," the AIA Logo, and "AIA Contract Documents" are registered trademarks and may not be used without permission. This document was produced by AIA software at 14:24:21 ET on 03/23/2022 under Order No.2114287171 which expires on 02/03/2023, is not for resale, is licensed for one-time use only, and may only be used in accordance with the AIA Contract Documents[®] Terms of Service. To report copyright violations, e-mail copyright@aia.org. User Notes: (1365848397)

§ 15.7 Capitalization

Terms capitalized in the Contract include those that are (1) specifically defined, (2) the titles of numbered articles or (3) the titles of other documents published by the American Institute of Architects.

§ 15.8 Interpretation

§ 15.8.1 In the interest of brevity the Design-Build Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

§ 15.8.2 Unless otherwise stated in the Design-Build Documents, words which have well-known technical or construction industry meanings are used in the Design-Build Documents in accordance with such recognized meanings.

ARTICLE 16 SCOPE OF THE AGREEMENT

§ 16.1 This Agreement is comprised of the following documents listed below:

- AIA Document A141TM-2014, Standard Form of Agreement Between Owner and Design-Builder .1
- .2 Exhibit A, Design-Build Amendment, if executed
- .3 Exhibit B, Insurance and Bonds

.4 Exhibit C, Owner's Program Documents, Valley Center Fire Protection District Request for Proposals for Design-Build Services Fire Station Projects dated February 2, 2021, inclusive of Attachments 1-8 and Addenda 1 and 2 and Updated Improvement Priority Lists for Station No. 1 and 2

- .5 Exhibit D, Compensation for Work Completed Prior to Design-Build Amendment
- .6 Other:
 - N/A

This Agreement entered into as of the day and year first written above.

OWNER (Signature)

Init.

Josef G. Napier, Fire Chief (Printed name and title)

DESIGN-BUILDER (Signature)

Dave Erickson, CEO (Printed name and title)

<u>Exhibit B</u>

Payment and Performance Bonds, each in the amount of the Guaranteed Maximum Price, agreed upon in the Design-Build Amendment, will be posted when the Design-Build Amendment is executed.



VALLEY CENTER FIRE PROTECTION DISTRICT INSURANCE REQUIREMENTS

INSURANCE TYPES AND LIMITS, INDEMNIFICATION AND BEST PRACTICES FOR CONTRACT SERVICES TO THE VALLEY CENTER FIRE





Table of Contents

Insurance Requirements

- Page 3 Commercial General Liability
- Page 4 Workers Compensation
- Page 4 Excess or Umbrella Liability
- Page 5 Business Auto
- Page 5 Professional Liability / E&O
- Page 6 Pollution Liability

Page 7 Provisions for All Required Insurance for District Contractors

Insurance Requirements for ALL District Contracts

Prior to the beginning of and throughout the duration of the Services, and for any additional period of time as specified below, CONTRACTOR shall, at its sole cost and expense, maintain insurance in conformance with the requirements set forth below. CONTRACTOR shall submit Certificates of Insurance for the District's review and acceptance. The Notice to Proceed shall not be issued, and CONTRACTOR shall not commence Services until such insurance has been accepted by the District.

No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of the CONTRACTOR hereunder.

A. <u>Commercial General Liability</u>

- a. CONTRACTOR shall provide Commercial General Liability insurance covering claims for Bodily, Injury, Personal and Advertising Injury, and Property Damage on a policy form that provides coverage at least as broad as coverage provided under the Insurance Services Office (ISO) form CG 00 01, and that includes, but is not limited to, the coverage limits and coverage provisions outlined below.
- b. The required coverage limits shall be the greater of the broader coverage and maximum limits of coverage of any insurance policy or proceeds available to the Named Insured, including applicable Umbrella or Excess Limits, or the following:

\$5,000,000 per Occurrence	Each Pollution Condition;
\$5,000,000	Aggregate Liability.
\$2,000,000	General Aggregate;
\$2,000,000	Products - Completed Operations
	Aggregate.

- c. Coverage must be on an "occurrence" basis.
- d. Coverage must be included for "products-completed operations" without any "prior work" coverage limitation or exclusion applicable to any Services to be performed under this Agreement.
- e. Contractual Liability coverage at least as broad as coverage provided by the ISO CG 00 01 policy form must be included.
- f. To the fullest extent permitted by law, the District and its directors, officers, officials, agents, volunteers, and employees must be covered as *Additional Insureds* on a primary and noncontributory basis The additional insureds must be covered for:
 - i. Liability arising out of any premises or property utilized for any Services performed under this Agreement, and
 - ii. Liability arising out of or related to this Agreement, including any Services performed hereunder by or on behalf of CONTRACTOR, and

iii. Products and completed operations of CONTRACTOR.

A severability of interests provision must apply for all the Additional Insureds, ensuring that CONTRACTOR's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability.

B. Workers' Compensation and Employer's Liability

Workers' Compensation coverage shall be on a state-approved policy form providing statutory benefits as required by law and Employer's Liability coverage with limits no less than \$1,000,000 per accident or disease for all covered losses. If CONTRACTOR is self-insured with respect to Workers' Compensation coverage, CONTRACTOR shall provide a Certificate of Consent to Self-Insure from the California Department of Industrial Relations confirming CONTRACTOR's self-insured status. Such self-insurance shall meet the minimum limit requirements and waive subrogation rights in favor of the District as stated below. If the CONTRACTOR is a sole proprietorship or partnership, with no employees, and is exempt from carrying Workers Compensation insurance, CONTRACTOR must submit a letter to the District stating that he/she is either the owner of the entity or a partner of the entity performing the Services, and is exempt from the State of California's Workers Compensation requirements because he/she has no employees.

CONTRACTOR and its Workers' Compensation insurance must waive any rights of subrogation against the District and its directors, officers, officials, agents, volunteers, and employees, and CONTRACTOR shall defend and pay any damages as a result of failure to provide the waiver of subrogation from the insurance carrier(s).

C. <u>Excess or Umbrella Liability Insurance</u>

If excess or umbrella policies are used to meet the insurance requirements of this Agreement, they shall provide coverage at least as broad as specified for the underlying coverages, and the full limits of the umbrella or excess coverage shall be available to the District. To the fullest extent permitted by law, the District and its directors, officers, officials, agents, volunteers and employees must be covered as additional insureds and such policy or policies shall contain or be endorsed to contain a provision that coverage shall also apply on a primary and noncontributory basis to the District *before* the District's own primary insurance or self-insurance shall be called upon to protect it as a Named Insured. A severability of interests provision must apply for all additional insureds, ensuring that CONTRACTOR's insurance shall apply separately to each insured against whom the claim is made or suit is brought, except with respect to the insurer's limits of liability.

1. <u>Business Auto Liability</u>

- a. CONTRACTOR shall provide Business Auto Liability coverage on a policy form that provides coverage at least as broad as coverage provided under ISO Business Auto Coverage form CA 00 01, and that includes, but is not limited to, the coverage limits and coverage provisions outlined below.
- b. Coverage must be provided for "Bodily Injury" and "Property Damage" Liability caused by an accident and resulting from the ownership, maintenance or use of covered autos.
- c. The required coverage limits shall be the greater of the broader coverage and maximum limits of coverage of any insurance policy or proceeds available to the Named Insured, including applicable Umbrella or Excess Limits, or the minimum limits specified below:

\$1,000,000 per Occurrence/Accident for Bodily Injury and Property Damage Liability.

- d. Covered "autos" must include all owned, non-owned and hired vehicles.
- e. To the fullest extent permitted by law, the District and its directors, officers, officials, agents, volunteers, and employees must be covered as *Additional Insureds* with respect to "any auto" owned, leased, hired or borrowed by CONTRACTOR. The policy(ies) shall contain or be endorsed to contain a provision that coverage shall apply on a primary and noncontributory basis to the District *before* the District's own primary insurance or self-insurance shall be called upon to protect it as a Named Insured.
- f. A severability of interests provision must apply for all the Additional Insureds, ensuring that CONTRACTOR's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability.
- g. [Where applicable] The policy shall be endorsed to include Transportation Pollution Liability insurance covering materials to be transported by CONTRACTOR in any Services to be performed under this Agreement. Alternatively, this coverage may be provided on the CONTRACTOR's Pollution Liability Policy.

2. <u>Professional Liability (aka Errors and Omissions)</u> *Architects, Engineers, Surveyors and Third-Party Construction Management Entities.

The required coverage limits shall be the greater of the broader coverage and maximum limits of coverage of any insurance policy or proceeds available to the Named Insured, including applicable Umbrella or Excess Limits, or the following: \$1,000,000 per

occurrence or claim and \$2,000,000 aggregate. Coverage may be written on a **claims-made** form. If coverage is on a **claims-made** basis, the coverage must be maintained for at least 3 years after all Services under this Agreement are complete and additional **claims-made** coverage requirements apply as described below.

Pollution Liability

- a. CONTRACTOR shall provide pollution liability coverage that includes, but is not limited to, the coverage limits and coverage provisions outlined below.
- b. Coverage must be included for bodily injury and property damage, including coverage for loss of use and diminution in property value, and for resultant clean-up costs, arising out of the or resulting from:
 - (i) any Services performed under this Agreement, including
 - (ii) any storage or transportation, including the loading or unloading of, hazardous wastes, hazardous materials, or contaminants.

The required coverage limits shall be the greater of the broader coverage and maximum limits of coverage of any insurance policy or proceeds available to the Named Insured, including applicable Umbrella or Excess Limits, or the following:

\$5,000,000 per Occurrence	Each Pollution Condition;
\$5,000,000	Aggregate Liability.

- c. Coverage may be written on a **claims-made** form. If coverage is on a **claims-made** basis, the coverage must be maintained for at least 3 years after all Services performed under this Agreement are complete and additional **claims-made** coverage requirements apply as described below.
- d. To the fullest extent permitted by law, the District and its directors, officers, officials, agents, volunteers, and employees must be covered as *Additional Insureds by way of an endorsement to the policy*. The policy(ies) shall also contain or be endorsed to contain a provision that coverage shall apply on a primary and noncontributory basis to the District *before* the District's own primary insurance or self-insurance shall be called upon to protect it as a Named Insured.
- e. A severability of interests provision must apply for all the additional insureds, ensuring that CONTRACTOR's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability.

Provisions for All Required Insurance for District Contractors

A. Deductibles, Self-Insurance, Self-Insured Retentions

Any deductibles, self-insurance, or self-insured retentions (SIRs) applicable to required insurance coverage must be declared to and accepted by the District. At the option and

request of the District, CONTRACTOR shall provide documentation of its financial ability to pay the deductible, self-insurance, or SIR.

B. Acceptability of Insurers

Unless otherwise reviewed and accepted by the District, all required insurance must be placed with insurers with a current A. M. Best's rating of no less than A - VII. The insurers shall be admitted, or approved by the Surplus Lines Association, to do business in California.

C. Claims-made Coverage

For any coverage that is provided on a **claims-made** coverage form (which type of form is permitted only where specified in the insurance requirements outlined above):

- (i) The retroactive date must be shown, and must be before the date of this Agreement, and before the beginning of any Services related to this Agreement.
- (ii) Insurance must be maintained and Certificates of Insurance must be provided to the District for at least three (3) years after expiration of this Agreement.
- (iii) If coverage is canceled or non-renewed, and not replaced with another **claims-made** policy form with a retroactive date prior to the effective date of this Agreement or the start of any Services related to this Agreement, CONTRACTOR must purchase an extended reporting period for a minimum of three (3) years after expiration of the Agreement.
- (iv) If requested by the District, a copy of the policy's claims reporting requirement must be submitted to the District for review.

D. Notice of Claims

CONTRACTOR agrees to provide immediate notice to the District of any loss or claim against CONTRACTOR arising out of or in connection with this Agreement, or Services performed under this Agreement. The District assumes no obligation or liability by such notice, but has the right (but not the duty) to monitor the handling of any such claim or claims if they are likely to involve the District.

E. Proof of Compliance

CONTRACTOR agrees to provide evidence of insurance required herein, satisfactory to the District, consisting of Certificates of Insurance, evidencing all of the coverages required. CONTRACTOR agrees, upon request by the District, to provide complete, certified copies of any policies within 10 days of such request. (Copies of policies may be redacted to eliminate premium details.) All Certificates of Insurance must be received and accepted by the District before any Services are performed under this Agreement commences. Acceptance of CONTRACTOR's Certificates of Insurance or any other evidence of insurance coverage does not constitute any guarantee that CONTRACTOR's insurance meets the requirements herein. It is CONTRACTOR's responsibility to ensure its compliance with these insurance requirements. Any actual or alleged failure on the part of the District to obtain proof of insurance required under this Agreement shall not in any way be construed to be a waiver of any right or remedy of the District, in this or any regard.

F. Notice of Cancellation/Non-Renewal/Material Reduction

CONTRACTOR agrees to provide written notice to the District thirty (30) days prior to cancellation of coverage required under this Agreement, or of any material reduction or non-renewal of such coverage, other than for non-payment of premium which shall require a 10-day prior written notification. Replacement of coverage with another policy or insurer, without any lapse in coverage or any reduction below these requirements does not require notice beyond submission to the District of an updated Certificate of Insurance.

EXHIBIT C

Updated Improvement Priority Lists for Station No. 1 and 2 (3/23/22)

Improvement Priority List for Fire Station No. 1

- Increase the height of the apparatus bay doors (front side) and automatic openers for rear
- Install a new two-stage compressor and construct a compressor enclosure. Plumb the apparatus bay for compressed air
- Design and install a new HVAC system throughout the main fire station building (both sides).
- Reconfigure the living space to provide two dorm spaces and dayroom space for three personnel
- Reconfigure crew restroom and kitchen to modernize the kitchen, bathroom and day room space and bring the refrigerators out of the apparatus bay into the kitchen.

Improvement Priority List for Fire Station No. 2

- Increase the height of the apparatus bay doors (both sides)
- Design and install a new HVAC system throughout the fire station.
- Reconfigure dorm space to improve functionality and comfort
- Remodel the kitchen to provide space for three refrigerators (to be relocated from the laundry area)
- Provide a screened in area with a half-wall and exercise flooring for the rear patio area where the exercise equipment is located
- Replace and expand the concrete area in the rear of the station

EXHIBIT C

VALLEY CENTER FIRE PROTECTION DISTRICT REQUEST FOR PROPOSALS FOR DESIGN-BUILD SERVICES FIRE STATION PROJECTS

December 2, 2021

Valley Center Fire Protection District (VCFPD), is soliciting proposals from three pre-qualified Design-Build Entities (D-BEs) to design and construct a temporary fire station and fire station improvement projects to serve the community of Valley Center. The temporary fire station site is located northwest of the intersection of Cole Grade Road and Cole Grade Lane. The fire station improvement projects are located at VCFPD Station Nos. 1 and 2.

This RFP is the second step in the two-step Design-Build process set forth in the design-build provisions of the Public Contract Code. Proposals shall be accepted from the following three Design-Build Entities who were pre-qualified by the VCFPD in step one of the process, Request for Statements of Qualifications (RFSQ):

- EC Constructors, Inc./JKA Architecture
- Erickson-Hall/PBK-WLC Architects
- I.E. Pacific, Inc./Tectonics A-E

<u>Proposals for the VCFPD Fire Station Projects must be received on or before 2:00 p.m. on</u> January 10, 2022, at the following address:

Joe Napier, Fire Chief Valley Center Fire Protection District 28234 Lilac Road Valley Center, CA 92082

One hard copy original, four (4) hard copies, and one electronic copy of the proposal shall be received by the Fire Chief's office, within said time limit, in a sealed envelope identified on the outside with the Offeror's Business Name, RFP for the Valley Center Fire Protection District Fire Station Projects and the Due Date. As the selection of the D-BE will be based on VCFPD's determination of "Best Value", there will be no public opening of proposals.

Written questions regarding this RFP must be received no later than December 15, 2021. Questions may then be responded to by written amendment to this document. **Oral statements or instructions shall not constitute an amendment to the RFP.** All questions shall be in writing and shall be directed to:

Robin Biglione via email at: <u>robinraeputnam@gmail.com</u>. All questions and answers shall be distributed to all proposers.

Sincerely,

Joe Napier, Fire Chief

REQUEST FOR PROPOSAL DESIGN/BUILD SERVICES

1.0 INTRODUCTION

1.1 VCFPD, is issuing this Request for Proposal to solicit proposals from Design-Build Entities (D-BEs) to provide pre-construction, design, value engineering, constructability review, construction management, construction and operations, and startup and commissioning services for a new temporary fire station to be located northwest of the intersection of Cole Grade Road and Cole Grade Lane in the community of Valley Center and for fire station improvements at VCFPD Station Nos. 1 and 2.

This Request for Proposal (RFP) is the second step in the two-step Design-Build process set forth in the design-build provisions of the Public Contract Code. Proposals shall only be accepted from the three Design-Build Entities (D-BEs) who were pre-qualified by the VCFPD in step one of the process, Request for Statements of Qualifications (RFSQ).

The D-BE is to provide a Design-Build Team (DBT) that shall consist of the D-BE and all relevant Architects/Engineers/Designers. All DBT members shall be licensed/registered with the State of California under their respective professions. The VCFPD discourages identifying subcontractors in the proposal. The VCFPD would like to be involved in decisions regarding subcontractor selection to promote competition and to ensure best value selections.

This RFP describes all the elements of the projects, the required scope of services, the DB-E selection process, and minimum information that must be included in the proposal. Failure to submit information in accordance with the RFP's requirements and procedures may be a cause for disqualification.

1.2 Award will be based on best value, not on lowest responsible bidder.

2.0 BACKGROUND

The VCFPD obtained County approval of a Lot Line Adjustment to establish a 10-acre parcel for acquisition by the VCFPD. The VCFPD now owns the approximately 10-acre parcel shown in Attachment 1 and plans to construct a permanent fire station on the site in the future. The portion of the 10-acre site planned for the temporary fire station is located on the most northerly portion of the property to allow the temporary station to remain operational while the permanent facility is under construction. Attachment 2 is the conceptual Site Plan for Temporary Fire Station No. 3.

As part of the Lot Line Adjustment planning process, County Planning & Development Services determined that a Site Plan Exemption would be appropriate for the Temporary Fire Station No. 3 project, so the temporary fire station project has been referred to County Building for further processing. In discussions with the County, it appears that a Plot Plan will be required to be processed, which will include review by the Valley Center Planning Group.

Aside from the Plot Plan process, is appears that the processing will include standard County commercial building plan and large grading plan submittal requirements. Attachment 3 includes the County's applicable building and grading submittal handouts. For purposes of the scope of work, DBs should assume that the County will require a hydrology study and SWMP to accompany the grading plan submittal and that a NOI and SWPPP will be required to meet stormwater compliance requirements. In addition, DB-Es should assume landscape and irrigation plans will be required for the slopes created following grading for the temporary fire station. The DB-E will be responsible for working with the County to determine the specific submittal requirements.

3.0 DESCRIPTION OF WORK

The Project includes design and construction of Temporary Fire Station No. 3 as conceptually shown on Attachment 2 and described in Attachment 4. Attachment 5 includes a preliminary geotechnical study prepared for the entire 10-acre Fire Station No. 3 site. The D-BE's work on Temporary Fire Station No. 3 will begin with a though review of the conceptual Site Plan. The D-BE will work with the VCFPD to make revisions to that Site Plan prior to proceeding with preparation of construction plans and required studies for review and approval by the County. The Temporary Fire Station No. 3 project will require architectural, structural, mechanical, plumbing, electrical engineering, on-site wastewater treatment design and landscape and irrigation design.

The Temporary Fire Station No. 3 project includes relocation of the temporary fire station facilities from a temporary fire station site located at 2604 Overlook Point Drive, Escondido, CA, 92029, and extending permanent water and electrical utilities from Cole Grade Road to the project site. The D-BE will be responsible for coordinating with Valley Center Municipal Water District and San Diego Gas & Electric and preparing the necessary plans for utility extension. The budget for Temporary Fire Station No. 3 is \$1 million.

In addition, the project includes approximately \$500,000 in improvements to Fire Stations No. 1 and 2, with approximately one-half of the \$500,000 budget to be allocated to each station. The selected DB-E will work with VCFPD to accomplish as many of the projects from each station's priority list as possible. Attachment 6 includes priority lists for the stations.

The Project will include all design, engineering, permits, grading, construction, material, labor, special observation, inspection, testing, and verification. D-BE will be responsible for obtaining all required permits, including federal, state, and local governance as well as coordination with all utilities and other regulatory agencies, start up and commissioning required for occupancy and operations. The VCFPD will pay the actual cost of all permits and fees, including County and agency plan check and inspection fees.

4.0 DESIGN BUILD SERVICES

The services sought by this RFP include all services necessary to design and construct the Project. The design and construction must comply with the requirements of all applicable Federal, State, County, and local agencies having jurisdiction over the Project. The D-BE shall work to obtain approvals in increments that will facilitate the schedule. The completed Project is to be a fully functioning temporary fire station and fully functioning fire station improvements as described in this RFP.

- 4.1 The Scope of Work includes, but is not limited to, the following services during design, approvals, construction, and closeout:
 - 1. Architectural and engineering design services, including structural, civil, stormwater, on-site wastewater, mechanical, electrical, plumbing, landscape, fire sprinkler, and fire alarm systems.
 - 2. Geotechnical Engineering, testing, investigation, and observation.
 - 3. Material testing and special inspection services.
 - 4. Survey, layout, and staking.
 - 5. Submittals and approvals from all agencies having jurisdiction,
 - 6. Project engineering and project management.
 - 7. Supervision, safety program, quality assurance/quality control, and site security.
 - 8. Abatement, demolition (if required), material recycling/diversion program, and removal.
 - 9. Construction, materials, equipment, labor and supplies.
 - 10. Site clearing, soil import/export, on-site grading, and off-site grading as required. Construction and coordination with utilities regarding communication loops and connections, for complete and operating systems.
 - 11. Startup of systems and equipment and commissioning.
 - 12. Coordination and scheduling of work.
 - 13. Insurance and bonding.
 - 14. Temporary facilities and services required for construction of the Project including, but not limited to: temporary office facilities, signage, fencing for site control, etc.
 - 15. Design and installation of communications, alerting, and alarm, including both backbone and secondary distribution to equipment. The D-BE will coordinate with the VCFPD's IT Manager who will specify, purchase and install computer systems in coordination with the D-B. The trailers to be relocated to the site include sprinklers and smoke detectors. These systems will have to be connected to electrical and water facilities and

wired to a local alarm bell. The D-BE will be responsible for designing the alerting system and providing the alerting system equipment for the Temporary Fire Station. The alerting system used by VCFPD is US Digital Designs Phoenix G2.

- 16. Meetings, reporting, and documentation including preparation and proper submittal of certified payroll.
- 17. Coordination, scheduling and conducting of progress meetings with VCFPD representatives and the Architect as required and directed by the VCFPD.
- 18. Compliance of the design and construction with all applicable codes, ordinances, regulations, and requirements of agencies having jurisdiction over the Project.
- 4.2 The selected D-BE shall be responsible for completion of the design and construction of the Project in accordance with:
 - 1. The RFP.
 - 2. The Contract.
 - 3. The D-BE's Proposal.
 - 4. The approved design and construction documents.
 - 5. The required agency approvals.
 - 6. The agreed Project Schedule.
 - 7. The Guaranteed Maximum Price (GMP). Please note that this project will use the "Progressive" design-build delivery method. The project will be delivered in two distinct phases, pre-construction and construction. The GMP and schedule will be established after the project has been sufficiently designed, working in collaboration with the VCFPD, to meet the project's goals. The VCFPD shall maintain control over design definition. The contract will be established on a cost plus fee basis, with a Guaranteed Maximum Price. The contract will require full transparency into the D-BE's cost, including an ability to be involved in subcontractor procurement and best value selection of subcontractors. The contract will be structured so that all savings are returned to the VCFPD.

5.0 PUBLIC CONTRACT CODE COMPLIANCE REQUIREMENTS

- 5.1 The undertaking and accomplishment of this Project is required by State law to comply with the requirements of Public Contract Code Section 22160, et seq. Nothing in this RFP is intended nor should be interpreted as contravening the provisions of that Code as it relates to design build and best value.
- 5.2 The undertaking and accomplishment of this project is required by State law to comply

with the requirements of Labor Code Sections 1770, et seq. Nothing in this RFP is intended nor should it be interpreted as contravening the provisions of that code.

5.3 The D-BE shall be fully knowledgeable of and shall comply with the provisions of Public Contract Code Section 1770, et seq., including the general prevailing wage rates and reporting requirements. Further, the D-BE shall be fully knowledgeable and comply with the provisions of Public Contract Code Section 22160, et seq. which include provisions related to the design-build delivery method.

6.0 **RFP SUBMITTAL REQUIREMENTS**

6.1 General RFP Requirements:

All D-BEs are required to follow the format specified below. The content of the proposal must be clear, concise, and complete. Each section of the proposal shall be presented according to the outline shown below to aid in expedient information retrieval.

One (1) original and four (4) copies and one electronic copy of the sealed proposal shall be delivered <u>no later than 2:00 P.M. on Monday</u>, January 10, 2022, to:

Joe Napier, Fire Chief Valley Center Fire Protection District 28234 Lilac Road Valley Center, CA 92082

Please note that faxed copies will not be accepted. Also note that incomplete proposals, incorrect information, or late submittals may be cause for immediate disqualification. The VCFPD reserves the right to amend the RFP prior to the date that proposals are due. Amendments to the RFP shall be emailed to all potential D-BEs. The VCFPD reserves the right to extend the date by which the proposals are due.

6.1.1 The proposal should be concise, well organized and demonstrate the D-BE's qualifications and experience applicable to the Project. The proposal shall be inclusive of resumes, graphics, forms, pictures, photographs, dividers, front and back cover, cover letter, etc.

6.2 **Contents**

Sealed proposals submitted in response to this RFP shall be in the following order and shall include:

- 6.2.1 General Information:
 - 1. Executive Summary.
 - 2. Provide a narrative (maximum 4 pages) that highlights D-BE's approach to this project and D-BE's commitment to meet or exceed the VCFPD's objectives and ensure a successful project built on time and within budget.

- 3. Describe how the Design-Build team will participate together in design review, constructability review, estimating, value engineering, scheduling and phasing, and construction methods.
- 4. Identify each DBT member. Provide a description of any designbuild fire station projects that the team has completed together and provide contact information for references for those projects.
- 5. Legal name and address.
- 6. Name, title, address and telephone number of person(s) to be assigned to Project.
- 7. Name, title, address and telephone number of person to contact concerning the proposal.

6.2.2 Lifecycle Cost Analysis

Provide a narrative and spreadsheet including a 15 year lifecycle cost analysis for Temporary Fire Station No.3, which should include, but not be limited to energy consumption costs, operation and maintenance costs, life expectancy, replacement costs, and total cost of ownership over fifteen (15) years.

6.2.3 Project Schedule

Provide a schedule that that includes major tasks from Notice of Award to Final Completion. Also, confirm that DBT can meet the VCFPD's Final Completion date of October 27, 2022.

6.2.4 Preliminary Costs

Complete Preliminary Cost Worksheet in format detailed in Attachment 7. The Preliminary Cost Worksheet requests costs for design and preconstruction. The DB-E's fee percentage for construction and costs for General Conditions/General Requirements are also requested. In addition, percentages for payment and performance bonds, liability insurance and builder's risk insurance are requested.

6.2.5 Project Organization and Key Personnel

- 1. Describe proposed Project organization and provide an organizational chart, including identification and responsibilities of key personnel.
- 2. Describe the D-BE's staffing plan during preconstruction and construction. Identify which staff members will be on-site. Provide the percentage of each staff member's time that will be devoted to the project during both design and construction. Indicate the role and responsibilities of the D-BE and all subconsultants. Indicate how local firms are being utilized to ensure a strong understanding of local laws, ordinances, regulations, policies, requirements, permitting, etc. Indicate extent of commitment of key personnel for duration of Project (through building occupation) and furnish resumes of key personnel.

- 3. If a trade contractor is listed in the RFP for preconstruction services, provide all qualifications as well as a narrative describing their added value in the preconstruction process.
- 4. The VCFPD's evaluation of D-BE will consider its <u>entire</u> team; therefore, no changes in team composition will be allowed without prior written approval of the VCFPD. The VCFPD reserves the right to review and approve subconsultants not listed in the proposal. Describe DBT's capacity to perform the work within the time limitations, considering DBT's current and planned workload and DBT's workforce.

6.2.6 Exceptions to this RFP and Contract Form

The D-BE shall certify that it takes no exceptions to this RFP or the anticipated use of AIA Owner-Design-Builder Agreement A141-2014. If the D-BE does take exception(s) to any portion of the RFP or the use of AIA Owner-Design-Builder Agreement A141-2014, the specific portion of the RFP or Agreement to which exception is taken shall be identified and explained.

6.2.7 Addenda to this RFP

DB-E shall confirm in its proposal the receipt of all addenda issued to this RFP. D-BE is not required to include copies of the actual addenda in its proposal.

6.2.8 Additional Information

This section shall contain all the other pertinent information that is required to be submitted with the proposal in the following order:

- 1. Confirmation that DBT can meet the insurance requirements specified in this RFP.
- 2. Indicate whether D-BE proposes to self-perform construction work and, if so, what trades. The VCFPD discourages identifying work to be self-performed in the proposal. The VCFPD would like to be involved in decisions regarding subcontractor selection and work to be self-performed to promote competition and to ensure best value selections.
- 3. Provide the following information:
 - a) List of fire station and other municipal design-build projects completed in the last year.
 - b) Provide references for the work of the D-BE on the projects listed in a).

7.0 PROPOSAL EVALUATION CRITERIA

7.1 Selection of the DB will be based on best value, not on lowest responsible bidder. Proposals shall be evaluated and ranked based on best value as determined by the following factors and relative weights of importance:

- 1. 15% Overall experience and technical competence of the teams(s) (including principal firms and sub-consultants) and demonstrated specific experience and technical competence on projects with similar design, coordination and construction complexity. Experience as a team is an important consideration in this factor.
- 2. 10% Appropriateness of Staffing Levels as indicated on the DB Cost for Preconstruction Services and General Conditions/General Requirements breakdowns required as attachments to the Preliminary Cost Worksheet (Attachment 7).
- 3. 15% The experience of key DB-E and Architect personnel working on fire station and other municipal projects together. Projects with a design-build delivery method will be evaluated most positively.
- 4. 10% Rates and Fees including Preconstruction Costs, D-BE Fees, General Conditions/General Requirements, payment and performance bond rates, and insurance rates.
- 5. 5% Life cycle costs over 15 years for Temporary Fire Station No. 3.
- 6. 20% Project approach, including proposed methods and overall strategic plan to accomplish the work in a timely and competent manner, including Preliminary Schedule. Demonstration of understanding of the role of teamwork for a successful Progressive Design-Build project.
- 7. 10% Combination of the following factors:
 - a. Conformance to the specified RFP requirements and format.
 - b. Organization, presentation, and content of the submittal.
 - c. Knowledge and understanding of the State and local environment and a local presence for interfacing with the VCFPD.
- 8. 15% Proposal Interview Optional at Discretion of VCFPD
- 7.2 The VCFPD reserves the right to discuss and negotiate scope, costs, and schedule as needed starting with the top rated D-BE, followed by next highest rated, and so forth. At any time prior to the VCFPD executing a Design-Build contract with the selected firm, if that D-BE cannot meet any of the RFP conditions, the VCFPD has the option of opening negotiations with the next highest rated D-BE.
- 7.3 The VCFPD may conduct interviews as part of the evaluation process. If the VCFPD does conduct interviews, information provided during the interviews will be taken into consideration when evaluating the stated criteria. The VCFPD will not reimburse the D-BE for the costs associated with the interview process. Interviews will be held at a time and place specified by the VCFPD. The DBTs key project team members will be invited to attend the interview. At the interview, the DBTs should be prepared to discuss their specific experience

providing services similar to those described in the RFP, project approach, estimated work effort, available resources, and other pertinent things that distinguish your team from others.

- 7.4 The VCFPD reserves the right to make such additional investigations as it deems necessary to establish the competence and financial stability of any D-BE submitting a proposal.
- 7.5 The VCFPD may take previous experiences with the proposer into consideration when evaluating qualifications and experience.

8.0 INSURANCE REQUIREMENTS

8.1 The D-BE shall procure and maintain for the duration of the contract, insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of the work hereunder by the DBT, his/her agents, representatives, employees or sub-consultants. All sub-contractors and sub-consultants shall be required to comply with the applicable insurance provisions. The maintenance of proper coverage is a material element of the Design-Build Contract and that failure to maintain or renew coverage or to provide evidence of renewal may be treated by the VCFPD as a material breach of contract.

8.2 Minimum Insurance Requirements

See Attachment 8 for insurance requirements. Before an exposure to loss may occur, the D-BE shall file with the VCFPD certificates of insurance and **additional insured endorsements on forms specified by the VCFPD, providing** evidence of the required insurance. Each policy shall contain a provision that the policy will not be canceled or allowed to expire until at least thirty (30) days prior written notice has been given to the VCFPD.

9.0 **PROPRIETARY INFORMATION**

9.1 All response documents become the property of VCFPD and subject to Public Records Act requirements of California Government Code section 6250, et seq. D-BE is encouraged to mark any documents "CONFIDENTIAL" that they deem to be confidential before submission to VCFPD. Information provided will be kept confidential to the extent permitted by law. The proprietary or confidential data shall be readily separable from the Proposal in order to facilitate eventual public inspection of the non-confidential portion of the Proposal.

VCFPD assumes no responsibility for disclosure or use of unmarked data for any purpose.

10.0 PROPOSAL SCHEDULE

- 10.1 The solicitation receipt and evaluation of proposals and the selection of the D-BE will conform to the following schedule (Note: Dates are subject to change):
 - Distribution of RFP December 2, 2021
 - Deadline for Questions on RFP December 15, 2021
 - Submittal of Proposals Deadline January 10, 2022, by 2:00 p.m.
 - Interviews with Selected Respondents January 2022
 - Approval of Design/Build Contract(s) –February 17, 2022
 - Final Completion Date October 27, 2022

11.0 CONTRACT TERMS AND CONDITIONS

- 11.1 Selection is dependent upon the negotiation of a mutually acceptable contract with the successful D-BE.
- 11.2 Each submittal shall be valid for not less than one hundred and twenty (120) calendar days from the date of receipt.
- 11.3 All insurance shall be provided at the sole cost and expense of the D-BE selected, and shall be reimbursable in accordance with contract terms, unless the requirement is modified or waived by the VCFPD. The VCFPD reserves the right to modify the insurance limits or to substitute project insurance during contract negotiations.
- 11.4 The selected D-BE will enter into a contract in substantially the same form as AIA A141-2014 Owner-Design-Builder Agreement.
- 11.5 The VCFPD is under no obligation to award a contract under this RFP, and reserves the right to terminate the RFP process at any time, reject any or all Proposals received and/or to withdraw from discussions with all or any of the D-BEs who have responded.
- 11.6 The VCFPD in its sole discretion, reserves the right to terminate the RFP process and re-advertise with either the identical or revised terms, if it is deemed by the VCFPD in its sole discretion to be in the best interest of the VCFPD to do so.
- 11.7 In the event of rejection of any or all responses, or the termination of the RFP process, the VCFPD shall not be liable for any loss, damage, cost or expense incurred or suffered by any offeror as a result of said rejection or cancellation.

11.8 D-BEs warrant and covenant that no official or employee of the VCFPD, nor any business entity in which an official or employee of the VCFPD has an interest, has been employed or retained to solicit or aid in the RFP process nor have any such persons divulged any information to a D-BE not made available to all D-BEs. Further no official or employee of the VCFPD, nor any business entity in which an official or employee of the VCFPD has an interest, shall have any interest in any contract awarded to a D-BE.

12.0 QUESTIONS

All contacts from a D-BE related to this RFP or its Proposal must be directed by email to the VCFPD's construction manager at the email address below. D-BEs should not attempt to contact other VCFPD personnel.

Robin Biglione Biglione Construction Management, Inc. Email: robinraeputnam@gmail.com

ATTACHMENTS:

- 1. Site Location Map
- 2. Site Plan for Temporary Fire Station No. 3
- 3. County of San Diego Building and Grading Handouts
- 4. Temporary Fire Station No. 3 Scope of Work
- 5. Preliminary Geotechnical Study for Temporary Fire Station No. 3 Site
- 6. Improvement Priority Lists for Station No. 1 and 2
- 7. Preliminary Cost Worksheet
- 8. Insurance Requirements

Note: The plans and reports provided in the Attachments are for reference only. The D-BE is responsible for verifying all information provided.





EARTHWORK QUANTITIES

CUT:	9,035 C.Y.	
FILL:	9,035 C.Y.	
IMPORT:	0 C.Y.	
EARTHWORK G TO REVISIONS MADE FOR RE	DUANTITIES SHOWN DURING FINAL DES EMEDIAL GRADING.	ARE APPROXIMATE AND ARE SUBJECT IGN. ADJUSTMENTS HAVE NOT BEEN

PREPARED IN THE OFFICE OF:



PREPARED FOR JOE NAPIER, FIRE CHIEF VALLEY CENTER FIRE PROTECTION DISTRICT 28234 LILAC ROAD VALLEY CENTER, CA. 92082 TELE: (760) 751-7600

ATTACHMENT 2 SITE PLAN FOR TEMPORARY FIRE STATION NO. 3

LEGAL DESCRIPTION:

PARCEL B OF CERTIFICATE OF COMPLIANCE B/C-20-0079 DESCRIBED AS THE EAST 10.00 ACRES OF THE SOUTH HALF OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 31, TOWNSHIP 10 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF. WHERE THE WEST LINE OF SAID EAST 10.00 ACRES IS PARALLEL WITH THE EAST LINE OF THE SOUTHWEST QUARTER OF SECTION 31.



Attachment 3 County of San Diego Building and Grading Handouts

New Commercial Shell Structure Plan Submittal:

Form Name

Date	Number
MM/YY	, Number
3/20	PDS #293
02/19	INTAKE FORM
09/20	STANDARD SWQMP
04/10	PDS #143
09/20	BMP DESIGN MANUAL
09/20	BMP VERIFY
10/19	BMP MAINTENANCE
05/20	PDS #001
07/20	PDS #001b
09/12	PDS #075
05/17	PDS #090
06/17	PDS #169
09/12	PDS #272
09/12	PDS #273
07/18	PDS #492
07/21	PDS #613
-	DEH:HM-9171
01/20	PDS #664
05/17	PDS #800
07/19	Access Notice



County of San Diego, Planning & Development Services **PRE-SCREENING CHECKLIST** LAND DEVELOPMENT DIVISION

GRADING AND IMPROVEMENT PLAN PRE-SCREENING CHECKLIST

Grading and Improvement plans are subject to pre-screening by Planning & Development Services (PDS) Land Development Division prior to initial submittal. Plans must meet the following format requirements at a minimum. If plans do not meet any of the following, the submittal is subject to rejection. The pre-screened submittal will be returned within twenty (10) business days.

Private:		County:
	Grading plans placed on 24" x 36"sheets with 1" border on all edges	
	North arrow and scale on all sheets	
	Vicinity map (distance shown to nearest street intersection, page, and section of Thomas Guide)	
	Permittee's name, address and telephone number	
	Owner's name, address and telephone number (if same as Permittee, indicate on plan)	
	Civil Engineer's name, address, telephone number, signature in title block, and stamp	
	Short legal description	
	Assessor's Parcel Number	
	Site address	
	Bench mark: show location on plan and describe in space provided (if datum is assumed, so note)	
	L, CG, TM, or TPM-Number in the block	
	California Coordinate in title block	
	Purpose of grading shown in the title block	
	Show special use permit, rezone, TM, or TPM number, and dates of their approval next to title block where applicable	
	Required General Notes	
	Key map for projects covering several sheets	
	Show existing contours (max. 5') to cover at least 50' beyond the property line or sufficient for showing drainage basin	
	Best Management Practices Items proposed during construction and Post construction	
	Drainage study	
	Plans are related to a project with a previously approved discretionary permit (include a copy of the conditionally approved plot plan with the adopted Resolutions or Final Notice of Approval)	
	Structural calculation for proposed designed retaining wall, if required	
	Project Schedule	
	Review Initial Deposit and Cost Estimate (if recommended by County Staff)	
	Complete Application (County staff confirmed complete submittal)	

Applications and plans shall be submitted to the Land Development Counter at: 5510 Overland Ave Suite 110 San Diego, CA 92123.

5510 OVERLAND AVE, SUITE 110, SAN DIEGO, CA 92123 • (858) 694-2055 SDCPDS.ORG



If any of the following boxes are checked, an extra set of the project plan set with supporting documentation, studies, and/or other information will be sent to the respective specialist.

PDS Enviro (Except for reviewed by	nmental: All discretionary projects/applications require PDS Environmental review. Agricultural Grading plans and Grading plans for restoration which will be PDS Project Planning)
Proje	ct has previous Discretionary approval:
	If Yes, please provide project name and permit number(s):
	If No, (PDS Environmental will determine environmental status upon initial review)
Projec	ct received a Site Plan Waiver? 🗌 Yes 🗌 No
	If Yes. please provide Site Plan Record ID#:
Planning &	Development Services (PDS):
	Project is for agricultural grading Grading Plans required as restoration for grading violation as determined by the PDS Code Compliance Division or the DPW Watercourse Enforcement Division.
	Project proposes grading into an open space easement
DPW Privat	Provelopment Construction Inspection (PDCI).
	Project proposes grading under an L-Grading Permit Application Project is the result of a Watercourse Violation under the County Grading Ordinance

DPW Capital Improvement Program (CIP):



Project is located within, along, or adjacent to a listed Public Road on the current County five (5) year CIP Plan

Н

County five (5) year CIP Plan Sidewalk and pedestrian ramp improvements deviate from ADA requirements Project proposes public pathways



DPW Flood Control:

- Project is subject with National Flood Insurance Program (NFIP)
- Project is subject with County Flood Protection Ordinance, Resource Protection ordinance
- Project subject to County Flood Plain mapping
- Project impacts or required to construct master planned drainage facility
- Project is subject with County Hydrology Manual, Drainage Design Manual for major drainage course or master facility
- Easement dedication to San Diego County Flood Control District (SDCFCD)

DPW Field Operations:

- Project will violate the County 3-year Pavement Cut Policy
- Project will make improvements to existing or future publicly maintained road for the purpose of acceptance into the County Maintained road system
 - Project connects or intersects a private road to a County publicly maintained road
 - Project proposes modifications or eliminates pedestrian access to curb ramps or sidewalks
- Project proposes raised medians (landscaped and/or hardscaped) within a County maintained road
- Project proposes landscaping within or along a County maintained road
- Project proposes connection to an existing or proposed County drainage system
- Project proposes improvement or installation of drainage facilities to be County maintained
- Project proposes improvements that do not meet minimum County Drainage Standards within the County maintained road system
- Project proposes permanent stormwater BMPs to be publicly maintained by the County of San Diego
- Project proposes a publicly maintained detention or retention basin and/or those which will drain directly into a County maintained drainage system or roadway
- Project proposes a Regional Standard Drawing D-25, Curb Outlet, or RSD D-27, sidewalk under drain within the County maintained road system (note: copy of the drainage study required to verify runoff will be contained within the gutter).

DPW Materials Lab:

Project proposes paving under the Private or Public Road Standards, conditions of approval, or permit requirements
Project has Geotechnical/Geology issues (seismic, slope stability, potential rock fall, etc.) including specialized retaining or slope stability structures
Project requires "Geologic Hazard" memo
Project proposes designs employing non-standard methods and materials

Note: If a geotechnical report is available, for the project, a copy of the report should be routed with the plans. A copy of conditions of approval or permit requirements must be provided with plans.

5510 OVERLAND AVE, SUITE 110, SAN DIEGO, CA 92123 • (858) 694-2055 SDCPDS.ORG

PDS-820 (Rev. 10/31/2019)

PAGE 3 of 5



Continued

DPW Special Districts:

-	-	1	
-	=	ī	
		L	

Project is in a Permanent Road Division, PRD Number

Project proposes improvements that will connect or intersect a PRD road. **PRD Number**

DPW Traffic Engineering:

Striping and pavement markings

Traffic signs

Traffic signals and flashers

Guardrail installations

Traffic Control Plans

Traffic calming

DPW Wastewater Engineering:

Project is located in a County Sanitation District

Department of Environmental Health (DEH):

- Project site has existing water wells on the property
- Water wells are shown on the grading plan
- Water wells located within the area of proposed grading
- Water wells located on adjacent property near proposed grading
- Project site has existing monitoring wells on the property
- Properties adjacent to the project are currently using, or will use on-site sewage disposal systems
- 5:1 grading setbacks are shown from the top of cut to primary and/or reserve area disposal fields to adjacent properties that have or are approved for onsite sewage disposal systems
- Grading plan shows existing or proposed on-site sewage disposal system for project site
- Proposed earthen fill located over or near components of on-site sewage disposal systems

Department of Parks and Recreation:



Project is located adjacent to existing or proposed County park or preserve Project is conditioned to construct a public or private park Project is conditioned to construct public or private trails and/or pathways

Project proposes an LLD/CFD which requires operations and/or management by DPR

Note: A copy of conditions of approval or permit requirements must be provided with plans under Park and Recreation review.

5510 OVERLAND AVE, SUITE 110, SAN DIEGO, CA 92123 • (858) 694-2055 SDCPDS.ORG

PDS-820 (Rev. 10/31/2019)

PAGE 4 of 5

- Items to be re-checked

PDS20 __ - LDGR __ -

Grading Plan Check List

10/2014 PDS LD By:

- A. GENERAL FORMAT
 - 1. Grading plans to be placed on 24" X36" sheets with a 1" border on all edges. (Note that std. Mylar of first sheet is available for reproduction)
- _____ 2. Show North arrow and scale on all sheets.
- 3. Vicinity map (show distance to nearest street intersection, page and section of Thomas Brothers).
 - 4. Permittee's name, address and telephone number.
 - 5. Owner's name, address and telephone number (if same as permittee, indicate on plan).
- ----- 6. Civil engineer's name, address, telephone number, signature in title block.
 - _____ 7. Short legal description.
- 8. Site address.
- 9. Bench mark: show location on plan and describe in space provided (if datum is assumed, so note).
- _____ 10. L-number in the block.
- 11. California coordinate in title block.
- 12. Purpose of grading shown in the title block.
- 13. Show special use permit, rezone, TM, or TPM number, and dates of their approval next to title block where applicable.
- 14. Required General Notes (see page 3, 4).
- —— 15. Key map for projects covering several sheets.
- _____ 16. NOI# if disturbed area > 1 acre.

B. GRADING TECHNICAL INSTRUCTION

- ----- 1. Show proper set back from property line (STD Drawings DS-11).
- _____ 2. Identify property and easement lines.
- 3. Show amounts of excavation, fill & waste/import (cubic yards).
- 4. Show cut and fill ratios on the plans, if other than standards.
- 5. Show existing contours (max. 5'), to cover at least 50' beyond property line or sufficient for showing drainage basin.
 - 6. Show final grades by contours, and /or spot elevations.
- 7. Show location of cut and placement of fill ("Daylight" and limit lines).
- 8. Show typical lot drainage (see note 16 below).
- 9. Show typical of berm or swale at top of fill (see note 16 below).
- 10. Show typical of brow ditch (see note 16 below).
- 11. Show percent of grade of streets and driveways, length of vertical curve, B.V. C., & E.V. C.
- ----- 12. Horizontal and vertical sight distance; cross-check improvement plans.
- 13. Conditions of resolution of approval of M.U.P., Rezone, Tentative Map, TPM, etc., fulfilled. (If applicable).
- _____ 14. Grading plan compared with grading shown on T.M. (New E. I. R. or Resolution change possible). (If applicable).
 - _____ 15. Grading plan compared with improvement plans prior to signature. (If applicable).

1

- Items to be re-checked

- 16. Details may be omitted if the following statement is placed on plans: "All grading details will be in accordance with the San Diego County Standard Drawings DS-8, DS-10, DS-11, D75."
 - 17. If grading encroaches on adjacent property, submit letter of permission (see H.5) and place appropriate note at location of encroachment including date of letter.
 - 18. Submit estimate
 - (1) Plans>5,000 cy include all items to be constructed per the Grading permit
 - (2) Plans<5,000 cy include those items requiring structure inspection such as drainage, retaining walls, irrigation systems, etc.

C. DRAINAGE

- 1. If diversion or concentration of existing drainage courses occurs, a signed waiver and release from the affected downstream owners must be submitted. Attach standard form to plans for execution.
- 2. Indicate on the plans waiver and release for discharge of drainage onto adjacent property and date waiver signed.
- 3. Drainage Map of all drainage areas affecting site. (200 scale county topo plus any other updated topo prepared by engineer / surveyor)
- 4. Hydrology and hydraulic calculations required.
 - 5. Check for non-erosive velocities at point of discharge, or adequate energy dissipater.
 - 6. Check for point of adequate discharge downstream (provide photos and calcs.).
 - 7. Show direction of street drainage and percent of slope plans. Give elevations at intersections and where required for clarity.
- 8. Show size, length, gauge and profile of pipes, where drainage is to be installed with the grading plan. Show elevations and grades. Include details of all structures or give standard drawing number.
- 9. Show width of all drainage easements. Show recording documentation and date of all off-site drainage easements.
 - 10. Check for existing or proposed levee or dam.
 - 11. DPW Flood Control Section review required for any of the following:

a. Drainage system or facility proposed for Flood Control ownership/maintenance (e.g. detention basins and/or pipes/culverts greater than 42" in diameter outside the public road right-of-way)

b. Proposed work or encroachment within an existing Flood Control District (FCD) Easement.

c. FEMA and/or County-mapped Floodway/Floodplain on project site.

D. LANDSCAPE AND IRRIGATION

1. Show LD number on title sheet, Check with Dave Kahler on status. (Landscaping and irrigation plans required on slopes > 3 feet high and < 15' high)

E. RETAINING WALLS

1. One of the following:

- (1) Not a part of this plan (Building Inspection Permit) but show temporary slopes (same ratios as above).
 - (2) County standard drawing number.
 - (3) Designed wall- show details on plan-submit calculations and soil report for data backup.

Items to be re-checked

- 2. Show elevations at top and bottom of wall (B.W.=T.F. top of footing).
- 3. Profile is required for keystone retaining wall with special inspection notes.
- F. REFERRAL TO ENVIRONMENTAL REVIEW BOARD (PDS Environmental) 1. CEQA Compliance

G. SWMP

- _____ 1. Start from INTAKE Form.
- _____ 2. Show Construction BMPs on Erosion Control plans.
- _____ 3. Show Permanent TCBMPs on separate sheets.
- 4. Input RECORD data to Excel: "Z:\PCCommon\LAND DEVELOPMENT TEAMS\PL-JURMP Annual Report FY 13-14 Susan.xlsx"
 - ** Create new "LDSWTR" Account on ACCELA (on hold till further notice.)

H. MISCELLANEOUS ITEMS AFFECTING THE GRADING PLAN

- 1. Legal lot—proof that site is a legal lot (always applicable).
 - 2. San Diego Coastal Commission permit: Required Not Required
 - 3. a.) If more than 500 C.Y. are to be removed from the site, see borrow pit permit, Ordinance 3792, amending Section 34 of the Zoning Ordinance.
 - b.) Q>1,000 CY add import/export note.
 - c.) When Q>10,000 CY or plan changes, it should bring to PM for public review notification requirement decision)
 - 4. If project is on land zoned for multi-residential development, commercial, industrial, manufacturing, or other more intensive use, the grading plan will have to be compared with the street improvements required by the Centerline Ordinance if any.
 - 5. Submit notification mailing package if major grading permit is not related to any other discretionary permit per Grading Ordinance Section 87.208
 - 6. Public Notification is required for all Major Grading (See Sec. 87.208)

IN-HOUSE REQUIREMENTS (NOT REQUIRED TO BE CHECKED BY ENGINEER OF WORK)

- 1. Check for illegal grading.
- 2. Required account balance, agreements have been submitted and/ or paid.
- 3. Health Department clearance obtained (DEH DPW).
- 4. Easement documents recorded and /or shown on record map.
- _____ 5. Other resources' review.

ATTACHMENT 4

Temporary Fire Station No. 3 Scope of Work

Valley Center Fire Protection District is planning a temporary fire station west of Cole Grade Road and north of Cole Grade Lane in the northwest corner of the property identified as Parcel B of Lot Line Adjustment No. B/C-20-0079. The proposed site plan is shown in more detail on the exhibit titled Site Plan for Valley Center Fire Station Phase 1. The temporary facilities will be located at least 150 feet west of the ultimate right-of-way for Cole Grade Road and will be enclosed with chain link fencing, with slats to minimize the visibility of the temporary station. Access is proposed via a gravel driveway located near the northerly property line.

The temporary fire station is proposed to include two 864 square foot modular buildings, which are 15 feet tall; a metal carport for one Type 1 Fire Engine, which is 19 feet tall; and, two small storage sheds. The site is proposed to include 14 parking spaces.

Site improvements, including parking, the areas surrounding the modular buildings, carport, storage sheds and utilities, are proposed to be gravel. Pavement is only proposed in areas necessary to facilitate accessibility. Storm drain facilities and a biofiltration basin are also proposed.

Three to five crew members will be on-site per shift. Similar to a permanent station, these crew members will eat, sleep and perform administrative functions related to emergency calls at the temporary station. Limited public access is anticipated for the site. Only handouts with educational material and public postings are anticipated. All other administrative functions will be referred to Fire Station 1.

The site will be served by electrical facilities, water from Valley Center Municipal Water District and an on-site septic system. A propane tank and emergency generator will also be located on the site.

Project Components:

Site grading for temporary site Move and set two trailers with ramps and a canopy for engines from Rancho Santa Fe Harmony Grove site Emergency Generator, including automatic transfer switch Propane tank pad and bollards Propane piping and connections to trailers
Coordinate and provide electrical service to the site and site electrical to generator/ATS, gate and trailers

Water connections from facility in Cole Grade Road to site and connections to trailers Stormwater basin and drainage facility to discharge under access road to property to the north, including headwall for drainage discharge into existing drainage ditch Septic System for trailers, including tank and leach field

Cable TV and Data Connections from existing infrastructure to site and connections to trailers

Alerting system (US Digital Designs Phoenix G2) connections to trailers and equipment Covered trash enclosure, if required by the County

AC paving

DG for access road and majority of site (if allowed by County)

Concrete where necessary for handicap access

Handicap parking with signage

Handicap restroom (outside of trailers), if required by the County

Any other required accessibility improvements

Striping

Fencing with slats to screen the temporary station

Motorized access gate that operates with both keypad and remote

Report Geotechnical Investigation

Proposed Fire Station #3 Cole Grade Road, Valley Center, California



Valley Center Fire Protection District 28234 Lilac Road Valley Center, CA 92082





4373 Viewridge Avenue, Suite B San Diego, California 92123 858.292.7575

944 Calle Amanecer, Suite F San Clemente, CA 92673 949.388.7710

www.usa-nova.com

NOVA Project 2020074 August 20, 2020



DVBE + SBE + SDVOSB + SLBE

Valley Center Fire Protection District 28234 Lilac Road Valley Center, CA 92082 August 20, 2020 NOVA Project 2020074

Attention: Joe Napier, Fire Chief

Subject: Report Geotechnical Investigation Proposed Fire Station #3 Cole Grade Road, Valley Center, California 92082

Dear Mr. Napier:

NOVA Services, Inc. (NOVA) is pleased to forward herewith the above-referenced report. Workrelated to this report was completed by NOVA for Valley Center Fire Protection District (VCFPD) in accordance with the scope of work identified in NOVA's revised proposal dated October 25, 2019, as authorized by you on April 29, 2020.

NOVA appreciates the opportunity to be of service to VCFPD on this most interesting project. Should you have any questions regarding this report or other matters, please contact the undersigned at 858.292.7575.

Sincerely, **NOVA Services, Inc.**

Wail Mokhtar Senior Project Manager

John F. O'Brien, PE, GE Principal Geotechnical Engineer





Melissa Stayner PG, CEG Senior Engineering Geologist

Hillary A. Price Senior Staff Geologist



Report Geotechnical Investigation

Proposed Fire Station #3 Cole Grade Road, Valley Center, California 92082

Table of Contents

1.0	INTRODUCTION1	I
1.1 1.1.1 1.1.2	Terms of Reference	1 2
1.2 1.2.1 1.2.2 1.2.3	Objectives, Scope, and Limitations of This Work 2 Objectives 2 Scope 2 Limitations 3	2 2 3
1.3	Understood Use of This Report	3
1.4	Report Organization4	1
2.0	PROJECT INFORMATION	5
2.1 2.1.1 2.1.2 2.1.3	Site Description	555
2.2 2.2.1 2.2.2 2.2.3 2.2.4 2.2.5 2.2.6 2.2.7	Planned Fire Station 7 General 7 Structures 8 Floors, Pavements, and Parking 8 Potential for Earthwork 8 Stormwater BMPs 8 OWTS 8 Miscellaneous 8	7333333
3.0	SUBSURFACE EXPLORATION AND LABORATORY TESTING)
3.1	General)
3.2 3.2.1 3.2.2	Engineering Borings)))



Report of Geotechnical Investigation Proposed Fire Station #3, Cole Grade Road, Valley Center, California NOVA Project 2020074

August 20, 2020

3.2	.3	Closure	11
2 2	Dor	colation Testing	11
0.0 33	1	General	11
3.3	2	Drilling	11
3.3	3	Conversion to Percolation Well	17
3.3	4	Percolation Testing	12
0.0			12
3.4	Lat	oratory Testing	13
3.4	.1	General	13
3.4	.2	R-Value	13
3.4	.3	Compaction	14
3.4	.4	Expansion Potential and Plasticity	15
3.4	.5	In-Place Soil Density	15
3.4	.6	Gradation	15
3.4	.7	Corrosion Potential	15
4.0	еіт	E CONDITIONS	16
4.0	311	E CONDITIONS	10
4 1	Go	ologic Setting	16
 / 1	1	Regional	16
	. i つ	Site Specific	10
4.1	.∠		10
4.2	Su	face. Subsurface, and Groundwater	17
4 2	1	Surface	17
4.2	2	Subsurface	17 18
4.2	.2	Groundwater	10 19
4.2	.0 _1	Surface Water	10 19
7.4			10
4.3	Sul	osurface Profile	19
50	RF	VIEW OF GEOLOGIC, SOIL, AND SITING HAZARDS	21
010			
5.1	Ove	erview	21
5.2	Ge	blogic Hazards	21
5.2	.1	Strong Ground Motion	21
5.2	.2	Fault Rupture	21
5.2	.3	Landslide	22
5.3	Soi	l Hazards	23
5.3	.1	Embankment Stability	23
5.3	.2	Seismic	23
5.3	.3	Expansive Soil	23
5.3	.4	Hydro-Collapsible Soils	24
5.3	.5	Alluvial Soils	24
5.3	.6	Corrosivity	24
2.0	-	,	· — •
5 /	.	na llesende	
0.4	Siti	ng hazaros	
5.4	Siti .1	Effect on Adjacent Properties	24 24
5.4 5.4	.1 .2	Effect on Adjacent Properties Inundation	24 24 24



6.0 E	ARTHWORK AND FOUNDATIONS	26
6.1 O	verview	
6.1.1	Review of Site Hazards	26
6.1.2	Site Suitability	26
613	Review and Surveillance	26
0.1.0		
6.2 Se	eismic Design Parameters	26
6.2.1	Site Class	
6.2.2	Seismic Design Parameters	26
6.3 C	prrosivity and Sulfates	27
631	General	27
632	Metals	27 27
633	Sulfates	28
634	Limitations	28
0.0.4		
6.4 Ea	arthwork	29
6.4.1	General	
6.4.2	Site Preparation	
6.4.3	Select Fill	
6.4.4	Excavation Characteristics	
6.4.5	Remedial Grading at Structures	
6.4.6	Maintenance of Moisture in Soils During Construction	
6.4.7	Trenching and Backfilling for Utilities	
6.4.8	Slope Construction	
6.4.9	Flatwork	
6.5 SI	nallow Foundations	32
6.5.1	General	
6.5.2	Shallow Foundations Supported on Compacted Fill	
6.5.3	Shallow Foundations Supported on Unit 2 Tonalite Bedrock	
6.5.4	General Slab Design	
6.5.5	Slab Design to Support Fire Trucks	35
6.6 Ui	nderslab Vapor Retarder	35
6.6.1	General	35
6.6.2	Guidance Documentation	35
6.6.3	Design	
6.6.4	Installation	
67 C	ontrol of Moisture Around Foundations	36
671	General	36
672	Erosion and Moisture Control During Construction	36
673	Design	
674	l Itilities	
U.T.T	Cundoo	
6.8 R	etaining Walls	37
6.8.1	Wall Loads	
6.8.2	Retaining Wall Foundations	
6.8.3	Seismic Increment	
6.8.4	Foundation Uplift	
6.8.5	Resistance to Lateral Loads	



6.8.	5 Wall Drainage	1
6.9	Temporary Slopes	ł
7.0	STORMWATER INFILTRATION40	1
7.1	Overview40	1
7.2	Public Health and Safety Considerations40	
7.3	Borehole Percolation Testing41	
7.4	Infiltration Rate41	
7.5	Recommendation for Infiltration41	
8.0	PAVEMENT DESIGN42	
8.1	General42	
8.2	Design for Drainage and Maintenance42	
8.2. 8.2.	1 Drainage	
8.3 8.3. 8.3. 8.3. 8.3.	Subgrade Preparation431Subgrade Preparation431Proof Rolling432Timely Pavement Construction433Surveillance43	
8.4	Flexible Pavements43	,
8.5 8.5. 8.5. 8.5. 8.5.	Rigid Pavements for Fire Response Vehicles 44 1 Design Loading 44 2 Pavement Section 44 3 Concrete Properties 44 1 Jointing 45	
9.0	CONSTRUCTION REVIEW, OBSERVATION AND TESTING46	i
9.1	Overview	i
9.2	Design Phase Review46	Ì
9.3 9.3. 9.3. 9.3. 9.3.	Construction Observation and Testing.461General.462Continuous Soils Special Inspection463Periodic Soils Special Inspection474Testing During Inspections.47	



10.0	REFERENCES4	8
10.1	Site Specific4	8
10.2	Design4	8
10.3	Geologic and Site Setting4	8

List of Plates

- Plate 1 Subsurface Investigation Map
- Plate 2 Geologic Cross Sections

List of Appendices

- Appendix A Use of the Geotechnical Report
- Appendix B Logs of Borings
- Appendix C Records of Laboratory Testing

List of Figures

- Figure 1-1. Vicinity Map
- Figure 2-1. Site Location and Limits
- Figure 2-2. 1946 Aerial View of the Site Area
- Figure 2-3. Conceptual Planning
- Figure 3-1. Location of the Engineering Borings and Percolation Tests
- Figure 3-2. Drilling Operations, B-2, July 1, 2020
- Figure 3-3. Percolation Test Well, P-2, July 2, 2020
- Figure 3-4. Tire Rutting of a Test Subgrade with Low R-Value
- Figure 4-1. Geologic Mapping of the Site Vicinity
- Figure 4-2. Surface Conditions
- Figure 4-3. Unit 1 Alluvium
- Figure 4-4. Unit 2 Weathered Tonalite
- Figure 4-5. Unit 2 Weathered Tonalite
- Figure 4-6. South to North Profile Beneath the Planned Fire Station and Leach Field
- Figure 4-7. South to North Profile Beneath the Planned Maintenance and Admin Buildings



List of Figures (continued)

- Figure 5-1. Active Faulting in the Site Vicinity
- Figure 5-2. Flood Mapping of the Site Area
- Figure 6-1. Benching Detail
- Figure 6-2. Sawed Contraction Joint
- Figure 6-3. Ground Supported Slab with Thickened Edge
- Figure 6-4. Infiltration Restriction Considerations
- Figure 7-1. Conceptual Design for Wall Drainage

List of Tables

- Table 3-1. Abstract of the Engineering Borings
- Table 3-2. Abstract of the Percolation Testing
- Table 3-3. Typical R-Value for Soils in the San Diego Area
- Table 3-4. Abstract of the Compaction Testing, ASTM D1557
- Table 3-5. Moisture Content and Dry Unit Weight, ASTM D2937
- Table 3-6. Abstract of the Soil Gradation Testing, ASTM D6913
- Table 6-1. Seismic Design Parameters, ASCE 7-16
- Table 6-2. Summary of Corrosivity Testing of the Near Surface Soil
- Table 6-3. Soil Resistivity and Corrosion Potential
- Table 6-4. Exposure Categories and Requirements for Water-Soluble Sulfates
- Table 6-5. Lateral Earth Pressures to Retaining Walls
- Table 7-1. Infiltration Rates Determined by Percolation Testing
- Table 8-1. Preliminary Recommendations for Flexible Pavements
- Table 8-2. Recommendations for Concrete Pavements



1.0 INTRODUCTION

1.1 Terms of Reference

1.1.1 General

This report provides recommendations for the design of foundations and pavements for the construction of a new fire station on the eastern 4.75 acres of a 9.75-acre parcel with APN 133-220-38-00. This geotechnical investigation only addresses the eastern half of the parcel (hereinafter, 'the site'). This new fire station is known to NOVA as 'Fire Station #3'.

Work-related to this report was completed by NOVA Services, Inc. (NOVA) for Valley Center Fire Protection District (VCFPD) in accordance with the scope of work identified in NOVA's October 25, 2019 revised proposal, as authorized by VCFPD on April 29, 2020.

Figure 1-1 depicts the vicinity of the new fire station.



Figure 1-1. Vicinity Map



1.1.2 Related Reporting

Associated with this same authorization, NOVA has completed field testing and developed design-basis percolation rates for use in design of an on-site wastewater treatment system (OWTS). The findings of that work will be provided under separate cover.

1.2 Objectives, Scope, and Limitations of This Work

1.2.1 Objectives

The objectives of the work reported herein are twofold, as described below.

- 1. <u>Objective 1, Geotechnical</u>. Characterize the occurrence of subsurface soil and formational rock in a manner sufficient to provide recommendations for geotechnical-related site development.
- 2. <u>Objective 2, Stormwater</u>. Assess soil percolation rates in a manner sufficient to provide guidance for design of permanent stormwater infiltration Best Management Practices ('stormwater BMPs').
- 1.2.2 Scope

In order to accomplish the above objectives, NOVA undertook the task-based scope of work described below.

- 1. <u>Task 1, Background Review</u>. NOVA reviewed readily available background data regarding the site area, including geotechnical reports, topographic maps, geologic data, fault maps, and reports. Conceptual planning was reviewed. No architectural or structural information was available.
- 2. <u>Task 2, Subsurface Exploration</u>. A NOVA geologist directed a subsurface exploration comprised of the subtasks listed below.
 - Subtask 2-1, Reconnaissance. Prior to undertaking any exploratory work, NOVA conducted a site reconnaissance, including layout of borings and percolation test wells. Underground Service Alert and a private utility location contractor was notified for underground utility mark-out services.
 - Subtask 2-2, Coordination. A specialty subcontractor was retained to conduct engineering borings. NOVA coordinated with you regarding access for fieldwork.
 - *Subtask 2-3, Engineering Borings*. The geologist logged and sampled six (6) engineering borings.
 - Subtask 2-4, Percolation Testing. NOVA constructed and tested two (2) percolation wells at a proposed stormwater BMP. Percolation testing was performed in accordance with the San Diego County requirements.
 - *Subtask 2-5, Closure*. On completion, each boring and percolation test well was backfilled.



- 3. <u>Task 3, Laboratory Testing</u>. Laboratory testing was undertaken to address soil index characteristics. Chemical testing addresses the potential that soils may be corrosive to embedded concrete or metals.
- 4. <u>Task 4, Engineering Evaluations</u>. The findings of Tasks 1-3 were utilized to support evaluations directed toward recommendations for geotechnical-related development, including foundations, earthwork, pavements, and design for stormwater infiltration.
- 5. <u>Task 5, Reporting</u>. Submittal of this report completes NOVA's scope of work for this geotechnical investigation. The report provides a record of all work and geotechnical-related recommendations for foundations, earthwork, and stormwater.

1.2.3 Limitations

The recommendations for design and construction included in this report are not final. These recommendations are developed by NOVA using judgment and opinion and based on the information available at the time of the report. NOVA can finalize its recommendations only by observing actual subsurface conditions revealed during construction. NOVA cannot assume responsibility or liability for the report's recommendations if NOVA does not perform construction observation.

This report does not address any environmental assessment or investigation for the presence or absence of hazardous, toxic or regulated materials in the soil, groundwater, or surface water within or beyond the site.

1.3 Understood Use of This Report

Assessment of the subsurface in geological and geotechnical engineering is characterized by uncertainty. Opinions relating to environmental, geologic, and geotechnical conditions are based on limited data, such that actual conditions may vary from those encountered at the times and locations where the data are obtained, despite the use of due professional care.

The judgments provided in this report are based upon NOVA's understanding of the planned construction, its experience with similar work, and its judgments regarding subsurface conditions indicated by the methods of subsurface exploration described in the report.

Conditions exposed by construction may vary from those disclosed by the borings. NOVA should be retained for design review and for surveillance to observe subsurface conditions revealed during construction. NOVA cannot assume responsibility for the recommendations of this report if NOVA does not perform construction observation. Section 9 of this report addresses this consideration in more detail.

This report addresses geotechnical considerations only. The report does not provide any environmental assessment or investigation of the presence or absence of hazardous or toxic materials in the soil, soil gas, groundwater, or surface water within or beyond the site. Appendix A to this report provides important additional guidance regarding the use and limitations of this report. This information should be reviewed by all users of the report.



1.4 Report Organization

The remainder of this report is organized as abstracted below.

- Section 2 reviews available project information.
- Section 3 describes subsurface exploration.
- Section 4 describes the surface and subsurface conditions.
- Section 5 reviews geologic, soil, and siting-related hazards common to this area of San Diego, considering each for its potential to affect the planned fire station.
- Section 6 provides recommendations for earthwork and foundation design.
- Section 7 provides recommendations for design of stormwater infiltration BMPs.
- Section 8 provides recommendations for development of pavements.
- Section 9 addresses design review and geotechnical observation/testing during construction.
- Section 10 provides a list of the principal references utilized in the development of the report.

Figures and tables that directly support discussion in the text are embedded therein. Largerscale plots of the subsurface exploration and subsurface profiles are provided as Plates immediately following the text of the report.

The report is supported by three appendices.

- Appendix A provides guidance regarding the use and limitations of this report.
- Appendix B presents logs of the engineering and percolation test borings.
- Appendix C provides records of laboratory testing.



2.0 PROJECT INFORMATION

2.1 Site Description

2.1.1 Location

VCFPD plans to construct a new fire station on the eastern half (4.75 acres) of an approximately 10-acre parcel with APN 133-220-38-00 (hereinafter, 'the site').

The site is located on the western side of Cole Grade Road, in Valley Center. The site is bounded on the north and the west by agricultural land, to the east by Cole Grade Road, and to the south by Cole Grade Lane. Figure 2-1 depicts the location and limits of the site on a recent aerial view.



Figure 2-1. Site Location and Limits

2.1.2 Current Site Use

The approximately 330-foot x 670-foot site of the future firehouse and associated improvements is currently vacant, open land with a bare soil surface and scattered shrubs and grasses.



The site slopes gradually down to the northwest and northeast. On-site elevations range from +1,603 feet mean sea level (msl) at the southwest corner, to +1,550 feet msl at the northwest corner. This elevation differential occurs over a distance of about 670 feet, a surface gradient of about 8%.

2.1.3 Historic Site Use

Review of aerial photography, which started as early as 1939, indicates the site was unused until the 1960's, when an orchard was developed on the site. The subject site was cultivated as a citrus orchard until approximately 2016.

Figure 2-2 provides an aerial photograph depicting the site area in 1946. This photograph depicts the presence of a north-northwest trending drainage feature that was filled by the 1960's.



Figure 2-2. 1946 Aerial View of the 10-Acre Parcel



2.2 Planned Fire Station

2.2.1 General

Planning and design is still preliminary. NOVA's understanding of the current planning for Fire Station #3 is based upon review *VCFPD - Fire Station #3, Preliminary Site Plan* (Buccola Engineering, Inc., undated, hereinafter 'Buccola 2020'). Figure 2-3 reproduces Buccola 2020, depicting the layout of structures and infrastructure planned for the new fire station.



(source: Buccola 2020)

As may be seen by review of Figure 2-3, the planned development will include three principal structures: a 10,000 square foot (SF) fire station, a 5,000 SF maintenance building, and a 5,000 SF administration building. These structures will be set around parking and driveway access. Stormwater management and an on-site waste treatment system (OWTS) will be developed on the northern portion of the 4.75-acre site.



2.2.2 Structures

The three structures planned for Fire Station #3 maybe one or two levels. No below-grade construction is planned.

The fire station will enclose 10,000 SF, the administration building and the maintenance building will each enclose about 5,000 SF. The planned structures will each include relatively light loads to foundations. However, the interior floor slab for both the fire station and the maintenance building will be required to support fire trucks. Some of the buildings may require retaining walls to adapt the structures to grades at the site.

2.2.3 Floors, Pavements, and Parking

Design of pavements outside the fire station and floors within the fire stations will be controlled by the need to support the fire trucks. Though the design basis vehicle is not known, NOVA expects that the typical vehicle could weigh up to 80,000 pounds and apply H-20 axle loads to floors and pavements. The typical firefighting vehicle will be about 33 feet long.

The garage area within the fire station and the maintenance building may each require an interior trench drain connected to an oil-water separator.

2.2.4 Potential for Earthwork

No below-grade construction is anticipated beyond that required for utilities. NOVA expects that design will adapt the new structure to existing site grades. Based upon review of the planning described in Buccola 2020, it is expected that significant earthwork operations will be required to achieve pad grades. The site will be developed with cuts and fills that may be up to 15 feet.

Based on conversations with our client, it is NOVA's understanding that cut slopes may be constructed in the southwest corner of the site surrounding the entrance drive.

2.2.5 Stormwater BMPs

Planning for permanent stormwater BMPs is indicated on Figure 2-3. Permanent stormwater BMPs will be located in a Drainage Management Area (DMA) encompassing about 6,000 SF, sited north of the fire station.

2.2.6 OWTS

Design for the OWTS is only conceptual at this point. As is noted in Section 1, recommendations for development an OWTS will be provided under separate cover.

2.2.7 *Miscellaneous*

It is expected that the new fire station will include a variety of miscellaneous structures, such as signage, equipment pads, traffic bollards, and a flag pole.



3.0 SUBSURFACE EXPLORATION AND LABORATORY TESTING

3.1 General

The subsurface exploration was completed on July 1-2, 2020. A NOVA geologist directed excavation, *in situ* testing, and sampling of a series of six (6) engineering borings across the site. Two (2) percolation tests were completed in the vicinity planned for the stormwater BMP.

Figure 3-1 depicts the locations of the separate elements of the subsurface exploration. Plate 1, provided immediately following the text of this report, depicts this information in larger scale. Appendix B presents the boring logs.



Figure 3-1. Locations of the Borings and Percolation Testing



3.2 Engineering Borings

3.2.1 Excavation

The geologist directed drilling and sampling of six (6) engineering borings ('B-1' through 'B 6') to depths between 10.5 feet and 16.5 feet below ground surface (bgs) on July 1, 2020. Samples recovered from the borings were delivered to NOVA's materials laboratory for review and analysis. The engineering borings were advanced by a truck-mounted drilling rig utilizing hollow-stem auger drilling techniques. Prior to beginning fieldwork, boring locations were determined by a geologist based on the proposed building configuration.

Table 3-1 provides an abstract of the engineering borings.

Boring Reference	Approx. Ground Surface Elev. (feet, msl) ¹	Total Depth Below Ground Surface (feet)	Elevation at Completion (feet, msl) ¹	Approx. Depth to Formation (feet) ²	Approx. Depth to Groundwater (feet)
B-1	+1600.0	15.5	+1584.5	1.5	Not encountered
B-2	+1595.0	10.5	+1584.5	0.5	Not encountered
B-3	+1584.0	15.5	+1568.5	5.0	Not encountered
B-4	+1568.0	16.0	+1552.0	2.0	Not encountered
B-5	+1570.0	15.5	+1554.5	4.0	Not encountered
B-6	+1553.0	16.5	+1536.5	3.5	Not encountered

Table 3-1. Abstract of the Engineering Borings by NOVA

Notes: 1. Elevations are approximate and should be reviewed

2. The referenced geologic unit is Cretaceous-aged Cole Grade Tonalite (Kcg)

Figure 3-2 (following page) depicts drilling operations.

3.2.2 Logging and Sampling

The geologist directed sampling and maintained a log of the soils that were encountered. Both disturbed and relatively undisturbed samples were recovered from the borings. Samples were delivered to NOVA's materials laboratory for analysis. Sampling of and *in situ* testing are described below.

- 1. The Modified California sampler ('ring sampler', after ASTM D 3550) was driven using a 140-pound hammer falling for 30 inches with a total penetration of 18 inches, recording blow counts for each 6 inches of penetration.
- 2. The Standard Penetration Test sampler ('SPT', after ASTM D 1586) was driven in the same manner as the ring sampler, recording blow counts in the same fashion. SPT blow counts for the final 12 inches of penetration comprise the SPT 'N' value, an index of soil strength and compressibility.
- 3. Bulk samples representative of the subsurface materials encountered during the investigation were collected for testing.



Soil samples recovered from the engineering borings were transferred to NOVA's geotechnical laboratory where a geotechnical engineer reviewed the soil samples and the field logs.



Figure 3-2. Drilling Operations, B-2, July 1, 2020

3.2.3 Closure

On completion, the borings were backfilled with cuttings. The area was cleaned and left as close to the original condition as practical.

3.3 **Percolation Testing**

3.3.1 General

NOVA directed the advancement and construction of two (2) percolation test wells following the recommendations for percolation testing presented in the County of San Diego County BMP Design Manual, January 2019 edition, and the County of San Diego Department of Health Services guidelines. The percolation test locations are shown on Figure 3-1.

3.3.2 Drilling

The borings for the wells were each drilled with an 8-inch hollow-stem auger to depths of 5 feet below ground surface (bgs). Field measurements were taken to confirm that the borings were



excavated to approximately 8 inches in diameter. The borings were logged by a NOVA geologist, who observed and recorded exposed soil cuttings and the boring conditions.

3.3.3 Conversion to Percolation Well

Once the borings were drilled to the desired depths, the borings were converted to percolation test wells by placing an approximately 2-inch layer of ³/₄-inch gravel on the bottom, then extending 3-inch diameter schedule 40 perforated PVC pipe to the ground surface. The ³/₄-inch gravel was used to partially fill the annular space around the perforated pipe below the existing finish grade to minimize the potential of soil caving.

3.3.4 Percolation Testing

The percolation test wells were pre-soaked by filling the holes with water to the ground surface level and testing commenced within a 26-hour window.

On the day of testing, two 25-minute trials were conducted in each well. In the test wells the presoak water did not percolate at least 6 inches into the soil unit within 25 minutes.

Based on the results of the trials, water levels were recorded every 30 minutes for six hours. At the beginning of each test interval, the water level was raised to approximately the same level as the previous tests, in order to maintain a near-constant head during all test periods.

Table 3-2 abstracts the percolation test conditions and related percolation rates.

Test Well Reference	Approx. Elevation (feet, msl)	Total Depth (feet)	Approx. Percolation Test Elevation (feet, msl) ¹	Percolation Rate (min/in) ²	Subsurface Unit Tested ³	Infiltration Rate (in/hr) ²	Infiltration Rate (in/hr, FS=2)⁴	
P-1	+1563	5	+1560	10	Kcg	0.39	0.20	
P-2	+1568	5	+1563	1.81	Kcg	3.37	1.69	

 Table 3-2. Abstract of the Percolation Testing

Note 1: Elevations are approximate and should be reviewed.

Note 2: Percolation rate is not infiltration rate. Infiltration rates are discussed in detail in Section 7.

Note 3: The referenced geologic subsurface unit tested is Tonalite of Cole Grade (Kcg).

Note 4: 'FS' indicates 'Factor of Safety'. Discussed further in Section 7.

Figure 3-3 (following page) depicts percolation testing at well P-2.



Report of Geotechnical Investigation Proposed Fire Station #3, Cole Grade Road, Valley Center, California NOVA Project 2020074

August 20, 2020



Figure 3-3. Percolation Testing at Well P-2, July 2, 2020

3.4 Laboratory Testing

3.4.1 General

Soil samples recovered from the engineering borings were transferred to NOVA's geotechnical laboratory where a geotechnical engineer reviewed the soil samples and the field logs. Representative soil samples were selected and tested in NOVA's materials laboratory to check visual classifications and to determine pertinent engineering properties. The laboratory program included visual classifications of all soil samples as well as index and expansivity testing in general accordance with ASTM standards.

Records of the geotechnical laboratory testing are provided in Appendix C.

3.4.2 R-Value

As used for this report, the purpose of this test is to determine the suitability of prospective subgrade soils for use in the pavement sections. Of particular concern in development of Fire Station #3 will be the high axle loads applied to pavements by the firefighting vehicles.

Developed and used by Caltrans for flexible pavement design, R-Value replaces the California Bearing Ratio (CBR) test. Samples used to determine R-value are prepared at a moisture and density condition representative of the expected *in situ* condition of a compacted subgrade (often, conditions of saturation and lower relative compaction).



The R-value is calculated from the ratio of the applied vertical pressure to the developed lateral pressure, essentially a measure of the material's resistance to plastic flow. Figure 3-4 depicts lateral flow in soil rutted by tires of a test soil section.



Figure 3-4. Tire Rutting of a Test Subgrade with Low R-Value

The R-value thus reflects the ability of a soil to resist lateral spreading due to an applied vertical load (such as the tire loads depicted above). A range of values are established from 0 to 100, where 0 is the resistance of water and 100 is the resistance of steel. Typical R-values based on NOVA's local experience are presented below.

Soil Type	Typical R-Values
Plastic clays/silty clays	5 – 15
Clayey silts	12 - 25
Silty sands	15 - 55
Sands	50 - 75
Sandy gravels	> 60
Crushed rock	> 70

Table 3-3. Typical R-Values for Soils in the San Diego

A sample representative of the subgrade soils in the planned paved areas was selected for R-Value testing after ASTM D2844, indicating R = 17, characteristic of R-values for sands with silt.

3.4.3 Compaction

A single composite sample of the sandy fraction of near-surface soil was tested to determine the moisture-density characteristics during compaction after ASTM D1557 (the 'modified Proctor'). Table 3-4 summarizes the results of this testing.

Location	Depth (feet)	Soil Description	Maximum Dry Density (lb/ft ³)	Optimum Moisture Content (%)
B-2	0-4	Orange brown clayey sand	133.5	9.8

Table 3-4. Abstract of the Compaction Testing, ASTM D1557



3.4.4 Expansion Potential and Plasticity

The field visual classification of the soils by the geologist and reviewed in the laboratory by the geotechnical engineer indicates that the near-surface soils are characteristically sandy with varying amounts of silt. As such, these soils would be expected to be of low plasticity and low expansion potential.

The foregoing judgments were checked by testing of a single representative sample of the nearsurface alluvium after ASTM D4829 to determine Expansion Index. This testing showed the soil to have 'Low' expansion potential (EI = 40) after ASTM D4829.

3.4.5 In-Place Soil Density

The dry unit weight and moisture content of representative, relatively undisturbed samples were determined as a basis for comparison with the optimum density and moisture. Table 3-5 depicts these results.

Boring	Depth (feet)	Soil Description	Moisture Content	Dry Unit Weight (pcf)
B-2	2.5	Orange-brown clayey sand	12.2	124.4
B-3	6	Orange-brown silty sand	10.6	119.3

Table 3-5. Moisture Content and Dry Unit Weight, ASTM D2937

3.4.6 Gradation

Table 3-5 summarizes the results of gradation testing of soils recovered from the borings.

Location	Depth (feet)	Percent Finer Than the U.S. No. 200 Sieve (0.074 mm)	Soil Classification
B-1	1	30	SM
B-2	1	33	SC
B-2	6	21	SM
B-4	2.5	35	SM
B-4	5	27	SM
B-4	8	23	SM
B-6	2	59	CL
B-6	3.5	27	SM
B-6	5.5	9	SP-SM

Table 3-6. Abstract of the Soil Gradation Testing, ASTM D6913

3.4.7 Corrosion Potential

Resistivity, sulfate content, and chloride contents were determined to estimate the potential of on-site soils to be corrosive to unprotected, embedded metals or to attack embedded concrete. The testing indicated a slightly basic pH and low levels of soluble sulfates and chlorides. Section 6 discusses the indications of the chemical testing.



4.0 SITE CONDITIONS

4.1 Geologic Setting

4.1.1 Regional

The project area is located in the Peninsular Ranges Geomorphic Province. This geomorphic province encompasses an area that extends approximately 900 miles from the Transverse Ranges and the Los Angeles Basin south to the southern tip of Baja California (Norris and Webb, 1990). The province varies in width from approximately 30 to 100 miles. In general, the province consists of rugged mountains underlain mostly by Jurassic metavolcanic and metasedimentary rocks, intruded by Cretaceous igneous rocks of the southern California batholith.

The site is in the Foothills Physiographic Province of San Diego County. Geologic units include granitic rocks such as gabbro, granodiorite, and tonalite; and hard metasedimentary and metavolcanics rock. Alluvial soils in this area are generally derived of the granitic rocks, and can occur in basins, drainages, and alluvial fans.

4.1.2 Site Specific

The site is generally underlain by a layer of alluvium overlying Cretaceous-age Tonalite of Cole Grade (Kcg), a granitic-type bedrock.

In its unweathered state, tonalite provides excellent, high-capacity foundation support. However, unweathered tonalite may have the strength of low-grade concrete and present excavation difficulties. The upper portion of the tonalite at this site is variably weathered (sometimes called 'decomposed'). Weathered tonalite will still provide excellent foundation conditions and often can be favorable for infiltration and percolation.

Figure 4-1 (following page) reproduces geologic mapping of the site area.

There are no known, mapped active faults underlying the site. The nearest mapped fault zone is the Elsinore Fault Zone, with the nearest active fault located in the Temecula Section, about 5.5 miles north of the site.





Figure 4-1. Geologic Mapping of the Site Vicinity

4.2 Surface, Subsurface, and Groundwater

4.2.1 Surface

The site is characterized by gently rolling topography. Surface drainage is generally from south to north. The site slopes gradually down to the northwest and northeast. On-site elevations range from +1,603 feet mean sea level (msl) at the southwest corner, to +1,550 feet msl at the northwest corner. This elevation differential occurs over a distance of about 670 feet, a surface gradient of about 8%.

Cole Grade Road, which borders the site to the east, is elevated almost 10 feet relative to the site levels in the northeast corner of the site, but is 2 feet lower than the site in the southeast corner.

Figure 4-2 (following page) depicts surface conditions at the site. As may be seen by review of this figure, the site is covered by a dense cover of native grasses, weeds, and brush.



Report of Geotechnical Investigation Proposed Fire Station #3, Cole Grade Road, Valley Center, California NOVA Project 2020074

August 20, 2020



(a) Looking south along east boundary (b) Looking south from north property line **Figure 4-2. Surface Conditions**

4.2.2 Subsurface

The sequence of soils and rock encountered by the borings may be generalized to occur as described below.

1. <u>Unit 1, Alluvium (Qal)</u>. The site is covered by a veneer of alluvium. As encountered in the explorations, this material ranges from 0 to 5 feet in thickness but maybe thicker in other areas of the site. The alluvial soils encountered is comprised of medium dense clayey sand, but is subject to wide variation in quality and consistency. Figure 4-3 depicts the soil from this unit.



Figure 4-3. Unit 1 Alluvium

2. <u>Unit 2, Weathered Tonalite of Cole Grade (Kcg)</u>. Beneath the alluviual soils, the site is underlain by granitics of this Cretaceous-aged unit. The upper several feet are characteristically weathered and decomposed to a medium to coarse, orange to gray sand with silt. A one-foot clay layer of weathered tonalite was encountered within boring



B-6. As characterized by Standard Penetration Test blowcounts ('N', after ASTM D 1586), the weathered tonalite is of dense to very dense consistency, with N > 50. Rock floaters may be encountered during earthwork operations.

Figure 4-4 and Figure 4-5 depict variations in the degree of weathering of this unit.





Figure 4-4. Unit 2 Weathered Tonalite

4.2.3 Groundwater

Figure 4-5. Unit 2 Weathered Tonalite

No groundwater was encountered in the borings. Information provided on the Water Well Drillers Report for a groundwater well installed in 1986 at a property located approximately 2,000 feet west of Cole Grade Road on Cole Grade Lane (approximately 1,300 feet west of the site) indicates groundwater first occurs in fractured bedrock at a depth of approximately 30 feet below ground surface (bgs).

Infiltrating storm water from prolonged wet periods can 'perch' atop localized zones of lower permeability soil that exist above the static groundwater level. Localized perched groundwater conditions may also develop post-construction, once landscape irrigation commences.

No perched groundwater was observed in the work by NOVA.

4.2.4 Surface Water

No surface water was evident within the limits of the planned fire station at the time of NOVA's subsurface exploration. NOVA did not observe any visual evidence of seeps, springs, erosion, staining, discoloration, etc. that would indicate recent problems with surface water.

The closest surface water is Keys Creek, located approximately a half-mile north of the site.

4.3 Subsurface Profile

As is tabulated in Section 3 and discussed previously in this section, beneath a veneer of alluvium, the site is underlain by weathered granitics. Figure 4-6 and Figure 4-7 provide two south to north subsurface profiles beneath the planned structures. Locations of cross-section



lines are located on Plate 1 following the text of the report, and cross-section figures are provides in larger scale as Plate 2.



Figure 4-6. South to North Profile Beneath the Planned Fire Station (Qal indicates alluvium; Kcg indicates granitic tonalite)



(Qal indicates alluvium; Kcg indicates granitic tonalite)

As is discussed in Section 2, site design is not complete. However, based upon review of Figure 4-6 and Figure 4-7 it is likely that the structures will largely be founded in the Unit 2 tonalite. Some low retaining walls may be employed to adapt development to the site.



5.0 REVIEW OF GEOLOGIC, SOIL, AND SITING HAZARDS

5.1 Overview

This section provides a review of geologic, soil, and siting-related hazards common to this region of California, considering each for its potential to affect the planned development. The primary hazard identified by this review is the risk for moderate-to-severe ground shaking in response to a large-magnitude earthquake during the lifetime of the planned development, a circumstance is common to all civil works in this area of California.

While strong ground motion could affect the site there is no risk of liquefaction or related seismic phenomena.

The following subsections describe NOVA's review of soil and geologic hazards.

5.2 Geologic Hazards

5.2.1 Strong Ground Motion

The seismicity of the site was evaluated utilizing a web-based analytical tool provided by The American Society of Civil Engineers (ASCE). This evaluation shows the site may be subjected to a Magnitude 7.7 seismic event, with a corresponding risk-based Peak Ground Acceleration (PGA_M) of PGA_M ~ 0.63 g.

5.2.2 Fault Rupture

No evidence of faulting was observed during NOVA's geologic reconnaissance of the site. The site does not lie within a state-designated active Earthquake Fault Zone (Alquist-Priolo Zone).

The nearest mapped major fault zone is the Elsinore fault zone, with the closest active fault (Holocene- active) located about 5.5 miles north within the Temecula Section, and nearest potentially active faults (late Quaternary) of the Julian Section located 5.0 miles northeast from the site. Figure 5-1 (following page) reproduces published mapping of active faulting in the site vicinity.

Because of the lack of known active faults on the site, the potential for surface rupture at the site is considered low. Shallow ground rupture due to shaking from distant seismic events is not considered a significant hazard, although it is a possibility at any site.



Report of Geotechnical Investigation Proposed Fire Station #3, Cole Grade Road, Valley Center, California NOVA Project 2020074

August 20, 2020



Figure 5-1. Active Faulting in the Site Vicinity

5.2.3 Landslide

As used herein, 'landslide' describes downslope displacement of a mass of rock, soil, and/or debris by sliding, flowing, or falling. Such mass earth movements are greater than about 10 feet thick and larger than 300 feet across. Landslides typically include cohesive block glides and disrupted slumps that are formed by translation or rotation of the slope materials along one or more slip/failure surfaces. These mass displacements can also include more narrowly confined modes of mass wasting such as rock topples, 'mud flows' and 'debris flows'.

The causes of classic landslides start with a preexisting condition - characteristically, a plane of weak soil or rock - inherent within the rock or soil mass. Thereafter, movement may be precipitated by earthquakes, wet weather, and changes to the structure or loading conditions on a slope (e.g., by erosion, cutting, filling, release of water from broken pipes, etc.).

Associated with this assessment, NOVA completed a review of published information regarding historical landslides and the risk of landsliding in the site vicinity. That review indicates no mapped historic landslides in the immediate site area.



In consideration of the gently sloping topography at and around the site, review of published information, and geologic reconnaissance of the site area, NOVA considers the landslide hazard at the site to be 'negligible' for the site and the area immediately surrounding it.

5.3 Soil Hazards

5.3.1 Embankment Stability

As used herein, 'embankment stability' is intended to mean the safety of localized natural or man-made embankments against failure. Unlike landslides described above, embankment stability can include smaller scale slope failures such as erosion-related washouts and more subtle, less evident processes such as soil creep.

At the time of this report, grading plans are not available. It is NOVA's understanding that there may be cut slopes designed as part of the future construction. The dense to very dense nature of the tonalite bedrock is expected to provide sound cut slopes. Any loose alluvium in the cut slope should be removed and replaced with engineered fill, per recommendations in Section 6. Embankment stability is not considered a hazard to development.

5.3.2 Seismic

Liquefaction

[']Liquefaction' refers to the loss of soil strength during a seismic event. The phenomenon is observed in areas that include geologically 'younger' soils (i.e., soils of Holocene age), shallow water table (less than about 60 feet depth), and cohesionless (i.e., sandy and silty) soils of looser consistency. The seismic ground motions increase soil water pressures, decreasing grain-to-grain contact among the soil particles, which causes the soils to lose strength.

The subsurface exploration did not encounter saturated soils. The Unit 2 tonalite is known to extend to great depth at this site. This Cretaceous-aged rock is not at risk for liquefaction (or related 'lateral spreading).

Seismically Induced Settlement

Apart from liquefaction, a strong seismic event can induce settlement within loose to moderately dense, unsaturated granular soils. Unit 2 tonalite is sufficiently dense that seismic settlement will not occur. Unit 1 alluvium will be improved by remedial grading to be a soil of very dense consistency.

5.3.3 Expansive Soil

Expansive soils are characterized by their ability to undergo significant volume changes (shrinking or swelling) due to variations in moisture content, the magnitude of which is related to both clay content and plasticity index. These volume changes can be damaging to structures. Nationally, the annual value of real estate damage caused by expansive soils is exceeded only by that caused by termites.

As is discussed in Section 3, the soils have been characterized by testing to determine Expansion Index ('EI' after ASTM D 4829). Originally developed in Orange County in the 1960s, EI is a basic soil index property, comparable to indices such as the Atterberg limits of soils.



El is adopted by the 2019 California Building Code ('CBC', Section 1803.5.3) for characterization of expansive soils. Testing of the Unit 1 alluvium, as well as visual inspection of samples recovered by NOVA, indicates that this soil has 'Low' expansion potential.

5.3.4 Hydro-Collapsible Soils

Hydro-collapsible soils are common in the arid climates of the western United States in specific depositional environments - principally, in areas of young alluvial fans, debris flow sediments, and loess (wind-blown sediment) deposits. These soils are characterized by low *in situ* density, low moisture contents, and relatively high unwetted strength.

The Unit 1 alluvium will be improved by remedial grading and will not be collapsible. The consistency, geomorphogeny, and geologic age of the Unit 2 tonalite is such that these soils are at risk for hydro-collapse.

5.3.5 Alluvial Soils

Alluviual soils should be considered at risk for wide variations in quality and consistency. This unit in its natural state has the potential to affect structures and infrastructure, unless mitigated per recommendations in Section 6.

5.3.6 Corrosivity

Chemical testing of the near-surface soils indicates the soils contain low concentrations of soluble sulfates and chlorides, but may be considered 'severely corrosive" to buried metal based on resistivity testing. Section 6 addresses this consideration in more detail.

5.4 Siting Hazards

5.4.1 Effect on Adjacent Properties

The proposed project will not affect the structural integrity of adjacent properties or existing public improvements and street right-of-ways located adjacent to the site if the recommendations of this report are incorporated into project design.

5.4.2 Inundation

Flood

The site is located within an area designated by FEMA as "Zone X," an area of minimal flood hazard Figure 5-2 (following page) reproduces flood mapping by FEMA of the site area.

Surface Water Structures

The site is not located near any surface water bodies (e.g., lakes, reservoirs, canals, etc.) whose failure would have the potential to inundate the site.





Figure 5-2. Flood Mapping of the Site Area (source: FEMA 2019, found at <u>https://msc.fema.gov/portal/</u>)

Tsunami and Seiche

Tsunami describes a series of fast-moving, long-period ocean waves caused by earthquakes or volcanic eruptions. The distance of the site from the ocean precludes this threat.

Seiches are standing waves that develop in an enclosed or partially enclosed body of water such as lakes or reservoirs. Harbors or inlets can also develop seiches. The site is not located near a body of water that could generate a seiche.



6.0 EARTHWORK AND FOUNDATIONS

6.1 Overview

6.1.1 Review of Site Hazards

Section 5 provides review of geologic, soil, and siting-related hazards that may affect the planned development. The primary hazard identified by that review is that the site is at risk for moderate-to-severe ground shaking in response to large-magnitude earthquakes during the lifetime of the planned development. This circumstance is common to all civil works in this area of California.

While strong ground motion could affect the site, there is no risk of liquefaction or related seismic phenomena. Section 6.2 provides seismic design parameters.

6.1.2 Site Suitability

The site is suitable for development of the planned structures on shallow foundations provided the geotechnical recommendations described herein are followed. Founded as such, the project will not affect the structural integrity of adjacent properties or existing public improvements and street right-of-ways located adjacent to the site.

6.1.3 Review and Surveillance

The subsections following provide geotechnical recommendations for the planned development as it is now understood. It is intended that these recommendations provide sufficient geotechnical information to develop the project in general accordance with 2019 California Building Code (CBC) requirements.

NOVA should be given the opportunity to review the grading plan, foundation plan, and geotechnical-related specifications as they become available to confirm that the recommendations presented in this report have been incorporated into the plans prepared for the project.

All earthwork related to site and foundation preparation should be completed under the observation of NOVA.

6.2 Seismic Design Parameters

6.2.1 Site Class

The Site Class was determined using site-specific boring data and geologic knowledge. Based on this information, the site is classified as Site Class C per ASCE 7-16, Table 20.3-1. The planned fire station is considered Risk Category IV.

6.2.2 Seismic Design Parameters

Table 6-1 provides seismic design parameters for the site in accordance with 2019 CBC and mapped spectral acceleration parameters.



Parameter	Value
Site Soil Class	С
Site Latitude (decimal degrees)	33.260506
Site Longitude (decimal degrees)	-117.024095
Site Coefficient, F _a	1.2
Site Coefficient, F _v	1.5
Mapped Short Period Spectral Acceleration, S _S	1.19
Mapped One-Second Period Spectral Acceleration, S ₁	0.429
Short Period Spectral Acceleration Adjusted For Site Class, S_{MS}	1.428
One-Second Period Spectral Acceleration Adjusted For Site Class, S_{M1}	0.643
Design Short Period Spectral Acceleration, S _{DS}	0.952
Design One-Second Period Spectral Acceleration, S _{D1}	0.429
Design One-Decond Ferror Opectial Acceleration, Opt	0.429

Source: SEAOC and OSHPD Seismic Design Maps www.seismicmaps.org

6.3 Corrosivity and Sulfates

6.3.1 General

Electrical resistivity, chloride content, and pH level are all indicators of the soil's tendency to corrode ferrous metals. Levels of water-soluble sulfates are correlated with the potential for sulfate attack to embedded concrete. Chemical testing for these parameters was performed on a representative sample of the near-surface soils. These results are tabulated in Table 6-2.

Sample Ref			Resistivity	Sulfates		Chlorides	
Boring	Depth (feet)	рН	(Ω-cm)	ppm	%	ppm	%
B-2	0-4	7.8	1200	66	0.007	230	0.023

Table 6-2. Summary of Corrosivity Testing of the Near Surface Soil

6.3.2 Metals

Caltrans considers a soil to be corrosive if one or more of the following conditions exist for representative soil and/or water samples taken at the site:

- chloride concentration is 500 parts per million (ppm) or greater,
- sulfate concentration is 2,000 ppm (0.2%) or greater, or
- the pH is 5.5 or less.

Based on the Caltrans criteria, the on-site soils would not be considered 'corrosive' to buried metals.


In addition to the above parameters, the risk of soil corrosivity buried metals may considered by determination of electrical resistivity (ρ). Soil resistivity may be used to express the corrosivity of soil only in unsaturated soils. Corrosion of buried metal is an electrochemical process in which the amount of metal loss due to corrosion is directly proportional to the flow of DC electrical current from the metal into the soil. As the resistivity of the soil decreases, the corrosivity generally increases. A common qualitative correlation (cited in Romanoff 1989, NACE 2007) between soil resistivity and corrosivity to ferrous metals is tabulated below.

Minimum Soil Resistivity (Ω-cm)	Qualitative Corrosion Potential
0 to 2,000	Severe
2,000 to 10,000	Moderate
10,000 to 30,000	Mild
Over 30,000	Not Likely

Table 6-3. Soil Resistivity and Corrosion Potential

Despite the relatively benign environment for corrosivity indicated by pH and water-soluble chlorides, the resistivity testing suggests that design should consider that the soils may be Severely Corrosive to embedded ferrous metals. Ferrous metals include steel and pig iron (with a carbon content of a few percent) and alloys of iron with other metals (such as stainless steel).

Typical recommendations for mitigation of such corrosion potential in embedded ferrous metals include:

- a high-quality protective coating such as an 18-mil plastic tape, extruded polyethylene, coal tar enamel, or Portland cement mortar;
- electrical isolation from above grade ferrous metals and other dissimilar metals by means of dielectric fittings in utilities and exposed metal structures breaking grade; and
- steel and wire reinforcement within concrete having contact with the site soils should have at least 2 inches of concrete cover.

If extremely sensitive ferrous metals are expected to be placed in contact with the site soils, it may be desirable to consult a corrosion specialist regarding choosing the construction materials and/or protection design for the objects of concern.

6.3.3 Sulfates

As shown in Table 6-2, the soil sample indicated water-soluble sulfate (SO₄) content of 66 parts per million ('ppm,' 0.007% by weight). With SO₄ < 0.10 percent by weight, the American Concrete Institute (ACI) 318-08 considers a soil to have no potential (S0) for sulfate attack. Table 6-4 (following page) reproduces the Exposure Categories considered by ACI.

6.3.4 Limitations

Testing to determine several chemical parameters that indicate a potential for soils to be corrosive to construction materials are traditionally completed by the Geotechnical Engineer, comparing testing results with a variety of indices regarding corrosion potential. Like most geotechnical consultants, NOVA does not practice in the field of corrosion protection, since this is not specifically a geotechnical issue. Should you require more information, a specialty corrosion consultant should be retained to address these issues.



Exposure Category	Class	Water-Soluble Sulfate (SO₄) In Soil	Cement Type (ASTM C150)	Max Water- Cement Ratio	Min. f' _c (psi)	
Not Applicable	S0	SO ₄ < 0.10	-	-	-	
Moderate	S1	0.10 ≤ SO ₄ < 0.20	II	0.50	4,000	
Severe	S2	$0.20 \leq SO_4 \leq 2.00$	V	0.45	4,500	
Very severe	S3	SO ₄ > 2.0	V + pozzolan	0.45	4,500	

Table 6-4. Exposure	Categories and	Requirements for	Water-Soluble Sulfates
	outogonioo unu	1.0 qui 011101110 101	

Adapted from: ACI 318-08, Building Code Requirements for Structural Concrete

6.4 Earthwork

6.4.1 General

As is noted in Section 2, no detailed structural or civil-related design information is available at this time. However, based upon the known condition of the site and the design concept that is currently considered, NOVA expects that earthwork will be limited to preparation of building pads, grading for roads and parking lots, and excavations for foundations and utilities.

Earthwork should be performed in accordance with Section 300 of the most recent approved edition of the "Standard Specifications for Public Works Construction" and "Regional Supplement Amendments."

6.4.2 Site Preparation

Prior to the start of earthwork, the site should be cleared of vegetation, including the root zone. The deleterious materials should be disposed of in approved off-site locations.

At the outset of site work, the Contractor should establish Construction BMPs to prevent erosion of graded/excavated areas until such time as permanent drainage and erosion control measures have been installed. Any existing utilities which are to be abandoned should either be (i) excavated and the trenches backfilled, or (ii) the lines completely filled with sand-cement slurry.

6.4.3 Select Fill

Material Requirements

Any fill used to support structures should be 'select.' Select Fill should be a mineral soil free of organics and any regulated constituents with the characteristics listed below:

- free of organics, with at least 40% by weight finer than $\frac{1}{4}$ inches in size; •
- maximum particle size of 4 inches; •
- classified as GM. GW. SW or SM after ASTM D 2488: and.
- expansion index (EI) less than 40 (i.e., EI < 40, after ASTM D 4829).

Much of the Unit 1 alluvium will conform to the above criteria. In certain cases mixing of the Unit 1 and Unit 2 soils may be required to meet the above criteria. The upper portions of the Unit 2 weathered tonalite should also conform to the above criteria.



Compaction Requirements

All fill should be compacted to a minimum of 90% relative compaction after ASTM D1557 (the 'modified Proctor') following moisture conditioning to 2% above the optimum moisture content.

The cohesionless (i.e., sandy and gravelly) Select Fill must be densified by vibratory means, using compaction equipment intended for the densification of cohesionless soils. The equipment must be in good working order.

Fill should be placed in loose lifts no thicker than the ability of the compaction equipment to thoroughly densify the lift. For most self-propelled construction equipment, this will limit loose lifts to on the order of 8 inches or less. Lift thickness for hand-operated equipment (tampers, walk-behind compactors, etc.) will be limited to on the order of 4 inches or less.

6.4.4 Excavation Characteristics

The Unit 1 alluvium will be readily excavated by earthwork equipment usual for construction of this nature.

Engineering borings excavated by means of hollow stem auger drilling were able to be extended to depths of 16 feet below surrounding ground, penetrating at least 10 feet of the Unit 2 weathered tonalite. SPT blow counts ('N', blows per foot) in this interval were commonly N > 50. The weathered tonalite encountered over this interval was characteristically a coarse-grained sand with varying amounts of silt.

NOVA expects that the Unit 2 weathered tonalite should be able to be excavated by medium to heavy earthmoving equipment, including larger dozers and appropriately equipped backhoes. Despite this expectation, the prospective contractor should recognize that this unit commonly includes near-surface zones of sound rock known as 'core stones' or 'floaters' that may require ripping, breaking, or other special means to loosen the material prior to handling, though none of these were encountered during the investigation.

6.4.5 Remedial Grading at Structures

<u>General</u>

The Unit 1 alluvium is unsuitable for support of structures. Foundation preparation for floor slabs and foundations should provide for complete removal of the Unit 1 alluvium to the level of the Unit 2 weathered tonalite, extending this excavation to at least 5 feet outside the building limits. The resultant excavation should be backfilled to finish pad grades with Select Fill meets the criteria of Section 6.4.3.

The project GEOR should approve the bottom of removals. Soils loosened by excavation should be redensified to a minimum of 90% relative compaction after ASTM D 1557.

Transition Conditions

A "transition condition" occurs when a portion of the structure is bearing on new engineered fill and a portion of the structure is bearing on the Unit 2 weathered tonalite.



If a transition condition occurs within the limits of a structure, the Unit 2 tonalite should be over excavated to a depth of 2 feet below the bottom of footings and floor slab, to ensure the structure is bearing entirely on at least 2 feet of compacted fill.

These over excavations should extend 5 feet beyond the building footprint. Removal bottoms should be observed and documented by the GEOR.

6.4.6 Maintenance of Moisture in Soils During Construction

The subgrade moisture condition of the building pad and foundation soils must be maintained at least 2% above optimum moisture content up to the time of concrete placement.

6.4.7 Trenching and Backfilling for Utilities

Excavation for utility trenches must be performed in conformance with OSHA regulations contained in 29 CFR Part 1926.

Utility trench excavations have the potential to degrade the properties of the adjacent soils. Utility trench walls that are allowed to move laterally will reduce the bearing capacity and increase settlement of adjacent footings and overlying slabs.

Backfill for utility trenches is as important as the original subgrade preparation or engineered fill placed to support either a foundation or slab. Backfill for utility trenches must be placed to meet the project specifications for the engineered fill of this project. Unless otherwise specified, the backfill for the utility trenches should be placed in 4-inch to 6-inch loose lifts and compacted to a minimum of 90% relative compaction after ASTM D 1557 (the 'modified Proctor') at soil moisture at least +2% of the optimum moisture content. Up to 4 inches of bedding material placed directly under the pipes or conduits placed in the utility trench can be compacted to 90% relative compaction with respect to the Modified Proctor.

6.4.8 Slope Construction

Adaptation of the planned fire station to the sloping site may include engineered fills.

Select Fill (Section 6.4.3) should be used in the construction of engineered fill slopes. Cut and fill slopes should be constructed at an inclination of 2:1 (horizontal:vertical) or flatter. Keyways should be constructed at the toe of all fill slopes taller than four feet.

Where the slope of the original ground is steeper than 5:1 (horizontal:vertical), or where recommended by the Geotechnical Engineer of Record (GEOR), the original ground should be benched in accordance with the Figure 6-1.



Report of Geotechnical Investigation Proposed Fire Station #3, Cole Grade Road, Valley Center, California NOVA Project 2020074

August 20, 2020



Figure 6-1. Benching Detail

Notes:

(1) Key width "B" should be a minimum of 5 feet, or sufficiently wide to permit complete coverage with the compaction equipment used. The base of the key should be graded horizontal, inclined slightly into the natural slope.

(2) The outside of the key should be below the topsoil or unsuitable surficial material and at least 2 feet into dense Tonalite material (Unit 2). The bottom of the key, the depth and configuration of the key may be modified as approved by the GEOR.

6.4.9 Flatwork

Prior to casting exterior flatwork, the upper 12 inches of subgrade soils should be removed and replaced with compacted fill that meets the requirments of Select Fill. The exposed bottom of removals should be scarified, moisture conditioned, and compacted to a minimum of 90% relative compaction after ASTM D 1557 (the 'modified Proctor').

Exterior concrete slabs for pedestrian traffic or landscape should be at least 4 inches thick. Weakened plane joints should be located at intervals of about 6 feet. Control of the water/cement ratio can limit shrinkage cracking due to excess water or poor concrete finishing or curing. Exterior slabs may be reinforced with No. 3 bars on 18-inches centers, each way.

6.5 Shallow Foundations

6.5.1 General

Structures can be supported on shallow foundations embedded in either compacted Select Fill or the Unit 2 weathered tonalite. The following subsections provide recommendations for shallow foundations. It is recommended that all foundation elements, including any grade beams, be reinforced top and bottom. The actual reinforcement should be designed by the Structural Engineer.



6.5.2 Shallow Foundations Supported on Compacted Fill

Minimum Dimensions

Continuous footings should be at least 18 inches wide and have a minimum embedment of 18 inches below lowest adjacent finish grade. Isolated square or rectangular footings should be a minimum of 24 inches wide, embedded at least 18 inches below surrounding finish grade.

Allowable Contact Stress

Continuous and isolated footings constructed as described in the preceding sections and supported on compacted fill may be designed using an allowable (net) contact stress of 3,000 pounds per square foot (psf). An allowable increase of 500 psf for each additional 12 inches in depth may be utilized, if desired.

In no case should the maximum allowable contact stress should be greater than 3,500 psf. The maximum bearing value applies to combined dead and sustained live loads (DL + LL). The allowable bearing pressure may be increased by one-third when considering transient live loads, including seismic and wind forces.

Lateral Resistance

Resistance to lateral loads will be provided by a combination of (i) friction between the soils and foundation interface; and, (ii) passive pressure acting against the vertical portion of the footings. Passive pressure may be calculated at 350 psf per foot of depth. A frictional coefficient of 0.35 may be used. No reduction is necessary when combining frictional and passive resistance.

<u>Settlement</u>

Structure supported on shallow foundations as recommended above will settle on the order of 0.5 inch or less, with about 70% of this settlement occurring during the construction period. Angular distortion due to differential settlement of adjacent, unevenly loaded footings should be less than 1 inch in 40 feet (i.e., Δ /L less than 1:480).

6.5.3 Shallow Foundations Supported on Unit 2 Tonalite Bedrock

The Unit 2 tonalite bedrock will provide high-capacity foundation support for shallow foundations. NOVA recommends use of conventional foundations, consisting of isolated and continuous footings, as described below.

Isolated Foundations

Isolated foundations for interior columns may be designed for an allowable contact stress of 6,500 psf for dead and commonly applied live loads (DL+LL). These foundation units should have a minimum width of 24 inches, extended through any fill and embedded a minimum of 12 inches into sound Unit 2 tonalite bedrock. This bearing value may be increased by one-third for transient loads such as wind and seismic.

Continuous Foundations

Continuous foundations may be designed for an allowable contact stress of 4,000 psf for dead and commonly applied live loads (DL+LL). These footings must be a minimum of 18 inches in width and embedded a minimum of 12 inches into the Unit 2 tonalite bedrock.



This bearing value may be increased by one-third for transient loads such as wind and seismic.

Resistance to Lateral Loads

Lateral loads to shallow foundations cast 'neat' against Unit 2 tonalite bedrock may be resisted by passive earth pressure against the face of the footing, calculated as a fluid density of 300 psf per foot of depth, neglecting the upper 1 foot of soil below surrounding grade in this calculation. Additionally, a coefficient of friction of 0.35 between soil and the concrete base of the footing may be used with dead loads.

<u>Settlement</u>

Structure supported on shallow foundations as recommended above will settle on the order of 0.5 inch or less, with about 70% of this settlement occurring during the construction period. Angular distortion due to differential settlement of adjacent, unevenly loaded footings should be less than 1 inch in 40 feet (i.e., Δ /L less than 1:480).

6.5.4 General Slab Design

Ground supported slabs for the administrative building should be designed by the Structural Engineer using a modulus of subgrade reaction (k) of 180 pounds per cubic inch (i.e., k = 180 pci). NOVA recommends the slab be a minimum 5 inches thick, reinforced by at least #3 bars placed at 16 inches on center each way within the middle third of the slabs by supporting the steel on chairs or concrete blocks ("dobies").

Minor cracking of concrete after curing due to drying and shrinkage is normal. Cracking is aggravated by a variety of factors, including high water/cement ratio, high concrete temperature at the time of placement, small nominal aggregate size, and rapid moisture loss due during curing. The use of low-slump concrete or low water/cement ratios can reduce the potential for shrinkage cracking.

To reduce the potential for excessive cracking, concrete slabs-on-grade should be provided with construction or 'weakened plane' joints at frequent intervals. Joints should be laid out to form approximately square panels and never exceeding a length to width ratio of 1.5 to 1. Proper joint spacing and depth are essential to effective control of random cracking. Joints are commonly spaced at distances equal to 24 to 30 times the slab thickness. Joint spacing that is greater than 15 feet should include the use of load transfer devices (dowels or diamond plates). Contraction/ control joints should be established to a depth of 1/4 the slab thickness as depicted in Figure 6-2 (following page).



Figure 6-2. Sawed Contraction Joint



A ground supported slab may be developed with a thickened edge to support wall loads. A thickened edge extending to a minimum of 12 inches below surrounding ground and bearing at 3,500 psf. Figure 6-3 depicts these foundations conceptually.



Figure 6-3. Ground Supported Slab with Thickened Edge

6.5.5 Slab Design to Support Fire Trucks

Ground supported slabs within both the fire station and the maintenance building that will be used for longer-term or repeated parking of firetrucks should be designed using k = 180 pci.

These slabs be a minimum 6 inches thick, reinforced by at least #3 bars placed at 16 inches on center each way within the middle third of the slabs. The modulus of rupture (MR) of concrete used for these slabs should be a minimum of 650 psi.

6.6 Underslab Vapor Retarder

6.6.1 General

Soil moisture vapor that penetrates ground-supported concrete slabs can result in damage to moisture-sensitive floors, some floor sealers, or sensitive equipment in direct contact with the floor. It is not the responsibility of the geotechnical consultant to provide recommendations for vapor retarders to address this concern. This responsibility usually falls to the Architect. Decisions regarding the appropriate vapor retarder are principally driven by the nature of the building space above the slab, floor coverings, anticipated penetrations, concerns for mold or soil gas and a variety of other environmental, aesthetic, and materials factors known only to the Architect.

A variety of specialty polyethylene (polyolefin)-based vapor retarding products are available to retard moisture transmission into and through concrete slabs. This remainder of this section provides an overview of design and installation guidance, and considers the use of vapor retarders in the building construction in the San Diego area.

6.6.2 Guidance Documentation

Detail to support selection of vapor retarders and to address the issue of moisture transmission into and through concrete slabs is provided in a variety of publications by the American Society for Testing and Materials (ASTM) and the American Concrete Institute (ACI). A partial listing of those publications is provided below.



- ASTM E1745-97 (2009). Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs
- ASTM E154-88 (2005). Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover
- ASTM E96-95 (2005). Standard Test Methods for Water Vapor Transmission of Materials
- ASTM E1643-98 (2009). Standard Practice for Installation of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs
- ACI 302.2R-06. Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials

6.6.3 Design

Vapor retarders employed for ground supported slabs in the San Diego are commonly specified as minimum 10 mil polyolefin plastic that conforms to the requirements of ASTM E1745 as a Class A vapor retarder (i.e., a maximum vapor permeance of 0.1 perms, minimum 45 lb/in tensile strength and 2,200 grams puncture resistance). Among the commercial products that meet this requirement are the series of Yellow Guard® vapor retarders vended by Poly-America, L.P.; the Perminator® products by W. R. Meadows; and, Stego®Wrap products by Stego Industries, LLC.

The person responsible for design of the vapor barrier should consult with product vendors to ensure selection of the vapor retarder that best meets the project requirements. For example, concrete slabs with particularly sensitive floor coverings may require lower permeance or other performance-related factors than are specified by the ASTM E1745 class rating.

6.6.4 Installation

The performance of vapor retarders is particularly sensitive to the quality of installation. Installation should be performed in accordance with the vendor's recommendations under fulltime surveillance.

6.7 Control of Moisture Around Foundations

6.7.1 General

Design for the structure should include care to control accumulations of moisture around and below foundations. Such design will require coordination among the Design Team.

6.7.2 Erosion and Moisture Control During Construction

Surface water should be controlled during construction, via berms, gravel/sandbags, silt fences, straw wattles, siltation basins, positive surface grades, or other methods to avoid damage to the finish work or adjoining properties. The Contractor should take measures to prevent erosion of graded areas until such time as permanent drainage and erosion control measures have been installed. After grading, all excavated surfaces should exhibit positive drainage and eliminate areas where water might pond.



6.7.3 Design

Design for the areas around foundations should be undertaken with a view to the maintenance of an environment that encourages constant moisture conditions in the foundation soils following construction. Drainage should be designed to limit the potential for infiltration and/or releases of moisture beneath structures. In particular, rainfall to roofs should be collected in gutters and discharged in a controlled manner away from foundations.

Proper surface drainage will be required to minimize the potential of water seeking the level of the bearing soils under foundations and pavements. In areas where sidewalks or paving do not immediately adjoin a structure, protective slopes should be provided with a minimum grade (away from the structure) of approximately 3% for at least 5 feet from perimeter walls. A minimum gradient of 1% is recommended in hardscape areas. Drainage should be directed to approved drainage facilities.

6.7.4 Utilities

Design for Differential Movement

Underground piping within or near structures should be designed with flexible couplings to accommodate both ground and slab movement so that minor deviations in alignment do not result in breakage or distress. Utility knockouts should be oversized to accommodate the potential for differential movement between foundations and the surrounding soil.

Backfill Above Utilities.

Excavations for utility lines, which extend under or near structural areas should be properly backfilled and compacted. Utilities should be bedded and backfilled with approved granular soil to a depth of at least 1-foot over the pipe. This backfill should be uniformly watered and compacted to a firm condition for pipe support. Backfill above the pipe zone should meet the requirements for Select Fill, placed to at least 90% relative compaction at 2% above optimum.

6.8 Retaining Walls

6.8.1 Wall Loads

As of the time of this report, it is not known if the site will be designed with retaining walls. However, as design progresses, walls may be developed; for example, retaining walls for buildings and/or perimeter site walls. Static lateral earth pressures are provided for these walls on Table 6-5 (following page) as equivalent fluid weights, in psf/foot of wall height or pounds per cubic foot (pcf).

6.8.2 Retaining Wall Foundations

Retaining wall may be supported on continuous foundations designed as described in Section 6.5. Wall foundations are not permitted to have transition conditions as described in Section 6.4.5. If transition conditions exist, the tonalite bedrock should be over excavated a minimum of 2 feet below footing depth such that the walls are entirely bearing on engineered fill. Transition condition recommendations found in Section 6.4.5 should be followed.



Loading Condition	Equivalent Fluid Density (pcf) for Approved 'Native' Backfill Notes Notes A, B,C							
	Level Backfill	2:1 Backfill Sloping Upwards						
Active (wall movement allowed)	35	50						
"At Rest" (no wall movement)	55	80						
'Passive" (wall movement toward the soils)	350	350						

Table 6-5. Lateral Earth Pressures to Retaining Walls

Note A: 'approved' means Select Fill with EI < 20 after ASTM D4829 and approved by the Geotechnical Engineer.

Note B: assumes level backfill and appropriate wall drainage.

Note C: The values on Table 6-5 do not contain a factor of safety (F).

If footings or other surcharge loads are located a short distance outside the wall, these influences should be added to the lateral stress considered in the design of the wall. Surcharge loading should consider wall loads that may develop from adjacent roads and sidewalks. To account for such potential loads, a surcharge pressure of 75 psf can be applied uniformly over the wall to a depth of about 12 feet.

6.8.3 Seismic Increment

Non-Yielding Walls

Lateral seismic thrust acting on non-yielding below-grade walls can be estimated by the dynamic (seismic) thrust, ΔP_E . Dynamic thrust is approximated as:

$$\Delta P_E = k_h H^2 \gamma$$
 where,

 k_h , pseudostatic horizontal earthquake coefficient, equal to $S_{DS}/2.5$ H is the height of the wall in feet from the footing to the point of fixity γ is the unit weight of the backfill material (about 125 pcf)

The resultant dynamic thrust acts at a distance of 0.6H above the base of the wall.

Cantilevered Walls

Walls less than 6 feet in height need not include a seismic load. Cantilevered walls taller than 6 feet should consider an incremental lateral seismic thrust, ΔP_E , expressed as:

 $\Delta P_E = 0.4 k_h H^2 \gamma$ where,

 ΔP_E is the incremental seismic thrust k_h is the pseudostatic horizontal earthquake coefficient, is equal to S_{DS}/2.5 H is the height of the wall in feet from the footing y is the unit weight of the backfill material (about 125 pcf)

The resultant dynamic thrust acts at a distance of 0.3H above the base of the wall.

6.8.4 Foundation Uplift

A soil unit weight of 125 pcf may be assumed for calculating the weight of soil over the wall footing.



6.8.5 Resistance to Lateral Loads

Lateral loads to wall foundations will be resisted by a combination of frictional and passive resistance as described in Section 6.5.

6.8.6 Wall Drainage

The recommended equivalent fluid pressures provided in the preceding subsection assume that constantly functioning drainage systems are installed between walls and soil backfill to prevent the uncontrolled buildup of hydrostatic pressures and lateral stresses in excess of those stated.

Design for wall drainage may include the use of pre-engineered wall drainage panels or a properly compacted granular free-draining backfill material (EI < 40).

The use of drainage openings through the base of the wall (weep holes) is not recommended where the seepage could be a nuisance or otherwise adversely affect the property adjacent to the base of the wall. Figure 6-4 provides a conceptual design for wall drainage. Numerous alternatives are available for collection of water behind retaining walls. The intent of Figure 6-4 is to depict the concepts described in the preceding paragraph.



Figure 6-4. Conceptual Design for Wall Drainage

6.9 Temporary Slopes

Temporary slopes may be required for excavations during grading. All temporary excavations should comply with local safety ordinances. The safety of all excavations is solely the responsibility of the Contractor and should be evaluated during construction as the excavation progresses.

Based on the data interpreted from the borings, the design of temporary slopes may assume California Occupational Safety and Health Administration (Cal/OSHA) Soil Type B for planning purposes. Temporary slopes may be excavated no steeper than 1:1 (horizontal:vertical).



7.0 STORMWATER INFILTRATION

7.1 Overview

One permanent stormwater biofiltration basin, encompassing about 6,000 SF, is proposed north of the fire station. As the project plans are conceptual, stormwater best management practice (BMP) design and depths are not identified. NOVA assumes that any such stormwater structures would be developed utilizing an underdrain, and is unrestricted by the elements listed in Table D.1-1 (presented below) of the County of San Diego BMP Design Manual, January 2019 edition (hereafter, 'the BMP Manual').

7.2 Public Health and Safety Considerations

It is NOVA's judgment that the site is not restricted by elements that may pose a significant risk to human health and safety which cannot be reasonably resolved through site design changes. As such, infiltration may be feasible. Figure 7-1 outlines the consideration for geotechnical analysis of infiltration restrictions for the proposed BMP.

Restriction Element					
	BMP is within 100' of Contaminated Soils	No			
	BMP is within 100' of Industrial Activities Lacking Source Control	No			
	BMP is within 100' of Well/Groundwater Basin	No			
	BMP is within 50' of Septic Tanks/Leach Fields	No*			
	BMP is within 10' of Structures/Tanks/Walls	No			
Mandatory	BMP is within 10' of Sewer Utilities	No			
Considerations	BMP is within 10' of Groundwater Table	No			
	BMP is within Hydric Soils	No			
	BMP is within Highly Liquefiable Soils and has Connectivity to Structures	No			
	BMP is within 1.5 Times the Height of Adjacent Steep Slopes (\geq 25%)				
	County Staff has Assigned "Restricted" Infiltration Category	No			
	BMP is within Predominantly Type D Soil	No			
	BMP is within 10' of Property Line				
Optional	BMP is within Fill Depths of ≥ 5 ' (Existing or Proposed)	No			
Considerations	BMP is within 10' of Underground Utilities	No			
	BMP is within 250' of Ephemeral Stream	**			
	Other (Provide detailed geotechnical support)	No			
	Based on examination of the best available information.	X			
	I have <u>not identified any restrictions</u> above.	Unrestricted			
Result	Based on examination of the best available information.				
	I have identified one or more restrictions above.	Restricted			

*: Design should confirm that the planned BMP is not within 50' of the proposed Leech Field **: To be reviewed by the SWQMP Preparer

Figure 7-1. Infiltration Restriction Considerations



7.3 Borehole Percolation Testing

On July 1, 2020, NOVA directed the excavation and construction of two (2) percolation test borings ('P-1' and 'P-2') and one (1) engineering boring ('B-4') within the proposed BMP footprint, following the recommendations for borehole percolation testing presented in the BMP Manual. The percolation test borings were drilled to approximately 5 feet bgs, a typical depth for BMP designs, into the underlying tonalite bedrock. The engineering boring was drilled to approximately 16.5 feet bgs to evaluate the soil strata below the bottom of the proposed BMP.

7.4 Infiltration Rate

The percolation rate of a soil profile is not the same as its infiltration rate ('I'). Therefore, the field percolation rate was converted to an estimated infiltration rate utilizing the Porchet Method in accordance with guidance contained in the BMP Manual. Table 7-1 provides a summary of the infiltration rates determined by the percolation testing.

Test Well Reference	Approximate Elevation (feet, msl)1Total Depth 		Approximate Percolation Test Elevation (feet, msl) ¹	Infiltration Rate (in/hr)	Infiltration Rate (in/hr) ² FS = 2
P-1	+1565.0	5.0	+1560.0	0.39	0.20
P-2	+1568.0	5.0	+1563.0	3.37	1.69

Table 7 1	Infiltration	Datas	Determined		oraclation	Tooting
Table /-I.	IIIIIIII auoii	Rales	Determined	ыу г	ercoration	resung

Note 1: Elevations are approximate and should be reviewed Note 2: 'F' indicates 'Factor of Safety'

As may be seen by review of Table 7-1, a factor of safety (F) has been applied to the infiltration rate (I) determined by the percolation testing. This factor of safety, at least FS = 2 in local practice, considers the nature and variability of subsurface materials, as well as the natural tendency of infiltration structures to become less efficient with time. A default factor of safety of 2 is applied for BMPs utilizing an underdrain.

The calculated infiltration rates at locations P-1 and P-2 after applying FS = 2 are 0.20 and 1.69 inches per hour, respectively. It is the judgment of NOVA that the lower infiltration rate (P-1 = 0.20 inches per hour) should be utilized for design calculations. In addition, the site is classified by NRCS Soil Survey maps as soil type 'C'. The default infiltration rate for soil type 'C' is 0.10 inches per hour. As such, the infiltration rate at P-2 is anomalously high for the bedrock conditions at the site, and should not be considered for design purposes.

7.5 Recommendation for Infiltration

In consideration of the foregoing, it is NOVA's judgment that the site is not restricted by elements that may pose a significant risk to human health and safety which cannot be reasonably resolved through site design changes. Design for the proposed BMP may utilize an infiltration rate of 0.20 inches per hour.



8.0 PAVEMENT DESIGN

8.1 General

The structural design of pavement sections depends primarily on anticipated traffic conditions, subgrade soils, and construction materials. For the purposes of the preliminary evaluation provided in this section, NOVA has assumed a Traffic Index (TI) of 7.0. These traffic indices should be confirmed by the project civil engineer prior to final design.

8.2 Design for Drainage and Maintenance

8.2.1 Drainage

Control of surface drainage is important to the design and construction of pavements. Standing water that develops either on the pavement surface or within the base course can soften the subgrade and create other problems related to the deterioration of the pavement. Good drainage should minimize the risk of the subgrade materials becoming saturated and weakened over a long period of time.

The following recommendations should be considered to limit the amount of excess moisture, which can reach the subgrade soils:

- maintain surface gradients at a minimum 2% grade away from the pavements;
- compact utility trenches for landscaped areas to the same criteria as the pavement subgrade;
- seal all landscaped areas in or adjacent to pavements to minimize or prevent moisture migration to subgrade soils;
- planters should not be located next to pavements (otherwise, subdrains should be used to drain the planter to appropriate outlets);
- place compacted backfill against the exterior side of curb and gutter; and,
- concrete curbs bordering landscaped areas should have a deepened edge to provide a cutoff for moisture flow beneath pavements (generally, the edge of the curb can be extended an additional twelve inches below the base of the curb).

8.2.2 Maintenance

Preventative maintenance should be planned and provided for in the ownership of all pavements. Preventative maintenance activities are intended to slow the rate of pavement deterioration and to preserve the pavement investment. Preventative maintenance consists of both localized maintenance (e.g. crack sealing and patching) and global maintenance (e.g. surface sealing). Preventative maintenance is usually the first priority when implementing a planned pavement maintenance program and provides the highest return on investment for pavements.



8.3 Subgrade Preparation

8.3.1 Subgrade Preparation

Grading for paved areas should consist of removing and replacing the upper 2 feet below the finished subgrade level. The bottom of removals should be scarified 6-inches, moisture conditioned to at least 2% above the optimum moisture content, then densified/compacted to a minimum 90% relative compaction after ASTM D 1557 (the 'modified Proctor'). Thereafter, the removed soils should be replaced as engineered fill moisture conditioned to at least 2% above the optimum moisture conditioned to at least 2% above the optimum sture conditioned to at least 2% above the optimum moisture conditioned to at least 2% above the optimum moisture conditioned to at least 2% above the optimum moisture content, then densified/compacted to a minimum 95% relative compaction after ASTM D 1557 (the 'modified Proctor').

8.3.1 Proof Rolling

After the completion of subgrade preparation, areas to receive pavements should be proofrolled. A loaded dump truck or similar should be used to aid in identifying localized soft or unsuitable material.

Any soft or unsuitable materials encountered during this proof-rolling should be removed, replaced with an approved backfill, and compacted.

8.3.2 Timely Pavement Construction

Construction should be managed such that preparation of the subgrade immediately precedes placement of the base course. Proper drainage of the paved areas should be provided to reduce moisture infiltration to the subgrade.

8.3.3 Surveillance

The preparation of roadway and parking area subgrades should be observed on a full-time basis by a representative of NOVA to confirm that any unsuitable materials have been removed and that the subgrade is suitable for support of the proposed driveways and parking areas after ASTM D1557.

8.4 Flexible Pavements

The structural design of flexible pavement depends primarily on anticipated traffic conditions, subgrade soils, and construction materials. Table 8-1 provides preliminary flexible pavement sections using an assumed R-value of 17. The final pavement sections should be determined after performing R-Value testing of the prepared subgrade soils.

Area	Estimated Subgrade R-Value	Traffic Index	Asphalt Thickness (in)	Base Course Thickness (in)					
Parking Areas/ Driveways/Roadways	17	7.0	4.0	13.0					

 Table 8-1. Preliminary Recommendations for Flexible Pavements

The above sections assume properly prepared subgrade consisting of at least 12 inches of subgrade compacted to a minimum of 95% relative compaction. The aggregate base, Caltrans Class II aggregate base or similar, should also be placed at a minimum 95% relative



compaction. Construction materials (asphalt and aggregate base) should conform to the current Standard Specifications for Public Works Construction (Green Book).

Note that the recommended pavement sections are for planning purposes only. Additional R-value testing should be performed on actual soils at the design subgrade levels to confirm the pavement design.

8.5 Rigid Pavements for Fire Response Vehicles

8.5.1 Design Loading

No information is known regarding the design basis fire response vehicles that will be kept at Fire Station #3. For the purposes of this report, NOVA assumes that the vehicles would apply American Association of State Highway Transportation Officials (AASHTO) H-20 loads to pavements. H-20 loads provide for truck axle loading of 32,000 lbs, or wheel loading of 16,000 lbs.

8.5.2 Pavement Section

The rigid pavement section for driveways used by the fire response vehicles should consist of 7 inches of concrete over a 6-inch base course. The aggregate base materials should be placed at a minimum 95% relative compaction over a 12-inch thick section of subgrade prepared as described in Section 8.3.

Of particular consequence to pavement performance in the recommended section design analyses is consideration of the edge loading condition of the pavement. The critical load condition on a concrete pavement is at an unsupported edge. The recommended pavement section assumes full edge support by means of either a tied concrete shoulder or a widened lane. A widened lane would consist of a lane edge stripe that is placed a minimum of 1-foot from the pavement edge.

8.5.3 Concrete Properties

The concrete should be obtained from a mix design that conforms with the minimum properties shown on Table 8-2.

Property	Recommended Requirement						
Compressive Strength @ 28 days	3,250 psi minimum						
Strength Requirements	ASTM C94						
Minimum Cement Content	5.5 sacks/cu. yd.						
Cement Type	Type III Portland						
Concrete Aggregate	ASTM C33						
Aggregate Size	1-inch maximum						
Maximum Water Content	0.5 lb/lb of cement						
Maximum Allowable Slump	4 inches						

 Table 8-2. Recommendations for Concrete Pavements



8.5.1 Jointing

Longitudinal and transverse joints should be provided in concrete pavements for expansion/ contraction and isolation spaced at a maximum of 12 feet on center. Sawed joints should be cut within 24 hours of concrete placement, and should be a minimum of 25% of slab thickness plus ¼-inch. All joints should be sealed to prevent entry of foreign material and doweled where necessary for load transfer. No doweling is necessary.



9.0 CONSTRUCTION REVIEW, OBSERVATION AND TESTING

9.1 Overview

As is discussed in Section 1, the recommendations contained in this report are based upon a limited number of borings and an assumption of general continuity of subsurface conditions between borings.

The recommendations provided in both NOVA's proposal for this work and this report assume that NOVA will be retained to provide consultation and review during the design phase, to interpret this report during construction, and to provide construction monitoring in the form of testing and observation.

9.2 Design Phase Review

The recommendations of this report are based upon NOVA's current understanding and assumptions regarding planning for project development.

As is provided for in its proposal for this work, NOVA should review the final design. Such review is important for both (i) conformance with the recommendations provided herein, and (ii) consistency with NOVA's understanding of the planned development.

9.3 Construction Observation and Testing

9.3.1 General

Special inspections should be provided per Section 1705 of the California Building Code. The soils special inspector should be a representative of NOVA as the Geotechnical Engineer-of-Record (GEOR).

NOVA should be retained to provide construction-related services abstracted below.

- Surveillance during site preparation, grading, and foundation excavation.
- Inspection of the ground improvement described in Section 6.
- Soil special inspection during grading.

A program of quality control should be developed prior to the beginning of earthwork. It is the responsibility of the Owner, the Contractor and/or the Construction Manager to determine any additional inspection items required by the Architect/Engineer or the governing jurisdiction.

9.3.2 Continuous Soils Special Inspection

The earthwork operations listed below should be the object of continuous soils special inspection.

- Site grading, including scarification and engineered fill placement.
- Ground preparation as described in Section 6.



• Pavement subgrade preparation and base course compaction.

9.3.3 Periodic Soils Special Inspection

The earthwork operations listed below should be the object of periodic soils special inspection, subject to approval by the Building Official.

- Site preparation and removal of existing development features.
- Placement and compaction of utility trench backfill.
- Observation of foundation excavations.

9.3.4 Testing During Inspections

A preconstruction conference among representatives of the Owner, Contractor and/or Construction Manager, and Geotechnical Engineer is recommended to discuss the planned construction procedures and quality control requirements.

The locations and frequencies of compaction test should be determined by the geotechnical engineer at the time of construction. Test locations and frequencies may be subject to modification by the geotechnical engineer based upon soil and moisture conditions encountered, the size and type of compaction equipment used by the Contractor, the general trend of compaction test results, and other factors.

Of particular concern to NOVA during earthwork operations will be good practices in moisture conditioning, loose soil placement, and soil compaction. In particular, NOVA will be vigilant with regard to the use of compaction equipment appropriate to the full lift thickness of the type of soil being compacted. Reliance on construction traffic (for example, loaders or dump trucks) to achieve compaction will not be approved.



10.0 REFERENCES

10.1 Site Specific

VCFPD - Fire Station #3, Preliminary Site Plan, Buccola Engineering, Inc., undated.

10.2 Design

American Concrete Institute, 1993, *Suggested Analysis and Design Procedures for Combined Footings and Mats.* ACI 336.2R-88 (Reapproved 1993).

American Concrete Institute, *Guide for Concrete Floor and Slab Construction*, ACI Publication 302.1R-04 (latest edition).

American Concrete Institute, *Building Code Requirements for Structural Concrete and Commentary*, ACI Publication 318-08.

American Society of Civil Engineers (ASCE), *ASCE 7 Hazard Tool*, found at <u>https://asce7hazardtool.online/</u>.

American Society of Civil Engineers (ASCE), 2016, <u>Minimum Design Loads for Buildings and</u> <u>Other Structures</u>, SEI/ASCE 7-16.

American Society of Testing and Materials, *Standard Practice for Installation of Water Vapor Retarders Used in Contact with Earth or Granular Fill under Concrete Slabs,* ASTM D 1643.

California Building Standards Commission, 2019, <u>California Building Code</u>, Title 24, Part 2, Vol. 1 & 2.

California Occupational Safety and Health Administration (Cal/OSHA), description of soil types relative to excavation safety, found at: <u>https://www.dir.ca.gov/title8/1541_1d.html</u>.

County of San Diego, 2019, *County of San Diego BMP Design Manual*, Effective Date January 1, 2019.

NAVFAC DM-7.01, 1986, Naval Facilities Engineering Command. Department of the Navy, *Soil Mechanics,* Washington DC, September 1986.

OSHA Technical Manual, *Excavations: Hazard Recognition in Trenching and Shoring*, OSHA Instruction TED 01-00-015, Section V, Chapter 2. Found at: <u>https://www.osha.gov/dts/osta/otm/otm_v/_otm_v_2.html#1</u>.

Public Works Standards, Inc., <u>Standard Specifications for Public Works Construction</u> (Green Book).

SEAOC/OSHPD, Seismic Design Maps, found at: https://seismicmaps.org/.

Terzaghi, Karl, *Evaluating Coefficients of Subgrade Reaction*, <u>Geotechnique</u>, Vol 5, 1955, pp 297-326.

10.3 Geologic and Site Setting

California Department of Water Resources, Water Data Library: found at <u>http://www.water.ca.gov/waterdatalibrary/</u>.



California Division of Mines and Geology (CDMG), 2008, *Guidelines for Evaluating and Mitigating Seismic Hazards in California,* Special Publication 117A.

GeoTracker Groundwater Ambient Monitoring and Assessment (GAMA) Program website, 2020, <u>https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/</u>, accessed May 5.

Jennings, C. W. and Bryant, W. A., 2010, *Fault Activity Map of California*, California Geological Survey, Geologic Data Map No. 6.

Kennedy, M. P., 2000, *Geologic Map of the Pala 7.5' Quadrangle, San Diego County, California: A Digital Database,* United States Geological Survey and California Division of Mines and Geology.

Norris, R. M. and Webb, R. W., 1990, Geology of California, Second Edition: John Wiley & Sons, Inc.

Tan, S.S., 1995, *Landslide Hazards in the Southern Part Of the San Diego Metropolitan Area, San Diego County, California*, Landslide Hazard Identification Map No. 33, California Division of Mines and Geology.

United States Federal Emergency Management Agency (FEMA), 2012, Flood Insurance Rate Map (FIRM), Flood Map 06073C1610G, Revised May 16, 2012.

United States Geological Survey (USGS), 2012, *Pala Quadrangle, 7.5-Minute Series Topographic Map.*

United States Department of Agriculture, Natural Resources Conservation Service, *Custom Soil Resource Report for San Diego County Area, California,* August 15, 2017.



PLATE SUBSURFACE EXPLORATION MAP









GEOTECHNICAL MATERIALS SPECIAL INSPECTION

4373 Viewridge Avenue, Suite B San Diego, CA 92123 P: 858.292.7575

944 Calle Amanecer, Suite F San Clemente, CA 92673 P: 949.388.7710

www.usa-nova.com





200'





APPENDIX A USE OF THE GEOTECHNICAL REPORT

Important Information About Your Geotechnical Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

The following information is provided to help you manage your risks.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one* — *not even you* — should apply the report for any purpose or project except the one originally contemplated.

Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

• the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,

- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineer-ing report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ—sometimes significantly—from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are *Not* Final

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual

subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.*

A Geotechnical Engineering Report Is Subject to Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time* to perform additional study. Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that

have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a *geoenviron-mental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the express purpose of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.

Rely, on Your ASFE-Member Geotechncial Engineer for Additional Assistance

Membership in ASFE/The Best People on Earth exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with you ASFE-member geotechnical engineer for more information.



8811 Colesville Road/Suite G106, Silver Spring, MD 20910 Telephone: 301/565-2733 Facsimile: 301/589-2017 e-mail: info@asfe.org www.asfe.org

Copyright 2004 by ASFE, Inc. Duplication, reproduction, or copying of this document, in whole or in part, by any means whatsoever, is strictly prohibited, except with ASFE's specific written permission. Excerpting, quoting, or otherwise extracting wording from this document is permitted only with the express written permission of ASFE, and only for purposes of scholarly research or book review. Only members of ASFE may use this document as a complement to or as an element of a geotechnical engineering report. Any other firm, individual, or other entity that so uses this document without being an ASFE member could be commiting negligent or intentional (fraudulent) misrepresentation.



APPENDIX B LOGS OF BORINGS

								BOF	RING	i LO	CG	B-1					
DATE	EXCA	ATE	D:	JUL	-Y 1, 2020				EQUIP	MENT:	CME 95	5					LAB TEST ABBREVIATIONS CR CORROSIVITY MD MAXIMUM DENSITY DS DIRECT SHEAR
EXCA	/ATIO	I DES	SCRIPTI	0N: <u>8-</u> 11		TER AU	JGER BO	RING	GPS C	DORD.:	N/A						EI EXPANSION INDEX AL ATTERBERG LIMITS SA SIEVE ANALYSIS
GROU	NDWA	[ER	DEPTH:	GR		ER NOT	ENCOU	NTERED	ELEVA	TION:	± 1600	FT MSL				_	RVRESISTANCE VALUECNCONSOLIDATIONSESAND EQUIVALENT
DEPTH (FT)	GRAPHIC LOG BULK SAMPLE	CAL/SPT SAMPLE	SOIL CLASS. (USCS)	BLOWS PER 12-INCHES			(USCS;	SUMMAI COLOR, I	SOIL DE RY OF SUE MOISTURE	SCRIF SSURFA(, DENSI	PTION CE CONE TY, GRAI	DITIONS IN SIZE,	OTHE	R)		LABORATORY	REMARKS
0			SC	38	ALLUVIU FINE TO	M (Qal MEDIL	I): CLA) JM GRA	YEY SAND); ORANGE	BROWI	N, DRY TO	O DAMP	, MEDI	IUM DEI	NSE,	SA	
			SM	30	TONALIT DENSE, F	E (Kcg FINE T	g): SILT O COAI	TY SAND; RSE GRAI	ORANGE E INED	BROWN	WITH BL	ACK MIC	CAS, M	OIST, N	1EDIUM		HIGHLY WEATHERED
 5	\mathbb{V}	Ζ		44	LIGHT GF	7AYISI	H BROV	VN WITH E	BLACK MIC	AS, DAN	MP TO MO	OIST, DE	ENSE				LESS WEATHERED
				50/5	VERY DE	NSE											
	898				BORING	TERMI		' AT 15.5 F	T. NO GR		ATER EN	COUNTE	ERED.	NO CA	VING.		
				KE	Y TO S	/MBC	DLS			-	COLE GF	RADE RO	DAD FI	IRE STA			GEOTECHNICAL MATERIALS
┃▼/↘	Z G	ROUN	IDWATER				ERRC				VALLE	Y CENT	ER, CA		AIA		NOVA
		SPT	SAMPLE	(ASTM D	1586)		NC	GEOLOGIC				GAN		5.1 =.	ALICO	020	4373 Viewridge Avenue, Suite B San Diego, CA 92123
	CAL.	MOD.	SAMPLE	(ASTM D3	3550)			SOIL TYP	PE CHANGE	REVIE	WED BY:	MS	PRO	JECT N	0.: 2020	074	P: 858.292.7575 944 Calle Amanecer, Suite F San Clemente, CA 92673 P: 949.388.7710

	BORING	i LOG B-2	1	
DATE EXCAVATED: JULY 1, 2	2020 EQUIP	MENT: CME 95		LAB TEST ABBREVIATIONS CR CORROSIVITY MD MAXIMUM DENSITY DS DIRECT SHEAR
EXCAVATION DESCRIPTION: 8-INCH [DIAMETER AUGER BORING GPS C	DORD.: N/A		EI EXPANSION INDEX AL ATTERBERG LIMITS SA SIEVE ANALYSIS
GROUNDWATER DEPTH: GROUND	DWATER NOT ENCOUNTERED ELEVA	TION: <u>± 1595 FT MSL</u>		RV RESISTANCE VALUE CN CONSOLIDATION SE SAND EQUIVALENT
DEPTH (FT) GRAPHIC LOG BULK SAMPLE CAL/SPT SAMPLE CAL/SPT SAMPLE SOIL CLASS. (USCS) BLOWS PER 12-INCHES	SOIL DE SUMMARY OF SUE (USCS; COLOR, MOISTURE	SCRIPTION SURFACE CONDITIONS , DENSITY, GRAIN SIZE, (OTHER)	REMARKS
0SC26 ALL SCME	L UVIUM (Qal): <i>CLAYEY SAND; BROWN,</i> DIUM GRAINED	DRY TO DAMP, MEDIUM	DENSE, FINE TO SA	12.2% 124.4pcf
	NALITE (Kcg): CLAYEY SAND; ORANG IE TO MEDIUM GRAINED	E BROWN, DRY TO DAMF	P, MEDIUM DENSE, CR MD RV CN	HIGHLY WEATHERED
5	TY SAND; LIGHT GRAYISH BROWN, DR AINED MP TO MOIST, VERY DENSE	Y TO DAMP, DENSE, FIN	Ē TŌ COĀRSĒ SA	LESS WEATHERED
10 50/3				
	O SYMBOL S	DUNDWATER ENCOUNTE	RED. NO CAVING.	
KEY T	O SYMBOLS	COLE GRADE RO	DAD FIRE STATION	GEOTECHNICAL MATERIALS
✓/∑ GROUNDWATER / STABILIZED	# ERRONEOUS BLOWCOUNT	VALLEY CENT	ER, CALIFORNIA	
BULK SAMPLE	★ NO SAMPLE RECOVERY	APPEN	IDIX B.2	4373 Viewridge Avenue, Suite B
CAL. MOD. SAMPLE (ASTM D1500)	GEOLOGIC CONTACT	REVIEWED BY: MS	DATE: AUG 2020 PROJECT NO.: 2020074	3an Dilego, CA 92123 P: 858.292.7575 944 Calle Amanecer, Suite F San Clemente, CA 92673 P: 049.928 7310

		BORING	LOG B-3			
						LAB TEST ABBREVIATIONS
DATE EXCAVATED:	JULY 1, 2		ENT: CME 95		-	CR CORROSIVITY MD MAXIMUM DENSITY
EXCAVATION DESCRIPTION	DN: 8-INCH	DIAMETER AUGER BORING GPS COO	DRD.: <u>N/A</u>		-	EI EXPANSION INDEX AL ATTERBERG LIMITS SA SIEVE ANALYSIS
GROUNDWATER DEPTH:	GROUN	DWATER NOT ENCOUNTERED ELEVATIO	ON: <u>± 1584 FT MSL</u>		-	RV RESISTANCE VALUE CN CONSOLIDATION SE SAND EQUIVALENT
DEPTH (FT) GRAPHIC LOG BULK SAMPLE CAL/SPT SAMPLE SOIL CLASS. (USCS)	BLOWS PER 12-INCHES	SOIL DESC SUMMARY OF SUBSL (USCS; COLOR, MOISTURE, D	CRIPTION JRFACE CONDITIONS DENSITY, GRAIN SIZE, (DTHER)	LABORATORY	REMARKS
	31 ALI FIN 29	.UVIUM (QaI): <i>CLAYEY SAND; ORANGE B</i> E TO MEDIUM GRAINED	BROWN, DAMP TO MOIS	ST, MEDIUM DENSE,	EI	40 LOW
5 SM	62 TO	NALITE (Kcg): SILTY SAND; ORANGE BRO ARSE GRAINED	OWN, DAMP, VERY DEI	NSE, FINE TO		10.6% 119.3pcf HIGHLY WEATHERED
	LIG	HT GRAYISH BROWN, DAMP, VERY DENS	SE, FINE TO COARSE G	RAINED		LESS WEATHERED
	82 <i>GR.</i> 50/1	AYISH BROWN				
15 <u>888</u> 	BO	RING TERMINATED AT 15 FT. NO GROUND	DWATER ENCOUNTER	ED. NO CAVING.		
	KEY T	OSYMBOLS	COLE GRADE RO	AD FIRE STATION		GEOTECHNICAL
	/ STABILIZED	# ERRONEOUS BLOWCOUNT	VALLEY CENTE	ER, CALIFORNIA		NOVA MATERIALS
SPT SAMPLE	ASTM D1586)				20	4373 Viewridge Avenue, Suite B San Diego, CA 92123
CAL. MOD. SAMPLE	(ASTM D3550)	SOIL TYPE CHANGE R	REVIEWED BY: MS	PROJECT NO.: 202007	20 74	P: 858.292.7575 944 Calle Amanecer, Suite F San Clemente, CA 92673 P: 940 988 7710

DATE EXCAVATED: JULY 1, 2000 EQUIPMENT: OME 95 Control of the second state of			BORING	i LOG B-4		
Initial Construction Just 1: Zabit Edupratenti : Lotte is Initial Construction EXCAVATION DESCRIPTION: BIORI DIAMETER AUGER BORING GPS COORD.: INITial Construction BIORI DIAMETER AUGER BORING GPS COORD.: INITial Construction GROUNDWATER DEPTH: CADUNDWATER NOT ENOCLONTERED ELEVATION: ± 1568 FT MSL. EVENTATION IF POWER SUBJECT STATE EVENTATION IF POWER SUBJECT STATE GROUNDWATER DEPTH: CADUNDWATER NOT ENOCLONTERED ELEVATION: ± 1568 FT MSL. EVENTATION IF POWER SUBJECT STATE GROUNDWATER DEPTH: CADUNDWATER NOT ENOCLONTERED ELEVATION: ± 1568 FT MSL. EVENTS GROUNDWATER DEPTH: CADUNDWATER NOT ENOCLONTERED ELEVATION: ± 1568 FT MSL. EVENTS GROUNDWATER DEPTH: CADUNDWATER NOT ENOCLONTERED ELEVATION: ± 1568 FT MSL. EVENTS GROUNDWATER DEPTH: GROUNDWATER NOT ENOCLONTERED ELEVATION: ± 1568 FT MSL. EVENTS GROUNDWATER DEPTH: GROUNDWATER NOT ENOCLONTERED SUBJECT STEP EVENTS EVENTS GROUNDWATER DEPTH: GROUNDWATER NOT ENOCLONTERED SUBJECT STEP EVENTS EVENTS GROUNDWATER DEPTH: GROUNDWATER ENOCLONIC CONTROL FOR ECONDITIONS EVENTS EVENTS GROUNDWATER DEPTH: SSC TONALTE (KOG): SUBJECT STEP				0115 05		LAB TEST ABBREVIATIONS
GROUNDWATER DEPTH: CROUNDWATER NOT ENCOUNTERED ELEVATION: 1 1956 FT MSL PM PESISTANCE VAL GONSCILDES SOLLDESCRIPTION NUMBER (1) 10 10 10 10 100	EXCAVATION DESCRIPT	FION: 8-INCH [DIAMETER AUGER BORING GPS CC	CH CORROSIVITY MD MAXIMUM DENSITY DS DIRECT SHEAR EI EXPANSION INDEX AL ATTERBERG LIMITS SA SIEVE ANALYSIS		
U U <thu< th=""> U U U U<td>GROUNDWATER DEPTH</td><td>: GROUNE</td><td>DWATER NOT ENCOUNTERED ELEVA</td><td>TION: <u>±</u> 1568 FT MSL</td><td></td><td>RV RESISTANCE VALUE CN CONSOLIDATION SE SAND EQUIVALENT</td></thu<>	GROUNDWATER DEPTH	: GROUNE	DWATER NOT ENCOUNTERED ELEVA	TION: <u>±</u> 1568 FT MSL		RV RESISTANCE VALUE CN CONSOLIDATION SE SAND EQUIVALENT
0 SC 18 ALLUVIUM (GBI:: CLAYE'S SAND: BROWN TO ORANGE BROWN, DRY TO DAMP. MEDIUM DENSE, FINE TO MEDIUM GRAINED SA 5	DEPTH (FT) GRAPHIC LOG BULK SAMPLE CAL/SPT SAMPLE SOIL CLASS. (USCS)	BLOWS PER 12-INCHES	SOIL DE SUMMARY OF SUB (USCS; COLOR, MOISTURE)	SCRIPTION SURFACE CONDITIONS , DENSITY, GRAIN SIZE, (OTHER)	REMARKS
SM 57 TONALITE (Keg): SILTY SAND; LIGHT GRAYISH BROWN, DRY TO DAMP, VERY DENSE, 50/5 HighLy Weathered S 50/5 50/1 GRAYISH BROWN, DRY SA LESS WEATHERED 50/2 SA LESS WEATHERED 10 50/2 50/2 SA 10 50/2 50/3 SA 10 50/2 SA LESS WEATHERED 10 50/2 SA SA 10 50/2 SA SA 10 50/2 SA SA 115 50/2 SA SA 20 50/2 SA SA 21 50/2 SA SA 22 50/2 SA SA 23 50/2 SA SA 24 50/2 SA SA 25 SA SA SA 26 SA SA SA 27 SA SA SA		18 ALL ME	LUVIUM (Qal): CLAYEY SAND; BROWN DIUM DENSE, FINE TO MEDIUM GRAIN!	TO ORANGE BROWN, DF ED	RY TO DAMP,	A
Image: Solution of the second state	- SM	57 TOI <i>FIN</i> 50/5 50/1 <i>GR</i>	NALITE (Kcg): SILTY SAND; LIGHT GRA IE TO COARSE GRAINED IAYISH BROWN, DRY	AYISH BROWN, DRY TO D	DAMP, VERY DENSE,	HIGHLY WEATHERED
10 50/3 15 50/2 15 50/2 20 50/2 21 BORING TERMINATED AT 16 FT. NO GROUNDWATER ENCOUNTERED. NO CAVING. 20 1 20 1 21 1 22 1 23 1 24 1 25 1		50/2 50/2			s	A
15 50/2 - - - - - - - - - - 20 - - - <		50/3				
20	15—11	50/2				
		BOI	RING TERMINATED AT 16 FT. NO GROU	INDWATER ENCOUNTER	ED. NO CAVING.	
KEY TO SYMBOLS COLE GRADE ROAD FIRE STATION		KEY T	OSYMBOLS	COLE GRADE RC	DAD FIRE STATION	GEOTECHNICAL
Image: Stabilized # ERRONEOUS BLOWCOUNT VALLEY CENTER, CALIFORNIA Image: Special inspection	✓/∑ GROUNDWATE	R / STABILIZED	# ERRONEOUS BLOWCOUNT	VALLEY CENTE	ER, CALIFORNIA	
BULK SAMPLE NO SAMPLE RECOVERY APPENDIX B.4 SPT SAMPLE (ASTM D1586) SPT SAMPLE (ASTM D1586) SPT SAMPLE (ASTM D1586)		BULK SAMPLE	NO SAMPLE RECOVERY		IDIX B.4	4373 Viewridge Avenue, Suite B
CAL, MOD, SAMPLE (ASTM D3550) SOIL TYPE CHANGE REV/IEWED RV: MS_PROJECT NO · 2020074 San Caller Aug 2020 San Caller Au	CAL. MOD. SAMPI	E (ASTM D3550)			PROJECT NO · 202007	U P: 858.292.7575 944 Calle Amanecer, Suite F 2 San Clemente, CA 92673

								BO	RING	i LC	DG	B- 5)				
DATE			'D.														LAB TEST ABBREVIATIONS
						JLY 1, 2020 EQUIPMENT: CME 95											CR CORROSIVITY MD MAXIMUM DENSITY
EXCAV	ATION	DE	SCRIPTI	0 N: 8-II		CH DIAMETER AUGER BORING GPS COORD.: N/A									DS DIRECT SHEAR EI EXPANSION INDEX AL ATTERBERG LIMITS SA SIEVE ANALYSIS		
GROUI	NDWA	ER	DEPTH:	GR	OUNDWAT	ER NOT	ENCOU	JNTERED	ELEVA	TION:	± 1570	FT MSL					RV RESISTANCE VALUE CN CONSOLIDATION SE SAND EQUIVALENT
DEPTH (FT)	GRAPHIC LOG BULK SAMPLE	BUILK SAMPLE SOIL DESCRIPTION SUMMARY OF SUBSURFACE CONDITIONS (USCS; COLOR, MOISTURE, DENSITY, GRAIN SIZE, OTHER)											LABORATORY	REMARKS			
0 			SC		ALLUVI MEDIUN	JM (Qal 1 DENSE	I): CLA E, FINE	IYEY SAI TO MEL	ND; BROWN DIUM GRAIN	TO ORA ED	NGE BR	OWN, Di	RY TO	O DAMF	р, ,		
5			SM		TONALI DENSE,	TE (Kcg FINE To): SIL O COA	TY SANE RSE GR.	D; LIGHT GR. PAINED	AYISH BI	ROWN, D	RY TO L	DAMF	P, MEDI	UM		HIGHLY WEATHERED
				50/2	GRAYIS	H BROV	NN, VE	RY DEN	ISE								LESS WEATHERED
10 —		Ν		50/3													
15		\square		50/2	POPING					עוחואוור		COUNT			AVING		
_					DURING		NATEL	JAT 15.5	D F I. NO GRO	JUNDVVF		COUNT	INEL	. NO CA	AVIING.		
_																	
20 —																	
_																	
_																	
25 —																	
_																	
20																	
30				KE	Y TO S	YMBC	OLS										GEOTECHNICAL
	Z GI	ROUN	IDWATER	/ STABIL	IZED #	ERRONEOUS BLOWCOUNT					COLE GRADE ROAD FIRE STATION VALLEY CENTER, CALIFORNIA						MATERIALS SPECIAL INSPECTION
\boxtimes			I	BULK SAN	/IPLE 🖌	r	N	O SAMPLE	E RECOVERY			APPE	NDIX	B.5			NOVA DVBE • SBE • SDVOSB • SLBE WWW.USA-NOVA.com
		SPT	SAMPLE	(ASTM D1	1586)			GEOLOG	GIC CONTACT	LOGGE	ED BY:	GAN	DAT	TE:	AUG 2	2020	4373 Viewriage Avenue, Suite B San Diego, CA 92123 P: 858.292.7575
	CAL. I	NOD.	SAMPLE	(ASTM D3	3550)			SOIL T	YPE CHANGE	REVIE	NED BY:	MS	PRO	DJECT I	NO.: 2020	074	San Clemente, CA 92673 P: 949.388.7710

					I	BORING	i LOG E	3-6)				
DATE	EXCA	/ATE	D: SCRIPTI		(1, 2020 CH DIAMETER AUGER BO	LAB TEST ABBREVIATIONS CR CORROSIVITY MD MAXIMUM DENSITY DS DIRECT SHEAR EI EXPANSION INDEX							
GROU	NDWA	TER	DEPTH:	GR	DUNDWATER NOT ENCOU		AL ATTERBERG LIMITS SA SIEVE ANALYSIS RV RESISTANCE VALUE CN CONSOLIDATION SE SAND EQUIVALENT						
DЕРТН (FT)	GRAPHIC LOG BULK SAMPLE	CAL/SPT SAMPLE	SOIL CLASS. (USCS)	BLOWS PER 12-INCHES	(USCS	LABORATORY	REMARKS						
0 _			SC	25	ALLUVIUM (Qal): CLA MEDIUM DENSE, FINE	AYEY SAND; BROWN E TO MEDIUM GRAIN	TO ORANGE BRC ED	WN, DI	RY TO DAMP,	SA			
		_	CL	70	TONALITE (Kcg): SAI HARD	NDY CLAY; ORANGE	BROWN TO DARK	(GRAY	ISH BROWN, MOIST,	SA	HIGHLY WEATHERED		
5			sc	+	CLAYEY SAND; LIGHT GRAINED	GRAYISH BROWN, I	MOIST, VERY DEN	ISE, FIN	NE TO COARSE		LESS WEATHERED		
		Z	 SP-SM		POORLY-GRADED SA DENSE, FINE TO COA	ND-SILTY SAND; GR. NSE GRAINED	AYISH BROWN, Di	 AMP TC	MOIST, VERY	ΓSĀ			
 10 15			 SM	50/4	SILTY SAND; GRAYISI GRAINED	H BROWN, DAMP TO	MOIST, VERY DEI	NSE, FI	NE TO COARSE				
					BORING TERMINATEL	D AT 15.5 FT. NO GRO	DUNDWATER ENC	OUNTE	ERED. NO CAVING.				
	KEY TO SYMBOLS COLE GRADE ROAD FIRE STATION										GEOTECHNICAL		
	Z G	ROUN	IDWATER	/ STABILI	ED # ERR	ONEOUS BLOWCOUNT	VALLEY	CENT	ER, CALIFORNIA		SPECIAL INSPECTION		
		SPT	SAMPLE	SULK SAN	7LE * N			APPEN	NDIX B.6		4373 Viewridge Avenue, Suite B San Diogo CA 02123		
	CAL.	MOD.	SAMPLE	(ASTM D	550)	SOIL TYPE CHANGE	REVIEWED BY:	MS	PROJECT NO.: 2020	074	San Diego, CA 92123 P: 858.292.7575 944 Calle Amanecer, Suite F San Clemente, CA 92673 P: 040 9287720		

						PE	ER	CO)LA		DN I	BO	RIN	IG	L	00	GΙ	P-1			
DATE	FVO																			LAB TEST	ABBREVIATIONS
DATE	DATE EXCAVATED: JULY 1, 2				_Y 1, 2020	2				EQUIPM	IENT:	CME 95						_	CR MD	CORROSIVITY MAXIMUM DENSITY	
EXCAVATION DESCRIPTION: 8-INCH						NCH DIAI	DIAMETER AUGER BORING GPS COORD.: N/A								_	DS El AL SA	DIRECT SHEAR EXPANSION INDEX ATTERBERG LIMITS SIEVE ANALYSIS				
GROU	NDW		ERI	DEPTH:	GR	OUNDW	ATER NO	OT ENC	OUNTER	RED	ELEVAT	TION:	± 1563	FT MSL					_	RV I CN SE	RESISTANCE VALUE CONSOLIDATION SAND EQUIVALENT
DEPTH (FT)	GRAPHIC LOG	BULK SAMPLE	CAL/SPT SAMPLE	SOIL CLASS. (USCS)	BLOWS PER 12-INCHES			(USC	SUI CS; COL	SC MMARY .OR, MO	DIL DES OF SUBS DISTURE,	SCRIP SURFAC DENSIT	TION CE COND TY, GRAII	ITIONS N SIZE,	OT	HER)			LABORATORY	RE	MARKS
0				SC		ALLU\ DENSE	/IUM (C E, FINE	Jal): CL TO ML	LAYEY S EDIUM (SAND; B GRAINEI	BROWN T D	O ORAN	NGE BRO	WN, DF	RY T	TO DA	MP, N	<i>MEDIUM</i>			
				SM		TONAI FINE T	LITE (K	(cg): S \RSE G	SILTY SA RAINEL	AND; LIG D	GHT GRA	YISH BF	ROWN, D	RY TO L	DAN	MP, VE	ERY D	DENSE,		HIGHLY WEA	THERED
 5						GRAYI	SH BR	OWN, I	DRY											LESS WEATH	ERED
_						BORIN	IG TER	MINAT	ED AT 5	5 FT ANI	D CONVE	RTED T	O A PER	COLAT	ION	I WEL	L.				
_																					
10 —																					
_																					
15 —																					
_																					
_																					
20																					
_																					
_																					
 25																					
_																					
_																					
30					VE	V TO	GANI														
▼ /5	Z	GR	OUN	IDWATER	/ STABIL	IZED	#	EF		US BLOW	VCOUNT	C	COLE GR VALLE	ADE RO	OAI Er,	, CALI	FORN	tion IIA			MATERIALS SPECIAL INSPECTION
\boxtimes				В	3ULK SAN	/IPLE	*		NO SAN	IPLE REC	COVERY			APPE	NDI	X B.7				NOVA	DVBE • SBE • SDVOSB • SLBI
		S	SPT (SAMPLE (ASTM D1	1586)		_	GEOI	LOGIC CO	ONTACT	LOGGE	D BY:	GAN	D	ATE:		AUG 2	020	4373 Viewridge Av San Diego, CA 921 P: 858.292.7575	enue, Suite B 23
CAL. MOD. SAMPLE (ASTM D3550)								_	SOI	IL TYPE C	CHANGE	REVIEV	VED BY:	MS	PI	ROJE	CT NC).: 2020	074	944 Calle Amanece San Clemente, CA P: 949.388.7710	er, Suite F 92673
					PERC	OLATI	ON	BO	RIN	GΙ	_00	G P-2									
-------------	---------------------	-------------	-----------------------	------------------------	-----------------------------	--	-----------------------------------	---------------------------	-------------------------------------	--------------------	----------	---------------	------------	--							
	F V C													LAB TEST ABBREVIATIONS							
DATE	EXC/	AVA	ED:	JUL	Y 1, 2020			MENT:	CME 95				_	CR CORROSIVITY MD MAXIMUM DENSITY							
EXCA	VATIO	D NC	ESCRIPT	ION: 8-11	NCH DIAMETER AU	JGER BORING	_ GPS CC	OORD.:	N/A				_	DS DIRECT SHEAR EI EXPANSION INDEX AL ATTERBERG LIMITS SA SIEVE ANALYSIS							
GROU	NDW	ATE	R DEPTH:	: <u>GR</u>	OUNDWATER NOT	ENCOUNTERED	ELEVA	TION:	± 1568 F	FT MSL			_	RV RESISTANCE VALUE CN CONSOLIDATION SE SAND EQUIVALENT							
DЕРТН (FT)	GRAPHIC LOG	BULK SAMPLE	Soll class. (USCS)	BLOWS PER 12-INCHES		S SUMMAR (USCS; COLOR, N	SOIL DE RY OF SUB MOISTURE,	SCRIP SURFAC DENSIT	TION E CONDI TY, GRAIN	TIONS N SIZE, 0	OTHER)		LABORATORY	REMARKS							
0 			SC		ALLUVIUM (Qa MEDIUM DENS	I): CLAYEY SAND E, FINE TO MEDIL); BROWN JM GRAINE	TO ORAI ED	NGE BRC	PWN, DF	το da	AMP,									
5			SM		TONALITE (Kcg	g): SILTY SAND; L SE GRAINED	LIGHT GRA	YISH BF	ROWN, DF	RY TO E	DAMP, VE	ERY DENSE,		HIGHLY WEATHERED							
					BORING TERM	INATED AT 5 FT A	ND CONV	ERTED T	O A PER	COLATI	ON WEL	L.									
00				KE	Y TO SYMBO	OLS		0				STATION		GEOTECHNICAL							
	Z	GRO	JNDWATE	R / STABIL	ZED #	ERRONEOUS BLC	OWCOUNT		VALLEY	CENT	ER, CALI	FORNIA		MATERIALS SPECIAL INSPECTION							
\boxtimes				BULK SAN	IPLE *	NO SAMPLE R	RECOVERY			APPEN	IDIX B.8			INUVA UVBE • SBE • SDVOSB • SLBE www.usa-nova.com 4373 Viewridge Avenue, Suite B							
		SF	T SAMPLE	(ASTM D ⁻	586)	GEOLOGIC	CONTACT	LOGGE	D BY:	GAN	DATE:	AUG 2	020	San Diego, CA 92123 P: 858.292.7575							
	CAI	l. Mo	D. SAMPLE	E (ASTM D3		SOIL TYPE	E CHANGE	REVIEV	VED BY:	MS	PROJE	CT NO.: 20200	074	944 Galle Amanecer, Suite F San Clemente, CA 92673 P: 949.388.7710							



August 20, 2020

APPENDIX C RECORDS OF LABORATORY TESTING

Laboratory tests were performed in accordance with the generally accepted American Society for Testing and Materials (ASTM) test methods or suggested procedures. Brief descriptions of the tests performed are presented below:

- CLASSIFICATION: Field classifications were verified in the laboratory by visual examination. The final soil classifications are in accordance with the Unified Soils Classification System and are presented on the exploration logs in Appendix B.
- MAXIMUM DENSITY AND OPTIMUM MOISTURE CONTENT (ASTM D1557 METHOD A,B,C): The maximum dry density and optimum moisture content of typical soils were determined in the laboratory in accordance with ASTM Standard Test D1557, Method A, Method B, Method C.
- DENSITY OF SOIL IN PLACE (ASTM D2937): In-place moisture contents and dry densities were determined for representative soil samples. This information was an aid to classification and permitted recognition of variations in material consistency with depth. The dry unit weight is determined in pounds per cubic foot, and the in-place moisture content is determined as a percentage of the soil's dry weight. The results are summarized in the exploration logs presented in Appendix B.
- EXPANSION INDEX (ASTM D4829): The expansion index of selected materials was evaluated in general accordance with ASTM D4829. Specimens were molded under a specified compactive energy at approximately 50 percent saturation (plus or minus 1 percent). The prepared 1-inch thick by 4-inch diameter specimens were loaded with a surcharge of 144 pounds per square foot and were inundated with tap water. Readings of volumetric swell were made for a period of 24 hours.
- CORROSIVITY TEST (CAL. TEST METHOD 417, 422, 643): Soil PH, and minimum resistivity tests were performed on a representative soil sample in general accordance with test method CT 643. The sulfate and chloride content of the selected sample were evaluated in general accordance with CT 417 and CT 422, respectively.
- **R-VALUE (ASTM D2844):** The resistance Value, or R-Value, for near-surface site soils were evaluated in general accordance with California Test (CT) 301 and ASTM D2844. Samples were prepared and evaluated for exudation pressure and expansion pressure. The equilibrium R-value is reported as the lesser or more conservative of the two calculated results.
- GRADATION ANALYSIS (ASTM C 136 and/or ASTM D422): Tests were performed on selected representative soil samples in general accordance with ASTM D422. The grain size distributions of selected samples were determined in accordance with ASTM C 136 and/or ASTM D422. The results of the tests are summarized on Appendix C.3 through Appendix C.11.
- CONSOLIDATION PROPERTIES (ASTM D2435): Tests were performed on selected relatively undisturbed soil samples in general accordance with ASTM D2435. The samples were inundated during testing to represent adverse field conditions. The percent of consolidation for each load cycle was recorded as a ratio of the amount of vertical compression to the original height of the sample. The results of the tests are summarized on Appendix C.12.

	GEOTECHNICAL MATERIALS	LAB TEST SUMMARY					
	SPECIAL INSPECTION	COLE GRADE ROAD FIRE STATION					
NOVA	DVBE + SBE + SDVOSB + SLBE		VALLEY CENTE	ER, CALIFORNIA			
4373 Viewridge Avenue, Suite E San Diego, CA 92123 P: 858.292.7575	3 944 Calle Amanecer, Suite F San Clemente, CA 92673 P: 949.388.7710	BY: CLS	DATE: AUG 2020	PROJECT: 2020074	APPENDIX: C.1		

Maximum Dry Density and Optimum Moisture Content (ASTM D1557)

Sample Location	Sample Depth (ft)	Soil Description	Maximum Dry Density (pcf)	Optimum Moisture Content (%)
B-2	0 - 4	Orange Brown Clayey Sand	133.5	9.8

Density of Soil in Place (ASTM D2937)

Sample	Sample Depth		Moisture (%)	Dry Density (pcf)
	<u>(π)</u>	Soll Description	10.0	104.4
Б-2 В-3	1.5 - 6 5	Orange Brown Clayey Sand	12.2	124.4

Expansion Index (ASTM D4829)

Sample	Sample Depth	Expansion	Expansion
Location	(ft)	Index	Potential
B-3	0 - 5	40	Low

Resistance Value (Cal. Test Method 301 & ASTM D2844)

	Sample Location	Sample Depth (ft)	Soil Descriptio	n	R-Value	•
	B-2	0 - 4	Orange Brown Silty	/ Sand	17	
Comple	O-mula D-mili	Corrosivity (Cal. Te	st Method 417,42 Sulfate Conte	<mark>2,643)</mark> ent	Chloride	Content
Sample Location	Sample Depth (ft)	Corrosivity (Cal. Te Resistivity pH (Ohm-cm)	st Method 417,42 Sulfate Conte (ppm)	<mark>2,643)</mark> ent (%)	Chloride (ppm)	Content (%)

	GEOTECHNICAL MATERIALS	LAB TEST RESULTS					
NOVA	SPECIAL INSPECTION DVBE • SBE • SDVOSB • SLBE		COLE GRADE RO VALLEY CENTE	AD FIRE STATION ER, CALIFORNIA			
4373 Viewridge Avenue, Suite E San Diego, CA 92123 P: 858.292.7575	 944 Calle Amanecer, Suite F San Clemente, CA 92673 P: 949.388.7710 	BY: CLS	DATE: AUG 2020	PROJECT: 2020074	APPENDIX: C.2		



 4373 Viewridge Avenue, Suite B
 944 Calle Amanecer, Suite F

 San Diego, CA 92123
 San Clemente, CA 92673

 P: 858.292.7575
 P: 949.388.7710

BY: CLS

DATE: AUG 2020



Depth (ft): 0 - 1.5

USCS Soil Type: SC

	GEOTECHNICAL MATERIALS	GRADATION ANALYSIS TEST RESULTS				
NOVA	SPECIAL INSPECTION DVBE + SBE + SDVOSB + SLBE		COLE GRADE RO VALLEY CENTE	AD FIRE STATION ER, CALIFORNIA		
wi 4373 Viewridge Avenue, Suite E San Diego, CA 92123 P: 858.292.7575	ww.usa-nova.com 9 944 Calle Amanecer, Suite F San Clemente, CA 92673 P: 949.388.7710	BY: CLS	DATE: AUG 2020	PROJECT: 2020074	APPENDIX: C.4	



Grav	el		Sand		Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Depth (ft): 5 - 6.5

USCS Soil Type: SM

	GEOTECHNICAL MATERIALS	GRA	DATION ANALY	SIS TEST RESU	LTS		
	SPECIAL INSPECTION	COLE GRADE ROAD FIRE STATION					
	DVBE + SBE + SDVOSB + SLBE		VALLET CENTE				
4373 Viewridge Avenue, Suite E San Diego, CA 92123 P: 858.292.7575	 944 Calle Amanecer, Suite F San Clemente, CA 92673 P: 949.388.7710 	BY: CLS	DATE: AUG 2020	PROJECT: 2020074	APPENDIX: C.5		



Depth (ft): 1.5 - 3

USCS Soil Type: SM

	GEOTECHNICAL MATERIALS	GRADATION ANALYSIS TEST RESULTS				
NOVA	SPECIAL INSPECTION DVBE + SBE + SDVOSB + SLBE		COLE GRADE RO VALLEY CENTE	AD FIRE STATION ER, CALIFORNIA		
wu 4373 Viewridge Avenue, Suite E San Diego, CA 92123 P: 858.292.7575	W.usa-nova.com 9 944 Calle Amanecer, Suite F San Clemente, CA 92673 P: 949.388.7710	BY: CLS	DATE: AUG 2020	PROJECT: 2020074	APPENDIX: C.6	



Depth (ft): 4.5 - 5.5

USCS Soil Type: SM

GEOTECHNICAL MATERIALS	GRADATION ANALYSIS TEST RESULTS				
SPECIAL INSPECTION DVBE • SBE • SDVOSB • SLBE		COLE GRADE RO VALLEY CENTE	AD FIRE STATION R, CALIFORNIA		
4373 Viewridge Avenue, Suite B 944 Calle Amanecer, Suite F San Diego, CA 92123 San Clemente, CA 92673 P: 858.292.7575 P: 949.388.7710		DATE: AUG 2020	PROJECT: 2020074	APPENDIX: C.7	
	GEOTECHNICAL MATERIALS SPECIAL INSPECTION DVBE • SBE • SDVOSB • SLBE w.usa-nova.com 944 Calle Amanecer, Suite F San Clemente, CA 92673 P: 949.388.7710	GEOTECHNICAL MATERIALS SPECIAL INSPECTION DVBE • SBE • SDVOSB • SLBE w.usa-nova.com 944 Calle Amanecer, Suite F San Clemente, CA 92673 P: 949.388.7710 BY: CLS	GEOTECHNICAL GRADATION ANALY MATERIALS SPECIAL INSPECTION DVBE • SBE • SDVOSB • SLBE COLE GRADE RO W/USA-hOVA.com VALLEY CENTE 944 Calle Amanecer, Suite F San Clemente, CA 92673 P: 949,388,7710 BY: CLS	GEOTECHNICAL GRADATION ANALYSIS TEST RESU MATERIALS SPECIAL INSPECTION DVBE • SBE • SDVOSB • SLBE COLE GRADE ROAD FIRE STATION W/USA-flova.com VALLEY CENTER, CALIFORNIA 944 Calle Amanecer, Suite F San Clemente, CA 92673 P: 949,388,7710 BY: CLS DATE: AUG 2020 PROJECT: 2020074	



Depth (ft): 7 - 8.5

USCS Soil Type: SM

	GEOTECHNICAL MATERIALS	GRADATION ANALYSIS TEST RESULTS					
	SPECIAL INSPECTION						
NOVAL DVBE + SBE + SDVOSB + SLBE							
4373 Viewridge Avenue, Suite E San Diego, CA 92123 P: 858.292.7575	 944 Calle Amanecer, Suite F San Clemente, CA 92673 P: 949.388.7710 	BY: CLS	DATE: AUG 2020	PROJECT: 2020074	APPENDIX: C.8		







Depth (ft): 2.5 - 4

SCS Soil Type: SM

USCS Soil Type: SI

	GEOTECHNICAL MATERIALS	GRADATION ANALYSIS TEST RESULTS					
NOVA		COLE GRADE ROAD FIRE STATION VALLEY CENTER, CALIFORNIA					
4373 Viewridge Avenue, Suite E San Diego, CA 92123 P: 858.292.7575	ww.usa-nova.com 9 944 Calle Amanecer, Suite F San Clemente, CA 92673 P: 949.388.7710	BY: CLS	DATE: AUG 2020	PROJECT: 2020074	APPENDIX: C.10		



Grav	rel	Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	Circon Citay

Depth (ft): 5 - 6

USCS Soil Type: SP-SM

	GEOTECHNICAL MATERIALS	GRADATION ANALYSIS TEST RESULTS					
NOVA	SPECIAL INSPECTION DVBE • SBE • SDVOSB • SLBE	COLE GRADE ROAD FIRE STATION VALLEY CENTER, CALIFORNIA					
wi 4373 Viewridge Avenue, Suite E San Diego, CA 92123 P: 858.292.7575	ww.usa-nova.com 9 944 Calle Amanecer, Suite F San Clemente, CA 92673 P: 949.388.7710	BY: CLS	DATE: AUG 2020	PROJECT: 2020074	APPENDIX: C.11		



Attachment 6 – Improvement Priority Lists for Station No. 1 and 2

Improvement Priority List for Fire Station No. 1

- Increase the height of the apparatus bay doors from approximately 10 feet 7 inches to 12 feet.
 New apparatus bay doors will be required in addition to modifications to the structure to achieve the increased height.
- Install a new two-stage compressor and construct a compressor enclosure. Plumb the apparatus bay for compressed air
- Design and install a new HVAC system throughout the main fire station building. This task will include consolidating the computer and telecommunications equipment in one location so that it can be effectively cooled. Ductless mini-splits are the preferred HVAC technology, if feasible
- Reconfigure the living space to provide dorm and dayroom space for four persons and to accommodate three refrigerators in the kitchen area
- Modernize the kitchen with updated appliances and countertops
- Upgrade the water heaters
- Provide a covered porch area at the main public entrance
- Reconfigure the front office to include a public counter with security measures and a plan layout counter area
- Behind the public counter, reconfigure the office space to provide several workstations on the perimeter and a centrally located conference table for small meetings
- Reconfigure the workout area to accommodate interior and exterior space

Improvement Priority List for Fire Station No. 2

- Increase the height of the apparatus bay doors from approximately 10 feet to 12 feet. New apparatus bay doors will be required in addition to modifications to the structure to achieve the increased height.
- Design and install a new HVAC system throughout the fire station. Ductless mini-splits are the preferred HVAC technology, if feasible
- Add a urinal to the Men's restroom
- Reconfigure dorm space to improve functionality and comfort
- Upgrade the vanity in the Captain's restroom
- Remodel the kitchen to provide space for three refrigerators (to be relocated from the laundry area), update the appliances and countertops
- Provide a screened in area with a half-wall and exercise flooring for the rear patio area where the exercise equipment is located
- Remodel the laundry area to provide storage and an area to fold clothes
- Relocate storage from the area adjacent to the dayroom to the laundry room to free up space to expand the adjacent office to provide three workstations
- Replace and expand the concrete area in the rear of the station
- Provide a "roof" for the existing metal framework to provide a partial enclosure for an antique fire engine

Breliminary Cost Workshoot		
Preliminary Cost Worksneet	Subtotals	Totals
Preconstruction Services	Subtotals	
Design Team (Architect and Subconsultants)		
Schematic Design		
Design Development		
Construction Documents		
Subtotal		
Note: Do not include design team construction administration services		
in the preconstruction services budget		
Design Builder (DB)		
DB Cost for Preconstruction Services (provide breakdown on separate		
sheet)		
Proposed DB Design Contingency		
Proposed DB Fee for All Pre-Construction Services		
Subtotal		
Total Preconstruction Services Budget		
Total Treedistraction Services Budget		
Construction Services		
General Conditions/General Requirements (provide monthly		
breakdown on separate sheet, identify staffing levels and hours)		
Proposed DB Contingency (percentage)		
Proposed DB Fee for Construction (percentage)		
Bonds and Insurance		
Performance/Payment Bonds (%)		
Liability Insurance (%)		
Builder's Risk (%)		



VALLEY CENTER FIRE PROTECTION DISTRICT INSURANCE REQUIREMENTS

INSURANCE TYPES AND LIMITS, INDEMNIFICATION AND BEST PRACTICES FOR CONTRACT SERVICES TO THE VALLEY CENTER FIRE





Table of Contents

Insurance Requirements

- Page 3 Commercial General Liability
- Page 4 Workers Compensation
- Page 4 Excess or Umbrella Liability
- Page 5 Business Auto
- Page 5 Professional Liability / E&O
- Page 6 Pollution Liability

Page 7 Provisions for All Required Insurance for District Contractors

Insurance Requirements for ALL District Contracts

Prior to the beginning of and throughout the duration of the Services, and for any additional period of time as specified below, CONTRACTOR shall, at its sole cost and expense, maintain insurance in conformance with the requirements set forth below. CONTRACTOR shall submit Certificates of Insurance for the District's review and acceptance. The Notice to Proceed shall not be issued, and CONTRACTOR shall not commence Services until such insurance has been accepted by the District.

No representation is made that the minimum insurance requirements of this Agreement are sufficient to cover the obligations of the CONTRACTOR hereunder.

A. <u>Commercial General Liability</u>

- a. CONTRACTOR shall provide Commercial General Liability insurance covering claims for Bodily, Injury, Personal and Advertising Injury, and Property Damage on a policy form that provides coverage at least as broad as coverage provided under the Insurance Services Office (ISO) form CG 00 01, and that includes, but is not limited to, the coverage limits and coverage provisions outlined below.
- b. The required coverage limits shall be the greater of the broader coverage and maximum limits of coverage of any insurance policy or proceeds available to the Named Insured, including applicable Umbrella or Excess Limits, or the following:

\$5,000,000 per Occurrence	Each Pollution Condition;
\$5,000,000	Aggregate Liability.
\$2,000,000	General Aggregate;
\$2,000,000	Products - Completed Operations
	Aggregate.

- c. Coverage must be on an "occurrence" basis.
- d. Coverage must be included for "products-completed operations" without any "prior work" coverage limitation or exclusion applicable to any Services to be performed under this Agreement.
- e. Contractual Liability coverage at least as broad as coverage provided by the ISO CG 00 01 policy form must be included.
- f. To the fullest extent permitted by law, the District and its directors, officers, officials, agents, volunteers, and employees must be covered as *Additional Insureds* on a primary and noncontributory basis The additional insureds must be covered for:
 - i. Liability arising out of any premises or property utilized for any Services performed under this Agreement, and
 - ii. Liability arising out of or related to this Agreement, including any Services performed hereunder by or on behalf of CONTRACTOR, and

iii. Products and completed operations of CONTRACTOR.

A severability of interests provision must apply for all the Additional Insureds, ensuring that CONTRACTOR's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability.

B. Workers' Compensation and Employer's Liability

Workers' Compensation coverage shall be on a state-approved policy form providing statutory benefits as required by law and Employer's Liability coverage with limits no less than \$1,000,000 per accident or disease for all covered losses. If CONTRACTOR is self-insured with respect to Workers' Compensation coverage, CONTRACTOR shall provide a Certificate of Consent to Self-Insure from the California Department of Industrial Relations confirming CONTRACTOR's self-insured status. Such self-insurance shall meet the minimum limit requirements and waive subrogation rights in favor of the District as stated below. If the CONTRACTOR is a sole proprietorship or partnership, with no employees, and is exempt from carrying Workers Compensation insurance, CONTRACTOR must submit a letter to the District stating that he/she is either the owner of the entity or a partner of the entity performing the Services, and is exempt from the State of California's Workers Compensation requirements because he/she has no employees.

CONTRACTOR and its Workers' Compensation insurance must waive any rights of subrogation against the District and its directors, officers, officials, agents, volunteers, and employees, and CONTRACTOR shall defend and pay any damages as a result of failure to provide the waiver of subrogation from the insurance carrier(s).

C. <u>Excess or Umbrella Liability Insurance</u>

If excess or umbrella policies are used to meet the insurance requirements of this Agreement, they shall provide coverage at least as broad as specified for the underlying coverages, and the full limits of the umbrella or excess coverage shall be available to the District. To the fullest extent permitted by law, the District and its directors, officers, officials, agents, volunteers and employees must be covered as additional insureds and such policy or policies shall contain or be endorsed to contain a provision that coverage shall also apply on a primary and noncontributory basis to the District *before* the District's own primary insurance or self-insurance shall be called upon to protect it as a Named Insured. A severability of interests provision must apply for all additional insureds, ensuring that CONTRACTOR's insurance shall apply separately to each insured against whom the claim is made or suit is brought, except with respect to the insurer's limits of liability.

1. <u>Business Auto Liability</u>

- a. CONTRACTOR shall provide Business Auto Liability coverage on a policy form that provides coverage at least as broad as coverage provided under ISO Business Auto Coverage form CA 00 01, and that includes, but is not limited to, the coverage limits and coverage provisions outlined below.
- b. Coverage must be provided for "Bodily Injury" and "Property Damage" Liability caused by an accident and resulting from the ownership, maintenance or use of covered autos.
- c. The required coverage limits shall be the greater of the broader coverage and maximum limits of coverage of any insurance policy or proceeds available to the Named Insured, including applicable Umbrella or Excess Limits, or the minimum limits specified below:

\$1,000,000 per Occurrence/Accident for Bodily Injury and Property Damage Liability.

- d. Covered "autos" must include all owned, non-owned and hired vehicles.
- e. To the fullest extent permitted by law, the District and its directors, officers, officials, agents, volunteers, and employees must be covered as *Additional Insureds* with respect to "any auto" owned, leased, hired or borrowed by CONTRACTOR. The policy(ies) shall contain or be endorsed to contain a provision that coverage shall apply on a primary and noncontributory basis to the District *before* the District's own primary insurance or self-insurance shall be called upon to protect it as a Named Insured.
- f. A severability of interests provision must apply for all the Additional Insureds, ensuring that CONTRACTOR's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability.
- g. [Where applicable] The policy shall be endorsed to include Transportation Pollution Liability insurance covering materials to be transported by CONTRACTOR in any Services to be performed under this Agreement. Alternatively, this coverage may be provided on the CONTRACTOR's Pollution Liability Policy.

2. <u>Professional Liability (aka Errors and Omissions)</u> *Architects, Engineers, Surveyors and Third-Party Construction Management Entities.

The required coverage limits shall be the greater of the broader coverage and maximum limits of coverage of any insurance policy or proceeds available to the Named Insured, including applicable Umbrella or Excess Limits, or the following: \$1,000,000 per

occurrence or claim and \$2,000,000 aggregate. Coverage may be written on a **claims-made** form. If coverage is on a **claims-made** basis, the coverage must be maintained for at least 3 years after all Services under this Agreement are complete and additional **claims-made** coverage requirements apply as described below.

Pollution Liability

- a. CONTRACTOR shall provide pollution liability coverage that includes, but is not limited to, the coverage limits and coverage provisions outlined below.
- b. Coverage must be included for bodily injury and property damage, including coverage for loss of use and diminution in property value, and for resultant clean-up costs, arising out of the or resulting from:
 - (i) any Services performed under this Agreement, including
 - (ii) any storage or transportation, including the loading or unloading of, hazardous wastes, hazardous materials, or contaminants.

The required coverage limits shall be the greater of the broader coverage and maximum limits of coverage of any insurance policy or proceeds available to the Named Insured, including applicable Umbrella or Excess Limits, or the following:

\$5,000,000 per Occurrence	Each Pollution Condition;
\$5,000,000	Aggregate Liability.

- c. Coverage may be written on a **claims-made** form. If coverage is on a **claims-made** basis, the coverage must be maintained for at least 3 years after all Services performed under this Agreement are complete and additional **claims-made** coverage requirements apply as described below.
- d. To the fullest extent permitted by law, the District and its directors, officers, officials, agents, volunteers, and employees must be covered as *Additional Insureds by way of an endorsement to the policy*. The policy(ies) shall also contain or be endorsed to contain a provision that coverage shall apply on a primary and noncontributory basis to the District *before* the District's own primary insurance or self-insurance shall be called upon to protect it as a Named Insured.
- e. A severability of interests provision must apply for all the additional insureds, ensuring that CONTRACTOR's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability.

Provisions for All Required Insurance for District Contractors

A. Deductibles, Self-Insurance, Self-Insured Retentions

Any deductibles, self-insurance, or self-insured retentions (SIRs) applicable to required insurance coverage must be declared to and accepted by the District. At the option and

request of the District, CONTRACTOR shall provide documentation of its financial ability to pay the deductible, self-insurance, or SIR.

B. Acceptability of Insurers

Unless otherwise reviewed and accepted by the District, all required insurance must be placed with insurers with a current A. M. Best's rating of no less than A - VII. The insurers shall be admitted, or approved by the Surplus Lines Association, to do business in California.

C. Claims-made Coverage

For any coverage that is provided on a **claims-made** coverage form (which type of form is permitted only where specified in the insurance requirements outlined above):

- (i) The retroactive date must be shown, and must be before the date of this Agreement, and before the beginning of any Services related to this Agreement.
- (ii) Insurance must be maintained and Certificates of Insurance must be provided to the District for at least three (3) years after expiration of this Agreement.
- (iii) If coverage is canceled or non-renewed, and not replaced with another **claims-made** policy form with a retroactive date prior to the effective date of this Agreement or the start of any Services related to this Agreement, CONTRACTOR must purchase an extended reporting period for a minimum of three (3) years after expiration of the Agreement.
- (iv) If requested by the District, a copy of the policy's claims reporting requirement must be submitted to the District for review.

D. Notice of Claims

CONTRACTOR agrees to provide immediate notice to the District of any loss or claim against CONTRACTOR arising out of or in connection with this Agreement, or Services performed under this Agreement. The District assumes no obligation or liability by such notice, but has the right (but not the duty) to monitor the handling of any such claim or claims if they are likely to involve the District.

E. Proof of Compliance

CONTRACTOR agrees to provide evidence of insurance required herein, satisfactory to the District, consisting of Certificates of Insurance, evidencing all of the coverages required. CONTRACTOR agrees, upon request by the District, to provide complete, certified copies of any policies within 10 days of such request. (Copies of policies may be redacted to eliminate premium details.) All Certificates of Insurance must be received and accepted by the District before any Services are performed under this Agreement commences. Acceptance of CONTRACTOR's Certificates of Insurance or any other evidence of insurance coverage does not constitute any guarantee that CONTRACTOR's insurance meets the requirements herein. It is CONTRACTOR's responsibility to ensure its compliance with these insurance requirements. Any actual or alleged failure on the part of the District to obtain proof of insurance required under this Agreement shall not in any way be construed to be a waiver of any right or remedy of the District, in this or any regard.

F. Notice of Cancellation/Non-Renewal/Material Reduction

CONTRACTOR agrees to provide written notice to the District thirty (30) days prior to cancellation of coverage required under this Agreement, or of any material reduction or non-renewal of such coverage, other than for non-payment of premium which shall require a 10-day prior written notification. Replacement of coverage with another policy or insurer, without any lapse in coverage or any reduction below these requirements does not require notice beyond submission to the District of an updated Certificate of Insurance.

VALLEY CENTER FIRE PROTECTION DISTRICT REQUEST FOR PROPOSALS FOR DESIGN-BUILD SERVICES FIRE STATION PROJECTS ADDENDUM NO. 1

1. Attachment 8, which details the insurance requirements indicates the requirement of \$5,000,000 per Occurrence for Each Pollution Condition under the Commercial General Liability section. Will pollution liability coverage be required of the DB-Es under the contract with the VCFPD?

Valley Center Fire Protection District will not require the DB-E to carry pollution liability coverage. Please disregard all references to the requirement for this coverage.

2. The RFP indicates that identification of subcontractors in the proposal as well as self-performance of work is discouraged by the District. Please advise if the District is willing to change this in the RFP.

VCFPD is discouraging identification of subcontractors and self-performance of work because it is the goal of the District to encourage competition of subcontractors in the bidding process. In addition, the District would like to participate in the selection of subcontractors, which will be done on the basis of best value, as stated in the RFP. An important goal of the District is to provide an opportunity for qualified local subcontractors to participate in the bidding process.

There is no change to the District's stated preference for not identifying subcontractor's or self-performance of work in proposals.

3. The project schedule allows for roughly nine months for Design and Construction. Does this include the Temporary Fire Station project and renovation of the two other sites all within the nine month period with completion by October 27, 2022? When will the facilities at Harmony Grove be made available to move to this site?

Yes, the nine month time-frame stated includes design and construction of the Temporary Fire Station and the fire station improvements. The District anticipates receiving feedback on this ambitious schedule in the proposals. The District understands that plan review by the County and SDG&E will probably result in the need to extend the schedule.

The facilities at the Harmony Grove are available to be moved to the Temporary Fire Station site at any time.

4. The RFQ asks the DB-E to provide a narrative and spread sheet with a 15 year Lifecycle Cost Analysis for the Temporary Fire Station. Other portions of the RFP indicate the modular units for the Temporary Fire Station are existing facilities to be relocated from the Harmony Grove Fire Station site to VCFPD's Temporary Fire Station site. Please provide any available information on the modular units for use in preparing the Lifecycle Cost Analysis and advise how much the District paid for the modular units and covered apparatus parking facility that is currently located on the Harmony Grove Fire Station site.

The VCFPD paid \$42,013.90 for the modular units, storage buildings and steel shade cover for apparatus parking. Additional information on the facilities is provided in the bulleted items following for use in the lifecycle analysis.

- The modular units are each 864 square feet and 15 feet tall
- The modular units were first put in use on the Harmony Grove site in 2014
- The modular units have central heating and air. The central heating is propane powered.
- The stove is propane powered and the oven is electric
- The modular unit purchase included two washers, two dryers and two refrigerators, all are household models and electric
- The hot water heater is propane powered and has a 55 gallon capacity
- The modular units are insulated with R-11 insulation
- The project will include a motorized access gate

VALLEY CENTER FIRE PROTECTION DISTRICT REQUEST FOR PROPOSALS FOR DESIGN-BUILD SERVICES FIRE STATION PROJECTS ADDENDUM NO. 2

The deadline for submitting proposals has been extended from January 10, 2022, by 2:00 pm to January 18, 2022, by 5:00 pm.

	ATTACHMENT 07 Rvsd. 3/10/2022		
	Preliminary Cost Worksheet		
#		Subtotals	Totals
1	Preconstruction Services		
2	Design Team (Architect and Subconsultants)		
3	Temporary Fire Station #3 - Cole Grade Rd.		
4	Schematic Design	\$73,166	
5	Design Development	\$80,667	
6	Construction Documents	\$80,667	
7	Subtotal		\$234,500
8	Fire Station #1 Remodel - Lilac Rd.		
9	App Bay Doors (front only) and Auto Opener for Rear - BASE BID	\$43,000	
10	Air Compressor and Enclosure - ALTERNATE	\$10,000	
11	HVAC Replacement (both sides) - ALTERNATE	\$10,000	
12	Dormitory and Day Room Remodel - ALTERNATE	\$12,000	
13	Kitchen and Restroom Remodel - ALTERNATE	\$15,000	
14	Subtotal		\$90,000
15	Fire Station #2 Remodel - N. Lake Wohlford Rd.		
16	App Bay Doors (front and rear) - BASE BID	\$27,000	
17	HVAC Replacement (both sides) - ALTERNATE	\$12,000	
18	Dormitory Remodel - ALTERNATE	\$12,000	
19	Kitchen Remodel for Refrigerator Relocation - ALTERNATE	\$10,000	
20	Screened Porch at Rear Patio Area - ALTERNATE	\$7,500	
21	Concrete Replacement at Rear of Station - ALTERNATE	\$3,000	
22	Subtotal		\$71,500
	Note: Do not include design team construction administration services in the		
23	preconstruction services budget	TBD	
24			
25	Design Builder (DB)		
26	DB Cost for Preconstruction Services (provide breakdown on separate sheet)	\$47.000	
27	Proposed DB Design Contingency	\$25,000	
28	Proposed DB Fee for All Pre-Construction Services	\$30,000	
29	Subtotal		\$102,000
30			. ,
31	Subtotal Preconstruction Services Budget		\$498,000
	- · ·		. ,
32	1% Liability Insurance on Preconstruction Services		\$4,980
33	Total Preconstruction Services Budget		\$502,980
34			
35	Construction Services		
	General Conditions/General Requirements (provide monthly breakdown on		
36	separate sheet, identify staffing levels and hours). To be confirmed at creation of	\$144.105	
37	Proposed DB Contingency (percentage)	10%	
38	Proposed DB Fee for Construction (percentage)	6.00%	
39		0.0070	
40	Bonds and Insurance	+ +	
41	COC (All-Risk) Coverage to be guoted at creation of GMP	TBD	
42	Liability Insurance (1.0%)	1.0%	

EXHIBIT D



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.									
IMPORTANT: If the certificate holder i If SUBROGATION IS WAIVED, subject this certificate does not confer rights t	s an to th	ADD	ITIONAL INSURED, the p ms and conditions of th	oolicy(i e polic	es) must ha y, certain po lorsement(s	ve ADDITION olicies may	IAL INSURED provision require an endorsement	sorbe . Ast	e endorsed. atement on
PRODUCER		Cert		CONTA					
Alliant Insurance Services, Inc.				NAME: PHONE			FAX		
701 B Street, 6th floor				(A/C, No E-MAIL	<u>, Ext): 019-54</u>	1-4851	(A/C, No):		
San Diego CA 92101				ADDRE	ss: Susan.Ko	belle@alilant.	com		
					INS	SURER(S) AFFOR	IDING COVERAGE		NAIC #
			License#: 0C36861	INSURE	RA: National	Union Fire In	surance		19445
Erickson-Hall Construction Company			ENOCON	INSURE	R в: Allied W	orld Assurance	ce Company		19489
500 Corporate Drive				INSURE	RC: Lloyd's c	of London			10200
Escondido CA 92029-1353				INSURE	RD:				
				INSURE	RE:				
				INSURE	RF:				
COVERAGES CER	TIFIC		NUMBER: 770460141				REVISION NUMBER:		
THIS IS TO CERTIFY THAT THE POLICIES INDICATED. NOTWITHSTANDING ANY RE CERTIFICATE MAY BE ISSUED OR MAY EXCLUSIONS AND CONDITIONS OF SUCH		NSUF EMEI AIN, CIES.	ANCE LISTED BELOW HAY NT, TERM OR CONDITION THE INSURANCE AFFORDI LIMITS SHOWN MAY HAVE	OF ANY ED BY BEEN R	CONTRACT THE POLICIE EDUCED BY	OR OTHE INSURE OR OTHER I S DESCRIBEI PAID CLAIMS.	DOCUMENT WITH RESPECT DOCUMENT WITH RESPECT DHEREIN IS SUBJECT TO	T TO TO TO TO ALL T	ICY PERIOD WHICH THIS THE TERMS,
LTR TYPE OF INSURANCE	INSD	WVD	POLICY NUMBER		POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMIT	s	
	Y	Y	5856940		9/1/2021	9/1/2022	EACH OCCURRENCE	\$ 1,000	,000
CLAIMS-MADE X OCCUR							PREMISES (Ea occurrence)	\$ 500,0	000
							MED EXP (Any one person)	\$25,00	0
							PERSONAL & ADV INJURY	\$ 1,000	,000
GEN'L AGGREGATE LIMIT APPLIES PER:							GENERAL AGGREGATE	\$2,000	,000
POLICY X PRO- JECT LOC							PRODUCTS - COMP/OP AGG	\$ 2,000	,000
OTHER:								\$	
A AUTOMOBILE LIABILITY	Y	Y	5717908		9/1/2021	9/1/2022	COMBINED SINGLE LIMIT (Ea accident)	\$1,000	,000
X ANY AUTO							BODILY INJURY (Per person)	\$	
X OWNED X SCHEDULED							BODILY INJURY (Per accident)	\$	
X HIRED X NON-OWNED							PROPERTY DAMAGE	\$	
								\$	
B X UMBRELLA LIAB X OCCUR			0311-4829		9/1/2021	9/1/2022	EACH OCCURRENCE	\$ 10.00	0.000
								\$ 10.00	
								¢ 10.00	
A WORKERS COMPENSATION		Y	014195849		9/1/2021	9/1/2022	X PER OTH-	5 10,00	0,000
					0.112021	0,=0==		¢ 1 000	000
OFFICER/MEMBER EXCLUDED?	N / A							\$ 1,000	,
If yes, describe under							E.L. DISEASE - EA EMPLOYEE	\$ 1,000	,
DESCRIPTION OF OPERATIONS below			CPP1011121		0/1/2021	0/1/2022	E.L. DISEASE - POLICY LIMIT	\$ 1,000	0.000
Professional & Pollution Liability			GFFTUTTIZT		9/1/2021	5/1/2022	Aggregate SIR	\$4,00 \$25,0	0,000 00,000 000
DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required) Re: #4211, Valley Center Temporary Fire Station #3 and Fire Station #1 and 2 Renovations, Temporary Fire Station #3, APN 133-220-38, located in the community of Valley Center, northwest of the intersection of Cole Grade Road and Cole Grade Lane. Fire Station #1, 28234 Lilac Road, Valley Center, CA 92082; Fire Station #2, 28205 N. Wohlford Lake Road, Valley Center, CA 92082. Valley Center Fire Protection District and its directors, officers, officials, agents, volunteers, and employees are included as Additional Insureds on primary and non-contributory basis, waiver of subrogation applies. Umbrella/Excess Liability follow form applies.									
CERTIFICATE HOLDER				CANC	ELLATION				
Valley Center Fire Protection 28234 Lilac Road	on D	istric	t	SHO THE ACC	ULD ANY OF EXPIRATION ORDANCE WI	THE ABOVE D N DATE THI TH THE POLIC	ESCRIBED POLICIES BE C/ EREOF, NOTICE WILL E Y PROVISIONS.	ANCELI BE DE	LED BEFORE LIVERED IN
Valley Center CA 92082				AUTHO	RIZED REPRESE	NTATIVE			
				90	ZD.	att			

The ACORD name and logo are registered marks of ACORD

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS - SCHEDULED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s)	Location(s) Of Covered Operations			
Any person or organization whom you become obligated to include as an additional insured as a result of any contract or agreement you have entered into.	Per the contract or agreement.			
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.				

A. Section II – Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

- **1.** Your acts or omissions; or
- **2.** The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured(s) at the location(s) designated above.

However:

- 1. The insurance afforded to such additional insured only applies to the extent permitted by law; and
- 2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

- All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
- 2. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

C. With respect to the insurance afforded to these additional insureds, the following is added to Section III – Limits Of Insurance:

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement; or

2. Available under the applicable limits of insurance;

whichever is less.

This endorsement shall not increase the applicable limits of insurance.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS - COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s)	Location And Description Of Completed Operations				
Any person or organization whom you become obligated to include as an additional insured as a result of any contract or agreement you have entered into.	Per the contract or agreement.				
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.					

A. Section II – Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work" at the location designated and described in the Schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard".

However:

- 1. The insurance afforded to such additional insured only applies to the extent permitted by law; and
- 2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

B. With respect to the insurance afforded to these additional insureds, the following is added to Section III – Limits Of Insurance:

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

- 1. Required by the contract or agreement; or
- **2.** Available under the applicable limits of insurance;

whichever is less.

This endorsement shall not increase the applicable limits of insurance.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ENDORSEMENT

This endorsement, effective 12:01 A.M. 09/01/2021 forms a part of

Policy No. 5856940 issued to ERICKSON-HALL CONSTRUCTION INC.

By NATIONAL UNION FIRE INSURANCE COMPANY OF PITTSBURGH, PA

AMENDMENT OF LIMITS OF INSURANCE (Per Project or Per Location Aggregate Limit)

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE FORM

I. Your policy is amended to include either a Per Project General Aggregate Limit, a Per Location General Aggregate Limit or a Per Project and Per Location General Aggregate Limit. Please select only <u>one</u> of the following:

[X] Per Project General Aggregate Limit
[] Per Location General Aggregate Limit
[] Per Project and Per Location General Aggregate Limit

\$ 2,000,000	
\$	
\$	

IF NEITHER OF THESE BOXES ARE CHECKED, THIS ENDORSEMENT IS VOID. IF MORE THAN ONE OF THE THESE BOXES ARE CHECKED, THIS ENDORSEMENT IS VOID.

- II. SECTION III LIMITS OF INSURANCE, is amended to include the following:
 - 1. The Limits of Insurance and the rules below fix the most we will pay regardless of the number of:
 - a. Insureds;
 - **b.** Claims made or "suits" brought; or
 - c. Persons or organizations making claims or bringing "suits".
 - 2. The General Aggregate Limit is the most we will pay for the sum of :
 - a. Medical expenses under Coverage C;
 - **b.** Damages under Coverage **A**, except damages because of "bodily injury" or "property damage" included in the products-completed operations hazard"; and
 - c. Damages under Coverage B.
 - The Products-Completed Operations Aggregate Limit is the most we will pay under Coverage A for damages because of "bodily injury" and "property damage" included in the "productscompleted operations hazard".
 - 4. Subject to 2. above, the Personal and Advertising Injury Limit is the most we will pay under

86681 (9/04)

Coverage **B** for the sum of all damages because of all "personal and advertising injury" sustained by any one person or organization.

- 5. Subject to 2. or 3. above, whichever applies, the Each Occurrence Limit is the most we will pay for the sum of:
 - **a.** Damages under Coverage **A**; and
 - **b.** Medical expenses under Coverage **C**

because of all "bodily injury" and "property damage" arising out of any one "occurrence".

- 6. Subject to 5. above, the Damage to Premises Rented To You Limit is the most we will pay under Coverage A because of "property damage" to any one premises, while rented to you, or in the case of damage by fire, while rented to you or temporarily occupied by you with permission of the owner.
- 7. Subject to 5. above, the Medical Expense Limit is the most we will pay under Coverage C for all medical expenses because of "bodily injury" sustained by any one person.
- 8. Subject to 2., 4., 5., 6., and/or 7. above, the Per Project Aggregate Limit is the most we will pay under Coverages A, B, and C combined for the sum of:
 - **a.** Damages under Coverage **A**;
 - **b.** Damages under Coverage **B**; and
 - c. Medical Expenses under Coverage C

arising out of any single Project described above.

- 9. Subject to 2., 4., 5., 6., and/or 7. above, the Per Location Aggregate Limit is the most we will pay under Coverages A, B, and C combined for the sum of:
 - a. Damages under Coverage A;
 - b. Damages under Coverage B; and
 - c. Medical expenses under Coverage C

arising out of the any single Location described above.

The Limits of Insurance of this Coverage Part apply separately to each consecutive annual period and to any remaining period of less than 12 months, starting with the beginning of the policy period shown in the Declarations.

III. The Limits of Insurance shown in the Declarations are deleted in their entirety and replaced by the Limits of Insurance set forth below.

General Aggregate Limit	
Each Occurrence Limit	
Products-Completed Operations Aggregate Limit	
Personal & Advertising Injury Limit	
Damage to Premises Rented to You	
Medical Expense Limit	
Per Project General Aggregate Limit, Per Location	
General Aggregate Limit or Per	
Project and Per Location General Aggregate Limit	

L	imits of Insurance
\$	15,000,000
\$	1,000,000
\$	2,000,000
\$	1,000,000
\$	500,000
\$	25,000
\$	2,000,000

IV. SECTION V – DEFINITIONS, is amended to include the following:

23. "Location" means premises involving the same or connecting lots, or premises whose connection is interrupted only by a street, roadway, waterway, or right-of-way railroad.

All other terms and conditions of this policy remain the same.

AUTHORIZED REPRESENTATIVE

86681 (9/04)

for padale

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

PRIMARY AND NONCONTRIBUTORY -OTHER INSURANCE CONDITION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART LIQUOR LIABILITY COVERAGE PART PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

The following is added to the **Other Insurance** Condition and supersedes any provision to the contrary:

Primary And Noncontributory Insurance

This insurance is primary to and will not seek contribution from any other insurance available to an additional insured under your policy provided that:

- (1) The additional insured is a Named Insured under such other insurance; and
- (2) You have agreed in writing in a contract or agreement that this insurance would be primary and would not seek contribution from any other insurance available to the additional insured.
WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US (WAIVER OF SUBROGATION)

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART ELECTRONIC DATA LIABILITY COVERAGE PART LIQUOR LIABILITY COVERAGE PART POLLUTION LIABILITY COVERAGE PART DESIGNATED SITES POLLUTION LIABILITY LIMITED COVERAGE PART DESIGNATED SITES PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART RAILROAD PROTECTIVE LIABILITY COVERAGE PART UNDERGROUND STORAGE TANK POLICY DESIGNATED TANKS

SCHEDULE

Name Of Person(s) Or Organization(s):

Pursuant to applicable written contract or agreement you enter into.

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

The following is added to Paragraph 8. Transfer Of Rights Of Recovery Against Others To Us of Section IV – Conditions:

We waive any right of recovery against the person(s) or organization(s) shown in the Schedule above because of payments we make under this Coverage Part. Such waiver by us applies only to the extent that the insured has waived its right of recovery against such person(s) or organization(s) prior to loss. This endorsement applies only to the person(s) or organization(s) shown in the Schedule above.

CG 24 04 12 19

© Insurance Services Office, Inc., 2018

Page 1 of 1

ENDORSEMENT

This endorsement, effective 12:01 A.M. 09/01/2021 forms a part of

Policy No. 5717908 issued to ERICKSON-HALL CONSTRUCTION INC.

By NATIONAL UNION FIRE INSURANCE COMPANY OF PITTSBURGH, PA

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED - WHERE REQUIRED UNDER CONTRACT OR AGREEMENT

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM

SCHEDULE

ADDITIONAL INSURED:

ANY PERSON OR ORGANIZATION FOR WHOM YOU ARE CONTRACTUALLY BOUND TO PROVIDE ADDITIONAL INSURED STATUS BUT ONLY TO THE EXTENT OF SUCH PERSON OR ORGANIZATIONS LIABILITY ARISING OUT OF THE USE OF A COVERED "AUTO".

- I. SECTION II COVERED AUTOS LIABILITY COVERAGE, A. Coverage, 1. Who Is Insured, is amended to add:
 - d. Any person or organization, shown in the schedule above, to whom you become obligated to include as an additional insured under this policy, as a result of any contract or agreement you enter into which requires you to furnish insurance to that person or organization of the type provided by this policy, but only with respect to liability arising out of use of a covered "auto". However, the insurance provided will not exceed the lesser of:
 - (1) The coverage and/or limits of this policy, or
 - (2) The coverage and/or limits required by said contract or agreement.

AUTHORIZED REPRESENTATIVE

87950 (9/14)

Page 1 of 1

ENDORSEMENT

This endorsement, effective 12:01 A.M. 09/01/2021 forms a part of

Policy No. 5717908 issued to ERICKSON-HALL CONSTRUCTION INC.

By NATIONAL UNION FIRE INSURANCE COMPANY OF PITTSBURGH, PA

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

INSURANCE PRIMARY AS TO CERTAIN ADDITIONAL INSUREDS

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM

Section IV - Business Auto Conditions, B., General Conditions, 5., Other Insurance, c., is amended by the addition of the following sentence:

The insurance afforded under this policy to an additional insured will apply as primary insurance for such additional insured where so required under an agreement executed prior to the date of accident. We will not ask any insurer that has issued other insurance to such additional insured to contribute to the settlement of loss arising out of such accident.

All other terms and conditions remain unchanged.

74445 (10/99)

UTHORIZED REPRESENTATIVE

ENDORSEMENT

This endorsement, effective 12:01 A.M. 09/01/2021 forms a part of

Policy No. 5717908 issued to ERICKSON-HALL CONSTRUCTION INC.

By NATIONAL UNION FIRE INSURANCE COMPANY OF PITTSBURGH, PA

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM

Section IV - Business Auto Conditions, A. - Loss Conditions, 5. - Transfer of Rights of Recovery Against Others to Us, is amended to add:

However, we will waive any right of recover we have against any person or organization with whom you have entered into a contract or agreement because of payments we make under this Coverage Form arising out of an "accident" or "loss" if:

- (1) The "accident" or "loss" is due to operations undertaken in accordance with the contract existing between you and such person or organization; and
- (2) The contract or agreement was entered into prior to any "accident" or "loss".

No waiver of the right of recovery will directly or indirectly apply to your employees or employees of the person or organization, and we reserve our rights or lien to be reimbursed from any recovery funds obtained by any injured employee.

62897 (6/95)

KIS

AUTHORIZED

REPRESENTATIVE

W AIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

This endorsement changes the policy to which it is attached effective on inception date of the policy unless a different date is indicated below.

(The following " attaching clause" need be completed only when this endorsement is issued subsequent to preparation of the policy).

This endorsement, effective 12:01 AM 09/01/2021 forms a part of

Policy No. 014195849 Issued to ERICKSON-HALL CONSTRUCTION INC.

By NATIONAL UNION FIRE INSURANCE COMPANY OF PITTSBURGH, PA

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.

This agreement shall not operate directly or indirectly to benefit any one not named in the Schedule.

Schedule

ANY PERSON OR ORGANIZATION TO WHOM YOU BECOME OBLIGATED TO WAIVE YOUR RIGHTS OF RECOVERY AGAINST, UNDER ANY CONTRACT OR AGREEMENT YOU ENTER INTO PRIOR TO THE OCCURRENCE OF LOSS.

This form is not applicable in California, Kentucky, New Hampshire, New Jersey, North Dakota, Ohio, Tennessee, Texas, Utah, or Washington. This form is not applicable in Missouri when there is a construction code on the policy and there is Missouri premium or exposure.

WC 00 03 13 (Ed. 04/84)

Countersigned by _____

Authorized Representative