



Relationships. Solutions. Value. ...Since 1937.

March 15, 2016

Mr. Adam Miele, PE
Senior Project Manager – Public Works
City of Flagstaff
Public Works
211 West Aspen
Flagstaff, AZ 86001

Re: Preconstruction Services Fee Proposal
RSOQ #2016-21 Core Services Maintenance Facility Project

Dear Adam,

The CORE|LOVEN|APMI Team is truly appreciative for this opportunity to serve the City of Flagstaff. We are honored by the trust you have placed in our team and we are fully committed to successfully delivering a new Core Services Maintenance Facility that will serve the staff of the City of Flagstaff for decades to come.

Attached you will find a detailed list of scope and cost breakdown for each discipline associated with turn-key design phase services.

- Preconstruction Services \$ 173,809
- Full architectural & engineering services \$1,782,480
- Design phase reimbursable \$ 66,821
- LEED Certification, Design & Project Commissioning \$ 150,965
- Geotechnical Studies and Flow Tests \$ 35,585

The attached proposals include detailed clarifications, exclusions, cost breakdowns and options for additional services to further assist in your review.

Thank you again for your trust and we look forward to serving you.

Sincerely,

A handwritten signature in blue ink that reads "Todd Steffen".

Todd Steffen
Director of Preconstruction Services
CORE Construction

cc: APMI, Loven Contracting

Preconstruction Proposal

City of Flagstaff Core Services Maintenance Facility
3/15/16



Relationships. Solutions. Value. ...Since 1937.

Flagstaff, Arizona

Project Defining Elements

This proposal is based upon the following project defining elements:

1. Initial Request for Qualifications
2. Initial site plan AS1.0 dated July 2015 by JWA and SWI as approved by the City of Flagstaff. This plan includes project defining elements for the site and buildings that is the basis for this proposal.
3. Kick-off meeting with the City on 2/23/16.
4. Total Design and Construction Budget of \$21,000,000.00
5. The duration of the preconstruction/design phase is scheduled to last approximately 7 months.
6. The project site development will be approximately 22 acres of the overall 45 acre site.
7. Development of the off-site acceleration/deceleration lanes will be included.
8. The project is currently in the programming phase. It is understood that this is an approved site plan and that minor modifications may be required. Significant changes requiring re-approval of the site plan may result in additional design fees.
9. The development of the Guaranteed Maximum Price will be in two phases. The first phase will include off-site work, on-site rough grading and utilities. The second phase will include final grading and the building package.
10. Initial Project Schedule assumptions:
 - a) Cursory City of Flagstaff Permit Review 06/01/16
 - b) 100% off-site, on-site rough grade & utilities design complete 07/01
 - c) 60% finish site, hardscape, building package 07/01
 - d) GMP #1 (including SWPP) & 60% DD Estimate development 07/02 – 08/01
 - e) ADOT Approval (4wks) 07/02 – 08/01
 - f) ADEQ Approval (6wks) 07/02 – 09/15
 - g) 100% site & building package 07/30
 - h) City Council approval of GMP #1 08/23
 - i) GMP #1 Construction 09/15 – 11/01
 - j) GMP #2 Development 07/30 – 08/30
 - k) City Council approval of GMP #2 09/26
 - l) COF building permits & other jurisdictional approvals 08/01 – 11/01
 - m) GMP #2 Construction 11/02 – 07/01/17

General Exclusions

1. Design services that would be required to manage, coordinate and prepare separate design packages to facilitate a multi-phased or fast track construction process, except as may be identified in the scope of services or by a separate fee in the fee proposal section.

Preconstruction Proposal

City of Flagstaff Core Services Maintenance Facility
3/15/16



Relationships. Solutions. Value. ...Since 1937.

Flagstaff, Arizona

2. Work outside of the immediate site area, except for that which may be required to support grading/drainage design and utility connections.
3. Design and specification of "special systems", i.e., telecommunications, security, data, etc. An empty conduit raceway system will be provided based on equipment supplier's layouts provided by Client's Vendor.
4. Permitting and plan review fees to the City of Flagstaff or to local utility companies. It is understood that the City will pay these fees directly.
5. Construction and materials testing will be included in the GMP, unless otherwise noted.
6. Special inspection services, including special structural, architectural and electrical inspections will be included in the GMP, unless otherwise noted.
7. Archeological monitoring. Per Karl Eberhard, City of Flagstaff Historic Preservation Officer, this is not required.
8. Coordination or submittals to the following agencies are not included: Coconino County, Army Corps of Engineers, Arizona Department of Water Resources and the Arizona Corporation Commission.
9. Design of the extension of reclaimed water to serve the site is not included.
10. Water storage and pumping system and/or well development design is not included.
11. Design of off-site infrastructure is excluded, excepting the ADOT pavement widening and edge improvements for the new turn lanes as shown on the approved site plan.
12. REVIT or 3D drawing for construction documents. CORE will be providing 3D modeling for in-house bid clarification, constructability and clash detection only.

-End Project Defining Elements-

CORE|Loven Preconstruction Services Proposal

Below, you will find an outline of the basic scope of services provided at each phase.

1. Programming Phase

During this phase APMI will be holding sessions with the different Services to confirm findings provided in the space and program needs assessment. This phase will not produce any drawings. The goal of this phase is to confirm the overall building square footages as well as the desired square footage for each of the specific program spaces within each building, and to confirm paving/parking sizes.

a. *CORE|LOVEN's Role during the Programming Phase*

To listen for the Client's Big Picture Outcome Desires, develop a list of the unique features of work, provide programming estimates.

b. *Basic Scope of Services required to fulfill this role:*

i. Provide a conceptual cost model study as a deliverable to the City.

This study is developed as the structure for all cost models throughout preconstruction as a way to categorize the components of the project into manageable line items.

This study breaks the project into 10 different groups. These ten different groups are: Off-Site Group, On-Site Rough Group, On-Site Finish Group, Structural Group, Enclosure Group, Finishes Group, Specialties Group, Equipment Group, Building Systems Group and Special Systems Group.

ii. Provide a list of Client Big Picture Outcome Desires

By listening to the client during the programming phase we can begin to understand what the City and End Users truly want from this facility. Examples of big picture items may include intentional involvement of local subcontractors, tying the project back to local history, or coordination with projects on adjacent properties. CORE|LOVEN will intentionally use this information to better inform these early cost estimates.

iii. Identify Unique Features of Work

Unique features of work involve specific details that make the project unique or can be identified as a potential risk. These details may include specific site logistic issues, site coordination challenges, or specific unique materials that the design team is considering. The purposeful identification of these unique features will assist in keeping the team focused on the most important aspects of the project.

2. Schematic Phase

Preconstruction Proposal

City of Flagstaff Core Services Maintenance Facility

3/15/16



Relationships. Solutions. Value. ...Since 1937.

Flagstaff, Arizona

At this phase the design team will begin to put form to the function that was identified during programming. By the end of schematic design the building size, footprint and site layout will be finalized. The entire team will begin to see the building take shape, textures and materials will begin to be considered. During this phase we will want to determine the buildings structure, skin and systems.

a. CORE|LOVEN's Role during the schematic phase

To create a detailed flexible cost model on all buildings and site based upon the schematic documents that account for quantity, quality, intent, big picture outcomes and unique features of work. CORE|LOVEN will assist in determining structure, skin and systems.

b. Basic Scope of Services required to fulfill this role

i. Detailed Quantity Take-off & Estimate

CORE|LOVEN will utilize On-Screen Take-off software to provide a detailed quantity estimate that is graphically represented. This take-off will identify scope and quantities by being directly overlaid onto the schematic documents.

ii. Estimate Summary "the Backsheet"

The backsheet is essentially the summary of the detailed estimate. It will be summarized the same way at each phase so the team will clearly see the cost variance between line items. It will be organized based upon the "ten groups" study delivered at programming.

iii. Basis of Estimate

This document will provide any further clarification to our assumptions.

iv. Options Studies

Provide appropriate options analysis on the buildings structure, skin and systems as well as on other unique features of work if necessary. These options studies will not look at cost impacts alone, but safety, QA/QC, logistics, constructability and schedule impacts as well.

v. Big Picture Outcome Desires (BPO's) Update

CORE|LOVEN will revisit the BPO's to make sure the team remains focused on achieving each one.

vi. Update the list of Unique Features of Work (UFW)

The unique features of work may evolve as design progresses. CORE|LOVEN will maintain this list at each phase.

vii. Constructability Review

This deliverable will be the result of the team study of the unique features of work. This study will analyze each UFW for:

1. How does it impact the milestone schedule?
2. Should the team involve a subcontractor for additional feedback?
3. What safety considerations should be made?

Preconstruction Proposal

City of Flagstaff Core Services Maintenance Facility

3/15/16



Relationships. Solutions. Value. ...Since 1937.

Flagstaff, Arizona

4. Are there any site logistics issues?
5. How should it be detailed on the documents?
6. What are the QA/QC considerations?
7. Are there options to consider?
- viii. Updated Preconstruction and Construction Schedule
This will be developed from the detailed quantity estimate.
- ix. Development of initial prequalified subcontractor list
This will include at a minimum of three bidders per trade; major trades of construction will be sought with a minimum of 5 bidders per trade.
Subcontractor input at this stage will be focused on unit cost and constructability.

3. Design Development Phase

At this point the building's size, structure, skin and systems have been determined. The goal at design development will be for the team to begin to focus in on determining finishes and details as well as site layout and function. The project specifications will begin to be developed.

a. CORE|LOVEN's Role during the design development phase

To provide detailed estimate information on the project based upon subcontractor feedback and quantity take-off. CORE|LOVEN will also provide options analysis on finishes for all the buildings and site.

b. Basic Scope of Services required to fulfill this role

- i. Detailed Quantity Take-off & Estimate
CORE|LOVEN will make changes to the cost model to reflect the design development documents.
- ii. Estimate Summary "the Backsheet"
The backsheet will be updated to reflect design evolution. CORE|LOVEN will provide a variance report with each estimate.
- iii. Basis of Estimate
This document will evolve with the documents and estimate to clarify further and info design as it moves forward.
- iv. Options Studies
Provide appropriate options analysis on the building and site finishes.
- v. Big Picture Outcome Desires (BPO's) Update
CORE|LOVEN will revisit the BPO's to make sure the team remains focused on achieving each one.
- vi. Update the list of Unique Features of Work (UFW)
- vii. Constructability Review
Updated information based upon newly identified UFWs:
- viii. Updated Preconstruction and Construction Schedule
- ix. Prequalified Subcontractor List

Preconstruction Proposal

City of Flagstaff Core Services Maintenance Facility

3/15/16



Relationships. Solutions. Value. ...Since 1937.

Flagstaff, Arizona

CORE|LOVEN will provide a specific list of subcontractors to actually bid the design development documents.

x. Initial Site Lay-Down and Logistics Plan

This will be the first draft submitted to the team for review. It will indicate site access, site control, material lay-down, and trailer location.

4. Construction Documents Phase

During this phase the team will work to finalize all details, finish schedules, site details and project specifications in preparation for submission to local jurisdictions for permitting.

a. *CORE|LOVEN's Role during the construction document phase*

To review the documents as they evolve for constructability and coordination. Provide cost feedback on details such as City review comments and minor building code requirements. During this phase CORE|LOVEN will provide the Guaranteed Maximum Price.

b. *Basic Scope of Services required to fulfill this role*

i. Estimate Summary "the Backsheet" for each GMP

This estimate summary will look just as it did at all other phases. It will be supported by competitive bids from prequalified subcontractors.

ii. Basis of Estimate

This will be the clarification to each GMP. It will define any and all contingencies, allowances, proprietary specifications and/or vendors, and anything else that serves to clarify the basis of our estimate.

iii. Big Picture Outcome Desires Update

CORE|LOVEN will provide an audit of the stated BPOs to ensure they have been achieved.

iv. Updated Unique Features of Work

v. Constructability Review

This will be an updated look at the analysis done in previous phases as well as a look at the newest UFW.

vi. Updated Detailed Construction Schedule

This will include all predecessors and successors and all required relationships.

vii. Finalized List of Prequalified Subcontractors to Bid

CORE|LOVEN will look for input from the entire team on the final list of invited subcontractors. This will include at a minimum of three bidders per trade; major trades of construction will be sought with a minimum of 5 bidders per trade.

viii. Final Site Logistics Plan

As all other details are finalized CORE|LOVEN will have the information necessary to submit the site logistics and lay-down plan for approval.

ix. Site Specific Safety Plan

Preconstruction Proposal

City of Flagstaff Core Services Maintenance Facility
3/15/16



Relationships. Solutions. Value. ...Since 1937.

Flagstaff, Arizona

CORE|LOVEN will submit for approval a safety plan that will reflect actual site conditions for the Multigenerational Site.

x. Pre-preparatory QA/QC Plan

This will summarize the findings of the UFW analysis done in previous phases.

5. General Comments

a. Phased GMP

- i. We are currently proposing a phased GMP. This phasing does not have an impact on the preconstruction fee proposal nor does it necessarily change the deliverables at each phase.
- ii. Phase 1 GMP will include off-site grading, on-site rough grading and utilities
- iii. Phase 2 GMP will include the balance of the project.

b. Building Information Modeling

- i. CORE|LOVEN create a 3D model to look for clashes, provide clarification to subcontractors for bidding, and to partner with the project team.

c. Meeting Attendance

- i. CORE|LOVEN will be present at all schematic, design development and construction documents meetings. CORE|LOVEN will attend programming meetings as necessary.

6. Fee Proposal for Basic Scope of Work

Based upon the aforementioned basic scope of services CORE|LOVEN proposes the follow:

Projection of Preconstruction Manpower Breakdown

	% of total precon fee	Total
Programming Development	5%	\$8,369
Schematic Design	25%	\$41,847
Design Development	35%	\$58,586
Construction Documents	35%	\$58,586
	<hr/> 100%	<hr/> \$167,388
Reimbursable Expenses		
Digital Plan Room		\$4,100
Potholing		\$2,000
5% Fee		\$321
Total Reimbursable Expenses		<hr/> \$6,421
Total Pre-Construction Services		<hr/> <hr/> \$173,809

7. Additional Services

Preconstruction Proposal

City of Flagstaff Core Services Maintenance Facility
3/15/16



Relationships. Solutions. Value. ...Since 1937.

Flagstaff, Arizona

Upon request CORE|LOVEN will provide additional services fee for:

1. Preconstruction Services for Furniture, Fixtures and Equipment
 - a. CORE|LOVEN excludes consideration for the development, scoping and bidding of the Furniture, Fixtures and Equipment package.

8. Hourly Rates

	<u>Standard Rate</u>	<u>Overtime Rate</u>
Pre-Construction:		
Director of Preconstruction	110	-
Preconstruction Manager	92	-
Preconstruction Coordinator	60	-
Project Management:		
Project Director	110	-
Sr. Project Manager	105	-
Project Manager	92	-
Asst. Project Manager	72	-
Scheduler	88	-
Construction Coordinator	60	-
Project Accountant	60	-
Contracts Administrator	60	-
Information Systems Technician	63	-
Intern	22	33
Field Operations:		
Director of Field Operations	120	-
Sr. Superintendent	105	-
Superintendent	92	-
Asst. Superintendent	82	-
Safety Director	80	-
Carpenters	60	90
Water Truck Driver	60	90
Painters	60	90
Laborers	50	75

-End Preconstruction Services Proposal-

PROPOSAL / BID RESPONSE



Design Builder A/E SERVICES

FOR

Core Services Maintenance Facility Project

Submittal Date: 15 March 2016

APMI, Inc.

8300 North Hayden Road
Suite A209
Scottsdale, Arizona 85258
p: 480.998.0709
f: 480.998.7958
e: apmi@apmi.com



APMI, Inc.
8300 North Hayden Road
Suite A-209
Scottsdale, Arizona 85258

Tel: 480.998.0709
Fax: 480.998.7958
Email: apmi@apmi.com

15 March 2016

CORE Construction
3036 East Greenway Road
Phoenix, Arizona 85032

Attn: Jim Jacobs
CEO

Re: A/E Services Proposal
Core Services Maintenance Facility
Flagstaff, Arizona

Dear Mr. Jacobs:

APMI, Inc. is pleased to have this opportunity to team with the Design-Builder and submit the following proposal for Architectural and Engineering Services to develop the design of the Core Services Maintenance Facility. This proposal is being submitted in accordance with documents provided to APMI by the City of Flagstaff outlining the project scope. This proposal is also based on meetings and email exchanges between City Staff and APMI.

This proposal will act as the basis of our proposed scope of services with the following clarifications, exclusions and assumptions. This proposal shall govern should there be any modifications of or discrepancies between the proposal and the attached documents.

Clarifications to the City Design-Build Contract:

1. Section 2.3.2 makes the Design-Builder responsible for the completeness and accuracy of the plans and for all “errors, omissions and negligent acts” associated with the plans. This makes the Design-Builder responsible for errors and omission in the plans that do not involve any degree of fault, and which do not violate the normal standard of care.
 - a. APMI limits our responsibility to “negligent acts, errors and omissions” concerning the completeness and accuracy of our plans. This requires negligence and is consistent with the normal standard of care.
2. Section 3.2 concerning documents and materials furnished to the design-builder by the City:
 - a. APMI proposes that the Design-Builder shall be entitled to rely upon the accuracy of any agreements, documents or approvals provided by the City, provided, however, that Design-builder shall promptly notify the City of any inaccuracies therein actually discovered by Design-Builder or that are actually brought to Design-Builder's attention by others.
3. Section 7.3.1, the statutory reference should be corrected to A.R.S. 34-609. This is the correct statute for design-build delivery.

Contract Clarifications with CORE for Architectural & Engineering Services:

1. It is understood that Adam Siros from APMI will be listed as the “Design-Builder Representative” in the design-build services contract between Core and the City of Flagstaff.
 - a. Section 2.1.4 of the City Design-Build Contract, provides that the Design-Builder's Representative

15 March 2016

shall be vested with authority to act on behalf of the Design-Builder. APMI's contract with CORE, therefore, must actually vest APMI with the authority to act on CORE's behalf in the capacity of Design-Builder's Representative with the City.

- b. Section 2.13.5 in the contract with the City states that the Design-Builder's Representative must be authorized to execute and sign documents on behalf of CORE. This must be included in APMI's contract with CORE. It has been recommended by our legal counsel that this be evidenced by a separate corporate resolution from CORE's Board of Directors.
- 2. Section 2.1.2 of the City Design-Build Contract, requires the City's approval in the event that CORE decides to replace Adam Siros as Design-Build Representative. APMI's agreement with CORE needs to address the circumstances in which Adam Siros can be replaced as Design-Build Representative.
- 3. Article 10 of Section 7.4 of the City Design-Build Contract, contains the provisions for Insurance and Bonds. It is understood that bonding requirements will not be passed through APMI and that our insurance is limited to professional liability, automobile liability and worker's comp with respect to our employees. It is assumed that APMI will not be responsible for the required CGL or builder's risk coverage.
- 4. Article 11 of Section 7.4 of the City Design-Build Contract, contains the indemnity provisions.
 - a. APMI proposes that our contract with CORE not include a duty to defend in our indemnity provisions because the defense obligation is not covered by professional liability insurance (it includes the duty to defend APMI, but not third parties). APMI's indemnity obligation is limited in that we would indemnify CORE and the Design-Builder only to the extent of APMI's negligence.

Project Scope (Listed by Discipline):

General:

- 1. It is understood that the project will consist of developing an existing 45 acre site for City of Flagstaff's Public Works Department. The total site improvement area will include approximately 22 acres. The site will house (6) new buildings and (1) new fuel canopy. Two of the buildings are anticipated to be constructed conventionally (masonry or steel frame) and the remaining four buildings and fuel canopy are anticipated to be of pre-engineered metal building construction. Project design shall be based on the latest site plan dated July 2015 as prepared by SWI and JWA. The total design and construction budget is approximately \$21 million dollars.
- 2. It is understood that the site plan and elevations provided to the APMI team have received concept approval through the City of Flagstaff planning department.
- 3. Project will incorporate LEED Silver Certification requirements. Services for LEED shall include but not be limited to energy modeling and documentation submittal.
- 4. It understood that the project design will be delivered in two phases. An offsite and an onsite package will be prepared. The offsite package will include all work in the ADOT right-of-way, the circular drive entrance to the site, rough grading, and utilities. The onsite package will include all remaining work onsite. A proposed milestone design schedule is as follows:

Project Schedule		
Task	Completion	Completion
	"Off-site" Package	"On-site" Package
Start of Design	April 15 th , 2016	April 15 th , 2016
Schematic Design (30%)	May 6 th , 2016	May 27 th , 2016
Design Development (60%)	June 1 st , 2016	July 1 st , 2016
Final Dwgs/Permit/Bidding	July 1 st , 2016	July 30 th , 2016
Construction Administration	June, 2017	June, 2017

15 March 2016

Architecture:

APMI Inc. will provide Architectural design and project management services for the Core Services Maintenance Facility for the City of Flagstaff. This includes the architectural design, construction administration and project management services required for the proposed improvements shown in the approved concept documents provided by the City. It is understood that Adam Siros with APMI will be named as the "Design-Builder Representative" and as such project management time has been included to perform the required tasks of the design-builder representative. APMI's scope of work is as follows:

1. **Task 1 – Field Investigations:** Using the City of Flagstaff survey data, APMI will visit the site to confirm that the as-built documentation provided is accurate and can be used as a basis for the initial programming and design of the site. Preliminary site and building backgrounds will be prepared for distribution to the project team.
2. **Task 2 – Programming:** APMI will work with the City to confirm the existing program prepared by the previous team. This will include:
 - i. Review all available material to familiarize ourselves with the previously completed work effort and the background data used to develop that work.
 - ii. Interview key staff to determine functional requirements and operational characteristics of the operation in order to confirm the previously developed space program for all operational and maintenance spaces including the administration building. This effort will allow APMI to confirm if the existing program is valid or requires any updating.
 - iii. Review fleet size, mix, and projected growth.
 - iv. Review current and projected space requirements.
 - v. Program Space Plan: The previously developed space plans will be confirmed and/or adjusted as necessary to reflect the discussions held during the interviews.
3. **Task 3 – Schematic Design:** Based on the outcome of the data obtained during programming, APMI will guide the Team through schematic design. During the schematic design phase we will:
 - i. Review and refine site layouts based on circulation patterns for vehicles. This will include review of site area relationships. The site plan will be adjusted as needed to accommodate the City's needs and desires.
 - ii. Depending on the final configuration of the site, an administrative site plan amendment may be required to ensure that the final approved site plan matches the site plan being designed by the team. The effort required for minor site plan amendment is included.
 - iii. APMI will also review and refine building floor plans and layouts.
 - iv. Building elevations will be developed based on the approved concept plan. Minor adjustments to the elevations are anticipated based on program development however major revisions to massing are excluded.
 - v. Preliminary equipment and infrastructure layouts will be prepared.
 - vi. APMI will work with the design-builder to ensure that the proposed scope will not exceed the preliminary GMP costs established.
4. **Task 4 – Design Development:** During the design development phase, APMI will continue to refine the drawings adding additional detail needed to further define the project scope.
 - i. APMI will work with the design-builder to develop an approach for constructability and prepare preliminary detailing for the project.
 - ii. APMI will prepare preliminary specifications for the project.
 - iii. Spatial needs for equipment and functional work flow will be refined. APMI will coordinate with MFC and the Team to develop requirements specific to equipment.
 - iv. APMI will work with the design-builder to ensure that the proposed scope will not exceed the preliminary GMP costs established.

15 March 2016

5. **Task 5 – Construction Documents:** During construction document phase, APMI will continue to refine the drawings adding additional detail needed to finalize the project scope.
 - i. APMI will develop complete construction documents, including all plans and specifications for the project based on the direction determined during previous task efforts.
 - ii. APMI will coordinate with the pre-engineered metal building designer to finalize anchor bolt and base plate reactions.
 - iii. APMI will work with the design-builder to ensure that the final scope does not exceed the GMP costs established.
6. **Task 6 – Approvals / Permitting:** APMI will submit all required plans to obtain permits through City of Flagstaff Building and Engineering departments. Fire Sprinkler plans will be prepared by the Fire Protection sub-contractor and will be dealt with as a deferred submittal. APMI will address all City comments and resubmit plans as required to obtain a building permit. Plan review fees are not included in our proposal.
7. **Task 7 – Bidding / Contract Award:** Since this project is being delivered through a design-build delivery method it is anticipated that APMI's involvement in this effort will be minimal. APMI will assist CORE in responding to bid questions and RFI's as needed. APMI will prepare any required addenda to the construction documents.
8. **Task 8 – Construction Office:** The construction phase shall include the office support that will be required to review all Contractor Submittals, respond to contractor questions and respond to RFI's.
9. **Task 9 – Construction Field:** APMI has assumed a construction duration through June 30th, 2017. Weekly construction progress meetings are anticipated. A total of (50) fifty meetings for progress/site visits during construction have been included in this scope. Site visits have been allocated according to the quantity outlined above. If either fewer or additional site visits are required by the project, the fee will be adjusted accordingly.
10. **Task 10 – LEED Documentation / Compliance / Commissioning:** APMI will coordinate the overall LEED Certification effort and act as the LEED project administrator. APMI will coordinate all design team members and prepare the required documents for the design portion of the USGBC submittal to LEED Online. APMI will require that CORE assign a LEED coordinator to prepare all documentation for the construction related credits and provide them to APMI for review prior to CORE's upload to LEED Online. APMI will also participate in the commissioning effort and assist the team in ensuring that all systems are functioning as designed.
11. **Task 11 – Cost Estimating:** The project is being delivered under a design-build contract and CORE will be responsible for providing estimates during design. We will support this effort by summarizing quantities.
12. **Task 12 – Record Drawings:** APMI will prepare record drawings based on redlines provided by the contractor. APMI will provide one (1) hard copy set of Record Drawings. APMI will also provide an electronic set of drawings on CD in CAD and in PDF format. A complete digital copy of all submittals will also be provided at closeout.
13. **Task 13 – Project Closeout:** The project is being delivered under a design-build contract and CORE will be responsible for providing project closeout.

Landscape Architecture:

WLB will provide Landscape Architecture design services for the Core Services Maintenance Facility for the City of Flagstaff. Their scope is based on the approved concept plan and includes all landscaping services required to obtain permits in the City of Flagstaff. WLB's complete proposal is attached for reference.

15 March 2016

Civil Engineering:

Peak Engineering will provide Civil Engineering design services for the Core Services Maintenance Facility for the City of Flagstaff. Civil engineering work includes grading, drainage, paving and utility design for the proposed Core Maintenance Facility located on the north side of Route 66, west of Woody Mountain Road.

Water system design includes a new looped main with fire and domestic water service to serve the new facilities. Sewer system design includes a new collection system that will extend to a new sewer main in the Clay Avenue Detention Basin (this portion designed by others). Water and sewer design includes a system analysis, engineer's design report and submittal to ADEQ.

Grading and drainage design includes a stormwater collection system. Attenuation is to be provided by a new retention basin in the Clay Avenue Detention Basin. The proposed improvements encroach into the flood limits of the Clay Avenue Detention Basin. To mitigate the encroachment, material will be excavated from the detention basin to balance the displaced volume. To protect the facilities, the finished floors are to be a minimum of one foot above the flood elevation. We have partnered with JE Fuller to provide the drainage design for the Clay Avenue Detention Basin and erosion control plan / SWPPP.

Paving and hardscape design includes on-site improvements such as circulation drives, the entrance drive and circle, sidewalks, ADA parking and path of travel, parking lots, curb and gutter and a trail connection. Off-site improvements include pavement widening on Route 66 for turn lanes and the addition of curb and gutter along the property frontage.

At this time, PEAK has separated supplemental surveying and construction surveying for preparation of record drawings as an additional service. This is further clarified in Peak Engineering's complete proposal which is attached for reference.

Structural Engineering:

Hubbard-Merrell Engineering (HME) will provide Structural engineering design services for the Core Services Maintenance Facility for the City of Flagstaff. This includes all required calculations, for (6) new buildings and (1) new fuel canopy. Two of the buildings are anticipated to be constructed conventionally (masonry or steel frame) and the remaining four buildings and fuel canopy are anticipated to be constructed with pre-engineered metal buildings (PEMB).

- a. For the PEMB, HME will use the sealed drawings from the pre-manufactured building designer with the final building column reactions in order to design the foundations. Foundations are assumed to be conventional spread footing foundations per the soils report, and the floor is assumed to be concrete slab on grade construction.
- b. Structural building design will be provided for the new Administration Building and the Wash Building. The structures will likely consist of: prefabricated steel roof joists on steel beams; steel frame columns, steel stud walls or masonry walls with a concrete slab-on-grade; and conventional spread footings. Prefabricated steel roof joists designs and layouts shall be provided by the joist supplier(s).
- c. Structural design includes new independent, freestanding crane rails in various buildings. The crane beam and rails will be steel construction with steel columns (moment frames or cantilever columns) and conventional spread footing foundations per the soils report. Structural design also includes stairs to miscellaneous mezzanines provided by the PEMB supplier. Various site walls and site features (signs, light pole foundations, etc.) are also included.

15 March 2016

HME's complete proposal is attached for reference.

Mechanical/Plumbing/Electrical/Fire Protection Engineering:

Taylor-Rymar Corporation (TRC) will provide Mechanical, Plumbing, Electrical and preliminary Fire Protection engineering design services for the Core Services Maintenance Facility for the City of Flagstaff. The project scope includes:

- a. **Electrical:** Design and Drafting of Electrical Construction Drawings. Drawings shall include: Single Line Diagram(s), Panel Schedules, Power and Lighting Floor Plans, and Load Calculations. Design emergency generator. Design and Drafting of fire alarm device locations and typical fire alarm riser diagram. Perform Short Circuit Study. Design conduits, back-boxes, and power connections for data, voice, video, or other Owner provided special systems. Provide utility company coordination for new electrical service to the site. Provide point x point lighting calculations for site lighting. Submission of documentation to LEED® On-line.
- b. **Mechanical:** Design and Drafting of Mechanical Construction Drawings. Drawings shall include: HVAC Floor Plans, Details, and Schedules. Perform building heating, ventilation and air conditioning load calculations which includes energy modeling for LEED Submittal. Provide design/layout drawings for the installation of HVAC equipment, ductwork and air devices. Submission of documentation to LEED® On-line.
- c. **Plumbing:** Design and Drafting of Plumbing Construction Drawings. Drawings shall include: Plumbing Floor Plans, Isometrics, Details, Schedules, and fixture Load Calculations. Provide design/layout drawings for the installation of new plumbing fixtures and piping. Note: all potable and sanitary water piping will be terminated 5'-0" beyond building. Perform separate supply water pressure calculations, sanitary waste and vent calculation for new plumbing fixture installations. Perform natural gas calculations, and provide design/layout drawings for gas piping to HVAC equipment and hot water heaters. Provide water and waste piping isometrics on drawings. Provide layout for drain piping from new HVAC units. Provide design/layout of building roof and overflow drain piping to retention area as indicated by architectural construction documents. Submission of documentation to LEED® On-line.
- d. **Fire Protection:** Fire protection design is not included in TRC's scope. This will be handled by the fire protection subcontractor.

TRC's complete proposal is attached for reference.

Maintenance Equipment Consulting Services:

Maintenance Facility Consultants (MFC), a division of WRA, will provide maintenance equipment consulting services for the Core Services Maintenance Facility for the City of Flagstaff. Their scope includes all consulting services required to program, plan and assist the design team to achieve proper circulation patterns and workflow. MFC's complete proposal is attached for reference.

Geotechnical/Soils Investigation Services:

1. Speedie and Associates will provide Geotechnical Investigation for the Core Services Maintenance Facility for the City of Flagstaff. The project scope includes:
 - a. Speedie will drill and sample sufficient test borings to adequately determine subsoil conditions and provide samples for laboratory testing. To help provide additional information regarding the depth of rock and excavation conditions across the site and within utility right-of-ways, we propose to supplement the borings with the addition of test pits excavated with a rubber-tired

15 March 2016

backhoe. Access to the site by conventional truck-mounted drilling equipment is assumed to be free and unencumbered. We presently anticipate performing the following:

- i. Drilling a total of 10 structural borings at the pre-engineered structures to depths of 10 to 15 feet below existing ground surface, or refusal, whichever comes first.
 - ii. Drilling a total of 2 structural borings at the wash facility to depths of 10 to 15 feet below existing ground surface, or refusal, whichever comes first.
 - iii. Drilling a total of 4 structural borings at the administration building to depths of 15 to 20 feet below existing ground surface, or refusal, whichever comes first.
 - iv. Drilling a total of 10 shallow borings for pavement design parameters to depths of 3 to 5 feet below existing ground surface, or refusal, whichever comes first.
 - v. Excavating 8 test pits along utility corridors to depths of 10 feet below existing ground surface, or refusal, whichever comes first.
 - vi. Coring the pavement along Business 40 in 3 locations to determine pavement and base course thicknesses.
 - vii. Perform shallow percolation testing in four locations, during the test pit phase of the investigation, to provide design information for low impact development (LID) basins.
 - viii. If underground storage tanks will be utilized, perform rock coring at the fueling station to a depth of 15 feet below existing ground surface. An add alternate cost has been provided for this effort.
- b. We will analyze the data obtained from field and laboratory testing and prepare a report presenting all data obtained, together with our conclusions and recommendations regarding:
- i. Design data, allowable bearing pressure and depth, for shallow spread footings.
 - ii. Alternate foundation systems and data design, if indicated by soil conditions.
 - iii. Settlement estimated for each foundation system considered.
 - iv. Lateral pressures on temporary and permanent retaining and foundation walls.
 - v. Groundwater conditions, if any, to the depths which will influence design and/or construction of the proposed development.
 - vi. Swell potential of in-situ and compacted soils and recommendations for control if highly expansive.
 - vii. Pavement design to provide economy and adequate service.
 - viii. Suitability of the site soils for use as compacted fill and preferred earthwork methods, including clearing, stripping, excavation, and construction of engineered fill.
 - ix. Local excavation and trenching conditions and stability considerations.
 - x. Slope requirements for cut and fill stability, both temporary and permanent.
 - xi. Suitability of subsoils to permit dissipation of storm water.
 - xii. Potential corrosiveness of subsoil materials and procedures to minimize the effects thereof.
 - xiii. Discussions of any unusual design or construction consideration which may be indicated by site conditions encountered.

Speedies's complete proposal is attached for reference.

LEED Documentation/Certification/Commissioning Services:

1. APMI, Taylor-Rymar Corporation (TRC), WLB and Peak Engineering will provide LEED Documentation and Certification services for the Core Services Maintenance Facility project. LEED Commissioning services will be provided by TRC. This includes achieving a minimum certification level of Silver. The LEED project scope is further clarified as follows:
 - a. APMI's proposal is based on preparing the LEED submittal for the entire site as a single LEED

15 March 2016

- project. APMI will be submitting this under the BD+C guidelines.
 - b. APMI, TRC, WLB and Peak will develop, document and submit all required documentation to LEED® On-line.
 - c. LEED Fees are based on the USGBC fee schedule as of the date of this proposal. If USGBC registration and certification fees increase or decrease, the fee structure will need to be adjusted.
2. Energy modeling to comply with LEED requirements will be included.
 3. APMI, Taylor-Rymar Corporation (TRC), WLB and Peak Engineering will provide the required periodic onsite observations to LEED compliance during construction.
 4. Provide pre-functional check lists for commissioned systems.
 5. Prepare documentation and conduct Functional Testing of systems to be commissioned.
 6. Attend final Cx meeting/Project Closeout
 7. Prepare Final Commissioning Report.
 8. Submission of documentation to LEED® On-line.

PROJECT EXCLUSIONS:

All of the following exclusions can be provided by the APMI Team should they become necessary or should CORE or The City of Flagstaff desire them. These services would be individually negotiated, based on the scope of services desired.

1. Design services that would be required to manage, coordinate and prepare separate design packages to facilitate a multi-phased or fast track construction process, except as may be identified in the scope of services or by a separate fee in the fee proposal section.
2. Work outside of the immediate site area, except for that which may be required to support grading/drainage design and utility connections.
3. Design and specification of "special systems", i.e., telecommunications, security, data, etc. An empty conduit raceway system will be provided based on equipment supplier's layouts provided by Client's Vendor.
4. Permitting and plan review fees to the City of Flagstaff or to local utility companies. It is understood that the City will pay these fees directly.
5. Cost estimating services. The project is being delivered under a design-build contract and CORE will be responsible for providing estimates during design. We will support this effort by summarizing quantities.
6. Construction and materials testing.
7. Special inspection services, including special structural, architectural and electrical inspections.
8. Archeological monitoring. Per Karl Eberhard, City of Flagstaff Historic Preservation Officer, this is not required.
9. Coordination or submittals to the following agencies are not included: Coconino County, Army Corps of Engineers, Arizona Department of Water Resources and the Arizona Corporation Commission.
10. Design of the extension of reclaimed water to serve the site is not included.
11. Water storage and pumping system and/or well development design is not included.
12. Design of off-site infrastructure is excluded, excepting the ADOT pavement widening and edge improvements for the new turn lanes as shown on the approved site plan.
13. Construction staking is not included.
14. Fire Protection Detailed Design, other than previously listed.
15. Fuel storage and delivery systems design and Carwash systems design.
16. REVIT, BIM, or 3D modeling. CORE Construction will be providing this service.
17. FFE design or specification with the exception of the maintenance equipment. It is assumed that any owner FFE items such as systems furniture will be dealt with separately.

15 March 2016

PROJECT ASSUMPTIONS:

The proposed fee for professional services has been based on the anticipated level of services that will be required to accomplish the project as described. The following assumptions have been made in determining the extent of professional services required and the resultant professional fee:

1. It is understood that the project has an approved site plan and that minor modification may be required. Significant changes requiring re-approval of the site plan may result in additional design fees.
2. The Contractor will be responsible for installation of BMPs related to the SWPPP and will be responsible for filing the NOI and NOT with ADEQ. The Contractor will also be responsible for daily monitoring and reporting.
3. The City will observe the water and sewer pressure/leakage testing and the water quality testing.
4. It is assumed that no hazardous materials are to be used within the interior of the building.
5. Periodic Observations by the Staff of APMI, Inc. or its Consultants shall not be construed to assume any liability for Contractor's Means and Methods through their presence at a project site, either prior to, during or after a possible incident or observance of a potential safety infraction.
6. The topographic survey and existing trees will be provided in AutoCAD format.
7. The City will provide copies of the drainage report for the Clay Avenue Detention Basin.
8. The drainage impact statement and proposed strategy of volume exchange and retention in Clay Avenue Detention Basin have been approved by the City of Flagstaff and significant changes to this approach will not be required.
9. The City will provide the supporting documents (e.g. capacity assurance) for the ADEQ submittal and will confirm that there is water and sewer capacity for the proposed project.
10. The traffic impact statement and proposed improvements on Route 66 as shown on the site plan have been approved by ADOT and significant changes will not be required.
11. CORE will prepare the traffic control plan for inclusion with the permit request to ADOT for the Route 66 improvements.
12. It is assumed that the pump house scope will be limited to coordinating our design to reflect City improvements being made to the pump house. Our work will take into account any improvements being made under the separate project however our design will not include upgrades to the pump house itself.

FEE PROPOSAL SECTION:

Attached is a proposed Cost Proposal Breakdown for the project and services as described. Should the scope of the project or services change in any way, the professional fee shall be modified accordingly. The proposed professional fee is exclusive of reimbursable expenses as defined under reimbursable expenses.

DESIGN CONTINGENCY:

It is recommended that a design contingency be carried should the scope of the project be adjusted or change. APMI will review this separately with CORE.

REIMBURSABLE EXPENSES:

An estimate of reimbursable expenses is included on the attached Cost Proposal Breakdown. The estimate of reimbursable expenses does not include cost of reproduction or distribution for bidding or construction purposes or the cost of agency document reviewing or permitting fees.

Reimbursable expenses shall be defined as all reproduction, plotting, postage, messenger services, shipping, mileage paid to staff, out of town travel expenses and other similar out of pocket expenses. Expenses shall be billed at the cost of the expenses to APMI plus ten percent (10%) to cover processing. Expenses will be billed and will become due on a monthly basis as part of the regular invoice process. Cost of all agency fees shall be paid for by others.

15 March 2016

PROPOSAL CONCLUSION:

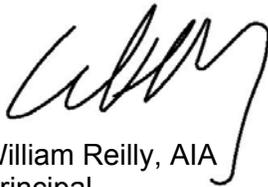
I trust that this proposal meets with your approval. After acceptance of this proposal from both CORE and the City of Flagstaff, we can proceed to contract execution. Upon receipt of an executed contract based on this proposal, APMI, Inc. shall commence work on the referenced project in accordance with the accepted project schedule.

Sincerely,

APMI, Inc.



Adam Siros, AIA
Principal



William Reilly, AIA
Principal

Attachments: APMI Cost Proposal Breakdown
APMI Hourly Rate Schedule

Peak Proposal dated 3-12-16
JE Fuller Proposal dated 3-4-16
WLB Proposal dated 3-14-16
HME Proposal dated 3-9-16
TRC Proposal dated 3-14-16
MFC Proposal dated 3-14-16
Speedie Proposal dated 3-15-16

cc: File

Client: CORE Construction
 Sub-Project Name: Core Services Maintenance Facility
 Client Project Number: 01-10002
 Contract Type: Design-Build
 Contract Number: NA
 APMI Project Number: APMI Project No. 16108.00
 Discipline: Architectural & Engineering Summary

SUMMARY - COST PROPOSAL
DESIGN - ARCHITECTURAL & ENGINEERING SUMMARY

ESTIMATED DIRECT LABOR A/E SERVICES

No.	TASK	APMI, Inc.	Civil Engineering	Structural Engineering	Mech/Plumb Engineering	Electrical Engineering	Fire Protection	Landscape Architecture	Maintenance Consultant	Total By Phase
1	Field Investigations	\$11,650.00	\$4,710.00	\$500.00	\$0.00	\$0.00	\$0.00	\$915.00	\$0.00	\$17,775.00
2	Programming	\$36,750.00	\$7,245.00	\$5,460.00	\$7,740.00	\$10,070.00	\$0.00	\$0.00	\$12,600.00	\$79,865.00
3	Schematic Design	\$91,500.00	\$12,505.00	\$8,840.00	\$46,670.00	\$46,170.00	\$0.00	\$3,800.00	\$19,360.00	\$228,845.00
4	Design Development	\$166,225.00	\$131,180.00	\$13,260.00	\$46,670.00	\$46,170.00	\$0.00	\$8,210.00	\$27,800.00	\$439,515.00
5	Construction Documents	\$304,850.00	\$206,010.00	\$27,300.00	\$46,670.00	\$46,170.00	\$0.00	\$6,120.00	\$16,940.00	\$654,060.00
6	Approvals / Permitting	\$22,900.00	\$11,840.00	\$1,940.00	\$11,900.00	\$12,270.00	\$0.00	\$1,950.00	\$0.00	\$62,800.00
7	Bidding / Contract Award	\$2,250.00	\$2,380.00	\$1,000.00	\$1,930.00	\$1,970.00	\$0.00	\$0.00	\$1,600.00	\$11,130.00
8	Construction - Office	\$104,600.00	\$16,250.00	\$7,360.00	\$2,960.00	\$3,240.00	\$0.00	\$4,530.00	\$15,975.00	\$154,915.00
9	Construction - Field	\$79,050.00	\$16,250.00	\$3,360.00	\$6,000.00	\$4,050.00	\$0.00	\$1,900.00	\$0.00	\$110,610.00
10	Cost Estimating	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,480.00	\$2,480.00
11	Record Drawings	\$12,575.00	\$0.00	\$1,160.00	\$2,360.00	\$2,170.00	\$0.00	\$2,220.00	\$0.00	\$20,485.00
12	Project Closeout	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TOTAL HOURS:		7195	3034	764	1709	1579	0	327	789	\$1,782,480.00
LABOR COST:		\$832,350.00	\$408,370.00	\$70,180.00	\$172,900.00	\$172,280.00	\$0.00	\$29,645.00	\$96,755.00	
Total Estimated Professional Fees:										\$1,782,480

ESTIMATED INTERNAL EXPENSES
 Listed by item at Estimated Actual Cost

Total Estimated Expenses: \$60,400

ESTIMATED DIRECT LABOR LEED/COMMISSIONING SERVICES

No.	TASK	Arch	Civil	Struct	Mech/Plumb	Elect	FP	Landscape	Cx Agent	Total
13	LEED Documentation/Compliance/Cx	\$21,775.00	\$5,420.00	\$320.00	\$28,550.00	\$20,000.00	\$0.00	\$4,800.00	\$55,000.00	\$135,865.00
14										\$0.00
Total Estimated LEED/Commissioning Fees:										\$135,865
USGBC Registration/Certification Fees:										\$15,100

ESTIMATED OUTSIDE SERVICES - CONSULTANTS
 Listed by Firm or Name at Estimated Cost

Task	Method of Compensation		
	Firm	T&M, LS, etc.	Cost
Soils Borings / Report	Speedie	LS	\$28,950.00
Fire Line Flow Test (\$850/test x 4)	TRC	LS	\$3,400.00

Total Estimated Outside Services: \$32,350
 10.00% Multiplier: \$3,235
Total Estimated Consultants: **\$35,585**

TOTAL ESTIMATED BASIC FEE: \$2,029,430

POTENTIAL DESIGN ALTERNATES

Task	Method of Compensation		
	Firm	T&M, LS, etc.	Cost
Topo Survey of ADOT R/W	PEAK	LS	\$8,258.25
Topo Survey of Clay Basin (Xsec.)	PEAK	LS	\$5,324.00
On-site Boundary	PEAK	LS	\$3,146.00
Title Report	PEAK	LS	\$847.00
Arc Flash Study and Labeling	TRC	LS	\$20,000.00
Rock Coring for Underground Tanks	Speedie	LS	\$2,100.00
Assessment of Shop Equip at Bonito Facility	MFC	LS	\$1,840.00

Total Estimated Outside Services: \$41,515
 10.00% Multiplier: \$4,152
Total Additional Services: **\$45,667**

TOTAL ESTIMATED BASIC FEE (with Alternates): \$2,075,097

Client: CORE Construction
 Sub-Project Name: Core Services Maintenance Facility
 Client Project Number: 01-10002
 Contract Type: Design-Build
 Contract Number: NA
 APMI Project Number: APMI Project No. 16108.00
 Discipline: APMI, Inc. - Project Management & Architectural

COST PROPOSAL BREAKDOWN
APMI, Inc. - Project Management & Architectural

ESTIMATED DIRECT LABOR

No.	TASK	Principal	Project Manager/Arch	Senior Architect	Architectural Designer	Job Captain	CAD Draftsperson	Word Processing	TOTAL
1	Field Investigations	5	20	20			40	15	100
2	Programming	25	40	60	40	40	80	15	300
3	Schematic Design	20	80	180	120	120	240	20	780
4	Design Development	30	180	320	180	240	420	35	1405
5	Construction Documents	65	280	475	320	440	960	130	2670
6	Approvals / Permitting	10	30	40		40	60	10	190
7	Bidding / Contract Award		10					10	20
8	Construction - Office	20	120	220		240	240	40	880
9	Construction - Field	30	180	240		40	80		570
10	LEED Documentation/Compliance/Cx	5	40	55		20	40	15	175
11	Cost Estimating								0
12	Record Drawings	5	20	20			60		105
13	Project Closeout								0
TOTAL HOURS:		215	1000	1630	660	1180	2220	290	7195
% PARTICIPATION:		3%	14%	23%	9%	16%	31%	4%	
HOURLY RATE:		\$195.00	\$160.00	\$135.00	\$110.00	\$110.00	\$95.00	\$65.00	
LABOR COST:		\$41,925.00	\$160,000.00	\$220,050.00	\$72,600.00	\$129,800.00	\$210,900.00	\$18,850.00	

Total Estimated Professional Fees: \$854,125

ESTIMATED INTERNAL EXPENSES

Listed by item at Estimated Actual Cost

	Quantity	Cost	Method of Compensation Each, LS, etc.	Total
Plotting:	1	\$12,500.00	Allowance	\$12,500
Reproduction	1	\$15,000.00	Allowance	\$15,000
Messenger/Delivery/Reimbursibles	1	\$17,500.00	Allowance	\$17,500

Estimated Expenses: \$45,000
10.00% Multiplier: \$4,500
Total Estimated Expenses: \$49,500

ESTIMATED OUTSIDE SERVICES AND CONSULTANTS

Listed by Firm or Name at Estimated Cost

Firm	Method of Compensation CPNF, LS, etc.	Cost
	LS	\$0

Total Estimated Outside Services: \$0
10.00% Multiplier: \$0
Total Estimated Consultants: \$0

TOTAL ESTIMATED COST: \$903,625

Client: CORE Construction
 Sub-Project Name: Core Services Maintenance Facility
 Client Project Number: 01-10002
 Contract Type: Design-Build
 Contract Number: NA
 APMI Project Number: APMI Project No. 16108.00
 Discipline: Civil Engineering

**COST PROPOSAL BREAKDOWN
 CIVIL ENGINEERING**

ESTIMATED DIRECT LABOR - BASIC DESIGN

No.	TASK	Principal Engineer	Project Manager	Project Engineer	Designer	Engineering Intern	Land Surveyor	Survey Team Member	Clerical	TOTAL
1	Field Investigations	12	18						4	34
2	Programming	25	10	16						51
3	Schematic Design	31	20	40						91
4	Design Development	162	278	548						988
5	Construction Documents	250	604	664						1518
6	Approvals / Permitting	24	56							80
7	Bidding / Contract Award	6	10							16
8	Construction - Office	30	80							110
9	Construction - Field	30	80							110
10	LEED Documentation/Compliance/Cx	20	16							36
11	Cost Estimating									0
12	Record Drawings									0
13	Project Closeout									0
TOTAL HOURS:		0	590	1172	1268	0	0	0	4	3034
% PARTICIPATION:		0%	19%	39%	42%	0%	0%	0%	0%	
HOURLY RATE:		\$175.00	\$155.00	\$145.00	\$120.00	\$70.00	\$120.00	\$75.00	\$60.00	
LABOR COST:		\$0.00	\$91,450.00	\$169,940.00	\$152,160.00	\$0.00	\$0.00	\$0.00	\$240.00	

Total Estimated Professional Fees: \$413,790

ESTIMATED INTERNAL EXPENSES

Listed by item at Estimated Actual Cost

	Quantity	Cost	Method of Compensation Each, LS, etc.	Total
Plotting/Reproduction:	1	\$2,500.00	Allowance	\$2,500

Estimated Expenses: \$2,500
0.00% Multiplier: \$0
Total Estimated Expenses: \$2,500

ESTIMATED OUTSIDE SERVICES AND CONSULTANTS

Listed by Firm or Name at Estimated Cost

Firm	Method of Compensation CPNF, LS, etc.	Cost
JE Fuller (Clay Det. Basin Drainage)	LS	\$47,770.00
Northland Exploration Water Esmnt	LS	\$800.00

Total Estimated Outside Services: \$48,570
10.00% Multiplier: \$4,857
Total Estimated Consultants: \$53,427

TOTAL ESTIMATED COST: \$469,717

Client: CORE Construction
Sub-Project Name: Core Services Maintenance Facility
Client Project Number: 01-10002
Contract Type: Design-Build
Contract Number: NA
 APMI Project Number: APMI Project No. 16108.00
 Discipline: Structural Engineering

COST PROPOSAL BREAKDOWN STRUCTURAL ENGINEERING

ESTIMATED DIRECT LABOR

No.	TASK	Principal	Project Manager	Sr. Engineer	Engineer	Designer	CAD Draftsperson	Word Processing	TOTAL
1	Field Investigations	2			2				
2	Programming	12		12	24				
3	Schematic Design	10		16	36		36		
4	Design Development	16		20	56		56		
5	Construction Documents	36		36	116		116		
6	Approvals / Permitting	4		4	4		8		
7	Bidding / Contract Award	4			4				
8	Construction - Office	16			32		32		
9	Construction - Field	6			16		16		
10	LEED Documentation/Compliance/C	2							
11	Cost Estimating								
12	Record Drawings	2			4		8		
13	Project Closeout								
TOTAL HOURS:		110	0	88	294	0	272	0	764
% PARTICIPATION:		14%	0%	12%	38%	0%	36%	0%	
HOURLY RATE:		\$160.00	\$130.00	\$115.00	\$90.00	\$0.00	\$60.00	\$60.00	
LABOR COST:		\$17,600.00	\$0.00	\$10,120.00	\$26,460.00	\$0.00	\$16,320.00	\$0.00	

Total Estimated Professional Fees: \$70,500

ESTIMATED INTERNAL EXPENSES
Listed by item at Estimated Actual Cost

	Quantity	Cost	Method of Compensation Each, LS, etc.	Total
Plotting:	100	\$4.00	ea.	\$400

Estimated Expenses: \$400
0.00% Multiplier: \$0
Total Estimated Expenses: \$400

ESTIMATED OUTSIDE SERVICES AND CONSULTANTS
Listed by Firm or Name at Estimated Cost

Firm	Method of Compensation CPNF, LS, etc.	Cost
	LS	\$0.00
	LS	

Total Estimated Outside Services: \$0
0.00% Multiplier: \$0
Total Estimated Consultants: \$0

TOTAL ESTIMATED COST: \$70,900

APMI, Inc. - Architects / Planners / Interiors

File Name: 2016-03-15 Flagstaff Public Works - FeePropForm.xls

Date Prepared: 3/15/16

Date Revised: N/A

Client: CORE Construction
Sub-Project Name: Core Services Maintenance Facility
Client Project Number: 01-10002
Contract Type: Design-Build
Contract Number: NA
 APMI Project Number: APMI Project No. 16108.00
 Discipline: Mechanical/Plumbing Engineering

**COST PROPOSAL BREAKDOWN
 MECHANICAL/PLUMBING ENGINEERING**

ESTIMATED DIRECT LABOR

No.	TASK	Principal	Senior Engineer	Engineer	Senior Designer	Designer	CAD Draftsperson	Word Processing	TOTAL
1	Field Investigations								0
2	Programming	10	20		20			2	52
3	Schematic Design	10	40		160		210	1	421
4	Design Development	10	40		160		210	1	421
5	Construction Documents	10	40		160		210	1	421
6	Approvals / Permitting	10	20		20		40	10	100
7	Bidding / Contract Award		10					4	14
8	Construction - Office				20			8	28
9	Construction - Field				50				50
10	LEED Documentation/Compliance/C	30	130					20	180
11	Cost Estimating								0
12	Record Drawings	1			10		10	1	22
13	Project Closeout								0
TOTAL HOURS:		81	300	0	600	0	680	48	1709
% PARTICIPATION:		5%	18%	0%	35%	0%	40%	3%	
HOURLY RATE:		\$190.00	\$165.00	\$135.00	\$120.00	\$90.00	\$90.00	\$70.00	
LABOR COST:		\$15,390.00	\$49,500.00	\$0.00	\$72,000.00	\$0.00	\$61,200.00	\$3,360.00	

Total Estimated Professional Fees: \$201,450

ESTIMATED INTERNAL EXPENSES
 Listed by item at Estimated Actual Cost

	Quantity	Cost	Method of Compensation Each, LS, etc.	Total
Plotting:			ea.	\$0

Estimated Expenses: \$0
0.00% Multiplier: \$0
Total Estimated Expenses: \$0

ESTIMATED OUTSIDE SERVICES AND CONSULTANTS
 Listed by Firm or Name at Estimated Cost

Firm	Method of Compensation CPNF, LS, etc.	Cost
	LS	
	LS	

Total Estimated Outside Services: \$0
0.00% Multiplier: \$0
Total Estimated Consultants: \$0

TOTAL ESTIMATED COST: \$201,450

Client: CORE Construction
Sub-Project Name: Core Services Maintenance Facility
Client Project Number: 01-10002
Contract Type: Design-Build
Contract Number: NA
 APMI Project Number: APMI Project No. 16108.00
 Discipline: Electrical Engineering

COST PROPOSAL BREAKDOWN ELECTRICAL ENGINEERING

ESTIMATED DIRECT LABOR

No.	TASK	Principal	Senior Engineer	Engineer	Senior Designer	Designer	CAD Draftsperson	Word Processing	TOTAL
1	Field Investigations								0
2	Programming	40			20			1	61
3	Schematic Design	50			170		180	1	401
4	Design Development	50			170		180	1	401
5	Construction Documents	50			170		180	1	401
6	Approvals / Permitting	20			40		40	1	101
7	Bidding / Contract Award	10						1	11
8	Construction - Office	10			10			2	22
9	Construction - Field	15			10				25
10	LEED Documentation/Compliance/C	30	60		25			20	135
11	Cost Estimating								0
12	Record Drawings				10		10	1	21
13	Project Closeout								0
TOTAL HOURS:		275	60	0	625	0	590	29	1579
% PARTICIPATION:		17%	4%	0%	40%	0%	37%	2%	
HOURLY RATE:		\$190.00	\$165.00	\$135.00	\$120.00	\$90.00	\$90.00	\$70.00	
LABOR COST:		\$52,250.00	\$9,900.00	\$0.00	\$75,000.00	\$0.00	\$53,100.00	\$2,030.00	

Total Estimated Professional Fees: \$192,280

ESTIMATED INTERNAL EXPENSES
Listed by item at Estimated Actual Cost

	Quantity	Cost	Method of Compensation Each, LS, etc.	Total
Plotting:	0	\$0.00	ea.	\$0

Estimated Expenses: \$0
0.00% Multiplier: \$0
Total Estimated Expenses: \$0

ESTIMATED OUTSIDE SERVICES AND CONSULTANTS
Listed by Firm or Name at Estimated Cost

Firm	Method of Compensation CPNF, LS, etc.	Cost
	LS	
	LS	

Total Estimated Outside Services: \$0
0.00% Multiplier: \$0
Total Estimated Consultants: \$0

TOTAL ESTIMATED COST: \$192,280

Client: CORE Construction
Sub-Project Name: Core Services Maintenance Facility
Client Project Number: 01-10002
Contract Type: Design-Build
Contract Number: NA
 APMI Project Number: APMI Project No. 16108.00
 Discipline: Landscape Architecture

**COST PROPOSAL BREAKDOWN
 LANDSCAPE ARCHITECTURE**

ESTIMATED DIRECT LABOR

No.	TASK	Principal	Project Manager	Landscape Architect	Landscape Designer	Senior Technician	CAD Draftsperson	Administrative Assistant	TOTAL
1	Field Investigations	2	5						7
2	Programming								0
3	Schematic Design	2	8	24			2		36
4	Design Development	4	24	40		8	2		78
5	Construction Documents	2	16	32		8	2		60
6	Approvals / Permitting	2	6	8			2		18
7	Bidding / Contract Award								0
8	Construction - Office	2	20	10		8	4		44
9	Construction - Field	2	12				2		16
10	LEED Documentation/Compliance/C	4	16	20			4		44
11	Cost Estimating								0
12	Record Drawings	2	4	8		8	2		24
13	Project Closeout								0
TOTAL HOURS:		22	111	142	0	0	32	20	327
% PARTICIPATION:		7%	34%	43%	0%	0%	10%	6%	
HOURLY RATE:		\$145.00	\$125.00	\$100.00	\$85.00	\$75.00	\$65.00	\$55.00	
LABOR COST:		\$3,190.00	\$13,875.00	\$14,200.00	\$0.00	\$0.00	\$2,080.00	\$1,100.00	

Total Estimated Professional Fees: \$34,445

ESTIMATED INTERNAL EXPENSES
 Listed by item at Estimated Actual Cost

	Quantity	Cost	Method of Compensation Each, LS, etc.	Total
Plotting:	1	\$500.00	Allowance	\$500

Estimated Expenses: \$500
0.00% Multiplier: \$0
Total Estimated Expenses: \$500

ESTIMATED OUTSIDE SERVICES AND CONSULTANTS
 Listed by Firm or Name at Estimated Cost

Firm	Method of Compensation CPNF, LS, etc.	Cost
	LS	
	LS	

Total Estimated Outside Services: \$0
0.00% Multiplier: \$0
Total Estimated Consultants: \$0

TOTAL ESTIMATED COST: \$34,945

APMI, Inc. - Architects / Planners / Interiors

File Name: 2016-03-15 Flagstaff Public Works - FeePropForm.xls

Date Prepared: 3/15/16

Date Revised: N/A

Client: CORE Construction
 Sub-Project Name: Core Services Maintenance Facility
 Client Project Number: 01-10002
 Contract Type: Design-Build
 Contract Number: NA
 APMI Project Number: APMI Project No. 16108.00
 Discipline: Other

**COST PROPOSAL BREAKDOWN
 MAINTENANCE CONSULTING**

ESTIMATED DIRECT LABOR

No.	TASK	Principal	Project Manager	Sr. Engineer	Engineer	Designer	CAD Drafterperson	Word Processing	TOTAL
1	Field Investigations								0
2	Programming			40		40			80
3	Schematic Design			56		64	20		140
4	Design Development			16		200	40		256
5	Construction Documents			24		100	16		140
6	Approvals / Permitting								0
7	Bidding / Contract Award			8					8
8	Construction - Office			8		125			133
9	Construction - Field								0
10	LEED Documentation/Compliance								0
11	Cost Estimating								0
12	Record Drawings					16	16		32
13	Project Closeout								0
TOTAL HOURS:		0	0	152	0	545	92	0	789
% PARTICIPATION:		0%	0%	19%	0%	69%	12%	0%	
HOURLY RATE:		\$0.00	\$0.00	\$200.00	\$0.00	\$115.00	\$40.00	\$0.00	
LABOR COST:		\$0.00	\$0.00	\$30,400.00	\$0.00	\$62,675.00	\$3,680.00	\$0.00	

Total Estimated Professional Fees: \$96,755

ESTIMATED INTERNAL EXPENSES

Listed by item at Estimated Actual Cost

	Quantity	Cost	Method of Compensation Each, LS, etc.	Total
Plotting:	0	\$0.00	ea.	\$0
Travel Costs	1	\$7,500.00	Allowance	\$7,500

Estimated Expenses: \$7,500
0.00% Multiplier: \$0
Total Estimated Expenses: \$7,500

ESTIMATED OUTSIDE SERVICES AND CONSULTANTS

Listed by Firm or Name at Estimated Cost

Firm	Method of Compensation CPNF, LS, etc.	Cost
	LS	
	LS	

Total Estimated Outside Services: \$0
0.00% Multiplier: \$0
Total Estimated Consultants: \$0

TOTAL ESTIMATED COST: \$104,255

**City of Flagstaff
Core Maintenance Facility – City of Flagstaff
Proposed Scope of Services
March 12, 2016**

PEI Project No: 16APMI01
APMI Project No: 16108.00
COF Project No:

Civil Engineering Scope of Work Summary

Civil engineering work includes grading, drainage, paving and utility design for the proposed Core Maintenance Facility located on the north side of Route 66, west of Woody Mountain Road.

The parcel was recently annexed and rezoned. Shephard-Wesnitzer, Inc. (SWI) prepared the site plan documents in support of the annexation and rezoning. SWI prepared a traffic impact statement, drainage impact statement and preliminary plans that have been approved by the City of Flagstaff. In addition, SWI prepared preliminary plans for improvements in ADOT Right of Way that include a two-way left turn lane and acceleration and deceleration lanes to serve the main entrance. These documents have been approved by the City of Flagstaff and ADOT and are the basis of design for moving forward.

Water system design includes a new looped main with fire and domestic water service to serve the new facilities. Sewer system design includes a new collection system that will extend to a new sewer main in the Clay Avenue Detention Basin (this portion designed by others). Water and sewer design includes a system analysis, engineer's design report and submittal to ADEQ.

Grading and drainage design includes a stormwater collection system. Attenuation is to be provided by a new retention basin in the Clay Avenue Detention Basin. The proposed improvements encroach into the flood limits of the Clay Avenue Detention Basin. To mitigate the encroachment, material will be excavated from the detention basin to balance the displaced volume. To protect the facilities, the finished floors are to be a minimum of one foot above the flood elevation. We have partnered with JE Fuller to provide the drainage design for the Clay Avenue Detention Basin and erosion control plan / SWPPP.

Paving and hardscape design includes on-site improvements such as circulation drives, the entrance drive and circle, sidewalks, ADA parking and path of travel, parking lots, curb and gutter and a trail connection. Off-site improvements include pavement widening on Route 66 for turn lanes and the addition of curb and gutter along the property frontage.

Our proposed scope of work is based on the phases presented by APMI as follows:

Phase 1: Field Investigations

It is our understanding that the City has completed a topographic and resource survey for the project site. Our scope of work for field investigations is preparation of the project basemap.

We will prepare a project basemap using the topographic survey as the background. We will merge the topographic information with the City's GIS data, as available, to show natural features and existing improvements beyond the boundary. We will also compile as-built information, as available, of existing utilities and show this information in the project basemap. The completed basemap will become the background for design.

Deliverable (internal): project basemap in CAD format.

Phase 2: Programming

The work for this phase is substantially complete and requires verification and minor modifications only. We have included time to participate in a team design review meeting, perform AutoTurn Analyses on the existing site plan for the largest vehicle and for proposed layout changes.

This phase includes cursory review of the topography and soil conditions with respect to the proposed improvements to help guide proposed modifications to the current site plan.

Deliverable: Participation in a programming verification meeting, AutoTurn Analysis, earthwork and site layout review.

Phase 3: Schematic Design (SD)

The work for this phase is substantially complete and the City prefers minimal revision to the site design. We anticipate minor revisions to the current site plan based on the results of program verification. We will address the civil engineering related comments listed in the conditions of approval of the site plan, if available.

APMI will provide the CAD site plan and we will review for conformance with engineering standards and modify, if needed.

We will perform an AutoTurn analysis to show on-site vehicular movements for trash collection and emergency access vehicles. The City will provide the vehicle standards per AASHTO for the model or confirm SU-30 for solid waste vehicle and a Quint fire engine. We will prepare an exhibit of the analysis to include with the SD package.

This phase includes design team meetings to coordinate design elements, a meeting with ADOT to confirm their review schedule and permitting requirements, and a meeting with the City's stormwater department to confirm approach to the hydrologic and hydraulic analysis.

Deliverables: Revised Site Plan, AutoTurn Exhibit, ADOT meeting, City Stormwater Meeting, Design Team Meetings

Phase 4: Design Development (DD)

We will participate in a City and user group meeting to verify adequate provisions of space and location for site systems to kick off the design development phase.

Design development documents include preliminary civil engineering of grading, on and off-site improvements, storm water management, Low Impact Development (LID) features, water and sewer utilities, and resource protection. Design development documents include preliminary design plans.

We anticipate four stand-alone plan sets (see attached exhibit):

1. On-site grading, drainage and paving plans for circulation drives, main entrance drive and primary stormdrain. We will show building pad elevations for rough grading and minimum finished floor elevations. This set includes drainage improvements in the Clay Avenue Detention Basin.
2. On-site civil improvements for buildings/structures. This includes sidewalks/access to the doors, parking lots, stormdrain laterals and utility services.
3. Utility (water & sewer main) design
4. Off-site paving and drainage design for Route 66 improvements in the ADOT Right of Way.

For each plan set, we anticipate a cover, general notes and quantities, removals, details, construction control and erosion control. For the on-site improvements, we will include a resource protection sheet quantifying trees to be removed and trees to remain. For the utility design, we will prepare plan and profile sheets for the water main loop and the sewer collection system.

Drainage design for retention and volume exchange in Clay Avenue Detention Basin will be completed by JE Fuller. Please see their proposal, attached.

Plans will be prepared using appropriate standards including but not limited to the City of Flagstaff Engineering Standards, ADEQ requirements, MAG Standards and Specifications, ADOT Standards for Road and Bridge Construction and ADA Guidelines.

The design development plans will show preliminary design and alignments but will not be fully detailed. Construction notes will be listed on the plans and proposed elements will be keynoted but not fully dimensioned. Quantities will not be listed per sheet in the plans; however, total quantities will be shown on the general notes sheet.

This phase includes regular coordination meetings with the design team and a design team quality control and coordination workshop. We anticipate meeting with CORE to review quantities in support of their estimating efforts.

We will submit the design sheets to APMI for inclusion in the submittal to the City's Development Services Division for compliance review. Comments will be addressed in the construction documents.

We will submit plans to franchise utility companies (UniSource, SuddenLink, Century Link and APS) for review and comment. We will prepare a utility approval form to be included with the plan submittal.

Deliverables: Design development plans (4 stand-alone plan sets)

Phase 5: Construction Documents (CD)

We will prepare construction ready documents for the improvements. Project specifications will be presented in the plans. Construction documents are broken into four stand-alone plan sets as described in Phase 4 and as follows:

1. On-site grading, drainage and paving plans for drives and stormdrain.
2. On-site civil improvements for buildings.
3. Utility (water & sewer main) design. Note that utility services will be shown in the building plans.
4. Off-site paving and drainage design for Route 66 improvements in the ADOT Right of Way.

We anticipate that the on-site civil improvement submittal (plan set 2) will occur after the other submittals are made. Submittals may be staggered as the schedule allows and as reviews are completed and comments addressed.

The documents will be sealed by an Arizona registered professional engineer (civil) and will be packaged for final reviews and approvals.

We will provide a list of special inspections and testing required during construction of the sewer, water main and the site improvements (asphalt, concrete, special pavements).

This phase includes regular coordination meetings with the design team and a design team quality control and coordination workshop.

This phase includes preparation of a legal description and exhibit for a 20' corridor centered on the proposed water main. Northland Exploration will provide the documents; please see their proposal, attached.

Final drainage design for retention and volume exchange in Clay Avenue Detention Basin will be completed by JE Fuller. Please see their proposal, attached.

Deliverables: Site improvement plans, specifications & special provisions, construction special inspections and testing list

Phase 6: Approvals/Permitting

We anticipate and will be responsible for the following permit approvals/submittals:

- ADOT Design Review Encroachment Permit Application – Route 66 Right of Way improvements
- ADEQ Approval to Construct - water and sewer facilities
- City of Flagstaff Civil Improvement Plan Reviews (required for the grading permit application)
- Franchise Utility Approval (Unisource, APS, SuddenLink, Century Link)

Deliverables: Permits and approvals listed above.

Phase 7: Bidding / Contract Award ALLOWANCE

We will participate in a pre-bid meeting with CORE's subcontractors and answering questions of potential bidders related to the site improvements.

We have estimated the effort required for this phase and presented it as an allowance. We will invoice percent complete based on actual hours charged against this phase. We will not incur charges on this phase without written authorization.

Deliverables: Pre-bid meeting attendance, Responses to RFIs

Phase 8: Construction – Office

We anticipate and have budgeted for the following construction phase activities:

- Material submittal review
- Responses to requests for information
- Exhibits to modify design based on unknown field conditions or construction phase changes. We anticipate a 10-month construction duration and 8 hours per month of project engineer time and 3 hours per month of project management time.

Deliverables: listed above

Phase 9: Construction – Field

We anticipate site visits during construction of site improvements to document progress. We will document field visits with observation reports with a summary of work underway and project photographs. We have budgeted for 8 hours/month of project engineer and 3 hours/month of project manager time for a 10-month construction duration.

We have estimated the effort required for this phase and presented it as an allowance. We will invoice percent complete based on actual hours charged against this phase.

Deliverables: listed above

Phase 10: LEED Documentation / Compliance

We will support the LEED Accredited Professional in the documentation and submittal of LEED credits pertaining to the site improvements. We anticipate responsibility for the following credits:

- SSp1: Prerequisite, Stormwater Management
- SSc 5.1 & 5.2: Site Development
- SSc6.1 & 6.2: Stormwater Design
- SSc7.1: Heat Island Effect, non-roof

We will upload to LEED On-line the documentation for the credits listed above, as appropriate.

We will provide supporting calculations for other credits that will be managed by other team members which may include site selection, development density and community connectivity, alternative transportation, water use reduction, water efficient landscaping, material reuse (e.g. salvaging of existing asphalt), regional materials, innovation in design and regional priorities.

We anticipate two site visits during construction to verify compliance with LEED certification requirements.

Deliverables: LEED prerequisite SSp1, LEED credit template submittals for SSc5, SSc6 and SS7.1, supporting documentation for other credits listed above, 2 site visits.

Phase 11: Cost Estimating

The project is being delivered under a design-build contract and CORE will be responsible for providing estimates during design. We will support this effort by summarizing quantities.

Phase 12: Record Drawings

Record drawings are presented as an additional service.

Phase 13: Project Closeout

APMI will prepare the project closeout documents. We will provide copies of the project records described in the previous phases for inclusion in the close-out documents.

We will participate in a one-year project walk-through to address warranty items for the site improvements. We will provide documentation of warranty issues for inclusion in APMI's warranty walk-through report.

Phase 14: Additional Services

Additional services may include the following:

Land Surveying

Topographic survey of ADOT R/W by Arizona Surveying.

Boundary and control verification and setting construction control, if needed.

Title report for determining easements and encumbrances.

Depiction of easements and encumbrances based on a current title report.

Topographic data at specific cross-sections and locations in the Clay Avenue Detention Basin in support of the volume exchange and retention requirements. This work would be performed at a stage in design when the locations are known and not with the initial survey effort.

Survey measurements in support of the rough grading certification. These measurements include culvert and stormdrain infrastructure inverts, weirs, catchbasin grates/lids and basin tops and bottoms. This work would occur during construction.

As-built measurements of the site improvements and the retention basin (1) and volume exchange areas (2) in the Clay Avenue Detention Basin. This work would occur when final stabilization is complete.

Construction Phase Permitting

Rough grading certification - we will coordinate and submit the grading inspection certification to the City of Flagstaff for review and approval. The grading certificate requires the Civil

Engineer, Contractor, Geotechnical Engineer and Surveyor to certify rough grading. The task includes a field visit to verify compliance.

Final grading certification – we will submit the grading inspection certification to the City of Flagstaff for review and approval. The grading certificate requires the Civil and Geotechnical Engineer to certify final grading. The task includes a field visit to verify compliance.

ADEQ Approval of Construction - water and sewer facilities (record drawings are required for this submittal).

Record Drawings

We will prepare record drawings of the site improvements in CAD format. We will supplement the Contractor's as-built information with our own site measurements to verify the accuracy of the record measurements. This includes an as-built survey of the site improvements and drainage improvements per Northland Exploration's proposal.

The record drawings will be sealed by a registered professional engineer (civil) and provided to the City in PDF format. Please note, record drawings are required for the water and sewer main installation to obtain an Approval of Construction from ADEQ.

Assumptions

- APMI will prepare and track the overall project schedule and submit schedule updates.
- APMI will be responsible for preparation of exhibits/plans for programming.
- The City will provide a topographic survey including, at a minimum, a points file (ASCII) and a CAD file that includes tree species and trunk diameter, utility appurtenances, contours, DTM or TIN, and horizontal and vertical control.
- The City will provide copies of the drainage report for the Clay Avenue Detention Basin.
- The drainage impact statement and proposed strategy of volume exchange and retention in Clay Avenue Detention Basin have been approved by the City of Flagstaff and significant changes to this approach will not be required.
- The City will provide the supporting documents (e.g. capacity assurance) for the ADEQ submittal and will confirm that there is water and sewer capacity for the proposed project.
- Taylor Rymar Corp. will provide system demands at nodes (fire and domestic) for inclusion in the on-site water system model.
- Taylor Rymar Corp. will provide sewage generation rates at service connections for inclusion in the on-site sewer system model.
- Taylor Rymar Corp. will size sand and/or oil separators.
- The traffic impact statement and proposed improvements on Route 66 as shown on the site plan have been approved by ADOT and significant changes will not be required.
- CORE will prepare the traffic control plan for inclusion with the permit request to ADOT for the Route 66 improvements.
- We anticipate a gravity sewer connection to the new sewer main located in the drainage basin, immediately north of the project site.

- Taylor-Rymar will coordinate electrical design with APS and natural gas design with UniSource; however, Peak Engineering will coordinate the APS, UniSource, Sudden Link and Century Link utility approval process.
- Significant changes to the current approved site plan may result in additional design fees.
- The Contractor will be responsible for installation of BMPs related to the SWPPP and will be responsible for filing the NOI and NOT with ADEQ. The Contractor will also be responsible for daily monitoring and reporting.
- APMI will conduct the preliminary and final project walk-throughs.
- The City will observe the water and sewer pressure/leakage testing and the water quality testing.
- The Contractor will maintain a set of as-built drawings and will provide a copy upon substantial completion.

Exclusions

- A concept and/or site plan submittal for City of Flagstaff IDS review is not included.
- Plan review and permitting fees are not included.
- Coordination or submittals to Coconino County are not included.
- Coordination or submittals to the Army Corps of Engineers are not included.
- Coordination or submittals to Arizona Department of Water Resources are not included.
- Coordination or submittals to the Arizona Corporation Commission are not included.
- Design of the extension of reclaimed water to serve the site is not included.
- Water storage and pumping system and/or well development design is not included.
- Design of off-site infrastructure is excluded, excepting the ADOT pavement widening and edge improvements for the new turn lanes as shown on the approved site plan.
- Design improvements to the FUTS (levee) is not included.
- Dark skies coordination is not included.
- Construction cost estimating is not included.
- QC testing review is not included.
- Construction staking is not included.

- END -



March 4, 2016

Julie Leid
Peak Engineering, Inc.
110 N. Agassiz Street
Flagstaff, AZ 86001

Dear Julie,

Thank you for requesting this proposal for professional services in conjunction with the City of Flagstaff Core Services – Public Works Facility. Peak Engineering, Inc. (PEI), is a sub consultant of APMI and is providing civil engineering services for the project. JE Fuller (JEF) will provide support services to PEI as outlined in the scope below.

The Proposed Public Works Facility is a proposed 20+/- acre development within a 49 acre site located on West Route 66, just west of Woody Mountain Road. The project includes construction of a new turn lane on Route 66 with two entrances. The development is in the fringe of the 100 year and 500 year ponding limits of the Clay Avenue Wash Detention Basin which is not currently a delineated FEMA Special Flood Hazard Area. In 2014 and 2015 a Concept Plan and Site Plan were prepared by SWI and JWA Architects and approved by the City of Flagstaff. The proposed design of the Public Works Facility will be in accordance with the approved Site Plan. Some items of note in relation to the drainage design that shown on the approved Site Plan and described in the Drainage Impact Analysis are:

- Encroachment of the site into the 100 year and 500 year ponding limits of the detention basin is approved. The volume displacement will be mitigated by excavating volume from the opposite side of the detention basin adjacent to the BNSF railroad tracks. The City of Flagstaff does not state that grading will need to be reviewed and approved by the US Army Corps of Engineers.
- The additional runoff rate and volume from the proposed site will be mitigated by providing additional retention storage within the Clay Avenue Wash Detention Basin. A separate detention basin will not be constructed. Downstream impacts do not need to be analyzed below the Clay Avenue Wash Detention Basin

The following outlines our proposed scope of services.

SCOPE OF SERVICES

JEF will assist PEI in preparation of the civil site design and associated documents presented in the APMI Cost Proposal and as outlined below:

8400 S Kyrene Road, STE 201 Tempe, AZ 85284 480.752.2124	40 E Helen Street Tucson, Arizona 85705 520.623.3112	1 West Deer Valley Road, STE 101 Phoenix, Arizona 85027 623.889.0166	323 N. San Francisco St, Ste. 100 Flagstaff, Arizona 86001 928.214.0887	1042 Willow Creek Road A101 #415 Prescott, Arizona 86301 928.640.0778
--	--	--	--	---



Task 1 – Field Investigations: Not Included.

Task 2 – Programming: Not included

Task 3 – Schematic Design: JEF will provide site grading and drainage design assistance to PEI through the Schematic Design Phase. This is anticipated to be approximately 10 hours per week and could include; preliminary catch basin and stormdrain sizing and placement, LID basin sizing and placement, and site grading QC in relation to the drainage design.

JEF will prepare 1 sheet of the grading plans that conceptually shows the cut and fill within the detention basin to accommodate the volume exchange and retention volume.

Deliverable – Weekly site grading assistance. Clay Avenue Wash Detention Basin Grading Plan.

Task 4 – Design Development: JEF will provide site grading and drainage design assistance to PEI through the Design Development Phase. This is anticipated to be approximately 10 hours per week and could include; preliminary catch basin and stormdrain sizing and placement, LID basin sizing and placement, and site grading QC in relation to the drainage design.

Construction plans that show the onsite grading and drainage features will be prepared by PEI. JEF will prepare 2 sheets of the grading plans that will show the cut and fill within the detention basin to accommodate the volume exchange and retention volume. These sheets will be prepared on the PEI titleblock and numbering will be provided by PEI.

Preliminary drainage calculations will be prepared that will include LID volume requirements, retention basin sizing, preliminary stormdrain and catchbasin sizing.

A meeting with the City is included to review the design and gain endorsement of the design.

Deliverable – Weekly site grading assistance, preliminary drainage calculations, Clay Avenue Wash Detention Basin Grading Plans.

Task 5 – Construction Documents: JEF will provide site grading and drainage design assistance to PEI through the Construction Document Phase similar to the previous phases. Construction plans that show the onsite grading and drainage features will be prepared by PEI. JEF will prepare the following:

- 2 sheets of the grading plans that will show the cut and fill within the detention basin to accommodate the volume exchange and retention volume.
- Storm Water Pollution Prevention Plan for the entire site that shows proposed BMP’s and erosion protection. These sheets will be prepared on the PEI titleblock and numbering will be provided by PEI.



- A drainage report will be prepared per City of Flagstaff requirements to document the drainage design. The drainage report will include scupper sizing on Route 66 and it is not anticipated that a separate drainage report will be required for the ADOT improvements.
- A LID operations and maintenance manual will be prepared for the site in accordance with the City of Flagstaff requirements.

Deliverable – Weekly site grading assistance, Final Drainage Report, LID O&M Manual, SWPPP sheets, Clay Avenue Wash Detention Basin Grading Plans.

Task 6 – Approvals/Permitting: This task includes addressing review comments from the City of Flagstaff and preparing a revised submittal of the Drainage Report, LID O&M Manual, SWPPP sheets, and Clay Avenue Wash Detention Basin Grading Plans.

Deliverable – Revised Final Drainage Report, Revised LID O&M Manual, Revised SWPPP sheets, Revised Clay Avenue Wash Detention Basin Grading Plans.

Task 7 – Bidding/Contract Award: Not Included

Task 8 – Construction - Office: This task includes time during the construction to address contractor submittals and RFI’s in relation to the drainage construction.

Task 9 – Construction - Field: This task includes preparation of the COF Rough Grading Certification. JEF will perform one field visit to photo document the drainage features constructed. JEF will seal section A of the Rough Grading Certification and prepare a letter to accompany the certification. PEI will coordinate the submittal of the certification and completion of all other sections.

Deliverables: Section A of the Rough Grading Certification

Task 10 – LEED Documentation/Compliance: Not Included

Task 11 – Cost Estimating: Not Included

Task 12– Record Drawings: Not Included

Task 13 – Project Closeout: This task includes preparation of the COF Final Grading Certification. JEF will perform a field visit to photo document the drainage features constructed. JEF will seal section A of the Final Grading Certification and prepare a letter to accompany the certification. As-built plans will be prepared and provided to JEF prior to preparation of the Final Grading Certification. PEI will coordinate the submittal of the certification and completion of Section B.

Deliverables: Section A of the Final Grading Certification

8400 S Kyrene Road, STE 201
Tempe, AZ 85284
480.752.2124

40 E Helen Street
Tucson, Arizona 85705
520.623.3112

1 West Deer Valley Road, STE 101
Phoenix, Arizona 85027
623.889.0166

323 N. San Francisco St,
Ste. 100
Flagstaff, Arizona 86001
928.214.0887

1042 Willow Creek Road A101 #415
Prescott, Arizona 86301
928.640.0778



FEE

Our fee to assist PEI in preparation of the civil site design and associated documents per the above scope is xxxx. The project includes an allowance of \$500 for reimbursable expenses. Additional services outside of the scope will be provided per the hourly rates below. The breakdown of costs is presented in the table below:

Table 1. Fee by Task

Task	Lump Sum Fee
Field Investigations	
Programming	
Schematic Design	
Design Development	
Construction Documents	
Approvals / Permitting	
Bidding / Contract Award	
Construction - Office	
Construction - Field	
LEED Documentation/Compliance	
Cost Estimating	
Record Drawings	
Project Closeout	
TOTAL:	

SCHEDULE

The anticipated project schedule as provided by the client is:

- Notice to Proceed – April 5th, 2016
- Schematic Design Submittal – May 6th, 2016
- Design Development Submittal – June 4th, 2016
- Construction Document Submittal – August 1st, 2016



ASSUMPTIONS

The proposal is based on the following assumptions:

1. Coordination with or submittals to the US Army Corps of Engineers in relation to construction within the Clay Avenue Wash Detention Basin is not included.
2. Construction is not within a FEMA floodplain and will not require a floodplain use permit.
3. It is unknown if 404 permit coordination and Jurisdictional Waters of the United States delineation is required. It is not included in this scope of services.
4. The retention/detention storage will be provided per the approved Drainage Impact Analysis, prepared by SWI on January 13, 2015. Analysis of downstream impacts is not included.
5. Retention basin design with the Clay Avenue Wash Detention Basin only includes the grading design. Planting/soil preparation/wetlands design is not included.
6. Design of sand/oil (or other pollution removal features) is not included.
7. As-built surveys for rough grading, final grading and record drawings will be prepared by others and provided to us for the City of Flagstaff Stormwater Section Grading Certifications following the City of Flagstaff As-built checklist.
8. Plan review and permit fees will be paid by others.
9. Only minor changes will be made to the site plan during the DD and CD phases. Significant changes may be considered additional services.
10. We have budgeted for one DD submittal to the City and one CD submittal to the City. Additional submittals for items not the responsibility of JEF will be an additional service.
11. Drainage design associated with the ADOT turn lane will be included in the site Drainage Report. A second Drainage report will not be prepared.
12. Onsite retention will be required by the City’s LID requirements.
13. Additional services if required and approved by the client will be billed in accordance with the standard hourly rates for JEF.

PAYMENT TERMS

- a. Payments are due and payable within 30-days of the invoice date. Late payments exceeding 60-days past invoice are subject to a ten (10) percent penalty fee.
- b. The client is responsible for paying agency review fees.

8400 S Kyrene Road, STE 201
Tempe, AZ 85284
480.752.2124

40 E Helen Street
Tucson, Arizona 85705
520.623.3112

1 West Deer Valley Road, STE 101
Phoenix, Arizona 85027
623.889.0166

323 N. San Francisco St,
Ste. 100
Flagstaff, Arizona 86001
928.214.0887

1042 Willow Creek Road A101 #415
Prescott, Arizona 86301
928.640.0778



DEFINE | COMMUNICATE | SOLVE

Authorization to proceed with the services can be acknowledged by signing below and returning a signed copy to JE Fuller (Electronic Acceptable). Thank you again for the opportunity to provide you with this proposal for services. We look forward to providing you with high quality professional engineering services.

Sincerely,

JE Fuller Hydrology & Geomorphology, Inc.

Joe Loverich, P.E, CFM

Acceptance of scope, fee, schedule, terms and conditions:	
Printed Name/Title	Date



Adam Siros, AIA
AMPI
8300 North Hayden Road
Suite A-209
Scottsdale, Arizona 85258

March 14, 2016

Re: City of Flagstaff Core Services Facility –Landscape Architecture Services
WLB No. TBD

Dear Adam,

This letter presents our fee proposal for landscape and Irrigation design services for the City of Flagstaff Core Services Facility Project.

Project Understanding: The AMPI and Core Construction team have been selected for the design build of the new City of Flagstaff Core Services Facility project. The proposed Core Services Facility will be located along the north side of Old Route 66 between Woody Mountain Road and Flagstaff Ranch Road on the property owned by the City for the Clay Avenue Wash Detention Basin. A site plan for the project was prepared in March 2015. The landscape design will be based on the approved landscape site plan that was previously prepared.

The Landscape and Irrigation Plans will show:

- Existing vegetation to be preserved or removed
- Proposed landscaping using appropriate low-water, year-round interest plants
- Groundcover treatment to unify the landscaping and address the LID basins
- Automatic irrigation system design

The project schedule shows the completion of the design by July 2016. The construction will be completed in 2 phases. The First phase will be the ADOT road improvements and the circle driveway around the existing cell tower. The second phase will be the remainder of the site.

BASIC SERVICES

The scope of services is as described below.

Task 1 – Field Investigation: Using the existing site plan and resource protection plan prepared in March 2015 WLB will do a site visit to review the existing information to use for the landscape design. Information for the field investigation will be used in the preparation of the construction documents for the project.

Deliverables: No submittals will be made. Data collected will be used for the preparation of the plans.

Task 2 – Schematic Design: WLB will prepare Schematic Design Documents for the planting and groundcover associated with the new facility. The Schematic Design will be submitted to the City of Flagstaff to prepare an

administrative site plan amendment. The SD plan is 1 to 2 sheets and will show the information from the approved Landscape Site Plan adjusted to match the proposed design.

WLB's schematic plans will have two sheets and will be included in the architect's plan set:

- L1– Landscape Plan
- L2 – Groundcover Plan

Deliverables: Schematic Design Documents for submittal to AMPI to be included in the Schematic Design Package.

Task 3 – Design Development: WLB will prepare Design Development Documents for the landscape, groundcover and irrigation work associated with the new facility Notes and Specifications will be included on the sheets.

The landscape and groundcover plan will develop what is shown on the Schematic Design plans based on coordination with the architect. An irrigation plan will be prepared to show the proposed connection to the site water.

WLB's plans will have 5 sheets and will be included in the architect's plan set:

- Landscape Notes/Details (4 Sheets)
- Hydroseed / Groundcover Plan (1 Sheet whole site)
- Irrigation plan Administration and Fleet Services (3 Sheets)
- Planting Plan Administration and Fleet services (3 Sheets)

The hydroseed areas and ground plan will be shown on one sheet at a scale of 1" = 60'. The only areas that will have irrigation and planting plans is the Parking and Administration Building and the Parking area to the south of the Fleet Service building. Both the irrigation plan and the planting plans in this area will be at a scale of 1" = 20' and we anticipate two sheets of the Administration area and one for the Fleet Service area.

There will be 2 phases for the construction. Phase 1 will be for the ADOT road work and the construction of the circle drive around the cell tower. Phase 2 will be the remainder of the site. Phase One has very little landscaping and will be a 1 sheet plan that shows the irrigation meter and backflow preventer and a stub out across the circle drive. The Phase 2 plans will show the connection to the Phase One irrigation and the remainder of the site.

WLB will prepare a narrative for LEED credits WE 1.1 and 1.2.

Deliverables: Design Development submittal to AMPI will include:

1. Phase 1 Plan (1 Sheet)
2. Phase 2 Plans (11 Sheets)
3. Narrative for LEED Credits WE 1.1 and 1.2.



Task 4 – Construction Documents: WLB will prepare Construction Documents for the landscape, groundcover and irrigation work associated with the new facility incorporating comments from the team on the DD plan submittal. Specifications will be on the plan sheets.

WLB's plans will have the same index as the Design Development set.

Deliverables: Coordination Documents for submittal to AMPI for City Submittals. Updated Narrative for LEED Credits WE 1.1 and 1.2.

Task 5 – Approvals / Permitting: WLB will address comments from the City for permit approval of the plans.

Deliverables: 100% Construction Documents for permit approval from the City

Task 6 – Construction Office: During construction we will work with AMPI to provide the following items with respect to landscape and irrigation construction activities:

- Review of contractor submittals for site materials (up to 2 submittals)
- Review of RFI from contractors (Up to 10 RFI)

Task 7 – Construction Field: During construction WLB can provide field observation to address questions and unforeseen conditions and to prepare punch list for the landscaping:

- On-site construction observations as requested (3 visits budgeted)
- Additional site visits are \$650/visit

Task 8 – LEED Documentation / Compliance: WLB will provide AMPI with documentation for LEED Credits WE Credit 1.1, WE credit 1.2. LEED compliance will include narratives and uploading documentation to obtain LEED credits.

Deliverables: Completion of LEED documentation for WE Credit 1.1 and WE Credit 1.2.

Task 9 – Record Drawings: Using information from site visits during construction and the Contractor's supplied redline plans WLB will prepare a set of record drawings for the landscaping.

Deliverables: Record drawings for the project will be submitted to AMPI

END OF BASIC SERVICES

Fee: Our fee for the Landscape, Groundcover and Irrigation plans is \$34,945 including an allowance of \$500 for reimbursable expenses. Reimbursable expenses will be time and materials. The additional services authorized by the client will be billed at the hourly rates per the attached fee schedule. The breakdown of costs is presented in the following table:



BASIC SERVICES (Lump Sum)	Fee
Task 1 - Field Investigation	\$915
Task 2 - Schematic Design	\$3,800
Task 3 - Design Development	\$8,210
Task 4 - Construction Documents	\$6,120
Task 5 - Approvals / Permitting	\$1,950
Task 6 - Construction Office	\$4,530
Task 7 - Construction Field	\$1,900
Task 8 - LEED Documentation / Compliance	\$4,800
Task 9 - Record Drawings	\$2,220
Subtotal	\$34,445
Plus Reimbursable Expenses (Allowance)	\$500
TOTAL BASIC SERVICES	\$34,945

Additional services authorized by the client will be billed monthly.

Schedule: The schedule will be as shown on the Draft Milestone Schedule dated 3/4/2016.

The proposal is based on the following assumptions:

1. The topographic survey and existing trees will be provide to WLB in AutoCAD.
2. Project base maps will be provided in a timely manner and no updates to base maps can be made within 5 days of milestone submittals.
3. After completion of the Design Development, only minor changes will be made to the site plan. Significant changes may be considered an additional service.
4. Plan review and permit fees will be paid by others.
5. AMPI will handle all submittals and coordinating review comments.
6. AMPI will provide LEED worksheets and they will do the input into the LEED system.
7. Documents will be submitted with each phase for review. Should intermediate submittals be required they may be considered an additional service.
8. Record drawings will be based on contractor redlines and as-built surveys provided by others. As built from contractor for preparation of record drawings shall be legible and concise.
9. Temporary irrigation for hydroseed areas will be furnished by the Contractor.
10. Construction services do not include attendance at weekly meetings.
11. Contractor construction submittals will be provide at one time and not piecemeal.
12. Detailed irrigation and planting plans are only for the areas that are shown on the Landscape Site Plan prepared for the site dated March 2015.
13. Phase 1 Construction Documents will be 1 sheet and will show areas for hydroseed areas and irrigation connection to get mains outside of the circle driveway and the Phase 1 construction limits.



- 14. The improvements in the ADOT right-of-way will not require any landscaping.
- 15. Additional services if required and approved by the client will be billed in accordance with the standard hourly rates for The WLB Group, Inc.

We appreciate the opportunity to provide additional services for this project. If the above described arrangements are satisfactory to you, please indicate so by signing below and returning one copy to our office. If you have any questions, please feel free to contact me.

Sincerely,
THE WLB GROUP, INC.

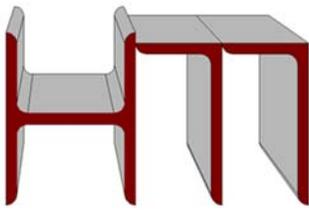
A handwritten signature in blue ink that reads "Daniel J. Burke".

Daniel Burke, PE
The WLB Group, Inc. – Flagstaff Office

ACCEPTED by: AMPI

By: _____

Date: _____



*City of Flagstaff – Core Services Maintenance Facility
Proposal for Structural Engineering Services*

Basic Scope of Services: Engineering design and drafting of the structural engineering construction documents for the City of Flagstaff – Core Services Maintenance Facility. Our scope will include:

- 1) Building foundation design for the following new single-story pre-manufactured steel buildings:

Streets	Approximately 21,100 Sq. Ft.
Parks/Facilities.....	Approximately 13,000 Sq. Ft.
Solid Waste.....	Approximately 2,700 Sq. Ft.
Fleet Maintenance	Approximately 21,900 Sq. Ft.
Fuel Canopy.....	Approximately 3,000 Sq. Ft.

The pre-manufactured steel building will be designed by others and the building engineer will provide all reactions at the foundation. We will use the sealed drawings from the pre-manufactured building designer with the final building column reactions in order to design the foundations. Foundations are assumed to be conventional spread footing foundations per the soils report, and the floor is assumed to be concrete slab on grade construction.

- 2) Structural building design for the new Administration Building of approximately 22,000 Sq. Ft. and the Wash Building of approximately 3,700 Sq. Ft. The structures will likely consist of: prefabricated steel roof joists on steel beams; steel frame columns, steel stud walls or masonry walls with a concrete slab-on-grade; and conventional spread footings. prefabricated steel roof joists designs and layouts shall be provided by the joist supplier(s).
- 3) Structural design for new independent, freestanding crane rails in various buildings. The crane beam and rails will be steel construction with steel columns (moment frames or cantilever columns) and conventional spread footing foundations per the soils report.
- 4) Various site walls and site features (signs, light pole foundations, etc.).

For the scope listed above, we will provide drafting of the structural construction documents, and coordination throughout the design, permitting and construction phases. We will also provide as-built drawings and project closeout.



March 14, 2016

Adam Siros
APMI
8700 E. Via de Ventura Suite 130
Scottsdale, AZ 85258-4515

Re: City of Flagstaff Public Works Yard
Flagstaff, Arizona
TRC Proposal 016064.00

Dear Adam,

Taylor RyMar Corporation (TRC) is pleased to submit this proposal to APMI (APMI) for engineering services described below. TRC developed our Scope of Services based on the information provided during a pre-proposal meeting held on February 23, 2016.

Project Understanding

Project scope includes the following:

1. A \$21 million dollar, 45 acre site development for City of Flagstaff Public Works Department. Site will house (6) new buildings and (1) new canopy.
2. Project design shall take into account the latest Site Plan by SWI.
3. Site lighting will incorporate City of Flagstaff dark sky requirements.
4. Project will incorporate LEED Silver requirements. Additional services for LEED shall include but not limited to energy modeling and documentation submittal.
5. Site electrical routing and coordination with utility company, civil, architectural, contractor, and owner.
6. All Buildings shall include general lighting with controls; general electrical power outlets; voice and data locations; power for HVAC and plumbing equipment; dedicated HVAC systems; dedicated potable cold and hot water systems; snow melt systems; and dedicated sanitary waste and vent systems.
7. New emergency generator shall be incorporated. Buildings and systems shall be identified which are to be on emergency power before start of design.
8. All IT/Data rooms shall have a dedicated cooling unit.
9. Janitor closet shall have mop service basin.
10. Building specific systems are identified under each respective building description based on Space Programming documents dated March 24, 2015 and overall site plan dated October 20, 2015. Any discrepancy in area from both documents, the lesser of the amount shall be used for this proposal.
11. General Systems Design and Site:
 - a. Site electrical power will be coordinated with APS to be brought in from an off-site location.
 - b. Site lighting will be Amber (narrow wave-length) LED with white light component as allowable by City Ordinance.
 - c. Site communications requirements will be coordinated with the City in conjunction with City communications vendors.
 - d. Interior lighting will be LED with automatic lighting controls.
 - e. Site power will be distributed at 480/277-volts with step-down 208/120-volt transformers at each building.
 - f. Emergency power requirements shall be established by the City prior to the start of design.
 - g. Voice and data communications cabling will be coordinated with the City and will include site conduits and fiber, building IT room layouts standard rack layouts, cable tray and

pathways layouts, horizontal copper voice and data cabling, and voice/data outlets per City standards.

- h. TRC shall provide the following to civil in order for civil to perform utility modeling:
 - i. Demands at nodes (domestic only) for inclusion in the on-site water system model.
 - ii. Sewage generation rates at service connections for inclusion in the on-site sewer system model.
 - i. Coordinate electrical design with APS.
 - j. Coordinate with UniSource for NG design. Modeling to be performed by UniSource.
 - k. Peak Engineering will coordinate the utility approval process.
12. Administration Building:
- a. Building area equals 21,952 square feet.
 - b. Building shall be block or metal construction. Bldg shall NOT be pre-fabricated metal construction.
 - c. Briefing rooms shall have coffee counter with sink and refrigerator.
 - d. Break room shall have counter, microwave, stove, refrigerator, and sink.
 - e. Utility room shall have washer and dryer.
 - f. Locker shall have men's and women's toilets with total of (4) showers.
13. Streets Building:
- a. Building area equals 21,097 square feet, future expansion of 3,600 square feet.
 - b. Building shall be metal construction.
 - c. Building shall be used for general and hazardous material storage. Hazardous material storage shall NOT exceed exempt amounts as indicated within IBC and IFC.
 - d. Provide air compressor for vehicle area.
 - e. Provide sand/oil interceptor.
 - f. Restrooms shall NOT incorporate showers.
14. Parks/Facilities Building:
- a. Building area equals 12,975 square feet, future expansion of 3,000 square feet.
 - b. Building shall be metal construction and provide drive thru capability.
 - c. Chemical storage area shall be design for quantities above exempt amounts per IBC and IFC.
 - d. Provide emergency eye wash and shower adjacent to drive thru area.
 - e. Provide exhaust and electrical power for welding area.
 - f. Provide dust collection for carpentry area.
 - g. Sand/oil interceptor shall NOT be included for this building.
 - h. Provide air compressor for shop area.
 - i. Restrooms shall NOT incorporate showers.
 - j. Separate storage areas for wood, paint, fertilizer, gas and chemical.
15. Solid Waste Building:
- a. Building area equals 2,700 square feet, future expansion of 21,600 square feet.
 - b. Building shall be metal construction.
 - c. Electrical for welding and forklift area.
 - d. Sand/oil shall NOT be included for this building.
16. Fleet Maintenance Building:
- a. Building area equals 21,895 square feet, future expansion of 4,500 square feet.
 - b. Building shall be metal construction and incorporate mezzanine level.
 - c. Vehicle bays shall have radiant floor heating and exhaust systems.
 - d. Design of mechanical and electrical systems for future use of CNG, LNG, etc.
 - e. Electrical power for bay hoists, tire changing machine, welding machines, portable crane, air compressor, forklifts, and waste oil/fluid transport systems.

- f. Exhaust and make-up air for drive-in paint booth design.
 - g. Sand/oil interceptor design.
 - h. Break room shall have counter, microwave, stove, refrigerator, and sink.
 - i. Utility room shall have washer and dryer.
 - j. Locker shall have men's and women's toilets with total of (3) showers.
 - k. Exterior concrete apron shall have radiant heat at each vehicle door.
 - l. Separate storage areas for paint, parts, and tires.
17. Wash Building:
- a. Building area equals 3,661 square feet.
 - b. Building shall be block construction.
 - c. Overhead wand, automated vehicle wash, and dryer system shall be provided by vendor. Electrical, potable water, and sand/oil waste system shall be by TRC.
 - d. Radiant system shall be in slab for wash down area.
18. Fuel Canopy:
- a. Canopy area equals 3,000 square feet.
 - b. Provide lighting and power only.
 - c. Fuel system, tanks, piping, and dispensers shall be provided by vendor.
19. Fuel transport systems design is not part of this proposal.
20. Security system design is not part of this proposal.

Project Approach

1. Gain understanding of Owner's project goals, budgets, and design standards.
2. Review of Owner's project scope.
3. Allow a maximum of (2) document revisions based on contractor cost analysis.
4. Design shall be LEED Silver.
5. Coordinate with Fire Protection sub-contractor for final design.
6. All final design documents shall be provided in AutoCAD for floor plans, diagrams, details, and schedules.
7. Provide coordination with architectural, structural, civil, fire protection, owner representatives, contractor, and code authority.
8. Attend four meetings: Kick-off, and 30%, 60%, and 90% plan review.
9. Shall provide internal progress drawings to design/build team as requested in PDF format only.
10. The items listed above are documents typically prepared based on our past experience with similar projects with one round of reasonable comments. Additional effort or design changes that are not included which are requested by owner, or other members of the project team, or additional procedure and processes requested by owner, will be brought to owner's attention for authorization as an additional service.

Assumptions

1. APMI shall provide electronic files of the project floor plans, sections, and details indicating all particulars affecting this project. These files shall be in AutoCAD compatible electronic format. The files shall be set-up for TRC direct use.
2. APMI or Owner shall provide information on all products to be stored on site. This information shall include Material Safety Data Sheets, material quantities for "in-use" and "storage", configuration of storage including rack locations or stacking areas, and any other information requested by TRC.
3. APMI or Owner shall provide user approved space utilization plans with information pertaining to all proposed equipment before commencement of design development (60%) document phase. This includes, but is not limited to, equipment locations, exhaust requirements, electrical connection/power requirements, data/communication locations, and manufacturers suggested heat load (BTU or kW).

4. TRC fee proposal is based on the production of two bid package, “off-site” and “on-site” packages. Fees for additional bid packages are excluded from this proposal.

Schedule

An overall schedule is shown below based on March 9, 2016 teleconference call. Schedule shall be revised beginning after receipt of signed contract and information requested within this contract. It is anticipated this is for a single phase package.

Project Schedule		
Task	Completion	
	“Off-site” Package	“On-site” Package
Start of Design	April 1 st , 2016	April 1 st , 2016
Schematic Design (30%)	April 22 nd , 2016	May 2 nd , 2016
Design Development (60%)	May 6 th , 2016	May 30 th , 2016
Construction Documents (90%)	May 20 th , 2016	June 27 th , 2016
Final Dwgs/Permit/Bidding	June 1 st , 2016	July 29 th , 2016
Construction Administration	June, 2017	November, 2017

Note: Task shall be completed upon review and written approval of prior task from Owner and Architect.

Compensation

As consideration for the services, APMI shall pay TRC the lump sum amount as follows:

Task	Fee
Design Docs and Const Admin	\$345,180.00
MEP LEED Services	\$48,550.00
Commissioning	\$55,000.00
Total	\$448,730.00

Expenses incurred by Taylor RyMar Corporation in the interest of the project shall be billed at a multiple of 1.0 times the cost incurred. Expenses not included in the Statement of Services, shall include the following, and will be billed as incurred: **Reproductions, postage, deliveries, travel, and plotting of documents.**

Additional Compensation

Any services not in the above scope of work can be provided as a negotiated lump sum fee or on a time and expense basis per TRC hourly rates.

Standard hourly Billing Rates	
Principal	\$190.00
Senior Engineer	\$165.00
Engineer	\$135.00
Project Manager	\$160.00
Senior Designer	\$120.00
Designer	\$90.00
CAD Technician	\$90.00
Support Services	\$70.00

Deliverables

All deliverables in the below phases shall be delivered in electronic PDF format or as described below:

Preliminary Design

1. Attend (1) Kick-off Meeting.
2. Coordination with utility companies and agencies.
3. Identify utility conflicts during the initial stages of the design process.
4. Coordinate the design of the utilities, which includes, but is not limited to, services for electric, communications, water, storm drainage, irrigation and sanitary systems, etc.
5. Assist in coordination utility meetings to coordinate relocations with utility/agency and establish relocation schedules.
6. Incorporate the utility/agency private developer construction requirements into the bid documents.
7. Review of fire hydrant flow testing information.
8. Review quantities and how chemical and materials to be stored on site.

Schematic Design (30%)

1. Attend (1) design review meeting.
2. Provide (1) copy of MEP drawings.
3. Plumbing drawings:
 - a. Floor plan showing initial major piping runs which may include cold and hot water, sanitary waste and vent, compressed air, etc.
 - b. Locations of major pieces of equipment/fixture.
4. Mechanical drawings:
 - a. Equipment room layouts (major equipment only).
 - b. Air device locations.
 - c. One-line HVAC duct layouts.
 - d. Mechanical piping diagrams.
5. Electrical drawings:
 - a. One-line electrical distribution diagrams
 - b. Floor plan showing panel locations, light fixture locations, and major equipment pieces.

Design Development (60%)

1. Attend (1) design review meeting.
2. Incorporate comments from schematic design review.
3. Provide (1) copy of MEP drawings for review.
4. Plumbing drawings:
 - a. Fixture schedule, locations.
 - b. Equipment schedule, locations.
 - c. Waste and vent riser diagram with types, locations, key sizes.
 - d. Piping, locations (sizes for pipes larger than 1")
 - e. Roof drainage system, locations, and key sizes.
5. Mechanical drawings:
 - a. Equipment schedule, locations, sizes, types.
 - b. Equipment connections and supports – standard details.
 - c. HVAC piping, locations (sizes for pipes larger than 1").
 - d. Sequence of operations.
6. Electrical Drawings:
 - a. Power distribution equipment schedule, locations.
 - b. Feeder sizes.

- c. Emergency generator size and location.
 - d. Grounding – standard details.
 - e. Interior lighting and power, plans details:
 - i. Fixture and switch locations with identification.
 - f. Typical receptacle and power outlet locations.
 - g. Fire alarm device and panel locations.
 - h. Telecommunications (voice/data) device locations.
7. Specifications and cut sheets of all major mechanical, plumbing, and electrical equipment.

Construction Documents (90%)

1. Attend (1) design review meeting.
2. Incorporate comments from design development design review.
3. Provide (1) copy of MEP drawings for review.
4. Plumbing drawings:
 - a. Fixture schedule, locations and details/elevations (including all handicapped fixtures).
 - b. Equipment schedule, locations. Equipment room layouts.
 - c. Waste and vent riser diagram with types, locations, key sizes.
 - d. Water piping, locations and sizes diagrams and isometrics.
 - e. Water and gas meters (sizes and locations).
 - f. Roof drainage system, locations, and key sizes.
5. Mechanical drawings:
 - a. Equipment schedule, locations, sizes, types.
 - b. Manual and automatic dampers.
 - c. Smoke and fire dampers required by code.
 - d. Equipment connections and supports – standard details
 - e. Outlets, grills, and registers properly selected and sized (indicating cfm.).
 - f. Flow diagrams: control diagrams, and lists of control points.
 - g. Equipment room layouts.
 - h. HVAC plans – equipment room layouts to show location and size of major equipment to scale, sizes of and locations of air intakes and discharge openings. In critical locations, composite drawings shall be prepared, indicating equipment of all trades involved.
 - i. HVAC piping, locations, expansion joints and loops.
 - j. Final sequence of operations.
6. Electrical drawings:
 - a. Power distribution equipment schedule, locations.
 - b. Feeder sizes.
 - c. Emergency generator size and location.
 - d. Grounding – standard details.
 - e. Interior lighting and power, plans details:
 - i. Fixture and switch locations with identification.
 - f. Receptacle and power outlet locations, including isolated ground, or other special power outlets and circuits.
 - g. Lighting fixture schedule.
 - h. Riser diagrams from utility source to all equipment showing service switches and disconnects, metering, switchboards, power and lighting panels, motor controls, etc.
 - i. Motor control schedule with starter and circuit sizing.
 - j. Fire alarm system device locations, typical riser diagram, and control matrix.
 - k. Telecommunications device locations, rack locations, and riser diagrams.
7. Specifications per CSI, divisions 22 through 28.

Permitting/Bidding

1. Incorporate comments from construction document design review.
2. Provide (1) copy of final (100%) signed and sealed MEP drawings and specifications.
3. Attend (1) pre-bid meeting and assist in providing addendum responses to bidder's questions.
4. Respond to city comments with written response and revised construction documents if required.
5. Value engineering redesign or evaluation or substituted products or materials before 90% design documents are completed.

Construction Administration

1. Respond to RFI's and issue necessary interpretations and clarifications of the contract documents (within 2 business days).
2. Receive, log, review and approve/disapprove Shop Drawings, calculations, samples, and test results (within 5 business days).
3. Attend (1) pre-construction meeting.
4. Provide up to (4) construction site observations, including written observation reports per engineering disciplines per building.
 - a. Under-slab inspection prior to the commencement of concrete pour.
 - b. Mechanical, electrical, plumbing inspection prior to the commencement of drywall installation.
 - c. Inspection prior to the commencement of the installation of drop-ceilings.
 - d. Substantial and Final Completion walk-thru and provide punch list and written confirmation of Final Completion.
 - e. Written report of each site visit and the reports shall be delivered within 24 hours to the Owner.
5. Provide As-Built documents from contractor red-line drawings.

Commissioning

Major systems will be tested as outlined below to meet the LEED Fundamental Commissioning requirements for New Construction buildings. This commissioning scope of work assumes that all buildings are constructed concurrently.

1. Provide Commissioning Plan and Specifications as required.
2. Attend eight (8) LEED®/Cx Meetings during the completion of the design and construction documents.
3. Meet the requirements of E&A Prerequisite 1: Fundamental Commissioning of Building Energy Systems per building. Systems required to be commissioned per LEED® requirements:
 - a. HVAC Systems and associated Building Controls
 - b. Lighting and Daylighting Controls
 - c. Domestic Hot water Systems
 - d. Renewable Energy Systems as applicable
4. Conduct one (1) kick-off and site commissioning meetings and field visits during construction, totaling ten (10) site visits.
5. Maintain a Cx Issues and Resolution tracking log throughout construction process.
6. Provide pre-functional check lists for commissioned systems.
7. Develop the Functional Performance Testing forms being used. Distribute to the project team for review and or comment prior to testing.
8. With assistance and collaboration of the mechanical, electrical, plumbing, controls and TAB contractors, perform functional and performance testing.
9. Review the final TAB report to verify all equipment is included and performance of each is per contract requirements.
10. Prepare Final Commissioning Report.
11. Attend final Cx meeting/Project Closeout.

12. Submission of documentation to LEED® On-line.

This proposal assumes one retest of any individual component that fails the first functional test during commissioning.

Scope of services includes an operational review of the commissioned systems by reviewing 2 weeks of the facility automation system trending after functional testing is complete. The controls contractor is responsible for setting up and retrieving trends and providing the trends in an Excel or CSV format for analysis by the CxA. Results will be included in the final Commissioning Report.

Exclusions

1. Additional meetings or site visits, other than previously listed.
2. Reproductions.
3. Security, video, card access, CCTV, or sound systems cabling or equipment design.
4. Obtaining Permits / Plan Review Submittal.
5. Fire Protection Design.
6. Value engineering redesign or evaluation or substituted products or materials beyond 90% design documents.
7. Attend construction meetings.
8. Fuel storage and delivery systems design.
9. Carwash systems design.
10. REVIT, BIM, or 3D modeling.
11. Cost estimating.

Acceptance

If this proposal and the enclosed Terms and Conditions (Version 01.03) are acceptable, please return a signed copy of this proposal to our office. TRC shall proceed with the above Scope of Service upon receiving the signed proposal.

Sincerely,

Taylor RyMar Corporation



Mario Torregrossa, PE
Principal - Mechanical

This Proposal and the Terms and Conditions are accepted by:

APMI

Authorized Signature

Title

Date



SCOPE OF WORK Revised (2)

City of Flagstaff

3/14/2016

Maintenance Facility Consultants, a division of WRA

TASK A: Program Confirmation

Work Elements:

Operational Requirements

The first step in the design process is to identify the functional requirements and operational characteristics of the proposed facility. This will involve active participation of the City staff in a series of in-depth interviews over a two to three day period. MFC will:

- Review all available material to familiarize itself with the previously completed work effort and the background data used to develop that work.
- Interview key staff to determine functional requirements and operational characteristics of the operation in order to confirm the previously developed space program for all operational and maintenance spaces excluding the administration building.
- Review fleet size, mix, and projected growth.
- Review current and projected staffing plans and labor agreement(s).

Space Program

- The previously developed space program will be confirmed and/or adjusted as necessary to reflect the discussions held during the interviews.

Deliverables:

- Input to final space program prepared by Architect.

Estimated Travel: Two people, 3 days for interviews.

TASK B: Schematic Design

Work Elements:

Alternative Conceptual Plans

- Identify potential alternatives to meet the requirements established in the previous task.
- Participate in a two day on-site design charrette working directly with the design team and client to develop alternatives for site configuration and general building design. During this on-site process, alternatives will be reviewed by the user staff. Based on review comments, selected alternatives will be refined and presented for review. A final review meeting will result in a selected Conceptual Plan(s).

- The site layouts will be developed with emphasis on:
 - Circulation patterns for vehicles, equipment, materials and personnel which will provide the most efficient, cost effective, and safest maintenance operation.
 - Ingress and egress routes which maximize safety and security and minimize vehicular and pedestrian conflict on and off the site.
 - Site area relationships. Include operator facilities, service and clean, administrative center, maintenance facilities, vehicle parking and bad order parking, employee and visitor parking, and shipping and receiving.
- The facility layouts will emphasize:
 - Circulation patterns for vehicles, equipment, materials and personnel and their relation to site circulation patterns.
 - Functional area relationships both between the various areas and between workstations within each area.
 - Efficient industrial work flow, supervision, and safety.
- Assist in developing an initial cost estimate based on the selected Conceptual Plan.

Maintenance Equipment

- MFC will provide City and/or Design Team staff with existing equipment inventory forms.
- MFC will inventory existing shop equipment by functional area. Include description, quantity, manufacturer, model number, utility requirements and condition. Indicate which items are recommended for reuse.
- MFC will prepare a preliminary equipment manual in an interactive PDF. The manual will include five sections.
 - Equipment list including new and existing equipment (existing equipment data provided by City) with the following information:
 - Item number and description
 - Quantity
 - Cost per unit
 - Size
 - Structural impact
 - Electrical Utility Requirements matrix
 - Mechanical Utility Requirements matrix
 - Equipment cutsheets
 - Manufacturing/Engineering data

Schematic Design Quality Control

- Coordinate operational and equipment related functional requirements during development of the Schematic Design. Items to be addressed include:



- Clearances shown in building sections.
 - Modifications to the Concept Design due to structural/architectural requirements.
 - General pit design and access requirements.
- Review the site and facility layouts for compliance with the operational/maintenance concepts.

Deliverables:

- Alternative Site and Facility Sketches.
- Existing Equipment Inventory Forms.
- Preliminary Maintenance Equipment Manual.
- Quality Control Review Comments.

Estimated Travel: One person, 2 days for on-site design session.

TASK C: Design Development

Objective: To ensure that the requirements for maintenance operations and equipment are appropriately addressed in Design Development.

Work Elements:

Maintenance Equipment: The type, quantity, location, and utility requirements of maintenance equipment is critical to the design of the maintenance facility. MFC will:

- Develop initial maintenance equipment. Layouts will be prepared in AutoCad on backgrounds provided by the architect. All functional areas identified in the equipment list to be included.
- Update Equipment Manual as necessary to reflect Owner comments and equipment layouts.
- Update maintenance equipment layouts incorporating client and design team input received during the review session.
- Develop draft specifications for approximately 50 maintenance equipment items. Coordinate format with architectural/engineering specifications. These draft specifications are to be reviewed by the various design team disciplines during the construction document phase to insure coordination between equipment and utility requirements. ***Note that the following items are not included as maintenance equipment items: compressed air system components (i.e. compressor, dryer, hose reels, filter, regulator, lubricator); lubrication system components (i.e. pumps, tanks, hose reels); fuel system components (i.e. storage tanks, monitoring systems, pumps, dispensers); and vehicle exhaust system components.***

Design Development Quality Control

- Coordinate operational and equipment related functional requirements for human engineering and building systems and components including architectural, structural, mechanical, electrical, and plumbing. Items to be addressed include:
 - Structural details for maintenance pits, vehicle lifts, and cranes.
 - Lubrication and compressed air system requirements.



- Waste fluids, hazardous waste, and spill containment requirements.
- Vehicle exhaust location and configuration.
- Review architectural and engineering (civil, structural, mechanical, electrical, plumbing) design for compliance with the approved design criteria, operational/maintenance concepts, and maintenance equipment requirements.

Deliverables:

- Preliminary Maintenance Equipment Layout Drawings.
- Updated Maintenance Equipment Manual.
- Draft Equipment Specifications.
- Quality Control Review Comments.

Estimated Travel: None.

TASK D: Construction Documents

Objective: To ensure that the functional and equipment requirements are appropriately addressed in the Contract Documents.

Work Elements:

Maintenance Equipment

- Finalize maintenance equipment layout. All functional areas identified in the equipment list to be included.
- Finalize specifications for approximately 50 equipment items.
- Prepare final equipment manual.

Construction Document Quality Control

- Coordinate operational and equipment related functional requirements for human engineering and building systems and components including architectural, structural, mechanical, electrical, and plumbing. Items to be addressed include:
 - Final coordination of utility requirements for all maintenance equipment.
- Review architectural and engineering (civil, structural, mechanical, electrical, plumbing) design for compliance with the approved design criteria, operational/maintenance concepts, and maintenance equipment requirements.

Deliverables:

- Equipment Layout Drawings.
- Equipment Specifications.
- Final Equipment Manual
- Quality Control Review Comments.

Estimated Travel: One 2 day trip for review and coordination.



TASK E: Bidding and Construction Related Services

Objective: To ensure that the facility and equipment is built and installed properly as specified.

Work Elements:

Bidding

- Review and respond to bidder's questions and requests for substitutions related to maintenance equipment specified by MFC.
- Prepare addendum items to clarify the intent of the bid documents related to maintenance equipment.
- Assist in the review of equipment bids for specification compliance.

Construction

- Review and respond to contractor's submittals (shop drawings, product literature, operation and maintenance manuals) on maintenance equipment.
- Review and respond to requests for clarification from the contractor.
- Review and respond to requests for change orders and assist in the preparation of change orders for MFC specified equipment items as necessary.
- Monitor installation, checkout, and testing of maintenance equipment specified.
- Prepare record drawings of the equipment layout sheets.

Deliverables:

- Written Response to Questions during Bidding.
- Addendum Items, as necessary.
- Response to Submittals.
- Written Response to Requests for Clarification, as necessary.

Estimated Travel: None.

OPTIONAL TASK

Work Elements:

Maintenance Equipment

- MFC will inventory existing shop equipment by functional area. Include description, quantity, manufacturer, model number, utility requirements and condition. Indicate which items are recommended for reuse.

Deliverables:

Estimated Travel: None: would be completed during Schematic Design Trip.



March 9, 2016
Revised March 15, 2016

Adam Siros
APMI, Inc.
8300 N. Hayden Road
Scottsdale, AZ 852582481

**RE: Proposal for Geotechnical Investigation
Core Services Maintenance Facility
West Route 66
Flagstaff, AZ
Proposal No. 56642SFr**

Dear Mr. Siros:

We are pleased to provide our cost estimate to conduct a geotechnical investigation at the above referenced site that will satisfy site development and foundation design requirements. All work on this project will be carried out under the overall supervision of a registered Professional Engineer in the state of Arizona.

We understand that construction will consist of the construction of five pre-engineered metal structures, a masonry wash facility and a single story masonry administration building. All structures are assumed to be slab-on-grade with above ground storage tanks and canopy for the fueling station. Structural loads are expected to be light to moderate and no special considerations regarding settlement tolerances are known at this time. Adjacent areas will be landscaped or paved to support moderate passenger and heavy truck traffic. Landscaped areas will be utilized for storm water retention and disposal.

We will drill and sample sufficient test borings to adequately determine subsoil conditions and provide samples for laboratory testing. To help provide additional information regarding the depth of rock and excavation conditions across the site and within utility right-of-ways, we propose to supplement the borings with the addition of test pits excavated with a rubber-tired backhoe. Access to the site by conventional truck-mounted drilling equipment is assumed to be free and unencumbered.

We presently anticipate performing the following:

- Drilling a total of 10 structural borings at the pre-engineered structures to depths of 10 to 15 feet below existing ground surface, or refusal, whichever comes first.
- Drilling a total of 2 structural borings at the wash facility to depths of 10 to 15 feet below existing ground surface, or refusal, whichever comes first.
- Drilling a total of 4 structural borings at the administration building to depths of 15 to 20 feet below existing ground surface, or refusal, whichever comes first.
- Drilling a total of 10 shallow borings for pavement design parameters to depths of 3 to 5 feet below existing ground surface, or refusal, whichever comes first.

- Excavating 8 test pits along utility corridors to depths of 10 feet below existing ground surface, or refusal, whichever comes first.
- Coring the pavement along Business 40 in 3 locations to determine pavement and base course thicknesses
- Perform shallow percolation testing in four locations, during the test pit phase of the investigation, to provide design information for low impact development (LID) basins.
- Add Alternate – If underground storage tanks will be utilized, perform rock coring at the fueling station to a depth of 15 feet below existing ground surface.

We will analyze the data obtained from field and laboratory testing and prepare a report presenting all data obtained, together with our conclusions and recommendations regarding:

1. Design data, allowable bearing pressure and depth, for shallow spread footings.
2. Alternate foundation systems and design data, if indicated by soil conditions.
3. Settlement estimate for each foundation system considered.
4. Lateral pressures on temporary and permanent retaining and foundation walls.
5. Groundwater conditions, if any, to the depths which will influence design and/or construction of the proposed development.
6. Swell potential of in-situ and compacted soils and recommendations for control if highly expansive.
7. Pavement design to provide economy and adequate service.
8. Suitability of site soils for use as compacted fill and preferred earthwork methods, including clearing, stripping, excavation and construction of engineered fill.
9. Local excavation and trenching conditions and stability considerations.
10. Slope requirements for cut and fill stability, both temporary and permanent.
11. Suitability of subsoils to permit dissipation of storm water.
12. Potential corrosiveness of subsoil materials and procedures to minimize the effects thereof.
13. Discussions of any unusual design or construction consideration which may be indicated by site conditions encountered.

Charges for our services have been determined on the basis of our standard Fee and Rate Schedule, a copy of which is attached and made a part hereof for any additional design work requested. We propose to provide the design services set forth herein for the following not-to-exceed amounts, which includes all testing, engineering and reimbursable expenses, 2 hard copies of the report and an electronic pdf format file to be

emailed upon request. Should we be informed that additional copies of the report are needed after it has been finalized, there will be an additional charge of \$25.00 per report.

Option	Description	Fee	
Base Investigation	Drilling and Test Pits	\$28,950.00	Accept <input type="checkbox"/> Decline <input type="checkbox"/>
Add Alternate	Coring at Fueling Station	\$2,100.00	Accept <input type="checkbox"/> Decline <input type="checkbox"/>

The not-to-exceed amounts included in this proposal allow for three 2 hour meetings by the project manager. The amounts indicated do not include delays in the field not caused by Speedie and Associates and its subcontractor or client meetings, additional consultation or other services not specifically stated in this proposal.

Speedie & Associates is committed to providing a high level of service to its clients, according to their needs. If some portion of this proposal does not meet the current needs or desires of APMI, the design team or the City of Flagstaff, Speedie & Associates is willing to consider appropriate modifications, subject to the standards of care which we adhere to as professionals. We stand ready to discuss any proposed modifications to the scopes outlined above. Modifications in the scope, methodology, or other terms and conditions may result in changes in the estimated fees and changes in the risks which the owner will necessarily assume.

We appreciate the opportunity to submit this proposal for your consideration. If the terms set forth are satisfactory, please attached it to your standard sub-consultant contract and return it for our records.

Respectfully submitted,
SPEEDIE & ASSOCIATES



Clay W. Spencer, R.G.

ENGINEERING SERVICES
2015 Fee and Rate Schedule

Fees for services will be based upon the time worked on the project at the following rates:

Title	Rate Per Hour
Principal	\$ 130.00
Project Manager	100.00
Sr. Geologist/Engineer	100.00
Project Engineer/Geologist	90.00
Environmental Specialist	85.00
Special Inspector (Architectural)	85.00
Special Inspector (Structural/Geotechnical)	75.00
Staff Engineer/Geologist	75.00
Sr. Engineering Technician	65.00
Draftsman	60.00
Materials Testing Technician	50.00
Clerical/Administrative	45.00

REIMBURSABLE EXPENSES

Light Truck Mileage Rate: \$0.50 per mile

The following items are reimbursable to the extent of actual expenses plus 25%:

1. Transportation, lodging and subsistence for out of town travel
2. Special mailings and shipping charges
3. Special materials and equipment unique to the project
4. Duplication or reprinting/copying reports

TEST BORINGS AND FIELD INVESTIGATIONS

On projects requiring test borings, test pits, or other explorations, the services of reputable contractors to perform such work shall be obtained.

SUBCONTRACTORS/SUBCONSULTANTS CHARGES

Any charges for subcontractors/subconsultants are subject to a 25% handling fee if invoiced by Speedie & Associates or such charges can be directly paid by the CLIENT.

SPECIAL RATES

The following rates may be subject to a 35% increase:

- Overtime – time over 8 hours per weekday and on Saturday
- Sunday and Holidays
- Rush orders

EXPERT WITNESS

Deposition and testimony; 4-hour minimum, \$250.00 per hour.

The following Terms and Conditions are included and hereto made a part of this agreement.

TERMS AND CONDITIONS

1. STANDARD OF CARE

In performing our professional engineering services, Speedie & Associates, Inc. (S&A) will use the degree of care and skill ordinarily exercised by members of our profession currently practicing in the same locality under similar conditions. No warranty, expressed or implied, is made or intended by our proposal for consulting services, our contract, oral or written reports, or services.

2. SCOPE OF SERVICES

2.1 "ON-CALL" SERVICES

Unless otherwise agreed by both parties in writing, all construction materials testing will be performed on an "on-call" basis. Both parties agree that test results for "on-call" testing, where the CLIENT does not request S&A's continuous construction and field observation, will be based only on the representative sample or limited location tested.

2.2 CONSTRUCTION/FIELD OBSERVATION OR REMEDIATION OBSERVATION

If the CLIENT desires more extensive or full-time project observation to help reduce the risk of problems arising during construction, the CLIENT shall request such services as "Additional Services" in accordance with the terms of this agreement. Should the CLIENT for any reason choose not to have S&A provide construction or field observation during the implementation of S&A's specifications or recommendations, or should the CLIENT unduly restrict S&A's assignment of observation personnel, CLIENT shall, to the fullest extent permitted by law, waive any claim against S&A, and indemnify, defend, and hold S&A harmless from any claim or liability for injury or loss arising from field problems allegedly caused by findings, conclusions, recommendations, plans or specifications developed by S&A. CLIENT also shall compensate S&A for any time spent or expenses incurred by S&A in defense of any such claim. Such compensation shall be based upon S&A's prevailing fee and rate schedule.

3. OWNERSHIP OF DOCUMENTS

All reports, plans, specifications, field data, notes and other documents prepared by S&A shall remain the property of S&A. Any reuse of such documents for other purposes must be with the written consent of S&A.

4. SAFETY

While on a CLIENT'S jobsite, S&A's personnel have no authority to exercise any control over any construction contractor, any other entity, or their employees in connection with their work, health or safety precautions. The CLIENT agrees that the General Contractor is solely responsible for jobsite safety and warrants that this intent shall be made evident in the CLIENT'S agreement with the General Contractor. The CLIENT may be charged for additional work for interruption, downtime required, or safety measures required by hazardous job conditions.

5. INSURANCE

Upon request, S&A will furnish certificates of insurance for Workers Compensation, General and Auto insurance, and Professional Errors or Omissions insurance. S&A is not responsible for damage of any cause beyond the coverage of its insurance.

6. INDEMNIFICATION

6.1 ENVIRONMENTAL SERVICES

It is understood and agreed that should the CLIENT hire S&A in matters involving the actual or potential presence of hazardous substances, the CLIENT will indemnify S&A, and its employees and representatives, from and against claims that are the result of negligent acts or omissions on the part of the CLIENT, its employees or representatives. S&A will indemnify the CLIENT from and against claims that are solely the result of negligent acts or omissions on the part of S&A, its employees or representatives.

6.2 NON-ENVIRONMENTAL SERVICES

Both parties agree that S&A's scope of services will not include asbestos, hazardous or toxic materials. Should it become known in any way that such materials may be present at the jobsite or adjacent area that may affect the performance of S&A's services, S&A may suspend its services without any liability until the CLIENT retains appropriate consultation to identify, abate, and/or remove the asbestos, hazardous or toxic materials and warrants that the jobsite is in compliance with applicable laws and regulations. The CLIENT will indemnify S&A and his employees and representatives from and against claims that are the result of negligent acts or omissions on the part of the CLIENT, his employees and representatives. S&A shall indemnify the CLIENT from and against claims, which are solely the result of negligent acts or omissions on the part of S&A, its employees and representatives.

7. LIMITS OF LIABILITY

The CLIENT agrees that S&A shall not be liable for losses caused by or arising from any acts of the CLIENT, his employees or subcontractors. Should any of S&A's employees be found to have been negligent in the performance of professional services rendered, the CLIENT agrees that the maximum aggregate amount of S&A's liability shall be limited to \$50,000.00 or the amount of the fee paid to S&A for professional services, whichever amount is greater.

8. WAIVER OF LIMITATION OF PROFESSIONAL LIABILITY

In the event the CLIENT is unwilling or unable to limit liability in accordance with the paragraph above, then CLIENT shall agree to pay S&A a sum equivalent to an additional 20% of the total fee to be charged for the professional services. Said sum is to be called "Waiver of Limitation of Liability Charge." This charge will in no way be construed as being a charge for insurance of any type, but will be increased consideration for the greater risk involved in performing the work up to the limit of proceeds available from S&A's professional insurance coverage.

9. SAMPLE DISPOSAL

9.1 NON-HAZARDOUS SAMPLES

Test samples are substantially altered during testing and are disposed of immediately upon completion of tests. Drilling samples are disposed of thirty (30) days after submission of our report. If requested in writing, samples can be held after thirty (30) days for an additional storage fee, or returned to the CLIENT.

9.2 HAZARDOUS SAMPLES

If toxic or hazardous substances are involved, S&A will return such samples to the CLIENT. Or using a manifest signed by the CLIENT, S&A will have such samples transported to a location selected by the CLIENT for final disposal. The CLIENT agrees to pay all costs for storage, transport and disposal of samples. The CLIENT recognizes and agrees that S&A is acting as a bailee and at no time assumes title to samples involving hazardous or toxic materials.

10. PAYMENT

Progress invoices will be submitted to the CLIENT monthly with a final billing at completion of services. Invoices are due and payable upon receipt. The CLIENT agrees to pay a finance charge of 1.5 % per month on all past due accounts over thirty (30) days. The CLIENT'S obligation to pay for all work contracted is in no way dependent upon the CLIENT'S ability to obtain financing, zoning approval, or the CLIENT'S successful completion of the project. S&A reserves the right to suspend work under its agreement if the CLIENT fails to pay invoices as due. The CLIENT agrees to pay all costs for collection of payment, including attorney's fees.

11. LITIGATION

In the event of litigation between parties to this agreement, if S&A is the prevailing party, S&A shall be entitled to recover all related costs, expenses, and reasonable attorney fees.