

CASCADE CHARTER TOWNSHIP
PUBLIC SAFETY ADVISORY COMMITTEE MEETING
November 17, 2021, 2021 at 9:00 am
Cascade Township Hall – Large Conference Room
5920 Tahoe Dr. SE
Grand Rapids, MI 49546

- ARTICLE 1.** Call the Meeting to Order
- ARTICLE 2.** Approval of the Agenda
- ARTICLE 3.** Approval of the Minutes of the 10/20/21 Meeting
- ARTICLE 4.** Fire Station #1 Construction – Progress Update
- ARTICLE 5.** Review & Consider Proposal for Engineered Drawings for Air Cargo Lease Space
- ARTICLE 6.** Review Assistance to Firefighters Grant Program
- ARTICLE 7.** Public Comment (Please limit comment to 3 minutes)
- ARTICLE 8.** Adjournment

CASCADE CHARTER TOWNSHIP
PUBLIC SAFETY ADVISORY COMMITTEE MEETING
October 20, 2021 at 9:00 am
Cascade Township Hall – Large Conference Room
5920 Tahoe Dr. SE
Grand Rapids, MI 49546

Members Present: Treasurer Ken Peirce, Trustee John Shipley, Trustee Timmy Noordhoek

Others Present: Township Manager (TM) Ben Swayze, Fire Chief Adam Magers, Prein & Newhof Engineer John VerPlank, Williams Architect Mark Bushhouse (Zoom), Triangle Project Manager Brianna Pitchford (Zoom)

Members of the Public: None

ARTICLE 1. Call to Order: Meeting was called to order at 9:00am

ARTICLE 2. Approval of the Agenda

Motion by Trustee Shipley, supported by Trustee Noordhoek to approve the agenda. Motion carried.

ARTICLE 3. Approval of the Minutes of the 9/15/21 & 9/21/21 Meetings

Motion by Trustee Shipley, Supported by Trustee Noordhoek to approve the minutes. Motion carried.

ARTICLE 4. Fire Station #1 Construction – Progress Update: Chief Magers explained work that has been done in the past month through the committee and reviewed the included memo. Architect Bushouse explained that the interior layout is nearly finished. Also reviewed the line drawings for the elevations. Construction Manager Pitchford reviewed CM involvement up until this point. CM will be responsible for generating project estimates based on architect's work. Engineer VerPlank reviewed sitework done up until this point. There are issues with the Consumers easements on the site related to grading. TM Swayze indicated he would put Prein & Newhof in contact with Consumer's rep to resolve. Geotech revealed a sandy site, which will help control costs when looking at new stormwater requirements.

No action, discussion only

ARTICLE 5. PSAC Meeting Schedule During Construction: Chief Magers and the project team reviewed the schedule, and the possibility for PSAC to need to meet more often during key decision-making points. Committee discussed pros and cons of scheduling more meetings versus being able to schedule as they come up. TM Swayze explained that the Committee can call a meeting at any time with 18 hour posting notice. Committee indicated a desire to not pre-schedule and additional

meetings, but to “remain flexible” should the need for additional meetings come up.

No action, discussion only

ARTICLE 6. Fire Chaplain Volunteer Position: Chief Magers reviewed the memo outlining the Fire Chaplain position. This would be a volunteer position filled by an ordained, certified minister with special training on counseling, grief management and critical incident stress management among other things. Would provide a compliment service to the Employee Assistance Program, some do not feel comfortable using EAP. Position would go to Tim Dieffenbach from Thornapple Community Church. Only investment needed would be email/badge and some minor uniform items. Discussion ensued. The Committee agreed that it sounded like a valuable position for the department/Firefighters with minimal financial investment from the Township.

Motion by Trustee Shipley, supported by Trustee Noordhoek to approve the Volunteer Fire Department Chaplain position. Motion Carried.

ARTICLE 6. Public Comment: None.

ARTICLE 7. Adjournment: Motion by Trustee Shipley, supported by Trustee Noordhoek to adjourn the meeting. Meeting adjourned at 9:37am.

Approved by the Public Safety Advisory Committee – TBD

CASCADE TOWNSHIP  FIRE DEPARTMENT

Dedicated to Serving You

Public Safety Advisory Committee

Station 1 Update

11-12-2021

Ben,

Here is the station update for this week. Have a great weekend!

Williams:

Meeting on Wednesday went well. Went over furniture and design elements. Sent equipment cut sheets to architects for implementation/review.

TRIANGLE:

Attended Wednesday's meeting and are preparing initial cost estimates.

Prein & Newhoff:

Updated the site plan based off of studies completed. Finishing stamped drawings for temp station.

Air Cargo Temp Facility:

Began the background and badging process. Next meeting is on Tuesday morning for more training. Still need to sign the lease.

Thanks!

Adam

MINUTES OF MEETING

Project:	New Fire Station 1 Cascade Township, MI	Project Number:	2021-033
Date / Time:	10 November, 2021 / 10: 00 am	Project Phase:	Schematic Design
Location:	Township Hall, 5920 Tahoe DR SE Grand Rapids, MI 49546	Meeting Number:	004
		Meeting Title:	Interior Finishes / Furniture
		Date Prepared:	16 November 2021

NOTE: These minutes shall be considered an accurate account of the above meeting unless corrections or additions are communicated to Williams Architects within ten (10) days of the date prepared.

ATTENDEES: Adam Magers, Chief / Cascade Township Fire Dept. (CTFD)
Mike Poolman, Fire Fighter / CTFD
Colin Forzey, Inspector / CTFD
Josh Dettwiler, Fire Fighter / CTFD
Cindy Holzhei, Admin Assistant / CTFD
Brienne Pitchford, Director of Project Development / (TI)
Carrie Kotera / Williams Interiors (WI)
Natalie Clemens / Williams Architects (WA)
Mark Bushhouse / Williams Architects
Scott Lange / WA

DISCUSSION ITEMS:

1. Williams Interiors (WI) walked through the floor plans and took an inventory of all anticipated indoor and exterior furniture. All furniture to be new. A detailed inventory of decisions made as well as cost estimate will be included in final Schematic Design Binder completed 08 December 2021.
2. Williams Interiors (WI) walked through the floor plan and discussed all interior finish materials for floors, walls, ceilings, and millwork. A detailed material finish document as well as flooring material SY allowance will be included in final Schematic Design Binder completed 08 December 2021.
3. Streamlined deliverable project schedule as developed by Triangle, Inc. will be incorporated. Only exception will be final construction document QC will be three weeks in lieu of two. Owner was explained risks inherent with this strategy regarding re-design by Williams Architects as far as additional services.
4. Client confirmed monument sign requested (post-meeting).
5. Client advised to collect cuts of all Owner provided equipment i.e; kitchen appliances, extractor, washer/dryer, apparatus bay equipment and forward to Williams Architects ASAP.
6. All Exercise Room equipment by Owner.
7. Bunk Room beds, Day Room recliners provided and installed by Owner.

Distribution: Chief Adam Magers
Brienne Pitchford / Triangle
Scott Lange / Williams
Natalie Clemens / Williams

End of Meeting Minutes

G:\2021\2021-033 Cascade Charter Township Fire Station\B Genl_Basic Serv\B09 Mtg Mins\2021 11 10 Meeting Minutes.docx

Geotechnical Investigation Report

Proposed New Fire Station

2865 Thornhills Avenue, SE, Cascade Charter Township, Michigan

Prepared for
Cascade Charter Township Fire Department
2865 Thornhills Avenue, SE
Grand Rapids, Michigan 49546-7192

November 1, 2021

2210863

Prein&Newhof

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- Soil Nomenclature
- Boring Logs

1 INTRODUCTION

Prein&Newhof has performed a geotechnical investigation for the proposed new Fire Station, located in Cascade Charter Township, Michigan. The purpose of this investigation was to determine and evaluate subsurface conditions within the area of the proposed fire station and to provide recommendations relative to the support of building foundations, floor slabs, pavements, and other related site preparation activities.

2 PROPOSED DEVELOPMENT

The general configuration of the site is shown on the appended Soil Boring Location Plan. The project will include the demolition of the existing fire station and the construction of a new single-story fire station at the site. The new structure will be L-shaped and its footprint will cover most of the existing fire station. The southern portion of the building will feature a multi-bay drive through garage, while the northern portion will feature living, office and storage areas.

Although no detailed structural information is currently available, we anticipate load bearing masonry walls, steel roof joists and slab-on-grade construction. Maximum wall loads on the order of 6 kips per lineal foot are anticipated. We understand that the finished floor level of the garage will be at Elevation 750.5 and that the remainder of the building will have a finished floor level at Elevation 751.

The new fire station will include a ring driveway and significantly expanded parking facilities along the west edge of the driveway and on the east side of the building.

3 SITE CONDITIONS

The site is located at 2865 Thornhills Avenue in Cascade Charter Township, Kent County, Michigan. The site currently contains a roughly rectangular shaped fire station with an encircling asphalt paved driveway. A cell phone tower is located at the northwest corner of the site. The perimeter of the site consists of lawn areas with numerous mature trees. A landscaped area with mature trees is located on the east side of the building.

The overall topography of the site slope gradually to the southeast. Steeper slopes are present along the western and southern edges of the site. Ground surface elevations ranging from approximately 760 to 738 feet. Within the proposed building area, ground surface elevations range from approximately 753 to 750 feet.

4 FIELD INVESTIGATION

We investigated subsurface conditions within the proposed development area by drilling seven soil borings, designated SB-1 and SB-7. The borings were drilled at the locations shown on the attached Soil Boring Plan. The locations of the borings were determined in the field relative to existing

surface features and are therefore considered as approximate. The ground surface elevation at the boring locations was estimated from a topographic map of the site.

The soil borings were drilled by Rosendall Well Drilling under the full-time observation of a geotechnical engineer from Prein&Newhof. Within each boring, soil samples were taken at regular depth intervals of 2.5 feet within the upper 10 feet and 5 feet below that depth. Samples were obtained by the Standard Penetration Test (SPT) method, ASTM D1586, whereby a 2-inch outside diameter split-spoon sampler is driven three successive 6-inch increments, with the number of blows for each increment being recorded. The number of blows required to drive the sampler the last 12 inches is defined as the Standard Penetration Resistance (N).

At the completion of drilling of SB-7, a percolation test was conducted within the hollow stem augers. The tests consisted of filling the augers with water and measuring the rate at which the surface of the water dropped. Several tests were conducted, with all tests indicating a water surface drop of 1 foot in 5 seconds, which equates to 2.4 inches per second.

Upon the completion of soil drilling and sampling operations, and the percolation test in SB-7, the bore holes were backfilled with drill cuttings.

The soil samples obtained at the site were classified in the field by our representative, then sealed in containers and transported to our laboratory for further classification and testing. We will retain these soil samples for a period of 60 days after the date of this report, at which time we will dispose of the samples unless we are otherwise instructed.

5 SUBSURFACE CONDITIONS

The conditions encountered in the borings are shown on the attached Soil Boring Logs. Definitions of the descriptions used on the boring logs are presented on the attached Soil Nomenclature and Terminology sheet. The stratification shown on the logs represents our interpretation of the soil conditions at the specific boring locations. Variations in subsoil conditions may occur away from the actual borings and between samples in any boring. Additionally, the stratigraphic lines represent the approximate boundaries between the soil types; however, the transition may be more gradual than what is shown.

Based on the results of this investigation, it appears that surface conditions at the site are fairly uniform, consisting of localized fill deposits, underlain by deposits of native sandy soils. The ground surface at the soil boring locations is covered with either asphalt pavement or topsoil. The pavement consists of 4.5 to 7.5 inches of HMA and 8 to 10 inches of pavement base. The topsoil consists of approximately 6 to 8.5 inches of dark brown clayey silt and silty clay with organic matter.

At the locations of SB-4, SB-5 and SB-7, located along the southern side of the site, , the pavement and topsoil are underlain by fill consisting of loose to medium dense fine to medium sand with little silt. SPT N-values within the fill range from 5 to 16. The fill extends to depths ranging from approximately 4 to 6 feet 7 to 12 feet.

Within SB-5, the fill is underlain by a buried topsoil layer. The buried topsoil extends between the approximate depths of 3 and 4.3 feet.

The fill and buried topsoil (within SB-4, SB-5 and SB-7) and the pavement and topsoil in the remaining borings are underlain by native deposits of fine to medium sand with a trace of silt and a trace to little gravel. The density of these granular soils ranges from very loose to medium dense, generally becoming denser with increasing depth. SPT N-values within these soils range from 3 to 28, and they extend to depths of approximately 11 to 13.5 feet and to the full explored depth of SB-5 through SB-7.

The very loose to medium dense granular soils are underlain by deposits of medium dense to dense fine to coarse sand with little gravel and occasional layers of very stiff sandy clay. SPT N-values within these soils range from 13 to 49. These dense soils extend to the 20-foot depth of exploration of SB-1 through SB-4.

6 GROUNDWATER CONDITIONS

Groundwater level observations were made during and following the completion of drilling. However, no water was encountered and the borings were dry at completion. It should be recognized that groundwater levels at the site can fluctuate as a result of seasonal variations and following period of heavy precipitation or draught.

7 EVALUATION AND RECOMMENDATIONS

7.1 Evaluation of Soil Conditions

The topsoil at the site contains a significant amount of organic matter and is thereby not suitable to support buildings or pavements, or for use as engineered fill. However, it can be stockpiled and reused for landscaping purposes.

The fill at the site exhibits variations in depth and density and on this basis, we do not consider the existing fill to be suitable for the support of building foundations. However, provided that some minor post-construction settlements can be tolerated, we anticipate that the fill can be compacted and left in place beneath floor slabs and pavements.

We consider the native granular soils to be suitable for the support of the proposed building and pavements.

7.2 Groundwater Control

Based on the groundwater conditions encountered during this investigation and the anticipated depth of construction excavations, we do not anticipate significant groundwater-related construction difficulties. We anticipate that accumulations of groundwater or surface water

runoff within excavations can be handled by pumping from sumps formed at the base of the excavations.

7.3 Site Preparation, Earthwork and Backfill

We recommend that all earthwork be performed under adequate specifications and properly monitored in the field, including the testing of each lift of engineered fill. To prepare the site for development, the existing building including its foundations should be removed and the resulting excavations backfilled with engineered fill. Similarly, underground utilities within the proposed building area should be removed, rerouted and the resulting excavations filled with engineered fill. The asphalt, vegetation and topsoil should also be removed in their entirety from the proposed development area.

We anticipate that the resulting subgrade will consist of loose sandy soils. We recommend that the subgrade soils be thoroughly compacted with a heavy vibratory roller proof-rolled to improve their load supporting capability.

Fill or backfill required to achieve design grades should preferably consist of free draining non-organic granular soil, such as MDOT Class II material. The on-site granular fill soils that are free of debris can also be used for engineered fill. However, the existing fill materials generally exhibit high silt contents which will require long drying times and will render them sensitive to changes on moisture content.

The fill material should be placed and compacted in uniform lifts not exceeding 12 inches in thickness. Each lift should be compacted to achieve a density of at least 95 percent of the maximum dry density as determined by the Modified Proctor Compaction Test (ASTM D 1557). All fill material should be placed and compacted at or near the optimum moisture content. Frozen material should not be used as fill, nor should fill be placed on a frozen subgrade.

7.4 Foundation Recommendations

Based on an overall evaluation of the data, we recommend that the proposed building be supported on shallow foundations that bear on suitable native granular soils. In areas containing existing fill, this will require extending foundation excavations through the fill to depths of 4 to 5 feet and support foundations at that level or supporting the foundations on engineered fill that is used to replace the existing fill materials. Furthermore, we recommend that the soils at the base of all foundation excavations be thoroughly compacted with a hoe-pac or heavy vibratory plate or roller to improve their load supporting capabilities.

Where foundation excavations are extended through the fill, soil removal should include all soils within the zone of influence of the footing. This will require that soil removal be extended laterally a distance equal to the depth of fill beneath the foundation bearing level. Considering fill conditions at the site and the anticipated foundation depths of 2 to 3.5 feet, this will require that over-excavation extend a lateral distance on the order of 3 feet beyond the edge of the foundations.

Exterior footings should extend to a minimum depth of 3.5 feet below the exposed finished grade for protection against frost penetration. Interior footings not exposed to freezing temperatures during or after construction can be established at shallower depths, provided that suitable bearing

soils, consistent with the criteria indicated above, are present. If foundations are to be constructed during periods of freezing temperatures, they should be extended below the frost penetration depth or insulated for protection against freezing temperatures. Furthermore, the foundations should not be constructed on frozen soil.

Adjacent footings founded at different levels should be designed and constructed so that the least lateral distance between them is equal to or greater than the difference in their bearing levels. To achieve a change in the level of a strip footing, the footing should be gradually stepped at a grade not steeper than two units horizontal to one unit vertical.

Foundations may be designed on the basis of a net allowable soil bearing pressure of 2,500 pounds per square foot (psf). All strip footings should be at least 18 inches in width and all isolated spread footings should be at least 24 inches in their least dimension regardless of the resulting bearing pressure.

We recommend that foundation excavations be observed and tested in the field by a qualified person to verify that adequate soil bearing conditions, compatible with the recommendations outlined in this report, are achieved.

Provided that the recommendations presented in this report are adhered to, total and differential settlements for the completed structure should be within 1 and ½ inch, respectively. We understand that settlements of these magnitudes are within tolerable limits for the type of structure proposed.

7.5 Seismic Considerations

Site-specific seismic design criteria were calculated using USGS Seismic Hazard Curve software, using criteria from the 2016 ASCE 7-10 Standard and the 2018 International Building Code. In the absence of deep borings, we recommend that this site be classified as Class D (SPT N-value > 15) based on the conditions encountered in the borings down to a depth of 30 feet and assumed for depths between 30 feet and 100 feet. Table 1 provides a summary of the seismic coefficients for the project site.

Table 1

	Seismic Site Coefficient*		Period
Maximum considered earthquake spectral response acceleration	S _{M5}	0.101	0.2 second
	S _{M1}	0.097	1 second

* Multiply coefficient by gravitational acceleration (g)

7.6 Support of Floor Slabs

The subgrade resulting from the proper completion of site preparation operations outlined in a preceding section of this report is considered suitable for the direct support of concrete floor slabs. Floor slabs supported on properly prepared subgrade can be designed on the basis of a modulus of subgrade reaction of 150 pounds per square inch per inch. We recommend that concrete floor slabs be suitably reinforced to control shrinkage cracking and to accommodate normal settlement.

We also recommend that floor slabs be separated from the footings to allow for independent movement. Furthermore, we recommend that a vapor barrier be provided beneath the floor slab to minimize the migration of moisture into the building.

7.7 Pavement Recommendations

The subgrade resulting from the successful completion of earthwork operations should be suitable for the support of pavements. The subgrade materials are expected to exhibit fair to good drainage characteristics and will be slightly susceptible to frost penetration. Assuming proper subgrade preparation and considering the effects of seasonal moisture and temperature variations, an effective California Bearing Ratio (CBR) on the order of 6 to 8 should be achieved.

Due consideration should also be given to design for drainage. This will help minimize detrimental groundwater effects that may shorten the service life of the pavement. The pavement and underlying subgrade should be adequately crowned or sloped to promote effective surface drainage and prevent water ponding.

7.8 Stability of Excavations

Construction excavations may proceed with sloped banks, vertical banks with lateral bracing, or a combination of these methods. In all cases, all applicable regulations prescribed by the OSHA should be followed and adequate protection for workers and existing pavements, structures and utilities must be provided.

For granular soils, OSHA calls for minimum temporary side slopes of 1 H: 1 V for dry sand to 3 H: 1 V for wet "running" sands. Based upon these minimum side slope requirements, the total width of excavation can be limited with proper groundwater control.

The design of all temporary earth support systems should only be performed by experienced and qualified personnel. Furthermore, the design and proposed construction sequence should be submitted and reviewed by the engineer prior to commencement of work.

Construction traffic and excavated material should be kept away from an excavation at a minimum distance equal to the full depth of the excavation unless the resulting surcharge loads are accounted for in the design of the lateral bracing system.

7.9 Closing Remarks and Limitations

The recommendations submitted are based on the available soil information and data regarding the proposed construction provided by the client, plus any assumptions stated herein. The geotechnical engineer should be kept apprised of the progress of the design of this project and any items that deviate from the stated understanding and/or assumptions indicated in this report should be brought to our attention for review and evaluation.

Experience indicates that soil conditions at a site could vary from those generalized on the basis of soil borings made at specific locations. Therefore, it is recommended that the geotechnical engineer be involved in construction monitoring and testing services during the earthwork and foundation installation phases of the proposed project. This is to observe compliance with the

design concepts, specifications and recommendations. Also, field monitoring allows design changes to be made in a timely manner in the event that subsurface conditions differ from those anticipated prior to the start of construction.

This report is intended for specific use in the design and construction of proposed building expansion and other site planned site improvements, as described in this report. This geotechnical study has been conducted in a manner consistent with the level of care ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. The findings, recommendations, and opinions contained herein have been developed in accordance with generally accepted practice in the fields of foundation engineering, soils mechanics, and engineering geology. No other representations, expressed or implied, and no warranty or guarantee is included or intended in this report.

The scope or purpose of this geotechnical evaluation does not specifically or by implication provide an environmental assessment of the proposed site.

Respectfully Submitted,
Prein&Newhof

A handwritten signature in black ink, appearing to read "Christopher J. Cruickshank". The signature is written in a cursive, flowing style.

Christopher Cruickshank, P.E.

Appendix A

Boring Location Plan

Soil Nomenclature

Boring Logs

SOIL NOMENCLATURE AND TERMINOLOGY

DRILLING & SAMPLING DESIGNATIONS:

SS :	Split Spoon Sample (per ASTM D 1586)	HSA :	Hollow Stem Auger
LS :	Split Spoon Sample with 3" Liner Insert	SSA :	Solid Stem Auger
ST :	Shelby Tube Sample - 3" O.D., unless otherwise noted	RB :	Rock Bit (NX; BX; AX)
AS :	Auger Sample	PP :	Pocket Penetrometer Value
BS :	Bulk Sample	VS :	Vane Shear Value
		PM :	Pressuremeter test - in situ

STANDARD PENETRATION TEST (ASTM D-1586): A 2-inch OD, 1½-inch ID split barrel sampler is driven into undisturbed soil by means of repeating blows from a 140-pound hammer falling 30 inches. The sampler is driven three successive 6-inch increments; the total number of blows required for the final 12 inches of penetration is termed the Standard Penetration Resistance (N).

GRADATION DESCRIPTION & TERMINOLOGY:

Granular Soils (coarse-grained) have more than 50% of their dry weight retained on a #200 sieve; they are described as: *Boulders, Cobbles, Gravel* or *Sand*. Fine-Grained Soils have less than 50% of their dry weight retained on a #200 sieve; they are described as: *Clays* or *Clayey Silts* if they are cohesive, and *Silts* if they are non-cohesive. In addition to gradation, granular soils are defined based on their *in-situ density*; fine grained soils are further defined based on their strength or *consistency*, and on their *plasticity*.

Major Soil Component		Gradation Range	Descriptive Term(s) (Of Minor Soil Constituents)	Percent of Dry Weight
Boulders		Over 12 inches (305mm)	Trace	1 - 10
Cobbles		12 inches to 3 inches (305mm to 76mm)	Little	10 - 20
Gravel	Coarse	3 inches to ¾ inches (76mm to 19mm)	Some	20 - 35
	Fine	¾ inches to #4 sieve (19mm to 4.75mm)	And	35 - 50
Sand	Coarse	#4 sieve to #10 sieve (4.75mm to 2.00mm)		
	Medium	#10 sieve to #40 sieve (2.00mm to 0.425mm)		
	Fine	#40 sieve to #200 sieve (0.425mm to 0.074mm)		
Silt		Passing #200 sieve (0.074mm) to 0.005mm		
Clay		Smaller than 0.005mm		

CONSISTENCY OF COHESIVE SOILS:

Unconfined Comp Strength, Qu (tsf)	Consistency
<0.25	Very Soft
0.25 - 0.50	Soft
0.50 - 1.00	Medium (firm)
1.00 - 2.00	Stiff
2.00 - 4.00	Very Stiff
4.00 - 8.00	Hard
>8.00	Very Hard

IN-SITU DENSITY OF GRANULAR SOILS:

N - Blows/ft.	In-Situ Density
0 - 4	Very Loose
5 - 10	Loose
11 - 30	Medium Dense
31 - 50	Dense
50 +	Very Dense

WATER LEVEL MEASUREMENT:

Water levels indicated on the boring logs are the levels measured in the boring at the times indicated. It should be noted that groundwater levels observed during drilling in predominantly cohesive soils are not necessarily indicative of the static groundwater level. This is due to the relatively low permeability of clay soils and the tendency of drilling operations to temporarily seal off natural paths of groundwater migration into the borehole. Additionally, fluctuations in groundwater levels should be anticipated with seasonal variations and following periods of heavy or prolonged precipitation.

Prein & Newhof

Engineers • Surveyors • Environmental • Laboratory

3355 Evergreen Drive NE
Telephone : (616) 364-8491

Grand Rapids, Michigan 49525
Fax : (616) 364-6955

LOG OF SB-1

DESCRIPTION Cascade Township Fire Station

LOCATION 2865 Thomhill Ave, Cascade Township

WATER ENCOUNTERED AT Dry

PROJECT NO : 2210863 INSPECTOR : J. Cruickshank







WATER AFTER COMPLETION Dry Cave-In at 11.0'

DRILLING CONTRACTOR: Rosendall Drilling DRILLER : Jason

START DATE : 10/11/2021 CHECKED BY : 

DRILL RIG : Geoprobe ATV BORING METHOD : Split Spoon (ASTM D-1586)

SURFACE ELEVATION 753+/- TOTAL DEPTH : 20'

SAMPLE	PENETRATION (BLOWS/6")	STD. PEN. N-VALUE	MOISTURE (%)	DRY DENSITY (PCF)	UNCONF. COMP. STRENGTH (PSF)	PID READING (PPM)	DEPTH (FT.)	SYMBOL	SUBSURFACE PROFILE	ELEVATION (FT.)
SS-1	8 8 6	12					0.6'		ASPHALT PAVEMENT	
SS-2	3 4 5	9					1.4'		BASE: DARK BROWN GRAVELY SAND	750
SS-3	3 5 7	12							LOOSE TO MEDIUM DENSE LIGHT BROWN FINE TO MEDIUM SAND (SP)	
SS-4	4 4 5	9					10			745
SS-5	5 8 9	17			3500*		15		MEDIUM DENSE TO DENSE LIGHT BROWN FINE TO COARSE SAND WITH TRACE TO LITTLE GRAVEL AND FREQUENT LENSES OF STIFF TO VERY STIFF SANDY CLAY (SW/CL)	740
SS-6	18 31 18	49					20		END OF BORING	735
							20.0'			730
							25			
							30			725
										720

NOTES : *Pocket Penetrometer Value

Prein & Newhof

Engineers • Surveyors • Environmental • Laboratory

3355 Evergreen Drive NE
Telephone : (616) 364-8491

Grand Rapids, Michigan 49525
Fax : (616) 364-6955

LOG OF SB-2

DESCRIPTION Cascade Township Fire Station

LOCATION 2865 Thornhill Ave, Cascade Township

WATER ENCOUNTERED AT : Dry
WATER AFTER COMPLETION Dry Cave-In at 12.0'







PROJECT NO : 2210863 INSPECTOR : J. Cruickshank

DRILLING CONTRACTOR: Rosendall Drilling DRILLER : Jason

START DATE 10/11/2021 CHECKED BY: 

DRILL RIG: Geoprobe ATV BORING METHOD: Split Spoon (ASTM D-1586)

SURFACE ELEVATION 751+/- TOTAL DEPTH 20'

SAMPLE	PENETRATION (BLOWS/6")	STD. PEN. N-VALUE	MOISTURE (%)	DRY DENSITY (PCF)	UNCONF. COMP. STRENGTH (PSF)	PID READING (PPM)	DEPTH (FT.)	SYMBOL	SUBSURFACE PROFILE	ELEVATION (FT.)
SS-1	8 9 11	20							0.3' ASPHALT PAVEMENT	750
SS-2	8 9 9	18					5		1.0' BASE: BROWN GRAVELLY SAND FILL: MEDIUM DENSE BROWN FINE SAND WITH LITTLE SAND, TRACE TO LITTLE GRAVEL (SM-FILL)	
SS-3	5 7 9	16							3.5' MEDIUM DENSE LIGHT BROWN FINE TO COARSE SAND WITH TRACE GRAVEL (SW)	745
SS-4	6 8 9	17					10		8.5' MEDIUM DENSE LIGHT BROWN FINE TO MEDIUM SAND WITH TRACE GRAVEL (SP)	740
SS-5	8 8 14	22			7000*		15		14.0' MEDIUM DENSE BROWN FINE TO COARSE SAND WITH TRACE TO LITTLE GRAVEL AND FREQUENT LENSES OF VERY STIFF SANDY CLAY (SW-CL)	735
SS-6	7 6 11	17					20		20.0' END OF BORING	730
							25			725
							30			720

NOTES : *Pocket Penetrometer Value

Prein & Newhof

Engineers • Surveyors • Environmental • Laboratory

3355 Evergreen Drive NE
Telephone : (616) 364-8491

Grand Rapids, Michigan 49525
Fax : (616) 364-6955

LOG OF SB-3

DESCRIPTION	Cascade Township Fire Station		
LOCATION	2865 Thornhill Ave, Cascade Township		
PROJECT NO.	2210863	INSPECTOR :	J. Cruickshank
DRILLING CONTRACTOR:	Rosendall Drilling	DRILLER :	Jason
DRILL RIG :	Geoprobe ATV	BORING METHOD :	Split Spoon (ASTM D-1586)
SURFACE ELEVATION	752+/-	TOTAL DEPTH :	20'

WATER ENCOUNTERED AT : Dry

WATER AFTER COMPLETION : Dry Cave-In at 12.2'

START DATE 10/11/2021 CHECKED BY: *CP*

SAMPLE	PENETRATION (BLOWS/6")	STD. PEN. N-VALUE	MOISTURE (%)	DRY DENSITY (PCF)	UNCONF. COMP. STRENGTH (PSF)	PID READING (PPM)	DEPTH (FT.)	SYMBOL	SUBSURFACE PROFILE	ELEVATION (FT.)
SS-1	2 2 3	5							0.5' TOPSOIL: DARK BROWN CLAYEY SILT WITH TRACE ORGANICS LOOSE TO VERY LOOSE LIGHT BROWN TO BROWN FINE TO COARSE SAND WITH TRACE SILT, TRACE TO LITTLE GRAVEL (SW)	750
SS-2	4 2 2	4					5			
SS-3	4 3 5	8								745
SS-4	4 4 5	9					10			
SS-5	7 8 10	18					15		11.0' MEDIUM DENSE LIGHT BROWN FINE TO MEDIUM SAND WITH TRACE GRAVEL AND OCCASIONAL CLAY LENSES (SP)	740
SS-6	5 6 7	13					20		20.0' END OF BORING	735
										730
							25			725
							30			720

NOTES : *Pocket Penetrometer Value

Prein & Newhof

Engineers • Surveyors • Environmental • Laboratory

3355 Evergreen Drive NE
Telephone : (616) 364-8491

Grand Rapids, Michigan 49525
Fax : (616) 364-6955

LOG OF SB-4

DESCRIPTION : Cascade Township Fire Station

LOCATION : 2865 Thornhill Ave, Cascade Township

PROJECT NO. 2210863 INSPECTOR : J. Cruickshank

DRILLING CONTRACTOR: Rosendall Drilling DRILLER : Jason







DRILL RIG : Geoprobe ATV BORING METHOD : Split Spoon (ASTM D-1586)

SURFACE ELEVATION 751+/- TOTAL DEPTH 20'

WATER ENCOUNTERED AT : Dry

WATER AFTER COMPLETION : Dry Cave-In at 12.0'

START DATE : 10/11/2021 CHECKED BY : 

SAMPLE	PENETRATION (BLOWS/6")	STD. PEN. N-VALUE	MOISTURE (%)	DRY DENSITY (PCF)	UNCONF. COMP. STRENGTH (PSF)	PID READING (PPM)	DEPTH (FT.)	SYMBOL	SUBSURFACE PROFILE	ELEVATION (FT.)
SS-1	7 6 5	11							0.3' ASPHALT PAVEMENT	750
SS-2	3 6 10	16					5		1.2' BASE: DARK BROWN GRAVELLY SAND FILL: MEDIUM DENSE BROWN FINE TO MEDIUM SAND WITH TRACE TO LITTLE SILT, TRACE GRAVEL (SP/SM-FILL)	
SS-3	2 3 3	6							6.0' LOOSE TO VERY LOOSE GOLD-BROWN FINE TO COARSE SAND WITH TRACE SILT, TRACE GRAVEL (SP)	745
SS-4	2 2 1	3					10			740
SS-5	15 14 21	35					15		13.0' MEDIUM DENSE TO DENSE BROWN TO DARK BROWN FINE TO COARSE SAND WITH LITTLE GRAVEL, TRACE SILT, TRACE CLAY (SW/SG)	735
SS-6	20 13 10	23					20		20.0' END OF BORING	730
							25			725
							30			720

NOTES : *Pocket Penetrometer Value

Prein & Newhof

Engineers • Surveyors • Environmental • Laboratory

3355 Evergreen Drive NE
Telephone : (616) 364-8491

Grand Rapids, Michigan 49525
Fax : (616) 364-6955

LOG OF SB-5






DESCRIPTION Cascade Township Fire Station
LOCATION: 2865 Thornhill Ave, Cascade Township

WATER ENCOUNTERED AT: Dry
WATER AFTER COMPLETION: Dry Cave-In at 8.5'

PROJECT NO . 2210863 INSPECTOR : J. Cruickshank
DRILLING CONTRACTOR: Rosendall Drilling DRILLER : Jason
DRILL RIG : Geoprobe ATV BORING METHOD : Split Spoon (ASTM D-1586)

START DATE 10/11/2021 CHECKED BY: 

SURFACE ELEVATION 747+/- TOTAL DEPTH . 15'

SAMPLE	PENETRATION (BLOWS/6")	STD. PEN. N-VALUE	MOISTURE (%)	DRY DENSITY (PCF)	UNCONF. COMP. STRENGTH (PSF)	PID READING (PPM)	DEPTH (FT.)	SYMBOL	SUBSURFACE PROFILE	ELEVATION (FT.)
SS-1	4 4 4	8							0.5' TOPSOIL: STIFF DARK BROWN SILTY CLAY WITH TRACE ORGANICS FILL: LOOSE BROWN FINE TO MEDIUM SAND WITH TRACE TO LITTLE SILT, TRACE GRAVEL (SP/SM-FILL)	745
SS-2	1 1 1	2					5		4.0' TOPSOIL: STIFF DARK BROWN SILTY CLAY WITH TRACE ORGANICS (TOPSOIL) 4.3' LOOSE GOLD BROWN FINE TO MEDIUM SAND WITH TRACE SILT, TRACE GRAVEL (SW)	740
SS-3	3 3 3	5								735
SS-4	2 3 3	6					10			730
SS-5	3 4 3	9					15		15.0' END OF BORING	725
							20			720
							25			715
							30			

NOTES : *Pocket Penetrometer Value

Prein & Newhof

Engineers • Surveyors • Environmental • Laboratory

3355 Evergreen Drive NE
Telephone : (616) 364-8491

Grand Rapids, Michigan 49525
Fax : (616) 364-6955

LOG OF SB-6

DESCRIPTION Cascade Township Fire Station

LOCATION 2865 Thornhill Ave, Cascade Township

WATER ENCOUNTERED AT: Dry

PROJECT NO : 2210863 INSPECTOR : J. Cruickshank

WATER AFTER COMPLETION: Dry Cave-In at 9.0'

DRILLING CONTRACTOR: Rosendall Drilling DRILLER : Jason

START DATE: 10/11/2021 CHECKED BY: *[Signature]*

DRILL RIG: Geoprobe ATV BORING METHOD: Split Spoon (ASTM D-1586)

SURFACE ELEVATION : 742+/- TOTAL DEPTH : 15'

SAMPLE	PENETRATION (BLOWS/6")	STD. PEN. N-VALUE	MOISTURE (%)	DRY DENSITY (PCF)	UNCONF. COMP. STRENGTH (PSF)	PID READING (PPM)	DEPTH (FT.)	SYMBOL	SUBSURFACE PROFILE	ELEVATION (FT.)
SS-1	5 6 6	12							0.7' TOPSOIL: DARK BROWN SILTY CLAY WITH TRACE ORGANICS MEDIUM DENSE TO LOOSE GOLD-BROWN FINE TO COARSE SAND WITH TRACE SILT, TRACE GRAVEL (SW)	740
SS-2	4 4 3	7				5				
SS-3	9 15 13	28						6.0' MEDIUM DENSE LIGHT BROWN FINE TO COARSE SAND WITH TRACE TO LITTLE GRAVEL (SW)		735
SS-4	7 9 13	22				10				730
SS-5	7 7 16	23				15				15.0' END OF BORING
							20			725
										720
							25			715
							30			710

NOTES : *Pocket Penetrometer Value

Prein & Newhof

Engineers • Surveyors • Environmental • Laboratory

3355 Evergreen Drive NE
Telephone : (616) 364-8491

Grand Rapids, Michigan 49525
Fax : (616) 364-6955

LOG OF SB-7

DESCRIPTION Cascade Township Fire Station

LOCATION 2865 Thornhill Ave, Cascade Township

WATER ENCOUNTERED AT Dry

PROJECT NO.: 2210863 INSPECTOR: J. Cruickshank



WATER AFTER COMPLETION Dry Cave-In at 9.0'

DRILLING CONTRACTOR: Rosendall Drilling DRILLER: Jason

START DATE: 10/11/2021 CHECKED BY: *CAC*

DRILL RIG: Geoprobe ATV BORING METHOD: Split Spoon (ASTM D-1586)

SURFACE ELEVATION: 740+/- TOTAL DEPTH: 15'

SAMPLE	PENETRATION (BLOWS/6")	STD. PEN. N-VALUE	MOISTURE (%)	DRY DENSITY (PCF)	UNCONF. COMP. STRENGTH (PSF)	PID READING (PPM)	DEPTH (FT.)	SYMBOL	SUBSURFACE PROFILE	ELEVATION (FT.)
SS-1	5 5 6	11							0.6' TOPSOIL: STIFF DARK BROWN SILTY CLAY WITH TRACE ORGANICS	
SS-2	4 5 6	11					5		FILL: MEDIUM DENSE BROWN FINE TO COARSE SAND WITH LITTLE SILT, TRACE GRAVEL (SW-FILL)	
SS-3	6 10 12	22							MEDIUM DENSE LIGHT BROWN FINE TO COARSE SAND WITH TRACE TO LITTLE GRAVEL (SW)	735
SS-4	5 6 10	16					10			730
SS-5	5 8 11	19					15		15.0' END OF BORING	725
							20			720
							25			715
							30			710

NOTES : *Pocket Penetrometer Value
Percolation Test Results at 15', 1' drop in water level every 5 seconds.

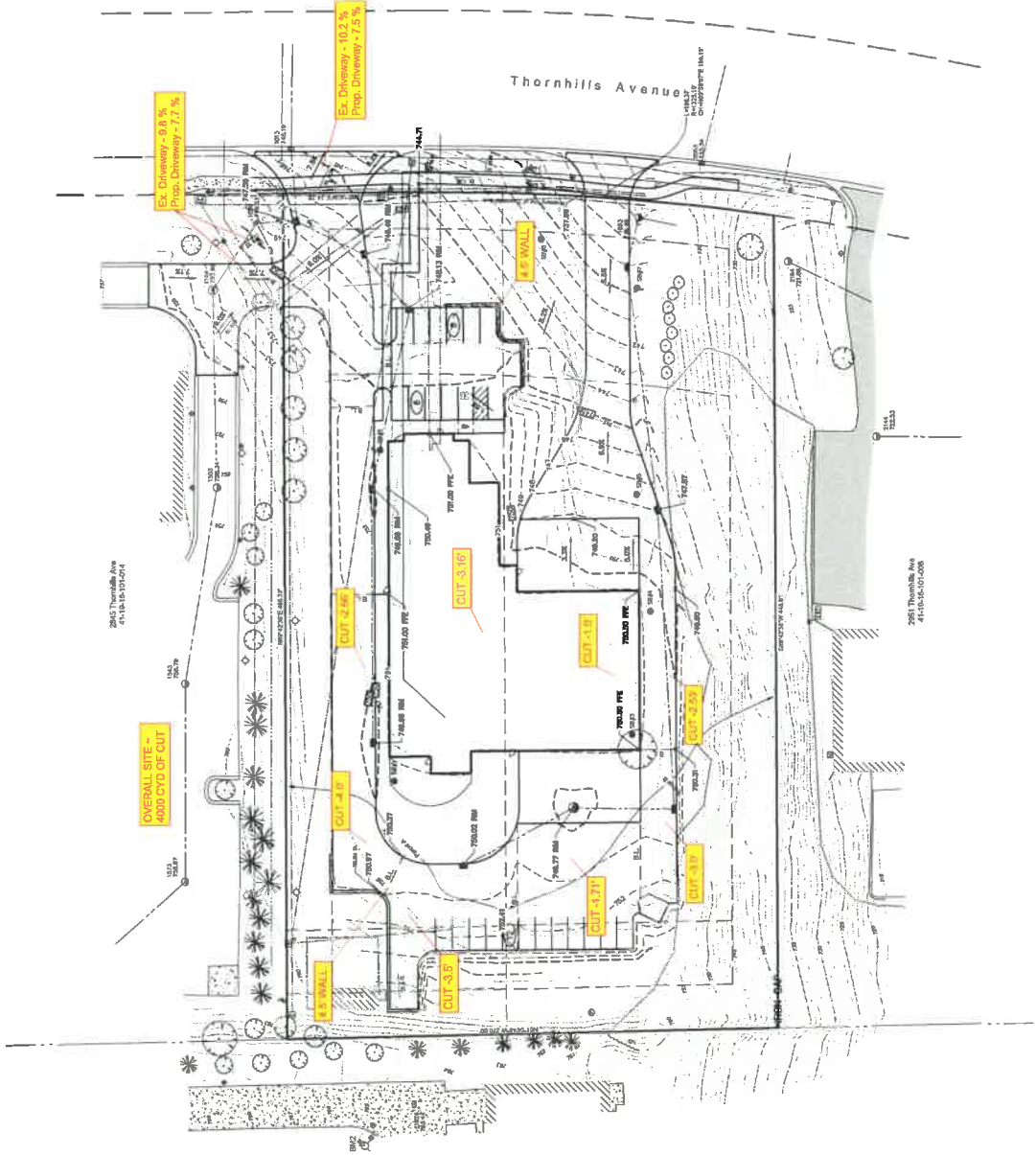


GRADING LEGEND

SPOT ELEVATION	▲ 792.20
FLOW DIRECTION WITH GRADE	— 2.0%
SLOPE LABEL	— 2.1%
CATCH BASIN (EX.) (PROP.)	■
CUT/RET. AND DRAINAGE / SWAMP	▨
W/PAVED & WALK (EX.) (PROP.)	▨
MANHOLE (EX.) (PROP.)	○
UTILITY	○
SHOULDER	—
GRADE BREAK	—
PROP. CONTOUR LINE	—
EX. CONTOUR LINE	—
GRADING LIMIT	—
S&T FENCE	—

GRADING NOTES

- 1. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- 2. ALL DIMENSIONS ARE TO FACE UNLESS NOTED OTHERWISE.
- 3. ALL DIMENSIONS TO BE VERIFIED AT LINE AND MUST NOT EXCEED 1/8".



PROJECT NO.	2211082		
SHEET NO.	X of X		
PREIN & NEWHOF Engineering & Environmental Laboratory			
2851 THORNHILLS AVE SE CASCADE FIRE STATION COMMERCE PARK			
NO.	REV.	DATE	BY

November 15, 2021

Sent via email: amagers@cascadetwp.com

Mr. Adam Magers, Fire Chief
Cascade Charter Township
2865 Thornhills Ave. SE
Grand Rapids, MI 49546-7192

RE: 6450 Air Cargo Drive -Cascade Township Fire Station Lease Space

Dear Adam,

Prein &Newhof is pleased to present our proposal to provide a floor plan for the lease space at the above referenced property.

Sincerely,

Prein&Newhof

A handwritten signature in black ink, appearing to read "John VerPlank". The signature is fluid and cursive, with a long horizontal stroke at the end.

John VerPlank P.E.
JEV

Enclosure(s): Exhibit A

EXHIBIT A

SECTION A – PROJECT OVERVIEW

Cascade Township proposing to make minor improvements to the proposed lease space at 6450 Air Cargo Drive.

The scope of work and fee estimates are detailed in the sections that follow.

SECTION B – SCOPE OF WORK

1. Floor Plan:

- Provide signed/sealed floor plan drawing with callouts for changing two existing doors to fire rated assemblies
- Add plan note to add a fire rated door assembly between the two lease suites
- Add a note to cut and remove the existing concrete floor to add a sink in the kitchenette area

Our proposed notes will be added to the existing floor plan provided by the Township.

SECTION C – COMPENSATION AND SCHEDULE

We propose to provide the above referenced services for the following hourly, not to exceed fee:

Floor plan	\$1,000
------------	---------

We anticipate 1 week to complete the floor plan.

Comerica Securities, Inc.
Chris Theut / Kyle Rademaker
Institutional Sales
248-645-4173

Callable Agency Offers

#1	
Issuer:	FHLB
Cusip	3130APU52
Term (Yrs)	3.75
Coupon	1.000
Call	5/19/2022
Yield to Call	1.001
Call Description	Quarterly
Maturity	8/19/2025
Yield to Maturity	1.000
Price	100.000
Quantity	11000
Settlement Date 11/19/2021	
Principal	\$ 11,000,000.00
Accrued Interest	\$ -
Settlement Amount	\$ 11,000,000.00

#2	
Issuer:	FFCB
Cusip	3133ENDV9
Term (Yrs)	4.00
Coupon	1.030
Call	11/17/2022
Yield to Call	1.181
Call Description	Anytime
Maturity	11/17/2025
Yield to Maturity	1.068
Price	99.850
Quantity	1800
Settlement Date 11/17/2021	
Principal	\$ 1,797,300.00
Accrued Interest	\$ -
Settlement Amount	\$ 1,797,300.00

#3	
Issuer:	FHLB
Cusip	3130APH40
Term (Yrs)	4.93
Coupon	1.060
Call	7/21/2022
Yield to Call	1.881
Call Description	Quarterly
Maturity	10/21/2026
Yield to Maturity	1.175
Price	99.450
Quantity	6000
Settlement Date 11/17/2021	
Principal	\$ 5,967,000.00
Accrued Interest	\$ 22,966.67
Settlement Amount	\$ 5,989,966.67

#4	
Issuer:	FHLB
Cusip	3130APN24
Term (Yrs)	5.00
Coupon	1.280
Call	11/18/2022
Yield to Call	1.280
Call Description	Anytime
Maturity	11/18/2026
Yield to Maturity	1.280
Price	100.000
Quantity	280
Settlement Date 11/18/2021	
Principal	\$ 280,000.00
Accrued Interest	\$ -
Settlement Amount	\$ 280,000.00

#5	
Issuer:	FHLB
Cusip	3130APTJ4
Term (Yrs)	5.00
Coupon	1.250
Call	5/24/2022
Yield to Call	1.250
Call Description	Quarterly
Maturity	11/24/2026
Yield to Maturity	1.250
Price	100.000
Quantity	255
Settlement Date 11/24/2021	
Principal	\$ 255,000.00
Accrued Interest	\$ -
Settlement Amount	\$ 255,000.00

#6	
Issuer:	FHLB
Cusip	3130APTF2
Term (Yrs)	7.00
Coupon	1.650
Call	2/24/2022
Yield to Call	1.650
Call Description	Anytime
Maturity	11/24/2028
Yield to Maturity	1.650
Price	100.000
Quantity	960
Settlement Date 11/24/2021	
Principal	\$ 960,000.00
Accrued Interest	\$ -
Settlement Amount	\$ 960,000.00

#7	
Issuer:	FFCB
Cusip	3133EM6A5
Term (Yrs)	8.85
Coupon	1.570
Call	9/23/2022
Yield to Call	2.466
Call Description	Anytime
Maturity	9/23/2030
Yield to Maturity	1.661
Price	99.250
Quantity	20000
Settlement Date 11/17/2021	
Principal	\$ 19,850,000.00
Accrued Interest	\$ 47,100.00
Settlement Amount	\$ 19,897,100.00

#8	
Issuer:	FFCB
Cusip	3133EM5M0
Term (Yrs)	9.33
Coupon	1.625
Call	12/17/2021
Yield to Call	7.643
Call Description	Anytime
Maturity	3/17/2031
Yield to Maturity	1.683
Price	99.500
Quantity	18000
Settlement Date 11/17/2021	
Principal	\$ 17,910,000.00
Accrued Interest	\$ 48,750.00
Settlement Amount	\$ 17,958,750.00

#9	
Issuer:	FHLB
Cusip	3130APCL7
Term (Yrs)	9.87
Coupon	1.700
Call	9/30/2022
Yield to Call	2.224
Call Description	Quarterly
Maturity	9/30/2031
Yield to Maturity	1.750
Price	99.550
Quantity	14750
Settlement Date 11/17/2021	
Principal	\$ 14,683,625.00
Accrued Interest	\$ 163,684.03
Settlement Amount	\$ 14,847,309.03

Chris Theut

Project No. TBD

Professional Services Agreement

This Professional Services Agreement is made this 15th day of November, 2021 (“Agreement”) by and between Prein & Newhof, Inc. (“P&N”), of 3344 Evergreen Drive, Grand Rapids MI 49525, and Cascade Charter Township (“Client”), of 2865 Thornhills Ave. SE, Grand Rapids MI 49546.

WHEREAS Client intends to:

Remodel the proposed 6450 Air Cargo lease space.

NOW THEREFORE, for and in consideration of the terms and conditions contained herein, the parties agree as follows:

ARTICLE 1 – DESIGNATED REPRESENTATIVES

Client and P&N each designate the following individuals as their representatives with respect to the Project.

For P&N

Name: John VerPlank
Title: Project Manager
Phone Number: 616-250-4457
Facsimile Number: 616-364-4222
E-Mail Address:
jverplank@preinnewhof.com

For Client

Name: Adam Magers
Title: Fire Chief
616-949-1320
Facsimile Number:
E-Mail Address: amagers@cascadetwp.com

ARTICLE 2 – GENERAL CONDITIONS

This Agreement consists of this Professional Services Agreement and the following documents which by this reference are incorporated into and made a part of this Agreement.

- P&N Standard Terms and Conditions for Professional Services
- P&N Proposal dated, November 15, 2021
- P&N Standard Rate Schedule
- P&N Supplemental Terms and Conditions
- Other:

ARTICLE 3 – ENGINEERING SERVICES PROVIDED UNDER THIS AGREEMENT:

Client hereby requests, and P&N hereby agrees to provide, the following services:

- P&N Scope of Services per Proposal dated, November 15, 2021
- Scope of Services defined as follows:

Topographical

ARTICLE 4 – COMPENSATION:

- Lump Sum for Services Described in Article 3 above - \$1,000.00.

Additional services to be billed per P&N's Standard Rate Schedule in effect on the date the additional services are performed.

- Hourly Billing Rates plus Reimbursable Expenses per P&N's Standard Rate Schedule in effect on the date services are performed.
- Other:

ARTICLE 5 – ADDITIONAL TERMS (If any)

The Township only authorized the Phase I ESA

This Agreement constitutes the entire Agreement between P&N and Client and supersedes all prior written or oral understandings. This Agreement may not be altered, modified, or amended, except in writing properly executed by authorized representatives of P&N and Client.

Accepted for:

Accepted for:

Prein&Newhof, Inc.

Enter Client's Name

By: _____

By: _____

Printed Name: Jason Washler, P.E.

Printed Name: Adam Magers

Title: Vice President

Title: Fire Chief

Date: _____

Date: _____

Standard Terms & Conditions

- A. General** - As used in this Prein&Newhof Standard Terms and Conditions for Professional Services (hereinafter “Terms and Conditions”), unless the context otherwise indicates: the term “Agreement” means the Professional Services Agreement inclusive of all documents incorporated by reference including but not limited to this P&N Standard Terms and Conditions for Professional Services; the term “Engineer” refers to Prein & Newhof, Inc.; and the term “Client” refers to the other party to the Professional Services Agreement.

These Terms and Conditions shall be governed in all respects by the laws of the United States of America and by the laws of the State of Michigan.

- B. Standard of Care** - The standard of care for all professional and related services performed or furnished by Engineer under the Agreement will be the care and skill ordinarily used by members of Engineer’s profession of ordinary learning, judgment or skill practicing under the same or similar circumstances in the same or similar community, at the time the services are provided.
- C. Disclaimer of Warranties** - Engineer makes no warranties, expressed or implied, under the Agreement or otherwise.
- D. Construction/Field Observation** - If Client elects to have Engineer provide construction/field observation, client understands that construction/field observation is conducted to reduce, not eliminate the risk of problems arising during construction, and that provision of the service does not create a warranty or guarantee of any type. In all cases, the contractors, subcontractors, and/or any other persons performing any of the construction work, shall retain responsibility for the quality and completeness of the construction work and for adhering to the plans, specifications and other contract documents.
- E. Construction Means and Methods** - Engineer shall not have control or charge of and shall not be responsible for construction means, methods, techniques, sequences, or procedures, or for any safety precautions and programs in connection with the construction work, for the acts or omissions of the Contractor, Subcontractors, or any other persons performing any of the construction work, or for the failure of any of them to carry out the construction work in accordance with the plans, specifications or other contract documents.
- F. Opinions of Probable Costs** – Client acknowledges that Engineer has no control over market or contracting conditions and that Engineer’s opinions of costs are based on experience, judgment, and information available at a specific period of time. Client agrees that Engineer makes no guarantees or warranties, express or implied, that costs will not vary from such opinions.
- G. Client Responsibilities**
1. Client shall provide all criteria, Client Standards, and full information as to the requirements necessary for Engineer to provide the professional services. Client shall designate in writing a person with authority to act on Client’s behalf on all matters related to the Engineer’s services. Client shall assume all responsibility for interpretation of contract documents and construction observation/field observation during times when Engineer has not been contracted to provide such services and shall waive any and all claims against Engineer that may be connected thereto.
 2. In the event the project site is not owned by the Client, the Client must obtain all necessary permission for Engineer to enter and conduct investigations on the project site. It is assumed that the Client possesses all necessary permits and licenses required for conducting the scope of services. Access negotiations may be performed at additional costs. Engineer will take reasonable precaution to minimize damage to land and structures with field equipment. Client assumes responsibility for all costs associated with protection and restoration of project site to conditions existing prior to Engineer’s performance of services.
 3. The Client, on behalf of all owners of the subject project site, hereby grants permission to the Engineer to utilize a small unmanned aerial system (sUAS) for purposes of aerial mapping data acquisition. The Client is responsible to provide required notifications to the property owners of the subject project site and affected properties where the sUAS services will be performed. The Engineer will operate the sUAS in accordance with applicable State and Federal Laws.
- H. Hazardous or Contaminated Materials/Conditions**
1. Client will advise Engineer, in writing and prior to the commencement of its services, of all known or suspected Hazardous or Contaminated Materials/Conditions present at the site.
 2. Engineer and Client agree that the discovery of unknown or unconfirmed Hazardous or Contaminated Materials/Conditions constitutes a changed condition that may require Engineer to renegotiate the scope of or terminate its services. Engineer and Client also agree that the discovery of said Materials/Conditions may make it necessary for Engineer to take immediate measures to protect health, safety, and welfare of those performing Engineer’s services. Client agrees to compensate Engineer for any costs incident to the discovery of said Materials/Conditions.

3. Client acknowledges that Engineer cannot guarantee that contaminants do not exist at a project site. Similarly, a site which is in fact unaffected by contaminants at the time of Engineer's surface or subsurface exploration may later, due to natural phenomena or human intervention, become contaminated. The Client waives any claim against Engineer, and agrees to defend, indemnify and hold Engineer harmless from any claims or liability for injury or loss in the event that Engineer does not detect the presence of contaminants through techniques commonly employed.
4. The Client recognizes that although Engineer is required by the nature of the services to have an understanding of the laws pertaining to environmental issues, Engineer cannot offer legal advice to the Client. Engineer urges that the Client seek legal assistance from a qualified attorney when such assistance is required. Furthermore, the Client is cautioned to not construe or assume that any representations made by Engineer in written or conversational settings constitute a legal representation of environmental law or practice.
5. Unless otherwise agreed to in writing, the scope of services does not include the analysis, characterization or disposal of wastes generated during investigation procedures. Should such wastes be generated during this investigation, the Client will contract directly with a qualified waste hauler and disposal facility.

I. Underground Utilities – To the extent that the Engineer, in performing its services, may impact underground utilities, Engineer shall make a reasonable effort to contact the owners of identified underground utilities that may be affected by the services for which Engineer has been contracted, including contacting the appropriate underground utility locating entities and reviewing utility drawings provided by others. Engineer will take reasonable precautions to avoid damage or injury to **underground** utilities and other underground structures. Client agrees to hold Engineer harmless for any damages to below ground utilities and structures not brought to Engineers attention and/or accurately shown or described on documents provided to Engineer.

J. Insurance

1. Engineer will maintain insurance for professional liability, general liability, worker's compensation, auto liability, and property damage in the amounts deemed appropriate by Engineer. Client will maintain insurance for general liability, worker's compensation, auto liability, and property damage in the amounts deemed appropriate by Client. Upon request, Client and Engineer shall each deliver certificates of insurance to the other evidencing their coverages.
2. Client shall require Contractors to purchase and maintain commercial general liability insurance and other insurance as specified in project contract documents. Client shall cause Engineer, Engineer's consultants, employees, and agents to be listed as additional insureds with respect to any Client or Contractor insurances related to projects for which Engineer provides services. Client agrees and must have Contractors agree to have their insurers endorse these policies to reflect that, in the event of payment of any loss or damages, subrogation rights under these Terms and Conditions are hereby waived by the insurer with respect to claims against Engineer.

K. Limitation of Liability - The total liability, in the aggregate, of Engineer and Engineer's officers, directors, partners, employees, agents, and consultants, whether jointly, severally or individually, to Client and anyone claiming by, through, or under Client, for any and all injuries, losses, damages and expenses, whatsoever, arising out of, resulting from, or in any way related to the Project or the Agreement, including but not limited to the performance of services under the Agreement, from any cause or causes whatsoever, including but not limited to the negligence, professional errors or omissions, strict liability or breach of contract or warranty, expressed or implied, of Engineer or Engineer's officers, directors, partners, employees, agents, consultants, or any of them, shall not exceed the amount of the compensation paid to Engineer under this Agreement, or the sum of fifty thousand dollars and no cents (\$50,000.00), whichever is less. Recoverable damages shall be limited to those that are direct damages. Engineer shall not be responsible for or held liable for special, indirect or consequential losses or damages, including but not limited to loss of use of equipment or facility, and loss of profits or revenue.

Client acknowledges that Engineer is a corporation and agrees that any claim made by Client arising out of any act or omission of any director, officer, or employee of Engineer, in the execution or performance of the Agreement, shall be made against Engineer and not against such director, officer, or employee.

L. Documents and Data

1. All documents prepared or furnished by Engineer under the Agreement are Engineer's instruments of service, and are and shall remain the property of Engineer.
2. Hard copies of any documents provided by Engineer shall control over documents furnished in electronic format. Client recognizes that data provided in electronic format can be corrupted or modified by the Client or others, unintentionally or otherwise. Consequently, the use of any data, conclusions or information obtained or derived from electronic media provided by Engineer will be at the Client's sole risk and without any liability, risk or legal exposure to Engineer, its employees, officers or consultants.

3. Any extrapolations, conclusions or assumptions derived by the Client or others from the data provided to the Client, either in hard copy or electronic format, will be at the Client's sole risk and full legal responsibility.
- M. Differing Site Conditions** - Client recognizes that actual site conditions may vary from the assumed site conditions or test locations used by Engineer as the basis of its design. Consequently, Engineer does not guarantee or warrant that actual site conditions will not vary from those used as the basis of Engineer's design, interpretations and recommendations. Engineer is not responsible for any costs or delays attributable to differing site conditions.
- N. Terms of Payment** - Unless alternate terms are included in the Agreement, Client will be invoiced on a monthly basis until the completion of the **Project**. All monthly invoices are payable within 30 days of the date of the invoice. Should full payment of any invoice not be received within 30 days, the amount due shall bear a service charge of 1.5 percent per month or 18 percent per year plus the cost of collection, including reasonable attorney's fees. If Client has any objections to any invoice submitted by Engineer, Client must so advise Engineer in writing within fourteen (14) days of receipt of the invoice. Unless otherwise agreed, Engineer shall invoice Client based on hourly billing rates and direct costs current at the time of service performance. Outside costs such as, but not limited to, equipment, meals, lodging, fees, and subconsultants shall be actual costs plus 10 percent. In addition to any other remedies Engineer may have, Engineer shall have the absolute right to cease performing any services in the event payment has not been made on a current basis.
- O. Termination** - Either party may terminate services, either in part or in whole, by providing 10 calendar days written notice thereof to the other party. In such an event, Client shall pay Engineer for all services performed prior to receipt of such notice of **termination**, including reimbursable expenses, and for any shut-down costs incurred. Shut-down costs may, at Engineer's discretion, include expenses incurred for completion of analysis and records necessary to document Engineer's files and to protect its professional reputation.
- P. Severability and Waiver of Provisions** - Any provision or part of the Agreement held to be void or unenforceable under any laws or regulations shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Client and P&N, who agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable **provision** that comes as close as possible to expressing the intention of the stricken provision. Non-enforcement of any provision by either party shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of the Agreement.
- Q. Dispute Resolution** - If a dispute arises between the parties relating to the Agreement, the parties agree to use the following procedure prior to either party pursuing other available remedies:
1. Prior to commencing a lawsuit, the parties must attempt mediation to resolve any dispute. The parties will jointly appoint a mutually acceptable person not affiliated with either of the parties to act as mediator. If the parties are unable to agree on the mediator within twenty (20) calendar days, they shall seek assistance in such regard from the Circuit Court of the State and County wherein the Project is located, who shall appoint a mediator. Each party shall be responsible for paying all costs and expenses incurred by it, but shall split equally the fees and expenses of the mediator. The mediation shall proceed in accordance with the procedures established by the mediator.
 2. The parties shall pursue mediation in good faith and in a timely manner. In the event the mediation does not result in resolution of the dispute within thirty (30) calendar days, then, upon seven (7) calendar days' written notice to the other party, either party may pursue any other available remedy.
 3. In the event of any litigation arising from the Agreement, including without limitation any action to enforce or interpret any terms or conditions or performance of services under the Agreement, Engineer and Client agree that such action will be brought in the District or Circuit Court for the County of Kent, State of Michigan (or, if the federal courts have exclusive jurisdiction over the subject matter of the dispute, in the U.S. District Court for the Western District of Michigan), and the parties hereby submit to the exclusive jurisdiction of said court.
- R. Force Majeure** - Engineer shall not be liable for any loss or damage due to failure or delay in rendering any services called for under the Agreement resulting from any cause beyond Engineer's reasonable control.
- S. Assignment** - Neither party shall assign its rights, interests or obligations under this Agreement without the express written consent of the other party.
- T. Modification** - The Agreement may not be modified except in writing signed by the party against whom a modification is sought to be enforced.
- U. Survival** - All express representations, indemnifications, or limitations of liability included in the Agreement shall survive its completion or termination for any reason.
- V. Third-Party Beneficiary** - Client and Engineer agree that it is not intended that any provision of this Agreement establishes a third party beneficiary giving or allowing any claim or right of action whatsoever by a third party.

Fiscal Year 2021 Assistance to Firefighters Grant Program - Frequently Asked Questions

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FEMA

New for Fiscal Year (FY) 2021

The FY 2021 Assistance to Firefighters Grant (AFG) Program Notice of Funding Opportunity (NOFO) contains changes to definitions, descriptions, and priority categories from FY 2020. Changes to the FY 2021 AFG Program NOFO include:

- Under the Personal Protective Equipment (PPE) Activity:
 - Inclusion of pre-scoring emphasis for this Activity to ensure replacing out-of-service and non-compliant PPE is of high priority
 - The following PPE priorities and definitions have been updated:
 - Increase supply for **new hire/existing firefighters** that do not have one set of turnout gear (PPE) or allocated seated position (self-contained breathing apparatus [SCBA]); this includes replacing **out-of-service** PPE and SCBA as High Priority
 - Replace **in-service/in-use/damaged/unsafe/unrepairable** PPE or SCBA to meet current standard as High Priority
 - Replace **in-service/in-use/expired/noncompliant** PPE or SCBA to current standard as High Priority
 - Upgrade technology to current standard as Low Priority
- Additional considerations for PPE and SCBA:
 - The applicant's call volume has a lesser impact on scoring and therefore the final funding decision
- Under the Equipment Activity, the following priorities and definitions have been updated:
 - Obtain equipment to achieve minimum operational and deployment standards for existing missions as High Priority
 - Replace non-compliant equipment to current standard as High Priority
 - Obtain equipment for new mission as Medium Priority
 - Upgrade technology to current standard as Low Priority
- Under Supporting Definitions:
 - Paid on-call/stipend departments are added to the definition of Combination Fire Department
 - Firefighting personnel definition is added
- Under Modifications to Facility Activity:
 - New first-time installation of exhaust, sprinkler, carbon monoxide and/or smoke/fire detection systems are now listed as High Priority, while replacement or update/upgrade to existing systems is considered Low Priority
- Under Equipment Activity List:
 - Respirator decontamination system is added as Medium Priority

- Under Additions to the Application:
 - Question about frequency of live fire training is added for statistical purposes only
 - Question about self-inflicted fatalities within the department is added for statistical purposes only
 - Question regarding quantity of equipped advanced life support response vehicles (transport and non-transport) is added
- Under Allocations and Restrictions of Available Grant Funds by Organization Type:
 - Outlined the funding available for Micro Grants applications
- Under Application Tips:
 - Recommendation to consider non-Per- and polyfluoroalkyl substances (PFAS) gear purchase

Web Address to Apply

The online FY 2021 AFG Program application is only available in the AFG Program's FEMA GO (FEMA Grants Outcomes) application portal at <https://go.fema.gov>.

Applicants must complete the following in order to start, complete, and submit an AFG Program Application:

The applicant organization must provide a valid Dun & Bradstreet Data Universal Numbering System (DUNS) number registered in the System for Award Management (SAM to apply in FEMA GO. Instructions for obtaining a DUNS number can be found online at <https://www.grants.gov/web/grants/applicants/organization-registration/step-1-obtain-duns-number.html>.

The applicant organization must be currently registered and active in SAM in order to apply. Further, the applicant must stay active in SAM for the entirety of the application period, otherwise they may not be selected for an award. SAM registration is available at Grants.gov: <http://www.grants.gov/web/grants/register.html>.

Overmatch

In the application narrative, an organization may indicate a voluntary pledge to commit additional financial support toward a project(s) cost, which is in addition to their cost share obligation as detailed in the NOFO and required by law. FEMA will not account for this promised additional funding in the award budget.

Environmental Planning and Historic Preservation (EHP)

It is FEMA policy that actions initiated and/or completed without fulfilling the specific EHP requirements will not be considered for funding.

All Modifications to Facility activities will require an EHP review. Any renovation to the facilities and installation of equipment under Training, Equipment, PPE, or Wellness and Fitness activities will require an EHP review, as well. Such activities include, but are not limited to, the installation of fixed air compressor/fill station/cascade system, air quality systems, fire/smoke/carbon monoxide alarm systems, sprinkler systems, fixed generators, fixed vehicle exhaust systems and washer/dryer/extractor installation.

The EHP Screening form and instructions are available at [EHP Screening Form](#). EHP policy guidance can be found at the [Preparedness Grants EHP Compliance webpage](#). Recipients will be notified of their EHP responsibilities in the grant award package.

Excess Funds

After completing the awarded projects, some recipients may have unexpended funds remaining in their budget. These excess funds may result from any combination of under-budget acquisition activities or competitive procurement processes. The excess funds threshold is \$10,000. The funding may be used to enhance the awarded activities.

No amendment request is necessary unless the recipient wants to use excess funds for another funding activity or the item the recipient intends to purchase will require an EHP review. For more details, please see Appendix C (V) Excess Funds in the FY 2021 AFG Program NOFO.

- Excess funds cannot be used to support Fire Prevention and Safety activities
- The opportunity for excess funds is limited when the original uncompleted Scope of Work is changed via an amendment
- Excess funds cannot be used for grant writer/preparer fees
- Excess funds may only be used for allowable activities identified in the FY 2021 AFG Program NOFO
- Excess funds are limited to the purchase of High Priority AFG Program items only

Help FEMA Prevent Fraud, Waste and Abuse

If you have information about instances of fraud, waste, abuse or mismanagement involving FEMA programs or operations, contact the Department of Homeland Security Office of Inspector General Hotline at 1-800- 323-8603; by fax at 202-254-4297; or online at <https://www.oig.dhs.gov/hotline>. All procurement activity must be conducted in accordance with Federal Procurement Standards at 2 C.F.R. §§ 200.317 - 200.326.

National Fire Protection Association (NFPA)

Relevant standards that should be referenced in your applications may be viewed at no cost during the AFG Program application period at [NFPA Free Access](#).

Eligible Applicants

Eligible applicants include Fire Departments, Nonaffiliated Emergency Medical Service Organizations, and State Fire Training Academies.

Standard for Ambulances

Ambulances must meet NFPA 1917: Standard for Automotive Ambulances, Edition 2019 or General Services Administration Federal Standard KKK-A-1822 <http://standards.globalspec.com/std/1588426/gsa-kkk-a-1822>.

System for Award Management (SAM)

Applicant registration in SAM is free. All applicants **must** be registered and active in order to apply online. Step-by-step instructions for registering with SAM can be found at

<http://www.grants.gov/web/grants/applicants/organization-registration/step-2-register-with-sam.html>.

Please remember that SAM registration is only active for one year and must be renewed annually.

Existing SAM.gov account holders should check their account to make sure it is active. SAM registration should be completed at the very beginning of the application period and renewed annually to avoid being inactive.

FEMA may not make a federal award to an applicant until the applicant has complied with all applicable DUNS and SAM requirements, including being active in SAM for the entirety of the application period. If an applicant has not fully complied with the requirements by the time FEMA is ready to make a federal award, FEMA may determine that the applicant is not qualified to receive a federal award and make a federal award to another applicant.

May I change or edit my application after it has been submitted?

You will be able to review or edit the entire application prior to submission. However, if you would like to edit or change your application after submission, you will have to withdraw the application from consideration of award to edit. Then, the application must be resubmitted to FEMA to be considered for an award.

Where can I find a copy of the EHP review screening form?

EHP Guidance can be found at <https://www.fema.gov/grants/preparedness/preparedness-grants-ehp-compliance>, and the EHP Screening Form can be found at https://www.fema.gov/sites/default/files/documents/fema_ehp-screening_form_ff-207-fy-21-100_5-26-2021.pdf

What is Management and Administration (M&A)?

M&A costs are administrative expenses that are incurred during the administration of an AFG Program award. Applicants may apply for M&A costs if the costs are directly related to the implementation of the program for which they are applying. M&A costs are identifiable costs directly associated with the implementation and management of the grant and cannot exceed 3% of the award. If you are requesting M&A expenses, you must list the costs under the "Other" category in the budget and explain the purpose for the administrative costs in your Project Narrative. All M&A costs must be in accordance with 2 C.F.R. Part 225, Cost Principles for state, local and Indian Tribal Governments (OMB Circular A-87) or 2 C.F.R. Part 230, Cost Principles for Non-Profit Organizations (OMB Circular A-122), as applicable.

M&A costs should be based on actual expenses only, not a percentage of the overall grant. Examples of eligible administrative costs include shipping, office supplies, and computers and software associated with the National Fire Incident Reporting System (NFIRS) reporting requirements. Grant funds may not be used for insurance, Internet service provider fees, or any similar monthly service fees.

Is reporting to the NFIRS required to apply for and be awarded an AFG Program grant?

NFIRS reporting is strongly encouraged for all fire departments (as defined by 15 USC § 2229(a)(7)) but is not a requirement to apply for AFG Program funds. However, fire departments that receive funding under this program

must agree to provide information to NFIRS for the period covered by the assistance. If a recipient does not currently participate in NFIRS and does not have the capacity to report at the time of the award, that recipient must agree to provide information to the system for the length of the grant period of performance commencing as soon as possible after they develop the capacity to report. Capacity to report to NFIRS must be established prior to the termination of the performance period. The recipient may be asked by FEMA to provide proof of compliance in reporting to NFIRS. Any recipient that stops reporting to NFIRS during their grant's period of performance is subject to having their award(s) modified or withdrawn. NFIRS reporting requirements do not apply to nonaffiliated emergency medical service (EMS) organizations and State Fire Training Academies (SFTAs).

Are training props that support the delivery of training by SFTAs eligible under the AFG Program?

FEMA recognizes the unique mission of SFTAs to deliver training to firefighters and EMS personnel throughout their state. SFTAs are allowed to request firefighting equipment items, PPE, and vehicles, including props and items in support of training activities.

What are Community Paramedics and what is their role?

Community Paramedics are paramedics with Primary Care certification. The Community Paramedic is considered as a back-up emergency response unit and should be immediately available to respond to a scene, arrange appointments, and transport patients to alternate destinations through established partnerships or direct field communication. Established alternative destinations should include walk-in clinics, mental health triage, social detox facilities, shelters and homeless services, and in-home assistance services, among others. These paramedics also schedule in-home evaluation of high-risk patients following hospital discharge. The paramedics can assess and report to the referring physicians using standard field tools including EKG, blood glucose, pulse oximetry, venous lactate, end-tidal carbon dioxide, along with the standard vital signs and optional blood draws along with the immediate availability of transport and treatment if needed.

A Community Paramedic Program should seek to establish a sustainable model for improving the use of existing EMS providers through scope of practice flexibility and coordination with other health providers. A Community Paramedic Program has the potential to: 1) reduce health system expenditures; 2) become self-sustaining; and 3), enhance public health and safety by meaningfully supporting the health and social welfare needs of the community.

What is a Micro Grant?

Fire departments and nonaffiliated EMS organizations have a voluntary funding limitation choice (within the application) for any AFG Program Operations and Safety program activity. Micro Grants are not an additional funding opportunity, but applicants may receive additional consideration for an award.

The selection of the voluntary Micro Grant option (cumulative federal participation of no more than \$50,000) for eligible Operations and Safety activities does not impact an applicant's request or federal participation under the Vehicle Acquisition or Regional programs. Applicants that select Micro Grants as a funding opportunity choice may receive additional consideration for award. Please see the section on Micro Grants in the FY 2021 AFG Program NOFO.

When does the AFG Program period of performance start?

Recipients are notified via email and through the FEMA GO system of the award offer. The recipient shall notify the awarding agency of its intent to accept or decline the award. Recipients must accept their grant awards no later than 30 days from the award date. Funds remain on hold (for a maximum of 90 days) until the recipient accepts or declines the award. The grant award date can be found in the award agreement within the Obligating Document for Award in section "14. - Performance Period."

How do I obtain a user ID and/or password to access the FEMA GO system if I do not have the user ID and password of the person who submitted our applications in the past?

To create a new account, register an organization, or add a user to an organization, follow the instructions in the [FEMA GO User Registration Guide](#). Applications are only being accepted through FEMA GO. This is the system of record for FEMA AFG Program grants. An account must be created for each user and assigned to the organization by the Authorized Organization Representative.

Information on how to sign up as a FEMA GO user can be found at <https://go.fema.gov> and in the [FEMA GO User Registration Guide](#).

When must an applicant achieve the level of National Incident Management System (NIMS) compliance if awarded an AFG Program grant?

Any applicant that receives an AFG Program award must achieve the level of NIMS compliance required by the authority having command and control jurisdiction over the applicant's emergency service operations, prior to the end of the grant's period of performance. AFG Program applicants are not required to be in compliance with NIMS either to apply for or receive AFG Program funding.

Where can I find AFG Program documents and other information?

You can find AFG Program documents and additional information on the [Assistance to Firefighters Grant Webpage](#).

November 15, 2021

Sent via email: amagers@cascadetwp.com

Mr. Adam Magers, Fire Chief
Cascade Charter Township
2865 Thornhills Ave. SE
Grand Rapids, MI 49546-7192

RE: 6450 Air Cargo Drive -Cascade Township Fire Station Lease Space

Dear Adam,

Prein &Newhof is pleased to present our proposal to provide a floor plan for the lease space at the above referenced property.

Sincerely,

Prein&Newhof

A handwritten signature in black ink, appearing to read "John VerPlank". The signature is fluid and cursive, with a long horizontal stroke at the end.

John VerPlank P.E.
JEV

Enclosure(s): Exhibit A

EXHIBIT A

SECTION A – PROJECT OVERVIEW

Cascade Township proposing to make minor improvements to the proposed lease space at 6450 Air Cargo Drive.

The scope of work and fee estimates are detailed in the sections that follow.

SECTION B – SCOPE OF WORK

1. Floor Plan:

- Provide signed/sealed floor plan drawing with callouts for changing two existing doors to fire rated assemblies
- Add plan note to add a fire rated door assembly between the two lease suites
- Add a note to cut and remove the existing concrete floor to add a sink in the kitchenette area

Our proposed notes will be added to the existing floor plan provided by the Township.

SECTION C – COMPENSATION AND SCHEDULE

We propose to provide the above referenced services for the following hourly, not to exceed fee:

Floor plan	\$1,000
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We anticipate 1 week to complete the floor plan.

Project No. TBD

Professional Services Agreement

This Professional Services Agreement is made this 15th day of November, 2021 (“Agreement”) by and between Prein & Newhof, Inc. (“P&N”), of 3344 Evergreen Drive, Grand Rapids MI 49525, and Cascade Charter Township (“Client”), of 2865 Thornhills Ave. SE, Grand Rapids MI 49546.

WHEREAS Client intends to:

Remodel the proposed 6450 Air Cargo lease space.

NOW THEREFORE, for and in consideration of the terms and conditions contained herein, the parties agree as follows:

ARTICLE 1 – DESIGNATED REPRESENTATIVES

Client and P&N each designate the following individuals as their representatives with respect to the Project.

For P&N

Name: John VerPlank
Title: Project Manager
Phone Number: 616-250-4457
Facsimile Number: 616-364-4222
E-Mail Address:
jverplank@preinnewhof.com

For Client

Name: Adam Magers
Title: Fire Chief
616-949-1320
Facsimile Number:
E-Mail Address: amagers@cascadetwp.com

ARTICLE 2 – GENERAL CONDITIONS

This Agreement consists of this Professional Services Agreement and the following documents which by this reference are incorporated into and made a part of this Agreement.

- P&N Standard Terms and Conditions for Professional Services
- P&N Proposal dated, November 15, 2021
- P&N Standard Rate Schedule
- P&N Supplemental Terms and Conditions
- Other:

ARTICLE 3 – ENGINEERING SERVICES PROVIDED UNDER THIS AGREEMENT:

Client hereby requests, and P&N hereby agrees to provide, the following services:

- P&N Scope of Services per Proposal dated, November 15, 2021
- Scope of Services defined as follows:

Topographical

ARTICLE 4 – COMPENSATION:

- Lump Sum for Services Described in Article 3 above - \$1,000.00.

Additional services to be billed per P&N’s Standard Rate Schedule in effect on the date the additional services are performed.

- Hourly Billing Rates plus Reimbursable Expenses per P&N’s Standard Rate Schedule in effect on the date services are performed.
- Other:

ARTICLE 5 – ADDITIONAL TERMS (If any)

The Township only authorized the Phase I ESA

This Agreement constitutes the entire Agreement between P&N and Client and supersedes all prior written or oral understandings. This Agreement may not be altered, modified, or amended, except in writing properly executed by authorized representatives of P&N and Client.

Accepted for:

Accepted for:

Prein&Newhof, Inc.

Enter Client's Name

By: _____

By: _____

Printed Name: Jason Washler, P.E.

Printed Name: Adam Magers

Title: Vice President

Title: Fire Chief

Date: _____

Date: _____

Standard Terms & Conditions

- A. General** - As used in this Prein&Newhof Standard Terms and Conditions for Professional Services (hereinafter “Terms and Conditions”), unless the context otherwise indicates: the term “Agreement” means the Professional Services Agreement inclusive of all documents incorporated by reference including but not limited to this P&N Standard Terms and Conditions for Professional Services; the term “Engineer” refers to Prein & Newhof, Inc.; and the term “Client” refers to the other party to the Professional Services Agreement.

These Terms and Conditions shall be governed in all respects by the laws of the United States of America and by the laws of the State of Michigan.

- B. Standard of Care** - The standard of care for all professional and related services performed or furnished by Engineer under the Agreement will be the care and skill ordinarily used by members of Engineer’s profession of ordinary learning, judgment or skill practicing under the same or similar circumstances in the same or similar community, at the time the services are provided.
- C. Disclaimer of Warranties** - Engineer makes no warranties, expressed or implied, under the Agreement or otherwise.
- D. Construction/Field Observation** - If Client elects to have Engineer provide construction/field observation, client understands that construction/field observation is conducted to reduce, not eliminate the risk of problems arising during construction, and that provision of the service does not create a warranty or guarantee of any type. In all cases, the contractors, subcontractors, and/or any other persons performing any of the construction work, shall retain responsibility for the quality and completeness of the construction work and for adhering to the plans, specifications and other contract documents.
- E. Construction Means and Methods** - Engineer shall not have control or charge of and shall not be responsible for construction means, methods, techniques, sequences, or procedures, or for any safety precautions and programs in connection with the construction work, for the acts or omissions of the Contractor, Subcontractors, or any other persons performing any of the construction work, or for the failure of any of them to carry out the construction work in accordance with the plans, specifications or other contract documents.
- F. Opinions of Probable Costs** – Client acknowledges that Engineer has no control over market or contracting conditions and that Engineer’s opinions of costs are based on experience, judgment, and information available at a specific period of time. Client agrees that Engineer makes no guarantees or warranties, express or implied, that costs will not vary from such opinions.

G. Client Responsibilities

1. Client shall provide all criteria, Client Standards, and full information as to the requirements necessary for Engineer to provide the professional services. Client shall designate in writing a person with authority to act on Client’s behalf on all matters related to the Engineer’s services. Client shall assume all responsibility for interpretation of contract documents and construction observation/field observation during times when Engineer has not been contracted to provide such services and shall waive any and all claims against Engineer that may be connected thereto.
2. In the event the project site is not owned by the Client, the Client must obtain all necessary permission for Engineer to enter and conduct investigations on the project site. It is assumed that the Client possesses all necessary permits and licenses required for conducting the scope of services. Access negotiations may be performed at additional costs. Engineer will take reasonable precaution to minimize damage to land and structures with field equipment. Client assumes responsibility for all costs associated with protection and restoration of project site to conditions existing prior to Engineer’s performance of services.
3. The Client, on behalf of all owners of the subject project site, hereby grants permission to the Engineer to utilize a small unmanned aerial system (sUAS) for purposes of aerial mapping data acquisition. The Client is responsible to provide required notifications to the property owners of the subject project site and affected properties where the sUAS services will be performed. The Engineer will operate the sUAS in accordance with applicable State and Federal Laws.

H. Hazardous or Contaminated Materials/Conditions

1. Client will advise Engineer, in writing and prior to the commencement of its services, of all known or suspected Hazardous or Contaminated Materials/Conditions present at the site.
2. Engineer and Client agree that the discovery of unknown or unconfirmed Hazardous or Contaminated Materials/Conditions constitutes a changed condition that may require Engineer to renegotiate the scope of or terminate its services. Engineer and Client also agree that the discovery of said Materials/Conditions may make it necessary for Engineer to take immediate measures to protect health, safety, and welfare of those performing Engineer’s services. Client agrees to compensate Engineer for any costs incident to the discovery of said Materials/Conditions.

3. Client acknowledges that Engineer cannot guarantee that contaminants do not exist at a project site. Similarly, a site which is in fact unaffected by contaminants at the time of Engineer's surface or subsurface exploration may later, due to natural phenomena or human intervention, become contaminated. The Client waives any claim against Engineer, and agrees to defend, indemnify and hold Engineer harmless from any claims or liability for injury or loss in the event that Engineer does not detect the presence of contaminants through techniques commonly employed.
4. The Client recognizes that although Engineer is required by the nature of the services to have an understanding of the laws pertaining to environmental issues, Engineer cannot offer legal advice to the Client. Engineer urges that the Client seek legal assistance from a qualified attorney when such assistance is required. Furthermore, the Client is cautioned to not construe or assume that any representations made by Engineer in written or conversational settings constitute a legal representation of environmental law or practice.
5. Unless otherwise agreed to in writing, the scope of services does not include the analysis, characterization or disposal of wastes generated during investigation procedures. Should such wastes be generated during this investigation, the Client will contract directly with a qualified waste hauler and disposal facility.

I. Underground Utilities – To the extent that the Engineer, in performing its services, may impact underground utilities, Engineer shall make a reasonable effort to contact the owners of identified underground utilities that may be affected by the services for which Engineer has been contracted, including contacting the appropriate underground utility locating entities and reviewing utility drawings provided by others. Engineer will take reasonable precautions to avoid damage or injury to **underground** utilities and other underground structures. Client agrees to hold Engineer harmless for any damages to below ground utilities and structures not brought to Engineers attention and/or accurately shown or described on documents provided to Engineer.

J. Insurance

1. Engineer will maintain insurance for professional liability, general liability, worker's compensation, auto liability, and property damage in the amounts deemed appropriate by Engineer. Client will maintain insurance for general liability, worker's compensation, auto liability, and property damage in the amounts deemed appropriate by Client. Upon request, Client and Engineer shall each deliver certificates of insurance to the other evidencing their coverages.
2. Client shall require Contractors to purchase and maintain commercial general liability insurance and other insurance as specified in project contract documents. Client shall cause Engineer, Engineer's consultants, employees, and agents to be listed as additional insureds with respect to any Client or Contractor insurances related to projects for which Engineer provides services. Client agrees and must have Contractors agree to have their insurers endorse these policies to reflect that, in the event of payment of any loss or damages, subrogation rights under these Terms and Conditions are hereby waived by the insurer with respect to claims against Engineer.

K. Limitation of Liability - The total liability, in the aggregate, of Engineer and Engineer's officers, directors, partners, employees, agents, and consultants, whether jointly, severally or individually, to Client and anyone claiming by, through, or under Client, for any and all injuries, losses, damages and expenses, whatsoever, arising out of, resulting from, or in any way related to the Project or the Agreement, including but not limited to the performance of services under the Agreement, from any cause or causes whatsoever, including but not limited to the negligence, professional errors or omissions, strict liability or breach of contract or warranty, expressed or implied, of Engineer or Engineer's officers, directors, partners, employees, agents, consultants, or any of them, shall not exceed the amount of the compensation paid to Engineer under this Agreement, or the sum of fifty thousand dollars and no cents (\$50,000.00), whichever is less. Recoverable damages shall be limited to those that are direct damages. Engineer shall not be responsible for or held liable for special, indirect or consequential losses or damages, including but not limited to loss of use of equipment or facility, and loss of profits or revenue.

Client acknowledges that Engineer is a corporation and agrees that any claim made by Client arising out of any act or omission of any director, officer, or employee of Engineer, in the execution or performance of the Agreement, shall be made against Engineer and not against such director, officer, or employee.

L. Documents and Data

1. All documents prepared or furnished by Engineer under the Agreement are Engineer's instruments of service, and are and shall remain the property of Engineer.
2. Hard copies of any documents provided by Engineer shall control over documents furnished in electronic format. Client recognizes that data provided in electronic format can be corrupted or modified by the Client or others, unintentionally or otherwise. Consequently, the use of any data, conclusions or information obtained or derived from electronic media provided by Engineer will be at the Client's sole risk and without any liability, risk or legal exposure to Engineer, its employees, officers or consultants.

3. Any extrapolations, conclusions or assumptions derived by the Client or others from the data provided to the Client, either in hard copy or electronic format, will be at the Client's sole risk and full legal responsibility.
- M. Differing Site Conditions** - Client recognizes that actual site conditions may vary from the assumed site conditions or test locations used by Engineer as the basis of its design. Consequently, Engineer does not guarantee or warrant that actual site conditions will not vary from those used as the basis of Engineer's design, interpretations and recommendations. Engineer is not responsible for any costs or delays attributable to differing site conditions. .
- N. Terms of Payment** - Unless alternate terms are included in the Agreement, Client will be invoiced on a monthly basis until the completion of the **Project**. All monthly invoices are payable within 30 days of the date of the invoice. Should full payment of any invoice not be received within 30 days, the amount due shall bear a service charge of 1.5 percent per month or 18 percent per year plus the cost of collection, including reasonable attorney's fees. If Client has any objections to any invoice submitted by Engineer, Client must so advise Engineer in writing within fourteen (14) days of receipt of the invoice. Unless otherwise agreed, Engineer shall invoice Client based on hourly billing rates and direct costs current at the time of service performance. Outside costs such as, but not limited to, equipment, meals, lodging, fees, and subconsultants shall be actual costs plus 10 percent. In addition to any other remedies Engineer may have, Engineer shall have the absolute right to cease performing any services in the event payment has not been made on a current basis.
- O. Termination** - Either party may terminate services, either in part or in whole, by providing 10 calendar days written notice thereof to the other party. In such an event, Client shall pay Engineer for all services performed prior to receipt of such notice of **termination**, including reimbursable expenses, and for any shut-down costs incurred. Shut-down costs may, at Engineer's discretion, include expenses incurred for completion of analysis and records necessary to document Engineer's files and to protect its professional reputation.
- P. Severability and Waiver of Provisions** - Any provision or part of the Agreement held to be void or unenforceable under any laws or regulations shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Client and P&N, who agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable **provision** that comes as close as possible to expressing the intention of the stricken provision. Non-enforcement of any provision by either party shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of the Agreement.
- Q. Dispute Resolution** - If a dispute arises between the parties relating to the Agreement, the parties agree to use the following procedure prior to either party pursuing other available remedies:
1. Prior to commencing a lawsuit, the parties must attempt mediation to resolve any dispute. The parties will jointly appoint a mutually acceptable person not affiliated with either of the parties to act as mediator. If the parties are unable to agree on the mediator within twenty (20) calendar days, they shall seek assistance in such regard from the Circuit Court of the State and County wherein the Project is located, who shall appoint a mediator. Each party shall be responsible for paying all costs and expenses incurred by it, but shall split equally the fees and expenses of the mediator. The mediation shall proceed in accordance with the procedures established by the mediator.
 2. The parties shall pursue mediation in good faith and in a timely manner. In the event the mediation does not result in resolution of the dispute within thirty (30) calendar days, then, upon seven (7) calendar days' written notice to the other party, either party may pursue any other available remedy.
 3. In the event of any litigation arising from the Agreement, including without limitation any action to enforce or interpret any terms or conditions or performance of services under the Agreement, Engineer and Client agree that such action will be brought in the District or Circuit Court for the County of Kent, State of Michigan (or, if the federal courts have exclusive jurisdiction over the subject matter of the dispute, in the U.S. District Court for the Western District of Michigan), and the parties hereby submit to the exclusive jurisdiction of said court.
- R. Force Majeure** - Engineer shall not be liable for any loss or damage due to failure or delay in rendering any services called for under the Agreement resulting from any cause beyond Engineer's reasonable control.
- S. Assignment** - Neither party shall assign its rights, interests or obligations under this Agreement without the express written consent of the other party.
- T. Modification** - The Agreement may not be modified except in writing signed by the party against whom a modification is sought to be enforced.
- U. Survival** - All express representations, indemnifications, or limitations of liability included in the Agreement shall survive its completion or termination for any reason.
- V. Third-Party Beneficiary** - Client and Engineer agree that it is not intended that any provision of this Agreement establishes a third party beneficiary giving or allowing any claim or right of action whatsoever by a third party.