Henry P. Roybal Commissioner, District 1

Anna Hansen Commissioner, District 2

Robert A. Anaya Commissioner, District 3



Anna T. Hamilton
Commissioner, District 4

**Ed Moreno** 

Commissioner, District 5

Katherine Miller County Manager

February 15, 2018

# CONSTRUCTION OF THE HWY 14 SENIOR/COMMUNITY CENTER

### IFB#2018-0238-PW/IC

### ADDENDUM No. 1

Dear Bidders,

This addendum is issued to reflect the following immediately. It shall be the responsibility of the interested bidder to adhere to any changes or revisions to the IFB as identified in this Addendum No. 1. This documentation shall become permanent and made part of the departmental files.

The Deadline to submit bids has been extended to March 9, 2018 at 2:00PM at the Purchasing Division located at 142 W. Palace Ave, 2<sup>nd</sup> floor, Santa Fe, NM 87501. Please note the office is closed daily from 12-1 pm for the lunch hour, bids will not be accepted during this time.

As a reminder, bids will ONLY be accepted from Contractors that attended the Mandatory pre-bid meeting and site visits on February 2, 2018.

# \*\*Please see attached Wage Rates\*\*

BIDDER QUESTIONS (NOTE THAT SOME BIDDER QUESTIONS ARE ADDRESSED IN SPECIFICATION AND DRAWING SECTIONS, BELOW; ALSO BIDDER QUESTIONS MAY BE PARAPHRASED)

**Question 1:** Sheet E1.4, should scale be 1/8"=1'-0" in lieu of  $\frac{1}{4}$ "=1'-0"?

**Response 1:** That's correct, the drawing is mislabeled as '4" and should be 1/8"

**Question 2:** Sheet C1.0, should sheet reference on detail callouts should be C4.0 in lieu of S4.0?

**Response 2:** That's correct, any references to S4.0 should be labeled C4.0

**Question 3:** Sheet C1.0, it is difficult to determine where the different types of curbs start and

stop. Please add some detail callouts or depict the curbs differently with line type.

**Response 3:** The only curb that is not a flush curb is along the east frontage of the Senior Center

to prevent flooding of the building. It is delineated clearly with a double line as

opposed to everywhere else. See C1.0 Attached. See details on C4.0 for requested details.

**Question 4:** Will a masonry specification be provided?

**Response 4:** See S0.3 in the General Notes, masonry specs are taken care of in the notes.

**Question 5:** Will a concrete paver's specification be provided?

**Response 5:** We are substituting a concrete slab for the concrete pavers. See Revised A4.5 attached. Slab to match courtyard portal in construction and finish.

**Question 6:** Will the Soils Report be made available electronically?

**Response 6:** Yes, the geotechnical report will be made available via Addendum

**Ouestion 7:** Please verify that the materials testing is "by owner" as stated on S0.2.

Response 7: All special inspections of structural materials need to be conducted by a 3<sup>rd</sup> party. Concrete testing will be the responsibility of the General Contractor and Steel Inspections will be the responsibility of the County.

**Question 8:** S1.1, there are 2 HSS 6x6x1/4 posts at exterior wall of Vest 101A that have no

spot footing or mounting detail shown. Please clarify.

**Response 8:** See SSK-01 and refer to existing detail C5/S3.2

**Question 9:** S1.1, is the F36A footing along grid line 1 to be included in the base bid or Alt 1?

Response 9: Included in Add Alternate 1, not base bid

**Question 10:** Will temporary power be available at the jobsite or are we to run the work off of

generators?

Contractor's are to work with generators until they can get a temporary pull from Response 10:

PNM which Santa Fe County Project Managers will be working on to procure

earlier in the project.

**Question 11:** Will you provide contacts for Cerrillos Mutual Domestic Water? Is there a charge to use the water at the Bulk Water Station on Camino Justica? If so, please provide

the amount.

**Response 11:** Santa Fe County will work directly with the Water Association to allow contractor

> to tap in early in the construction. If needed prior to tapping into water supply, contractors can contact County Utilities to access water from the Bulk Water

Station on Camino Justica which is believed to be \$1/1000 gallons.

C3.1, L1.2, please provide more information on the water harvesting system and **Question 12:** 

how it is to tie into the irrigation system.

**Response 12:** Provide a 1" gate valve @ connection to irrigation system. See C3.1 for cistern

> system, and see 7.1/L5.2 for gate valve detail. Provide 1" pvc pipe line to sprinkler valve. There is a float valve in the cistern that kicks on the municipal

system if the water level ever goes too low.

**Question 13:** I conducted a site inspection and am concerned about the soil type, number of

days that the stream has water in it, and foundation type as it would relate to the

previous. I'm sure the geotechnical report, available the 15<sup>th</sup>, will clarify some,

but I foresee the water table being relatively close to the surface with the possibility of capillary action inundating the top soil in this area during peak flow rate.

**Response 13:** See Geotechnical Report attached, water table @ 18' at the time of test.

**Question 14:** It is unlikely that de-watering would be required during foundation construction, but should not be overlooked taking into consideration the time of year and location.

**Response 14:** See Geotechnical Report

Question 15: It is my understanding that the top 3" of soil will be removed and slab on grade established for finished floor elevation. Issue being, the post office and other adjacent building located at site are built up nearly 3' in elevation from the proposed new construction site. This action was most likely required to preserve soil bearing capacity especially during freeze and thaw cycles.

**Response 15:** See Geotechnical Report

Question 16: This area is classified DFIRM by FEMA, which could be cause for concern since this project is clearly located in a flood plain. Maybe the civil engineer could shed some light here for us all.

**Response 16:** Site is not in a flood plain. Property south of it is.

**Question 17:** The spec book is incorrect. Sect. 051000 should be str. steel and they have concrete.

**Response 17:** Duly noted, please see revised spec sheet attached.

Question 18: Need some info on walkway ramp and rail shown on C5/S2.1 no info. and refer us to arch. go to arch and they refer us to str.??

**Response 18:** Simple 2x4 walkway structure to access HVAC units in attic space, no need for details. See A1.3 (reflected ceiling plan) for outline of walkway above.

Question 19: Please clarify the ceiling finishes and legend as shown on A1.3 and A6.1. Please define the CT numbers on A3.1 vs the CT numbers of A6.1 More specifically, rooms 109A, 109B and 109C appear graphically to be gyp board ceilings but seem to be identified as acoustical ceilings by notation.

**Response 19:** For graphic clarity, due to the small sizes of the rooms, the ceiling tiles hatch pattern are not shown in A1.3, but are clearly called out and correspond with the room schedule in A6.1.

**Question 20:** Please provide written Specifications for Section 114000 Food Service area. **Response 20:** The requested section is included within the spec book, see Section 11400 Food Service Equipment.

Please add this Addendum #1 to the original bid documents and refer to bid documents, hereto as such. This and all subsequent addenda will become part of any resulting contract documents and have effects as if original issued. All other unaffected sections will have their original interpretation and remain in full force and effect.

Proponents are reminded that any questions or need for clarification must be addressed to Iris Cordova, Senior Procurement Specialist at icordova@santafecountynm.gov.	



STATE OF NEW MEXICO NEW MEXICO DEPARTMENT OF WORKFORCE SOLUTIONS Labor Relations Division, 121 Tijeras Ave NE, Suite 3000 Albuquerque, NM 87102 www.dws.state.nm.us

# **Wage Decision Approval Summary**

1) Project Title: Highway 14 Senior/Community Center Construction

Requested Date: 01/25/2018 Approved Date: 01/26/2018

Approved Wage Decision Number: SF-18-0114-B

Wage Decision Expiration Date for Bids: 05/26/2018

2) Physical Location of Jobsite for Project:

Job Site Address: 16 Main Street

Job Site City: Cerillos Job Site County: Santa Fe

3) Contracting Agency Name (Department or Bureau): Santa Fe County

Contracting Agency Contact's Name: Iris Cordova

Contracting Agency Contact's Phone: (505) 986-6337 Ext.

4) Estimated Bid Opening Date: 02/23/2018

- 5) Estimated total project cost: \$1,800,000.00
- a. Are any federal funds involved?: No
- b. Does this project involve a building?: Yes A new 5,500 sq. ft. senior/community center to include a commercial kitchen, dinning area, arts & crafts room, reading room, office space, etc.
- c. Is this part of a larger plan for construction on or appurtenant to the property that is subject to this project?: No
- d. Are there any other Public Works Wage Decisions related to this project?: No
- e. What is the ultimate purpose or functional use of the construction once it is completed?: Senior center, senior meals, gatherings, local community center.

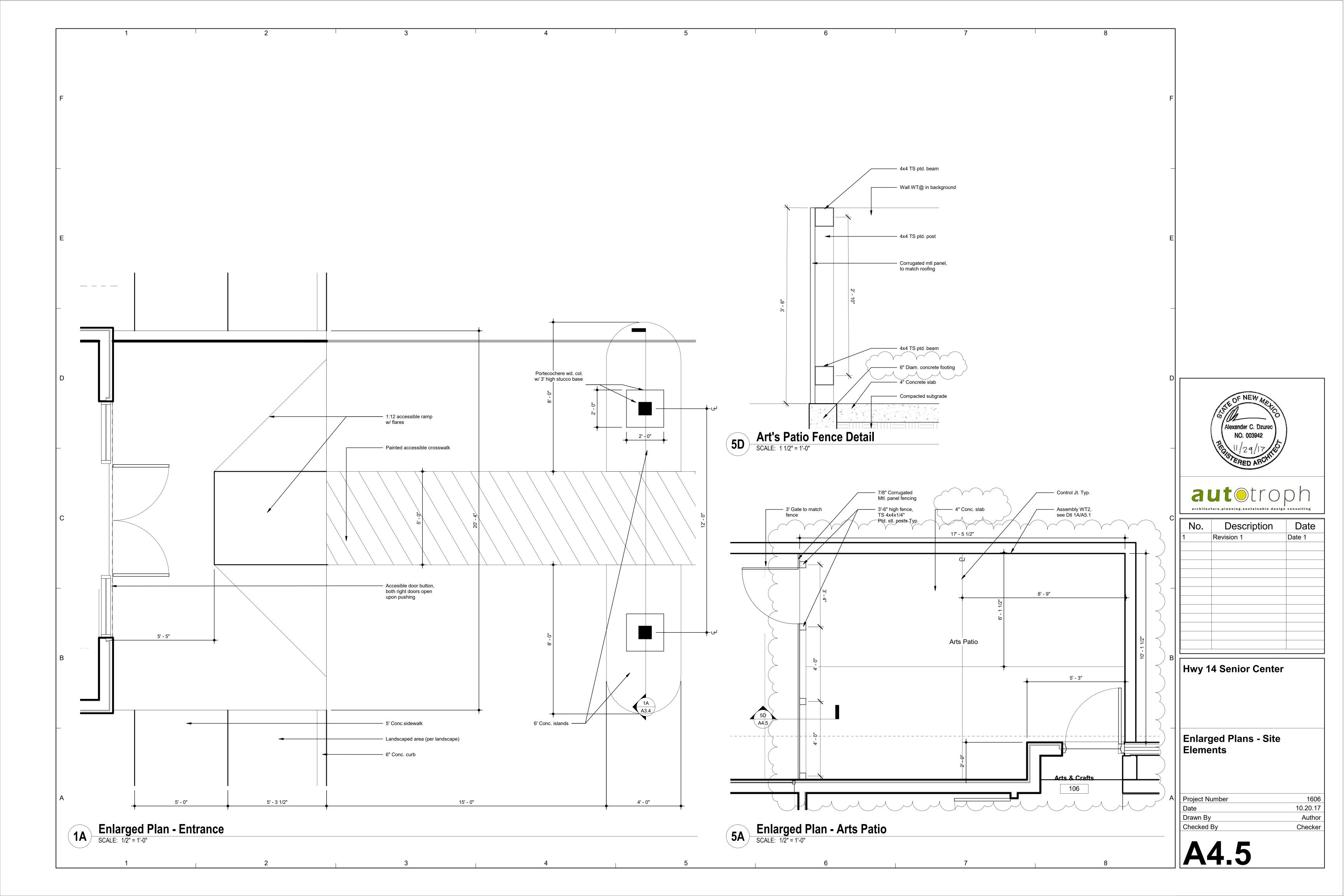
6) Classifications of Construction:

Classification Type and Cost Total	Description
General Building (B) Cost: \$1,800,000.00	Construct a 5,500 sq.ft. building to include, a commercial kitchen, dinning hall, activity rooms, office space, mechanical storage rooms, accessible restrooms, driveway and parking lot.

### Type "B" - GENERAL BUILDING Effective January 1, 2018

Effective January 1, 2018								
	Base Rate	Fringe Rate	Apprenticeship					
Asbestos Worker - Heat &								
Frost Insulator	31.76	11.11	0.67					
Boilermaker	32.06	27.35	0.67					
Bricklayer/Blocklayer/								
Stonemason	23.52	8.10	0.67					
Carpenter/Lather	24.00	9.47	0.67					
Cement Mason	20.37	9.78	0.67					
Electricians-Outside								
Classifications	00.00	11.01	0.07					
Groundman	22.36	11.34	0.67					
Equipment Operator	32.08	13.77	0.67					
Lineman/Tech	37.75	15.19	0.67					
Cable Splicer	41.53	16.14	0.67					
Inside Classifications Wireman/Technician	20.40	40.20	0.07					
	30.40	10.36	0.67					
Cable Splicer	33.44	10.45	0.67					
Sound Classifications Installer	22.20	0.24	0.67					
Technician	23.39	8.31	0.67					
Soundman	28.95	7.52	0.67					
Elevator Constructor	27.01	8.31	0.67					
	41.10	32.40	0.67					
Elevator Constructor Helper Glazier	28.77	32.40	0.67					
	20.25	4.55	0.67					
Ironworker	26.50	14.66	0.67					
Painter (Brush/Roller/Spray)	16.75	5.88	0.67					
Paper Hanger	16.75	5.88	0.67					
Drywall Finisher/Taper	24.00	9.47	0.67					
Plasterer	22.07	8.16	0.67					
Plumber/Pipefitter	28.95	11.38	0.67					
Roofer	23.78	7.60	0.67					
Sheetmetal Worker	29.28	17.16	0.67					
Soft Floor Layer	24.00	9.47	0.67					
Sprinkler Fitter	29.90	19.67	0.67					
Tile Setter Tile Setter Helper/Finisher	23.52	8.10	0.67					
Laborers	15.59	8.10	0.67					
Group I	16.09	5.68	0.67					
Group II	17.00	5.68	0.67					
Group III	18.00	5.68	0.67					
Group IV	20.25	5.68	0.67					
Operators	20.25	5.06	0.07					
Group I	20.32	6.47	0.67					
Group II	22.38	6.47	0.67					
Group III	22.82	6.47	0.67					
Group IV	23.24	6.47	0.67					
Group V	23.41	6.47	0.67					
Group VI	23.62	6.47	0.67					
Group VII	23.73	6.47	0.67					
Group VIII	26.61	6.47	0.67					
Group IX	28.89	6.47	0.67					
Group X	32.13	6.47	0.67					
Truck Drivers	0 <u>L</u> .10	U.TI	0.07					
Group I	14.76	6.25	0.67					
Group II	15.00	6.25	0.67					
Group III	15.50	6.25	0.67					
Group IV	15.51	6.25	0.67					
Group V	15.60	6.25	0.67					
Group VI	15.75	6.25	0.67					
Group VII	15.75	6.25	0.67					
Group VIII	16.11	6.25	0.67					
Oloup VIII	10.11	0.20	0.07					

NOTE: All Contractors are required to pay SUBSISTENCE, ZONE AND INCENTIVE PAY according to the particular trade. Details are located in a PDF attachment at WWW.DWS.STATE.NM.US. Search Labor Relations/Labor Information/Public Works/Prevailing Wage Rates.



# **DEO-IEST**

GEOTECHNICAL ENGINEERING SERVICES REPORT NO. 1-70414 SENIOR COMMUNITY CENTER AND FIRE STATION CERRILLOS, NEW MEXICO

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2805-A LAS VEGAS CT. LAS CRUCES, NEW MEXICO 88007 (575) 526-6260 FAX (575) 523-1660

### PREPARED FOR:

SANTA FE COUNTY
PUBLIC WORKS – PROJECTS DIVISION



May 23, 2017 Job No. 1-70414

Santa Fe County
Public Works – Projects Division
PO Box 276
Santa Fe, New Mexico 87504-0276

ATTN:

**Ron Sandoval** 

**Project Manager** 

RE:

Geotechnical Engineering Services Report

Senior Community Center & Fire Station

Cerrillos, New Mexico

Dear Mr. Sandoval:

Submitted herein is the Geotechnical Engineering Services Report for the above referenced project. The report contains the results of our field investigation, laboratory testing, and recommendations for foundation design, slab support, pavement design, as well as criteria for site grading.

It has been a pleasure to serve you on this project. If you should have any questions, please contact this office.

Respectfully submitted:

GEO-TEST, INC.

Patrick R. Whorton, El

Robert D Booth,

FAX (505) 471-2245 8528 CALLE ALAMEDA NE ALBUQUERQUE, NEW MEXICO 87113 (505) 857-0933 FAX (505) 857-0803

GEO-TEST, INC. 3204 RICHARDS LANE

SANTA FE, NEW MEXICO 87507 (505) 471-1101



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# **INTRODUCTION**

This report presents the results of the geotechnical engineering services investigation performed for the proposed new Senior Community Center and Fire Station to be constructed in Cerrillos, New Mexico.

The objectives of this investigation were to:

- 1) Evaluate the nature and engineering properties of the subsurface soils underlying the site.
- 2) Provide recommendations for foundation design, slab support, pavement design, as well as criteria for site grading.

The investigation includes subsurface exploration, selected soil sampling, laboratory testing of the samples, performing an engineering analysis and preparation of this report.

# PROPOSED CONSTRUCTION

It is understood that the project consists of the construction of two new structures with associated parking lots and drive lanes. The structures will be single story, metal and wood framed with no basements. Maximum column and wall loads are unknown at this time but are anticipated to be relatively light, not exceeding about 2 kips per lineal foot on walls and 40 kips on columns.

Should structural loads or other project details vary significantly from those outlined above, this firm should be notified for review and revision of recommendations contained herein.

### FIELD EXPLORATION

A total of eight (8) exploratory borings were drilled on site; three (3) to depths of 15 and 20 feet within the footprint of the new Senior Center, one (1) to a depth of 20 feet within the footprint of the new Fire Station, and four (4) to depths of 5 feet within the parking lot and drive lanes. The locations of the borings are shown on the attached Boring Location Map, Figure 1. During the test drilling, the soils encountered in the borings were continuously examined, visually classified, and logged. The boring logs are presented in a following section of this report. Drilling was accomplished with a truck mounted drill rig using 5.5-inch diameter continuous flight hollow stem auger. Subsurface materials were sampled at five foot intervals or less utilizing an open tube split

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barrel sampler and a brass ring-lined sampler driven by a standard penetration test hammer.

### LABORATORY TESTING

Selected soil samples were tested in the laboratory to determine certain engineering properties of the soils. Moisture contents were determined to evaluate the various soil deposits with depth. The results of these tests are presented on the boring logs.

Sieve analysis and Atterberg limits tests were performed on selected samples to aid in soil classification. The results of these tests are presented in the Summary of Laboratory Results and on the individual test reports presented in a following section of this report.

# **SITE CONDITIONS**

A brief site reconnaissance was performed during our site exploration. The site is located south of Main Street in Cerrillos between Highway 14 and 1<sup>st</sup> Street, west of the existing Post Office. The site is currently a relatively flat vacant lot populated by native shrubs and grasses, and the remains of an old corral.

# SUBSURFACE SOIL CONDITIONS

As indicated by the exploratory borings, the soils underlying the site consist of a surficial layer of non-plastic, loose to medium dense silty sand which extends depths of about 8 to 9 feet below existing surface grade. Below this layer, a 1 to 3 foot thick layer of low plasticity, firm, sandy/silty clay was encountered. Below the clay layer, non-plastic, medium dense, poorly graded sand with gravel was encountered and extended to the full depths explored.

Free groundwater was encountered in the borings at a depth of between 18 and 19 feet below existing grade. The groundwater level may fluctuate seasonally and could be higher or lower during certain times of the year. Soil moisture contents above the water table were relatively low.

# **CONCLUSIONS AND RECOMMENDATIONS**

The some of the near surface soils underlying the site are loose in their present condition and are not considered suitable to provide reliable support of the proposed structure. Foundations bearing on these soils would be susceptible to excessive differential settlements, particularly upon significant moisture

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increases. However, with special site preparation, the proposed structure can be supported on shallow spread type footings bearing directly on properly compacted structural fill.

The site preparation would involve overexcavation of the existing soils throughout the building areas to such an extent as to provide for at least 2.0 feet of properly compacted, non-expansive structural fill below all foundations and floor slabs. The limits of the overexcavation should also extend laterally from the footing perimeters a distance equal to the depth of fill beneath their bases. The exposed native soils at the base of the excavation should be densified prior to placement of structural fill. The overexcavated material may be blended and used as structural fill provided it meets the structural fill requirements outlined in the Site Grading section of this report. Detailed recommendations for foundation design and the required site grading are presented in the following sections of this report.

Post-construction moisture increases in the supporting soils could cause some differential foundation movements. Therefore, moisture protection is considered a critical design consideration and should be reflected in overall site grading and drainage details as recommended in the Moisture Protection section of this report.

# **FOUNDATIONS**

Shallow spread-type footings, bearing directly on a minimum thickness of 2.0 feet of properly compacted structural fill, are recommended for the support of the structures. An allowable soil bearing pressure of 2,000 pounds per square foot is recommended for footing design. This bearing pressure applies to full dead load plus realistic live loads, and can be safely increased by one-third for totals loads including wind and seismic forces.

Exterior footings should be established a minimum of 2.0 feet below lowest adjacent finished grade, while interior footings should be at least 12 inches below finished floor grade. The minimum recommended width of square and continuous footings is 2.0 and 1.33 feet, respectively.

Total settlements of foundations designed and constructed as recommended herein are estimated not to exceed ¾ inch for the soil moisture contents encountered during this investigation or moisture contents introduced during construction. Differential movements should be less than 75 percent of total movements. Significant post-construction moisture increases in the supporting soils could create additional movements, and thus, the moisture

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protection provisions as recommended in a following section of this report are considered important for the satisfactory performance of the structures.

# **LATERAL LOADS**

Resistance to lateral forces will be provided by soil friction between the base of floor slabs and footings and the soil and by passive earth resistance against the sides of the footings and stem walls. A coefficient of friction of 0.40 should be used for computing the lateral resistance between bases of footings and slabs and the soil. With backfill placed as recommended in the site grading section of this report, a passive soil resistance equivalent to a fluid weighing 325 pounds per cubic foot should be used for analysis.

# **SLABS ON GRADE**

Adequate support for lightly loaded slab-on-grade floors will be provided by structural fill when compacted as recommended in a following section of this report. Thus, the use of granular base for structural support of lightly loaded slabs is not considered necessary. However, should it be desired as a working surface, a course of granular base can be placed beneath concrete floor slabs.

Where granular base is used beneath the slabs, it should have a plasticity index of no greater than 3 and meet the following grading requirements:

Sieve Size Square Openings	Percent Passing by Dry Weight
1 Inch	100
¾ Inch	70-100
No. 4	35-85
No. 200	0-10

The granular base should be compacted to at least 95 percent of maximum dry density as determined in accordance with ASTM D1557.

The granular base will act as a capillary barrier, but will not totally eliminate the rise of moisture to the slabs. If floor coverings are proposed which are highly sensitive to moisture, it is recommended the slab be placed in accordance with the procedures recommended by the American Concrete Institute (ACI 302.1R-04).

Any heavily loaded slabs on the project bearing on the structural fill should be designed using a modulus of subgrade reaction of 200 pounds per square inch per inch of deflection. If a 6 inch thickness of granular base is placed and

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compacted beneath the slabs, the modulus of subgrade reaction can be increased to 300 pounds per square inch per inch of deflection.

### **PAVEMENT SECTION DESIGN**

The existing subgrade soils underlying the proposed parking lots and drive areas generally classify as A-2-4 according to the American Association of State Highway and Transportation Officials (AASHTO) soil classification system. According to the NMDOT, these soils possess correlated R-Values on the order of 55 and are considered good to excellent subgrade materials for pavements.

Based on the above, it is recommended that the existing silty sands be used as a subgrade material. After clearing, grubbing and grading and before the placement of the pavement sections recommended below, the native subgrade material should be scarified to a depth of 12 inches, moisture conditioned to optimum moisture content or above, and compacted to 95 percent or greater of maximum dry density. Should structural fill be required beneath pavements, it should consist of the native silty sands and be placed onto the prepared native material according to the methods outlined within the Site Grading section of this report.

With the above recommended subgrade preparation, a flexible pavement section consisting of 3 inches of Hot Mix Asphalt (HMA) over 6 inches of aggregate base course, placed directly over the minimum of 12 inches of properly compacted subgrade material is recommended for the project. The recommended pavement section applies to automobile parking and drive lanes only. Areas subjected to heavy truck traffic, including delivery trucks, trash collection trucks, and fire trucks, should have the asphaltic concrete sections thickened by 1 inch. The pavement recommendations are in general conformance with publications prepared by the *Asphalt Institute*.

The HMA should be SPIII or SPIV, compacted to a target density of 94.5 percent, with a minimum compaction of 92 and a maximum compaction of 97 percent of the theoretical maximum density. The recommended Performance Grade (PG) asphalt binder used should be 58-28 according to the NMDOT Design Manual Exhibit 620-9. Aggregate base course should meet the specifications for NMDOT Type I base course.

With the above recommended subgrade preparation, a rigid pavement section consisting of 6 inches of Portland Cement Concrete (PCC) placed directly over the minimum of 12 inches of properly compacted subgrade materials recommended for the project. The pavement recommendations are in general

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conformance with ACI 330R-01 Guide for Design and Construction of Concrete Parking Lots.

The PPC should have a minimum compressive strength of 4000 psi, be air entrained to between 4.5 and 7.0 percent, and have a maximum aggregate size of 2 inches. The concrete should be placed at a maximum slump of 4 inches. Admixtures may be used to increase the slump and workability provided the compressive strength is not compromised.

The use of reinforcement within the PCC should be left to the discretion of the structural engineer, however, it is recommended that the pavement be constructed with load transfer joints designed for heavy traffic.

# SITE-GRADING

The following guidelines should be included in the project construction specifications to provide a basis for quality control during site grading. It is recommended that all structural fill and backfill be placed and compacted under engineering observation and in accordance with the following:

- 1) After clearing and grubbing, the existing site soils throughout the building areas should be overexcavated to such an extent as to provide for at least 2.0 feet of properly compacted non-expansive structural fill beneath all footings and floor slabs. The overexcavation limits should extend laterally beyond the footing perimeters equal to the depth of fill beneath their bases. The soils exposed at the base of the overexcavation should be densified before the placement of structural fill.
- 2) The exposed native soils in the base of the excavation within the building areas should be scarified to a depth of 12 inches and moisture conditioned to optimum moisture content or above. The area shall then be compacted to a minimum of 95 percent of maximum dry density as determined in accordance with ASTM D-1557.
- 3) The results of this investigation indicate that most of the on-site soils will meet the criteria for structural fill, however, some blending may be required.
- 4) All structural fill or backfill material should be free of vegetation and debris and contain no rocks larger than 3 inches. Gradation of the backfill material, as determined in accordance with ASTM D-422, should be as follows:

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Size	Percent Passing
3 inch	100
No. 4	60 - 100
No. 200	20 - 50

- 4) The plasticity index should be no greater than 15 when tested in accordance with ASTM D-4318.
- Fill or backfill, should be placed in 8-inch loose lifts and compacted with 5) approved compaction equipment. Lifts should be reduced to 4-inches if hand held compaction equipment is used. Each lift should be firm and non-yielding.
- 6) All compaction of fill or backfill should be accomplished to a minimum of 95 percent of the maximum dry density, and within 2 percent of the optimum moisture content, as determined in accordance with ASTM D-1557.
- 7) Tests for degree of compaction should be determined by the ASTM D-1556 method or ASTM D-6938. Observation and field tests should be carried on during fill and backfill placement by the geotechnical engineer to assist the contractor in obtaining the required degree of compaction. If less than 95 percent is indicated, additional compaction effort should be made with adjustment of the moisture content as necessary until 95 percent compaction is obtained.

## **MOISTURE PROTECTION**

Precautions should be taken during and after construction to minimize moisture increases of foundation soils. Positive drainage should be established away from the exterior walls of the structures. A typical adequate slope is 6 inches in the first 5 feet with positive drainage being provided from those points to streets or natural water courses. If necessary to provide positive drainage, the building areas should be raised above adjacent grade with structural fill. Backfill should be well compacted and should meet the specifications outlined in the site grading section of this report. Irrigation within 10 feet of foundations should be carefully controlled. All utility trenches leading into the structures should be backfilled with compacted fill. Special care should be taken during installation of the subfloor sewers and water lines to reduce the possibility of post-construction soil moisture increases beneath the structures.

GEO-TEST, INC. 3204 RICHARDS LANE SANTA FE, **NEW MEXICO** 87507 (505) 471-1101 FAX (505) 471-2245

DEO-IEST

8528 CALLE ALAMEDA NE ALBUQUERQUE, **NEW MEXICO** 87113 (505) 857-0933 FAX (505) 857-0803

Proper landscaping and drainage maintenance is required to preclude accumulation of excessive moisture in the soils below the structures. Accumulations of excessive moisture could be harmful to some types of interior flooring, to HVAC ductwork beneath the slabs, and can weaken or cause other changes in the soils supporting the foundations. This can cause additional differential movement of foundations and can result in cosmetic or structural damage to the structures.

If any water line leaks or if irrigation system leaks are detected, they should be promptly repaired. In addition, if any depressions develop from the settlement of soils in utility trenches or other areas, they should be promptly backfilled to maintain the grade so that surface water drains rapidly away from the structures.

Increases in the subgrade moisture content can weaken the subgrade soils, thereby shortening pavement life and causing localized failure. Therefore, all paved areas should be graded to drain and not allow any ponding on the surface of the paved areas. Positive drainage should be provided away from the perimeter of all paved areas for a distance of at least 10 feet. It is recommended that the pavement be graded with a 2 percent crown or slope to facilitate drainage.

The foregoing recommendations should only be considered minimum requirements for overall site development. It is recommended that a civil/drainage engineer be consulted more detailed grading and drainage recommendations.

# FOUNDATION REVIEW AND INSPECTION

This report has been prepared to aid in the evaluation of this site and to assist in the design of this project. It is recommended that the geotechnical engineer be provided the opportunity to review the final design drawings and specifications in order to determine whether the recommendations in this report are applicable to the final design. Review of the final design drawings and specifications should be noted in writing by the geotechnical engineer.

In order to permit correlation between the conditions encountered during construction and to confirm recommendations presented herein, it is recommended that the geotechnical engineer be retained to perform continuous observations and testing during the earthwork portion of this project. Observation and testing should be performed during construction to confirm that suitable fill soils are placed upon competent materials and

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properly compacted and foundation elements penetrate the recommended soils.

# **CLOSURE**

Our conclusions, recommendations and opinions presented herein are:

- 1) Based upon our evaluation and interpretation of the findings of the field and laboratory program.
- 2) Based upon an interpolation of soil conditions between and beyond the explorations.
- 3) Subject to confirmation of the conditions encountered during construction.
- 4) Based upon the assumption that sufficient observation will be provided during construction.
- 5) Prepared in accordance with generally accepted professional geotechnical engineering principles and practice.

This report has been prepared for the sole use of the Santa Fe County Public Works-Projects Division, specifically to aid in the design of the proposed new Senior Community Center and Fire Station to be constructed in Cerrillos, New Mexico, and not for use by any third parties.

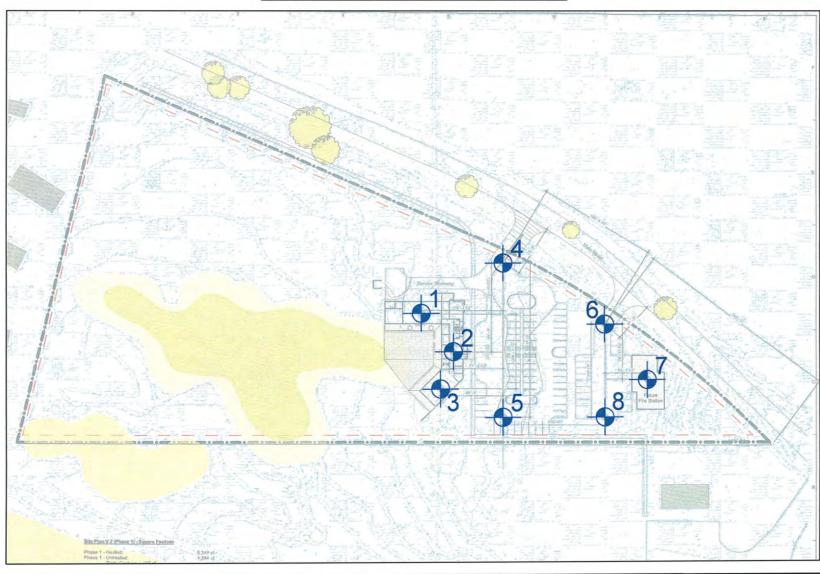
We make no other warranty, either express or implied. Any person using this report for bidding or construction purposes should perform such independent investigation as they deem necessary to satisfy themselves as to the surface and subsurface conditions to be encountered and the procedures to be used in the performance of work on this project. If conditions encountered during construction appear to be different than indicated by this report, this office should be notified.

All soil samples will be discarded 60 days after the date of this report unless we receive a specific request to retain the samples for a longer period of time.

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# BORING LOCATION MAP

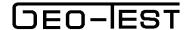


Senior Center & Fire Station Cerrillos, New Mexico Job No. 1-70414

Figure 1



GEOTECHNICAL ENGINEERING
AND MATERIAL TESTING



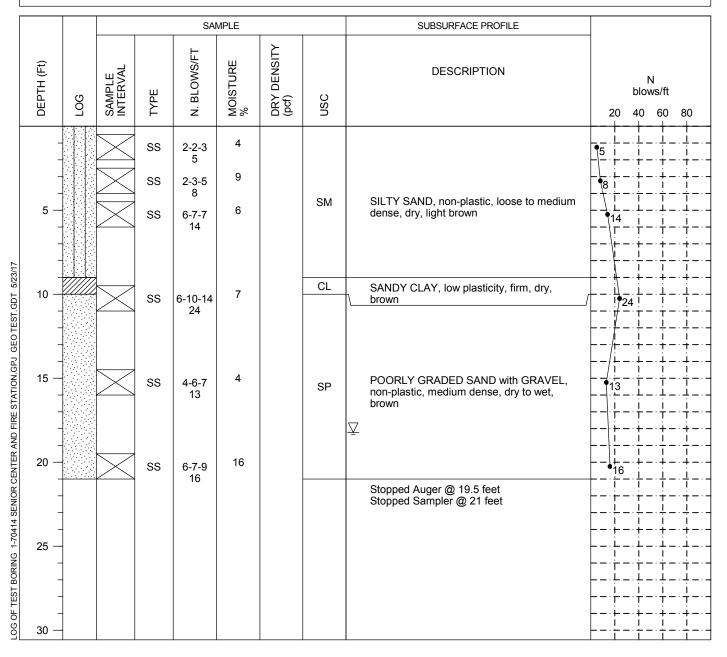
Date: 05/15/2017 Project No: 1-70414

Elevation: Type: 5.5" OD HSA

# LOG OF TEST BORINGS

### **GROUNDWATER DEPTH**

NO: 1 During Drilling: 18.0 After 24 Hours:



**LEGEND** 

SS - Split Spoon AC - Auger Cuttings UD/SL - Undisturbed Sleeve AMSL - Above Mean Sea Level CS - Continuous Sampler UD - Undisturbed

ST - Shelby Tube
Stratification lines represent approximate boundaries between soil types. Transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurments were made.



05/15/2017 Date: Project No: 1-70414

Elevation: Type: 5.5" OD HSA

# LOG OF TEST BORINGS

## **GROUNDWATER DEPTH**

NO: 2 During Drilling: none After 24 Hours:

					SAI	MPLE			SUBSURFACE PROFILE	
	DEPTH (Ft)	907	SAMPLE INTERVAL	TYPE	N. BLOWS/FT	MOISTURE %	DRY DENSITY (pcf)	USC	DESCRIPTION	N blows/ft 20 40 60 80
3/17	- - - 5 — - -			SS SS	5-5-8 13 4-6-7 13	5		SM	SILTY SAND, non-plastic, medium dense, dry, light brown * with Gravel 8-9 feet	•13
T.GDT 5/2	10 — -			SS	4-6-10 16	10		CL	SANDY CLAY, low plasticity, firm, slightly moist, brown	16 !!!
TION.GPJ GEOTES	- - 15 —			SS	5-3-8	7		SP	POORLY GRADED SAND with GRAVEL, non-plastic, medium dense, dry, brown	
LOG OF TEST BORING 1-70414 SENIOR CENTER AND FIRE STATION.GPJ GEO TEST.GDT 5/23/17	20 — - - 20 — - - - 25 —				11				Stopped Auger @ 14.5 feet Stopped Sampler @ 16 feet	
LOG OF TE	30 —									

**LEGEND** 

SS - Split Spoon AC - Auger Cuttings UD/SL - Undisturbed Sleeve AMSL - Above Mean Sea Level CS - Continuous Sampler **UD** - Undisturbed

ST - Shelby Tube
Stratification lines represent approximate boundaries between soil types. Transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurments were made.



05/15/2017 Date: Project No: 1-70414

Elevation: Type: 5.5" OD HSA

# LOG OF TEST BORINGS

## **GROUNDWATER DEPTH**

NO: 3 During Drilling: none After 24 Hours:

					SAI	MPLE			SUBSURFACE PROFILE	
	DEPTH (Ft)	907	SAMPLE INTERVAL	TYPE	N. BLOWS/FT	MOISTURE %	DRY DENSITY (pcf)	USC	DESCRIPTION	N blows/ft 20 40 60 80
	- - - 5 — - -			SS SS	2-1-4 5 4-6-9 15	4 3		SM	SILTY SAND, non-plastic, loose to medium dense, dry, light brown	\$ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
TEST.GDT 5/23/	- 10 — -			SS	4-5-16 21	8		CL-ML	SANDY, SILTY CLAY, low plasticity, firm, dry, brown	21
TION.GPJ GEO	- - 15 —	SS 8-10	SS 8-10-15		SP	POORLY GRADED SAND with GRAVEL, non-plastic, medium dense, dry, brown				
ENIOR CENTER AND FIRE STA	20 —				25				Stopped Auger @ 14.5 feet Stopped Sampler @ 16 feet	
LOG OF TEST BORING 1-70414 SENIOR CENTER AND FIRE STATION.GPJ GEO TEST.GDT 5/23/17	25 —     30 —									

#### **LEGEND**

SS - Split Spoon AC - Auger Cuttings UD/SL - Undisturbed Sleeve AMSL - Above Mean Sea Level CS - Continuous Sampler **UD** - Undisturbed

ST - Shelby Tube
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Date: 05/15/2017 Project No: 1-70414

Elevation: Type: 5.5" OD HSA

# LOG OF TEST BORINGS

## **GROUNDWATER DEPTH**

NO: 4 During Drilling: none After 24 Hours:

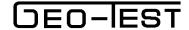
					SAI	MPLE			SUBSURFACE PROFILE	
	<b>DEPTH (Ft)</b>	106	SAMPLE INTERVAL	TYPE	N. BLOWS/FT	MOISTURE %	DRY DENSITY (pdf)	usc	DESCRIPTION	N blows/ft 20 40 60 80
	- - -			AC		6		SM	SILTY SAND, non-plastic, dry, light brown	
	5 —								Stopped Auger @ 5 feet	
ST.GDT 5/23/17	- 10 —	-								
ON.GPJ GEOTE	- - 15 —									
ND FIRE STATIO	-	-								
OR CENTER AN	20 —									
G 1-70414 SEN	- 25 —									
LOG OF TEST BORING 1-70414 SENIOR CENTER AND FIRE STATION.GPJ GEO TEST.GDT 5/23/17	- - -									
100°	30 —									

#### **LEGEND**

SS - Split Spoon AC - Auger Cuttings UD/SL - Undisturbed Sleeve AMSL - Above Mean Sea Level CS - Continuous Sampler

UD - Undisturbed

ST - Shelby Tube
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05/15/2017 Date: Project No: 1-70414

Elevation: Type: 5.5" OD HSA

LOG OF TEST BORINGS

**GROUNDWATER DEPTH** 

NO: 5 During Drilling: none After 24 Hours:

					SA	MPLE			SUBSURFACE PROFILE	
	DEPTH (Ft)	907	SAMPLE INTERVAL	TYPE	N. BLOWS/FT	MOISTURE %	DRY DENSITY (pdf)	nsc	DESCRIPTION	N blows/ft 20 40 60 80
	- - - -			AC		8		SM	SILTY SAND, non-plastic, slightly moist, light brown	
	5 — - -								Stopped Auger @ 5 feet	
ST.GDT 5/23/17	- 10 —	- - -								
GPJ GEOTE	- -	-								
FIRE STATION	15 — - -									
LOG OF TEST BORING 1-70414 SENIOR CENTER AND FIRE STATION.GPJ GEO TEST.GDT 5/23/17	20 —									
3 1-70414 SENIO	- - 25 —	-								
= TEST BORING	- - -	-								
LOGOF	30 —									

**LEGEND** 

SS - Split Spoon AC - Auger Cuttings UD/SL - Undisturbed Sleeve AMSL - Above Mean Sea Level CS - Continuous Sampler **UD** - Undisturbed

ST - Shelby Tube
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05/15/2017 Date: Project No: 1-70414

Elevation: Type: 5.5" OD HSA

# LOG OF TEST BORINGS

## **GROUNDWATER DEPTH**

NO: 6 During Drilling: none After 24 Hours:

					SA	MPLE			SUBSURFACE PROFILE	
	DEPTH (Ft)	907	SAMPLE INTERVAL	TYPE	N. BLOWS/FT	MOISTURE %	DRY DENSITY (pcf)	nsc	DESCRIPTION	N blows/ft 20 40 60 80
-	- - - 5 —			AC		6		SM	SILTY SAND, non-plastic, dry, light brown	
	-								Stopped Auger @ 5 feet	
T.GDT 5/23/17	- - 10 —									
GEO TES	-	_								
TION.GPJ	15 —									
R AND FIRE STA	- - -	-								
SENIOR CENTE	20 —									
DRING 1-70414	- 25 — -									
LOG OF TEST BORING 1-70414 SENIOR CENTER AND FIRE STATION.GPJ GEO TEST.GDT 5/23/17	30 —									

**LEGEND** 

SS - Split Spoon AC - Auger Cuttings UD/SL - Undisturbed Sleeve AMSL - Above Mean Sea Level CS - Continuous Sampler **UD** - Undisturbed

ST - Shelby Tube
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Date: 05/15/2017 Project No: 1-70414

Elevation: Type: 5.5" OD HSA

# LOG OF TEST BORINGS

## **GROUNDWATER DEPTH**

NO: 7 During Drilling: 19.0 After 24 Hours:

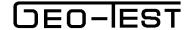
					SAI	MPLE			SUBSURFACE PROFILE	
	DEPTH (Ft)	TOG	SAMPLE INTERVAL	TYPE	N. BLOWS/FT	MOISTURE %	DRY DENSITY (pcf)	nsc	DESCRIPTION	N blows/ft 20 40 60 80
17	- - - 5 — -			SS SS SS	4-4-5 9 3-5-6 11 5-5-11 16	6 4 4		SM	SILTY SAND, non-plastic, loose to medium dense, dry, light brown	9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
ST.GDT 5/23/	- 10 — -			SS	9-4-5 9	13		CL-ML	SILTY, SANDY CLAY, low plasticity, moderately firm, moist, brown	9   -   -   -   -   -
ID FIRE STATION.GPJ GEO TES	- - 15 — - -			SS	11-9-8 17	3		SP	POORLY GRADED SAND with GRAVEL, non-plastic, medium dense, dry, light brown	17 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
CENTER AN	20 —			SS	6-10-6 16	8			$ar{ar{ u}}$	
LOG OF TEST BORING 1-70414 SENIOR CENTER AND FIRE STATION.GPJ GEO TEST.GDT \$/23/17	- - 25 — - - -								Stopped Auger @ 19.5 feet Stopped Sampler @ 21 feet	
000 O	30 —	-								

**LEGEND** 

SS - Split Spoon AC - Auger Cuttings UD/SL - Undisturbed Sleeve AMSL - Above Mean Sea Level CS - Continuous Sampler

UD - Undisturbed

ST - Shelby Tube
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05/15/2017 Date: Project No: 1-70414

Elevation: Type: 5.5" OD HSA

# LOG OF TEST BORINGS

## **GROUNDWATER DEPTH**

NO: 8 During Drilling: none After 24 Hours:

			SAMPLE						SUBSURFACE PROFILE			
	DEPTH (Ft)	907	SAMPLE INTERVAL	TYPE	N. BLOWS/FT	MOISTURE %	DRY DENSITY (pdf)	nsc	DESCRIPTION	N blows/ft 20 40 60 80		
	- - - 5 —			AC		6		SM	SILTY SAND, non-plastic, dry, light brown			
	- - -								Stopped Auger @ 5 feet			
LOG OF TEST BORING 1-70414 SENIOR CENTER AND FIRE STATION.GPJ GEO TEST.GDT 5/23/17	- 10 —	-										
GEO TEST	-	_										
ION.GPJ	- 15 —	_										
ND FIRE STAT	-											
CENTER A	20 —	-										
4 SENIOR (	-	-										
NG 1-7041	25 —											
EST BORIN	-											
LOG OF TI	30 —	-										

**LEGEND** 

SS - Split Spoon AC - Auger Cuttings UD/SL - Undisturbed Sleeve AMSL - Above Mean Sea Level CS - Continuous Sampler **UD** - Undisturbed

ST - Shelby Tube
Stratification lines represent approximate boundaries between soil types. Transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurments were made.

# **SUMMARY OF LABORATORY RESULTS**

						SIEVE ANALYSIS PERCENT PASSING											
TEST HOLE	DEPTH (FEET)	UNIFIED CLASS	(%) MOIST	LL	PI	NO 200	NO 100	NO 40	NO 10	NO 4	3/8"	1/2"	3/4"	1"	1 1/2"	2"	4"
1	1.0		4.0														
1	3.0	SM	9.5	NP	NP	46	91	100									
1	5.0		6.0														
1	10.0		6.5														
1	15.0		3.8														
1	20.0		15.8														
2	3.0		4.5														
2	5.0		3.4														
2	10.0	CL	10.1	27	9	70	85	95	97	99	100						
2	15.0		6.8														
3	3.0		4.3														
3	5.0	SM	2.7	NP	NP	19	47	98	100								
3	10.0		7.6														
3	15.0		3.4														
2 2 2 3 3 3 3 4 5 6 7	2.5		6.3														
5	2.5	SM	8.2	NP	NP	34	74	100									
6	2.5		6.2														
7	1.0	SM	5.6	NP	NP	30	58	96	100								
7	3.0		4.3														

**DEO-IEST** 

LL = LIQUID LIMIT
PI = PLASTICITY INDEX
NP = NON PLASTIC or NO VALUE

Project: Senior Center & Fire Station

Location: Cerrillos, New Mexico

Number: 1-70414

# **SUMMARY OF LABORATORY RESULTS**

												EVE ANAL					
TEST HOLE	DEPTH (FEET)	UNIFIED CLASS	(%) MOIST	LL	PI	NO 200	NO 100	NO 40	NO 10	NO 4	3/8"	1/2"	3/4"	1"	1 1/2"	2"	4"
7	5.0		3.8														
7	10.0	CL-ML	13.3	24	6	63	67	92	99	100							
7	15.0		2.8														
7	20.0		7.9														
8	2.5	SM	5.7	NP	NP	31	63	95	100								

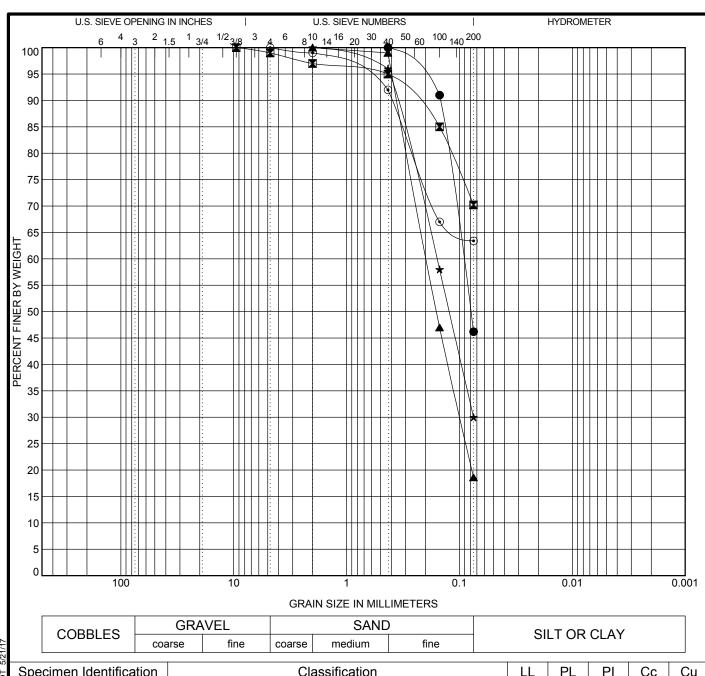
**DEO-IEST** 

LL = LIQUID LIMIT
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Project: Senior Center & Fire Station

Location: Cerrillos, New Mexico

Number: 1-70414



≿L_													
OR CENTER AND FIRE STATION.GPJ GEOTIEST.GDT 5/	S	pecime	en Identification		Cla		LL	PL	PI	Сс	Cu		
S. S.		1	3.0		SILT	Y SAND(SM)		NP	NP	NP			
֡֟֟֝֟֝֟֝֟֝֓֓֓֓֓֓֓֟֝֓֓֓֟֝֓֓֓֓֓֓֟	I	2	10.0		LEAN CLA	Y with SAND		27	18	9			
5 4	<b>A</b>	3	5.0		SILT		NP	NP	NP				
N.S.	*	7	1.0		SILT	Y SAND(SM)		NP	NP	NP			
A IIO	•	7	10.0		SANDY SIL	TY CLAY(CI		24	18	6			
N V	S	pecime	en Identification	D100 D60 D30 D10 %Gra				%Grave	sl %Sand		%Sil	lt %	6Clay
	D	1	3.0	0.43	0.093			0.0		53.8		46.2	
Y AN	I	2	10.0	9.5				1.0		28.8		70.2	
L L	<b>A</b>	3	5.0	2	0.195	0.099	0.0			81.4	18.6		
٦ ٢	*	7	1.0	2	0.159	0.075		0.0		70.0		30.0	



4.75

10.0

# **GRAIN SIZE DISTRIBUTION**

36.6

63.4

Project: Senior Center & Fire Station

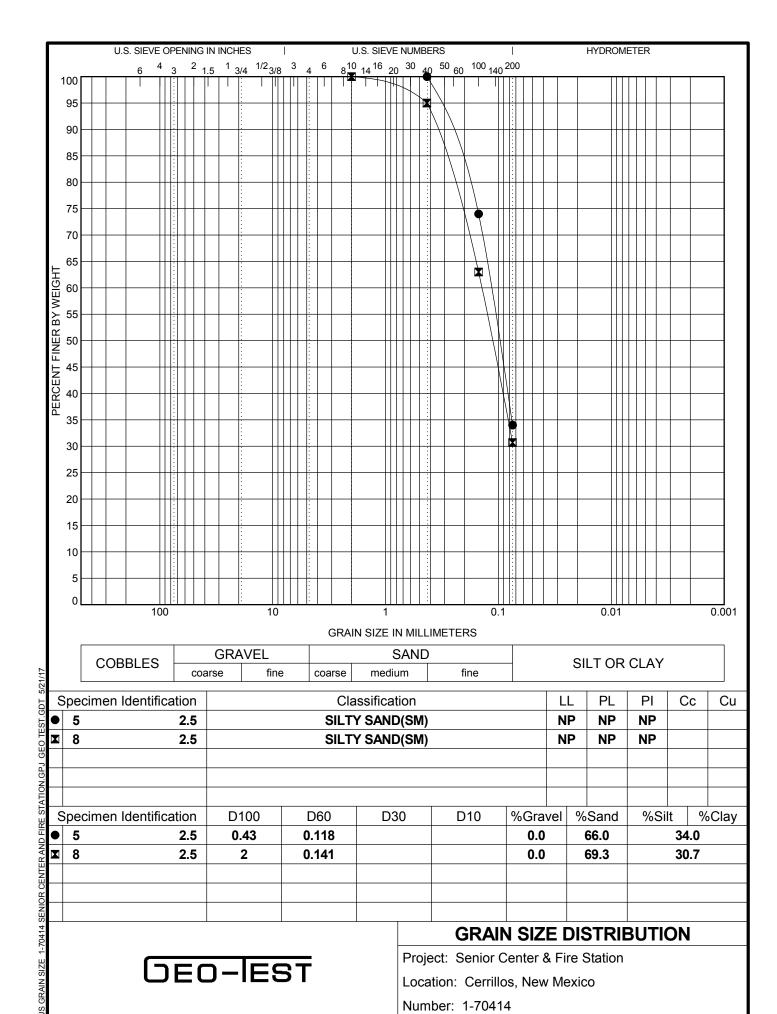
0.0

Location: Cerrillos, New Mexico

Number: 1-70414

US GRAIN SIZE 1-70414 SENIOR CENTER AND FIRE STATION.GPJ GEO TEST.GDT 5/21/17

**⊙** 7



HWY 14 SENIOR/COMMUNITY CENTER LOS CERRILLOS, NEW MEXICO

### PART 1 - GENERAL

#### **WORK INCLUDED**

This section includes the fabrication and erection of structural steel.

#### **RELATED WORK SPECIFIED ELSEWHERE**

Steel Joists - Section 05 21 00 Metal Deck - Section 05 30 00

#### **QUALITY ASSURANCE**

Qualifications of Fabricator: Fabricator shall have a minimum of 5 years experience in the fabrication of structural steel of structures of similar size. Fabricator shall have AISC or IAS certification or other certification as approved by the building official and the engineer of record. If the fabricator does not have approved certification, special inspection shall be done on the fabrication process and on the fabricated material as required by Section 1704.2, Inspection of Fabricators of the International Building Code. The non-certified fabricator shall engage a special inspector that meets the requirements of IBC section 1704.1 and is acceptable to the building official and the engineer of record. Provide documentation verifying certification or provide special inspector information for approval prior to issuance of a building permit.

Qualifications of Erector: Erector shall have a minimum of 5 years experience in the erection of structural steel of structures of similar size.

Qualifications of Field Welders: Welders shall be certified in accordance with AWS D1.1 within the last 12 months.

### Reference Standards:

#### ASTM International (ASTM)

ASTM A 36/ A36M-08	Standard Specification for Carbon Structural Steel
ASTM A 53/	Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-coated
A 53M-10	Welded and Seamless
ASTM A 61/	Standard Specification for General Requirements for Rolled Structural Steel
A6M-11	Bars, Plates, Shapes, and Sheet Piling.
ASTM A 307-10	Standard Specification for Carbon Steel Bolts and Studs, 60,000 PSI
	Tensile Strength
ASTM A 325-10	Standard Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength
ASTM A 490-11	Specification for Structural Bolts, Alloy Steel, Heat Treated, 150 ksi Minimum Tensile Strength
ASTM A 500/	Standard Specification for Cold-Formed Welded and Seamless Carbon
A500M-10a	Steel Structural Tubing in Rounds and Shapes
ASTM A 992/	Standard Specification for Structural Steel Shapes



HWY 14 SENIOR/COMMUNITY CENTER LOS CERRILLOS, NEW MEXICO

A 992M-11

ASTM C 1107/ Standard Specification for Packaged Dry, C1107M-11 Hydraulic-Cement Grout (non-shrink)

ASTM F1554-07ae1 Standard Specification for Anchor Bolts, Steel, 36, 55, and 105-ksi Yield

Strength.

American Welding Society (AWS), latest edition.

AWS D1.1 Structural Welding Code-Steel

American Institute of Steel Construction (AISC), Steel Construction Manual, latest edition.

Specification for Structural Steel Buildings

AISC Code of Standard Practice

Specification for Structural Joints Using ASTM A 325 or A 490 Bolts.

### **SUBMITTALS**

Shop Drawings: Submit shop drawings including erection plans, complete details and schedules for fabrication and assembly of structural steel members. Include details of cuts, connections, camber, holes, and other pertinent data. Indicate welds by standard AWS symbols, and show size, length, and type of each weld. Shop drawings shall not be made by reproduction of the Contract Drawings.

Provide setting drawings and directions for installation of anchor bolts and other anchorages to be installed by others.

Welder Certification: Submit affidavit stating that all welders are certified in accordance with AWS and provide copies of welder's certificates.

### PRODUCT DELIVERY, STORAGE, AND HANDLING

Support structural steel above ground on skids, pallets, platforms, or other supports.

Protect steel from damage.

Store packaged materials in original unbroken package or container.

Do not store materials on structure in a manner that might cause distortion or damage to members or supporting structures.

Replace damaged shapes or members.

Waste Management and Disposal; As specified in Division 01 Section "Construction Waste Management" and as follows: Collect cut offs and scrap and place in designated area for recycling in accordance with the Waste Management Plan and local recycler standards.

### PART 2 - PRODUCTS

#### **MATERIALS**

All Wide Flange Shapes shall conform to ASTM A 992, Grade 50 unless noted otherwise.

All Angles, Channels, Plates, and Bars: ASTM A 36.

20 OCTOBER 2017



HWY 14 SENIOR/COMMUNITY CENTER LOS CERRILLOS, NEW MEXICO

Structural Steel Pipe: ASTM A 53, Type E or S, Grade B Fy=35 ksi

Rectangular or Square Hollow Structural Section: ASTM A 500, Grade B, Fy = 46 ksi.

Round Hollow Structural Sections: ASTM A 500, Grade B, Fy-42 ksi.

Anchor Bolts: ASTM F1554, Grade 36

High Strength Tension Control Threaded Fasteners: Meet requirements of ASTM A 325 or ASTM A 490.

Headed Anchor Shear Studs: By the Nelson Division of TRW.

Welding Electrodes: E 70 Series.

Shop Primer Paint: Fabricators standard rust inhibitive primer.

Non-Metallic, Non-Shrink Grout: Meets the requirements of ASTM C 1107.

Nonmetallic, Shrinkage-Resistant Grout: ASTM C 1107, factory-packaged, nonmetallic aggregate grout, noncorrosive, non-staining, mixed with water to consistency suitable for application and a 30-minute working time. Grout shall have a minimum 28 day compressive strength of 6,000 psi.

Subject to compliance with requirements, provide products by one of the following or an approved equal:

Five Star Fluid Grout 100; Five Star Products, Inc., Fairfield, Connecticut.

Crystex; L&M Construction Chemicals, Inc. Omaha, Nebraska.

Sure-Grip High Performance Grout; Dayton superior Corp., Miamisburg, Ohio.

Sonnogrout 10K; Sonneborn Building Products, Shakopee, Minnesota.

Sealight Pac-It Grout; W.R. Meadows, Inc., Hampshire, Illinois.

Enduro 50; Conspec Marketing & Manufacturing Co., Inc, Kansas City, Kansas.

#### **FABRICATION**

Fabrication shall be in accordance with the AISC "Code of Standard Practice for Buildings and Bridges".

Connections: Weld or bolt shop connections as indicated on the approved shop drawings. Design connections to support reactions and forces where indicated on the drawings.

Shop Welds: Shall be visually inspected by the Fabricator's quality control department.

#### **SHOP PAINTING**

General: Shop paint structural steel, except those members or portions of members to be embedded in concrete, mortar or to receive sprayed on fireproofing. Paint embedded steel, which is partially exposed on exposed portions and initial 2 inch of embedded areas only.

Do not paint surfaces, which are to be welded or high-strength bolted with friction-type connections.

Surface Preparation: After inspection and before shipping, clean steel work to be painted. Remove loose rust, loose mill scale, and spatter, slag or flux deposits. Clean steel in accordance with Steel Structures Painting Council (SSPC) as follows:

SP-1 "Solvent Cleaning" SP-2 "Hand Tool Cleaning"

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Painting: After surface preparation, apply structural steel primer paint in accordance with manufacturer's instructions. Provide one coat.

### PART 3 - EXECUTION

#### **COORDINATION**

Field Measurements: Verify all elevations, locations, and dimensions of surfaces to receive structural steel.

Anchor Bolts and Other Embedded Items: Verify locations and positions of anchor bolts and other embedded items used to support structural steel.

All Anchor bolts for column base plates, anchors and bearing plates for beams shall be located prior to installation by a Registered Professional surveyor. The Professional Surveyor shall use project control points, such as bench marks, grid lines, or building corners established and accurately maintained by the General Contractor for vertical and horizontal control of location. Templates shall be used to locate groupings of bolts or anchors and shall be confirmed as to orientation and hole geometry accuracy.

Anchor bolts and bearing plates with anchors shall be stabilized against movement, vertical and horizontal, prior to and during concrete casting of concrete supporting these devices.

Upon completion of the concrete casting the Professional Surveyor shall verify vertical and horizontal locations and orientation of anchor bolts or bearing plates with anchors. A report shall be furnished to the Engineer of Record (through the General Contractor and Architect) noting non compliant locations.

The EOR, will furnish remedial actions required to correct the non compliant anchor bolt or bearing plate locations. Allow ten days for the EOR's report on remedial actions necessary.

It shall be the General Contractor's responsibility to have this work performed.

Correct any unsatisfactory conditions prior to erection of structural steel.

#### **PREPARATION**

Clean surfaces to receive structural steel prior to erection.

#### **ERECTION**

General: Erect structural steel in accordance with AISC "Code of Standard Practice for Steel Buildings and Bridges".

Field Assembly: Assemble structural steel accurately to the lines and elevations shown on the drawings. Align and adjust components accurately before fastening.

Temporary Bracing: Provide temporary bracing or guys to secure structural steel against wind, seismic, or construction loads. It is the responsibility of the Contractor to maintain stability of the structure during erection.

Field Bolted Connections: Install high strength tension control bolts in accordance with AISC Specifications for Structural Joints Using ASTM A325 and A490 Bolts and the manufacturer's instructions. Where clearance within a connection does not permit the use of tension control bolts, standard A325 bolts shall be used and inspected in accordance with the AISC Specification for Structural Joints.

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Field Welding: Perform all welds in accordance with AWS.

Welded Connections: Field welds shall be visually inspected according to AWS D1.1/D1.1M.

In addition to visual inspection, field welds will be tested and inspected according to AWS D1.1/D1.1M and the following inspection procedures, at testing agency's option:

Liquid Penetrant Inspection: ASTM E 165.

Magnetic Particle Inspection: ASTM E 709; performed on root pass and on finished weld.

Cracks or zones of incomplete fusion or penetration will not be accepted.

Ultrasonic Inspection: ASTM E 164. Radiographic Inspection: ASTM E 94

Gas Cutting: Do not use gas-cutting torches in field to cut structural framing.

Do not enlarge unfair holes by burning. Ream holes that must be enlarged to admit bolts.

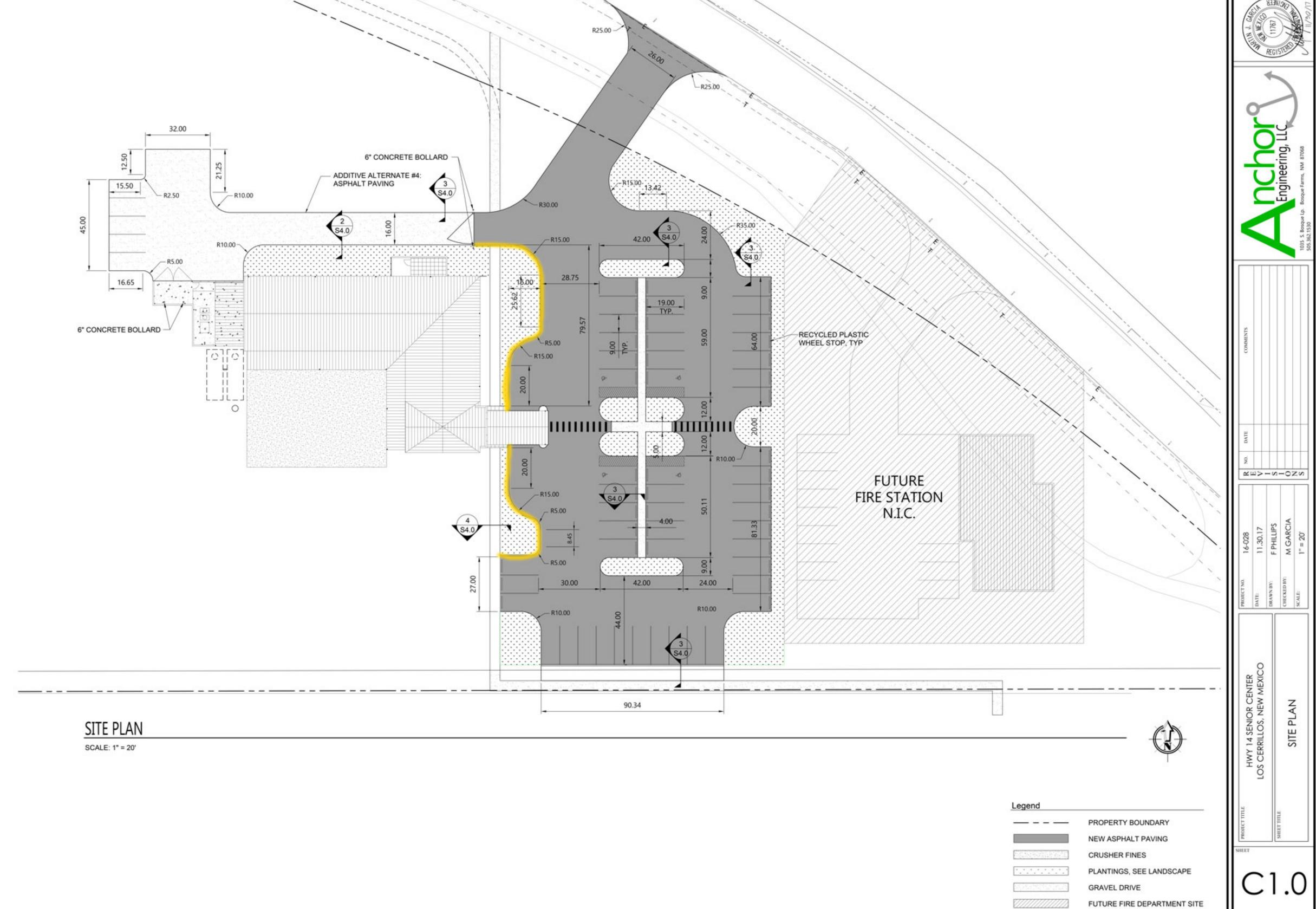
Field Touch-up Painting (Primer): Paint all exterior exposed bolts, washers, and nuts after connections have been tightened and checked. Paint all exterior exposed field welds. Paint all exterior exposed abrasions in shop coat. Use same paint as for shop painting.

Grout Placement: Comply with the manufacturer's instructions.

Tighten anchor bolts after supported members have been positioned and plumbed.

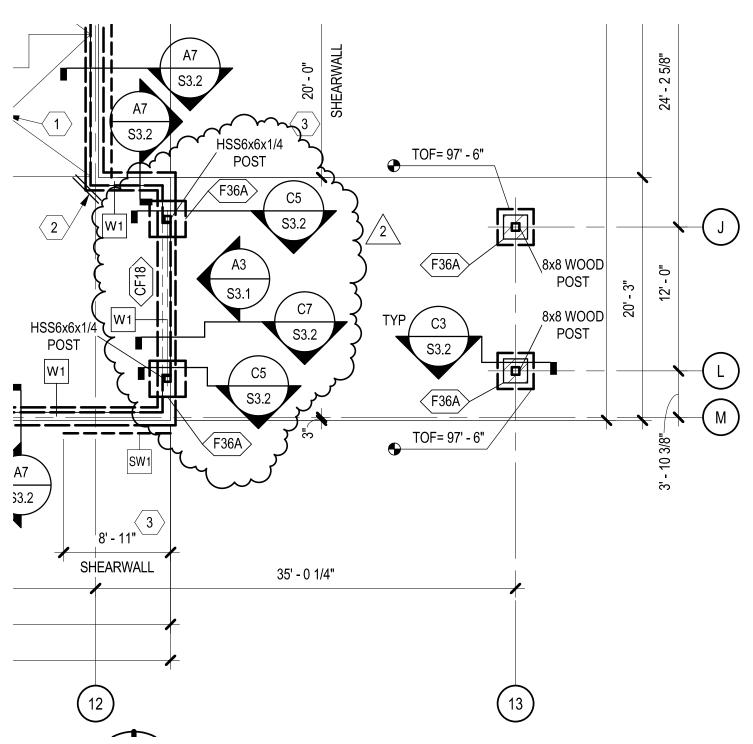
**END OF SECTION 051000** 







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ADDENDUM #01 02-08-18 REF: S1.1

**HWY 14 SENIOR CENTER** 

SHEET:

**SSK-01**