

**NEVADA STATE BOARD OF
PROFESSIONAL ENGINEERS
AND
LAND SURVEYORS**



**REGULAR BOARD MEETING
July 14, 2021
Reno, NV**

1. Meeting Call to Order

2. Pledge of Allegiance

3. Public Comment

4. Introductions

5. NRS/NAC 625 Waiver Requests

[None were included when board packet was published]

6. Non-Appearance Applications for Initial Licensure

**NEVADA STATE BOARD OF PROFESSIONAL
ENGINEERS AND LAND SURVEYORS
EDUCATION CREDIT GUIDELINES**

| DEGREE | YEARS CREDIT (MAX) | YEARS ACCEPTABLE EXPERIENCE REQUIRED |
|--|-------------------------------|---|
| Undergraduate (BS): ABET/EAC accredited | 4 | 4 |
| Undergraduate (BS): ABET/ETAC accredited | 4 | 4 |
| Undergraduate (BS): ABET/CAC accredited | 4 | 4 |
| Undergraduate (BS): ABET/ANSAC accredited | 4 | 4 |
| Undergraduate (BS Engineering): ABET equivalent ie Washington Accord | 4 | 4 |
| Undergraduate (BS Engineering): Not ABET accredited | 4 | 6 |
| Undergraduate (BS Construction Management): ABET accredited | 4 | 4 |
| Undergraduate (BS Construction Management): Not ABET accredited | 4 | 6 |
| Undergraduate (BS Engineering): not ABET equivalent | 2 | 8 |
| Engineering Masters: US with non-accredited BS/MS | 6 | 2 |
| Engineering Masters & Doctorate: US with non- accredited BS/MS | 6 | 2 |
| ABET engineering degree in specific discipline – experience and/or exam in another discipline | 4 | 4 |

*Special Consideration – deficiencies to be reviewed by the Board.

Civil

BRYANT COTE (15-129-13)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL



Applying To
Nevada

Application Type
Initial - PE

Application Date
06/13/2021

Citizenship
United States

SUMMARY



Engineering Experience
after EAC degree
6 years, 2 months

Total Engineering
Experience
6 years, 2 months

Experience under licensed
engineer
6 years, 2 months

Other Experience

Disciplinary Action
None reported



EDUCATION



Bachelors in Civil Engineering (EAC)
Villanova University
August 2008–May 2012

EXAMS



Fundamentals of Engineering (FE)
Georgia
October 2015

Principles and Practice of Engineering (PE)
Civil
Nevada
April 2021



LICENSES



Additional Licenses
None

BRYANT COTE (15-129-13)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

United States Army
Georgia (United States)
2nd Lieutenant
February 2013—April 2015

Verified by
Bryant Cote (Self)

Experience Summary
Full-Time
Other: (0%)
Experience under licensed surveyor:
None



TASKS

Infantry Officer



REPRESENTATIVE PROJECTS

Infantry Officer

BRYANT COTE (15-129-13)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Osmose Utilities Services
Georgia (United States)
Design Engineer
March 2015—July 2016

Verified by
Nathan Joseph Moloney
nmoloney@usanova.com

Experience Summary
Full-Time
Engineering: 1 year, 4 months
Post EAC degree: 1 year, 4 months
Experience under licensed engineer:
1 year, 4 months

TASKS

Design Engineer (12/15 to 07/16) - I researched and designed new structural steel and reinforced concrete repairs for steel transmission structures and foundations. I assisted Project Engineers with refining existing repair designs on a case by case basis. I managed the training and development of two (2) Quality Control technicians that were responsible for observing the construction of structural steel and reinforced concrete repairs (15% of the time).

Engineering Technician (03/15 to 11/15) - I completed drafting and material orders for Project Engineers and the Engineering Manager. I conducted field inspections during all stages of structure assessments and construction. I managed the training and development of two (2) Quality Control technicians that were responsible for observing the construction of structural steel and reinforced concrete repairs (25% of the time).

REPRESENTATIVE PROJECTS

Standard Foundation Design (Research Project from 01/16 - 07/16) - The scope of work for this project was to develop a repair design for concrete foundations that had active alkali-silica reactions causing the cracks in the concrete to continuously expand. I conducted research regarding alkali-silica reactions to determine the main cause. I then developed a repair concept that would lead to the elimination of the reaction as well as restore the foundation to its assumed design strength. I used applicable codes such as ACI, AISC, and AWS during the development of the repair concept which was a steel plate circular jacket with pre-tensioned steel straps. I prepared a CAD drawing package and calculation package that would undergo review from the Project Engineer to the Engineering Manager.

Pennsylvania Power and Light Design (Continuous Client from 03/15 to 07/16) - The scope of work for this client was a continuous contract to inspect and construct repairs on their transmission towers and poles. After the inspection of each line as they were released, I categorized each structure from A to Priority and authored a final Transmission Line Structural Assessment report for the client which included standard repairs and recommendations. In this report, priority structures were recommended to the client for immediate repair. After authorization from the client to move forward with repairs, I coordinated with other departments to develop the scopes of work, budget, final repair proposals, and scheduling for 251 reinforced concrete footing repairs. Of the 251 reinforced concrete repairs, I had to modify 75% of them from the companies existing standards due to the unique nature of the footing. These modifications included updated CAD drawings and calculation packages that had to be reviewed and stamped by the Project Engineer. Once construction began, I had to create the material orders for all related construction items for review by the Engineering and Construction departments.

Pennsylvania Power and Light Construction Quality Assurance Program (03/15 to 11/15) - Due to past construction errors, it was determined that a Quality Assurance program managed by the Engineering Department would be needed to inspect work completed by the Construction Department. I developed and implemented a Quality Assurance program for Pennsylvania Power and Light that consisted of reinforced concrete repairs and steel corrosion repairs worth over \$10 million throughout the next year. This program initially consisted of two candidates who I had to train to develop their understanding of ACI, AISC, AWS, and NACE codes and standards in order for them to be effective, independent inspectors. I was then tasked with implementing this program for other clients on the East Coast.

BRYANT COTE (15-129-13)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

NOVA Engineering
Georgia (United States)
Project Manager
August 2016—July 2020

Verified by
Marcus Johnston
mjohnston@usanova.com

Experience Summary
Full-Time
Engineering: 3 years, 11 months
Post EAC degree: 3 years, 11 months
Experience under licensed engineer:
3 years, 11 months

TASKS

I was responsible for the technical execution and project management of Structural Special Inspection and Construction Material Testing projects. I performed subgrade and shallow foundation evaluations including providing remedial recommendations; provided recommendations and evaluation and interpretation of engineering data and test results; prepared, reviewed and interpreted technical reports; provided client consultation regarding inspection results, testing requirements and recommendations. I was the lead project manager for NOVA as part of a Joint Venture for 3rd Party Testing and Special Inspections at Hartsfield Jackson International Airport (HJIA). I directed and coordinated up to 15 inspectors and staff professionals on multiple projects, trained entry level staff professionals on the duties and responsibilities of a special inspector, conducted daily coordination with our Joint Venture partners, and assisted in the management/maintenance of a CCRL/AASHTO accredited laboratory (management tasks listed came out to about 10% of my time).

REPRESENTATIVE PROJECTS

Central Passenger Terminal Complex Modernization - Domestic Terminal Canopies (August 2016 - July 2019). The scope of work was to provide special inspections and owner requested inspections on two structural steel canopies that would extend over the North and South Domestic terminals. I developed a budget to provide inspections based off a thorough review of the bid plans and specifications. I developed a quality assurance testing plan upon request from the client. I reviewed and certified all special inspection and other inspection reports for the project which included inspections and/or testing of welding, high strength bolting, reinforcing steel placement, concrete placement, micropile installation, soil nail wall construction, high performance coating operations, roofing, and masonry construction. I reviewed the engineering data from shallow foundation and subgrade evaluations conducted by staff professionals or myself and provided remedial recommendations to the client. I observed load testing for micropiles and soil nails in accordance with project specifications. I reviewed results from the load testing of micropiles and soil nails to ensure the results fell within the parameters set by the design engineer. I conducted coating assessments of existing structure to be rehabilitated and provided remedial recommendations to the client. I authorized final special inspection letters that were reviewed and stamped by the Principal Engineer. I maintained a 3-set moving average spreadsheet for concrete and grout compressive strength results to verify concrete was within acceptable ranges set in the project specifications.

Central Passenger Terminal Complex Modernization - Domestic Terminal Pedestrian Bridges (July 2018 - July 2020). The scope of work was to provide special inspections and owner requested inspections on four bridges that would connect the existing parking decks to the North and South Domestic Terminals. I developed a budget to provide inspections based off a thorough review of the bid plans and specifications. I developed a quality assurance testing plan upon request from the client. I reviewed and certified all special inspection and other inspection reports for the project which included inspections and/or testing of welding, high strength bolting, reinforcing steel placement, concrete placement, floor flatness, micropile installation, high performance coating operations, roofing, and masonry construction. I reviewed the engineering data from shallow foundation and subgrade evaluations conducted by staff professionals or myself and provided remedial recommendations to the client. I conducted coating assessments of existing structure to be rehabilitated and provided remedial recommendations to the client. I authorized final special inspection letters that were reviewed and stamped by the Principal Engineer. I maintained a 3-set moving average spreadsheet for concrete and grout compressive strength results to verify concrete was within acceptable ranges set in the project specifications.

ATL West Parking Deck (January 2019 - July 2020). The scope of work was to provide special inspections and owner requested inspections for a new 7 level post-tensioned parking deck. I was brought onto this project to manage it about half way through. I reviewed and certified all special inspection and other inspection reports for the project which included inspections and/or testing of welding, high strength bolting, reinforcing steel placement, concrete placement, floor flatness, backfill, high performance coating operations, roofing, and masonry construction. I conducted post-tensioning inspections which included verifying jacking pressures as well as measuring elongations. I reviewed post-tensioning reports from inspections done by others prior to sending to the

Principal Engineer for final review. I maintained a 3-set moving average spreadsheet for concrete and grout compressive strength results to verify concrete was within acceptable ranges set in the project specifications.

Forsyth County Animal Shelter Resinous Flooring (October 2019 - July 2020). The scope of this project was to consult Forsyth County engineers on the problems associated with a failing resinous flooring system in an Animal Shelter. I developed a proposal that included our proposed scope of work for a failure analysis, manufacturer's specification review, and inspections of the new resinous flooring system to be installed. I evaluated two failure analysis reports completed by others and developed a scope of work for another failure analysis that would be conducted by NOVA. I revised the specification provided by the manufacturer by utilizing applicable NACE, ACI and SSPC standards. I created a scope of work for the inspection services requested by the client.

BRYANT COTE (15-129-13)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Clark County Water Reclamation
District
Nevada (United States)
Assistant Engineer
July 2020—June 2021

Verified by
Nicholas Stephen Popkowski
npopkowski@cleanwaterteam.com

Experience Summary
Full-Time
Engineering: 11 months
Post EAC degree: 11 months
**Experience under licensed engineer:
11 months**



TASKS

I review and evaluate preliminary and final plans and specifications for District and local agency building, facility roadway, and wastewater design projects. I provide revisions to contract specifications for design and construction services. I administer contracts with and confer with consultants, engineers, architects and other department staff to ensure that codes and standards are met on assigned projects. I develop solutions to complex problems related to such areas as sanitary sewers, roadways, or plant facility design that are presented by Contractor's during the construction process. I review and authorize requests for payment and change orders while tracking project costs. I review and approve baseline schedules, schedule updates and time impact analysis reports.



REPRESENTATIVE PROJECTS

Collection System Capacity Upgrade - Package 2 - This project consisted of approximately 4,900 linear feet of new sewer pipe installation and 23 new manhole placements. I assisted the Project Manager from Notice to Proceed and the project is currently in closeout. Since this project was in the Right of Way, I was involved in the decision process regarding utility conflicts on this project. In one instance, I coordinated with the owning utility to relocate their line and in another instance I coordinated with the consultant to provide a revised drawing that routed our sewer line away from the existing utility.

Elvis Presley Boulevard Pipeline Rehabilitation - This project replaced existing high density polyethylene pipeline in two areas of the system running along Elvis Presley Blvd. It also included the rehabilitation of all of the associated manholes along the entire alignment. I started managing this project on the date of executed Agreement and the project is currently in Construction. Early in the construction phase, I recommended to District management and the consultant that one of the manholes scheduled to be removed should be rehabilitated which resulted in cost savings for the District. This decision was made after coordinating with the Inspections department to conduct a manhole assessment.

FWRC M&O Chemical Facility - This project will construct a new chemical storage and feed facility on District property. This project will include re-routing utility lines, demolition/abandonment of utility lines, demolition/abandonment of existing facilities, and construction of new facilities and utility lines. I started managing this project on the date of the executed agreement. To date, I have reviewed and evaluated the final plans and specifications. I am currently leading a revision effort for conflicting specifications prior to construction starting.

BRYANT COTE (15-129-13)

All work experience reviewed by two licensed professionals

ADDITIONAL INFORMATION



QUESTIONS

Has your original license lapsed? If yes, explain.

No

Have you ever been denied licensure by a jurisdiction? If yes, explain.

No

Have you ever been convicted of a misdemeanor? If yes, explain.

No

Have you ever been convicted of a felony? If yes, provide a brief letter of explanation and court documents.

No

Select the disciplines in which you are currently practicing. If more than 1% of time is devoted to a discipline, it must be included.

Disciplines

Civil

Other Disciplines

Has a jurisdiction ever revoked, suspended, or disciplined your license? (Please note this includes a consent agreement, letter of reprimand, Etc.) If the action has been resolved a yes answer is still needed.

No

BRYANT COTE (15-129-13)

All work experience reviewed by two licensed professionals

ADDITIONAL INFORMATION



TIME GAPS

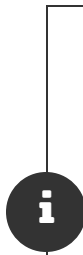
| Start Date | End Date | Reason | Explanation |
|------------|----------|------------|---|
| 06/2012 | 01/2013 | Unemployed | There was an extended application process for the United State's Army's Officer Candidate School. During this time my focus was on physical training. |

FRANK GUBELLO (17-503-06)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL



Applying To
Nevada

Application Type
Initial - PE

Application Date
06/22/2021

Citizenship
United States

SUMMARY



Engineering Experience
after EAC degree
3 years, 11 months

Total Engineering
Experience
3 years, 11 months

Experience under licensed
engineer
3 years, 11 months

Other Experience
4 years

Disciplinary Action
None reported



EDUCATION



Non-degree
Keene State College
September 1999–June 2003

Bachelors in Environmental Engineering (EAC)
University of Nevada, Reno
January 2015–May 2017



NOTE: Will have 4yrs
experience 7/22/2021

EXAMS



Fundamentals of Engineering (FE)
Nevada
March 2017

Principles and Practice of Engineering (PE)
Civil
Nevada
April 2021

LICENSES



Additional Licenses
None

FRANK GUBELLO (17-503-06)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Westchester Country Club
New York (United States)
Intern
April 2004—July 2005

Verified by
Frank Gubello (Self)

Experience Summary
Full-Time
Other: (0%)
Experience under licensed surveyor:
None



TASKS

I was an intern relied upon for the application of many plant protectants for this high-end country club hosting a yearly PGA Event.



REPRESENTATIVE PROJECTS

I was relied upon for the application of plant protectants to all tee and green complexes.
I ensured greens were properly watered throughout the day to ensure playability and plant health.
I operated various different pieces of equipment used in the day-to-day operation of the course.

FRANK GUBELLO (17-503-06)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Lake Tahoe Golf Course
California (United States)
Assistant Superintendent
July 2005—September 2007

Verified by
Frank Gubello (Self)

Experience Summary
Full-Time
Other: (0%)
Experience under licensed surveyor:
None



TASKS

I acted as the supervisor in the day-to-day operations of the public golf course located in the Sierra Nevada Mountains in California.

I held a supervisory role as well as applied all plant protectants and scheduling of the irrigation cycles.



REPRESENTATIVE PROJECTS

I ran a crew of 10 employees in the day-to-day maintenance of this local golf course. I was also involved in the yearly budget proposal process, as well as monitoring the spending to stay within the strict budget.

I would also set and control the daily irrigation scheduling and equipment maintenance.

FRANK GUBELLO (17-503-06)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Martis Camp Club
California (United States)
Assistant Superintendent
September 2007—June 2009

Verified by
Scott Bower
scottb@martiscamp.com

Experience Summary
Full-Time
Other: 1 year, 9 months
Experience under licensed surveyor:
None



TASKS

I oversaw the quality control of the construction of this private golf course and community.



REPRESENTATIVE PROJECTS

- Conducted baseline testing to assure residents that the proposed community would not impact water quality
- Aided in golf course construction through scheduling and project follow-up prior to the grand opening
- Applied all the plant protectants to the greens, tees, bunker, and fairway complexes.

FRANK GUBELLO (17-503-06)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Schaffers Mill Club
California (United States)
Assistant Superintendent
June 2009—March 2011

Verified by
Frank Gubello (Self)

Experience Summary
Full-Time
Other: (0%)
Experience under licensed surveyor:
None



TASKS

Ensured that the golf course was properly maintained and ready for tournament play through managing a staff of up to 12. Aided in creating and administering the budget with an emphasis on cost control. Administered chemical applications.



REPRESENTATIVE PROJECTS

I operated and maintained various pieces of golf course equipment.
I managed a staff of 12 employees.
I applied all plant protectants to the entire course.

FRANK GUBELLO (17-503-06)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Edgewood Tahoe Golf Course
Nevada (United States)
Horticulturist
April 2013—April 2015

Verified by
Frank Gubello (Self)

Experience Summary
Full-Time
Other: (0%)
Experience under licensed surveyor:
None



TASKS

Maintained all landscaped areas adjacent to the golf course that hosted American Century Championship tournaments.



REPRESENTATIVE PROJECTS

- Key role in the layout and construction of numerous planter beds as well as newly landscaped areas

FRANK GUBELLO (17-503-06)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Martis Camp Club
California (United States)
Assistant Superintendent
April 2015—July 2017

Verified by
Scott Bower
scottb@martiscamp.com

Experience Summary
Full-Time
Other: 2 years, 3 months
Experience under licensed surveyor:
None



TASKS

Returned in 2015 to oversee the maintenance of the sports fields and pavilions while I went back to school to obtain my engineering degree.



REPRESENTATIVE PROJECTS

I landscaped all sports fields and pavilions at the high-end golf and ski community. I would also be responsible for any irrigation maintenance and installation in these areas. I would ensure they were in a clean and operable condition at all times.

FRANK GUBELLO (17-503-06)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Arcadis NA
Nevada (United States)
Staff Engineer
July 2017—June 2021

Verified by
Daniel Daniel Moran
daniel.moran@arcadis.com

Experience Summary
Full-Time
Engineering: 3 years, 11 months
Post EAC degree: 3 years, 11 months
Experience under licensed engineer:
3 years, 11 months

TASKS

I have experience in environmental remediation, construction management, project planning, quality management, and equipment operation. My main focus is on quality management, project coordination, and field supervision.

I have extensive experience in quality management in both Quality Control and Quality Assurance roles on large-scale remediation projects.

For the quality management, I have acted as the onsite lead for the quality management program, ensuring the design was installed properly and safely. I have been relied upon for both preparing and submitting various submittal packages as well as approval of material/qualification submittals. Ensuring all materials used will perform the tasks needed. I have been relied upon to, read and understand soil reports, shoring requirements, excavation safety, and compaction requirements to name a few.

I have also been involved in the costing, budgeting, and proposal process bidding potential work.

I have acted as the Lead Resident Engineer relied upon to make field decisions and approval of certain construction methods as well as answering questions the contractor may have had pertaining to our designed systems.

I also have experience acting as the Site Safety Officer ensuring our construction projects proceed within the clients' expectations with zero safety incidents.

REPRESENTATIVE PROJECTS

Site Quality Control Lead May 2021-Present
Chevron, Taos, New Mexico

I Lead the Quality Control team on-site for the EPA-mandated project remediating the waste rock piles of this closed Molybdenum mine.

- I Oversee the teams developing the Quality Control program for this large-scale remediation project.
- I Act as the Quality representative overseeing the contractor performing the work.
- I developed the ITP's needed to inspect the work that takes place.
- I lead the monitoring of the soil testing needed to ensure proper construction.
- I also am relied upon to approve and compile submittals.

Resident Engineer and Quality Assurance- Designer of Record (DoR), Nov 2018-April 2021
Pacific Gas and Electric, Needles, CA

On-site Engineering representative for Arcadis who is the DoR (Designer of Record) for construction of a \$300+ million groundwater treatment plant to remove chromium from impacted groundwater.

- I was responsible for analysing and approval of field changes to the project design due to unexpected site conditions.
- I was relied upon answering design intent and specification questions to ensure project coordination and proper execution.
- I worked closely with multiple contractors and federal agencies to ensure project quality in accordance with the strict 4-Phase Inspection Program.
- I attended all Preparatory, Initial Inspection, Pre-Final, and Final Inspection Meetings to ensure contractors properly build what was designed.
- I inspected all work daily to ensure contractor's Quality Control Plan was adhered to.
- I led bi-weekly QA/QC coordination meetings between all contractors.

Project Engineer, July 2017- November 2018
Confidential Client
California

Worked in both a field and office role in remediating soils impacted with lead around electrical transmission line for a large Northern California power provider.

- I analyzed data to estimate the area around the electrical transmission towers that needed to be remediated.

- I developed detailed plans for proposed remediation that were presented to the client for each tower.
- Most towers were not easy to access. Many were in customers' yards, up hillsides, and in densely populated neighborhoods needing creative planning.
- I attended client planning and execution meetings to ensure safety and positive customer interactions.
- I coordinated equipment/material deliveries, proper permitting, and crews needed at each site.
- I directed crews to ensure the safe and efficient execution of prior planning. Even jumping in equipment when necessary.

Site Safety Officer/Quality Representative,
April 2018

SLAC/Dept. of Energy, Palo Alto, California

Oversaw site safety for this federal project where Arcadis remediated an old hazardous waste yard repurposing it into a parking lot.

- I monitored and reported daily air quality.

Drilled Pier Inspector March 2018

Google, Clarksville, Tennessee

Inspected the piers being drilled to ensure they have hit the competent rock.

Field Engineer May 2018

Union Pacific Railroad, Wyoming

Conducted a full inspection of the stormwater system around the entire yard.

- I oversaw crews opening all manholes, vaults, and sumps to inspect for defects, then hydrotested each one to ensure proper functionality.
- I oversaw as we pressure washed the entire system to enhance poor flow throughout the yard.
- I oversaw the video inspected the system
- I oversaw the mapping of the stormwater system using this video footage, identifying the defects for a future design team to replace.

ADDITIONAL INFORMATION



QUESTIONS

Has your original license lapsed? If yes, explain.

No

Have you ever been denied licensure by a jurisdiction? If yes, explain.

No

Have you ever been convicted of a misdemeanor? If yes, explain.

No

Have you ever been convicted of a felony? If yes, provide a brief letter of explanation and court documents.

No

Select the disciplines in which you are currently practicing. If more than 1% of time is devoted to a discipline, it must be included.

Disciplines

Civil

Other Disciplines

Has a jurisdiction ever revoked, suspended, or disciplined your license? (Please note this includes a consent agreement, letter of reprimand, Etc.) If the action has been resolved a yes answer is still needed.

No

FRANK GUBELLO (17-503-06)

All work experience reviewed by two licensed professionals

ADDITIONAL INFORMATION



TIME GAPS

| Start Date | End Date | Reason | Explanation |
|------------|----------|------------|---|
| 07/2003 | 03/2004 | Unemployed | This was the time after leaving Keene State College where I had moved back to New York and was in search of a job. I also took some time off after school ended to move. |
| 04/2011 | 03/2013 | Unemployed | During this time I spent some of it unemployed, and some of it trying to start my own landscaping business. I did perform some independent landscaping projects but was not successful. |

ZHIBO HAN (14-929-03)


All work experience reviewed by two licensed professionals





DISCIPLINE: CIVIL

GENERAL

 Applying To **Nevada**
Application Type **Initial - PE**
Application Date **06/28/2021**
Citizenship **China**

SUMMARY

 Engineering Experience after EAC degree **5 years, 1 month**
Total Engineering Experience **5 years, 1 month**
Experience under licensed engineer **5 years, 1 month**
Disciplinary Action **None reported**


 
 

EDUCATION


 Associates in Science
Edmonds Community College
January 2010–May 2012

Bachelors in Civil Engineering (EAC)
Ohio State University
August 2012–May 2015

Masters in Civil Engineering
Ohio State University
August 2015–December 2016



EXAMS

 Fundamentals of Engineering (FE)
Ohio
August 2014

Principles and Practice of Engineering (PE)
Civil
Nevada
April 2021

LICENSES

 Additional Licenses **None**

ZHIBO HAN (14-929-03)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Snyder Langston
California (United States)
Senior Project Engineer
May 2016—June 2021

Verified by
John F. Rochford
jrochford@snyderlangston.com

Experience Summary
Full-Time
Engineering: 5 years, 1 month
Post EAC degree: 5 years, 1 month
**Experience under licensed engineer:
5 years, 1 month**



TASKS

Project Engineer/Senior Project Engineer□

- Design and control of construction operations for environmental hazards
- Conduct VE (Value Engineering) Process
- Perform material quantity takeoffs
- Design and optimization of project sequencing/schedule
- Estimating and budgeting construction costs
- Contract drafting and review based on scope of works
- Design and inspection of safety systems
- Review and processing RFIs, submittals and change orders
- Troubleshoot and provide solutions to deficiencies in plans during construction
- Create technical/progress reports and communicate with clients about analysis results and recommendations
- Perform QA/QC and assist on city/deputy inspections



REPRESENTATIVE PROJECTS

I was the Project Engineer/Senior project engineer on the following three projects (Listed in chronological order):

1. LUCÉ apartment Project was a type V wrap, new construction with 510 units. The project was in Huntington Beach, California.

Dates of project: May 2016 to March 2018

I worked as a Project Engineer for this Project. My responsibility includes preparing and estimating project budget based on approved drawings and specifications. I performed building material takeoffs. I calculated the amount of soil import and properly procured them during different stage of construction. I also coordinated with clients and other consultant regarding design issues and construction availability; I prepared variety of city permit applications. I analyzed the structural observation report, waterproofing, and other inspection report to make sure comments/corrections were implemented in the field.

2. Huntington Library Chinese Garden Project. Ancient Chinese style buildings that meet U.S. local building code and seismic design. The project was in San Marino, California.

Dates of project: April 2018 to May 2020

I worked as the Senior Project Engineer for this project. I performed structural analysis, designed hold-down anchor bolts, and checked for plate and weld strengths once the concrete that the steel embedded in reaches the design strength following ACI design standards. I performed quality control checks of the steel by visiting the shop and corrected errors in the fabrication of steel before delivery onsite. I designed a scheduling/inspection tracking system applying CPM networking analysis, using the Microsoft Project software. This design improves construction productivity, and it is easy to use. I conducted coordination between clients, contractors, and other consultant regarding design issues. and I provided solution to optimize design flaws. I also work with foremans and superintendents in the field during different construction operation stages to make sure the accurate execution of plans in the field.

3. SP7 Apartment Project was a type V over type I structure. Remodel of 81 units retrofit building, affordable housing, in downtown Los Angeles, California.

Dates of project: June 2020 to current

I am working as the Senior Project Engineer for this project. During pre-construction stage, I designed and produced the overall construction sequencing plan and master project schedule. I also designed the site logistic plan, for this extremely logistical challenging project. I used MUTCD to design the site logistic plan which includes temporary traffic control during public work stage, temp shoring design during excavation stage and scaffolding design during building exterior work stage. During construction, I analyze the existing concrete slab, building foundation, and other structural components. Then I design the repair procedure including steel reinforcement method and concrete mixture design specification and ensure the structural members are properly reinforced with the load specifications that meets ACI and ASCE standard. I creates monthly technical/progress reports and communicate with clients about analysis results and recommendations. I worked with field crews to ensure a safety jobsite on a daily basis. I am currently holding STSC (Safety Trained Supervisor in Construction certificate). I made sure installation and all procedures were being followed. Based on the local jurisdiction requirement and project specialty.

ADDITIONAL INFORMATION



QUESTIONS

Has your original license lapsed? If yes, explain.

No

Have you ever been denied licensure by a jurisdiction? If yes, explain.

No

Have you ever been convicted of a misdemeanor? If yes, explain.

No

Have you ever been convicted of a felony? If yes, provide a brief letter of explanation and court documents.

No

Select the disciplines in which you are currently practicing. If more than 1% of time is devoted to a discipline, it must be included.

Disciplines

Architectural, Civil, Electrical (Power), Environmental, Fire Protection, Mechanical, Structural, Control Systems, Surveying

Other Disciplines

Has a jurisdiction ever revoked, suspended, or disciplined your license? (Please note this includes a consent agreement, letter of reprimand, Etc.) If the action has been resolved a yes answer is still needed.


No

OZAIR KHAN (20-378-10)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL


 Applying To **Nevada**

Application Type **Initial - PE**

Application Date **06/30/2021**

Citizenship **Canada**



SUMMARY



 Engineering Experience after EAC degree

Total Engineering Experience **6 years, 7 months**

Experience under licensed engineer **6 years, 7 months**

Disciplinary Action **None reported**


 

EDUCATION

 Meets NCEES Engineering Education Standard

Bachelors in Civil Engineering
University of Waterloo
September 2009–June 2014

EXAMS

 Fundamentals of Engineering (FE)
California
March 2020

Principles and Practice of Engineering (PE)
Civil
Nevada
April 2021

LICENSES

 Additional Licenses **None**

OZAIR KHAN (20-378-10)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

*Pacer Foundations Corp (Mastec
Canada)
Alberta (Canada)
Construction Coordinator
October 2014—August 2015*

Verified by
Cornelius Amusan
pecorns@gmail.com

Experience Summary
Full-Time
Engineering: 10 months
Experience under licensed engineer:
None



TASKS

On site coordination of Cast in Place (CIP) and Driven Steel pile foundation construction. Review issued for construction plans with as built underground utilities for possible conflicts. Quantify foundations elements and procure materials for placement. Authorize piles for construction after acquiring permits and clearance from underground utilities. Conduct site inspections for safe execution and time scale studies of piling operations for calculation of project production rate and updates to schedule accordingly. Attend daily meetings to ensure construction crews have updated plans and communicate any changes. Check survey data with construction plans for accuracy of installation locations and report any deviations or refusals. Report daily, weekly and monthly reports which consists of piling progress, concrete quantities, equipment and man hours, change orders and materials receivables. Other activities include, creation of execution plan for underground utilities check prior to permit review, manpower histogram and level 2 schedule creation for upcoming piling projects.



REPRESENTATIVE PROJECTS

North West Redwater (NWR) Sturgeon Refinery project from October of 2014 to March of 2015 and Walterdale bridge project from April to May of 2015. In office for project estimation and proposal creation from June to August of 2015. My role in NWR project was to assist the project manager in delivery of foundation piles. I conducted this role by through review of construction plans and specification for installation, acceptance and possible conflicts with underground utilities. Further, conduct takeoff of materials for procurement and mobilization of equipment for installation, conduct time scale studies for confirmation or updates to the piling operations and lastly, communication of project progress for course correction or continued operations. My duties and responsibilities enhanced when I was instructed to deliver temporary piles for the Walterdale bridge project without supervision of a direct project manager. I was able to utilize the acquired knowledge of pile installations, mobilize equipment and acquire material for project delivery. Piles were further adjusted for end treatments prior to installation in rocky environment. Further, conduct pile integrity test for required resistance capacity for pile acceptance. Communication of project daily, weekly and monthly progress to the off site project manager. I have spent the last two months at Pacer Foundations working on proposals for upcoming projects by review of plans and specifications of the respected project. Use previous project unit price costs and production rates to create project estimate and level 2 schedule. Present proposals with previous delivered projects to the regional manager for review and authorization for submission.

OZAIR KHAN (20-378-10)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Government of Alberta, Ministry of
Transportation
Alberta (Canada)
Construction Engineer
August 2015—October 2019

Verified by
Andrew Hudson
andy.hudson@gov.ab.ca

Experience Summary
Full-Time
Engineering: 4 years, 2 months
Experience under licensed engineer:
None



TASKS

I reviewed project scoping document and pavement preservation report to create Terms of Reference (TOR) for procurement of consulting services. I reviewed consultant proposals and provided review comments to professional services department to initiate selection of consultant through interdepartmental meeting. I communicated those comments in the selection meeting for each consultant. After selection, I reviewed preliminary and detail engineering reports and provided comments to consultant to resubmit for completion. I checked the design using TOR creation reports and the department 3R/4R geometric design guidelines. The 3R/4R geometric design guidelines has criteria for elements of design consideration such as horizontal alignment, vertical alignment, intersection geometry, passing opportunities, roadside facilities, superelevation and clear zone requirements. I reviewed the tender document for completion and submit it to professional services for additional review. I checked the Tender document using Alberta Transportation Standard Specifications and the department historical unit price cost averages. After successful bidding process, I organized and chair the preconstruction meeting. Prior to the meeting, I compiled key project risks and requested all parties to present their key project at the meeting. I provided solutions or kept track of all outstanding items that required resolution. I sent the project Environmental Construction Operation (ECO) plan and Traffic Accommodation Strategy (TAS) to appropriate subject matter expert for review. I reviewed their comments and provided support to consultant to complete it. I conducted bi-weekly site investigations and performed daily contract administration activities by having daily or multiple daily communications with the project manager on site. I reviewed and provide recommendations regarding extra work orders, contract extensions, and unit price approvals. I acquired approvals from expenditure officers above my level for those pertinent changes. I partnered and resolved disputes between consultant, contractor and other stakeholders. I reviewed and approved all construction contract progress estimates and consulting fees.



REPRESENTATIVE PROJECTS

I have delivered the following highway projects from commencement to completion. I have listed the years I worked in brackets after projects. Hwy 13:06 (2015 to 2016), Hwy 590:02, 851:06, 41:18 (2016 to 2017), Hwy 41:18 (b), 598:02, (2017 to 2018), Hwy 36:18, 41:16, 45:08 (2017 to 2019), Hwy 897:04 (2018 to 2019). Name of the highway is the first set of numbers and the control section is the second set of numbers after colon.

1. Hwy 851:06 (2016 to 2017). Located near Byemoor, Alberta. Between 9 km south of Hwy. 589 and Hwy. 589. 9 km (5.6 miles) paving, valued at approximately 3.6 million dollars. Cold in Place Recycling (CIR) test project. This project had two segments to research effectiveness of 100% recycled pavement with pavement that has 15% or less recycled material. The project include CIR, cold plane asphalt, inlay and final overlay of asphalt concrete pavement. Superelevation correction, sign updates, traffic stripe reinstatement and rumble strips installations. I created the TOR, I reviewed the proposals and conducted the interdepartmental selection meeting. I reviewed the project preliminary and detailed engineering reports and requested multiple reviews for validity of recommendations. I reviewed the tender document and also conducted similar corrective actions for submission to professional services and advertisement. I chaired the pre-construction meeting. I conducted bi-weekly site investigation and I reviewed project weekly progress reports. I reviewed extra work orders and recommend them to expenditure officer for approvals. This project had base and subgrade issues which were rectified while I was away on leave, however, upon arrival, I partnered with consultant and contractor to review extra costs and delays due to failures and recommend resolution for adequate compensation to the contractor. The project was delivered in 2017. I conducted written evaluation of the consultant upon project completion.

2. Hwy 589:02 (2017 to 2018). Located near Rocky Mountain House, Alberta. Between Hwy. 11A and Hwy. 761. 23 km (14.3 miles) paving, valued at approximately 3.5 million dollars. The project include cold plane asphalt, inlay of asphalt concrete pavement, removal of rest area, minor widening to mitigate truck tracking, sign updates, traffic stripe reinstatement and rumble strips installations. I created the TOR, I reviewed the proposals and conducted the interdepartmental selection meeting. I reviewed the project preliminary and detailed engineering reports and requested multiple reviews for validity of recommendations. I reviewed the tender document and also conducted similar corrective actions for submission to professional services and

advertisement. I chaired the pre-construction meeting. I conducted bi-weekly site investigation and I reviewed project weekly progress reports. I reviewed extra work orders and recommend them to expenditure officer for approvals. The project was delivered in 2018. I conducted written evaluation of the consultant upon project completion.

3. 36:18, 41:16 and 45:08 (2017 to 2019). Three projects bundled together valued at 17 million dollars. 36:18, 20 km (12.5 miles) paving, located near Innisfree, Alberta. 41:16, 23 km (14.3 miles) paving, located near Wainwright, Alberta. 45:08, 21 km (13 miles) paving, located near Myrnum, Alberta. Highway rehabilitation; cold plane asphalt, inlay asphalt concrete pavement, minor grade widening, update signs, guardrail from weak post to high tension cable barriers, re-instate traffic striping, install rumble strips. Environmental protection in means of erosion control (Silt Fence). Traffic accommodation for safe passage of public (One lane alternating traffic). As listed in the tasks and duties. I created the TOR, I reviewed the proposals and conducted the interdepartmental selection meeting. I reviewed the project preliminary and detailed engineering reports and requested multiple reviews for validity of recommendations. I reviewed the tender document and also conducted similar corrective actions for submission to professional services and advertisement. I chaired the pre-construction meeting. I conducted bi-weekly site investigation and I reviewed project weekly progress reports. I reviewed extra work orders and recommend them to expenditure officer for approvals. Project was assigned to me in fall of 2017. Hwy 36:18 was partially constructed in fall of 2018, the other two projects 41:18 and 45:08 was constructed in summer of 2019. I completed written evaluation of the consultant in fall of 2019 after completing the project.

OZAIR KHAN (20-378-10)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

State of California, Department of
Transportation (Caltrans)
California (United States)
Transportation Engineer (Civil)
November 2019—June 2021

Verified by
Mohammad Zabolzadeh
mohammad.zabolzadeh@dot.ca.gov

Experience Summary
Full-Time
Engineering: 1 year, 7 months
Experience under licensed engineer:
1 year, 7 months



TASKS

1. Assistant Resident Engineer (Nov 2019 to Dec 2020).

I reviewed and inspected construction site activities in regards to traffic safety, quality and quantity of work. I resolved conflicts between plans, specifications and actual site conditions. I completed and maintained daily contract records encompassing labor, equipment and materials for payment. I assisted Senior Engineer with reviewing upcoming projects plans, specifications, and estimates (PS&E) by providing detailed comments for each project.

2. Materials and Pavement Engineer (Dec 2021 to Present).

I prepare materials pavement design reports to support design services. I review as-built plans and design parameters from highway design manual to compile and create initial recommendations. I conduct field review for current roadway condition, I collect soil samples for R-Value and corrosion. I prepare recommendations for roadway elements, designing pavement structural section, organizing and interpreting pavement performance and submission to the project engineer for implementation. I review and provide comments on encroachment permit applications relating to pavement materials. I investigate the application of innovative technologies in pavement design (RHMA-G, O, HMA-O, CSA, MPC, CIR) and submit technical material memorandum to Principal Engineer for implementations.



REPRESENTATIVE PROJECTS

Representative Projects in Construction:

1. I-680, 04-0AA514. Various locations on I-680 from Walnut Creek to Concord, California. Guardrail end treatment upgrades project. I worked on this project from November 2019 to February 2020. I was on site inspecting the contractor activities for the total duration of site activities. Before a traffic cone was placed to when the traffic cone was picked up after open to traffic. The project included removing non-standard end treatments (MGS), install MSKT end treatments. Installed additional posts to match the required spacing and length requirements. I reviewed site traffic control and monitor effectiveness through the night. I inspected posts installation by reviewing posts depth and size. I inspected MSKT installation by completing a manufacture checklist for each installation. I conducted two contractor employee interviews on site to collect information on salary and payment of overtime as per labor laws every month. I documented material, labor and notes related to each location installation for payment to Resident Engineer. I inspected contractor payment request with daily records I completed during site supervision and provide details of discrepancies to RE.

2. I-680, PM 3 to 6.5. 04-0W430. Located near Danville, California. Emergency PCC slab replacements. I worked on this project from March 2020 to October 2020. The project included: maintaining traffic control, removing damaged pavement sections, recompact base, cast in place RSC with dowel bars at 14 ft maximum spacings. Saw cut expansion joints and diamond grind surface if required. Place permanent Thermoplastic traffic tape. I was on site inspecting construction activities from cone drop to cone pick and open to traffic. I inspected saw cutting, removal of concrete, compaction of base, drill and bond of dowel bars, placement of dowel bars, placement of concrete, collection of samples and results from sample to authorize opening to traffic. Further, inspected saw cutting expansion joints, grinding of pavement and reinstallation of traffic stripes. I documented materials, labor and notes related to each slab placement. I reviewed contractor payment estimate and submitted details to RE for payment.

3. I-680, PM 0 to 12. 04-1Q9804. Location from Dublin to Walnut Creek. Traffic Restriping. I worked on this project from April 2020 to December 2020. Project tasks included maintaining traffic control, monitor noise, remove existing traffic stripes, reapplication of Thermoplastic Traffic Stripe and Tape. Install contrast paint. I inspected the project site from cone drop to cone pickup. I inspected removal of traffic stripes, and application of thermoplastic traffic stripes for asphalt pavement and tape for cement pavement. I conducted checks by reviewing standard specifications and standard plans for compliance of spacing, thickness, widths and lengths. I also reviewed application of major traffic gore separation SR 24 from I-680. I documented project

material quantities and labor allocation and submit to RE for payment estimate. I reviewed payment estimate and provided discrepancies to RE.

Projects in Materials, Design Services:

1. I-80/ Ashby Interchange upgrade project. 04-25620. Located in Berkeley, California. \$98 Million. I have been working on this project since January 2021 with help from retired annuitant. I reviewed the Material design of this project submission by conducting Mechanistic-Empirical (ME) design analysis as per project parameters. I also reviewed it empirically through Highway Design Manual procedure. I reviewed Life Cycle Cost Analysis, reported comments on errors. The errors did not change the final design but correction is required for quality documentation. This project is on-going and in design phase.

2. SR-37 Fairgrounds. \$18 Million. 04-4A441. I have been working on this project since March of 2021. I reviewed the pavement structural design for mainline and ramps with help from retired annuitant. ME design was not completed so I checked the design through empirical highway design manual. I reviewed recommendations, found errors for grade widening sections, provided recommendation for weaker project foundation sections. R-Value less than 10 requires SEG (t). Borrow material to fulfill design parameters. Inspected culvert without alternative pipe culvert material. Communicated review findings to project engineer.

ADDITIONAL INFORMATION



QUESTIONS

Has your original license lapsed? If yes, explain.

No

Have you ever been denied licensure by a jurisdiction? If yes, explain.

No

Have you ever been convicted of a misdemeanor? If yes, explain.

No

Have you ever been convicted of a felony? If yes, provide a brief letter of explanation and court documents.

No

Select the disciplines in which you are currently practicing. If more than 1% of time is devoted to a discipline, it must be included.

Disciplines

Civil

Other Disciplines

Has a jurisdiction ever revoked, suspended, or disciplined your license? (Please note this includes a consent agreement, letter of reprimand, Etc.) If the action has been resolved a yes answer is still needed.


No

SAKET KUMAR (18-232-77)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL


 Applying To **Nevada**

Application Type **Initial - PE**

Application Date **06/04/2021**

Citizenship **India**



SUMMARY


 Engineering Experience after EAC degree

Total Engineering Experience **2 years, 10 months**


Experience under licensed engineer **2 years, 10 months**

Disciplinary Action **None reported**



EDUCATION

 Meets NCEES Engineering Education Standard


Bachelors in Civil Engineering
Indian Institute of Technology - Kanpur
July 2008–June 2014

Masters in Civil Engineering
Indian Institute of Technology - Kanpur
September 2011–June 2014

Masters in Civil Engineering
Purdue University, West Lafayette
August 2016–December 2017



EXAMS

 Fundamentals of Engineering (FE)
Indiana PE
September 2017

Principles and Practice of Engineering (PE)
Civil
California
April 2021

LICENSES

 Additional Licenses
None

SAKET KUMAR (18-232-77)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

THORNTON TOMASETTI
Illinois (United States)
ENGINEER
February 2018—April 2020

Verified by
William DeForrest Bast
wbast@lpiny.com

Experience Summary
Full-Time
Engineering: 2 years, 2 months
Experience under licensed engineer:
2 years, 2 months



TASKS

As an Engineer, my role was to analyze building structures using computer modeling methods, as well as prepare structural calculations, and design and detail structural members in steel, reinforced concrete, wood, and light gauge structures. I was responsible for preparing engineering sketches, 3D modeling of structures, detailing and drafting of the engineering drawings. I was extensively involved in the Schematic Design, Design Development, and Construction Administration phases of the projects. This allowed me to perform extensive design & analysis along with periodic interaction with General Contractors, Architects, and Owners. During the construction administration phase, I frequently provided structural solutions to contractors and shop drawings review. A significant part of my experience involved remodeling, retrofit, adaptive reuse, and renewal of the existing structures. I performed various site investigations and prepared evaluation reports which helped clients in understanding the vulnerability of existing structures and the need for retrofit.



REPRESENTATIVE PROJECTS

1. Navy Pier – East End Development, Chicago, Illinois:

Scope: Provide a 3D Structural model of the existing and new East End of the Pier Structure, and provide Structural services for remodeling/regrading of the existing parking structure.

Dates: February 2018 – December 2019.

I analyzed the existing Parking Structure at the East End stretch of the Navy Pier structure. My primary duties were – analysis of Double Tees used for parking and vehicular traffic, preparing sketches for proposed changes in the existing Double Tees and site regrading, Building Information Modeling using computer software, developing details for proposed changes in the existing structure, site investigation using methods such as Chain Drag to evaluate the existing structure, and preparing structural calculation package and construction documents. My daily work during the project involved frequent interaction with architects to ensure compliance with the structural design.

2. 131 S Dearborn St, Chicago, Illinois:

Scope: To design a steel stair connecting two adjacent floors located in a high-rise tower, and to provide construction administration services.

Dates: March 2018 – December 2018

This tenant modification project was in a high-rise tower in Chicago downtown, where I designed and modeled a new stair structure to be added on the existing 14th floor. The design of the steel stair was governed by the vibration characteristics due to human stepping on the stair, and hence I used AISC Design Guide 11 to perform the vibration checks per permissible limits. I also designed all the connections of the new stair and performed detailing of connections. I also took the responsibility to respond periodically to contractor's questions, perform fabrication drawing reviews, and site investigations.

3. Site Investigation Projects:

Scope: To provide a condition assessment of the existing structure, and to provide a detailed report.

Dates: October 2019 – April 2019

a) Amtrak Plenum Assessment, Amtrak Train Station, Chicago, Illinois – To perform the investigation, I took the OSHA training and passed the test for confined space training. Thereafter, I was given the responsibility to check the vulnerability of the existing plenum system which covered the train area. I performed onsite tests such as the Hammer sound test to devise a plan and prepare a report describing the vulnerable areas.

b) Memphis Airport Parking Garage, Memphis, Tennessee – With a team of 3 other engineers, I investigated the old parking garage at Memphis airport. I performed on-site tests such as chain drag to assess the parking floor to identify areas that needed retrofitting. I also assessed the water drainage, roof ponding, light pole supports, and handrails for any possible structural defects. At the conclusion of the project, I prepared a detailed report indicating the possible retrofit needed, and also provided the quantity estimate for retrofit.

4. Post Tension Slab Blowout Failure, Indianapolis:

Scope: To provide structural support for the litigation, and to provide a detailed summary and report for the theoretical investigation of the blowout failure.

Dates: October 2019 – December 2019

I used finite element modeling tools to evaluate the post-tension slab where the failure occurred. After evaluating the overall slab, I performed various hand calculations to check the local failure in the anchorage zone of the post-tensioning tendons. To identify the state of stress I proposed various options to evaluate the failure zones – such as Mohr's circle approach, anchorage zone stress calculations, and comparative study of tendon geometry per structural drawings versus built geometry. This helped me understand the cause of failure from different theoretical dimensions. I also prepared a detailed report and exhibit summary describing the approach and the conclusion.

5. Construction Administration Projects:

Scope: To provide Construction Administration services – shop drawing reviews, and responding to request for information requests.

Dates: October 2019 – April 2020

a) Willis Tower Repositioning, Chicago, Illinois – I performed various shop drawings reviews and responded to Request for Information (RFI) questions during the construction phase.

b) Arkansas Arts Center, Arkansas – During the renovation of this art center, I provided shop drawings reviews and RFI responses for folded plate support structure, Steel Floor systems, Concrete foundations and miscellaneous steel components.

SAKET KUMAR (18-232-77)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

HSA & ASSOCIATES INC.
California (United States)
STRUCTURAL DESIGN ENGINEER
(EIT)
September 2020—May 2021

Verified by
Rafik Gerges
rgerges@hsaassociates.com

Experience Summary
Full-Time
Engineering: 8 months
Experience under licensed engineer:
8 months



TASKS

The primary role is to perform engineering design and advance analysis of complex low-rise buildings. My role as a structural design engineer includes but not limited to gravity and lateral force resisting system design of various building components, and utilizing the analysis/design results to produce construction documents for the projects. The design includes the use of various material types such as - steel, concrete, wood, masonry, and light gauge. All the engineering tasks that are done involves extensive use of American codes such as AISC, IBC, CBC, ACI, TMS, ASCE, and NDS. With the use of current codes and computer software and hand calculations, I develop sketches for the construction documents. After the projects go into the construction administration phase, I go to the construction site for the structural investigation to make sure that the general compliance is maintained with the structural design.



REPRESENTATIVE PROJECTS

Relevant Projects:

1. Home Depot, Stockton, California :

Scope: To provide design and analysis of an industrial building, and to interact with architects and owners to ensure compliance with structural codes.

Dates: December 2020 - May 2021

- Designed a 700,000 Square Feet building (Single Story 45 Feet High) located in California with the use of the latest local and national codes. Primary responsibilities included the design coordination with the architect, owner, and geotechnical engineer from the ground-up phase. Prepared calculations for the gravity system and lateral systems such as Foundations, Tilt-up Concrete Shear Walls, Buckling Restrained Braced Frames, Truss Moment Frame, Diaphragm system - Drag/Collector and Chords and all other building components. I extensively used computer software and spreadsheets along with the hand calculations which finally culminated into the production of construction documents. These projects also gave a good exposure to the Permit process and interaction with the related teams of the project.

2. Sylmar Studio - Soundstage, Sylmar, California:

Scope: To provide design, analysis, sketches per design changes of an industrial cum office building, and to interact with architects and owners to ensure compliance with structural codes.

Dates: September 2020 - May 2021

- The project involved the analysis of a 130,000 Square Feet studio space (52 Feet High) with high precast shear walls which shared a 3 story office building. I used the Finite Element computer software for precast walls, while for other components I used spreadsheet programs and hand calculations. The primary components I analyzed were – High precast walls with boundary elements, Continuous and Combined foundation systems. The role was also to address the city plan check comments on construction documents and the calculations. In the later phase of the project, a few design changes due to updates in the seismicity of the site was involved, in which I was given the responsibility to coordinate and update the calculations and the construction documents.

3. Medical Office Building, Washington :

Scope: To provide design, analysis, sketches per design changes of an office building, and to interact with architects and owners to ensure compliance with structural codes.

Dates: October 2020 - May 2021

I worked on this project from the Schematic design phase. My primary responsibility was to design and analyze the proposed 40,000 Square Feet building to withstand gravity, seismic, snow, and rain loads. The gravity system I designed - open web steel joist supported on the Tilt-up walls and Steel columns, Isolated, Pad and Continuous footing design. And, for the lateral system,

my work was to design/analyze Shear walls, Drag/Collector elements, Steel beam to beam connections, and Steel beam to concrete panel connections.

4. Home Depot Expansion, California :

Scope: To provide Construction Administration services, and to interact with architects and owners to ensure compliance with structural codes.

Dates: September 2020 - May 2021

I was involved in the construction administration phase of a 520,000 Square Feet expansion project where my role was to provide solutions to the General contractors for their requests for information documents, review of the shop drawings, site investigations for Foundation system, Braced Frame, Tilt-up panels, Joist, and Metal deck roofing system. The building is undergoing construction where I regularly implement my engineering knowledge not just in the analysis but also in the on-site investigation.

ADDITIONAL INFORMATION



QUESTIONS

Has your original license lapsed? If yes, explain.

No

Have you ever been denied licensure by a jurisdiction? If yes, explain.

No

Have you ever been convicted of a misdemeanor? If yes, explain.

No

Have you ever been convicted of a felony? If yes, provide a brief letter of explanation and court documents.

No

Select the disciplines in which you are currently practicing. If more than 1% of time is devoted to a discipline, it must be included.

Disciplines

Structural

Other Disciplines

Has a jurisdiction ever revoked, suspended, or disciplined your license? (Please note this includes a consent agreement, letter of reprimand, Etc.) If the action has been resolved a yes answer is still needed.

No

SAKET KUMAR (18-232-77)

All work experience reviewed by two licensed professionals

ADDITIONAL INFORMATION



TIME GAPS

| Start Date | End Date | Reason | Explanation |
|------------|----------|------------|---|
| 05/2007 | 06/2008 | Unemployed | Prepared for the graduate school |
| 07/2014 | 07/2016 | Unemployed | I was employed in India as Engineer (Structural) but it doesn't count as verifiable experience in US. |

RACHEL LAWRENCE (19-316-03)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL



Applying To
Nevada

Application Type
Initial - PE

Application Date
06/23/2021

Citizenship
United States

SUMMARY



Engineering Experience
after EAC degree

Total Engineering
Experience
2 years, 5 months

Experience under licensed
engineer
2 years, 5 months

Other Experience

Disciplinary Action
None reported



EDUCATION



Bachelors in Physics
Rocky Mountain College
August 2014–May 2016

Masters in Mechanical Engineering
University of Washington
September 2016–June 2018



EXAMS



Fundamentals of Engineering (FE)
Nevada
June 2020

Principles and Practice of Engineering (PE)
Civil
Nevada
April 2021

LICENSES



Additional Licenses
None

RACHEL LAWRENCE (19-316-03)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Varsity Tutors (Independent Contractor)
Nevada (United States)
Mathematics Tutor
January 2017—January 2019

Verified by
Rachel Lawrence (Self)

Experience Summary

Part-Time

Other: (0%)

**Experience under licensed surveyor:
None**



TASKS

-Instructed students on various curriculum's ranging between Algebra to Calculus II



REPRESENTATIVE PROJECTS

My role was to evaluate a students mathematical abilities, determine how the student learns best, and help the student reach their particular goals. Over the course of my two years as a mathematics tutor I learned how to refine my teaching abilities such that concepts could be iterated efficiently and effectively. I maintained a 5 out of 5 star review rating throughout my time as a tutor by adapting to particular students needs and teaching based on their learning style.

RACHEL LAWRENCE (19-316-03)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

VTN Nevada
Nevada (United States)
Engineer Intern
January 2019—June 2021

Verified by
Brian Troy Ruiz
brianr@vtnnv.com

Experience Summary
Full-Time
Engineering: 2 years, 5 months
Experience under licensed engineer:
2 years, 5 months



TASKS

- Prepared Technical Drainage Studies for residential, commercial, and industrial developments throughout Clark County.
- Performed detailed hydraulic and hydrologic calculations and analysis with numerous modeling software used to substantiate drainage infrastructure.
- Performed in depth research on existing drainage patterns and facilities for 10 and 100-Year storm events within Clark County, Nevada.
- Analyzed existing FEMA flood zones using HEC-RAS 1D and 2D modeling software to calculate base flood elevations and provide adequate erosion protection for facilities within residential and commercial developments.
- Facilitated coordination between the client, public entity, and other consultants ensuring all involved personal are up to date on current plans and meet project deadlines.
- Produced improvements plans for residential projects within Clark County, NV



REPRESENTATIVE PROJECTS

Initially my role as an engineer intern was to aid licensed engineers with single calculations that pertain to an individual project. Now my role as an engineer intern has grown to encompass completing engineering analysis for a project from start to finish. My role starts with research on a parcel prior to development and determine possible constraints to the site. Once possible constraints are determined, I aid in the design of the project site to ensure all Clark County Regional Flood Control Criteria is met. As the engineer intern, I conduct a Technical Drainage Study to ensure the project site is provided adequate flood protection and a Water Network Analysis to ensure residual pressures for proposed buildings meet individual entity criteria. Through hydraulic calculations I determine if proposed infrastructure is sufficient to convey the design storm events and aid in plan revisions if design parameters need to be revised in order to meet a particular criteria. Once a draft of pertinent studies and plans are complete, the work is reviewed by a licensed civil engineer to ensure calculations and plans are done correctly.

A specific example of technical growth for me was on Pittman North Detention during my time as an engineer intern, I received a certificate of completion for HEC-RAS 1D modeling. From this class I was able to expand on 1D modeling knowledge in HEC-RAS to 2D modeling. As an engineer intern I created a HEC-RAS 2D model of Pittman North Detention Basin within Clark County, NV and analyzed dam breach characteristics thus ascertaining evacuation times and locations. The HEC-RAS 2D models were evaluated by a licensed engineer and utilized in the Pittman North Detention Basin Emergency Action Plan.

I plan to continue expanding my knowledge base in hydraulic modeling software and improve my ability to anticipate site constraints and resolve them effectively.

ADDITIONAL INFORMATION



QUESTIONS

Has your original license lapsed? If yes, explain.

No

Have you ever been denied licensure by a jurisdiction? If yes, explain.

No

Have you ever been convicted of a misdemeanor? If yes, explain.

No

Have you ever been convicted of a felony? If yes, provide a brief letter of explanation and court documents.

No

Select the disciplines in which you are currently practicing. If more than 1% of time is devoted to a discipline, it must be included.

Disciplines

Civil

Other Disciplines

Has a jurisdiction ever revoked, suspended, or disciplined your license? (Please note this includes a consent agreement, letter of reprimand, Etc.) If the action has been resolved a yes answer is still needed.

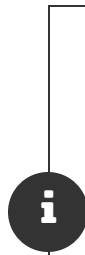
No

ZACHARY MOORE (18-000-74)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL



Applying To
Nevada

Application Type
Initial - PE

Application Date
06/16/2021

Citizenship
United States

SUMMARY



Engineering Experience
after EAC degree
17 years, 6 months

Total Engineering
Experience
17 years, 6 months

Experience under licensed
engineer
7 years, 10 months

Other Experience

Disciplinary Action
None reported



EDUCATION



Bachelors in Civil Engineering (EAC)
US Air Force Academy
June 1998–July 2002

Masters in Management
Colorado Technical University
August 2018–February 2020



EXAMS



Fundamentals of Engineering (FE)
Colorado
April 2002

Principles and Practice of Engineering (PE)
Civil
California
April 2021

LICENSES



Additional Licenses
None

ZACHARY MOORE (18-000-74)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

US Air Force
California (United States)
Civil Engineer Officer
July 2002—February 2009

Verified by
David Charles Piech
dabears65@msn.com

Experience Summary
Full-Time
Engineering: 6 years, 7 months
Post EAC degree: 6 years, 7 months
Experience under licensed engineer:
None

TASKS

Worked for 7 years as a Civil Engineering Officer. I worked in roles of progressively more responsibility. As a civil engineering officer, I was responsible for all base maintenance and new construction on the bases. We reviewed plans and drawings for construction as well as design review. On deployments, I was responsible for the full range of engineering, from base layout to design and construction of new facilities. Specific job titles included SABER Chief, Programmer, Chief of Maintenance Engineer, Civil Affairs Team - Engineers Lead. I worked as Executive Officer in 2008 and 2009, with less direct engineering work and more management and consultations.

REPRESENTATIVE PROJECTS

Renovation of Bldg 1296 (2002-2003): I was responsible for scope of work and design requirements, ensuring that provided design met owner requirements. This included takeoff quantities and scheduling of personnel relocations in order to facilitate the renovation.

Tallil Air Base Runway Project (2003-2004): I designed the reinforcing for an aircraft arresting system foundation, including bar sizing and spacing. I evaluated the condition of the existing runway pavement.

Yokota Bus Stations (2004): I designed the updated bus stations for the base public transit. This included the traffic routes and timing of runs as well as the structures providing protection from the elements to waiting passengers. I evaluated cost estimates for validity and funding.

Vandenberg AFB Gym (2004-2008): I was responsible for planning and funding documentation prior to project approval and budgeting. In the planning phase, I made sure the project documents would account for current requirements as well as planned mission growth. I calculated the usage and traffic requirements to determine what the new facility would do to the existing infrastructure.

Zabol Culvert Protection (2007): I designed covers for drain culverts to protect from animal and explosive hazards. This included all calculations for material types, reinforcement and spacing. I oversaw and evaluated the contractor installation to ensure it met requirements.

Jalak Road Repair (2007): I supervised the construction repair of Highway 1 instability, verified dewatering design and construction aspects. I wrote the planning documents and designed the new cross sections for the road as well as the depth of excavation to ensure base stability.

Qalat Hospital (2007): Determined the stability of the foundation previously constructed on sand material, designed the repair and stabilization.

Zabol Provincial Governor's House (2007-2008): I revised the design of the new construction to incorporate additional force protection measures. I calculated the distances necessary for stand off and the increased utility requirements to accommodate the expansion of the new construction.

ZACHARY MOORE (18-000-74)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

US Army Corps of Engineers
California (United States)
Office Engineer
April 2009—October 2015

Verified by
Jennifer Lynn Wheelis
jennifer.l.wheelis@usace.army.mil

Experience Summary
Full-Time
Engineering: 6 years, 6 months
Post EAC degree: 6 years, 6 months
**Experience under licensed engineer:
3 years, 5 months**



TASKS

I made thorough studies of plans and specifications to obtain knowledge of construction requirements and design criteria. Recommended addenda or changes to plans and specifications where required to correct deficiencies or make changes necessitated by differing site conditions or user requests.

Performed BCOE reviews. Recommended changes where needed and provides lessons learned comments.

Prepared, facilitated, and recorded Preconstruction and Progress meetings; attended and participate in coordination, preparatory, and safety meetings; and to manage, keep current, and maintain the records of construction.

Supervised and conducted detailed inspection of construction activities.

Obtained engineering data for discussions on construction and engineering problems or on controversies that cannot be resolved at the immediate work site.

Made periodic checks of contractors work for overall compliance with Plans and Specifications and other contract and construction requirements.

Prepared scopes of work for RFPs, prepared or assisted in preparation of government estimates, reviewed contractors proposals, participated in or conducted negotiations and prepared contract modification documentation.

Consulted and maintained liaison with representatives of the using service or cost sharing partners and keeps them advised of progress and resolution of any outstanding problems or potential delays.



REPRESENTATIVE PROJECTS

Camp Roberts Waterline (2009): I worked all takeoffs and reviewed designed excavation limits. I reviewed all plans and specifications to ensure that design would meet intent and could be constructed. I evaluated contractor proposals to ensure plans met design intent.

Fort Hunter-Liggett ECIP Solar (2010): I performed calculations for space necessary and number of solar panels to meet the utility provider requirements without exceeding space allotted.

SATCOM Earth Station (2011): I corrected design deficiencies of an ongoing contract, determining quantity of borrow material necessary for general site improvements. I evaluated contractor proposed changes for engineering sufficiency. I worked with the end user to ensure that requirement changes were incorporated into the design.

Morrison Creek Floodwall (2012): I performed site evaluations and inspections to determine if work met specifications. I conducted modification takeoffs and negotiations to adjust for differing site conditions. I evaluated design extensions for compliance with intent and specifications.

New Hogan Tainter Gate (2013): I reviewed design notes to ensure compatibility with existing facilities. I evaluated contractor proposed methods to ensure safety and compliance.

American River L5A (2013): I redesigned the portion of cutoff wall to switch from CLSM to SCCB due to differing site conditions. I calculated quantity takeoff changes and production rates necessary to meet schedule. I evaluated schedules and surveys for verification that work met specification requirements.

American River Jet Grout (2012-2015): I calculated placed quantities of material to verify placement and payment. I also oversaw changes to implement night work, including increased traffic management and lighting to ensure safety and workability.

ZACHARY MOORE (18-000-74)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Sierra Donor Services
California (United States)
Tissue Recovery Coordinator
November 2015—April 2016

Verified by
Zachary Moore (Self)

Experience Summary
Full-Time
Other: (0%)
Experience under licensed surveyor:
None



TASKS

Responsible for recovery of tissue from donors.



REPRESENTATIVE PROJECTS

This work was not engineering or construction related.

ZACHARY MOORE (18-000-74)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Newland Entities, Inc
California (United States)
Quality Control Manager
April 2016—December 2016

Verified by
Zachary Moore (Self)

Experience Summary
Full-Time
Other: (0%)
Experience under licensed surveyor:
None



TASKS

No engineering work was performed, only supervising construction.



REPRESENTATIVE PROJECTS

Supervised the construction of a setback levee.

ZACHARY MOORE (18-000-74)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

US Army Corps of Engineers
California (United States)
Office Engineer
January 2017—June 2021

Verified by
Robert Louis Caputo
rlcaputo@gmail.com

Experience Summary
Full-Time
Engineering: 4 years, 5 months
Post EAC degree: 4 years, 5 months
Experience under licensed engineer:
4 years, 5 months



TASKS

Participates in all phases of the contract modification process. Prepares scopes of work for RFP's, prepares or assists in preparation of government estimates, reviews contractor's proposals, participates in or conducts negotiations and prepares contract modification documentation. Assists in review and analysis of contractor requests arising from disputes and claims, and makes recommendations for resolution. Projects will be performed independently on routine aspects of the projects but the more complex issues will be in consultation with the supervisor. Reviews and analyzes contractor plans and technical submittals for approval action, including progress schedules, environmental, safety and quality control programs, certifications and shop drawings. Prepares correspondence with regard to Contractor performance, Requests for Equitable Adjustments (REAs), Requests for Information (RFIs) and other technical issues. Monitors scheduled progress of all construction activities and phases of construction and advises the Resident Engineer of potential slippage or delay. Makes a through study of plans and specifications to obtain knowledge of construction requirements and design criteria. Recommends addenda or changes to plans and specifications where required to correct deficiencies or make changes necessitated by differing site conditions or user requests. Serves as the representative for construction on Project Delivery Teams (PDTs). Performs BCOE reviews and attends BCOE review conferences. Recommends changes where needed and provides "lessons learned" comments to designers.



REPRESENTATIVE PROJECTS

Marysville Ring Levee (2017-2018): I oversaw the construction of a stability berm to provide increased flood protection. I performed quantity calculations and determinations to ensure that the placed material would meet levee safety requirements.

Phase 2A North (2018-2019): I calculated takeoff quantities and evaluated contractor plans for compliance with design. I verified submitted shop drawings met standards and design requirements. I evaluated various stages of design to ensure compliance with standards, regulations, and best practices.

PL84-99 Repairs (2019): Responsible for the design and repair of several levees damaged by flood events. Work performed included verification of plans to meet design intent, evaluation of coffer dam design to dewater river, adjusting design requirements to meet levee safety and evaluation of work plans to ensure standards and codes were met. I evaluated various stages of design to ensure compliance with standards, regulations, and best practices.

Reach D (2018-2020): I managed the construction of a secondary flood control structure. I was responsible for take off quantities and verification that the installed cofferdam was sufficient to ensure safety and stability in the work area. I evaluated various stages of design to ensure compliance with standards, regulations, and best practices.

Phase 2C (2020): I evaluated contractor plans and procedures to ensure compliance with regulations and meeting design requirements. I evaluated all site data to ensure work met design standards and intent for levee rebuilding. I evaluated various stages of design to ensure compliance with standards, regulations, and best practices.

Reach B (2020-2021): I evaluated various stages of design to ensure compliance with standards, regulations, and best practices. I reviewed contractor plans to ensure design compliance, answered requests for additional information, interpreted plans and specifications and evaluated work performed to ensure design and contract compliance.

ZACHARY MOORE (18-000-74)

All work experience reviewed by two licensed professionals

ADDITIONAL INFORMATION

QUESTIONS

Has your original license lapsed? If yes, explain.

No

Have you ever been denied licensure by a jurisdiction? If yes, explain.

No

Have you ever been convicted of a misdemeanor? If yes, explain.

No

Have you ever been convicted of a felony? If yes, provide a brief letter of explanation and court documents.

No

Select the disciplines in which you are currently practicing. If more than 1% of time is devoted to a discipline, it must be included.

Disciplines

Civil

Other Disciplines

Has a jurisdiction ever revoked, suspended, or disciplined your license? (Please note this includes a consent agreement, letter of reprimand, Etc.) If the action has been resolved a yes answer is still needed.


No

BRANDON QUINTON (16-875-30)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL


 Applying To **Nevada**

Application Type **Initial - PE**

Application Date **01/29/2021**

Citizenship **United States**



SUMMARY



 Engineering Experience after EAC degree **4 years**

Total Engineering Experience **4 years**

Experience under licensed engineer **4 years**

Disciplinary Action **None reported**

EDUCATION


 Non-degree
University of Washington
September 2010–May 2014

Bachelors in Civil Engineering (EAC)
University of Utah
August 2014–May 2017

Masters in Engineering
University of Nevada, Las Vegas
August 2017–May 2019



EXAMS

 Fundamentals of Engineering (FE)
Utah
March 2017

Principles and Practice of Engineering (PE)
Civil
Nevada
October 2020

LICENSES

 Additional Licenses **None**

BRANDON QUINTON (16-875-30)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Wright Engineers
Nevada (United States)
Project Manager
June 2017—January 2021

Verified by
Mark David Rowe
drowe@wrightengineers.com

Experience Summary
Full-Time
Engineering: 3 years, 7 months
Post EAC degree: 3 years, 7 months
Experience under licensed engineer:
3 years, 7 months

TASKS

My scope of work from June 2017 to current day includes numerous projects that range from shade structures, pools, single-story wood-framed and single-story masonry buildings, single family home remodels, masonry and concrete site structures, masonry and concrete retaining walls, tenant improvements, and a multi-story apartment building. Additionally, I calculated gravity and lateral components for the mentioned projects and prepared structural drawings for each of them.

I calculated numerous components for commercial woods buildings that includes the design of wood shear walls, anchorage for up and down forces, braces for store front beams and parapets, and footings to handle the lateral and gravity forces. Additionally, I calculated gravity and lateral components for a multi-story apartment building and single family home remodels.

I have also designed many components for masonry buildings. These components included the structural design of lintels and jambs, shear walls, and blocked wood structural diaphragms.

I designed using the IBC 2012, IBC 2015, and IBC 2018 with local code adoptions across many states.

The experience during this time frame is 100% engineering experience.

REPRESENTATIVE PROJECTS

Pools, Average 600 Square Feet

June 2017 - Present

I designed and performed structural calculations, as well as prepared structural drawings, for roughly 2500+ shotcrete and gunite pools. My responsibilities included designing the 4'-0" to 10'-0" tall pool walls for lateral soil loads, surcharge loads from home foundations, point loads from neighboring shade covers, as well as additional moment and shear loads from raised masonry walls sitting on the pool bond beams. Each pool project provides a different grading plan so it is my responsibility to accurately calculate the required wall thickness and reinforcement required at the varying wall heights and conditions to prevent failure of the pool shell, as well as providing additional consideration for sliding of the shell at 2:1 exposed pool wall conditions.

Bliss Wedding Chapel, 3,000 Square Feet

July 2018 - December 2018

I designed and performed gravity and lateral calculations, as well as prepared structural drawings, for load-bearing masonry walls with wood roof framing, perforated wood shear walls, masonry retaining walls, a cantilever carport structure, and spread footings. My responsibility also included working with the architect and contractor during the construction phase for any fixes and repairs required on the job site.

7-Eleven Convenience Stores, (3,000-4,000 Square Feet)

August 2018 - Present

I designed and performed gravity and lateral calculations, as well as prepared structural drawings, for 9 different geometry buildings with wood and masonry shear walls, prefabricated wood trusses, conventional slab-on-grade foundation, masonry fence walls, steel canopy, and 7'-0" tall parapets. I helped contractors and subcontractors in understanding the design intent as well as

in determining adequate substitutions and field fixes for holdowns and trusses given the unique constraints of the project due to their locations.

Taverna Costera, 7,000 Square Feet

January 2020 - February 2020

I designed and performed gravity and lateral calculations, as well as prepared structural drawings, for an existing wood framed building to be retrofitted for a rooftop restaurant. My responsibility was to determine if the original designed building was up to code to meet the current 2018 IBC loading requirements. These calculations included verifying the rooftop deck can support the new pedestal system, rooftop wood and metal framed covered bar, and new mechanical units. I also designed and performed calculations for interior metal stud walls and anchorage to the existing structure.

Sandy Valley Family Dollar, 9,200 Square Feet

January 2021 - Present

I am currently designing and performing lateral calculations, as well as preparing structural drawings, for a pre-engineered metal building. My responsibility is to analyze the reactions and to provide the structural design of the foundation and slab for the building. I will also be providing supporting calculations of the anchorage to the foundation for each moment frame location. I am also currently designing the foundation and anchorage for a 40'-0" diameter water tank structure.

BRANDON QUINTON (16-875-30)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Wright Engineers
Nevada (United States)
Project Manager
January 2021 – June 2021

Verified by
Mark David Rowe
drowe@wrightengineers.com

Experience Summary
Full-Time
Engineering: 5 months
Post EAC degree: 5 months
Experience under licensed engineer: 5 months

TASKS

My scope of work from January 2021 to current day includes numerous projects that range from shade structures, pools, single-story wood-framed and single-story masonry buildings, single family home remodels, masonry and concrete site structures, masonry and concrete retaining walls, tenant improvements, and a multi-story apartment building. Additionally, I calculated gravity and lateral components for the mentioned projects and prepared structural drawings for each of them.

I calculated numerous components for commercial woods buildings that includes the design of wood shear walls, anchorage for up and down forces, braces for store front beams and parapets, and footings to handle the lateral and gravity forces. Additionally, I calculated gravity and lateral components for a multi-story apartment building and single family home remodels.

I have also designed many components for masonry buildings. These components included the structural design of lintels and jambs, shear walls, and blocked wood structural diaphragms.

I designed using the IBC 2012, IBC 2015, and IBC 2018 with local code adoptions across many states.

The experience during this time frame is 100% engineering experience.

REPRESENTATIVE PROJECTS

Pools, Average 600 Square Feet

January 2021 - Present

I designed and performed structural calculations, as well as prepared structural drawings, for roughly 2500+ shotcrete and gunite pools. My responsibilities included designing the 4'-0" to 10'-0" tall pool walls for lateral soil loads, surcharge loads from home foundations, point loads from neighboring shade covers, as well as additional moment and shear loads from raised masonry walls sitting on the pool bond beams. Each pool project provides a different grading plan so it is my responsibility to accurately calculate the required wall thickness and reinforcement required at the varying wall heights and conditions to prevent failure of the pool shell, as well as providing additional consideration for sliding of the shell at 2:1 exposed pool wall conditions.

Sandy Valley Family Dollar, 9,200 Square Feet

January 2021 - February 2021

I designed and performed lateral calculations, as well as prepared structural drawings, for a pre-engineered metal building. My responsibility was to analyze the reactions and to provide the structural design of the foundation and slab for the building. I also provided supporting calculations of the anchorage to the foundation for each moment frame location. I also designed and performed calculations for a steel-framed pop-out parapet with supporting anchorage to the pre-engineered metal building.

Valley Health Specialty Hospital, 70,000 Square Feet

February 2021 - March 2021

I designed and performed gravity and lateral calculations, as well as prepared structural drawings, for an existing masonry hospital building. My responsibility was to analyze the rigid diaphragm so I could inform the architect at what locations it was okay to create a new opening in the wall for a future window/door without compromising the structural integrity of the structure. I also

provided supporting anchorage calculations for a new steel canopy that will be attaching the existing structure.

Lasiter Residence, 1,500 Square Feet

April 2021

I designed and performed gravity and lateral calculations for a new garage that will be built to an existing home, as well as prepared structural drawings for wood shear walls, concrete grade beams, and eccentric spread footings. My responsibility also included working with the architect to create a system where the new wood-framed garage will not experience seismic/wind lateral pounding into the existing home.

Cafe Rio, 3,000 Square Feet

May 2021 - Present

I am currently designing and performing lateral calculations, as well as preparing structural drawings for a future masonry, wood, and cold-formed steel material tenant improvement. My responsibility is to analyze the original roof structure and provide adequate bracing for the new mechanical units weights that will be sitting on the roof, as well as verifying the original lateral system can support the new wood framed pop-out framing for a future "drive-through" concept.

H&C Distillery, 6,500 Square Feet

May 2021 - Present

I am currently designing and performing lateral calculations based off a structural investigation of the original structure, as well as preparing structural drawings for a future masonry, wood, and cold-formed steel material tenant improvement. My responsibility is to analyze the original roof structure for existing damage and provide adequate bracing for the new mechanical duct system that will be sitting on the roof, as well as updating the existing lateral system from Risk Category II to Risk Category III.

BRANDON QUINTON (16-875-30)

All work experience reviewed by two licensed professionals

ADDITIONAL INFORMATION



QUESTIONS

Has your original license lapsed? If yes, explain.

No

Have you ever been denied licensure by a jurisdiction? If yes, explain.

No

Have you ever been convicted of a misdemeanor? If yes, explain.

No

Have you ever been convicted of a felony? If yes, provide a brief letter of explanation and court documents.

No

Select the disciplines in which you are currently practicing. If more than 1% of time is devoted to a discipline, it must be included.

Disciplines

Structural

Other Disciplines

Has a jurisdiction ever revoked, suspended, or disciplined your license? (Please note this includes a consent agreement, letter of reprimand, Etc.) If the action has been resolved a yes answer is still needed.


No

MUZAMMIL QURESHI (18-283-63)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL


 Applying To **Nevada**

Application Type **Initial - PE**

Application Date **06/21/2021**

Citizenship **Pakistan**



SUMMARY



 Engineering Experience after EAC degree **3 years, 6 months**

Total Engineering Experience **4 years, 3 months**

Experience under licensed engineer **2 years, 8 months**

Disciplinary Action **None reported**


 


EDUCATION

 Bachelors in Civil Engineering (EAC)
University of Sharjah - United Arab Emirates
September 2011–October 2015

Masters in Project Management
Keller Graduate School of Management
August 2016–June 2018

 **Note:** Last semester of education was just one class—course #0401490, Practical training Civil Eng, 0 credit, therefore experience commenced before degree was conferred.

EXAMS

 Fundamentals of Engineering (FE)
New York
May 2019

Principles and Practice of Engineering (PE)
Civil
New Jersey
April 2021

LICENSES

 Additional Licenses **None**

MUZAMMIL QURESHI (18-283-63)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Dubai Civil Engineering
Dubai (Dubayy) (United Arab Emirates)
Civil Engineer
January 2015—August 2016

Verified by
Laiba Asif
laibaasif444@gmail.com

Experience Summary
Full-Time
Engineering: 1 year, 7 months
Post EAC degree: 10 months
Experience under licensed engineer:
None



TASKS

I focused on planning, scheduling, and quantity estimation for the residential building and villa for phase 1 out of the 5 phases. I hired subcontractors, compared their rates and supervised their work on site. I prepared subcontractors invoices and payment for the job.

I prepared construction and environmental compliance documents; developed grading plans, cost estimates and bid specifications; and provided construction oversight, environmental sampling and site reconnaissance.(engineering100%)



REPRESENTATIVE PROJECTS

Worked as a Civil Engineer at
Balqis Residence Project at Palm Jumeirah,
(Actual Project Duration 2013- 2021) (Covered project from Jan 2015 to Aug 2016 phase 1)

Balqis Residence Project: a collection of residential villas, townhouses, penthouses and apartments- 141,500 square meters of prime land; the Kingdom of Sheba is adjacent to the trailblazing Atlantis.

I maintained relationships and stayed in constant contact with all stakeholders which proved instrumental in generating additional extra project work.

I conducted field inspections supplying solutions to deficiencies in plans. I ensured the safe, cost-effective and timely completion of all project operations/activities to meet the client's needs.

I created meetings and supervised them based on the field conditions with designers and state agencies to resolve a myriad of engineering design issues on the drawing.

MUZAMMIL QURESHI (18-283-63)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

siddiqui engineering, pc
New York (United States)
civil engineer
October 2018—June 2021

Verified by
Ben Ben Golshahr
ben@siddiqui-eng.com

Experience Summary
Full-Time
Engineering: 2 years, 8 months
Post EAC degree: 2 years, 8 months
**Experience under licensed engineer:
2 years, 8 months**

TASKS

I am responsible for analysis, design, calculations, initial review, quality control and modeling for a variety of projects. These projects include the design of pedestrian ramps (citywide NY), on-ramp pavement repairs (at RFK bridge ramp, NY), with different layout options to minimize the impact of change orders while ensuring all contractual requirements are fulfilled on time and on budget.

Level of responsibility:

An engineer working under the supervision of registered engineers.

Description of engineering decisions made:

I designed and analyzed sidewalk curbs with respect to drainages, right of way and regulatory compliance. I designed subgrade, drainage, and finished contours. I reviewed and verified existing as-built conditions and selected the cost-efficient designs for the sidewalk. I performed quality assurance & quality control inspections for the sidewalks and bridge approach roadways. (engineering 100%)

REPRESENTATIVE PROJECTS

1. Design Engineer at planning & executions stage of— NYC Department of Design & Construction (DDC), Preliminary and Final Design Services for Complex and Landmark Pedestrian Ramps, Citywide New York – 7/2018 to Present (3 million dollars project cost) (Design Bid build)

The project consists of designing multiple intersection sidewalk curbs according to CityDOT standards using design softwares. I prepared construction schedules and design reports on a daily basis, as per project progress requirements. I developed mapping using ArcMap for the sidewalk building line. I designed the structure of the sidewalk for 20 intersections out of 50 intersections according to CDOT, SDOT & AASHTO. I reviewed CAD drawings to perform takeoffs and estimates. I provided quality assurance and quality control on the topographic surveys (used in the design of the project) and construction surveys (for each design phase).

2. Construction inspection at all five phases of: MTA Bridges and Tunnels, Main Cables Trial Blow Test at RFK & Whitestone Bridge, New York – 11/2018 to 8/2019 (10 million dollars cost) (Design Bid build)

Worked on the construction management, of the highly technical project, to determine the airtightness of suspended cables at the BWB & RFK Bridge. I reviewed and recommended design changes to ensure fieldwork complies with plans/specifications (SDOT) & safety (OSHA) creating safe work environments by overseeing contractor work duties. I performed construction administration activities including submittals, RFIs, potential change items, change orders (for compliance and compatibility), inspection, system commissioning and project closeout.

ADDITIONAL INFORMATION



QUESTIONS

Has your original license lapsed? If yes, explain.

No

Have you ever been denied licensure by a jurisdiction? If yes, explain.

No

Have you ever been convicted of a misdemeanor? If yes, explain.

No

Have you ever been convicted of a felony? If yes, provide a brief letter of explanation and court documents.

No

Select the disciplines in which you are currently practicing. If more than 1% of time is devoted to a discipline, it must be included.

Disciplines

Civil

Other Disciplines

n/a

Has a jurisdiction ever revoked, suspended, or disciplined your license? (Please note this includes a consent agreement, letter of reprimand, Etc.) If the action has been resolved a yes answer is still needed.


No

JEFFREY ROSSMAN (18-707-03)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL


 Applying To **Nevada**

Application Type **Initial - PE**

Application Date **06/22/2021**

Citizenship **United States**



SUMMARY



 Engineering Experience after EAC degree **6 years, 10 months**

Total Engineering Experience **6 years, 10 months**

Experience under licensed engineer **6 years, 10 months**

Disciplinary Action **None reported**


 

EDUCATION

 Bachelors in Naval Architecture (EAC)
US Naval Academy
July 2008–May 2012

EXAMS

 Fundamentals of Engineering (FE)
California
August 2020

Principles and Practice of Engineering (PE)
Civil
California
April 2021

LICENSES

 Additional Licenses **None**

JEFFREY ROSSMAN (18-707-03)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Northrop Grumman Newport News
Shipbuilding
Virginia (United States)
Apprentice
February 2007—June 2008

Verified by
Jeffrey Rossman (Self)

Experience Summary
Full-Time
Engineering: (0%)
Experience under licensed engineer:
None



TASKS

Apprentice at shipyard that builds and refits aircraft carriers and military submarines. Served as an apprentice working 30hrs/week and in class 10hrs/week. spent approximately 6 months working in pipefitting, 6 months in machinery installation, and 6 months in industrial measurements.



REPRESENTATIVE PROJECTS

Pipefitting

Worked as a pipefitting apprentice assisting a master pipefitter on the new construction aircraft carrier USS George H.W. Bush. Worked primarily in Main Machinery Room #2.

Machinery Installation

Worked as a machinery installation apprentice as part of a machinery installation crew on the flight deck of the new construction aircraft carrier USS George H.W. Bush. Team installed antennas on the island, NATO Sea Sparrow & Rolling Airframe Missile launchers, as well as the catapult and jet blast deflectors.

Industrial Measurements

Worked as an industrial measurements apprentice as part of the Metrology team that worked the front end of new construction Virginia Class submarines, including sonar arrays, vertical launch systems, retractable bow planes, torpedo room rail systems, and submarine ring module assembly. Surveyed utilizing theodolites, laser trackers, Faro Arm, and photometry. Additionally, processed data and prepared reports.

JEFFREY ROSSMAN (18-707-03)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

U.S. Navy
District of Columbia (United States)
Civil Engineer Corps Officer
May 2012—June 2021

Verified by
James Alger
james.m.alger@navy.mil

Experience Summary
Full-Time
Engineering: 6 years, 10 months
(75%)
Post EAC degree: 6 years, 10 months
(75%)
Experience under licensed engineer:
6 years, 10 months

TASKS

U.S. Navy Flight School – May 2012-Feb 2015

Pilot Student. - Learned aircraft systems and how they operate together to keep aircraft afloat and fueled. Reviewed fuel efficiency, power charts, fuel system operation for two aircraft types. Learned to read multiple types of aviation charts, navigation aids and use angles and approaches to navigate, calculate required fuel for routes, survival techniques, and emergency procedures.
Fixed-Wing Instructor Training Unit Officer. Generated flight schedules for over 40 flight instructors under training and performed radio contact and communication with inbound and outbound flight instructors.

Civil Engineer Corps Officer School – Feb 2015-May 2015

CEC Officer Student. Received training in Civil Engineer Corps development, Seabee operations, Public Works, and Installation Environmental Management.

Naval Mobile Construction Battalion 133 – May 2015-Nov 2016

Operations Engineering Officer. Responsible for administrative duties related to construction and engineering.
Vertical Construction Company Commander. Responsible for good order, discipline, welfare, training and employment of 100 personnel.

THIRTIETH Naval construction Regiment – Nov 2016-Aug 2019

Assistant Operations Officer. Responsible for reporting operations of four units consisting of over 800 engineering personnel assigned to support requirements throughout the western Pacific Ocean.
Theater Security Cooperation Officer. Oversaw construction by deployed battalions performing Humanitarian Assistance & Disaster Recovery operations through Micronesia, the Marshall Islands, Palau, the Philippines, and Timor Leste.

Naval Base Point Loma Public Works Department – Aug 2019-Present

Assistant Public Works Officer. Responsible for daily interaction with major customers, emergency, and reoccurring work requests. Coordinates client's facility requirements and execution of \$70M per year across 70 tenant commands within the base.

Throughout my career in the Navy, I would estimate that it has been 70% engineering

REPRESENTATIVE PROJECTS

U.S. Navy Flight School – May 2012-Feb 2015

Pilot Student. Introductory Flight Screening. Learned about the systems and operations of a Cessna 172 and obtained 13 hours of flight experience.

Aviation Preliminary Indoctrination (API). Completed courses in navigation, aircraft systems, survival techniques, swimming qualifications and flight planning.

Primary Flight Training. Completed 12 front seat visual flight rules (VFR) flights which included flight planning, pre-brief on aviation topics ranging from aircraft operations and emergency procedures to aerial maneuvers.

Fixed-Wing Instructor Training Unit Officer. Planned and scheduled daily flight operations for pilots training to become flight instructors. Reported and logged departures and arrivals of flights within the unit. Ensured irregular operations were properly addressed and reported.

Civil Engineer Corps Officer School – Feb 2015-May 2015

CEC Officer Student. I performed field training exercise involving trend analysis of attacks and incidents on infrastructure, led

patrol in the woods, led a command post, and managed command communications and control.

I learned Engineering Manual 385 safety by taking 40 hour course.

I took a plans/drawing readings class with test.

I took a government contracting classes focusing on the Federal Acquisition Regulations.

I learned construction battalion communications and structure.

I performed engineering reconnaissance planning using Marine Corps manuals and then performed a simulated operation to collect engineering data from a tactical site visit.

Naval Mobile Construction Battalion 133 – May 2015-Nov 2016

Operations Engineering Officer. I oversaw engineering support to 13 projects exceeding 2,000 mandays. I oversaw weekly progress reports from individual projects to headquarters. I managed RFIs and Field Adjustment Requests for the unit of 500+ Seabees. I overhauled the unit's timekeeping program to more accurately and easily track manpower expenditure.

Vertical Construction Company Commander. I managed homeport planning and development of a major project for an upcoming deployment. I reviewed and approved the construction schedule. I led teams who would deploy to support construction of projects at other European and African deployment sites. I oversaw deployment (6 months) related construction of Shipboard Electronics Systems Evaluation Facility including overall project management. This project mainly consisted of finish construction for a hardened concrete building: rough and finish electrical, plumbing, fire main, restroom fixtures, installation of water main loop to building, interior and exterior comms conduit, and floating floor, metal stud walls, concrete ramp, and entryway stairs. I managed multiple other minor construction projects such as repairing of hundreds of feet of galvanized security fence and planning & estimating a future shoreline erosion control project.

THIRTIETH Naval construction Regiment – Nov 2016-Aug 2019

Assistant Operations Officer. I assisted in the tasking and deployment planning for Construction Battalion utilization across 16 sites spanning 25 individual projects. Issued 52 tasking orders to homeported and deployed units pertaining to their deployment assignments. I collected project status reports and processed for leadership consumption.

Theater Security Cooperation Officer. I oversaw deployed units supporting humanitarian construction in Micronesia, Marshall Islands, Palau, the Philippines and Timor Leste. I analyzed potential locations and designs for restroom facilities, schoolhouses, and clinics, typically of CMU or wood frame construction. Standard designs were often provided by host nation and I would oversee site adapt plans and validate site conditions and bills of material. My team and I would visit each site quarterly to ensure Quality Control and resolve issues on the ground. I would also visit future project locations and I would assess constructability and benefit to host nation. Over 30 of these construction projects were completed under my time in this position.

Naval Base Point Loma Public Works Department – Aug 2019-Present

Assistant Public Works Officer. I managed facilities related work with a focus on customer service. I assisted in solving problems related to maintenance of all aspects of facilities from HVAC to plumbing to electrical to structural. I would take customer requirements and ensure emergency work was properly addressed; long range projects were scoped, planned, funded and executed appropriately; and everything in between. I had multiple smaller responsibilities including managing a Facilities Related Control Systems Working Group and overseeing various energy initiatives throughout the base.

JEFFREY ROSSMAN (18-707-03)

All work experience reviewed by two licensed professionals

ADDITIONAL INFORMATION



QUESTIONS

Has your original license lapsed? If yes, explain.

No

Have you ever been denied licensure by a jurisdiction? If yes, explain.

No

Have you ever been convicted of a misdemeanor? If yes, explain.

No

Have you ever been convicted of a felony? If yes, provide a brief letter of explanation and court documents.

No

Select the disciplines in which you are currently practicing. If more than 1% of time is devoted to a discipline, it must be included.

Disciplines

Civil

Other Disciplines

Has a jurisdiction ever revoked, suspended, or disciplined your license? (Please note this includes a consent agreement, letter of reprimand, Etc.) If the action has been resolved a yes answer is still needed.

No

DAVID SCHLATTER (14-785-43)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL



Applying To
Nevada

Application Type
Initial - PE

Application Date
06/09/2021

Citizenship
United States

SUMMARY



Engineering Experience
after EAC degree
5 years, 9 months

Total Engineering
Experience
5 years, 9 months

Experience under licensed
engineer
5 years, 9 months

Disciplinary Action
None reported



EDUCATION



Bachelors in Civil Engineering (EAC)
University of New Hampshire
August 2011–December 2014

EXAMS



Fundamentals of Engineering (FE)
New Jersey
July 2014

Principles and Practice of Engineering (PE)
Civil
California
April 2021



LICENSES



Additional Licenses
None

DAVID SCHLATTER (14-785-43)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Britt Peters & Associates, Inc.
South Carolina (United States)
Structural Engineer-in-Training
September 2015—June 2021

Verified by
Andrew Andrew Ruffin
aruffin@brittpeters.com

Experience Summary
Full-Time
Engineering: 5 years, 9 months
Post EAC degree: 5 years, 9 months
**Experience under licensed engineer:
5 years, 9 months**

TASKS

I am a structural engineer-in-training with Britt Peters and Associates. This is the job title given to the junior engineers at our firm. In my 6 years at Britt Peters I have served in both as both a supporting engineer and as a lead engineer in bringing projects through design and construction. I have designed buildings in every major building material including wood, masonry, concrete, posttensioned concrete, and steel. I am responsible for the coordination of drafting and coordination among different engineering disciplines on a given project as well as coordinating with architects to deliver an exceptional product to the owner. Another responsibility that I have is overseeing and educating interns and co-op students to guide them as they assist on projects.

REPRESENTATIVE PROJECTS

These projects are examples of my experience as a structural engineer. I have worked on hundreds of projects in the last 6 years but these will serve as representations of my experience and competence in the structural engineering discipline.

Freudenberg - Macon, GA - 4/2016-11/2016

This project was a 50,000 SF expansion to existing industrial plant including manufacturing space and offices. Provided structural design of several masonry and steel buildings as well as a four-story steel framed structure supporting sensitive industrial equipment. I performed calculations and design for building shallow foundations as well as for helical pile foundations supporting sensitive equipment. I coordinated construction administration to ensure that all structures were built to the design intent and satisfied the owner's stringent requirements.

Spartanburg High School Athletic Complex - Spartanburg, SC - 1/2017-8/2017

I provided structural design/coordination and modeling of new athletic complex. Project includes several ancillary type buildings support the high school athletics program, elevated seating and on-grade seating along with a new 4 story press box and hospitality venue. The four story press box was modelled using ETABS and I was the sole engineer responsible for creating this analytical tool. I supported construction administration to ensure proper construction of the buildings and ancillary structures.

River Landing Village - Daniel Island, SC 6/2018-1/2019

This project was a 3 building, multistory, mixed use development with each building being constructed using a post tensioned concrete podium with light framed construction above. I served as the lead engineer for designing the lateral resisting system for each building. We utilized modal analysis to analyze the building in this high seismic region and I was vital to that effort to ensure the building was designed to the applicable building codes.

Cherokee Indians Youth Center - Cherokee, NC 9/2019-6/2021 & Cherokee Indians Community Center - Robbinsville, NC 9/2019-6/2021

These projects are both 2 story, roughly 50,000 SF facilities. Both buildings are steel framed with concrete floors with masonry elements in the gymnasiums and core shafts. These projects occurred almost simultaneously and I was in charge of overall structural design for both buildings as well as handling client meetings and coordination amongst disciplines. As of June 2021 both projects are currently under construction and construction administration tasks were handled by myself with help of intern staff that I oversee.

Uniquetex Manufacturing Facility Expansion - Grover, NC 12/2020-6/2021

This is a steel framed industrial building of roughly 60,000 SF of floor space. This project required the coordination of the design team with the owners representative to design a foundation system for large pieces of industrial equipment being shipped in from an international supplier. I was integral part of Britt Peters team running the design of this building and coordination of all the equipment support design. This project is currently under construction and CA tasks will be lead by me with the help of intern and

co-op staff that I am overseeing.

ADDITIONAL INFORMATION



QUESTIONS

Has your original license lapsed? If yes, explain.

No

Have you ever been denied licensure by a jurisdiction? If yes, explain.

No

Have you ever been convicted of a misdemeanor? If yes, explain.

No

Have you ever been convicted of a felony? If yes, provide a brief letter of explanation and court documents.

No

Select the disciplines in which you are currently practicing. If more than 1% of time is devoted to a discipline, it must be included.

Disciplines

Structural

Other Disciplines

Has a jurisdiction ever revoked, suspended, or disciplined your license? (Please note this includes a consent agreement, letter of reprimand, Etc.) If the action has been resolved a yes answer is still needed.

No

DAVID SCHLATTER (14-785-43)

All work experience reviewed by two licensed professionals

ADDITIONAL INFORMATION



TIME GAPS


| Start Date | End Date | Reason | Explanation |
|------------|----------|------------|---|
| 01/2015 | 08/2015 | Unemployed | Was travelling in Europe for 3 months 1/2015-4/2015 and then was searching for a job until I was hired 9/2015 |

TREVOR SHAMBLIN (17-588-93)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL

 **Date of Birth**
11/21/1993


Applying To
Nevada

Application Type
Initial - PE

Application Date
06/28/2021

Citizenship
United States



SUMMARY



 **Engineering Experience after EAC degree**
4 years

Total Engineering Experience
4 years

Experience under licensed engineer
4 years

Disciplinary Action
None reported


 


EDUCATION

 **Bachelors in Civil Engineering (EAC)**
University of Nevada, Reno
August 2012–May 2017

EXAMS

 **Fundamentals of Engineering (FE)**
California
March 2017

Principles and Practice of Engineering (PE)
Civil
Nevada
April 2018



LICENSES

 **Additional Licenses**
None

TREVOR SHAMBLIN (17-588-93)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Wood Rodgers, Inc.
Nevada (United States)
Assistant Engineer
June 2017—June 2021

Verified by
Mark Casey
mcasey@woodrogers.com

Experience Summary
Full-Time
Engineering: 4 years
Post EAC degree: 4 years
Experience under licensed engineer:
4 years

TASKS

- I prepare vertical and horizontal designs for proposed water, sewer, and storm drain improvements.
- I prepare grading designs for public facilities such as roadway improvement projects as well as commercial sites including earthwork analysis.
- I prepare project water plans in accordance with Truckee Meadows Water Authority standards.
- I prepare bond estimates for privately funded development projects.
- I prepare cost estimates for a variety of publicly funded projects.
- I prepare technical reports for drainage and sewer demands for proposed projects.
- I perform hydraulic calculations in order to appropriately size pipes, culverts, channels and ditches.
- I coordinate effectively with clients and public agencies
- I review and address submittals from contractors prior to and during construction.
- I review and address RFIs from contractors during construction for compliance with agency specifications.
- I perform site investigations prior to and during project design.

REPRESENTATIVE PROJECTS

Runway 8-26, Reno-Stead Airport, Reno, Nevada (6/2017 - 12/2017)

Project scope includes the reconstruction of the runway. Design elements include grading, drainage, and signage improvements, restriping of the runway per FAA Advisory Circular document, and new airport signage layout.

My specific role in this project was to assist the lead engineer with the hydrologic study and analysis of runway drainage system. I helped design the proposed drainage system, assisted with striping and signage layouts, and provided drafting support.

Harris Ranch Subdivision Development, Washoe County, NV (1/2018 - 12/2018)
Clements Ranch Subdivision Development, Fernley, NV (projects coincided throughout 2018)

Project scope includes the development 610 acres into a 600+ lot subdivision. Design items include mass grading, full sewer, drainage, and water infrastructure layout, individual lot designs, and roadway designs.

My specific role on this project was to provide the vertical and horizontal layout designs for all proposed wet utilities, and provide design calculations and layout of drainage conveyance ditches throughout the project. I prepared water plans with accordance to TMWA standards.

Clements Ranch Subdivision Development (Fernley, NV)

Project scope includes design of a 363-unit development from virgin land. Design items include mass grading, full sewer, drainage, and water infrastructure layout, retention pond design, individual lot designs, and roadway designs.

My specific role on this project was to gather preliminary utility data in the field, coordinate with local agencies, assist in the horizontal and vertical design for all wet utilities (water, sewer, storm drain), assist with grading design, and complete the hydrologic study.

Recology Solid Waste Campus, San Francisco, CA (1/2019 - 09/2020)

Project scope includes the redesign of a 40+ industrial site built on a landfill in the San Francisco Bay. Improvements include the design of 3 new building sites, streetscape, and parking improvements.

My specific role in this project was the site design (under supervision of the lead engineer) including grading design for new buildings and parking facilities, utility design including new drain, sewer, and water facilities, drainage calculations for new induced runoff mitigation under very strict City/County of San Francisco requirements, coordination with the Client, and plan production.

High School at Wildcreek, Sparks, NV (3/2019-Present)

Project scope includes the design of a new high school site on the existing Wildcreek Golf Course as well as the reconstruction of Sullivan Lane and El Rancho Dr providing access to the new school. Design items include full utility design, site design for new buildings, athletic fields, and other high school facilities.

My specific role for this project includes horizontal and vertical design for wet utilities, site grading design, hydrologic calculations and completion of the drainage report, parking layout design, roadway grading including the grading of 3 proposed roundabouts (Sullivan Ln and El Rancho Dr), and investigating existing utilities. I review submittals and RFIs for compliance with agency specifications.

ADDITIONAL INFORMATION



QUESTIONS

Has your original license lapsed? If yes, explain.

No

Have you ever been denied licensure by a jurisdiction? If yes, explain.

No

Have you ever been convicted of a misdemeanor? If yes, explain.

No

Have you ever been convicted of a felony? If yes, provide a brief letter of explanation and court documents.

No

Select the disciplines in which you are currently practicing. If more than 1% of time is devoted to a discipline, it must be included.

Disciplines

Civil

Other Disciplines

Has a jurisdiction ever revoked, suspended, or disciplined your license? (Please note this includes a consent agreement, letter of reprimand, Etc.) If the action has been resolved a yes answer is still needed.


No

YIFREDEW TEKLU (19-476-15)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL


 Applying To **Nevada**

Application Type **Initial - PE**

Application Date **06/18/2021**

Citizenship **Ethiopia**



SUMMARY



 Engineering Experience after EAC degree

Total Engineering Experience **14 years, 7 months**

Experience under licensed engineer **8 years, 7 months**

Disciplinary Action **None reported**

EDUCATION


 Meets NCEES Engineering Education Standard

Bachelors in Construction Technology & Management
Addis Ababa University
September 2000–August 2006

Masters in Technology (Civil Engineering)
Addis Ababa University
July 2014–November 2016



EXAMS

 Fundamentals of Engineering (FE)
Nevada
August 2020

Principles and Practice of Engineering (PE)
Civil
Nevada
October 2020

LICENSES

 Additional Licenses **None**

YIFREDEW TEKLU (19-476-15)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

MS Consultancy
Adis Abeba (Ethiopia)
Chief Design Engineer
August 2006—October 2008

Verified by
Belayhun Tesfaye Gebretsadik
belay3030@yahoo.com

Experience Summary
Full-Time
Engineering: 2 years, 2 months
Experience under licensed engineer:
None



TASKS

Working as Civil Engineer my main duties were planning, designing and preparation of tender documents for water supply, urban drainage, liquid waste, solid waste, building and road projects. Perform detail geology and hydrology of the area for water resource assessment. Undertake Geotechnical assessment for proposed building areas and propose engineering foundation recommendations. Perform supervision to ensure the construction projects were executed as per design and specifications.



REPRESENTATIVE PROJECTS

Water Supply and Treatment Design, Debre Tabor Town Water supply project

Project is in Amhara Regional State of Ethiopia. It comprises assessment of existing water supply scheme, compute water demand for the next 20 years design period, identify water sources and prepare detail design and prepare tender document based on Regional Water Resource Bureau standards and guidelines.

Dates on the project: From August 2006 through July 2007

I assessed existing water demand and calculated projected water demand of the town for 20 years of design period. I determined conveyance pipe sizes using "WATERCAD BY HAESTED METHODS", Version 3.1 water distribution modeling software, calculated reservoir capacity for 18hrs pumping time. I designed and determined sizes of conventional water treatment facilities including balancing tank, mechanical rapid mixer, Alabama type Flocculators, sedimentation tanks, rapid sand filters, back wash tank and clear water tanks. I also calculated the estimated volume of each specified type of works: cut and fill volume, concrete volume, reinforcement and formworks and prepared Bill of Quantities and confidential project cost estimate of works.

Solid Waste Management Design, Gondar Town

Project is in Amhara Regional State of Ethiopia. It comprises assessment of current waste generation, compute projected waste volume for next 15 years of design period and prepare detail design of Engineered sanitary landfill.

Dates on the project: From August 2007 through April 2008

I assessed current waste generation volume in type and computed the projected volume production in 15 years design period. I designed waste collection and transportation system by optimization techniques. I selected landfill site and designed landfill sizes, clay liners, leachate collection system and treatment of leach.

Liquid waste management Design, Dire Dawa Town, Ethiopia

Project comprise assessment of current town generation and determine projected volume for 15 years of design period and prepare detail design for sewer line conveyance system and liquid waste treatment system.

Dates on the project: From May 2007 through September 2008

I assessed current waste generation volume and computed the projected volume production in 15 years design period. I determined the sizes of sewer line conveyances and layout. I designed and determine the size of waste treatment plant including: screen(Grit), emergency tank with bypass system, aeration tank, sedimentation tank, clarifiers and sand filter.

YIFREDEW TEKLU (19-476-15)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Bereka Construction
Adis Abeba (Ethiopia)
Project Manager
November 2008 – November 2009

Verified by
Belayhun Tesfaye Gebretsadik
belay3030@yahoo.com

Experience Summary
Full-Time
Engineering: 1 year
Experience under licensed engineer:
None



TASKS

- Ensure the project is accomplished within the scheduled time and budgeted cost without sacrificing quality specified in the contract document,
- Intensive hill side grading, shallow foundation (mat for the library others isolated footing) concrete structure and steel roof framing
- Managing resource requirement: material and equipment supplies, manpower requirements,



REPRESENTATIVE PROJECTS

Project Name- UCBP-Tepi University Phase 2B &3

The project comprises Construction of Five Dormitories buildings, Four Seminar Buildings, One Central Library, Chemical Store and Access Road with a cost of Birr 35,000,000.00(Thirty Five Million Birr) under University Capacity Building Programme of Ministry of Education.

My main role includes:

- Approval of contractors working drawings and schedules;
- Undertaking any design change or modification service whenever requested and needed;
- Evaluation of any type of alternative designs submitted by the contractor;
- Checking of setting-out and measure quantities of every work on site;
- Day-to-day inspection of all items of work;
- Issue necessary instructions and variation orders (if required) to the contractors;
- Inspection and testing of all works materials and workmanship according to specification and keep the respective records;
- Check and approve contractor's payment certificates;
- Check and approve "as-built" drawings submitted by the contractors;
- Supervision of works to ensure confirmation with design drawings, specifications and contract documents;
- prepare detail designs for drainage systems and shop drawings

YIFREDEW TEKLU (19-476-15)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

*MIDROC FOUNDATION SPECIALIST
PLC
Adis Abeba (Ethiopia)
Projects Manager
November 2009—September 2012*

Verified by
Belayhun Tesfaye Gebretsadik
belay3030@yahoo.com

Experience Summary
Full-Time
Engineering: 2 years, 10 months
Experience under licensed engineer:
None



TASKS

- Prepare Master Schedule to all Projects which comprise Master Work Schedule, Equipment, Manpower and Cash flow Schedule through reviewing projects parameters and defining projects objectives
- On the basis of projects various function Project staffing and Organizing
- Setting Projects goals, Milestones and procedures
- Design the Head office & Project office communication system
- Administer Projects Contract
- Ensure the project is accomplished within the scheduled time and budgeted cost without sacrificing quality specified in the contract document,
- Uphold construction codes: Projects Price Adjustment, Claims, Changes and Variations and Payments
- Implement quality management systems including on field testing
- plan resource requirement: material and equipment supplies, manpower requirements,



REPRESENTATIVE PROJECTS

University Capacity Building Program-Construction Project, Nekemte and Robe Universities of same nature

Project is in Oromia Regional States of Ethiopia. It comprises construction of six additional three-story classroom buildings, conventional wastewater treatment system (including screening unit, sand trap, Parshall flume, Imhoff, aeration, and Dortmund tanks), 36km gravel access road, utility line networks.

Dates on the project: From November 2009 through September 11,2012

I developed project goals in terms of time, cost, quality, safety, and scope for the project. I developed project schedule (manpower, equipment, material, and time) using MS project Software and ensure that the schedule is going to meet the overall requirements that are enlisted in the contract. I guide project execution, coordinate, and motivate project staffs. I control project achievement by measuring execution with plan. I uphold meeting with stakeholders. I interpret project drawings and specifications and prepared detail working drawings. I estimate project costs, developed stage-wise cost control using earned value method and computed project profit upon completion of the contract. I designed jobsite quality control adopting ISO9001-2000 standards. I prepared construction claim following subsurface change, which is not addressed in the design, where the client agreed and settled the payment amicably. I continuously updated project schedule using PERT method and perform resource levelling. I administer project subcontracts and make legal agreements.

YIFREDEW TEKLU (19-476-15)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

*Yifredew Abreham Building and Water Works Contractor
Adis Abeba (Ethiopia)
Managing Director
October 2012—July 2019*

*Verified by
Ayalew Shitu Birhane
abirhane@accessconsultingengineers.com*

*Experience Summary
**Full-Time
Engineering: 6 years, 9 months
Experience under licensed engineer:
6 years, 9 months***

TASKS

I work in capacity of project manager and managing director where I prepared master schedule using MS project and continuously update as project progresses. I calculated project bid estimates performing work breakdown structure. I designed access road both geometric and pavements with pipe culvert. I prepared an alternative design proposal to the client for pressure main over pipe type selection. I administer project contract, supervise each project executions' were in compliance with the standards. I monitored project is accomplished within the scheduled time and budgeted cost without sacrificing quality specified in the contract document, moreover i:

- Uphold construction codes: calculated project Price Adjustment, prepare Claims, Changes and Variations and Payments
- Implement quality management systems including on field testing

REPRESENTATIVE PROJECTS

Hulla Water Supply Construction Project, client- World Vision Ethiopia

Project is in SNNP Regional State of Ethiopia. It comprises development of two water wells with total capacity of 16 lit/second, construction of collection chamber and boosting station, 500m³ capacity service reservoir, 15km dia 160 PN 25 HDPE rising main, chlorination room, distribution lines and 6km access road.

Dates on the project: From October 2012 through December 2014

I prepared project bid estimate, developed master project schedule (manpower, equipment, material and time) and ensure that the schedule was going to meet the requirements in the contract. I designed 6km access roadway geometric, pipe culvert (2) and pavement design as per AASHTO standard using Terramodel road design software and got approved by the client. I reconsider and design ahead UPVC pipe rising main original design and suggests to the clients that the pipe selection will not be efficient for this specific location taking into consideration of temperature variation in the area, rugged topography and cost and proposed HDPE pipe calculating its size, pressure and type, accordingly the client has accepted and project was implemented accordingly. I continuously updated project schedule using PERT method and perform resource levelling. I administer project subcontracts and make legal agreements.

Afdera Water Supply Construction Project, Client UNICEF

Project is in Afar Regional State of Ethiopia. It comprises development of three water wells with total capacity of 32lit/second, construction of collection chamber and boosting station, 1000m³ capacity service reservoir, 25km dia 300 PN 25 HDPE rising main, chlorination room and distribution lines.

Dates on the project: From January 2014 through May 2017

I calculated project bid estimate working out quantities of each item of work and associated costs for least Bid contract as per 1999 FIDIC forms of Contract Condition. Once project award, I prepared master resource schedule using Primavera Version 3.0 Program and designed site organization structure. I determine suitable types of equipment, calculated number of equipment needed for the project and leased those additional. I prepared material schedule list out important material, follow up procurement, perform material accounting, set up inventory monitoring and controlling system. I designed and set up onsite quality control facility including concrete strength, rebar test, pipe pressure test and perform quality assurance inspections and tests. I continuously updated project schedules and perform resource levelling. I define methods of performance evaluation, motivation and monitoring and apply these methods as a means of exercising monitoring and control.

Two G+7 Condominium buildings Construction Project, Client Addis Ababa City Administration

Project is in Addis Ababa Capital city of Ethiopia. It comprises mass grading of 50 m2 area each with 12m deep cut for mat foundation, concreting, reinforcement, forming, 5m high concrete retaining wall, CMU walls and finishing.

Dates on the project: From June 2017 through July 2019

I developed project goals in terms of time, cost, quality, safety, and scope for the project. I developed project schedule (manpower, equipment, material, and time) using MS project Software and ensure that the schedule is going to meet the overall requirements that are enlisted in the contract. I control project achievement by measuring execution with plan. I estimate project costs, developed stage-wise cost control using earned value method and computed project profit upon completion of the contract. I designed jobsite quality control adopting ISO9001-2000 standards and setup on job site testing facility of concrete strength and rebar and perform quality assurance tests. I prepared construction claim following price escalation nationwide, design changes, where the client agreed and settled the payment amicably. I continuously updated project schedule using PERT method and perform resource levelling. I administer project subcontracts and make legal agreements.

YIFREDEW TEKLU (19-476-15)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Universal Engineering Sciences
Nevada (United States)
Special Inspector
August 2019—June 2021

Verified by
James Martin Bristow
jbristow@universalengineering.com

Experience Summary
Full-Time
Engineering: 1 year, 10 months
Experience under licensed engineer:
1 year, 10 months



TASKS

I worked as team member in geotechnical investigation and field exploration. Perform special inspection and tests on structural soil, structural reinforced concrete and structural masonry units. This include detail observation, assessment, tests and reports on material and workmanship of specified tasks compliance with standards. Address and recommend design revision to Engineer of Records on the basis of actual site condition which are overlooked during site investigation which include provision of retaining wall and drainage system.



REPRESENTATIVE PROJECTS

Project:-Las Vegas Ballpark Ballpark Stadium
Project Time:- August 2019 through October 2020

I performed field exploration and geotechnical investigation, analysis and design foundation systems with the team of different disciplines. I calculated the maximum bearing capacity of soil at different levels. During implementation: i performed required analysis of sub surface condition of each drill pile. Recomputed the bearing capacity of each layers skin friction resistance and when discrepancy arise redesign and recommend the Engineer of Records for modification.

Project:-Back Mountain Vista Residential building development in Henderson and Amazon Building in North Las Vegas
Project time:-October 2020 to date

I perform an update to geotechnical investigation incorporating multiple tier rockery wall retaining wall design. I calculated load and adjacent footing surcharge load including wind pressure and check factor of safety against sliding and overturn. I performed slope stability analysis as per the direction of the Engineer of Records. I was assigned special inspector performing required tests and inspections that material, resources and workmanship are in compliance with the standards and approved design documents. I train and guide field technicians.

YIFREDEW TEKLU (19-476-15)

All work experience reviewed by two licensed professionals

ADDITIONAL INFORMATION

QUESTIONS

Has your original license lapsed? If yes, explain.

No

Have you ever been denied licensure by a jurisdiction? If yes, explain.

No

Have you ever been convicted of a misdemeanor? If yes, explain.

No

Have you ever been convicted of a felony? If yes, provide a brief letter of explanation and court documents.

No

Select the disciplines in which you are currently practicing. If more than 1% of time is devoted to a discipline, it must be included.

Disciplines

Civil

Other Disciplines

Has a jurisdiction ever revoked, suspended, or disciplined your license? (Please note this includes a consent agreement, letter of reprimand, Etc.) If the action has been resolved a yes answer is still needed.

No

MEGAN TIMMERMAN (17-628-58)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL



Applying To
Nevada

Application Type
Initial - PE

Application Date
06/15/2021

Citizenship
United States

SUMMARY



Engineering Experience
after EAC degree
4 years

Total Engineering
Experience
4 years

Experience under licensed
engineer
4 years

Disciplinary Action
None reported



EDUCATION



Bachelors in Civil Engineering (EAC)
University of Dayton
August 2012–May 2017

EXAMS



Fundamentals of Engineering (FE)
Ohio
February 2017

Principles and Practice of Engineering (PE)
Civil
California
April 2021



LICENSES



Additional Licenses
None

MEGAN TIMMERMAN (17-628-58)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

RS&H
California (United States)
Civil Aviation Associate
June 2017—June 2021

Verified by
Jeffrey Byron Chavez
byron.chavez@rsandh.com

Experience Summary
Full-Time
Engineering: 4 years
Post EAC degree: 4 years
**Experience under licensed engineer:
4 years**

TASKS

I work as a civil design engineer developing airfields at RS&H. I assist in developing construction document plans, technical specifications, engineering cost estimates, engineer design reports, and construction safety and phasing plans. I develop construction phasing through analyzing aircraft traffic on the airfield and limiting impacts during construction. I design asphalt and concrete pavement for runways, taxiways, taxilanes, aprons, and access roads including the corresponding jointing and technical specifications. I utilize the FAA Advisory Circular to layout proposed airfield geometry and design gradients to provide sufficient drainage. I coordinate drainage and common utilities designs as well as airfield electrical. I configure proper markings and signage to allow for the easy navigation by pilots and drivers on the airfield.

REPRESENTATIVE PROJECTS

LAX Taxiway B, C, and D Reconstruction Project in Los Angeles, California. This project scope is to reconstruct a portion of Taxiway B, Taxilane C, and Taxiway D under an aggressive design schedule of 5 months from NTP to Bid Documents. This project started in February 2021 and is ongoing. I developed the construction phasing for the design documents. The phasing required several tenant meetings due to Taxilane C being directly adjacent to the south terminals and required numerous impacts to terminal gates throughout construction. It was my duty to limit the amount of impacts on gates and airlines but still provide an efficient construction timeline.

SCK Rehabilitate GA Hangar Taxilanes Project in Stockton, California. This project scope is to rehabilitate failing asphalt pavement in the general aviation hangar area of the airport. The pavement was displaying alligator cracking, block cracking, raveling, and weathering; therefore, rehabilitation is needed to extend the life of the pavement and mitigate Foreign Object Debris (FOD). The design portion of the project started in October 2020 and concluded in March of 2021. It will start construction in Summer of 2021. I designed the surface gradients and drainage. This task resulted in many challenges because there were several existing hangar buildings that were not being modified and there were many existing drainage issues that needed to be fixed.

COU New Terminal Project in Columbia, Missouri. This project was a design build contract to construct a new terminal building as well as associated site reconstruction and improvements. Some improvements include a new terminal access road, new parking lot, ADA access routes to the terminal, and drainage improvements. The design process started in August 2020 and construction began in November 2020. The project is ongoing as it is a design build. I assisted mostly in the design process through designing the site improvements. This included laying out the geometry of the access road and adjacent sidewalks. I created the grading plans and utilized the ADA handbook to provide adequate access for passengers. In addition, I developed the striping for both the access road and the terminal parking spots on the airfield. I coordinated heavily with the architects on the project to sync plan updates for a seamless design.

LAX Taxiway P and Enabling Projects in Los Angeles, California. This project was to design a crossfield taxiway to provide unimpeded taxiway flow between the north and south airfields at LAX. The project included the demolition and/or relocation of existing facilities such as Remain Over Night (RON) parking, water deluge system, hangar facilities, backfilling the tunnel roadway, and other infrastructure to facilitate the construction. The project started in 2017 and concluded construction in March of 2021. I developed the construction phasing plans, which required several iterations and a lot of planning to coordinate and minimize the taxiway closures and tenant displacements. In addition, I assisted in producing the engineer's cost estimate through calculating cost item quantities.

TUS Airfield Safety Enhancement Project (ASEP) in Tucson, Arizona. This project included the displacement of Runway 11L arrival thresholds, construction of supporting connector taxiways for the new center parallel taxiway, and drainage improvements. The project started in November 2019 and is ongoing. I assisted in pavement design and geometry of the supporting connector taxiways. I also drafted the marking and striping plans utilizing the FAA Advisory Circular.

ADDITIONAL INFORMATION



QUESTIONS

Has your original license lapsed? If yes, explain.

No

Have you ever been denied licensure by a jurisdiction? If yes, explain.

No

Have you ever been convicted of a misdemeanor? If yes, explain.

No

Have you ever been convicted of a felony? If yes, provide a brief letter of explanation and court documents.

No

Select the disciplines in which you are currently practicing. If more than 1% of time is devoted to a discipline, it must be included.

Disciplines

Civil

Other Disciplines

Has a jurisdiction ever revoked, suspended, or disciplined your license? (Please note this includes a consent agreement, letter of reprimand, Etc.) If the action has been resolved a yes answer is still needed.


No

DEBREXAN TING (15-355-55)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL


 Applying To **Nevada**

Application Type **Initial - PE**

Application Date **06/21/2021**

Citizenship **Philippines**



SUMMARY



 Engineering Experience after EAC degree

Total Engineering Experience **8 years, 2 months**


Experience under licensed engineer **7 years, 8 months**

Disciplinary Action **None reported**


 

EDUCATION

 Meets NCEES Engineering Education Standard

Bachelors in Civil Engineering
Mapua Institute of Technology
June 2000–October 2004

EXAMS

 Fundamentals of Engineering (FE)
California
April 2018

Principles and Practice of Engineering (PE)
Civil
Nevada
April 2021



LICENSES

 Additional Licenses **None**

DEBREXAN TING (15-355-55)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

DCCD Engineering Corporation
Makati City (Philippines)
Structural Engineer II
November 2004—April 2008

Verified by
Debrexan Ting (Self)

Experience Summary
Full-Time
Engineering: (0%)
Experience under licensed engineer:
None



TASKS

Prepare structural design and calculations.



REPRESENTATIVE PROJECTS

Various private and non-private projects.

DEBREXAN TING (15-355-55)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

UPC Precast
Doha (Ad Dawḥah) (Qatar)
Design Engineer
May 2008—May 2012

Verified by
Debrexan Ting (Self)

Experience Summary
Full-Time
Engineering: (0%)
Experience under licensed engineer:
None



TASKS

Design of precast walls and hollow core slabs.
Prepare quantity estimates.
Facilitate actual precast full load testing and prepare capacity report of the items.



REPRESENTATIVE PROJECTS

Barwa City - Planned Community with 128 precast buildings.
I was part of a team that design and test precast wall panels and hollowcore slabs for Barwa City project.

DEBREXAN TING (15-355-55)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

VCA Engineers
California (United States)
Design Engineer
March 2013—June 2016

Verified by
Alexander Quinonez
alex.quinonez@vcaeng.com

Experience Summary
Full-Time
Engineering: 3 years, 3 months
Experience under licensed engineer:
2 years, 9 months



TASKS

Prepare civil / structural plans and details, specification and quantity estimates including projects under different jurisdictional agencies with Los Angeles and Orange Counties.
Prepare structural calculation package and reports.
Review RFI's and material submittals during construction phase.
Attend meetings and coordination with the design team, project owner and contractors.



REPRESENTATIVE PROJECTS

DESIGN Engineering. (Structural Design)
(2015-2016)

Valencia Town Center - Construction of new Five story wood structure over 2 level concrete podium.

I prepared the calculation package for the wood structure for both gravity and lateral. I prepared the plans and details for the wood structure using CAD. I coordinated structural system to design team.

DESIGN Engineering. (structural Design)
(2014-2015)

City of La Habra - La Habra City Hall renovation. Major renovation of La Habra City Hall.

I prepared the calculation package for both gravity and lateral. I prepared the plans and details using CAD. I coordinated structural system to design team. I'm responding to RFIs and review material submittals and attend construction meeting.

DESIGN Engineering. (structural Design)
(2014-2015)

344 Patton Street Residence - 3-Story Residential Building

I prepared the calculation package for both gravity and lateral. I prepared the plans and details using CAD. I coordinated structural system to design team.

DESIGN Engineering. (Structural design)

La River Improvement - Stretch between Whitsett Avenue and Coldwater Canyon

(2013-2014)

I prepared the calculation package for both gravity and lateral for suspended access ramp on Coldwater Avenue side. These calculation includes pile analysis and beam frame method. I prepared retaining wall calculations to support ramp on Whitsett Avenue. I also prepared the plans and details for this project using CAD. I'm responding to RFIs and review material submittals and attend construction meeting.

DEBREXAN TING (15-355-55)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

RISHA ENGINEERING
California (United States)
Design Engineer
July 2016—June 2021

Verified by
Matthew Breaks
mbreaks@rishia.com

Experience Summary
Full-Time
Engineering: 4 years, 11 months
Experience under licensed engineer:
4 years, 11 months



TASKS

Prepare civil/structural plans, specification and quantity estimates for a variety of civil/structural projects including projects under different jurisdictional agencies, educational facilities, park/recreational facilities, community facilities, commercial facilities and residential.

Conduct research studies of and prepare reports and recommendation of the existing hydrology of the site.

Prepare structural design/calculation using different types of engineering software and design aids and program.

Reviews and evaluates of parcel maps, topographic and A.L.T.A. surveys and existing utilities to be incorporated to civil design.

Prepare and conduct hydrology and hydraulics study, calculations and report.

Prepare offsite improvement plan including grading plan, utility plan with utility profiles and sections.

Review and coordinate traffic design including traffic signal, signing and stripping, traffic control plan.

Schedule and coordinate work projects; assist and advice engineers, contractors, and developers in meeting engineering department requirements and ensures practices conform with federal, state and local practices.

Attend meetings and job site walks as part of project requirements.

Review RFI and material submittals.



REPRESENTATIVE PROJECTS

CIVIL DESIGN

Exposition Office Building- Civil & Structural design for three levels of office building over two levels of concrete parking.
(2016 to 2017)

- I was part of a team that developed civil design. I prepared site and drainage plan, grading plan with grading section, utility plan with sections and profiles using Civil 3D software. Also, conduct hydrology and hydraulic study and calculations as part of permitting process. Conduct RFI responses and material submittal review during construction phase.

CIVIL DESIGN

East Union Condominiums- Civil & Structural design for Four story building with ground floor retail and subterranean parking.
(2017 to 2018)

- I was part of a team that developed civil design. I prepared site and drainage plan, grading plan with grading section, utility plan with sections and profiles using Civil 3D software. Also, conduct hydrology and hydraulic study and calculations as part of permitting process. Conduct RFI responses and material submittal review during construction phase. Part of the scope and my work was to prepare offsite improvement plan such as offsite grading plan for site frontage roads, improvement of drainage system including stormwater pipes profiles and coordination with the traffic engineer for traffic light upgrades.

CIVIL DESIGN

The Dairy - Civil & Structural design for Adaptive Reuse for two warehouse building + new 3 story building
(2019 to 2020)

- I was part of a team that developed civil design. I prepared site and drainage plan, grading plan with grading section, utility plan with sections and profiles using Civil 3D software. Also, conduct hydrology and hydraulic study and calculations as part of permitting process. Conduct RFI responses and material submittal review during construction phase.

STRUCTURAL DESIGN

Wittington Holdings, Residential PH1 - New 4 level parking structure and Surrounding Apartment Buildings.
(2019-2020)

- Foundation designed was assigned to me. I prepared foundation design package for 4 story parking structure. I utilized SAFE software for the design and Cad for the layout and detail of footing.

STRUCTURAL DESIGN

Von Tobel Middle School Park Renovation - Basketball and tennis court post-tensioned slab on grade and site walls design and evaluation of existing shade structure posts.

(2019-2020)

- I was part of a team that design the post tensioned slab on grade and site walls. I prepared structural calculation of post tensioned slab on grade, masonry fence wall for pump enclosure and chainlink fence footings around basketball and tennis court.

CIVIL DESIGN

The Depot - Civil & Structural design for New three story building with two levels of creative offices above one level parking.

(2020 to 2021)

- I was part of a team that developed civil design. I prepared site and drainage plan, grading plan with grading section, utility plan with sections and profiles using Civil 3D software. Also, conduct hydrology and hydraulic study and calculations as part of permitting process. Conduct RFI responses and material submittal review during construction phase.

DEBREXAN TING (15-355-55)

All work experience reviewed by two licensed professionals

ADDITIONAL INFORMATION

QUESTIONS

Has your original license lapsed? If yes, explain.

No

Have you ever been denied licensure by a jurisdiction? If yes, explain.

No

Have you ever been convicted of a misdemeanor? If yes, explain.

No

Have you ever been convicted of a felony? If yes, provide a brief letter of explanation and court documents.

No

Select the disciplines in which you are currently practicing. If more than 1% of time is devoted to a discipline, it must be included.

Disciplines

Civil, Structural

Other Disciplines

Has a jurisdiction ever revoked, suspended, or disciplined your license? (Please note this includes a consent agreement, letter of reprimand, Etc.) If the action has been resolved a yes answer is still needed.

No

DEBEXAN TING (15-355-55)

All work experience reviewed by two licensed professionals

ADDITIONAL INFORMATION



TIME GAPS

| Start Date | End Date | Reason | Explanation |
|------------|----------|------------|---|
| 06/2012 | 02/2013 | Unemployed | Still waiting for worked authorization. |

MARCO VELARDE (14-558-73)

All work experience reviewed by two licensed professionals

DISCIPLINE: CIVIL

GENERAL



Applying To
Nevada

Application Type
Initial - PE

Application Date
06/18/2021

Citizenship
United States

SUMMARY



Engineering Experience
after EAC degree
4 years, 1 month

Total Engineering
Experience
4 years, 1 month

Experience under licensed
engineer
4 years, 1 month

Other Experience
11 months

Disciplinary Action
None reported



EDUCATION



Bachelors in Civil Engineering (EAC)
University of Nevada, Las Vegas
August 2008–December 2013

EXAMS



Fundamentals of Engineering (FE)
Nevada
October 2013

Principles and Practice of Engineering (PE)
Civil
Nevada
April 2021



LICENSES



Additional Licenses
None

MARCO VELARDE (14-558-73)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Southern Nevada Water Authority
Nevada (United States)
Graduate Intern
December 2013—May 2017

Verified by
Eric Dickenson
eric.dickenson@snwa.com

Experience Summary
Part-Time
Other: 11 months (25%)
Experience under licensed surveyor:
None



TASKS

Worked late in the designing phases of a pilot plant that was to be used to treat tertiary filtered wastewater. The goal of the pilot plant was to use ozonation and biofiltration to remove trace organic compounds, most of which were compounds of emerging concern like pharmaceuticals and personal care products, to a quality standard that could be used for direct water reuse. I was mainly involved in the construction of the pilot plant, which would be directly fed the tertiary treated wastewater from a full size wastewater treatment facility, and implementing safety mechanisms to ensure if there was ever a shut off of flow to the pilot there would be no residuals of treatment in the indoor facility. Once constructed, I was the lead in maintaining the pilot facility as well as conducting back washing, media addition/extraction, and sample collecting. The pilot plant itself was looking at using six different media types for the cultivation of biofilms to enhance the treatment of the ozonated wastewater for removing the trace organics. The majority of the work conducted was lab procedures and general maintenance, with about 20% of the work involving engineering work such as pump sizing, filter contact times, ozone contact times, and other aspects of the treatment process in pilot plant scale.



REPRESENTATIVE PROJECTS

Pilot Plant for Quaternary Treatment of Wastewater for Water Reuse - Involved in late stages of design, after the processes and sizes were already designed and manufactured. I was involved in the coordination with wastewater treatment plant staff to acquire constant flow to a storage tank to be used for the pilot plant. This included determining any safety measures to be implemented to prevent the accumulation of ozone in the event of a flow shut off. All aspects of the pilot plant were connected via flow switch to the main storage tank so that all electricity would shut off in case of low flow. This also included at looking at intake pump sizing to determine the amount of flow that would be needed, and what percentage of power the pump would operate to maintain constant flow to the pilot plant.

During implementation of the project, I was involved in setting up all 6 filters of the bio-filtration system in parallel mode along with determining flows for each filter to acquire equal contact times for all filters. This including loading filters with media that included two different types of plastic media, fresh anthracite, anthracite from a wastewater facility, fresh GAC, and spent GAC. The pilot could be remotely accessed and settings changed to adjust for different pressures, variances in flow, or constantly read values for turbidity and TCU. Ozone injection methods were also looked at and implemented to determine ozone flow rates and contact time in the wastewater. Safe removal of excess ozone in gas form was also determined and solved via a heater to convert any excess remaining ozone back into oxygen. The levels of ozone were constantly monitored in the pilot plant as well as in the exhaust to prevent the release of ozone into the atmosphere.

Constant operation and monitoring was required for the pilot plant, with backwashing the 6 different media at different times via pressure gauges to determine if enough material was removed to allow for continued operation. Operation of the pilot plant also included gathering samples at different points of the process. Water samples were gathered at different points: directly before ozonation, directly after ozonation, directly before contact with a specific media filter, and directly after being run through a specific media filter. Since there were six different media filters, there was a total of 9 points of testing that were conducted weekly. Certain specific trace organics only happened monthly. Samples were also collected directly from the six media, to determine the amount of biological growth that was attaching to the media. All items were being done to look at the efficacy of biological treatment as a Quaternary treatment method for water reuse. Eventually different aspects were also looked at and any changes required of the pilot plant were adjusted to meet the different needs such as running filters in series, replacing media from one type to another, or completely replacing a media type if it was not performing as expected.

MARCO VELARDE (14-558-73)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

*Brown and Caldwell
Nevada (United States)
Staff, Civil Engineering
May 2017—June 2021*

*Verified by
Jon Paul Osborne
josborne@brwnncald.com*

*Experience Summary
**Full-Time
Engineering: 4 years, 1 month
Post EAC degree: 4 years, 1 month
Experience under licensed engineer:
4 years, 1 month***

TASKS

Providing project management support; assisting in cross training for storm drain collections systems condition assessment for pipelines, access structures, and collection structures; assisting in cross training for wastewater collection systems condition assessment for small diameter pipelines and access structures; as well as providing condition assessment and criticality scoring for various storm drain and wastewater systems in various areas including Las Vegas, Phoenix, Henderson, Tempe, and Louisville. This includes providing reporting of finalized findings, creating representative graphs, and presenting results for internal use or directly to the client for review. Revision of remote inspections were reviewed to determine severity of defects in various pipes and structures were conducted for various projects to determine severity and risk of failure to provide the reports and graphs for clients. In case of emergency or risk of catastrophic failure that would jeopardize the general public, direct contact was made with clients to expedite any repairs, rehabilitation, or replacement of assets that would be required.

REPRESENTATIVE PROJECTS

City of Las Vegas Small Diameter Condition Assessment Years 8, 9, 10 and 11
May 2017 to Present

Reviewing the conditions and providing assessment for approximately 100 miles of small diameter (8-12 inch) pipelines and access manholes for each year and providing progress reports, final reports, and GIS deliverables detailing all findings to include updates in lengths, locations of laterals, and any new assets not already included in the City of Las Vegas' system.

I've moved from providing general coding and assessing of manhole conditions using NASSCO standards to providing assistance in coding and assessing of pipelines as well as assisting in client deliverables. This includes at looking at alternatives for fixing any issues in pipelines and manholes and looking at repair, rehabilitation, and replacement method alternatives that the client could use to determine the best method.

City of Las Vegas Storm Drain Condition Assessment Year 3, 4, 5 and 6
May 2017 to Present

Reviewing the conditions and providing assessment for approximately 10 miles of storm drain (8-120+ inch) pipelines, collection and access structures for each year and providing progress reports, final reports, and GIS deliverables detailing all findings to include updates in lengths, locations of laterals, and any new assets not already included in the City of Las Vegas' system. Additional review of existing as-builts was also required to provide additional information to their internal systems for public access.

Began the project simply providing coding and assessment information of collection and access structures, determining severity of defects and providing any possible action to fix any severe defects requiring immediate attention. This has evolved year over year into providing project management support which includes writing progress and final reports of all findings, assisting in quality control efforts and reviews of all pipelines and structures, as well as communication with clients and sub-contractors to provide detailed changes of different areas included in each year's project. This included reviewing original as-built drawings and determining if any changes have been made to the areas to allow the client to look for and update any information as needed. Thorough as-built research for all pipelines and structures is conducted using client provided drawings, and all details from as-builts are recorded as GIS fields for the client. More recently, my role in this project has grown to provide additional quality control efforts in surveying information and elevation calculations for various pipelines and structures to better determine pipe slopes and flow parameters the City requires.

ADDITIONAL INFORMATION



QUESTIONS

Has your original license lapsed? If yes, explain.

No

Have you ever been denied licensure by a jurisdiction? If yes, explain.

No

Have you ever been convicted of a misdemeanor? If yes, explain.

No

Have you ever been convicted of a felony? If yes, provide a brief letter of explanation and court documents.

No

Select the disciplines in which you are currently practicing. If more than 1% of time is devoted to a discipline, it must be included.

Disciplines

Civil

Other Disciplines

Has a jurisdiction ever revoked, suspended, or disciplined your license? (Please note this includes a consent agreement, letter of reprimand, Etc.) If the action has been resolved a yes answer is still needed.

No

Electrical

MATTHEW WETZELL (16-355-87)

All work experience reviewed by two licensed professionals

DISCIPLINE: ELECTRICAL

GENERAL



Applying To
Nevada

Application Type
Initial - PE

Application Date
06/15/2021

Citizenship
United States

SUMMARY



Engineering Experience
after EAC degree
4 years, 1 month

Total Engineering
Experience
4 years, 1 month

Experience under licensed
engineer
4 years, 1 month

Disciplinary Action
None reported



EDUCATION



Associates in Theology
Calvary Chapel Bible College
August 2011–May 2013

Bachelors in Electrical Engineering (EAC)
University of Nevada, Reno
August 2013–May 2017



EXAMS



Fundamentals of Engineering (FE)
Nevada
June 2016

Principles and Practice of Engineering (PE)
Electrical & Computer
Nevada
October 2017

LICENSES



Additional Licenses
None

MATTHEW WETZELL (16-355-87)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Liberty Utilities
California (United States)
Engineer III
November 2020 – March 2021

Verified by
Blaine Anthony Ladd
blaine.ladd@libertyutilities.com

Experience Summary
Full-Time
Engineering: 4 months
Post EAC degree: 4 months
Experience under licensed engineer:
4 months



TASKS

- Assisted with commissioning of protection systems for a distribution substation rebuild project.
- Created relay settings and commissioning plans
- Proposing solutions for reliability issues within the service territory.



REPRESENTATIVE PROJECTS

Kings Beach Substation Rebuild

I reviewed transmission settings that were developed by a contracting firm and made the necessary corrections. I then assisted creating and reviewing the distribution settings for the feeders. I assisted field personnel with the commissioning and testing of the substation apparatus and relay packages.

MATTHEW WETZELL (16-355-87)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

NV Energy
Nevada (United States)
Engineer - System Protection
May 2017—June 2021

Verified by
Gail Anne Thompson-Burns
gail.burns@nvenergy.com

Experience Summary
Full-Time
Engineering: 4 years, 1 month
Post EAC degree: 4 years, 1 month
**Experience under licensed engineer:
4 years, 1 month**

TASKS

Engineer II – System Protection, April 2019 - November 2020, March 2021 - Present

- Performed coordination studies and developed relay settings for the transmission and distribution system.
- Assisted in developing and reviewing protection and control prints for substation projects.
- Created relay test plans and helped field personnel perform relay maintenance.
- Analyzed protective device performance during faults.

Engineer II – Substation Construction and Maintenance, March 2018 – April 2019

- Assisted field personnel with troubleshooting substation operational problems.
- Assisted with various substation apparatus testing.
- Participated in a team to propose projects to improve customer reliability.
- Periodically performed the roll of on-call duty supervisor.
- Assisted in creating switching orders and evaluating clearance points.

Engineer I – Compliance, May 2017 – March 2018

- Acted as a compliance resource to substation and protection personnel to interpret NERC reliability standards.
- Ensures that all designs and settings maintain compliance with NERC Protection and Control (PRC) standards.
- Developed procedures and controls to ensure good compliance practices.

REPRESENTATIVE PROJECTS

Sugarloaf Distribution Transformer Addition

I was the System Protection Engineer on the Sugarloaf Distribution Transformer Addition project. This project involved adding a new 120/24.9kV transformer and a new switchgear building to a distribution substation. I performed short circuit analysis and developed the protection philosophy to protect the new equipment. Differential and overcurrent protection was utilized to protect the new equipment. I then assisted with commissioning and testing of the new relays.

Heybourne Breaker Addition

This project add two new high voltage circuit breakers to a 60kV substation. After completing a short circuit analysis, I proposed and created a non-standard solution to protect the 60kV lines utilizing a Permissive Underreaching Transfer Trip scheme. The transmission line in question had multiple load taps and a weak communication link between the two ends of the line. The scheme I developed allowed the protection system to be as fast as possible without sacrificing proper coordination.

Substation Battery Maintenance Plan

In this project, I created a maintenance plan for aging substation batteries. This involved analyzing internal resistance measurements of the batteries and creating a risk score based on these values and the age of the assets. This allowed the company to route funds to systematically replace the aging assets.

Relay Event Analysis Tracking

I created a new process to ensure that all relay events on the Bulk Electric System (BES) were properly analyzed and tracked in accordance with NERC PRC-004. This involved downloading relay diagnostic and event information, analyzing the sequence of events for each relay, and tracking everything in Microsoft Sharepoint.

MATTHEW WETZELL (16-355-87)

All work experience reviewed by two licensed professionals

ADDITIONAL INFORMATION

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QUESTIONS

Has your original license lapsed? If yes, explain.

No

Have you ever been denied licensure by a jurisdiction? If yes, explain.

No

Have you ever been convicted of a misdemeanor? If yes, explain.

No

Have you ever been convicted of a felony? If yes, provide a brief letter of explanation and court documents.

No

Select the disciplines in which you are currently practicing. If more than 1% of time is devoted to a discipline, it must be included.

Disciplines

Electrical (Power)

Other Disciplines

Has a jurisdiction ever revoked, suspended, or disciplined your license? (Please note this includes a consent agreement, letter of reprimand, Etc.) If the action has been resolved a yes answer is still needed.

No

WILLIAM WINWARD (15-610-26)

All work experience reviewed by two licensed professionals

DISCIPLINE: ELECTRICAL

GENERAL



Applying To
Nevada

Application Type
Initial - PE

Application Date
06/15/2021

Citizenship
United States

SUMMARY



Engineering Experience
after EAC degree
6 years, 1 month

Total Engineering
Experience
6 years, 1 month

Experience under licensed
engineer
6 years, 1 month

Disciplinary Action
None reported



EDUCATION



Associates in Science
Montana State University - Great Falls College
January 2009–May 2011

Bachelors in Electrical Engineering (EAC)
Montana State University, Bozeman
August 2011–May 2015



EXAMS



Fundamentals of Engineering (FE)
Montana
April 2015

Principles and Practice of Engineering (PE)
Electrical & Computer
Nevada
January 2021

LICENSES



Additional Licenses
None

WILLIAM WINWARD (15-610-26)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

HDR Engineering Inc.
Montana (United States)
Substation EIT II
May 2015—August 2018

Verified by
Grant Levi Gershmel
grant.gershmel@hdrinc.com

Experience Summary
Full-Time
Engineering: 3 years, 3 months
Post EAC degree: 3 years, 3 months
Experience under licensed engineer:
3 years, 3 months

TASKS

- I was assigned to transmission substation control engineering projects. I was responsible for specifying physical equipment including control and power conductors, low and high bus supports, power circuit breakers, switches, lightening arresters, CT's, and PT's.
- I was assigned to assess communications options for most sites to provide communications backhaul to Energy Management Systems (EMS). Often the communications at sites were obsolete and there was an option that included more bandwidth such as fiber connectivity or a radio could be upgraded.
- I was required to know protective schemes to protect zones in a straight bus (with transfer), ring bus, and breaker-and-a half configurations.
- I reviewed control drawings and panel elevations and removed electromechanical protective relays and marked up drawings for replacing them with Schweitzer and GE microprocessor-based relays.
- I was assigned to complete control designs for several different clients. Clients required protection schemes in step-distance, LCD, DCUB, DCB and POTT schemes. These schemes required specific relays and communication channels including fiber, microwave and power line carriers.
- I edited drawings and included data sheets for settings for installing PLC's for transformer load tap changers and included digital and analog I/O modules for process monitoring.
- I replaced and installed high-voltage transformers at the primary 69kV, 115kV and 230kV voltage levels including implementing load-tap changing controls and paralleling transformers with different MVA ratings.
- I created SCADA RTU points. RTU points were send DNP between a microprocessor-based relay to an RTU or the points were hard-wired. Additionally, I programmed RTU's to receive DNP data from PLC's and relays.
- I was assigned to designing the electrical layout of substation control houses including placement of load panels. Control houses were complete with Building Automation Systems to send data through a PLC to EMS for supervisory control.

REPRESENTATIVE PROJECTS

- I assisted in the commissioning of a breaker replacement project at Nichols Plant, Amarillo, TX February 2016. Commissioning entailed using relays to repeat 'a' and 'b' contacts from the breaker control scheme using electromagnetic relays and tracing control cables in the plant. I also assisted in the energization sequencing procedure of a transmission line interconnected to the plant substation.
- I created the zone of protection control design and electrical layout for two interconnecting substations Carlisle and Wolfforth, near Lubbock, TX October 2015 to December 2016. Once the zone of protection designs were complete, I implemented the design in the protection relays and control switches. Carlisle design was a 5 position ring bus including a capacitor bank and Wolfforth was a 4 position ring bus. In addition to the 230kV line that connected Carlisle and Wolfforth the other transmission lines also had control schemes that required fiber in an LCD and powerline carriers in a DCUB scheme. Each substation had complete new RTU's. I programmed the RTU and PLC I/O modules for SCADA supervision and monitoring.
- I provided new control schematics for a new RTU at Grassland Substation, Tahoka, TX from January 2017 to April 2017. The new RTU included control drawings for PLC modules for breaker controls, indication, and analog RTU points. I programmed the RTU and PLC I/O modules for SCADA supervision and monitoring.
- I created a single line control schematic and control drawings to replace two parallel 230/115kV transformers at Seminole Substation in Seminole, TX between May 2017 and December 2017. I created relaying and control schematics for protecting the transformers and bus from ground and phase-to-phase faults.
- I created single line and relaying and control schematics for replacing a 115/69kV transformer at Lynn County Substation, Tahoka, TX from July 2017 to February 2018. I provided control drawings for replacing paralleling scheme. Additionally, I provided control and relaying schematics for the replacement of a low-side 69kV breaker with a higher ampacity.
- Before leaving HDR I was working on the design to build out a Hillside Substation, Amarillo, TX from March 2018 to August 2018 to its ultimate plan. I created a single-line drawings and control enclosure layout complete with panel elevations to add a second

115/12.47kV transformer with three distribution feeder lines on the low-side. The design had SEL relays protecting the transformer in a current differential scheme. The transformer design had low-side breaker protection and bus differential scheme for the feeder breaker distribution.

WILLIAM WINWARD (15-610-26)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

NV Energy
Nevada (United States)
Telecommunications Engineer
August 2018—June 2021

Verified by
Eric Allen Schwarzrock
Eric.Schwarzrock@nvenergy.com

Experience Summary
Full-Time
Engineering: 2 years, 10 months
Post EAC degree: 2 years, 10 months
Experience under licensed engineer:
2 years, 10 months

TASKS

- I am engaged in electrical engineering work planning and calculating loads and upgrading drawings for installing backup battery and charger systems at substations and telecommunications sites.
- I am planning and upgrading drawings replacing generators at mountain top sites.
- I am planning and upgrading drawings for installing RTU's for solar generator facilities in conjunction with modems for transmitting critical data on T1 lines to EMS data centers.
- I am planning and upgrading drawings installing MPLS and TDM communication circuits via microwave and fiber.
- I am planning and upgrading drawings for installing multiplexers for high speed comm-aided protection using C37.94 channels.
- I am the engineer planning and coordinating outages to retrofit SNW, D20, and TG5700 RTU's to prolong older RTU's useful lives.
- I am the engineer planning and coordinating upgrading RTU communication protocols to DNP3 and coordinating RTU points checkouts for verification.
- I assess load demands and rehabilitating electrical systems in telecommunications facilities sizing conductor and power distribution equipment.
- I size AD, ADSS, and OPGW fiber optic cables for expanding and repairing NV Energy's fiber optic network connectivity.
- I size and specifying hardware for installing fiber on tangent and deadend transmission structures.
- I am engaged in creating standards to efficiently produce designs and facilitate field operations crews to maintain equipment.

REPRESENTATIVE PROJECTS

- I planned, coordinated, and updated drawings to replace and install two generators 20kW and 36kW at Apex Peak, NV August 2018 to September 2019, and inspected construction.
- I calculated loading and sized equipment and conductor at NV Energy Substations, power plants and microwave telecommunications sites near Las Vegas, NV August 2018 to December 2019 to replace backup battery and charger systems as part of a yearly planning maintenance program. Inspected systems and prepared drawings. Sized equipment and prepared drawings.
- I am planning, coordinating, and updating drawings for NV Energy Substations near Las Vegas, NV January 2020 to Present. Upgrading SNW and D20 RTU's as part of a yearly maintenance program. Surveying sites for upgrades and ordering kits. Preparing drawings and observing construction. Updating records for timing locations on TDM system. Upgrading modems for DNP3 protocol data transmission to EMS centers. Coordinating with EMS Operations, and system protection technicians for a points checkout to verify data protocol change functionality. 10 sites were done in 2020, and eight sites have been done as of June 2021.
- I am the design engineer and a main point of contact for telecommunications facilities at new solar generation projects tying into NV Energy's transmission infrastructure. I recently was the engineer for two projects in the Apex Industrial Area near Las Vegas, NV January 2019 to June 2021. I provided telecommunications facilities at a 300MW solar generation site including a one mile 230kV lead line into Reid Gardner substation with OPGW primary communication. I approved drawings and coordinated a microwave backup connection at an NV Energy comm site. As part of the project a new NV Energy control house was built at Reid Gardner substation. I provided drawings and completed contractor construction scope of work for a new telecommunications room including networking, fiber optic, security monitoring, and backup battery and charger systems. Another solar generation project Apex Industrial Area near Las Vegas, NV January 2019 to April 2021 I provided telecommunications facilities at a 100MW solar generation site including a quarter mile 230kV lead line into Harry Allen substation with ADSS primary and backup communications.

WILLIAM WINWARD (15-610-26)

All work experience reviewed by two licensed professionals

ADDITIONAL INFORMATION



QUESTIONS

Has your original license lapsed? If yes, explain.

No

Have you ever been denied licensure by a jurisdiction? If yes, explain.

No

Have you ever been convicted of a misdemeanor? If yes, explain.

Yes, Only minor traffic infringement misdemeanors and not in at least 4 years.

Have you ever been convicted of a felony? If yes, provide a brief letter of explanation and court documents.

No

Select the disciplines in which you are currently practicing. If more than 1% of time is devoted to a discipline, it must be included.

Disciplines

Civil, Control Systems, Electrical (Power)

Other Disciplines

Has a jurisdiction ever revoked, suspended, or disciplined your license? (Please note this includes a consent agreement, letter of reprimand, Etc.) If the action has been resolved a yes answer is still needed.

No

WILLIAM WINWARD (15-610-26)

All work experience reviewed by two licensed professionals

ADDITIONAL INFORMATION



TIME GAPS


| Start Date | End Date | Reason | Explanation |
|------------|----------|------------|------------------|
| 12/2007 | 12/2008 | Unemployed | I was a student. |





Structural

GENERAL

 Applying To **Nevada**
Application Type **Initial - PE**
Application Date **05/31/2019**
Citizenship **India**


SUMMARY

 Engineering Experience after EAC degree
Total Engineering Experience **5 years**
Experience under licensed engineer **5 years**
Disciplinary Action **None reported**


 
 

EDUCATION


 Bachelors in Civil Engineering
University of Mumbai
August 2009–May 2013
Masters in Civil, Environmental and Sustainable Engineering
Arizona State University
August 2014–May 2016

 **Note:** First discipline specific structural license.

EXAMS

 Fundamentals of Engineering (FE)
Arizona
August 2015
Principles and Practice of Engineering (PE)
Civil
Nevada
April 2018
NCEES 16HR tructural (SE)
Nevada
April 2021

LICENSES

 Initial License
Nevada
Issued: July 2019
Expires: December 2022
Additional Licenses
None

WORK EXPERIENCE

Mendenhall Smith Structural Engineers
Nevada (United States)
Structural Designer
June 2016—May 2019

Verified by
Gregg Mendenhall
gmendenhall@mendenhallsmith.com

Experience Summary
Full-Time
Engineering: 2 years, 11 months
Experience under licensed engineer:
2 years, 11 months



TASKS

Structural Designer

Responsible for simple and moderately complex projects.

I created the framing plan for the building.

Using ASCE 7-10/ IBC 2012 and the architectural plans and section I found the Dead and Live loads on the building.

I designed the joists, beams, columns for these gravity loads.

I calculated the lateral (wind & seismic) loads using the ASCE 7-10 code and then designed the lateral resisting system of the structure.

I ensured each detail in the structural package had adequate capacity to transfer/ resist loads by performing systematic hand calculations.

I designed the foundation for the building using data from the Geotechnical report.

To perform these tasks, along with hand calculations I used design software such as RISA, RAM, RetainPro, AutoCAD, Revit, and others.

I communicated with the clients to understand their needs and modify the structural calculation and drawing if required. I also advised the client with suggestions with economical and durable solutions.

I provided hand sketches of plans and details to the drafting team for them to draft the structural drawing on AutoCAD/ Revit. I back checked these drawings after it's drafted for correction/ confirmation.

I organized structural drawings and all the calculations I performed to create a file ready to be submitted to the Building Department. I also responded to the technical comments from the Building department regarding the structural engineering construction documents submitted to the building official for permit.

I visited the site to take measurements and conduct preliminary surveys before the design phase. During construction I go on site visits to ensure the structure is being constructed per structural drawings or to solve questions from the contractor.

I answered questions from the contractor, responded to RFI's & submittals and provided a solution for problems occurring during construction administration phase.



REPRESENTATIVE PROJECTS

JD Smith School-Clark County School District

This project spread over approximately 90000 sq. ft. It consisted of 8 buildings, of which I designed 4 buildings having an approximate area of 60000 sq. ft. The buildings were CMU walls with steel joists as requested by the Architects. This project was a seismic design category D and thus I designed it per code meeting all code requirements. I began with defining the dead and live load by understanding the material used with the help of architectural plans and sections. I created a framing plan and spaced the joists per the joist load bearing capacities based off the vulcraft joist handbook. I chose the deck to span between these joists at the roof and floor level in the 2 story buildings. I designed steel beams to carry the load from the joist and transfer them to the CMU walls or the steel columns below. I ensured the columns and the walls were strong enough to transfer the gravity loads to the foundation underneath. The walls were designed using masonry strength of $f_m' = 2000$ psi. The concrete used for slabs and foundations were of 4500 psi strength. The soil bearing capacity in the soil report was mentioned to be 1500 psf with increase for width and depth of footing. I designed the footing as per code requirements and the soil report. I calculated the lateral loads (wind and seismic) on the building using excel spreadsheets which are based off ASCE 7-10. The lateral resisting system was chosen to be intermediate reinforced masonry shear walls. I considered the roof to be a flexible diaphragm and the floor to be rigid. I checked the diaphragm capacity to resist diaphragm shear and transfer the lateral loads to the shear walls. I designed the CMU shear wall for in plane and out of plane loading. Since it was a masonry structure there was no overturning as the structure was heavy to resist the overturning moment. The foundation were also checked for sliding. Every connection in the building was checked by me to confirm its capacity to withstand the loading. Example: Beam to wall, joist to wall, beam to beam, drag transfer, foundation etc. I sketched details and red lined plans for the drafters to generate the structural drawings package. I then back checked the entire set to verify before the EOR could check them before stamping and signing. I made sure the structural drawings and calculation package was sent to the city on time. I responded to the plan check comments from the city and provided

drawings and calculations for any deficiencies mentioned by them. During the construction phase, I reviewed shop drawings and answered RFI's from the contractor. To mention one, the contractor wanted to use pins instead of welds in the deck, for which he had submitted a verco calculations package. I reviewed and accepted his proposal.

I have designed 4 such other schools in Clark county under the guidance/ supervision of EOR. Have been on site visits to check the construction to be in conformity with the drawings.

Xtreme Manufacturing Booth at World of Concrete (Temporary Structures)

These are one or two story structures made of HSS beams and coulms. I calculate the forces on these structures depending on its location per ASCE 7-10. I designed the structure using Risa 3D and check to see the stress and deflection to be within limits. I

have designed many such temporary structures in Expos/Exhibition.

Moda Light Mezzanine Addition

This is a showroom building in which the client wished to add a mezzanine level for storage. I provided interior load bearing light gage walls next to the existing CMU wall so that the existing structure capacity was not overloaded. I created a framing plan with joists and deck from respective handbooks and designed all beams and columns. As the structure was indoor I applied minimum wind loads and thus seismic governed. I used Light framed walls with shear panels as the seismic force resisting system. I designed the shear walls for the lateral loads and every connection detail to transfer these loads. During construction phase, I conducted site visits to solve a few questions from the contractor.

WORK EXPERIENCE

Wright Engineers
Nevada (United States)
Project Manager
May 2019—June 2021

Verified by
Mark David Rowe
drowe@wrightengineers.com

Experience Summary
Full-Time
Engineering: 2 years, 1 month
Experience under licensed engineer:
2 years, 1 month



TASKS

Performing complete calculations for gravity, lateral design, foundation design, assembling of construction documents
Project managing from schematic design through completion of construction of various projects
preparing reports, designs and drawings
selecting appropriate construction materials
providing technical advice
liaising with relevant professional staff such as architects
monitoring and inspecting work undertaken by contractors
managing projects



REPRESENTATIVE PROJECTS

Mode Luxe 11 story building in Utah

I designed the post tensioned slab at the 2 parking levels.

I calculated the post tensioning force required in the banded and distributed tendons. The additional top and bottom reinforcement required in the slab for positive and negative bending moment.

I also designed shear stud rails at column locations with high shear.

I red lined the plans and got them drafted by the drafter, which was then back checked by me later.

Ovation Multi-family Residential Apartments (Multiple Locations- Stephanie III, Blue Diamond, Flamingo, Wigwam, Alpers, Deer springs)

I designed the 3/4 story wood construction buildings for gravity and lateral loads. I co-ordinated with the architect to achieve what the client requires within the structural code requirements. Conducted periodic site visits during the construction phase to ensure structural drawings were implemented effectively. Reviewed shop drawings and responded to RFI's from the contractor until completion of the project.

Tilt-Up Buildings (Project Fall, Sunpoint West, Hopewell)

I have designed tilt up construction buildings some upto Half a million square feet in area. I designed the panel thickness based on the height of the building and the out of plane loads on the panel jambs. Designed the entire building for gravity loads and wind and seismic loading. A few long and skinny building the shorter side were provided with holdowns to resist overturning and the footing were designed for it. Reviewed shop drawings and responded to RFI's from the contractor until completion of the project.

The Bend

This project comprised of (3) 2 story buildings and (2) 2 story steel construction buildings. These buildings had some really long span cantilevered beams which were designed to handle the large deflections. The lateral resisting system used were ordinary moment frames.

Tenant Improvement Projects

Provided engineering solutions, calculations and drawing for various projects such as cutting a new opening in an existing wall, adding new HVAC units on the roof, mezzanine addition to existing building etc.

ADDITIONAL INFORMATION

? QUESTIONS

Has your original license lapsed? If yes, explain.

No

Have you ever been denied licensure by a jurisdiction? If yes, explain.

No

Have you ever been convicted of a misdemeanor? If yes, explain.

No

Have you ever been convicted of a felony? If yes, provide a brief letter of explanation and court documents.

No

Select the disciplines in which you are currently practicing. If more than 1% of time is devoted to a discipline, it must be included.

Disciplines

Civil, Structural

Other Disciplines

Has a jurisdiction ever revoked, suspended, or disciplined your license? (Please note this includes a consent agreement, letter of reprimand, Etc.) If the action has been resolved a yes answer is still needed.

No

FNU ADITYA INBASEKARAN (15-917-37)

All work experience reviewed by two licensed professionals

ADDITIONAL INFORMATION



TIME GAPS

| Start Date | End Date | Reason | Explanation |
|------------|----------|------------|--|
| 06/2013 | 07/2014 | Unemployed | Touring inside and outside India. Preparing for GRE and TOEFL to pursue MS in USA. |



DEGREES EVALUATED

| Institution/Degree | Country | Language | Courses |
|---|---------------|----------|---------|
| University of Mumbai / Bachelors in Civil Engineering 08/01/2009 — 05/01/2013 | India | English | 48 |
| Arizona State University / Masters in Civil, Environmental and Sustainable Engineering 08/01/2014 — 05/01/2016 | United States | English | 1 |

COMPARABILITY SUMMARY

Outcome: Not Equivalent

| Area | Hours | Deficiency |
|-------------------|----------|------------------|
| Math/Science | 34 / 32 | None |
| Engineering | 59 / 48 | None |
| General Education | 5 / 16 | Missing 11 hours |
| Elective/Other | 34 / N/A | None |

SPECIAL NOTE

The NCEES Engineering Education Standard requires 16 college semester credit hours in general education that complement the technical content of the curriculum. Courses that instill cultural values are acceptable, while routine exercises of personal craft are not.

Specified Criteria Hours: 32

| Course | Institution/Degree | U.S. Credits |
|--------------------------------|--|---------------------|
| Calculus I | University of Mumbai / Bachelors in Civil Engineering | 3.1 |
| Calculus II | University of Mumbai / Bachelors in Civil Engineering | 3.1 |
| Chemistry I | University of Mumbai / Bachelors in Civil Engineering | 1.7 |
| Chemistry II | University of Mumbai / Bachelors in Civil Engineering | 1.7 |
| Differential Equations | University of Mumbai / Bachelors in Civil Engineering | 2.5 |
| Engineering Geology | University of Mumbai / Bachelors in Civil Engineering | 2.5 |
| Engineering Mechanics | University of Mumbai / Bachelors in Civil Engineering | 4.6 |
| Fluid Mechanics I | University of Mumbai / Bachelors in Civil Engineering | 2.5 |
| Numerical Methods | University of Mumbai / Bachelors in Civil Engineering | 2.5 |
| Partial Differential Equations | Arizona State University / Masters in Civil, Environmental and Sustainable Engineering | 3.0 |
| Physics I: Calculus Based | University of Mumbai / Bachelors in Civil Engineering | 1.7 |
| Physics II: Calculus Based | University of Mumbai / Bachelors in Civil Engineering | 1.7 |
| Strength of Materials | University of Mumbai / Bachelors in Civil Engineering | 3.1 |

Total semester credit hours earned: 33.7

ENGINEERING

Specified Criteria Hours: 48

| Course | Institution/Degree | U.S. Credits |
|-------------------------------------|---|--------------|
| Building Design & Drawing II | University of Mumbai / Bachelors in Civil Engineering | 2.2 |
| Electrical & Electronic Engineering | University of Mumbai / Bachelors in Civil Engineering | 4.6 |
| Environmental Engineering I | University of Mumbai / Bachelors in Civil Engineering | 3.1 |
| Environmental Engineering II | University of Mumbai / Bachelors in Civil Engineering | 3.1 |
| Fluid Mechanics II | University of Mumbai / Bachelors in Civil Engineering | 2.5 |
| Geotechnical Engineering I | University of Mumbai / Bachelors in Civil Engineering | 3.1 |
| Geotechnical Engineering II | University of Mumbai / Bachelors in Civil Engineering | 3.1 |
| Hydraulics I | University of Mumbai / Bachelors in Civil Engineering | 3.1 |
| Hydraulics II | University of Mumbai / Bachelors in Civil Engineering | 2.5 |
| Industrial Waste Management | University of Mumbai / Bachelors in Civil Engineering | 2.5 |
| Irrigation Engineering | University of Mumbai / Bachelors in Civil Engineering | 2.5 |
| Prestressed Concrete | University of Mumbai / Bachelors in Civil Engineering | 3.1 |
| Reinforced Concrete I | University of Mumbai / Bachelors in Civil Engineering | 2.5 |
| Reinforced Concrete II | University of Mumbai / Bachelors in Civil Engineering | 2.5 |
| Steel Design I | University of Mumbai / Bachelors in Civil Engineering | 3.1 |
| Structural Analysis I | University of Mumbai / Bachelors in Civil Engineering | 3.7 |
| Structural Analysis II | University of Mumbai / Bachelors in Civil Engineering | 3.1 |
| Structural Analysis III | University of Mumbai / Bachelors in Civil Engineering | 2.5 |
| Transportation Engineering I | University of Mumbai / Bachelors in Civil Engineering | 3.1 |
| Transportation Engineering II | University of Mumbai / Bachelors in Civil Engineering | 3.1 |

Total semester credit hours earned: 59.0

GENERAL EDUCATION

Specified Criteria Hours: 16

| Course | Institution/Degree | U.S. Credits |
|----------------------------------|---|---------------------|
| Communication Skills | University of Mumbai / Bachelors in Civil Engineering | 1.2 |
| Entrepreneurship | University of Mumbai / Bachelors in Civil Engineering | 2.5 |
| Professional Presentation Skills | University of Mumbai / Bachelors in Civil Engineering | 1.2 |

Total semester credit hours earned: 4.9

ELECTIVE/OTHER

Specified Criteria Hours: N/A

| Course | Institution/Degree | U.S. Credits |
|---------------------------------|---|--------------|
| Building Design & Drawing I | University of Mumbai / Bachelors in Civil Engineering | 1.5 |
| Building Materials | University of Mumbai / Bachelors in Civil Engineering | 3.1 |
| Computer Programming I | University of Mumbai / Bachelors in Civil Engineering | 3.4 |
| Computer Programming II | University of Mumbai / Bachelors in Civil Engineering | 3.4 |
| Concrete Technology | University of Mumbai / Bachelors in Civil Engineering | 3.1 |
| Construction Engineering | University of Mumbai / Bachelors in Civil Engineering | 2.5 |
| Construction Management | University of Mumbai / Bachelors in Civil Engineering | 2.5 |
| Engineering Drawing | University of Mumbai / Bachelors in Civil Engineering | 4.3 |
| Quantity Surveying & Estimation | University of Mumbai / Bachelors in Civil Engineering | 2.5 |
| Surveying I | University of Mumbai / Bachelors in Civil Engineering | 2.8 |
| Surveying II | University of Mumbai / Bachelors in Civil Engineering | 2.8 |
| Workshop I | University of Mumbai / Bachelors in Civil Engineering | 1.2 |
| Workshop II | University of Mumbai / Bachelors in Civil Engineering | 1.2 |

Total semester credit hours earned: 34.3

Total Semester Credit Hours Earned: 132

PROCESS DESCRIPTION

All education is compared to the NCEES Engineering Education Standard

The evaluation of your academic studies has been prepared to provide engineering and surveying licensing boards with the required assessment of foreign qualifications to facilitate them in determining if you qualify for licensure examination. This is an advisory report prepared based on records received and verified by the institutions issuing the degrees or qualifications. Eligibility to take the examination is determined by the licensing boards.

This report does not include the assessment of written and oral communication skills, computer skills, the quality of laboratory or field work, and the scope of design experience, which require an onsite review. Academic records (such as transcripts and catalogs) do not document qualitative factors and practical constraints to desirable outcomes.

NCEES houses a library of reference materials from around the world. These references are used for the completion of evaluations in conjunction with the NCEES Engineering Education Standard.

AHMED IBRAHIM (19-903-42)

All work experience reviewed by two licensed professionals

DISCIPLINE: STRUCTURAL

GENERAL


 Applying To **Nevada**

Application Type **Initial - PE**

Application Date **07/12/2020**

Citizenship **Canada**



SUMMARY


 Engineering Experience after EAC degree

Total Engineering Experience **11 years, 10 months**

Experience under licensed engineer **2 years, 6 months**

Disciplinary Action **None reported**




EDUCATION


 Bachelors in Civil Engineering
Cairo University
September 2004–May 2009

Masters in Structural Engineering
Cairo University
October 2009–July 2012

Doctorate in Civil & Environmental Engineering
University of Western Ontario
September 2012–February 2018

 **Note:** First discipline specific structural license.


EXAMS

 Fundamentals of Engineering (FE)
New York
May 2019

Waived Principles and Practice of Engineering (PE)
Nevada
July 2020

NCEES 16HR Structural (SE)
New York
April 2021

LICENSES

 Initial License **Nevada**
Issued: July 2020
Expires: June 2021

Additional Licenses **None**

Note: NV licensed him through the Canadian agreement as a Civil.

AHMED IBRAHIM (19-903-42)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Benaa Consulting Group
Cairo (Al Qāhira) (Egypt)
Junior Structural Engineer
July 2009—September 2012

Verified by
Alaa Aly El Sayed
alaa@benaa.com.eg

Experience Summary
Full-Time
Engineering: 3 years, 2 months
Experience under licensed engineer:
None

TASKS

I was responsible for the design of reinforced concrete structures including but not limited to the choice of the most appropriate static system, analysis of structures using commercial softwares, design of slabs, beams, columns, stairs, cores, shear walls and foundations according to Egyptian and American Codes of Practice. I was also responsible for the preparation of drawings, participation in continuous meetings with structural, architectural and mechanical engineers to manage the design process. I have also visited construction sites to inspect various aspects of the projects such as the quality of the constructed structural elements, concrete mix, site tests such as slump in addition to the formwork and approval of slab, beams, columns, walls and footings reinforcement before pouring of concrete as well as inspecting the post pouring processes such as curing of concrete and isolation of footings.

REPRESENTATIVE PROJECTS

I worked under the direct supervision of Dr. Alaa El Sayed. My tasks were the design and analysis of reinforced concrete structures, preparing drawings, calculation sheets and reports. The summary of some projects I participated in are listed below:

1-Fiber glass Factory in Al Ain Al Sokhna, Suez, Egypt (Owner Jushi Egypt)
The factory was designed to be extending within an area of 100.5 m X 91.8 m (9225.9 m²).
The factory had basement, Mezzanine, Ground and 5 typical floors.

I was responsible for the design of the beams, slabs, columns and foundations of this building.

Some of the columns were supporting only basement, mezzanine and the ground floor. I designed isolated and combined footings for those columns. This was mainly for the middle area of the factory (70 mX70 m). On the sides of the middle area of the factory, the columns were carrying 8 floors. I designed a raft foundation for these columns.

Design procedures:

- The spans between the columns were within the range of 5 m and 6 m so I chose the static system of the slabs to be solid slabs. The slabs were simple, continuous and cantilever one way and two way solid slabs.
- I assumed the slabs' thicknesses between 14 and 16 cm.
- I developed a SAP 2000 model, the maximum moments on the slabs were determined.
- I applied the slab reactions including dead and live loads to the beams.
- I obtained the maximum straining actions for the beams.
- I designed the beams as simply supported, continuous and cantilever with different cross sections and reinforcements.
- The beam reactions were then applied to the columns.
- I determined the cross sections and reinforcements of the columns based on the maximum column reactions.
- I developed a 3-D model using ETABS for the building where seismic and wind loads were applied based on ASCE (7-10).
- I designed the isolated and combined footings for the columns in the middle area using manual calculations in addition to sap 2000.
- I designed the raft to support the columns supporting 8 floors using sap 2000.
- Expansion joints were considered.
- The design was based on Egyptian code of practice (ECP) while the loads are calculated based on ASCE(7-10).

2- Residential building, Zamalek area, Cairo, Egypt (Owner Batoul company)

The residential building consists of a basement, ground floor and six typical floors. The area of the building was around 1006 m²(20.18 m x 49.90 m).

I was responsible for the design of the beams, flat slabs, columns, two cores and foundation (raft and retaining wall) of this building.

Design procedures:

- I chose the static system used for the floor slabs to be flat slab system of 25 cm thickness calculated based on the maximum spacing between the columns in both directions which was about 8 m.

- The floors system was saved on AUTOCAD as a DXF file and imported to SAP2000.
 - I calculated the maximum moments under dead and live loads combinations on the flat slabs.
 - I assumed top and bottom reinforcement meshes for both directions and calculated the additional reinforcement lengths and values as multiples of this mesh based on the SAP2000 moments.
 - I calculated the column reactions and determined the columns cross sections and reinforcements.
 - The cross sections and the reinforcements of the columns varied along the column height.
 - I modeled the raft on AUTOCAD, saved as DXF and imported on SAP2000 and represented them as shell elements.
 - I calculated the straining actions and obtained the raft mesh and additional reinforcements .
- I assumed the raft thickness to be 100 cm.
- I designed the cores to resist vertical and lateral forces, minimum vertical and horizontal reinforcements were obtained.
 - I performed checks such as punching, deflection, etc. based on ECP recommendations.
 - The design was based on Egyptian code of practice (ECP) while the loads are calculated based on ASCE(7-10).

I worked on other projects such as:

- 3-Office building, El Tagamoa El Khames area, Cairo, Egypt
- 4- Residential building, 6th of October area, Cairo, Egypt
- 5- Tourists Resort, North Coast area (Km no. 40) , North Coast, Egypt

WORK EXPERIENCE

Western University
Ontario (Canada)
Research and Teaching Assistant
September 2012—November 2017

Verified by
Ashraf El Damatty
damatty@uwo.ca

Experience Summary
Full-Time
Engineering: 5 years, 2 months
Experience under licensed engineer:
None



TASKS

I was working as a research and teaching assistant. I studied the performance of pre-stressed concrete poles and lattice tower transmission line structures under normal and high intensity wind loadings such as downbursts and tornadoes. In addition to that, I worked as a teaching assistant and was responsible for conducting lectures, tutorials and computer labs, marking assignments. 80 % of the period in my PhD was dedicated to my research and 20 % to work as teaching assistant.



REPRESENTATIVE PROJECTS

September 2012- March 2013:

I studied the NBCC and ASCE 74 guidelines which are specifically concerned with the loading of transmission line structures. In addition to that I studied ASCE 123 guidelines which is concerned with the design of pre-stressed concrete transmission pole structures and ASCE 91 which focuses on the Design of guyed electrical transmission structures. The code recommends that the pre-stressed concrete poles remain uncracked under normal wind loading. However, No clear guidelines to design such structures under high intensity wind loading are provided.

March 2013- September 2014

I performed the design of un-cracked pre-stressed concrete poles based on ASCE 123 and ASCE 74 guidelines. Then, I developed and validated an in-house non-linear finite element model which accounts for concrete cracking, shrinkage, creep in addition to pre-stressing strands relaxation and non-linear stress strain relationship. I incorporated this model into a previously developed numerical program by Prof. El Damatty research group which was able to predict the behaviour of lattice steel transmission line structures under downbursts and tornadoes. As such, I studied the behaviour of pre-stressed concrete poles under high intensity wind loading. I obtained critical tornado and downburst load cases and then I proposed them to ASCE-74 loading committee to be implemented. This work was done under the direct supervision of Prof. Ashraf El Damatty. A journal paper and two conference papers were published out of this research.

Ibrahim, A.M., El Damatty, A. A. and Elansary A.M., (2017). "Finite element modelling of prestressed concrete poles under downbursts and tornadoes". Journal of Engineering Structures, 153, pp. 370-382. Ibrahim, A.M. and El Damatty, A.A., (2016), "Case Study to Assess the Sensitivity of Prestressed Concrete Poles to Tornadoes", Proceeding of the General Conference of the Canadian Society of Civil Engineering, London, ON, Canada.

Ibrahim, A.M. and El Damatty, A.A., (2014), "Behaviour of Prestressed Concrete Poles under Downburst Loading", Proceeding of ASCE conference, Hamilton, ON, Canada.

September 2014- March 2016

I extended the developed program to include the dynamic behaviour of transmission line structures under mean and turbulent wind loading. I conducted parametric studies on 5 towers (a guyed steel lattice towers with a conductor span of 460 m, an H-frame steel pole with 290 m conductor span, a self-supported lattice tower with a 299 m conductor span, a steel cantilever pole with a 124 m conductor span and a prestressed concrete pole with a 223 m conductor span) to assess the dynamic effect of turbulent synoptic wind loading on these towers. Based on this assessment, the codes were found to be overestimating the dynamic performance of the transmission lines while the poles were found to be more vulnerable to dynamic excitations. I recommended new guidelines for the design codes. This work was under direct supervision of Prof. Ashraf El Damatty. The five towers were provided by CEATI international. A technical report with the results was provided to CEATI international. Technical Report, CEATI International Inc, (2017). "Dynamic Response of Transmission Lines under WindVolume2: Computer Simulation and Numerical Models".

March 2016-November 2017

I applied the ASCE 74,91 and 123 procedures to design un-cracked guyed pre-stressed concrete poles under normal wind loading. I studied guyed pole structures with variable spans ranging from 100 m to 300 m. I obtained different conductor properties

from Hydro One Company. Using the developed and validated model described earlier in this report, I conducted an extensive parametric study on the three guyed poles under hundreds of downburst and tornado load cases. I obtained the critical downburst and tornado configurations and then I proposed them to the ASCE 74 loading committee. Two journal paper as an outcome of this work are currently under review.

Ibrahim, A.M. and El Damatty, A.A., "Behaviour of Guyed Pre-stressed Concrete Poles under Downbursts", Under Review.

Ibrahim, A.M. and El Damatty, A.A., "Behaviour of Guyed Pre-stressed Concrete Poles under Tornadoes", Under Review.

September 2012-November 2017

I worked as a teaching assistant in the following courses:

(ES1022A) : Statics

(CEE 3341B) : Structural Theory IV

(CEE 3347A): Reinforced Concrete Design

(CEE 3343B): Finite Element Methods

(CEE 3358B): Reinforced and Pre-stressed Concrete Design

(CEE 9512A): Finite element Method(Theory and applications) Graduate Course.

100% of time I was teaching upper division courses.

AHMED IBRAHIM (19-903-42)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Western University
Ontario (Canada)
Post Doctoral Fellow in Civil and
Environmental Engineering
November 2017—November 2018

Verified by
Ashraf El Damatty
damatty@uwo.ca

Experience Summary
Full-Time
Engineering: 1 year
Experience under licensed engineer:
None



TASKS

I worked as a post doctoral fellow. I conducted research and supervised students to study the behaviour of multi-span transmission line structures and wind turbines under high intensity wind.



REPRESENTATIVE PROJECTS

I worked as a Post Doctoral Fellow in Civil and Environmental Engineering Department at Western University under the direct supervision of Dr. Ashraf El Damatty.

I worked on two topics:

- a-Behaviour of multi span transmission line structures under high intensity wind loadings. This work was done in collaboration with Hydro One.
- b-Behaviour of Wind turbine towers under downbursts and tornadoes.

In Project a, I worked with Dr. Ashraf El Damatty research team on the commercial software "TOWER". This software is used in more than 140 countries to design transmission line structures. However, this software was not capable of including high intensity wind event loadings. Hydro One recommended to extend the program to be able to analyze and design transmission line structures under downbursts and tornadoes.

The following steps were adopted to include high intensity wind effect in "TOWER":

- 1- Number of multi-span transmission line structures provided by Hydro One were checked under NBCC and ASCE code recommendations mainly based on normal wind loading. The towers were in the range of 30- 50m height with lattice steel self-supported and guyed systems as well.
- 2- The in-house numerical programs that was previously developed by Dr. Ashraf El Damatty research group were utilized to determine the critical downburst and tornado load cases. As such the loads developed in those critical load cases were input to software "TOWER".

In June 2018, the upgraded commercial software "TOWER" was submitted to Hydro one with the new capability of analyzing multi-span transmission line structures under downbursts and tornadoes.

In Project b, I worked under the direct supervision of Dr. Ashraf El Damatty to develop a numerical program such that it becomes able to analyze wind turbine towers under tornadoes and downbursts. The wind turbines are being analyzed using the software "FAST". This program has very high capabilities in analyzing wind turbines under normal wind loading taking into consideration the different properties of wind turbines, such as the tower shaft heights, diameters and thicknesses in addition to the blades configurations and lengths. However, FAST is not able to analyze wind turbines under high intensity wind events such as downbursts and tornadoes. The target of this project is to upgrade fast to be able to analyze and design wind turbine towers under downbursts and tornadoes critical load cases. The considered wind turbine is a 1.5 MW capacity. The height of the steel shaft of the turbine is 65 m . and the three blades length is 34 m. The turbine is designed mainly based on IEC 61400-1. Both of the operational and parking conditions were considered in the design. An extensive parametric study was conducted by changing the downburst and tornado locations to determine the pitch angle of the blades which minimizes the effect of tornadoes and downbursts on the turbine.

AHMED IBRAHIM (19-903-42)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

AECOM
New York (United States)
Structural Engineer
November 2018—May 2021

Verified by
Ahmed S Aly
ahmed.s.aly@aecom.com

Experience Summary
Full-Time
Engineering: 2 years, 6 months
Experience under licensed engineer:
2 years, 6 months

TASKS

I am currently working as a structural engineer at AECOM. I am responsible for the design of reinforced concrete, steel, masonry and wood structures including but not limited to the choice of the most appropriate statical system, analysis of existing structures using commercial softwares, design of slabs, beams, columns, stairs, cores, shear walls and foundations according to American Codes of Practice. I am also responsible for the preparation of drawings, participation in continuous meetings with structural, architectural and mechanical engineers to manage the design process. I also visit construction sites to inspect various aspects of the projects.

REPRESENTATIVE PROJECTS

I have been working on many projects since I joined AECOM, a sample of the projects I am working on are listed below:

- 1- Build it back Project (November 2018-February 2019): This project is involved with redesigning and construction of a group of houses that were subjected to hurricane Sandy. I designed and checked some of the houses in their new conditions. I conducted site visits to check the progress of work.
- 2-San Francisco Airport renovations (March 2019-April 2019): The project is involved with upgrading San Francisco airport runways. I designed the runways in both construction and operation stages. I simulated stresses resulting from the airplane loads using ANSYS and determined the appropriate thicknesses of the runway layers including asphalt concrete, cement treated base, crushed aggregate and backfill layers.
- 3- Penn station renovations (May 2019-November 2019): I modeled the existing structure using commercial softwares to check the existing status of the station to the existing building codes and proposed the new renovations. I then modeled the new renovations using a finite element model and designed all the structural members and participated in the drawings.
- 4- JFK airport Terminal 8 (December 2019-January 2020): I modeled two fixed bridges in terminal 8 in JFK airport. I designed the steel framing and bracing against wind, snow, earthquake, live and dead loads.
- 5- Verona Schools Capital Project (January 2020- March 2020): I conducted site visit to six schools in New Jersey to assess the current conditions. I proposed some repairs and retrofitting for the existing structural elements to be able to support the new AC units that will be installed.
- 6- Alternate Care Facilities (Covid 19 Project) (April 2020-May 2020) : I conducted the wind analysis and design for 4 aluminum tents that are supposed to be occupied with more than 1000 Covid patients. I Monitored closely the construction process and performed testing to evaluate base plates capacities. Then, I developed a technical report including site visits summary, testing procedures and results, wind analysis and tents maximum sustained wind speed.
- 7- KFS and HLD AMTRAK stations (June 2020-July 2020) : I am in the process of designing the HLD and KFS stations platforms, light pole supports and foundations (helical Piles) in addition to working on issuing the drawings.
- 8- Design and analysis of a number of AMTRAK stations (July 2020- May 2021) : I am responsible of the design, analysis, providing construction documents and monitoring construction phases in a number of AMTRAK stations such as Matton, HAR, KFS, HLD, Westerly and POH.
- 9- Design and analysis of 38 Escalators in NYC (November 2020- May 2021): I conducted site visits to a number of subway stations in NYC to check the existing conditions of existing escalator supports. I am responsible for the design, analysis and providing reports for existing conditions and master plans for the renovations of a number of deteriorated members in the escalators structural supporting system.
- 10-Design and Analysis of a number of Amazon warehouse sites in California (January 2021- May 2021): I am responsible for the renovations conducted on a number of warehouses in California. AECOM is upgrading these warehouses to be used by Amazon. These renovations includes but not limited to strengthening of lateral force resisting systems, enhancing the strength of the roof systems to support new mechanical equipment and doing alterations in the existing ground floor levels to accommodate for amazon standards.

The codes that I have used In the previous projects include but not limited to IBC, ASCE, ACI, AISC, NDS and NYC Building Codes.

AHMED IBRAHIM (19-903-42)

All work experience reviewed by two licensed professionals

ADDITIONAL INFORMATION



QUESTIONS

Has your original license lapsed? If yes, explain.

No

Have you ever been denied licensure by a jurisdiction? If yes, explain.

No

Have you ever been convicted of a misdemeanor? If yes, explain.

No

Have you ever been convicted of a felony? If yes, provide a brief letter of explanation and court documents.

No

Select the disciplines in which you are currently practicing. If more than 1% of time is devoted to a discipline, it must be included.

Disciplines

Structural, Civil

Other Disciplines

Has a jurisdiction ever revoked, suspended, or disciplined your license? (Please note this includes a consent agreement, letter of reprimand, Etc.) If the action has been resolved a yes answer is still needed.

No



DEGREES EVALUATED

| Institution/Degree | Country | Language | Courses |
|---|---------|----------|---------|
| Cairo University / Bachelors in Civil Engineering 09/01/2004 — 05/01/2009 | Egypt | English | 48 |
| Cairo University / Masters in Structural Engineering 10/01/2009 — 07/01/2012 | Egypt | English | 1 |
| University of Western Ontario / Doctorate in Civil & Environmental Engineering 09/01/2012 — 02/01/2018 | Canada | English | None |

COMPARABILITY SUMMARY

Outcome: Not Equivalent

| Area | Hours | Deficiency |
|-------------------|----------|-----------------|
| Math/Science | 34 / 32 | None |
| Engineering | 86 / 48 | None |
| General Education | 9 / 12 | Missing 3 hours |
| Elective/Other | 32 / N/A | None |

SPECIAL NOTE

The applicant was not able to provide official documents as per NCEES Policy. This evaluation was completed at the request of the Nevada Board using unofficial documents provided by the applicant.

The NCEES Engineering Education Standard requires 12 college semester credit hours in general education that complement the technical content of the curriculum. Courses that instill cultural values are acceptable, while routine exercises of personal craft are not.

Specified Criteria Hours: 32

| Course | Institution/Degree | U.S. Credits |
|----------------------------|---|--------------|
| Calculus I | Cairo University / Bachelors in Civil Engineering | 4.8 |
| Calculus II | Cairo University / Bachelors in Civil Engineering | 4.4 |
| Chemistry | Cairo University / Bachelors in Civil Engineering | 2.6 |
| Engineering Geology | Cairo University / Bachelors in Civil Engineering | 2.6 |
| Mechanics I | Cairo University / Bachelors in Civil Engineering | 3.1 |
| Mechanics II | Cairo University / Bachelors in Civil Engineering | 4.4 |
| Physics I: Calculus Based | Cairo University / Bachelors in Civil Engineering | 4.8 |
| Physics II: Calculus Based | Cairo University / Bachelors in Civil Engineering | 4.4 |
| Probability & Statistics | Cairo University / Bachelors in Civil Engineering | 2.6 |

Total semester credit hours earned: 33.70

Specified Criteria Hours: 48

| Course | Institution/Degree | U.S. Credits |
|----------------------------|---|--------------|
| Engineering Economics | Cairo University / Bachelors in Civil Engineering | 2.2 |
| Environmental Engineering | Cairo University / Bachelors in Civil Engineering | 4.4 |
| Fluid Mechanics | Cairo University / Bachelors in Civil Engineering | 5.2 |
| Foundation Engineering | Cairo University / Bachelors in Civil Engineering | 5.2 |
| Harbor Engineering | Cairo University / Bachelors in Civil Engineering | 3.5 |
| Highway Engineering | Cairo University / Bachelors in Civil Engineering | 4.4 |
| Hydraulic Engineering | Cairo University / Bachelors in Civil Engineering | 5.2 |
| Irrigation Engineering I | Cairo University / Bachelors in Civil Engineering | 4.4 |
| Irrigation Engineering II | Cairo University / Bachelors in Civil Engineering | 4.4 |
| Irrigation Engineering III | Cairo University / Bachelors in Civil Engineering | 2.6 |
| Project | Cairo University / Bachelors in Civil Engineering | 0.9 |
| Railway Engineering | Cairo University / Bachelors in Civil Engineering | 3.5 |
| Reinforced Concrete I | Cairo University / Bachelors in Civil Engineering | 3.5 |
| Reinforced Concrete II | Cairo University / Bachelors in Civil Engineering | 2.6 |
| Reinforced Concrete III | Cairo University / Bachelors in Civil Engineering | 2.6 |
| Soil Mechanics | Cairo University / Bachelors in Civil Engineering | 5.2 |
| Steel Structures I | Cairo University / Bachelors in Civil Engineering | 2.6 |
| Steel Structures II | Cairo University / Bachelors in Civil Engineering | 2.6 |
| Strength of Materials I | Cairo University / Bachelors in Civil Engineering | 4.4 |
| Strength of Materials II | Cairo University / Bachelors in Civil Engineering | 4.4 |
| Structural Analysis I | Cairo University / Bachelors in Civil Engineering | 2.6 |
| Structural Analysis II | Cairo University / Bachelors in Civil Engineering | 2.6 |
| Structural Analysis III | Cairo University / Bachelors in Civil Engineering | 2.6 |
| Traffic Engineering | Cairo University / Bachelors in Civil Engineering | 4.4 |

Total semester credit hours earned: 86.00

GENERAL EDUCATION

Specified Criteria Hours: 12

| Course | Institution/Degree | U.S. Credits |
|---|--|---------------------|
| Communication & Technical Writing | Cairo University / Masters in Structural Engineering | 1.0 |
| Engineering & the Environment | Cairo University / Bachelors in Civil Engineering | 1.7 |
| History of Engineering Science & Technology | Cairo University / Bachelors in Civil Engineering | 1.7 |
| Professional Ethics | Cairo University / Bachelors in Civil Engineering | 3.5 |
| Technical English | Cairo University / Bachelors in Civil Engineering | 0.9 |

Total semester credit hours earned: 8.80

ELECTIVE/OTHER

Specified Criteria Hours: N/A

| Course | Institution/Degree | U.S. Credits |
|---------------------------------|---|--------------|
| Building Construction | Cairo University / Bachelors in Civil Engineering | 2.6 |
| Civil Engineering Drawing | Cairo University / Bachelors in Civil Engineering | 1.7 |
| Elective Courses | Cairo University / Bachelors in Civil Engineering | 7.9 |
| Electrical Installations | Cairo University / Bachelors in Civil Engineering | 2.6 |
| Engineering Drawing | Cairo University / Bachelors in Civil Engineering | 2.2 |
| Geoinformatics | Cairo University / Bachelors in Civil Engineering | 2.6 |
| Introduction to Computers | Cairo University / Bachelors in Civil Engineering | 1.3 |
| Production Technology | Cairo University / Bachelors in Civil Engineering | 2.6 |
| Project Management | Cairo University / Bachelors in Civil Engineering | 3.1 |
| Quantity Surveying & Estimation | Cairo University / Bachelors in Civil Engineering | 2.6 |
| Surveying | Cairo University / Bachelors in Civil Engineering | 2.6 |

Total semester credit hours earned: 31.80

Total Semester Credit Hours Earned: 161

PROCESS DESCRIPTION

All education is compared to the NCEES Engineering Education Standard

The evaluation of your academic studies has been prepared to provide engineering and surveying licensing boards with the required assessment of foreign qualifications to facilitate them in determining if you qualify for licensure examination. This is an advisory report prepared based on records received and verified by the institutions issuing the degrees or qualifications. Eligibility to take the examination is determined by the licensing boards.

This report does not include the assessment of written and oral communication skills, computer skills, the quality of laboratory or field work, and the scope of design experience, which require an onsite review. Academic records (such as transcripts and catalogs) do not document qualitative factors and practical constraints to desirable outcomes.


NCEES houses a library of reference materials from around the world. These references are used for the completion of evaluations in conjunction with the NCEES Engineering Education Standard.

JESSE PLASMYER (13-494-65)

All work experience reviewed by two licensed professionals

DISCIPLINE: STRUCTURAL

GENERAL


 Applying To **Nevada**

Application Type **Comity - PE**

Application Date **08/23/2019**

Citizenship **United States**



SUMMARY



 Engineering Experience after EAC degree **5 years, 1 month**



Total Engineering Experience **5 years, 1 month**

Experience under licensed engineer **5 years, 1 month**

Disciplinary Action **None reported**


 

EDUCATION


 Associates in General Science
Santa Monica College
June 2006–June 2008

Bachelors in Civil Engineering (EAC)
University of California, Irvine
September 2010–June 2013

Masters in Civil Engineering
University of Southern California
August 2014–December 2015

 **Note:** First discipline specific structural license.

EXAMS

 Fundamentals of Engineering (FE)
California
April 2012

Principles and Practice of Engineering (PE)
Civil
California
April 2017

NCEES 16HR Structural (SE)
Nevada
April 2021

LICENSES

 Initial License
California
Issued: December 2017
Expires: March 2022

Additional Licenses
AL, CO, FL PE, NV, NC, TN PE, TX, WA

JESSE PLASMYER (13-494-65)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

Brandow and Johnston, Inc.
California (United States)
Design Engineer
May 2014—September 2014

Verified by
Kim Carvalho
kcarvalho@bjsce.com

Experience Summary
Full-Time
Engineering: 4 months
Post EAC degree: 4 months
**Experience under licensed engineer:
4 months**

TASKS

I performed calculation to determine appropriate structural elements to resist gravity loads and how to integrate them into the existing load path. I ran computer simulations for gravity analysis utilizing software such as: RAM Structural Steel, ENERCALC. I calculated lateral loads for non-structural equipment anchorage (Fp – Forces), as well as veneer and facade attachments. I designed new connections for gravity framing and designed shallow footings by hand for gravity load conditions. I aided the design team in construction administration by reviewing RFI's, sub-contractor submittals.

REPRESENTATIVE PROJECTS

“Fertitta Hall – University of Southern California”

New building located in Los Angeles, CA. Five-story steel structure approximately 104,000 square feet. I specifically checked veneer and cladding connections for the exterior façade, as well as gravity shear tab connection checks for the primary gravity steel. The duration of my role lasted from May 2014 to September 2014.

“Cal Poly San Luis Obispo – Bldg. Upgrades”

New upgrades to existing building to include thermal floor heating system, equipment tank anchorage, and additional topping slab. Project located in San Luis Obispo, CA. I specifically checked the existing interior floor concrete slab as well as exterior roof slab for new loads imposed. I also calculated appropriate anchorage for the new equipment tank. The duration of my role lasted from August 2014 to September 2014.

“Access Floors”

Many individual small projects involving checking the adequacy of access floor support posts and their anchorage to the structure. I specifically checked the post anchorage, bending adequacy, shear adequacy, and compression adequacy based on spacing and code defined loads. The duration of my role lasted from May 2014 to September 2014.

“Hanging Partition Walls”

Many individual small projects involving checking the adequacy of hanging partition wall connection supports from primary structural framing members. I specifically checked the connection for load path adequacy due to flexural, shear, and torsional loads determined by spacing of connectors. I checked the primary supporting structural members for loads imposed. The duration of my role lasted from May 2014 to September 2014.

JESSE PLASMYER (13-494-65)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

John A. Martin and Associates, Inc.
California (United States)
Project Engineer
May 2015—September 2015

Verified by
Kent Kaewwaen
kaewwaen@gmail.com

Experience Summary
**Full-Time
Engineering: 4 months
Post EAC degree: 4 months
Experience under licensed engineer:
4 months**

TASKS

During the listed time frame I was a full-time intern at John A. Martin and Associates, Inc. (May 2015 - September 2015); experience gained after earning my undergraduate degree. Upon graduating from my masters program I then began working at John A. Martin and Associates, Inc. full-time starting as a "Structural Designer" and eventually being promoted to "Project Engineer" (January 2016 - Present). This experience verification is to clarify and include the additional months which count towards my overall engineering experience gained while I was interning. The level/expectations of my responsibilities as an intern where the same as any new full-time hire. See explanation of Tasks and Duties below, as well as my Representative Projects.

I analyze existing structures to perform seismic evaluations and recommend scope of retrofit. I performed calculation to determine appropriate structural elements to resist both gravity and lateral loads and how to integrate them into the existing load path. I ran computer simulations for both lateral analysis and gravity analysis utilizing software such as: ETABS, RISA-3D, RAM Structural Steel, ENERCALC, etc. I chose to use computer simulations to analyze the before and after behaviors of the structural performance to determine appropriate retrofit scope. I checked existing connections for adequate lateral load path to existing frames.

I designed new structural elements both gravity and lateral by hand and by use of running computer simulated models. I designed new connections for both lateral and gravity by hand for both combined lateral and gravity load conditions.

REPRESENTATIVE PROJECTS

"Miller Children's Hospital"

Existing four-story hospital building (circa 1969) located in Long Beach, CA. Building is approximately 180,000 square feet. Lateral system utilizes moment frames. I was responsible for performing an ASCE 41 Tier 3 Linear Dynamic seismic evaluation to define scope of retrofit of moment frames for OSHPD SPC-4D reclassification. I specifically analyzed the existing structure by running computer simulations for both BSE-1E and BSE-2E ground motions per the California Building Code criteria. The duration of my role lasted from May 2015 to September 2015.

"Chinese Hospital – Existing 1979 Bldg. / New Tower"

This project consisted of both a new tower addition as well as an existing hospital. The project location is in San Francisco, CA. The new tower is a 7-story steel moment frame structure. The existing tower (circa 1979) is also a steel moment frame structure. I designed equipment anchorage for several different packages including: Kitchen Package, Electrical Package, and Mechanical Package. I also designed a duct support platform which was attached to the roof of the existing structure to re-route the new duct/HVAC equipment. I calculated structural mass comparisons to avoid seismic upgrades to the existing lateral system per 2016 California Building Code. The duration of my role lasted from May 2015 to September 2015.

"Gateway Apartments"

A new 21-Unit apartment building located in Los Angeles, CA with an approximate area of 24,000 square feet. Building is wood frame construction over a single level concrete podium. The lateral system consists of plywood shear walls. I calculated loads imposed to primary wood gravity members from deferred approvals to justify adequacy of members. I calculated anchorage of equipment and their attachments to the primary wood elements. I designed element alterations due to issues in the field and responded to RFI's. The duration of my role lasted from July 2015 to September 2015.

JESSE PLASMYER (13-494-65)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

John A. Martin & Assoc., Inc.
California (United States)
Project Engineer
January 2016—July 2019

Verified by
Richard Lawrence
rlawrence@johnmartin.com

Experience Summary
Full-Time
Engineering: 3 years, 6 months
Post EAC degree: 3 years, 6 months
Experience under licensed engineer:
3 years, 6 months

TASKS

I analyze existing structures to perform seismic evaluations and recommend scope of retrofit. I performed calculation to determine appropriate structural elements to resist both gravity and lateral loads and how to integrate them into the existing load path. I ran computer simulations for both lateral analysis and gravity analysis utilizing software such as: ETABS, SAP 2000, RISA-3D, RAM Structural Steel, ENERCALC, SP-Column, SAFE, etc. I chose to use computer simulations to analyze the before and after behaviors of the structural performance to determine appropriate retrofit scope. I checked existing connections for adequate lateral load path to existing frames.

I designed new structural elements both gravity and lateral by hand and by use of running computer simulated models. I designed new connections for both lateral and gravity framing and designed both shallow and deep foundations by hand for both combined lateral and gravity load conditions. I aid the design team in construction administration by reviewing RFI's, sub-contractor submittals, and performing site walks.

REPRESENTATIVE PROJECTS

"Saddleback Memorial Medical Center"

Existing hospital building located in Laguna Hill, CA – Four-story concrete shear wall rectangular shaped structure with additional 5th level penthouse structure, approximate building footprint is 72,000 square feet originally constructed in 1973. I was responsible for performing an ASCE 41 Tier 3 seismic evaluation to recommend scope of retrofit for OSHPD SPC-4D reclassification. I specifically analyzed the existing structure by running computer simulations for both BSE-1E and BSE-2E ground motions per the California Building Code criteria. I designed added lateral elements to alter structural behavior and improve building performance as well as calculated required Fiber Reinforcement Polymer additions to existing walls. The duration of my role lasted from January 2016 to June 2018.

"Los Angeles International Airport (LAX) – Terminal 5.5. Expansion"

New five-story terminal expansion between Terminal 5 and Terminal 6. Lateral system consists Special moment frames utilizing RBS prequalified moment connections. Gravity design consists of composite beams. The approximate building footprint is 25,000 square feet. I specifically designed the gravity framing ASCE 7-10 and 2016 California Building Code. I ran computer simulations in aiding in the design of the gravity. The duration of my role lasted from June 2018 to Present.

"Salinas Valley Medical Center"

Existing hospital building located in Salinas, CA – six-story lightweight concrete shear wall cruciform shaped structure, approximate building footprint is 52,000 square feet originally constructed in 1950. I was responsible for performing an ASCE 41 Tier 3 seismic evaluation to recommend scope of retrofit for OSHPD SPC-4D reclassification. I specifically analyzed the existing structure by running computer simulations for both BSE-1E and BSE-2E ground motions per the California Building Code criteria. I designed added lateral elements to alter structural behavior and improve building performance as well as calculated required Fiber Reinforcement Polymer additions to existing walls. The duration of my role lasted from February 2017 to January 2018.

"Rinker Outpatient - North and South Expansions"

New outpatient hospital building expansions located in Rancho Mirage, CA – South expansion is a one-story special moment frame structure utilizing RBS prequalified moment connections with a building footprint approximately 30,000 square feet. North expansion is a two-story special moment frame structure utilizing RBS prequalified moment connections with a building footprint approximately 40,000 square feet. For both north and south expansions, I specifically designed the gravity framing utilizing composite beam construction, the lateral system, and the spread footing foundations per ASCE 7-10 and 2016 California Building Code. I ran computer simulations in aiding in the design of both the gravity and lateral systems of both north and south expansions. The duration of my role lasted from August 2017 to March 2018.

“Eisenhower Medical Center”

Existing hospital building located in Rancho Mirage, CA – Four-story mixed lateral system with concrete shear wall and masonry shear wall structure, approximate building footprint is 70,000 square feet originally constructed in 1970. I was responsible for performing an ASCE 41 Tier 3 seismic evaluation to recommend scope of retrofit for OSHPD SPC-4D reclassification. I specifically analyzed the existing structure by running computer simulations for both BSE-1E and BSE-2E ground motions per the California Building Code criteria. I designed added lateral elements to alter structural behavior and improve building performance as well as calculated required Fiber Reinforcement Polymer additions to existing walls. The duration of my role lasted from January 2018 to June 2018.

“Los Angeles International Airport (LAX) – Midfield Satellite Concourse (MSC)”

Three New terminal expansion projects (Gateway, East Tunnel, North Baggage Handlings System) at LAX. Lateral system consists Special moment frames utilizing RBS prequalified moment connections for all three. I aided the design team with Construction Administration efforts reviewing RFI's, sub-contractor submittals, and shop drawings, as well as attending construction site observations. The duration of my role lasted from June 2018 to Present.

JESSE PLASMYER (13-494-65)

All work experience reviewed by two licensed professionals

WORK EXPERIENCE

John A. Martin & Associates, Inc.
California (United States)
Project Engineer
August 2019—July 2020

Verified by
Kimberly Ann Pacheco
kpacheco@johnmartin.com

Experience Summary
Full-Time
Engineering: 11 months
Post EAC degree: 11 months
**Experience under licensed engineer:
11 months**



TASKS

I was still employed at John A. Martin & Assoc. during August 2019 – July 2020 as a Project Engineer and was still responsible for the tasks and duties previously mentioned in my verified NCEES work history ending July 2019. During this period from August 2019 – July 2020 I analyze existing structures to perform seismic evaluations and recommend scope of retrofit. I performed calculation to determine appropriate structural elements to resist both gravity and lateral loads and how to integrate them into the existing load path. I ran computer simulations for both lateral analysis and gravity analysis utilizing software such as: ETABS, RISA-3D, RAM Structural Steel, ENERCALC, etc. I chose to use computer simulations to analyze the before and after behaviors of the structural performance to determine appropriate retrofit scope or economical new design. I checked existing and new connections for adequate lateral load path to existing frames.

I designed new structural elements both gravity and lateral by hand and by use of running computer simulated models. I designed new connections for both lateral and gravity by hand for both combined lateral and gravity load conditions.



REPRESENTATIVE PROJECTS

“Los Angeles International Airport (LAX) – Midfield Satellite Concourse (MSC)” – J14089

Three New terminal expansion projects (Gateway, East Tunnel, North Baggage Handlings System) at LAX. Lateral system consists Special moment frames utilizing RBS prequalified moment connections for all three. I aided the design team with Construction Administration efforts reviewing RFI's, sub-contractor submittals, and shop drawings, as well as attending construction site observations. The duration of my role lasted from June 2018 to July 2020.

“Los Angeles International Airport (LAX) – Terminal 5.5. Expansion” – J18028

New five-story terminal expansion between Terminal 5 and Terminal 6. Lateral system consists Special moment frames utilizing RBS prequalified moment connections. Gravity design consists of composite beams. The approximate building footprint is 25,000 square feet. I specifically designed the gravity framing ASCE 7-10 and 2016 California Building Code. I ran computer simulations in aiding in the design of the gravity. The duration of my role lasted from June 2018 to July 2020.

JESSE PLASMYER (13-494-65)

All work experience reviewed by two licensed professionals

ADDITIONAL INFORMATION



QUESTIONS

Has your original license lapsed? If yes, explain.

No

Have you ever been denied licensure by a jurisdiction? If yes, explain.

No

Have you ever been convicted of a misdemeanor? If yes, explain.

No

Have you ever been convicted of a felony? If yes, provide a brief letter of explanation and court documents.

No

Select the disciplines in which you are currently practicing. If more than 1% of time is devoted to a discipline, it must be included.

Disciplines

Structural

Other Disciplines

Has a jurisdiction ever revoked, suspended, or disciplined your license? (Please note this includes a consent agreement, letter of reprimand, Etc.) If the action has been resolved a yes answer is still needed.

No

JESSE PLASMYER (13-494-65)

All work experience reviewed by two licensed professionals

ADDITIONAL INFORMATION



TIME GAPS

| Start Date | End Date | Reason | Explanation |
|------------|----------|------------|---|
| 07/2008 | 08/2010 | Unemployed | I earned my Associates Degree in 2008, however I still attended Santa Monica College until 2010 to meet core class requirements for transfer to an engineering program at UC Irvine. This is all Documented on my transcript. |
| 07/2013 | 04/2014 | Unemployed | I was unemployed during this time after I graduated from UC Irvine. |
| 08/2020 | 05/2021 | Unemployed | I was unemployed during this time. |

7. Approval of
May 20, 2021 Board
Meeting Minutes

NEVADA STATE BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS
Minutes of the Regular Board Meeting
Held virtually, Thursday, May 20, 2021 at 9:00am

Board members participating were Chairwoman Karen Purcell, PE; Vice Chair Michael Kidd, PLS; Angelo Spata, PE; Thomas Matter, public member; Matthew Gingerich, PLS; Lynnette Russell, PE; Robert Fyda, PE and Brent Wright, PE/SE. Also joining were Patty Mamola, Executive Director; Chris MacKenzie, Board Legal Counsel; Susan Fischer, Board Government Affairs Liaison; Murray Blaney, Operations/Compliance, Louisa Kern, Administrative Assistant, and Jake Wolf, Compliance Officer.

1. Meeting conducted by Chair Karen Purcell, call to order and roll call of board members to determine presence of quorum—board members Michael Kidd, Thomas Matter, Angelo Spata, Brent Wright, Matt Gingerich, Robert Fyda, Lynnette Russell.

Ms Mamola conducted a roll call and a quorum was present.

2. Pledge of Allegiance

Following the Pledge of Allegiance, Ms Purcell read the board's purpose and mission.

The purpose of the board as stated in Nevada Revised Statute 625.005 is to safeguard life, health and property and to promote the public welfare by providing for the licensure of qualified and competent professional engineers and professional land surveyors and our mission is founded on the board's purpose, the board's mission is to uphold the value of professional engineering and land surveying licensure by assessing minimum competency for initial entry into the profession and to insure on going standard of professionalism by facilitating compliance with laws regulations and code of practice and to provide understanding and progression in licensure by openly engaging with all stake holders.

3. Public comment.

Ms Mamola said a statement had been submitted for public comment by Dr Karakouzian a professor in the engineering department at UNLV.

Ms Mamola read Dr Karakouzian's emailed statement into the record.

I am writing to you regarding the renewal of my PE license. I have been the holder of this license since the early nineties when I joined UNLV as a faculty in the civil engineering department, since then I have diligently paid my renewal dues. Faculty members at UNLV are state of Nevada employees. Accordingly, we are not allowed to compete with engineering consulting firms. Therefore, I have not used my PE license for consulting work outside UNLV. I would like to discuss the possibility of the board waiving renewal fees for university faculty.

4. Introductions

Board members, guests and staff introduced themselves.

5. Discussion and possible action on approval of March 30, 2021, special board meeting minutes.

21-29 A motion was made by Mr Gingerich seconded by Mr Spata to approve the March 30, 2021, special board meeting minutes. The motion passed unanimously.

6. Discussion and possible action on approval of April 7, 2021, special board meeting minutes.

21-30 A motion was made by Mr Fyda seconded by Mr Matter to approve the April 7, 2021, special board meeting minutes. The motion passed unanimously.

7. Discussion and possible action on approval of April 15, 2021, public hearing minutes related to intent to adopt regulations.

21-31 A motion was made by Ms Russell seconded by Mr Spata to approve the April 15, 2021, public hearing minutes. The motion passed unanimously.

8. Discussion and possible action on financial statements.

a. February 2021 financial statements

Ms Mamola reviewed the February 2021 financial statements as presented in the board packet. There were no questions from the board.

b. March 2021 financial statements

Ms Mamola reviewed the March 2021 financial statements as presented in the board packet. There were no questions from the board.

c. April 2021 financial statements

Ms Mamola reviewed the April 2021 financial statements as presented in the board packet. There were no questions from the board.

21-32 A motion was made by Mr Fyda, seconded by Ms Russell to approve the February 2021, March 2021, and April 2021 financial statements. The motion passed unanimously.

9. Discussion and possible action on compliance reports by Compliance Officer.

a. Compliance officer report on complaints being investigated.

Mr Blaney reported on the status of the eight (8) open compliance case files. There were no questions from board members.

b. Consideration of probation reports:

Richard Warren, PE #17389
Dooley Riva, PE #18231
Lazell Preator, PE #14982

John Skwiot, PE #20561
Ralph Heninger, PE #5191

Mr Blaney said that the licensees currently on probation were all in good standing. He added that Mr Preator has asked for the consideration of a payment plan with regard to investigative costs and fines. Mr Blaney said he will draft options and review with Ms Mamola before reconnecting with Mr Preator.

10. Intentionally left blank.

11. Discussion and possible action on sub-lease of Las Vegas office space.

Ms Mamola said she had been approached by LGA Architecture about sub-leasing our office and boardroom. LGA has office space in the same building we occupy in Las Vegas. She added in preparation for this discussion, a letter was sent to the property manager to seek approval from the landlord to sublease or share space in our office with another organization – and they replied with approval earlier this week. Ms Mamola said the additional revenue gained would offset rental expenses and to have the office occupied added to security of the space. A sub-lease agreement would need to be drafted with the help of Mr MacKenzie to set terms and cover insurance requirements.

21-33 A motion was made by Mr Gingerich, seconded by Mr Spata to allow the executive director to pursue the negotiation and execution of a sub-lease for the Las Vegas office space. The motion passed unanimously.

Ms Mamola said she would negotiate terms and work with Mr MacKenzie to develop sub-lease.
(ACTION Item)

12. Discussion on Board Counsel Report.

Mr MacKenzie reported on pending disciplinary matters and said he would work with Ms Mamola on the best way to proceed with a use agreement or sub-lease for the Las Vegas office space.

13. Discussion and possible action on Lynn Affleck's petition for re-licensure.

Mr MacKenzie introduced the agenda item and gave an overview of background information related to Mr Affleck's petition for re-licensure.

Ms Purcell asked Mr Affleck if he had any opening remarks.

Mr Affleck said he didn't have anything to add to what was covered in his petition letter and thanked the board for their time and consideration.

Ms Purcell said the board members would now have the opportunity to ask questions of Mr Affleck.

Ms Russell said she would recuse herself as she has relationships with Mr Affleck's children.

Mr Spata and Mr Wright disclosed that they knew Mr Affleck's son but could remain objective in considering the petition.

Board members questioned Mr Affleck about his past disciplinary actions and what lessons he had learned since the revocation of his license, his current work situation and the supervision of his work, and what his intentions and area of practice would be if his license were to be reinstated. The board also reviewed the status of terms and conditions related to the Decision and Order issued revoking Mr Affleck's license.

Following Mr Affleck's response to questioning, the board deliberated.

21-34 A motion was made by Mr Spata that Mr Affleck's license be reinstated without limitation with the fulfillment of the following terms:

- two years' probation with quarterly probation reports to be submitted
- payment of the \$2,500 administrative fine still outstanding
- submit proof of his most recent 30 hours of continuing education
- in addition, submit proof of completion of 2 hours of professional ethics and 1 hour on Nevada professional engineering statutes and regulations
- submit a letter of recommendation from current employer in support of the license reinstatement

Mr Wright seconded the motion.

Mr MacKenzie asked, for the record, if Mr Affleck was agreeable to the terms presented and clarified that a number of the terms would need to be met before Mr Affleck's license could be reinstated.

Mr Affleck said he was agreeable to the terms.

The motion unanimously passed with Ms Russell abstaining from the vote.

14. Discussion and possible action on administrative report by Executive Director.

a. Approved licensees report

Ms Mamola reviewed the approved licensees report in the board packet and answered board member questions.

b. Action items related to 2021-2025 Strategic Plan.

Ms Mamola said this was a standing agenda item for board members to discuss strategic plan action items. No items were put forward by board members.

c. Items related to National Council of Examiners for Engineering & Surveying (NCEES)

Ms Mamola said NCEES is still intending to have this year's annual meeting on August 18-21 in person in New Orleans, Louisiana. They did increase the number that could attend from each board to three. Ms Mamola added that she would propose the board send Karen Purcell, Michael Kidd, and myself to that meeting so that we have an engineer, a land surveyor, and the MBA as representatives from Nevada. The board agreed. Ms Mamola said our actual attendance will still be pending the relaxation of State of Nevada travel restrictions.

Mr Spata asked if there would be a preview of the NCEES action items to be voted on at the annual meeting prior to the annual meeting.

Ms Purcell said the issues that are presented ahead of time will be added to the July board meeting agenda for discussion, or if they are not yet available we will schedule a special board meeting.

(ACTION Item)

Ms Mamola said the meeting will be streamed virtually for those not attending in person.

d. News article on engineering technology degrees

Ms Mamola said this item was included in your board packet and the article was in response to the board's decision at the March board meeting related to experience requirements for candidates for licensure with engineering technology degrees. An investigative reporter reached out after that meeting and wanted to chat about the board's decision. Ms Mamola said the reporter had an interesting perspective based on South Carolina recently voting to change their law where applicants with engineering technology degrees could no longer get licensed at all. In the article it was highlighted that South Carolina took a step backward whereas Nevada took a step forward. Ms Mamola said the piece was good press for Nevada being forward thinking in removing unnecessary barriers to licensure.

e. Consideration of board authorized digital signatures including the possibility of requiring third-party verification of digital signatures, input received from southern and northern Nevada building departments and licensees.

Ms Mamola said item is a standing agenda item for discussion and she had nothing to report at this time.

15. Discussion and possible action on board committee reports.

a. Administrative Procedures Oversight Committee, Chair Michael Kidd

Mr Kidd reported on items that were discussed at the March 30, 2021, meeting of APOC.

i. Updated financial policy.

Mr Kidd said, as required by amendment to NRS 622.234, staff had proposed additional internal controls for monthly expenditures and edits to the board's internal financial policy to reflect the adjustments. He said the committee reviewed the changes made and recommended the adoption of the proposed changes to the financial policy.

21-35 A motion was made by Mr Spata, seconded by Mr Fyda to approve the proposed updates to the board's financial policy as required by NRS 622.234. The motion passed unanimously.

ii. Fiscal year 2021-2022 budget

Ms Mamola reviewed the budget narrative and proposal as presented in the board meeting materials and asked for questions from the board.

Mr Spata asked if the potential expense off-set from the approved sub-lease of the Las Vegas office space had been included in the proposed budget.

Ms Mamola said it had not but with the board's approval today and following negotiations with LGA, the offsetting revenue would be included in the final budget revision. (ACTION Item)

Mr Spata asked what the consideration in the budget was to address the excess reserves.

Ms Mamola said the deferred expenses section of the proposed budget relate to funds pulled from board reserves. The deferred expense items are those identified in the board's business plan and we are planning to aggressively address these areas to get them complete in the next financial year.

Mr Kidd said APOC had reviewed the budget proposal in detail and recommends that the board accept the budget for 2021/2022 as presented.

20-36 A motion was made by Mr Kidd, seconded by Ms Russell to approve the budget proposed for the 2021/2022 fiscal year. The motion passed unanimously.

iii. Consideration of executive director work performance and salary

Mr Kidd said the committee conducted Ms Mamola's annual performance evaluation at the last meeting. He said based on the members discussion and consideration of Ms Mamola's performance, the APOC committee recommended a salary increase of 7% for Ms Mamola.

20-37 A motion was made by Mr Kidd, seconded by Mr Gingerich to accept Ms Mamola's evaluation and approve the 7% salary increase. The motion passed unanimously.

Mr Kidd said the following items were also discussed at the APOC committee meeting.

- third-party verification of digital signatures for licensees of the board and possible role of the board in the verification process including cost participation.

Mr Kidd said after a presentation by staff, the committee decided that cost-participation relating to third party digital signature verification vendors not be pursued at this time.

- COVID-19 impacts to office operations.

Mr Kidd said in the discussion staff said the investments made by the board in 2018 and 2019 related to upgrading website functionality, staff laptops, the VPN, and A&V capabilities, made the transition to remote operations relatively seamless. He added staff had no recommendation or request for any additional services or equipment.

- interim Special Board Meetings, in the months between regularly scheduled meetings, to expedite consideration of initial licensure applications.

Mr Kidd said the committee decided that holding short 15-minute interim virtual meetings to consider initial applications would lessen any approval wait time for initial licensure applicants. He said the meetings would be held on the second Thursday in off months and Ms Mamola would send calendar reminders to board members. (ACTION Item)

b. Legislative Committee report, Chair Angelo Spata

Mr Spata said the committee had not met since the last board meeting, but he asked Ms Mamola to update the board on the status of proposed regulation amendments still outstanding.

Ms Mamola said the R 140-20RP1 file from the April 15, 2021, Public Hearing, with today's approval of the hearing minutes, will be sent to Mr MacKenzie to prepare and send to the SOS and LCB as the next step in the process. (ACTION Item) She added that the R 141-20RP1 file was still with the LCB for revision.

Mr Gingerich asked if language in AB 173 had been amended since the version last reviewed by the

board.

Ms Mamola said no additional amendments were made. She added with the help of Ms Fischer and Mr MacKenzie, amendments had been made to other bills impacting the board. Changes were affected to SB 402 relating to retaining the state specific PLS exam, and to SB 288 regarding terminology used for operators of autonomous vehicles during on-road testing. Ms Mamola added that SB 155 pertaining to the State Engineer did not move forward.

c. Professional Association Liaison Committee, Chair Matt Gingerich

Mr Gingerich said the meeting was held yesterday and was focused on quality of engineering and land surveying documents submitted to public agencies. A number of new participants joined the conversation and there was a lengthy discussion on the issues. He said some new issues and ideas were brought up and they will be added to our list. Mr Gingerich said the interest in the core topic has grown to such a level that it is dominating the PAL meetings. He suggested that quality of submittals issue may need its own sub-committee or working group.

Ms Mamola agreed and suggested that a task-force be formed, similar to that created to tackle the digital signature and electronic submittal issue, to move forward the discussion with all parties involved.

Mr Spata questioned whether the board needs to be directly involved in the issue and felt that some of the professional engineering associations should take the lead.

Ms Mamola said the board is best placed to facilitate the discussion. She said often the groups that have been involved don't take upon themselves to connect with each other and issues can become siloed. The board's involvement to facilitate bringing everyone together so they can come up with a solution among themselves is important.

Ms Purcell said the main action item from the meeting will be to create a taskforce to review the issue further.

Ms Mamola said she would connect with all participants and let them know of the new direction.
(ACTION Item)

d. Public Outreach Committee, Chair Brent Wright

Mr Wright said the committee had a meeting scheduled for May 19 but decided not to meet because there were no pressing issues.

e. PLS Standards of Practice Subcommittee of the Legislative Committee, Chair Matt Gingerich

Mr Gingerich said the committee had not met since the last board meeting. He said there were some

action items outstanding that needed to be completed before the next meeting would be scheduled.

f. Committee for Planning and Hosting of 2022 NCEES Western Zone Meeting in Nevada

Ms Purcell said the committee had its initial meeting on May 19 and reviewed the initial NCEES meeting planning document. She said the committee was developing a list of speakers, side events and possible excursions to make the conference memorable and to give it a distinct Nevada theme.

16. Discussion and possible action on non-appearance application for endorsement licensure for Sara Sharif in the discipline of biomedical engineering.

Ms Mamola said this item relates to a Canadian P Eng who is applying for endorsement licensure in Nevada. In Canada, along with the majority of states in the US, professional engineers are issued a general P Eng (or PE in the US) designation under which they practice in their area of expertise. Ms Mamola said because Nevada licenses by discipline, the candidate whose area of practice is biomedical engineering, has requested that as her discipline for licensure. Ms Mamola added that biomedical engineering is not a listed discipline currently recognized by the board, although NAC 625.220 does include the language *or any other discipline of engineering which the Board deems appropriate*. Ms Mamola said the board is being asked to consider adding biomedical engineering as a discipline, and if so, consider the candidate's application for licensure in that discipline.

In the board's discussion there was a consensus against adding a new discipline for licensure that was not fully understood or vetted by the board. It was acknowledged that with new and hybrid technologies requests for licensure outside of the traditional disciplines of professional engineering would increase, and that Nevada wants to be a progressive state and provide opportunities, but predefined approval procedures need to be in place first for guidance. It was determined that issue be moved to the legislative committee to consider options relating to disciplines not currently recognized and the path to licensure for emerging technologies.

With regard to Ms Sharif's application, after deliberation it was decided that licensure in the existing discipline of mechanical engineering or electrical engineering be offered.

20-38 A motion was made by Mr Wright, seconded by Mr Fyda to offer Ms Sharif the option to be licensed in mechanical or electrical engineering. The motion passed unanimously. Mr Kidd was absent from the vote.

Ms Mamola said she would contact Ms Sharif about adjusting her application discipline to mechanical or electrical. (ACTION Item)

Ms Mamola added that the discussion item would be added to the agenda for the next legislative committee meeting. (ACTION Item)

17. Discussion and possible action on future licensing of emerging technology engineering

disciplines.

Ms Mamola said this item is being discussed at the national level and is particularly relevant following the discussion about licensing in biomedical engineering. She added following recommendation of the earlier discussion, her recommendation would be this item too be referred to the legislative committee for detailed review. (ACTION Item)

Mr Spata agreed with the referral to the legislative committee. He said discussions relating to being a discipline specific vs a PE state had been deferred until in-person NCEES meetings were available. With meetings now opening up we can restart the discussion with other states to get their perspective. Mr Spata reminded all board members that they are welcome to participate and add to the discussions of the legislative committee meetings

Ms Mamola said she would send an additional reminder to all board members on the date and time of the LegComm meetings, and forward pre-meeting materials to all. (ACTION Item)

18. Election of board chair and vice chair for one-year terms commencing on July 1, 2021, in accordance with Nevada Revised Statute 625.110 and Nevada Administrative Code 625.100.

Ms Purcell said this agenda item relates to the election of board chair and vice chair for one-year terms commencing on July 1, 2021, in accordance with NRS 625.110 and NAC 625.100.

21-39 A motion was made by Ms Purcell, seconded by Mr Gingerich to nominate Michael Kidd, PLS, for the position of board chair for a one-year term. The motion passed unanimously.

21-40 A motion was made by Mr Kidd, seconded by Mr Gingerich to nominate Thomas Matter, public member, for the position of board vice chair for a one-year term. The motion passed unanimously.

19. Discussion and possible action on legislative session report from Board's government Liaison, Susan Fisher.

Ms Fisher reported that AB 173 passed both the assembly and the senate unanimously and that it has been presented to Governor Sisolak for signing. She added the NTSB has been notified to let them know the exemption from requiring professional engineers for natural gas utilities has now been removed from Nevada law. Ms Fisher said she had spoken at length with Senator Spearman, the sponsor of SB 402, and informed her that even though there is a fiscal impact on the board there is zero impact on the state general fund. The senator was not aware that we do not receive any monies from the general fund and that our employees are not paid by the state general fund. Apparently, some confusion has been created because fiscal note requests have been sent to a number of boards who are self-financed – but requests should only relate to boards who are directly tied to the state general fund. Ms Fisher said SB 335 is also being monitored for possible longer-term impacts on the

board. She said a full report at the end of the session will be submitted to the board of all the bills that were watched and worked on.

Ms Russell asked Ms Fisher, for the benefit of those in the meeting who are not familiar with AB 173, to review the contents of the bill.

Ms Fisher said assembly bill 173 was introduced by assembly woman Sandra Jauregui , who also chairs the assembly committee on commerce and labor where the bill was heard in both houses. Our bill did two things. The first was a recommendation from the NTSB following the gas line explosion in Massachusetts, to remove an exemption in the law that said that if there are plans for natural gas lines that are being done within a regulated public utility that operates natural gas, the plans did not have to be reviewed and stamped by a professional engineer. The second streamlined licensing for land surveyors so that they had more flexibility on when they can sit exams. The previous language was very linear and dictated a timeline. The amendment allows candidates to take the exam whenever they feel comfortable and the legislature agreed with us that that was a good thing to do.

20. Consideration of initial licensure applicant requests to waive certain requirements of Nevada Revised Statutes and Nevada Administrative Code Chapter 625.

Mr Spata recommended granting the request to waive NRS 625.183 (4) (b) made by Benjamin Ashcraft applying for civil engineering licensure.

21-41 A motion was made by Mr Spata, seconded by Mr Gingerich to approve the waiver request. The motion passed unanimously.

Ms Purcell recommended granting the request to waive NRS 625.183 (4) (b) made by Samuel Williams applying for mechanical engineering licensure.

21-42 A motion was made by Ms Purcell, seconded by Mr Fyda to approve the waiver request. The motion passed unanimously.

Mr Spata recommended granting the request to waive NRS 625.193 (1) (a) made by Henry Bishara applying for civil engineering licensure.

21-43 A motion was made by Mr Spata, seconded by Mr Fyda to approve the waiver request. The motion passed unanimously.

21. Board approval of non-appearance applications for initial licensure. Refer to Addendum A for list of applicants.

The Board reviewed sixteen applications in the board packet for initial licensure and recommendations were made.

21-44 A motion was made by Mr Fyda, seconded by Ms Russell to approve the initial licensure applications contained in the addendum to the board packet as noted. The motion passed unanimously.

The Board reviewed a further three applications in the supplemental addendum for initial licensure and recommendations were made.

21-45 A motion was made by Mr Gingerich, seconded by Ms Russell to approve the initial licensure applications as noted. The motion passed unanimously.

22. Discussion and possible action on status of Board and staff assignments.

Ms Mamola said action item list and status of board and staff assignments is shown on page 294 of the board packet. The list included all action items from board meetings as well as committees so that anyone who is interested can see all action items in one document. Ms Mamola asked if any clarifications were needed or if the board had questions.

Mr Kidd requested that the next hard copy print run of the statute and regulation handbook include NRS/NAC 327 and 329. Ms Mamola said that will be noted (ACTION Item).

Ms Mamola added contact had been made with state printing and once the final group of regulation amendments complete the public hearing adoption process, state printing would work on our behalf with the LCB to get permission to print an updated revision.

Ms Russell asked to be added to the western zone interim meeting planning committees. (ACTION Item)

23. Discussion and possible action on meeting dates.

After discussion it was decided to move the July meeting to Wednesday July 14, 2021, at 9:00am and the November meeting to Thursday November 18, 2021, at 9:00am (ACTION Item)

24. Discussion and identification of topics for future meetings including possible proposed amendments to the Nevada Professional Engineers and Land Surveyors Law, Nevada Revised Statutes and Nevada Administrative Code Chapter 625.

No topics were put forward for future discussion.

25. Public comment.

There was no public comment.

26. Adjournment

Mr Kidd said on behalf of the board he would like to recognize Ms Purcell for her guidance and leadership as board chair, especially during a pandemic.

Ms Purcell said it has been her honor and privilege to serve as board chair the last two years and she looked forward to continuing as a board member in the future.

Ms Purcell thanked the board members for their participation and adjourned the meeting at 12:10pm.

Respectfully,

Patty Mamola
Executive Director

DRAFT

Addendum A

May Initials - Addendum A

| LNAME | FNAME | ABREV | COMMENTS |
|------------------|----------|-------|-------------------------|
| Athipotta Variam | Krishnan | CE | Board approved; 5/20/21 |
| Baggs | Nelson | CE | Board approved; 5/20/21 |
| Boopathi | Karthick | CE | Board approved; 5/20/21 |
| Carrillo | Santiago | CE | Board approved; 5/20/21 |
| Fix | Kevin | CE | Board approved; 5/20/21 |
| Inderwiesche | Tyler | CE | Board approved; 5/20/21 |

| LNAME | FNAME | ABREV | COMMENTS |
|-----------|-----------|-------|-------------------------|
| McNulty | Sean | CE | Board approved; 5/20/21 |
| O'Connor | Nicholas | CE | Board approved; 5/20/21 |
| Page | Travis | CE | Board approved; 5/20/21 |
| Trebotich | Ivan | CE | Board approved; 5/20/21 |
| Tuladhar | Shuveksha | CE | Board approved; 5/20/21 |
| Light | Wessen | EE | Board approved; 5/20/21 |

| LNAME | FNAME | ABREV | COMMENTS |
|----------|---------------|-------|--|
| Blomberg | Rachel | ENVE | Board approved; 5/20/21 |
| Bishara | Henry | FPE | Board approved; 5/20/21;WAIVER REQUEST: NRS 625.193(1)(A) WAIVER OF FE WITH 15 OR MORE YEARS OF EXPERIENCE. |
| Estayo | Sean Benedict | ME | Board approved; 5/20/21 |
| Sysko | Frank | ME | Board approved; 5/20/21 |
| Williams | Samuel | ME | Board approved; 5/20/21;WAIVER REQUEST: NRS 625.183, item 4, part b, "Two of the 4 years of active experience must have been |
| Pedersen | Ralston | MINE | Board approved; 5/20/21 |

| LNAME | FNAME | ABREV | COMMENTS |
|----------|----------|-------|--|
| Ashcraft | Benjamin | SE | Board approved; 5/20/21;WAIVER REQUEST: NRS 625.183, item 4, part b, "Two of the 4 years of active experience must have been |

8. Approval of
June 10, 2021 Special
Board Meeting
Minutes

NEVADA STATE BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS
Minutes of the Interim Board Meeting
Held virtually, Thursday, June 10, 2021, at 9:15am

Board members participating were Chairwoman Karen Purcell, PE; Vice Chair Michael Kidd, PLS; Angelo Spata, PE; Thomas Matter, public member; Matthew Gingerich, PLS; and Lynnette Russell, PE. Board members Robert Fyda, PE, and Brent Wright, PE/SE, were excused. Also joining were Patty Mamola, Executive Director; Chris MacKenzie, Board Legal Counsel; Jasmine Bailey, Licensing Specialist; Murray Blaney, Operations/Compliance and Louisa Kern, Administrative Assistant.

1. Meeting conducted by Chair Karen Purcell, call to order and roll call of board members to determine presence of quorum—board members Michael Kidd, Thomas Matter, Angelo Spata, Brent Wright, Matt Gingerich, Robert Fyda, Lynnette Russell.

Ms Mamola conducted a roll call and a quorum was present.

Ms Purcell read the board's purpose and mission.

The purpose of the board as stated in Nevada Revised Statute 625.005 is to safeguard life, health and property and to promote the public welfare by providing for the licensure of qualified and competent professional engineers and professional land surveyors and our mission is founded on the board's purpose, the board's mission is to uphold the value of professional engineering and land surveying licensure by assessing minimum competency for initial entry into the profession and to insure on going standard of professionalism by facilitating compliance with laws regulations and code of practice and to provide understanding and progression in licensure by openly engaging with all stake holders.

2. Pledge of Allegiance

3. Public comment.

There was no public comment.

4. Consideration of initial licensure applicant requests to waive certain requirements of Nevada Revised Statutes and Nevada Administrative Code Chapter 625.

There were no waiver requests to be considered.

5. Board approval of non-appearance applications for initial licensure. Refer to Addendum A for list of applicants.

The Board reviewed three applications in the board packet for initial licensure and recommendations were made.

21-46 A motion was made by Mr Gingerich, seconded by Mr Matter to approve the initial licensure applications as noted. The motion passed unanimously. Mr Fyda and Mr Wright were not

present for the vote.

6. Public comment.

There was no public comment.

7. Adjournment.

Ms Purcell thanked the board members for their participation and adjourned the meeting at 9:20am.

Respectfully,

Patty Mamola
Executive Director

DRAFT

Addendum A

June Initials - Addendum A

| LNAME | FNAME | ABREV | COMMENTS |
|----------|---------|-------|-------------------------|
| Sturge | Collin | CE | Board approved; 6/10/21 |
| Weller | Chelsea | CE | Board approved; 6/10/21 |
| Whiteley | Daniel | MINE | Board approved; 6/10/21 |

9. May 2021 Financial Statements

Nevada Board of Professional Engineers & Land Surveyors
Profit & Loss Budget Performance
May 2021

06/23/21

Accrual Basis

| | May 21 | Budget | \$ Over Budget | % of Budget | Jul '20 - May 21 | YTD Budget | \$ Over Budget | % of Budget | Annual Budget |
|----------------------------------|------------------|------------------|-----------------|---------------|------------------|--------------------|-------------------|--------------|--------------------|
| Ordinary Income/Expense | | | | | | | | | |
| Income | | | | | | | | | |
| 4000 · REVENUE | 87,254.44 | 107,825.00 | -20,570.56 | 80.9% | 816,351.58 | 663,025.00 | 153,326.58 | 123.1% | 830,550.00 |
| Total Income | 87,254.44 | 107,825.00 | -20,570.56 | 80.9% | 816,351.58 | 663,025.00 | 153,326.58 | 123.1% | 830,550.00 |
| Gross Profit | 87,254.44 | 107,825.00 | -20,570.56 | 80.9% | 816,351.58 | 663,025.00 | 153,326.58 | 123.1% | 830,550.00 |
| Expense | | | | | | | | | |
| 5100 · PAYROLL EXPENSES | 38,030.13 | 41,434.00 | -3,403.87 | 91.8% | 450,976.34 | 476,487.14 | -25,510.80 | 94.6% | 517,921.14 |
| 5110 · PAYROLL TAXES | 2,467.82 | 4,904.94 | -2,437.12 | 50.3% | 29,785.48 | 31,967.02 | -2,181.54 | 93.2% | 34,671.96 |
| 6001 · OPERATING EXPENSES | 21,903.64 | 41,143.00 | -19,239.36 | 53.2% | 326,929.43 | 446,880.08 | -119,950.65 | 73.2% | 479,743.08 |
| Total Expense | 62,401.59 | 87,481.94 | -25,080.35 | 71.3% | 807,691.25 | 955,334.24 | -147,642.99 | 84.5% | 1,032,336.18 |
| Net Ordinary Income | 24,852.85 | 20,343.06 | 4,509.79 | 122.2% | 8,660.33 | -292,309.24 | 300,969.57 | -3.0% | -201,786.18 |
| Other Income/Expense | | | | | | | | | |
| Other Income | | | | | | | | | |
| 4500 · Other Income | 0.00 | | | | 0.00 | 0.00 | 0.00 | 0.0% | 0.00 |
| Total Other Income | 0.00 | | | | 0.00 | 0.00 | 0.00 | 0.0% | 0.00 |
| Net Other Income | 0.00 | 0.00 | 0.00 | 0.0% | 0.00 | 0.00 | 0.00 | 0.0% | 0.00 |
| Net Income | 24,852.85 | 20,343.06 | 4,509.79 | 122.2% | 8,660.33 | -292,309.24 | 300,969.57 | -3.0% | -201,786.18 |

Profit & Loss YTD Comparison

May 2021

| | May 21 | Jul '20 - May 21 |
|--|-----------|------------------|
| Ordinary Income/Expense | | |
| Income | | |
| 4000 · REVENUE | | |
| 4201 · Application Fees | | |
| 4202 · PE Comity Application | 9,375.00 | 109,225.00 |
| 4203 · PLS Comity Application | 0.00 | 3,775.00 |
| 4204 · PE Initial License Application | 75.00 | 3,800.00 |
| 4205 · PLS Initial License Application | 25.00 | 100.00 |
| 4206 · PE Reinstatement Application | 2,400.00 | 13,200.00 |
| 4207 · PLS Reinstatement Application | 200.00 | 400.00 |
| 4208 · EI Certification Application | 0.00 | 8,200.00 |
| Total 4201 · Application Fees | 12,075.00 | 138,700.00 |
| 4250 · Renewals & Exam Fees | | |
| 4251 · PE/PLS Renewals | 65,650.00 | 516,525.00 |
| 4252 · Renewal Late Fees | 0.00 | 200.00 |
| 4253 · PE License Fees | 4,450.00 | 61,395.00 |
| 4254 · PLS License Fees | 0.00 | 1,075.00 |
| 4255 · NV Specific Exam Fees | 300.00 | 2,400.00 |
| Total 4250 · Renewals & Exam Fees | 70,400.00 | 581,595.00 |
| 4300 · Other Revenue | | |
| 4301 · Replacement Certificate/Pocket | 0.00 | 235.00 |
| 4302 · Stamp Fees | 0.00 | 380.30 |
| 4303 · Interest Income | 679.44 | 11,210.98 |
| 4304 · Discipline Pd to NV Gen Fund | 0.00 | 5,450.00 |
| 4305 · Investigative Cost Recovery | 0.00 | 1,476.50 |
| 4307 · Firm Registration | 3,300.00 | 73,925.00 |
| 4308 · Business Name Request | 0.00 | 1,250.00 |
| 4311 · Waiver/Document Fees | 800.00 | 1,450.00 |
| 4312 · Online Convenience Fees | 0.00 | 678.80 |
| Total 4300 · Other Revenue | 4,779.44 | 96,056.58 |
| Total 4000 · REVENUE | 87,254.44 | 816,351.58 |
| Total Income | 87,254.44 | 816,351.58 |
| Gross Profit | 87,254.44 | 816,351.58 |
| Expense | | |
| 5100 · PAYROLL EXPENSES | | |
| 5102 · Employee Health Insurance | 6,261.49 | 70,002.51 |
| 5103 · Employee IRA/SEP | 0.00 | 15,693.93 |
| 5105 · Payroll Service Fees | 114.12 | 1,424.44 |
| 5107 · Salaries | 31,654.52 | 361,205.46 |
| 5108 · Board Salaries | 0.00 | 2,650.00 |
| Total 5100 · PAYROLL EXPENSES | 38,030.13 | 450,976.34 |
| 5110 · PAYROLL TAXES | | |
| 5111 · FICA | 1,962.57 | 21,918.20 |
| 5113 · Medicare | 458.99 | 5,237.78 |
| 5114 · Modified Business Tax | 0.00 | 2,127.18 |
| 5116 · SUINV | 46.26 | 502.32 |
| Total 5110 · PAYROLL TAXES | 2,467.82 | 29,785.48 |

Nevada Board of Professional Engineers & Land Surveyors

Profit & Loss YTD Comparison

06/24/21

May 2021

Accrual Basis

| | May 21 | Jul '20 - May 21 |
|---|----------|------------------|
| 6001 · OPERATING EXPENSES | | |
| Non State Owned Office Bldg. | | |
| 6002 · Rent | 7,090.49 | 83,345.34 |
| 6004 · Utilities | 0.00 | 1,046.08 |
| 6005 · Telephone/Internet | 587.62 | 5,716.72 |
| 6005.5 · Janitorial | 240.00 | 1,320.00 |
| Total Non State Owned Office Bldg. | 7,918.11 | 91,428.14 |
| 6006 · Office Supplies | 360.99 | 7,330.18 |
| 6007 · Equipment/Furniture | | |
| 6010 · Equipment Purchases | 0.00 | 3,539.65 |
| 6011 · Equipment Leasing | 232.92 | 3,386.59 |
| 6012 · Software | | |
| 6012.5 · Software | 574.98 | 5,854.81 |
| Total 6012 · Software | 574.98 | 5,854.81 |
| 6015 · Website Hosting | 55.00 | 908.63 |
| Total 6007 · Equipment/Furniture | 862.90 | 13,689.68 |
| 6101 · Insurance | | |
| 6102 Workers Comp | 495.00 | 2,907.66 |
| 6103 · General Liability | 0.00 | 1,196.72 |
| 6104 · Office Contents | 0.00 | 68.64 |
| Total 6101 · Insurance | 495.00 | 4,173.02 |
| 6201 · Postage | | |
| 6202 · Postage | 59.30 | 11,052.19 |
| 6202.5 · E-Postage | 210.00 | 2,085.00 |
| Total 6201 · Postage | 269.30 | 13,137.19 |
| 6301 · Board Meetings | | |
| 6302 · Travel - Out of State | 0.00 | 279.96 |
| 6303 · Travel - In State | 0.00 | 1,294.44 |
| 6304 · Board Meeting Expenses | 0.00 | 3,556.73 |
| Total 6301 · Board Meetings | 0.00 | 5,131.13 |
| 6401 · Printing | | |
| 6402 · Printing General | 0.00 | 7,295.72 |
| Total 6401 · Printing | 0.00 | 7,295.72 |
| 6501 · Professional Services | | |
| 6502 · Legal | | |
| 6503 · Board Meetings | 435.00 | 20,067.00 |
| 6504 · Regulations/Legislation | | |
| 6504.1 · Deferred Exp-Regs/Legislation | 0.00 | 10,786.50 |
| 6504.5 · Regulations/Legislation | 261.00 | -1,594.00 |
| Total 6504 · Regulations/Legislation | 261.00 | 9,192.50 |
| 6505 · Discipline | 2,662.00 | 10,715.00 |
| Total 6502 · Legal | 3,358.00 | 39,974.50 |
| 6508 · Accounting Fees | 0.00 | 13,051.00 |

Nevada Board of Professional Engineers & Land Surveyors

Profit & Loss YTD Comparison

06/24/21

May 2021

Accrual Basis

| | May 21 | Jul '20 - May 21 |
|---|------------------|-------------------|
| 6509 · Governemnt Liaison Services | | |
| 6509.1 · Def Exp-Government Liaison | 0.00 | 6,000.00 |
| 6509.5 · Government Liaison | 3,000.00 | 18,328.00 |
| Total 6509 · Governemnt Liaison Services | 3,000.00 | 24,328.00 |
| 6510 · Database/Website Design | | |
| 6510.1 · Deferred Exp-Website Update | 0.00 | 1,850.00 |
| 6510.2 · Deferred Exp-Database Update | 0.00 | 7,401.80 |
| 6510.5 · Database/Website Design | 1,550.00 | 35,346.50 |
| Total 6510 · Database/Website Design | 1,550.00 | 44,598.30 |
| 6511 · Public Outreach | 0.00 | 0.00 |
| 6514 · Contract Labor | | |
| 6514.1 · Def Exp-Contract Labor | 0.00 | 145.20 |
| 6514.5 · Contract Labor | 0.00 | 1,043.65 |
| Total 6514 · Contract Labor | 0.00 | 1,188.85 |
| 6515 · IT Support | 967.00 | 10,637.00 |
| Total 6501 · Professional Services | 8,875.00 | 133,777.65 |
| 6601 · Program Services | | |
| 6604 · NCEES | | |
| 6605 · Dues | 0.00 | 6,500.00 |
| Total 6604 · NCEES | 0.00 | 6,500.00 |
| 6608 · Stamp Purchases | 0.00 | 332.88 |
| 6609 · Investigations | 0.00 | 2,363.47 |
| 6616 · Merchant Services Fees | 2,748.30 | 27,687.34 |
| Total 6601 · Program Services | 2,748.30 | 36,883.69 |
| 6700 · Other | | |
| 6702 · Discipline Pd to NV Gen Fund | 0.00 | 5,450.00 |
| 6704 · State Administrative Fees | | |
| 6705 · Attorney General | 0.00 | 169.80 |
| 6709 · Email - EITS | 374.04 | 6,195.24 |
| 6710 · Leg. Counsel Bureau | 0.00 | 1,550.00 |
| Total 6704 · State Administrative Fees | 374.04 | 7,915.04 |
| 6720 · Miscellaneous | 0.00 | 600.00 |
| Total 6700 · Other | 374.04 | 13,965.04 |
| 6801 · Training & Conferences | | |
| 6804 · Registration | 0.00 | 117.99 |
| Total 6801 · Training & Conferences | 0.00 | 117.99 |
| Total 6001 · OPERATING EXPENSES | 21,903.64 | 326,929.43 |
| Total Expense | 62,401.59 | 807,691.25 |
| Net Ordinary Income | 24,852.85 | 8,660.33 |
| Net Income | 24,852.85 | 8,660.33 |

Balance Sheet

As of May 31, 2021

| | <u>May 31, 21</u> |
|---------------------------------------|-----------------------------|
| ASSETS | |
| Current Assets | |
| Checking/Savings | |
| 1001 · ASSETS | 2,365,069.00 |
| Total Checking/Savings | 2,365,069.00 |
| Other Current Assets | |
| 1305 · Prepaid Expense | 7,750.00 |
| 1310 · Prepaid Lease/Deposit | 5,005.00 |
| Total Other Current Assets | 12,755.00 |
| Total Current Assets | 2,377,824.00 |
| TOTAL ASSETS | <u>2,377,824 .00</u> |
| LIABILITIES & EQUITY | |
| Liabilities | |
| Current Liabilities | |
| Other Current Liabilities | |
| 2001 · PAYROLL LIABILITIES | 36,027.91 |
| 4100 · Deferred Revenue | 783,921.69 |
| Total Other Current Liabilities | 819,949.60 |
| Total Current Liabilities | 819,949.60 |
| Total Liabilities | 819,949.60 |
| Equity | |
| 3510 · Website Phase 2 | 30,000.00 |
| 3520 · Data System Upgrade | 175,000.00 |
| 3530 · Electronic/Digital Pathway | 175,000.00 |
| 3900 · Retained Earnings | 1,169,214.07 |
| Net Income | 8,660.33 |
| Total Equity | 1,557,874.40 |
| TOTAL LIABILITIES & EQUITY | <u>2,377,824 .00</u> |

Balance Sheet Detail

As of May 31, 2021

| | May 31, 21 |
|--|----------------------|
| ASSETS | |
| Current Assets | |
| Checking/Savings | |
| 1001 · ASSETS | |
| 1051 · First Indep. Bank - Operating | 261,764.41 |
| 1052 · First Indep. Bank - Payroll | 66,445.24 |
| 1053 · First Indep. Bank - Petty Cash | 2,537.94 |
| 1054 · First Indep. Bank - MMA | 464,178.24 |
| 1055 · First Indep. Bank - 24mo CD | 529,606.31 |
| 1056 · First Indep. Bank - 18mo CD | 263,832.72 |
| 1057 · First Indep. Bank - 12mo CD | 262,068.63 |
| 1058 · First Indep. Bank - 24mo FlexCD | 514,635.51 |
| Total 1001 · ASSETS | 2,365,069.00 |
| Total Checking/Savings | 2,365,069.00 |
| Other Current Assets | |
| 1305 · Prepaid Expense | 7,750.00 |
| 1310 · Prepaid Lease/Deposit | 5,005.00 |
| Total Other Current Assets | 12,755.00 |
| Total Current Assets | 2,377,824.00 |
| TOTAL ASSETS | 2,377,824 .00 |
| LIABILITIES & EQUITY | |
| Liabilities | |
| Current Liabilities | |
| Other Current Liabilities | |
| 2001 · PAYROLL LIABILITIES | |
| 2002 · Accrued Benefits | 23,223.41 |
| 2008 · Health Care W/H | |
| 2010 · Employee | 12,407.24 |
| Total 2008 · Health Care W/H | 12,407.24 |
| 2017 · Modified Business Tax | 396.87 |
| 2019 · SUINV | 0.39 |
| Total 2001 · PAYROLL LIABILITIES | 36,027.91 |
| 4100 · Deferred Revenue | 783,921.69 |
| Total Other Current Liabilities | 819,949.60 |
| Total Current Liabilities | 819,949.60 |
| Total Liabilities | 819,949.60 |
| Equity | |
| 3510 · Website Phase 2 | 30,000.00 |
| 3520 · Data System Upgrade | 175,000.00 |
| 3530 · Electronic/Digital Pathway | 175,000.00 |
| 3900 · Retained Earnings | 1,169,214.07 |
| Net Income | 8,660.33 |
| Total Equity | 1,557,874.40 |
| TOTAL LIABILITIES & EQUITY | 2,377,824 .00 |

10. Compliance Officer Report

10.a. Compliance Report

10.a. Compliance Investigations

Currently there are eight (8) cases to report on:

1. 20200002 – Incompetency in surveying
Investigation complete
2. 20210001 – Failure to act as faithful agent
Investigation complete
3. 20210002 – Plagiarism and failure to act as faithful agent
Investigation complete
4. 20210004 – Incompetency/negligence in surveying
In the investigative stage
5. 20210006 – Reciprocal Action: Misconduct and unlicensed practice of surveying
Investigation complete
6. 20210007 – Unlicensed practice of engineering
In the investigative stage
7. 20210008 – Failure to act as faithful agent
In the investigative stage
8. 20210009 – Incompetency/negligence in engineering
In the investigative stage

1. 20200002 – Incompetency in surveying

Summary:

Allegations have been made by a public entity against a land surveyor for ongoing incomplete map submittals and poor-quality work product.

Status:

Following board liaison review the case is now with board counsel.

2. 20210001 – Failure to act as faithful agent

Summary:

Client alleges a surveyor has been paid and has not submitted a record of survey per contract. Client also alleges surveyor has been nonresponsive in attempts to resolve the record of survey.

Status:

Following board liaison review the case is now with board counsel.

3. 20210002 – Plagiarism and failure to act as faithful agent

Summary:

It is alleged a PE has been representing copied documents as his own.

Status:

Following board liaison review the case is now with board counsel.

4. 20210004 – Incompetency/negligence in surveying

Summary:

Alleged a land surveyor produced an inaccurate survey resulting in proposed building being sited within a utility easement.

Status:

Formal response received – investigation ongoing.

5. 20210006 – Reciprocal Action: Misconduct and unlicensed practice of surveying

Summary:

Board staff were notified by the California board of action taken against a PE who is also licensed in Nevada. In the stipulated settlement with California board, the PE agreed to violations involving deceit, fraud, misconduct, and unlicensed practice.

Status:

Following board liaison review the case is now with board counsel.

6. 20210007 – Unlicensed practice of engineering

Summary:

Complaint arose from a dispute between a developer and engineer regarding service delivery and payment of invoices, where the complainant discovered the PE was not currently licensed in Nevada.

Status:

Formal response received – investigation ongoing.

7. 20210008 – Failure to act as faithful agent

Summary

Allegation of failure to deliver contracted services in a timely manner has been made against a civil engineer.

Status:

Complaint supporting documentation under review.

8. 20210009 – Incompetency/negligence in engineering

Summary:

Complaint filed by a contractor against a civil engineer alleging errors in site design relating to FF elevation and drainage.

Status:

Complaint supporting documentation under review.

10.b. Probation Reports

10.b. Probation Reports

Probation Summary:

| Name | Case # | Status/Action | Date Ending |
|----------------|---------------------|---------------|--------------------|
| Richard Warren | 20180020 | Good Standing | September 28, 2021 |
| Dooley Riva | 20190001 | Good Standing | October 10, 2029 |
| John Skwiot | 20190007 | Good Standing | February 1, 2023 |
| Ralph Heninger | 20190010 | Good Standing | September 1, 2022 |
| Lazell Preator | 20190008 & 20200003 | Good Standing | February 1, 2024 |

Payment Summary:

| Name | Case # | Paid | Remaining | Final Due Date |
|----------------|---------------------|------------|-------------|--------------------|
| Dooley Riva | 20190001 | \$8,950.00 | \$15,800.00 | September 12, 2024 |
| Lazell Preator | 20190008 & 20200003 | \$0.00 | \$9,769.50 | July 22, 2021 |

Richard Warren, PE 017389

Case Number: 20180020

Violation of NRS 625.410

A complaint was submitted against Mr Warren by the owner of custom home building company, alleging Mr Warren was responsible for flaws in the design of a residence resulting in structural deficiencies and that Mr Warren failed to cooperate to resolve the situation in a timely manner.

The custom home builder entered into a contract with Mr Warren to provide structural engineering and drafting services for the design of a custom home. Construction of the home was completed September 2015. After moving into the residence in October 2015, the homeowners immediately experienced cracks in the floors and walls.

Another engineering firm was retained to review Mr Warren's calculations and drawings. The firm identified a structural deficiency, wherein the roof live and dead loads had not been called out at a girder truss support below a bearing wall. In addition, it was found that the girder truss was placed six inches away from the bearing wall where it should have been located below the main floor and adjacent to the great room fireplace.

NRS 625.410 states that the Board may take disciplinary action against a licensee for any gross negligence, incompetency or misconduct in the practice of professional engineering as a professional engineer. Here, Mr Warren acknowledges that he demonstrated incompetency by positioning the girder truss support in question six inches from where it should have been located, as well as failing to call out the line loads in the plans.

NRS 625.410(5) authorizes the State Board to take disciplinary action against a licensee for a violation of any provision of NRS Chapter 625 or NAC Chapter 625. Further, pursuant to NAC 625.640, this matter may be resolved without a formal hearing by Stipulated Agreement.

Mr Warren and the State Board hereby stipulate to the following terms for the above referenced violation(s):

1. Mr Warren shall submit to Board staff a complete list and description of his projects from the time period of January 1, 2011 through December 31, 2015, that involved structural engineering undertaken by Mr Warren, and Board staff shall select three (3) to five (5) of those projects to be subjected to independent third-party peer review to evaluate Mr Warren's structural competency as a civil engineer. The third-party engineer shall be selected by the Board staff, and the services thereof shall be paid for by Mr Warren upon presentment of

invoice therefor. The third-party engineer shall have no conflict of interest relating to Mr Warren, this company, the custom home contractor, or the homeowners.

2. While licensed professional engineers may provide limited structural engineering services without being a licensed structural engineer (NAC 625.260), Mr Warren shall be suspended from providing any structural engineering services for two (2) years immediately following acceptance of this Agreement by the State Board, but said suspension shall be stayed pending the independent third-party peer review required hereunder. Should the independent third-party peer review determine that Mr Warren is competent to provide the limited structural engineering services allowed by a licensed civil engineer, the suspension shall remain stayed for the remainder of the two (2) year time period, absent additional complaint(s) against Mr Warren.

3. Mr Warren's license shall be suspended for two (2) years immediately following acceptance of this Agreement by the State Board, pursuant to NRS 625.410 and NRS 625.460, but with the suspension stayed and probation imposed for the duration of that time period.

4. The stay of Mr Warren's license suspension may be lifted by the State Board upon notice and the opportunity for Mr Warren be heard should Mr Warren fail to abide by the terms hereof.

5. Mr Warren's successful completion of probation is expressly conditioned upon his full compliance with the following conditions of probation:

a. Mr Warren shall submit detailed bi-monthly probation reports to the Executive Director of the Nevada Board, which shall report any work completed in Nevada during the previous two (2) month period. A report shall be filed even if no work was performed in Nevada during the previous two (2) month period. The first report shall be due within two (2) months of the effective date of this Stipulated Agreement. Each report shall include a copy of the contract executed for any work in Nevada, including the scope of work detail as well as supporting project documentation.

b. Mr Warren shall pay an administrative fine of Seven Thousand Five Hundred and No/100 Dollars (\$7,500.00);

c. Mr Warren shall pay a portion of the assessed legal and investigative costs and fees incurred in this matter in the amount of One Thousand Six Hundred Sixty-Seven and 50/100 Dollars (\$1,667.50).

LAST PROBATION REPORTS DUE September 28, 2021

PROBATION REPORT
(MUST BE TYPED)

Print Form

PROBATIONER: PE/PLS #:

EMPLOYER:

PROBATION REPORT SUBMITTED FOR THE PERIOD OF: THROUGH:

CLIENT:

NAME:

ADDRESS:

CITY: STATE: ZIP CODE:

PROJECT:

NAME:

LOCATION OF PROJECT:

CITY: STATE: ZIP CODE:

SIZE: START DATE: END DATE:

STATUS OF PROJECT:

FEE PAID BY CLIENT:

SCOPE OF WORK:

Phase 1 - Tenant improvement
Phase 2 - new steel framed building
Phase 3- Tenant improvement with steel framed addition

DESCRIBE IN DETAIL YOUR INVOLVEMENT IN THIS PROJECT AND HOW YOU HANDLED THIS PROJECT.

structural drawing and calculations

DESCRIBE IN DETAIL HOW YOU IMPROVED ON THIS PROJECT IN THE AREAS FOR WHICH YOU ARE ON PROBATION.

Closer scrutiny through first and final reviews. Better coordination with contractor and client

SIGNATURE: Digitally signed by Richard L Warren
Date: 2021.06.22 10:06:30 -07'00'

DATE:

PROBATION REPORT
(MUST BE TYPED)

Print Form

PROBATIONER: PE/PLS #:

EMPLOYER:

PROBATION REPORT SUBMITTED FOR THE PERIOD OF: THROUGH:

CLIENT:

NAME:

ADDRESS:

CITY: STATE: ZIP CODE:

PROJECT:

NAME:

LOCATION OF PROJECT:

CITY: STATE: ZIP CODE:

SIZE: START DATE: END DATE:

STATUS OF PROJECT:

FEE PAID BY CLIENT:

SCOPE OF WORK:

DESCRIBE IN DETAIL YOUR INVOLVEMENT IN THIS PROJECT AND HOW YOU HANDLED THIS PROJECT.

DESCRIBE IN DETAIL HOW YOU IMPROVED ON THIS PROJECT IN THE AREAS FOR WHICH YOU ARE ON PROBATION.

SIGNATURE:  Digitally signed by Richard L Warren
Date: 2021.06.22 00:39:03 -07'00'

DATE:

PROBATION REPORT
(MUST BE TYPED)

Print Form

PROBATIONER: PE/PLS #:

EMPLOYER:

PROBATION REPORT SUBMITTED FOR THE PERIOD OF: THROUGH:

CLIENT:

NAME:

ADDRESS:

CITY: STATE: ZIP CODE:

PROJECT:

NAME:

LOCATION OF PROJECT:

CITY: STATE: ZIP CODE:

SIZE: START DATE: END DATE:


STATUS OF PROJECT:

FEE PAID BY CLIENT:

SCOPE OF WORK:

DESCRIBE IN DETAIL YOUR INVOLVEMENT IN THIS PROJECT AND HOW YOU HANDLED THIS PROJECT.

DESCRIBE IN DETAIL HOW YOU IMPROVED ON THIS PROJECT IN THE AREAS FOR WHICH YOU ARE ON PROBATION.

SIGNATURE:  Digitally signed by Richard L Warren
Date: 2021.06.22 00:56:39 -07'00'

DATE:

PROBATION REPORT
(MUST BE TYPED)

Print Form

PROBATIONER: PE/PLS #:

EMPLOYER:

PROBATION REPORT SUBMITTED FOR THE PERIOD OF: THROUGH:

CLIENT:

NAME:

ADDRESS:

CITY: STATE: ZIP CODE:

PROJECT:

NAME:

LOCATION OF PROJECT:

CITY: STATE: ZIP CODE:

SIZE: START DATE: END DATE:

STATUS OF PROJECT:

FEE PAID BY CLIENT:

SCOPE OF WORK:

DESCRIBE IN DETAIL YOUR INVOLVEMENT IN THIS PROJECT AND HOW YOU HANDLED THIS PROJECT.

DESCRIBE IN DETAIL HOW YOU IMPROVED ON THIS PROJECT IN THE AREAS FOR WHICH YOU ARE ON PROBATION.

SIGNATURE:  Digitally signed by Richard L Warren
Date: 2021.06.22 01:03:39 -07'00'

DATE:

PROBATION REPORT
(MUST BE TYPED)

Print Form

PROBATIONER: PE/PLS #:

EMPLOYER:

PROBATION REPORT SUBMITTED FOR THE PERIOD OF: THROUGH:

CLIENT:

NAME:

ADDRESS:

CITY: STATE: ZIP CODE:

PROJECT:

NAME:

LOCATION OF PROJECT:

CITY: STATE: ZIP CODE:

SIZE: START DATE: END DATE:

STATUS OF PROJECT:

FEE PAID BY CLIENT:

SCOPE OF WORK:

DESCRIBE IN DETAIL YOUR INVOLVEMENT IN THIS PROJECT AND HOW YOU HANDLED THIS PROJECT.

DESCRIBE IN DETAIL HOW YOU IMPROVED ON THIS PROJECT IN THE AREAS FOR WHICH YOU ARE ON PROBATION.

SIGNATURE:  Digitally signed by Richard L Warren
Date: 2021.06.22 09:53:12 -07'00'

DATE:

PROBATION REPORT
(MUST BE TYPED)

Print Form

PROBATIONER: PE/PLS #:

EMPLOYER:

PROBATION REPORT SUBMITTED FOR THE PERIOD OF: THROUGH:

CLIENT:

NAME:

ADDRESS:

CITY: STATE: ZIP CODE:

PROJECT:

NAME:

LOCATION OF PROJECT:

CITY: STATE: ZIP CODE:

SIZE: START DATE: END DATE:

STATUS OF PROJECT:

FEE PAID BY CLIENT:

SCOPE OF WORK:

DESCRIBE IN DETAIL YOUR INVOLVEMENT IN THIS PROJECT AND HOW YOU HANDLED THIS PROJECT.

DESCRIBE IN DETAIL HOW YOU IMPROVED ON THIS PROJECT IN THE AREAS FOR WHICH YOU ARE ON PROBATION.

SIGNATURE:  Digitally signed by Richard L Warren
Date: 2021.06.22 09:53:12 -07'00'

DATE:

PROBATION REPORT
(MUST BE TYPED)

Print Form

PROBATIONER: PE/PLS #:

EMPLOYER:

PROBATION REPORT SUBMITTED FOR THE PERIOD OF: THROUGH:

CLIENT:

NAME:

ADDRESS:

CITY: STATE: ZIP CODE:

PROJECT:

NAME:

LOCATION OF PROJECT:

CITY: STATE: ZIP CODE:

SIZE: START DATE: END DATE:

STATUS OF PROJECT:

FEE PAID BY CLIENT:

SCOPE OF WORK:

DESCRIBE IN DETAIL YOUR INVOLVEMENT IN THIS PROJECT AND HOW YOU HANDLED THIS PROJECT.

DESCRIBE IN DETAIL HOW YOU IMPROVED ON THIS PROJECT IN THE AREAS FOR WHICH YOU ARE ON PROBATION.

SIGNATURE:  Digitally signed by Richard L Warren
Date: 2021.06.22 01:03:39 -07'00'

DATE:

Robert “Dooley” Riva, PE 018231

Case Number: 20190001

Violation of NRS 625.520, NRS 625.565, NAC 625.510, and NAC 625.610

Mr Riva allowed his license to lapse on December 31, 2009 and continued to practice professional engineering with an expired license until self-reporting to the board on January 10, 2019.

Mr Riva admitted, during the investigation in this matter, that he stamped, signed, and put false expiration dates for his license on the plans that he had submitted to reviewing agencies, as well as to his clients.

Mr Riva has maintained his California Professional Engineering license throughout this period from prior to December 31, 2009 to the present. Mr Riva's California license is currently in good standing. A third-party competency review of a sampling of the thirty-seven (37) identified Nevada projects, that Mr Riva stamped while unlicensed has been completed, and his work was found to be competent.

NRS 625.410 states that the Board may take disciplinary action against a licensee for practicing after the license of the professional engineer has expired or has been suspended or revoked. NRS 625.520 also states that it is unlawful for any professional engineer to practice in a discipline of professional engineering in which the Board has not qualified him and for any person to use an expired license. Accordingly, NRS 625.565 makes it unlawful for any person to impress any documents with the stamp of a professional engineer after that person's license has expired. In addition, NAC 625.610 requires that licensees include the date of expiration of his or her license on the stamp or seal. Moreover, under NAC 625.510, licensees must be honest and impartial, and serve their employers, clients, and the public with devotion. Mr Riva has violated the aforementioned provisions by continuing to practice professional engineering for nine (9) years after the expiration of his license and knowingly falsifying expiration dates when signing and stamping plans for submission to building departments for permits.

NRS 625.410(5) authorizes the State Board to take disciplinary action against a licensee for a violation of any provision of NRS Chapter 625 or NAC Chapter 625. Further, pursuant to NAC 625.640(3)(b)(2) this matter may be resolved without a formal hearing by Stipulated Agreement.

Mr Riva and the State Board hereby stipulate to the following terms for the above-referenced violation(s):

1. Mr Riva's license shall be reinstated and suspended for ten (10) years immediately following entry of this Agreement, but with the suspension stayed and probation imposed for the duration of that time period.

2. The stay of Mr Riva's license suspension may be lifted by the State Board upon notice and the opportunity for Mr Riva to be heard should Mr Riva fail to abide by the terms hereof.

3. Mr Riva's successful completion of probation is expressly conditioned upon his full compliance with the following conditions of probation:

a. Mr Riva shall pay all of the State Board's legal and investigative costs associated with this matter, in the total amount of Two Thousand Three Hundred Fifty and No/100 Dollars (\$2,350.00), which includes One Thousand Three Hundred Fifty and No/100 Dollars (\$1,350.00) in legal fees and One Thousand and No/100 Dollars (\$1,000.00) for the cost for a third-party competency review of a sampling of the thirty-seven (37) projects stamped by Mr Riva while practicing without a license. This payment is due to the State Board within thirty (30) days of the State Board's acceptance and execution of this First Revised Stipulated Agreement.

b. Mr Riva shall pay an administrative fine to the State Board in the amount of Fifteen Thousand and No/100 Dollars (\$15,000.00), plus Two Hundred and No/100 Dollars (\$200.00) for each of the thirty-seven (37) projects lawfully stamped by Mr Riva, for a total of Twenty-Two Thousand Four Hundred and No/100 Dollars (\$22,400.00). Two Thousand Six Hundred Fifty and No/100 Dollars (\$2,650.00) of this amount is due to the State Board within thirty (30) days of the Board's acceptance and execution of this First Revised Stipulated Agreement. The balance thereof shall be due in five (5) equal annual installments of Three Thousand Nine Hundred Fifty and No/100 Dollars (\$3,950.00). The first (1st) due on or before one year of the State Boards acceptance and execution of this First Revised Stipulated Agreement, and the remaining four payment due on or before each subsequent anniversary thereof, through the fifth (5th) anniversary of the State Boards acceptance and execution of this First Revised Stipulated Agreement.

c. Mr Riva shall undertake and assume all costs associated with reviewing and re-stamping the drawings associated with the aforementioned projects that are on file with the appropriate building departments and provide the Board with sufficient proof thereof.

d. Mr Riva registering in, paying for and completing an advanced level ethics course with Texas Tech University Murdough Center for Engineering Professionalism, and providing proof of completion thereof to Board staff within one (1) year of the date of full execution of this First Revised Stipulated Agreement.

LAST PROBATION REPORTS DUE October 1, 2029

PROBATION REPORT
(MUST BE TYPED)

Print Form

PROBATIONER: Robert Dooley Riva PE/PLS #: 018231

EMPLOYER: Riva Engineering & Consulting

PROBATION REPORT SUBMITTED FOR THE PERIOD OF: 2021-3-16 THROUGH 2021-05-15

CLIENT:

NAME: no Nevada work during this time period, waiting on plan check for several projects

ADDRESS:

CITY: STATE: ZIP CODE:

PROJECT:

NAME:

LOCATION OF PROJECT:

CITY: STATE: ZIP CODE:

SIZE: START DATE: END DATE:

STATUS OF PROJECT:

FEE PAID BY CLIENT:

SCOPE OF WORK:

DESCRIBE IN DETAIL YOUR INVOLVEMENT IN THIS PROJECT AND HOW YOU HANDLED THIS PROJECT.

DESCRIBE IN DETAIL HOW YOU IMPROVED ON THIS PROJECT IN THE AREAS FOR WHICH YOU ARE ON PROBATION.

SIGNATURE: Robert D. Riva DATE: May 18, 2021

John Skwiot, PE 020561

Case Number: 20190007

Violation of NRS 625.410(2), NAC 625.630(1)(a), NAC 625.630(b), and NAC 625.545.

Mr Skwiot self-reported a disciplinary action imposed against his California professional engineer license by the California Board of Professional Engineers ("California Board").

The facts, as presented in a stipulation and order entered by the California Board, were as follows. In or around 2015, Mr Skwiot found the complainant/Client at issue on a freelance website. The complainant wished to procure an engineering design of a three-unit residential structure in Mammoth Lakes, California. Mr Skwiot and complainant agreed to the cost of services. However, Mr Skwiot did not provide the client with a written contract containing all of the terms required by California Code. Rather, Mr Skwiot and complainant relied upon the "Independent Contractor Services Agreement" provided by the website, which indicates that "Client and [Mr Skwiot] acknowledge and agree that when [Mr Skwiot] accepts an Engagement awarded by Client, Client and [Mr Skwiot] will be deemed to have entered into a 'Member Contract.'" 1 Mr Skwiot and complainant did not sign any additional written agreement(s), although it appears the scope of the work to be performed was outlined on the website. In the Stipulation with the California Board, Mr Skwiot stipulated that he was unprofessional in his dealing with the client, plus failed to complete his engineering services within the time periods set by the project schedule, as agreed upon by Mr Skwiot and complainant. In addition, Mr Skwiot stipulated that he failed to design a project in compliance with the Town of Mammoth Lakes building code requirements, failed to prepare an accurate and correct grading and drainage plan, and failed to prepare erosion control plan. Further, Mr Skwiot's civil details included a retaining and rock wall drawn backward, and intruding upon, and altering grading on, the neighboring property.

Mr Skwiot stipulated with the California Board to the following violations: (1) negligence, (2) incompetence, (3) unlicensed practice of land surveying, (4) unlawful use of the term "structural engineer," (5) failure to provide a written contract, and (6) unprofessional conduct. Pursuant to the California Board Stipulation and Order, Mr Skwiot's license was revoked, but the revocation was stayed pending the successful completion of three (3) years probation, reimbursement of investigative costs in the amount of Ten Thousand Four Hundred Eighty-Nine and 85/100 Dollars (\$10,489.85), completion and passage of the California Laws and Board Rules examination, passage of a Board approved ethics course within one (1) year, and completion and passage of two (2) college-level Board approved engineering courses.

NRS 625.410 states that the Board may take disciplinary action against a licensee for discipline by another state or territory if at least one of the grounds for discipline is the same or substantially equivalent to any ground under Nevada law. The Nevada equivalent of the California violations are as follows: NRS 625.410(2); NAC 625.630(1)(a); NAC 625.630(b); and NAC 625.545.

NRS 625.410(5) authorizes the State Board to take disciplinary action against a licensee for a violation of any provision of NRS Chapter 625 or NAC Chapter 625. Further, pursuant to NAC 625.640(3)(b)(2) this matter may be resolved without a formal hearing by Stipulated Agreement.

Mr Skwiot and the State Board hereby stipulate to the following terms for the above-referenced violation(s):

1. Mr Skwiot's license shall be revoked following entry of this Agreement, but with revocation stayed and probation imposed for a term of three (3) years.
2. The licensee shall submit detailed bi-monthly probation reports to the Executive Director of the Nevada Board, which shall report any work completed in Nevada during the previous two (2) month period. A report shall be filed even if no work was performed in Nevada during the previous two (2) month period. The first report shall be due within two (2) months of the effective date of this Stipulated Agreement. Each report shall include a copy of the contract executed for any work in Nevada, including the scope of work detail.
3. The stay of Mr Skwiot's license revocation may be lifted by the State Board, upon notice and the opportunity for Mr Skwiot to be heard, should Mr Skwiot fail to abide by the terms hereof.

LAST PROBATION REPORTS DUE February 1, 2023

PROBATION REPORT
(MUST BE TYPED)

Print Form

PROBATIONER: John Skwiot PE/PLS #: 20561

EMPLOYER: Arizona Design Build LLC dba FJS Engineering

PROBATION REPORT SUBMITTED FOR THE PERIOD OF: Mar 16, 2021 THROUGH: May 15, 2021

CLIENT:

NAME: Creative Play Recreation

ADDRESS: 140 S. Fourth St.

CITY: Henderson STATE: NV ZIP CODE: 89015

PROJECT:

NAME: Bucket Tower Calculations

LOCATION OF PROJECT: Craig Ranch Regional Park, 628 W. Craig Rd.

CITY: North Las Vegas STATE: NV ZIP CODE: 89032

SIZE: 50 SF START DATE: Mar 24, 2021 END DATE: Mar 30, 2021

STATUS OF PROJECT: Completed

FEE PAID BY CLIENT: \$760

SCOPE OF WORK:

Elevated Pool Feature Calculations: Load determination (wind, dead, live, seismic), stability calculations, member checks, base plate and anchorage design, foundation design

DESCRIBE IN DETAIL YOUR INVOLVEMENT IN THIS PROJECT AND HOW YOU HANDLED THIS PROJECT.

I was the engineer of record for this project and completed the design checks. The client was provided with sealed calculations for submittal.

DESCRIBE IN DETAIL HOW YOU IMPROVED ON THIS PROJECT IN THE AREAS FOR WHICH YOU ARE ON PROBATION.

The project was completed on schedule and to the client's requirements. A written contract was utilized for the work.

SIGNATURE: John Skwiot, P.E. Digitally signed by John Skwiot, P.E.
Date: 2021.05.25 21:30:02 -07'00'

DATE: May 25, 2021

Ralph Heninger, PE 005191

Case Number: 20190010

Violation of NRS 625.410(7)

Mr Heninger allowed his license to lapse on July 1, 2017 and continued to practice professional engineering with an expired license until self-reporting to the board on March 20, 2019.

NRS 625.410 states that the Board may take disciplinary action against a licensee for practicing after the license of the professional engineer has expired or has been suspended or revoked. Pursuant to NAC 625.640(3)(b)(2) this matter may be resolved without a formal hearing by Stipulated Agreement.

Mr Heninger and the State Board hereby stipulate to the following terms for the above-referenced violation:

1. Mr Heninger shall pay an administrative fine in the amount of One Thousand Five Hundred and No/100 Dollars (\$1,500.00) within ninety (90) days from the date of the State Board's approval of this Stipulated Agreement.
2. Mr Heninger shall reimburse the State Board for legal fees incurred in this matter in the amount of Seven Hundred Thirty-Eight and 25/100 Dollars (\$738.25) within ninety (90) days from the date of the State Board's approval of this Stipulated Agreement.
3. Mr Heninger shall provide written notification to the developer of the above-delineated Fernley project of the fact that Mr Heninger was unlicensed at the time he performed work thereon, provide the developer with the opportunity to have the improperly stamped plans brought into compliance, and pay any and all costs associated therewith. Mr Heninger shall provide the State Board with a copy of each such written notification.
4. Mr Heninger's license shall be suspended for two (2) years immediately following entry of this Stipulated Agreement, but with the suspension stayed and probation imposed for the duration of that time period.
5. The stay of Mr Heninger's license suspension may be lifted by the State Board, upon notice and the opportunity for Mr. HENINGER to be heard, should Mr Heninger fail to abide by the terms hereof.
6. Mr Heninger's successful completion of probation is expressly conditioned upon his full compliance with the following conditions of probation:

(a) Mr Heninger shall submit detailed bi-monthly probation reports to the Executive Director of the Nevada Board, which shall report any work completed in Nevada during the previous two (2) month period. A report shall be filed even if no work was performed in Nevada during the previous two (2) month period. The first report shall be due within two (2) months of the effective date of this Stipulated Agreement. Each report shall include a copy of the contract executed for any work in Nevada, including the scope of work detail, as well as supporting project documentation.

LAST PROBATION REPORTS DUE September 1, 2022

PROBATION REPORT
(MUST BE TYPED)

PROBATIONER: PE/PLS #:

EMPLOYER:

PROBATION REPORT SUBMITTED FOR THE PERIOD OF: THROUGH:

CLIENT

NAME:

ADDRESS:

CITY: STATE: ZIP CODE:

PROJECT

NAME:

LOCATION OF PROJECT:

CITY: STATE: ZIP CODE:

SIZE: START DATE: END DATE:

STATUS OF PROJECT:

FEE PAID BY CLIENT:

SCOPE OF WORK:

DESCRIBE IN DETAIL YOUR INVOLVEMENT IN THIS PROJECT AND HOW YOU HANDLED THIS PROJECT.

DESCRIBE IN DETAIL HOW YOU IMPROVED ON THIS PROJECT IN THE AREAS FOR WHICH YOU ARE ON PROBATION.

SIGNATURE:

DATE:

Lazell Preator, PE 014982

Case Numbers: 20190008 and 20200003

Violations: NRS 625.410(2), NRS 625.540, NRS 625.560, NAC 625.510, NAC 625.530, and NAC 625.540

Previous 2018 Complaint and Stipulated Agreement

Before setting forth the facts for the two complaints at issue, the following summation of a previous Stipulated Agreement is relevant. A Stipulated Agreement was entered by and between the State Board and Mr Preator on November 8, 2018 ("2018 Stipulated Agreement"), regarding previous Complaint number 20180006. In the 2018 Stipulated Agreement, Mr Preator acknowledged violations of NRS Chapter 625 in which his conduct constituted gross negligence, incompetence, or misconduct in the practice of professional engineering and failure to exercise due care and oversight in submitting the plan set to the office of the Deputy Building and Safety Director for the City of Las Vegas.

The facts pertaining to the 2018 Stipulated Agreement involved the filing of a complaint alleging the submission of plans containing the forged signatures of two senior building officials in an attempt to obtain a building permit.

Specifically, on March 7, 2018, the office of the Deputy Building and Safety Director for the City of Las Vegas received a plan set. The plan set included an irregular and misspelled signature of the City Engineer, Allen Pavelka, with his name signed "Alan" as opposed to the proper spelling "Allen." The plan set further included a signature of a retired Director of Building and Safety, Chris Knight. Mr Preator asserted that he relied on a third party, Jorge Guzman, to acquire said signatures, and that said third party, unbeknownst to Mr Preator, obtained or affixed the forged signatures. Although Mr Preator denied forging the signatures at issue, he admitted that he is responsible for documents that he seals and signs and that he is responsible to use due care and oversight to manage originals and copies of all documents he has signed and sealed.

In the 2018 Stipulated Agreement, Mr Preator's Nevada license was placed on probation for twelve (12) months. As part of his probation, Mr Preator was required to pay certain fines, costs, and fees, and require that he write a Whitepaper on Responsible Charge. The probation under the 2018 Stipulated Agreement has since been completed.

Case No. 20190008 - "Forgery Case"

In regard Case No. 20190008, a complaint has been submitted against Mr Preator by the

Executive Director for the State Board on behalf of a professional land surveyor, alleging fraudulent stamping and signing of legal descriptions.

Specifically, On December 18, 2017, Mr Preator submitted two legal descriptions for a project on Du Fort Avenue to the City of Henderson. The complainant land surveyor inadvertently discovered the two legal descriptions while reviewing projects on the City of Henderson website in August 2019. The two legal descriptions were produced for Preator Consulting by the land surveyor. However, Preator Consulting had not paid for the work, and thus, the land surveyor had not completed the work, as he had not signed or dated the two legal descriptions. The two legal descriptions were, hand signed, dated and submitted to the city on December 18, 2017.

In an effort to explain how the legal descriptions at issue were fraudulently signed, Mr Preator asserts that he relied on the same third-party blamed in the 2018 Stipulated Agreement, i.e., Jorge Guzman, to obtain the stamp and signature of the land surveyor before submitting the legal descriptions now at issue. Mr Preator again asserts that Jorge Guzman must have forged the surveyor's signature before submitting the legal descriptions to the City of Henderson. Although Mr Preator denied forging the signatures at issue, he admits that he is responsible for documents that he submits and that he is responsible to use due care and oversight to manage originals and copies of all said documents.

Mr Preator has not been able to provide any information or documentation regarding his working relationship with Mr Guzman, or any evidence that Mr Guzman exists.

NRS 625.410(2) provides authority for the State Board to administer discipline in Nevada for any gross negligence, incompetency, or misconduct in the practice of professional engineering as a professional engineer. NRS 625.410(5) provides authority for the State Board to administer discipline in Nevada for a violation of any provision of NRS Chapter 625. A licensee violates NRS 625.540 by unlawfully practicing land surveying. Specifically, it is unlawful to present or attempt to use, as his or her own, the license or stamp of another person and to impersonate any other licensee of the same or a different name. Additionally, it is a violation of NRS 625.560 to sign a description unless the person holds an unsuspended and unrevoked license as a professional land surveyor.

NRS 625.410(5) provides authority for the State Board to administer discipline in Nevada for a violation of any regulation adopted by the Board. A licensee violates NAC 625.510 by failing to uphold and advance the honor and dignity of the profession by maintaining high standards of ethical conduct regarding honesty. It is a violation of NAC 625.530 for a licensee to fail to act in professional matters as a faithful agent. A licensee violates NAC 625.540(1) by failing to take

care that credit for engineering or land surveying work is given to those to whom credit is properly due and violates NAC 625.540(4) by failing to not maliciously injure the professional reputation, business prospects or practice of another engineer or land surveyor.

Based on the foregoing, Mr Preator stipulates that he violated NRS 625.410 (2), in that his conduct constituted gross negligence, incompetence, or misconduct in the practice of professional engineering. Mr Preator stipulates that he violated NRS 625.540 by unlawfully practicing land surveying by presenting the license or stamp of another person and by impersonating another licensee. Likewise, Mr Preator stipulates that he violated NRS 625.560 by signing a description without a license as a professional land surveyor.

Further, Mr Preator stipulates that he violated NAC 625.510 by failing to uphold and advance the honor and dignity of the profession by maintaining high standards of ethical conduct regarding honesty. In addition, Mr Preator stipulates that he violated NAC 625.530 by failing to act in professional matters as a faithful agent. Finally, Mr Preator stipulates that he violated NAC 625.540 by failing to take care that credit for land surveying work was given to those to whom credit was properly due and by failing to not maliciously injure the professional reputation, business prospects or practice of another engineer or land surveyor.

Case No. 20200003 - "Faithful Agent Case"

In regard Case No. 20200003, a complaint has been submitted against Mr Preator alleging misconduct and failure to meet terms of a contract.

Specifically, on February 2, 2018, the complainant contracted with Mr Preator to provide civil engineering for an auto body repair shop construction project, and paid Mr Preator a \$7,100 retainer. Per the contract, Mr Preator was to begin working on the project within two days of receiving the retainer. Between February 2018 and February 2020, no work product was provided to the client nor to the professionals and contractors working on the client's behalf. There were various interactions and requests for updates on the status of the project. Mr Preator asserts that, during the project, he was unable to speak with the architect on the project, from whom Mr Preator asserts that he received differing site plans. Nevertheless, Mr Preator informed the client that various items were under review by planning authorities, even though they were never actually submitted.

NRS 625.410(2) provides authority for the State Board to administer discipline in Nevada for any gross negligence, incompetency, or misconduct in the practice of professional engineering as a professional engineer. NRS 625.410(5) provides authority for the State Board to administer discipline in Nevada for a violation of any regulation adopted by the Board. A licensee violates NAC 625.510 by failing to uphold and advance the honor and dignity of the

profession by maintaining high standards of ethical conduct regarding honesty. It is a violation of NAC 625.530 when a licensee fails to act in professional matters as a faithful agent.

Based on the foregoing, Mr Preator stipulates that he violated NRS 625.410(2), in that his conduct constituted gross negligence, incompetence, or misconduct in the practice of professional

engineering. Further, Mr Preator stipulates that he violated NAC 625.510 by failing to uphold and advance the honor and dignity of the profession by maintaining high standards of ethical conduct regarding honesty. Finally, Mr Preator stipulates that he violated NAC 625.530 by failing to act in a timely and professional matters as a faithful agent.

Pursuant to NAC 625.640, a disciplinary matter may be resolved without a formal hearing by a Stipulated Agreement. To that end, to resolve Complaint Numbers 2019008 and 20200003, Mr Preator and the State Board resolve this matter on the following basis:

(1) Mr Preator's Nevada license shall be suspended for thirty-six (36) months following entry of this Agreement, pursuant to NRS 625.410 (2) and NAC 625.530, but with the suspension stayed and probation imposed for the duration of that time period.

(2) The stay of Mr Preator's suspension may be lifted by the State Board upon notice and the opportunity to be heard should Mr Preator fail to abide by the terms hereof.

(3) Mr Preator's successful completion of probation is expressly conditioned upon his full compliance with the following conditions of probation:

(a) Mr Preator shall pay a fine of Five Thousand and Noll 00 Dollars (\$5,000.00) for the Forgery Case and a fine of Two Thousand and No/1 00 Dollars (\$2,000.00) for the Faithful Agent Case, for a total fine of Seven Thousand and No/100 Dollars (\$7,000.00), within six (6) months of acceptance and execution of this Agreement by the State Board.

(b) Mr Preator shall pay the professional land surveyor in full under his contract therewith for work on the Du Fort project.

(c) Mr Preator shall pay for cost of hiring a Nevada licensed professional land surveyor to review, re-stamp and sign the Du Fort legal descriptions.

(d) Mr Preator shall immediately notify client and the relevant public entity via letter, with copy to the Board, of the necessity of the Du Fort legal descriptions to be re- submitted with lawful stamping and signature.

(e) Mr Preator shall reimburse in full the deposited amount the complainant paid for the Autobody Repair Shop project.

(f) Mr Preator shall pay the State Board Two Thousand Seven Hundred Sixty-Nine and 50/100 Dollars (\$2,769.50) as reimbursement of administrative expenses in this matter.

(g) Mr Preator registering in, paying for and completing an entry level ethics course with Texas Tech University Murdough Center for Engineering Professionalism, and providing proof of completion thereof to Board staff.

(h) Mr Preator shall provide to the State Board staff, within thirty (30) days of execution of this agreement by the State Board, a list of projects that were submitted for governmental review in 2017 and 2018, and provide project names, clients, and to which agencies submissions were made. These submissions will be reviewed by State Board staff to determine and identify any other possible statutory and/or regulatory violations.

(i) Mr Preator shall submit detailed bi-monthly probation reports to the Executive Director of the Nevada Board, which shall report any work completed in Nevada during the previous two (2) month period. A report shall be filed even if no work is performed in Nevada during the previous two (2) month period. The first report shall be due within two (2) months of the effective date of this Stipulated Agreement. Each report shall include client contact information and a copy of the contract executed for any work in Nevada, including the scope of work detail.

(j) Mr Preator shall provide proof of the completion of thirty (30) professional development hours that are required on a biennial basis for license renewal, pursuant to NAC 625.430 and NAC 625.480.

LAST PROBATION REPORTS DUE February 1, 2024

PROBATION REPORT
(MUST BE TYPED)

Print Form

PROBATIONER: Lazell H. Preator PE/PLS #: CE 014982

EMPLOYER: SNFITT

PROBATION REPORT SUBMITTED FOR THE PERIOD OF: Mar 21, 2021 THROUGH: May 20, 2021

CLIENT:

NAME: Clark County Public Works

ADDRESS: 500 S. Grand Central Parkway

CITY: Las Vegas STATE: NV ZIP CODE: 89xxx

PROJECT:

NAME: 605535-19, 605526-19, 605468-19, 605445-19, 605501-19, 605479-20

LOCATION OF PROJECT: Various around County

CITY: STATE: ZIP CODE:

SIZE: START DATE: END DATE:

STATUS OF PROJECT: Varies, ongoing QC

FEE PAID BY CLIENT: NA

SCOPE OF WORK:

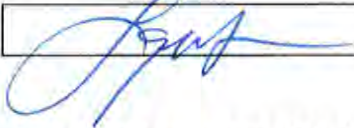
Quality Control for public projects for various contractors under County work projects.

DESCRIBE IN DETAIL YOUR INVOLVEMENT IN THIS PROJECT AND HOW YOU HANDLED THIS PROJECT.

Attend meetings as required. Review of QC reports, including test results from laboratories, daily logs, deficiencies and revisions. Approve and digitally sign reports for upload to Submittal Exchange.

DESCRIBE IN DETAIL HOW YOU IMPROVED ON THIS PROJECT IN THE AREAS FOR WHICH YOU ARE ON PROBATION.

Am not the person submitting plans, no requirements for other signatures. Verify upload of submitted reports via submittal exchange.

SIGNATURE: 

DATE: June 3, 2021

PROBATION REPORT
(MUST BE TYPED)

Print Form

PROBATIONER: Lazell H. Preator PE/PLS #: CE 014982

EMPLOYER: SNFITT

PROBATION REPORT SUBMITTED FOR THE PERIOD OF: Mar 21, 2021 THROUGH: May 20, 2021

CLIENT:

NAME: City of North Las Vegas

ADDRESS: North Las Vegas Boulevard

CITY: North Las Vegas STATE: NV ZIP CODE: 89xxx

PROJECT:

NAME: Lossee and Cheyenne Sewer Rehab

LOCATION OF PROJECT: Lossee and Cheyenne

CITY: STATE: ZIP CODE:

SIZE: START DATE: END DATE:

STATUS OF PROJECT: Paving

FEE PAID BY CLIENT: NA

SCOPE OF WORK:


Quality Control for City work project.

DESCRIBE IN DETAIL YOUR INVOLVEMENT IN THIS PROJECT AND HOW YOU HANDLED THIS PROJECT.

Attend meetings as required. Review of QC reports, including test results from laboratories, daily logs, deficiencies and revisions. Approve and digitally sign reports for upload to Submittal Exchange.

DESCRIBE IN DETAIL HOW YOU IMPROVED ON THIS PROJECT IN THE AREAS FOR WHICH YOU ARE ON PROBATION.

Am not the person submitting plans, no requirements for other signatures. Verify upload of submitted reports via submittal exchange.

SIGNATURE: 

DATE: June 3, 2021

PROBATION REPORT
(MUST BE TYPED)

Print Form

PROBATIONER: Lazell H. Preator PE/PLS #: CE 014982

EMPLOYER: Preator Consulting, LLC

PROBATION REPORT SUBMITTED FOR THE PERIOD OF: Mar 21, 2021 THROUGH: May 20, 2021

CLIENT:

NAME: 5Gen Management

ADDRESS: 3065 N Rancho, Suite 130

CITY: Las Vegas STATE: NV ZIP CODE: 89130

PROJECT:

NAME: Rainbow-BD AMPM Regulation

LOCATION OF PROJECT: Rainbow & Blue Diamond

CITY: Clark County STATE: NV ZIP CODE:

SIZE: Medium START DATE: Dec 20 END DATE: Aug 21

STATUS OF PROJECT: Plans submitted to SNHD & NDEP - In review

FEE PAID BY CLIENT: 13400

SCOPE OF WORK:

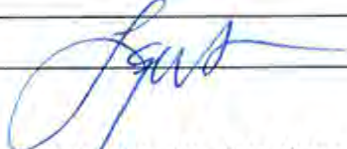
Convert existing water system to "public water system", including mapping of the existing system, and recommendations for modifications for full compliance. Work with NDEP/SNHD staff on compliance and testing protocols with Broadbent & Associates.

DESCRIBE IN DETAIL YOUR INVOLVEMENT IN THIS PROJECT AND HOW YOU HANDLED THIS PROJECT.

Prepare all drawings and calculations. Submit plans electronically to NDEP with paper mailed. Work with SNHD staff and Broadbent & Associates on status, and monthly requirements. Keep client updated twice monthly; including forwarding of any emails from NDEP/SNHD.

DESCRIBE IN DETAIL HOW YOU IMPROVED ON THIS PROJECT IN THE AREAS FOR WHICH YOU ARE ON PROBATION.

Keep client informed by copying them on all correspondence. No signatures required of any agencies or other professionals. Broadbent is under direct contract with AMPM.

SIGNATURE: 

DATE: June 3, 2021

PROBATION REPORT
(MUST BE TYPED)

Print Form

PROBATIONER: Lazell H. Preator PE/PLS #: CE 014982

EMPLOYER: Preator Consulting, LLC

PROBATION REPORT SUBMITTED FOR THE PERIOD OF: Mar 21, 2021 THROUGH: May 20, 2021

CLIENT:

NAME: Latigo Estates, LLC

ADDRESS: 2463 Vegas Vic

CITY: Henderson STATE: NV ZIP CODE: 89002

PROJECT:

NAME: Latigo Estates 10 Lot Subdivision

LOCATION OF PROJECT: Latigo & Mustang

CITY: Henderson STATE: NV ZIP CODE: 89015

SIZE: Large START DATE: Feb 21 END DATE: Sept 21

STATUS OF PROJECT: Drainage Study in review

FEE PAID BY CLIENT: 26050

SCOPE OF WORK:

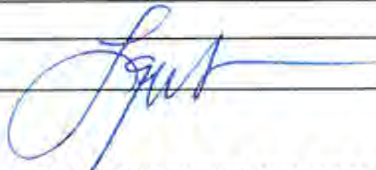
10 Lot residential subdivision (0.5ac lots). Grading, drainage and utility extensions. Street improvements are minimal (existing), rural estates (no curb/gutter/sidewalk)

DESCRIBE IN DETAIL YOUR INVOLVEMENT IN THIS PROJECT AND HOW YOU HANDLED THIS PROJECT.

Prepare all drawings and calculations. Submittal are electronic to City of Henderson. Will hire POGO Diversified for submittals to all other agencies required, and to collect signatures.

DESCRIBE IN DETAIL HOW YOU IMPROVED ON THIS PROJECT IN THE AREAS FOR WHICH YOU ARE ON PROBATION.

Keep client informed by copying them on all correspondence. Had client hire surveyor directly for mapping and topographic services/Geotechnical engineer for soils report. Will hire POGO for processing.

SIGNATURE: 

DATE: June 3, 2021

PROBATION REPORT
(MUST BE TYPED)

Print Form

PROBATIONER: Lazell H. Preator PE/PLS #: CE 014982

EMPLOYER: Preator Consulting, LLC

PROBATION REPORT SUBMITTED FOR THE PERIOD OF: Mar 21, 2021 THROUGH: May 20, 2021

CLIENT:

NAME: Sierra Ready Mix / Kilgore Companies

ADDRESS:

CITY: Magna STATE: UT ZIP CODE: 84044

PROJECT:

NAME: Moccasin Batch Plant Off Site Water Plan

LOCATION OF PROJECT: Moccasin & Skye Pointe

CITY: Las Vegas STATE: NV ZIP CODE: 89000

SIZE: Medium START DATE: July 2019 END DATE: May 21

STATUS OF PROJECT: Approved; construction to start in June

FEE PAID BY CLIENT: 4000 this phase

SCOPE OF WORK:

This phase: design offsite waterline to feed concrete plant (previous phase). Project includes 8" waterline, easements and hydrants. Project had been delayed for dedication of Moccasin by City for development to the east. Submit for approval through LVVWD.

DESCRIBE IN DETAIL YOUR INVOLVEMENT IN THIS PROJECT AND HOW YOU HANDLED THIS PROJECT.

Review survey. Prepare all drawings and calculations. Submittal are electronic to City of Henderson. Processed through LVVWD and other agencies via POGO Diversified for signatures.

DESCRIBE IN DETAIL HOW YOU IMPROVED ON THIS PROJECT IN THE AREAS FOR WHICH YOU ARE ON PROBATION.

Keep client informed weekly. Review all plans for compliance to current codes. Used licensed agent for processing (POGO Diversified) where submittals were not electronic and for signatures.

SIGNATURE: 

DATE: June 3, 2021

PROBATION REPORT
(MUST BE TYPED)

Print Form

PROBATIONER: PE/PLS #:

EMPLOYER:

PROBATION REPORT SUBMITTED FOR THE PERIOD OF: THROUGH:

CLIENT:

NAME:

ADDRESS:

CITY: STATE: ZIP CODE:

PROJECT:

NAME:

LOCATION OF PROJECT:

CITY: STATE: ZIP CODE:

SIZE: START DATE: END DATE:

STATUS OF PROJECT:

FEE PAID BY CLIENT:

SCOPE OF WORK:

Prepare plans for the reconstruction of a 1940's era home which sustained substantial damage via 2 fires. Included architectural plans, structural repair and calculations. Shells for MP&E to subs (hired by owner). Process plans digitally to CLV.

DESCRIBE IN DETAIL YOUR INVOLVEMENT IN THIS PROJECT AND HOW YOU HANDLED THIS PROJECT.

Prepare all drawings and calculations per scope of work. Submit plans digitally to the CLV Portal. Keep Client and Fire Inspector updated.

DESCRIBE IN DETAIL HOW YOU IMPROVED ON THIS PROJECT IN THE AREAS FOR WHICH YOU ARE ON PROBATION.

Kept client and City Fire Inspector updated. Submit plans electronically. Meet in person with Client when he was in town, and walk project to ensure to additional damage.

SIGNATURE:

DATE:

PROBATION REPORT
(MUST BE TYPED)

Print Form

PROBATIONER: PE/PLS #:

EMPLOYER:

PROBATION REPORT SUBMITTED FOR THE PERIOD OF: THROUGH:

CLIENT:

NAME:

ADDRESS:

CITY: STATE: ZIP CODE:

PROJECT:

NAME:

LOCATION OF PROJECT:

CITY: STATE: ZIP CODE:

SIZE: START DATE: END DATE:

STATUS OF PROJECT:

FEE PAID BY CLIENT:

SCOPE OF WORK:

Scope changed from previous report via City request: Prepare and submit new cover and new plan for the 2 backflow devices being installed on private property.

DESCRIBE IN DETAIL YOUR INVOLVEMENT IN THIS PROJECT AND HOW YOU HANDLED THIS PROJECT.

Hire surveyor to map locations of existing infrastructure. Prepare all drawings and calculations. Submit plans electronically to City.

DESCRIBE IN DETAIL HOW YOU IMPROVED ON THIS PROJECT IN THE AREAS FOR WHICH YOU ARE ON PROBATION.

Kept client (HOA manager) updated. Submit plans electronically. No mapping is required (no easements as project is all private property), and no routing of signatures outside of City of Henderson

SIGNATURE:

DATE:

PROBATION REPORT
(MUST BE TYPED)

Print Form

PROBATIONER: Lazell H. Preator PE/PLS #: CE 014982

EMPLOYER: Preator Consulting, LLC

PROBATION REPORT SUBMITTED FOR THE PERIOD OF: Mar 21, 2021 THROUGH: May 20, 2021

CLIENT:

NAME: ARC Services

ADDRESS: 2851 Synergy St

CITY: North Las Vegas STATE: NV ZIP CODE: 89130

PROJECT:

NAME: Block Wall Repair

LOCATION OF PROJECT: 4924 Ballantine

CITY: Las Vegas STATE: NV ZIP CODE:

SIZE: Small START DATE: Mar 21 END DATE: April 21

STATUS OF PROJECT: Approved/rebuild complete

FEE PAID BY CLIENT: 1450

SCOPE OF WORK:

Prepare a sketch for the reconstruction of a block wall damaged by car impact. Provide package to client for submittal to City

DESCRIBE IN DETAIL YOUR INVOLVEMENT IN THIS PROJECT AND HOW YOU HANDLED THIS PROJECT.

Prepare all drawings and calculations. Client chose to submit to City.

DESCRIBE IN DETAIL HOW YOU IMPROVED ON THIS PROJECT IN THE AREAS FOR WHICH YOU ARE ON PROBATION.

Do project within time frame promised to client. Ensure that project meets current code. No routing of signatures required.

SIGNATURE: 

DATE: June 3, 2021

PROBATION REPORT
(MUST BE TYPED)

Print Form

PROBATIONER: Lazell H. Preator PE/PLS #: CE 014982

EMPLOYER: Preator Consulting, LLC

PROBATION REPORT SUBMITTED FOR THE PERIOD OF: Mar 21, 2021 THROUGH: May 20, 2021

CLIENT:

NAME: ATI Restoration

ADDRESS: 70 Corporate Park Dr

CITY: Henderson STATE: NV ZIP CODE: 89074

PROJECT:

NAME: Wall Repair

LOCATION OF PROJECT: Lucky Lady Casino

CITY: North Las Vegas STATE: NV ZIP CODE:

SIZE: Small START DATE: May 21 END DATE: June 21

STATUS OF PROJECT: In Review

FEE PAID BY CLIENT: 2750

SCOPE OF WORK:

Engineering Letter and Calculations for repair of a metal stud balloon wall damaged by vehicle impact.

DESCRIBE IN DETAIL YOUR INVOLVEMENT IN THIS PROJECT AND HOW YOU HANDLED THIS PROJECT.

Prepare all drawings and calculations. Client to submit to City.

DESCRIBE IN DETAIL HOW YOU IMPROVED ON THIS PROJECT IN THE AREAS FOR WHICH YOU ARE ON PROBATION.

Do project within time frame promised to client. Ensure that project meets current code. No routing of signatures required.

SIGNATURE:  DATE: June 3, 2021

PROBATION REPORT
(MUST BE TYPED)

Print Form

PROBATIONER: Lazell H. Preator PE/PLS #: CE 014982

EMPLOYER: Preator Consulting, LLC

PROBATION REPORT SUBMITTED FOR THE PERIOD OF: Mar 21, 2021 THROUGH: May 20, 2021

CLIENT:

NAME: ATI Restoration

ADDRESS: 70 Corporate Park Dr

CITY: Henderson STATE: NV ZIP CODE: 89074

PROJECT:

NAME: Floor Repair (Fire Damage)

LOCATION OF PROJECT: 4 Queens Parking Garage

CITY: Las Vegas STATE: NV ZIP CODE:

SIZE: Medium START DATE: May 21 END DATE: June 21

STATUS OF PROJECT: Approved

FEE PAID BY CLIENT: 3750

SCOPE OF WORK:


Engineering Letter, details and Calculations for repair of a concrete floor damaged by fire. Review and approval of shop specifications by repair contractor.

DESCRIBE IN DETAIL YOUR INVOLVEMENT IN THIS PROJECT AND HOW YOU HANDLED THIS PROJECT.

Inspect damage. Prepare all drawings and calculations. Client to submit to City.

DESCRIBE IN DETAIL HOW YOU IMPROVED ON THIS PROJECT IN THE AREAS FOR WHICH YOU ARE ON PROBATION.

Do project within time frame promised to client. Ensure that project meets current code. No routing of signatures required. Note that project is owned by City of Las Vegas.

SIGNATURE: 

DATE: June 3, 2021

PROBATION REPORT
(MUST BE TYPED)

Print Form

PROBATIONER: Lazell H. Preator PE/PLS #: CE 014982

EMPLOYER: Preator Consulting, LLC

PROBATION REPORT SUBMITTED FOR THE PERIOD OF: Mar 21, 2021 THROUGH: May 20, 2021

CLIENT:

NAME: Stills Construction

ADDRESS: 6380 McLeod Dr, Suite 2

CITY: Las Vegas STATE: NV ZIP CODE: 89120

PROJECT:

NAME: UL Assembly Letter

LOCATION OF PROJECT: 8805 Jeffries #1075

CITY: Henderson STATE: NV ZIP CODE:

SIZE: Small START DATE: May 21 END DATE: May 21

STATUS OF PROJECT: Approved

FEE PAID BY CLIENT: 850

SCOPE OF WORK:

Research and provide letter to COH for the UL listing of the wall assembly to meet current fire and sound requirements.

DESCRIBE IN DETAIL YOUR INVOLVEMENT IN THIS PROJECT AND HOW YOU HANDLED THIS PROJECT.

Inspect damage. Research requirements and provide letter. Client to submit to City.

DESCRIBE IN DETAIL HOW YOU IMPROVED ON THIS PROJECT IN THE AREAS FOR WHICH YOU ARE ON PROBATION.

Do project within time frame promised to client. Ensure that project meets current code. No routing of signatures required.

SIGNATURE: 

DATE: June 3, 2021

PROBATION REPORT
(MUST BE TYPED)

Print Form

PROBATIONER: Lazell H. Preator PE/PLS #: CE 014982

EMPLOYER: Preator Consulting, LLC

PROBATION REPORT SUBMITTED FOR THE PERIOD OF: Mar 21, 2021 THROUGH: May 20, 2021

CLIENT:

NAME: Community Access Systems

ADDRESS: 8920 Arville St

CITY: Las Vegas STATE: NV ZIP CODE: 89139

PROJECT:

NAME: Fence Attachment

LOCATION OF PROJECT: 4325 W. Patrick Ln

CITY: Clark County STATE: NV ZIP CODE:

SIZE: Small START DATE: Apr 21 END DATE: Apr 21

STATUS OF PROJECT: Submitted to Client

FEE PAID BY CLIENT: 850

SCOPE OF WORK:

Design Fence per current IBC/ASTM requirements for embed and wind load.

DESCRIBE IN DETAIL YOUR INVOLVEMENT IN THIS PROJECT AND HOW YOU HANDLED THIS PROJECT.

Sketches and calculations for the design of the fence. Client to submit to City.

DESCRIBE IN DETAIL HOW YOU IMPROVED ON THIS PROJECT IN THE AREAS FOR WHICH YOU ARE ON PROBATION.

Do project within time frame promised to client. Ensure that project meets current code. No routing of signatures required.

SIGNATURE: 

DATE: June 3, 2021

PROBATION REPORT
(MUST BE TYPED)

Print Form

PROBATIONER: Lazell H. Preator PE/PLS #: CE 014982

EMPLOYER: Preator Consulting, LLC

PROBATION REPORT SUBMITTED FOR THE PERIOD OF: Mar 21, 2021 THROUGH: May 20, 2021

CLIENT:

NAME: A1 Fence

ADDRESS: PO Box 29031

CITY: Las Vegas STATE: NV ZIP CODE: 89126

PROJECT:

NAME: Fence NOV

LOCATION OF PROJECT: 4240 Carnation Ln

CITY: Las Vegas STATE: NV ZIP CODE:

SIZE: Small START DATE: Mar 21 END DATE: Aug 21

STATUS OF PROJECT: Waiting on date for Planning Commission

FEE PAID BY CLIENT: 1050

SCOPE OF WORK:

Prepare plans and documents for the submittal of the compliance with the violation of placement of a fence within a setback on a curved street. Height of fence does not require calculations. Attend PC and CC meetings.

DESCRIBE IN DETAIL YOUR INVOLVEMENT IN THIS PROJECT AND HOW YOU HANDLED THIS PROJECT.

Prepare all exhibits/drawings. Submit electronically to CLV. Attend PC and CC meetings. Keep client and NOV inspector updated on status.

DESCRIBE IN DETAIL HOW YOU IMPROVED ON THIS PROJECT IN THE AREAS FOR WHICH YOU ARE ON PROBATION.

Keep client and NOV Inspector informed on status. Provide client with copies of package. No signatures required of any agencies or other professionals.

SIGNATURE: 

DATE: June 3, 2021

PROBATION REPORT
(MUST BE TYPED)

Print Form

PROBATIONER: Lazell H. Preator PE/PLS #: CE 014982

EMPLOYER: Preator Consulting, LLC

PROBATION REPORT SUBMITTED FOR THE PERIOD OF: Mar 21, 2021 THROUGH: May 20, 2021

CLIENT:

NAME: Pnina Mizrachi

ADDRESS: 1534 Via Salari Ct

CITY: Henderson STATE: NV ZIP CODE: 89052

PROJECT:

NAME: Zone Change and Use Permit

LOCATION OF PROJECT: 5653 S Bend

CITY: Clark Coutny STATE: NV ZIP CODE: 89015

SIZE: Small START DATE: May 21 END DATE: Sept 21

STATUS OF PROJECT: Waiting on assignment by CC P&Z

FEE PAID BY CLIENT: 2500

SCOPE OF WORK:

Prepare exhibits and documents for the submittal of the requests to CC P&Z. zone Change is conforming and Use Permit complies with requirements. No Calculations. Attend TB, PC and BCC (if required).

DESCRIBE IN DETAIL YOUR INVOLVEMENT IN THIS PROJECT AND HOW YOU HANDLED THIS PROJECT.

Prepare all exhibits/drawings. Submit electronically to CC. Attend meetings. Keep client updated on status.

DESCRIBE IN DETAIL HOW YOU IMPROVED ON THIS PROJECT IN THE AREAS FOR WHICH YOU ARE ON PROBATION.

Keep client and NOV Inspector informed on status. Provide client with copies of package. No signatures required of any agencies or other professionals.

SIGNATURE: 

DATE: June 3, 2021

11. Robert Mercado, PLS

Lic# 010352

Stipulated Agreement

KAREN A. PETERSON
JAMES R. CAVILIA
CHRIS MACKENZIE
RYAN D. RUSSELL
JOEL W. LOCKE
JUSTIN TOWNSEND
KYLE A. WINTER
JENNIFER MCMENOMY
DANIEL S. JUDD
CHELSEA D. BIBB
EMILY MEIBERT



ALLISON MACKENZIE
ATTORNEYS & COUNSELORS AT LAW

GEORGE V. ALLISON
JOAN C. WRIGHT
PATRICK V. FAGAN
CHARLES P. COCKERILL
MIKE PAVLAKIS
OF COUNSEL
ANDREW MACKENZIE
(1941-2018)
MIKE SOUMBENIOTIS
(1932-1997)

April 20, 2021

9489 0090 0027 6153 9872 94

SENT CERTIFIED MAIL
Robert Mercado, P.L.S.
Sundance Surveying Inc.
3832 Valley Drive
North Las Vegas, NV 89032

Re: State of Nevada Board of Professional Engineers and
Professional Engineer / Robert Mercado, P.L.S.

Dear Mr. Mercado:

I serve as legal counsel for the State of Nevada Board of Professional Engineers and Land Surveyors ("State Board"). The Executive Director, the Compliance Officer and a member of the State Board have reviewed the documents brought to their attention by the complaint filed by Doris Mitchel with Las Vegas Realty, LLC, on behalf of her client B & K Living Trust, on or around January 12, 2021.

It has been determined that there are sufficient allegations to justify filing a formal complaint against you for failing to record a survey map with the Clark County Recorder for a vacant lot in Las Vegas Nevada. Pursuant to NAC 625.640, the State Board may resolve this matter without a formal complaint and hearing, via Stipulated Agreement. I have enclosed a proposed Stipulated Agreement, which if accepted by you and the State Board, will resolve the matter. Please note, this Stipulated Agreement is being proposed by the Executive Director in an effort to resolve this matter without hearing, but it has not yet been considered for approval by the State Board.

Please review the enclosed Stipulated Agreement and discuss the matter with counsel of your own selection. You may then choose to either accept or reject the proposed Stipulated Agreement. If you do not accept the proposed Stipulated Agreement, the matter will be set for a formal disciplinary hearing before the State Board. If you do choose to accept the proposed Stipulated Agreement, the Executive Director will recommend that the State Board accept the Stipulated Agreement upon presenting the matter thereto.

After you have reviewed the proposed Stipulated Agreement with your counsel, return the proposed Stipulated Agreement as drafted with your decision indicated thereon, on or before

Robert Mercado, P.L.S.
Sundance Surveying Inc.
April 20, 2021
Page 2

May 11th, 2021. Please, accept this letter as the proposed Stipulated Agreement for your consideration. Should you have any questions, please let me know immediately.

Sincerely,

ALLISON MacKENZIE, LTD.



By:

CHRIS MacKENZIE, ESQ.

CM/hh: Enclosure

Cc: Patty Mamola, Executive Director
Murray Blaney & Jake Wolf, Compliance Officers

STIPULATED AGREEMENT
OF ROBERT MERCADO
LICENSE NO. PLS #010352
COMPLAINT NO. 20210001

This Stipulated Agreement (“Stipulated Agreement”) is made by and between the Nevada State Board of Professional Engineers and Land Surveyors (the “State Board”) and ROBERT MERCADO (“Mr. Mercado”), a professional land surveyor in the State of Nevada, PLS #010352, and owner/operator of Sundance Surveying, Inc. This Stipulated Agreement arises from facts brought to the attention of the State Board by the January 12, 2021 complaint filed by Doris Mitchell of Las Vegas Realty (“Ms. Mitchell”) on behalf of her client, B & K Living Trust. Ms. Mitchell’s complaint contains allegations of misconduct and failure to abide by terms of contract by Mr. Mercado, and the failure of Sundance Surveying, Inc., to meet the terms of a contract.

On September 10, 2020, Ms. Mitchell on behalf of her client, B & K Living Trust, hired Sundance Surveying, Inc. to provide surveying and mapping services for a vacant property located in Las Vegas. As part of the contract, Mr. Mercado was to file a Record of Survey Map with the Clark County Recorder’s Office. Although the contract did not contain an anticipated date of completion, Mr. Mercado informed Ms. Mitchell that the work would only take a few weeks. Mr. Mercado completed the survey on October 11, 2020 and emailed the survey map to Ms. Mitchell on October 12, 2020. The survey map was not recorded at that time. On October 16, 2020, Mr. Mercado was paid in full for his work under the contract.

Thereafter, Ms. Mitchell made numerous attempts to contact Mr. Mercado regarding the status of the recordation of the survey map, but he was unresponsive. As a result of Mr. Mercado’s unresponsiveness, coupled with his failure to have the survey map recorded, Ms. Mitchell filed the January 12, 2021 Complaint. When contacted by the State Board, Ms.

Mitchell stated that she filed the Complaint in an effort to prompt Mr. Mercado to record the survey map and her only objective in filing the Complaint was to ensure the survey map was recorded. Ms. Mitchell stated she would drop the Complaint once the survey map was recorded.

On January 14, 2021, the State Board staff left a voicemail for Mr. Mercado regarding the Complaint. On January 19, 2021, Mr. Mercado responded to staff's voicemail and informed the State Board that, although the survey map had not yet been recorded, he intended to file it with the Clark County Recorder's Office on January 22, 2021. Mr. Mercado did not file the survey map with the Clark County Recorder's Office on January 22, 2021 as promised. On two more occasions (January 26, 2021 and February 1, 2021), Mr. Mercado assured the State Board staff that the survey map would be recorded, however, in each instance, Mr. Mercado failed to make good on his promises. During this time, Mr. Mercado provided a number of explanations for the delay in filing the survey map, which have not proven to be credible. As of February 5, 2021, the survey map was still not recorded.

The State Board staff did not initially request a formal written response from Mr. Mercado, as Ms. Mitchell indicated that her primary reason for filing the Complaint was to get the survey recorded and the matter resolved quickly. However, in light of Mr. Mercado's repeated failures to have the survey map recorded, proceeding with a disciplinary action has been deemed appropriate by the Executive Director of the State Board.

On February 5, 2021, the State Board staff requested that Mr. Mercado submit a formal response to the Complaint no later than March 8, 2021. The State Board staff followed up with Mr. Mercado on multiple occasions in that regard. On March 8, 2021, Mr. Mercado informed the State Board staff that he would be submitting his formal response to the Complaint by the

end of the day, but he did not.

On March 8, 2021, nearly 150 days after the survey was completed, the survey map was recorded with the Clark County Recorder's Office. The survey was stamped, signed, and dated by Mr. Mercado on March 7, 2021.

On March 9, 2021, Mr. Mercado submitted his formal response to the Complaint. The State Board staff still determined that Mr. Mercado's actions were in violation of various provisions of NRS Chapter 625 and NAC Chapter 625.

It is a violation of NAC 625.425 for a land surveying firm to engage or offer to engage in the practice of professional engineering without first registering with the State Board and paying the annual fee of Fifty and No/100 Dollars (\$50.00).¹ It is a violation of NAC 625.545 to fail to provide a written contract to each client which sets forth the scope of work, costs, and anticipated date of completion of the work.² It is a violation of NRS 625.340 to fail to file a survey map with the county recorder in the county in which the survey was made a record of survey relating

¹ NAC 625.425 states in relevant part as follows:

1. A firm must:
 - (a) File an application for registration with the Board on a form provided by the Board; and
 - (b) Pay a fee of \$50,
↳ before engaging in or offering to engage in the practice of professional engineering or the practice of land surveying in this State.

...

² NAC 625.545 states in relevant part as follows:

- Before performing any work, a licensee shall enter into a written contract with each client for whom the licensee will perform work. The written contract must include, without limitation:
1. Provisions specifying:
 - (a) The scope of work;
 - (b) The cost for completion of the work; and
 - (c) The anticipated date for completion of the work; and
 2. A disclosure as to whether the licensee currently maintains a policy of professional liability insurance.

to land boundaries and property lines within ninety (90) days of the creation of such survey.³ It is a violation of NAC 625.530 for a licensee to fail to act in professional matters as a faithful agent.⁴

Based on the foregoing, Mr. Mercado stipulates that he violated NAC 625.425 by failing to register Sundance Surveying, Inc. with the State Board for the past ten (10) years. Further, Mr. Mercado stipulates that he violated NAC 625.545 by failing to include the anticipated date of completion in his written contract with B & K Living Trust. Also, Mr. Mercado stipulates that he violated NRS 625.340 by failing to file the survey map with the Clark County Recorder within ninety (90) days of the creation of such survey map. Finally, Mr. Mercado stipulates that he violated NAC 625.530 by failing to act in professional matters as a faithful agent of B & K Living Trust in connection with his performance of the services therefor.

NRS 625.410(5) authorizes the State Board to take disciplinary action against a licensee for a violation of any provision of NRS Chapter 625 and/or NAC Chapter 625. Further, pursuant to NAC 625.640(3)(b)(2), this matter may be resolved without a formal hearing, via Stipulated Agreement. As such, in lieu of formal hearing, Mr. Mercado and the State Board hereby stipulate to the following terms for the above-referenced violation(s):

1. Mr. Mercado shall pay an administrative fine to the State Board in the amount of

³ NRS 625.340 states in relevant part as follows:

After making a survey in conformity with the practice of land surveying, a professional land surveyor shall, within 90 days after the establishment of points or lines, file with the county recorder in the county in which the survey was made a record of survey relating to land boundaries and property lines...

⁴ NAC 625.530 states in relevant part as follows:

In a professional engineer's or land surveyor's relations with his or her employers and clients, he or she shall:

1. Act in professional matters as a faithful agent or trustee for each employer or client.

...

One Thousand Five Hundred and No/100 Dollars (\$1,500.00) for his violations of NAC 625.545, NRS 625.340 and NAC 625.530 herein mentioned. Payment shall be made to the Board within (90) days from the date of the State Board's approval of this Stipulated Agreement.

2. Mr. Mercado shall reimburse the State Board for legal fees incurred in this matter in the amount of Two Thousand Two Hundred Seventy-One and No/100 Dollars (\$2,271.00) within ninety (90) days from the date of the State Board's approval of this Stipulated Agreement.

3. Mr. Mercado shall prepare a White Paper and submit it to the Executive Director of the State Board within ninety (90) days of the State Board's approval of this Stipulated Agreement, for State Board review and approval, on the following topics:

- a. Elements necessary for a valid written contract for providing professional land surveying services in the State of Nevada (NAC 625.545).
- b. Applicable deadlines and requirements for the timely recordation of records of surveys (NRS 625.340).

4. Mr. Mercado's license shall be suspended for two (2) years immediately following entry of this Stipulated Agreement, but with the suspension stayed and probation imposed for the duration of that time period.

5. The stay of Mr. Mercado's license suspension may be lifted by the State Board, upon notice and the opportunity for Mr. Mercado to be heard, should Mr. Mercado fail to abide by the terms hereof.

6. Mr. Mercado's successful completion of probation is expressly conditioned upon his full compliance with the above terms and following conditions of probation:

- (a) Mr. Mercado shall submit detailed bi-monthly probation reports to the Executive Director of the Nevada Board, which shall report any work

completed in Nevada during the previous two (2) month period. A report shall be filed even if no work was performed in Nevada during the previous two (2) month period. The first report shall be due within two (2) months of the effective date of this Stipulated Agreement. Each report shall include a copy of the contract executed for any work in Nevada, including the scope of work detail, as well as supporting project documentation.

7. Mr. Mercado understands that he must accept this Stipulated Agreement before it will be presented to the State Board for consideration.

8. Mr. Mercado understands that this Stipulated Agreement is subject to the approval of the State Board and has no force or effect until a final decision is rendered by the State Board.

9. The imposition of discipline set forth in this Stipulated Agreement does not limit the powers of the State Board to impose discipline upon Mr. Mercado on matters not yet presented to the State Board.

10. Mr. Mercado acknowledges that he has the following rights, among others:

- (a) The right to a formal fact-finding hearing before the State Board;
- (b) The right to counsel;
- (c) The right to compel testimony of witnesses at hearing;
- (d) The right to cross-examine witnesses of the prosecution at hearing; and
- (e) The appellate right of judicial review of the State Board's decision resulting from a formal hearing.

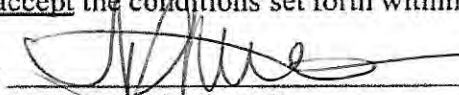
11. By entering into this Stipulated Agreement, Mr. Mercado hereby waives the

above-stated hearing rights, as well as any corresponding appellate rights, should this Stipulated Agreement be approved and executed by the State Board.

12. Mr. Mercado is entering this Stipulated Agreement upon his own volition, with full opportunity to consult legal counsel.

13. This Stipulated Agreement contains the entire agreement between the parties. Mr. Mercado is not relying on any other agreement or representation, verbal or otherwise. This Stipulated Agreement shall be effective upon approval and execution by the State Board.

I, ROBERT MERCADO, have read the above Stipulated Agreement, understand its contents, and accept the conditions set forth within it.

Signed:  Date: MAY 19, 2021
ROBERT MERCADO

I, ROBERT MERCADO, have read the above Stipulated Agreement, understand its contents, and do not accept the conditions set forth within it. I request that this matter be scheduled for a formal hearing before the Nevada State Board of Professional Engineers and Land Surveyors.

Signed: _____ Date: _____, 2021
ROBERT MERCADO

This Stipulated Agreement is approved by the Nevada State Board of Professional Engineers and Land Surveyors this ___ day of _____, 2021. The effective date of this Stipulated Agreement is _____, 2021.

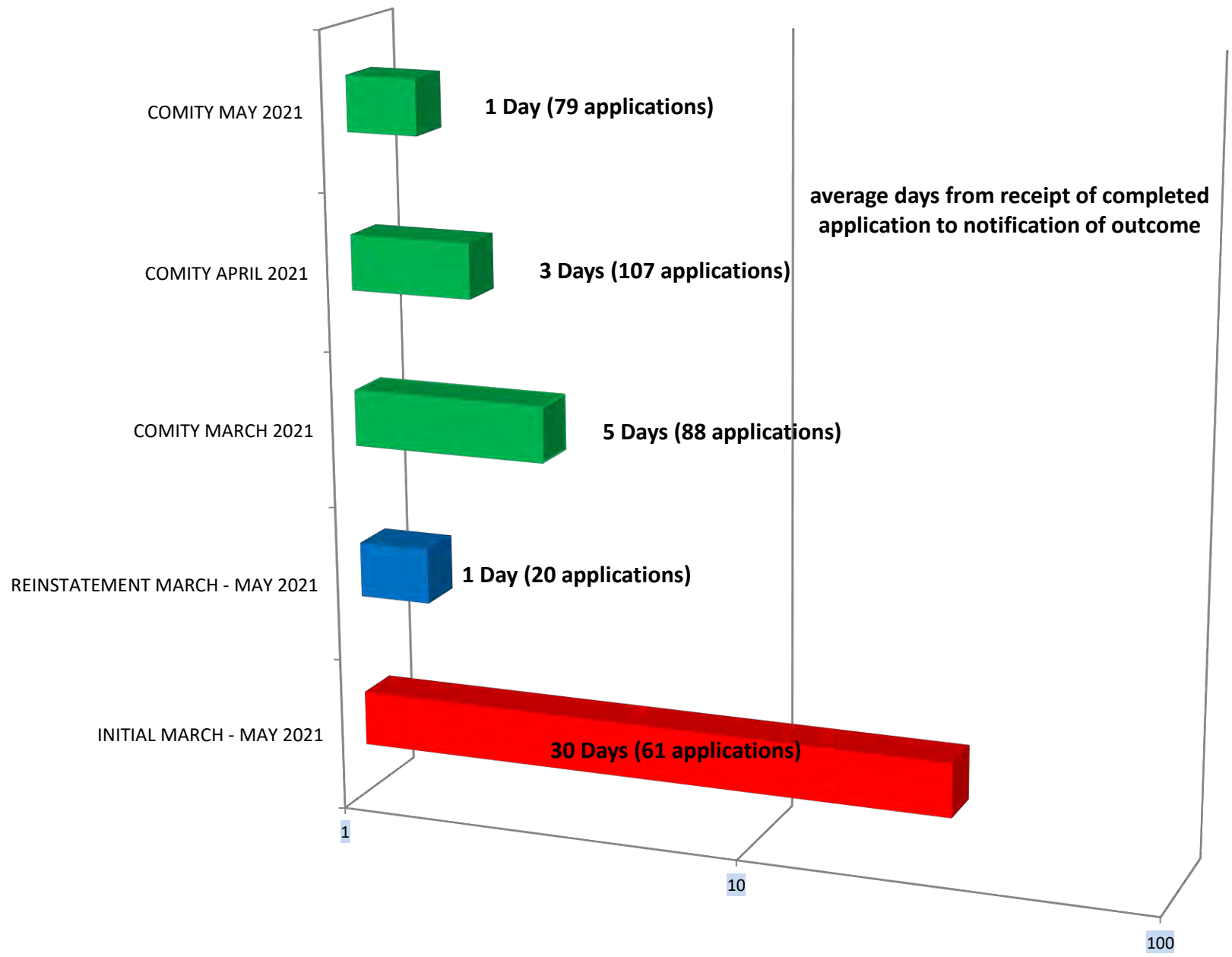
Date: _____, 2021. Signed: _____
Karen D. Purcell, P.E., Chairwoman

12. [Intentionally Left Blank]

13. Board Counsel Report

14. Administrative Report by Executive Director

14.a. Approved Licensees Report



14.b. 2021-2025 Strategic Plan



STRATEGIC PLAN UPDATE

Executive Summary

Approved November 12, 2020

UPDATED Fall 2020

EXECUTIVE SUMMARY

STRATEGIC PLAN UPDATE ~ SEPTEMBER 11, 2020

The Nevada Board of Professional Engineers and Land Surveyors developed a comprehensive Strategic Plan in March 2017. The plan was created using a 10-30 year planning horizon based on the board's core ideology consisting of a core purpose and core values.

Because the Strategic Plan had been developed in 2017, the board felt it was timely to reconsider its contents. The Board met September 11, 2020 to comprehensively review its Strategic Plan and consider any needed updates to that plan.

At the September 11, 2020 Strategic Planning Session, the board reaffirmed that the goals developed in the current Strategic Plan based on a 10-30 year planning horizon were still relevant. The session then focused on review and refresh of strategies. It was agreed that tactics and action items would be driven by the strategies and developed by the board and its committees at future meetings.

This document restates the board's goals for its updated Strategic Plan and captures the board's strategies for the next 3-5 year planning horizon.

EXECUTIVE SUMMARY

PURPOSE ~ MISSION ~ CORE VALUES

Purpose

The purpose of the board, as stated in Nevada Revised Statute 625.005, is to safeguard life, health and property and to promote the public welfare by providing for the licensure of qualified and competent professional engineers and professional land surveyors.

Mission

Founded on the board's purpose, the board's mission is to uphold the value of professional engineering and land surveying licensure by assessing minimum competency for initial entry into the profession, and to ensure ongoing standard of professionalism by facilitating compliance with laws, regulations, and code of practice; and to provide understanding and progression in licensure by openly engaging with all stakeholders.

Core Values

The board's core values are:

Integrity

Transparency

The core values were identified by board members and staff during the strategic planning sessions as guiding principles in the performance of their duties. A commitment was made to deliver on these values and provide governance that is ethical, honest, and consistent, and to function on a daily basis with accessibility and openness that is without obstruction.

3-5 YEAR PLANNING HORIZON

~ OUTCOME-FOCUSED GOALS AND STRATEGIES ~

The following thinking represents the organization's goals for the next 3-5 years. These **Goals** are outcome-oriented statements that represent what will constitute the Nevada board's future success. The achievement of each goal will move the organization towards the realization of its Envisioned Future. The **Strategies** reflect the broad range of direction that will be undertaken to change the existing conditions in order to achieve the goal – they drive **Tactics** -- the type of work and initiatives that will need to be undertaken to achieve the goal.

Strategies considered at the the September 11, 2020 strategic planning session discussion were presented for board consideration November 12, 2020. New or updated strategies are in bold text.

Outcome-Focused Goals

1. Outreach

The general public, prospective licensees and other key stakeholders have a greater understanding that engineering and surveying licensure are essential to safeguarding public health, safety and welfare.

2. Licensure

The demonstrated value of licensure results in continued growth in the number, quality and diversity of licensed engineers and surveyors practicing in Nevada.

3. Regulation

Nevada regulations are compatible with and reflective of the current state of practice in engineering and surveying and are in alignment with Nevada's economic development strategy.

4. Operational Excellence

The Nevada Board's efficient and effective use of technology and streamlined systems, processes and procedures result in high levels of satisfaction by all stakeholders.

Goal 1: Outreach

The general public, prospective licensees and other key stakeholders have a greater understanding that engineering and surveying licensure are essential to safeguarding public health, safety and welfare.

Strategies

1. Increase legislators understanding of criticality of services provided by the board and professional engineers/professional land surveyors
2. **Evolve technical capability and expand social media presence**
3. Increase visibility of the Board
4. **Sustain appropriate allocation of resources for effective content development**

Goal 2: Licensure

The demonstrated value of licensure results in continued growth in the number, quality and diversity of licensed engineers and surveyors practicing in Nevada

Strategies

1. Increase/stress the importance of licensure to university level students
2. Increase the public's knowledge about the value of licensure
3. Increase kids' knowledge of what engineers/land surveyors do
4. **Continuously work to improve the process and portability of licenses**
5. Provide options to meet land surveyor educational requirements
6. **Increase knowledge of the quality of experience required for licensure to potential licensees**

7. **Maintain relevancy of engineering licensure, specifically as it relates to emerging technologies**

Goal 3: Regulation

Nevada regulations are compatible with and reflective of the current state of practice in engineering and surveying and are in alignment with Nevada's economic development strategy.

Strategies

1. **Maintain currency and applicability of statutes and regulations**
2. Increase relationships with key stakeholders
3. **Increase awareness of new/emerging technologies in relation to statutes and regulations**

Goal 4: Operational Excellence

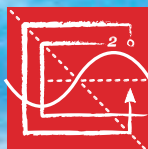
The Nevada Board's efficient and effective use of technology and streamlined systems, processes and procedures result in high levels of satisfaction by all stakeholders.

Strategies

1. **Maintain effective staff capacity**
2. **Maintain business plan for resource allocation to support board goals**
3. **Maintain effective office and administrative processes**
4. Build a data collection strategy to ensure we have data needed for effective decision making
5. **Increase transparency and communication with stakeholders of board functions, operations, and initiatives**

14.c. NCEES

14.c.i. 2021 Annual Meeting Action Items and Conference Reports



NCEES

Action Items and Conference Reports



100th Annual Meeting

New Orleans | August 19–20, 2021

**Action Items and Conference Reports
100th NCEES Annual Meeting
New Orleans, Louisiana
August 19–20, 2021**

Vision

The vision of NCEES is to provide leadership in professional licensure of engineers and surveyors through excellence in uniform laws, licensing standards, and professional ethics in order to safeguard the health, safety, and welfare of the public and to shape the future of professional licensure.

Mission

The mission of NCEES is to advance licensure for engineers and surveyors in order to safeguard the health, safety, and welfare of the public.

This mission is supported through its member boards, board of directors, staff, board administrators, and volunteers by:

- Providing outstanding nationally normed examinations for engineers and surveyors
- Providing uniform model laws and model rules for adoption by the member boards
- Promoting professional ethics among all engineers and surveyors
- Coordinating with domestic and international organizations to advance licensure of all engineers and surveyors



Introduction

In 1920, the organization now known as NCEES held its first meeting in Chicago. The member boards in attendance drafted the Council's first constitution, which legally constituted it as a "permanent organization ... to carry out as far as may be practical, a uniformity of practice in examination and registration of engineers." Since then, our member boards have met in person each year at the annual business meeting to conduct Council business. While the structure and content of the meetings have varied over the last century, the focus has remained the same: to decide issues vital to engineering and surveying licensure in order to safeguard the health, safety, and welfare of the public.

Last year, we celebrated the centennial of our organization's founding. Because of COVID-19, the annual meeting was held virtually to conduct essential business. This year, we are fortunate to be meeting in person in New Orleans on August 19–20, when we will hold our 100th annual meeting. While we are glad to be able to conduct Council business in person again, the meeting will be scaled back due to hotel restrictions on the number of attendees. Three delegates from each member board were invited to attend the annual meeting. The business sessions will be livestreamed so that nonattendees will be able to view the proceedings.

This publication includes all officer, committee, and task force reports from the 2020–21 fiscal year, along with the motions that will be presented for Council vote at the annual meeting. The proposed 2021–22 capital and operating budgets are also included. The committees and task force spent many hours addressing their charges, and we thank them for their dedicated work, especially since it was done virtually due to the pandemic.

We encourage all member boards to review the motions resulting from the work of the committees and task forces so that your board can decide on its vote before the annual meeting. In addition to the committee and task force reports and motions in this publication, there are other resources available on MyNCEES/Board Resources that can help you prepare for the annual meeting, including committee and task force video podcasts and State of the Council presentations. We will also hold engineering, surveying, and member board administrator forums in July. You can find details at ncees.org/annual_meeting.

Finally, please contact NCEES if you have any questions about committee reports or motions so we can respond before the annual meeting.

Sincerely,



B. David Cox
NCEES Chief Executive Officer

Annual Meeting Business Agenda

NCEES President Christopher Knotts, P.E., presiding

Note: All business sessions will be held during Central Daylight Time (CDT).

Thursday, August 19

Business Session 1

8:30–11:45 a.m. (CDT)

Call to order

Welcome

Invocation

Pledge of Allegiance

Introduction of NCEES board of directors

Quorum report

Announcements and practice motions

Officer reports

- President
 - Introduction of committee chairs
- President-elect
 - Actions taken by the board of directors
 - Approval of consent agenda
 - Approval of 2020 annual meeting minutes
- Treasurer
- Central Zone vice president
- Northeast Zone vice president
- Southern Zone vice president
- Western Zone vice president
- Chief executive officer
 - Speeches from nominees for 2021–22 president-elect (if election is contested)

Forum reports

- Engineers
- Surveyors
- Member Board Administrators

Committee and task force reports with motions

- Committee on Finances (6 motions)

Business Session 2

1:45–3:15 p.m. (CDT)

Call to order

Award winner recognition

Committee and task force reports with motions (continued)

- Advisory Committee on Council Activities (5 motions)
- Committee on Education (6 motions)

Friday, August 20

Business Session 3

8:30–10:30 a.m. (CDT)

Call to order

Introduction of new motions to agenda

Election of 2021–22 president-elect

Committee and task force reports with motions (continued)

- Committee on Examination Policy and Procedures (20 motions)
- Committee on Uniform Procedures and Legislative Guidelines (4 motions)

Business Session 4

1:45–5:00 p.m. (CDT)

Call to order

Committee and task force reports with motions (continued)

- Fire Protection Task Force (1 motion)
- Public Outreach Task Force (1 motion)

Board of directors' motion (1 motion)

Zone resolutions (if any are presented)

New business

Unfinished business

- Approval of budgets

Installation of 2021–22 NCEES officers

Speech from 2021–22 president

Invitation to 2022 annual meeting

Announcements

Conclusion of the 100th annual meeting

Consent Agenda

The board of directors endorses the following motions as potential consent items. Council delegates will be asked to approve the individual motions on the consent agenda. It is proposed that this ratification be made with a single motion. However, any member board may request that an item be removed from the consent agenda and returned to the non-consent agenda for separate consideration and action by the Council.

- President-elect Motion 2
- Finance Motions 1–6
- ACCA Motions 1, 2, 3, 5
- Education Motions 1–6
- EPP Motions 1–20
- UPLG Motions 1–3
- Fire Protection..... Motion 1
- Public Outreach..... Motion 1

Board of Directors' Positions on All Motions

| Motion number | Topic | Board of directors' position | Consent agenda | Page numbers |
|-------------------|--|------------------------------|----------------|--------------|
| President-elect 2 | Approve 2020 annual meeting minutes | Endorses | Yes | 15 |
| Finance 1 | Amend Financial Policy 8 | Endorses | Yes | 35 |
| Finance 2 | Amend Financial Policy 3B | Endorses | Yes | 35 |
| Finance 3 | Amend Financial Policy 5 | Endorses | Yes | 36 |
| Finance 4–5 | Postpone adoption of budgets until end of last business session | Endorses | Yes | 36 |
| Finance 6 | Amend Financial Policy 1D | Endorses | Yes | 37 |
| ACCA 1 | Adopt Administrative Policy 19 | Endorses | Yes | 49 |
| ACCA 2 | Charge Bylaws Committee with amending <i>Bylaws</i> 3.021 and 3.022 | Endorses | Yes | 49 |
| ACCA 3 | Charge appropriate committee with amending Exam Administration Policy 8 | Endorses | Yes | 50 |
| ACCA 4 | Charge Bylaws Committee with amending <i>Bylaws</i> for president-elect to appoint a past president as an additional member to each committee/task force | Does not endorse | No | 51 |
| ACCA 5 | Charge Bylaws Committee with amending <i>Bylaws</i> 7.02 | Endorses | Yes | 52 |
| Education 1 | Charge UPLG Committee with amending <i>Model Rules</i> 240.30 C | Endorses | Yes | 57 |
| Education 2 | Charge UPLG Committee with amending <i>Model Rules</i> 240.30 E | Endorses | Yes | 58 |
| Education 3 | Amend Position Statement 7 | Endorses | Yes | 58 |
| Education 4 | Amend Position Statement 13 | Endorses | Yes | 59 |

| Motion number | Topic | Board of directors' position | Consent agenda | Page numbers |
|------------------------------|---|-------------------------------------|-----------------------|---------------------|
| Education 5 | Charge UPLG Committee with amending <i>Model Rules</i> 240.30 D | Endorses | Yes | 60 |
| Education 6 | Amend Exam Administration Policy 5 and Position Statement 15 | Endorses | Yes | 61 |
| EPP 1 | Amend Exam Development Policy 1 | Endorses | Yes | 65 |
| EPP 2 | Amend Exam Development Policy 3 | Endorses | Yes | 66 |
| EPP 3 | Amend Exam Development Policy 3B, Exam Development Policy 15B, and Exam Administration Policy 8E | Endorses | Yes | 67 |
| EPP 4 | Delete Exam Development Policy 4 | Endorses | Yes | 68 |
| EPP 5 | Amend Exam Development Policy 5 | Endorses | Yes | 69 |
| EPP 6 | Amend Exam Development Policy 6 | Endorses | Yes | 69 |
| EPP 7 | Amend Exam Development Policy 8 | Endorses | Yes | 70 |
| EPP 8 | Amend Exam Development Policy 10 | Endorses | Yes | 72 |
| EPP 9 | Amend Exam Development Policy 11 | Endorses | Yes | 72 |
| EPP 10 | Amend Exam Development Policy 13 | Endorses | Yes | 73 |
| EPP 11 | Amend Exam Development Policy 16 | Endorses | Yes | 74 |
| EPP 12 | Amend Exam Development Policy 17 | Endorses | Yes | 74 |
| EPP 13 | Amend Exam Administration Policy 1 | Endorses | Yes | 75 |
| EPP 14 | Amend Exam Administration Policy 4 | Endorses | Yes | 76 |
| EPP 15 | Amend Exam Administration Policy 5 | Endorses | Yes | 76 |
| EPP 16 | Amend Exam Administration Policy 8, Exam Administration Policy 5B, and Exam Development Policy 15 C and D | Endorses | Yes | 77 |
| EPP 17 | Amend Exam Administration Policy 10 | Endorses | Yes | 79 |
| EPP 18 | Amend Exam Administration Policy 12 | Endorses | Yes | 80 |
| EPP 19 | Amend Exam Administration Policy 13 | Endorses | Yes | 80 |
| EPP 20 | Adopt Exam Administration Policy 5E | Endorses | Yes | 81 |
| UPLG 1 | Amend <i>Model Law</i> 140.20 D | Endorses | Yes | 85 |
| UPLG 2 | Amend <i>Model Rules</i> 240.30 B | Endorses | Yes | 86 |
| UPLG 3 | Amend <i>Model Rules</i> 240.30 C and E | Endorses | Yes | 87 |
| UPLG 4 | Amend <i>Model Law</i> 130.10 C | Endorses | No | 88 |
| Fire Protection Task Force 1 | Replace current Position Statement 22 with new language | Endorses | Yes | 90 |
| Public Outreach Task Force | Establish and charge a committee/ staff with developing a format for a group of young engineers and surveyors that can provide insight to the Council | Endorses | Yes | 92 |
| Board of directors | Charge Bylaws Committee with amending <i>Bylaws</i> 6.02 | Endorses | No | 93 |

Convention Rules

- In accordance with NCEES *Bylaws* 6.05, *Rules of Order*, "The Council shall be governed by the most recent edition of *Robert's Rules of Order, Newly Revised* when not in conflict with the *Bylaws*. The presiding officer shall rule on all questions pertaining to the *Bylaws* and rules of order in the conduct of the meetings. The President may appoint a parliamentarian to assist the presiding officer."
- Individuals who desire to address the annual meeting delegates shall approach a microphone and wait to be recognized by the chair. When recognized, they will give their name and the name of their member board or organization.
- Any delegate wishing to make additions to the published agenda must present the addition in writing to Chief Executive Officer David Cox or Chief Operating Officer Davy McDowell and to all delegates no later than 8:00 a.m. (CDT) on Friday, August 20.
- All main motions, except those made by a committee, a task force, or the NCEES board of directors, shall be in writing on the official motions form. The official motions form is on page 9 of this publication. It is also available for download at ncees.org/annual_meeting and will be available electronically on the NCEES guest business office computers. Whoever is making a motion that was not already published in the *Action Items and Conference Reports* (zone, member board, or individual) is responsible for distributing a hard copy of the motion on the official motions form to all delegate seats no later than 8:00 a.m. on Friday, August 20 (CDT). The NCEES guest business office has the equipment necessary for printing and copying.
- Motions proposed by committees, task forces, zones, and the board of directors do not need a second. Motions and amendments proposed by individuals/member boards do require a second.
- In all cases, the maker of the motion or resolution shall be entitled to speak first. The chair will then ask for those who wish to speak in favor and then those who wish to speak against the motion or resolution in alternating fashion. This procedure will continue until there are no persons desiring to speak on one side of the question, at which time debate will cease and the issue will be voted on.
- A delegate may not move to stop debate or call the question as part of the debate on the motion unless the action to do so is approved by a majority of the member boards.
- For contested offices, speeches by the candidates and questions from the floor will be allowed during Business Session 1.
- Where there is only one candidate for election, a ballot vote may be dispensed with and an election by acclamation shall be held. However, upon the request of a single member, a ballot vote will be conducted electronically.
- A consent agenda shall be presented to the delegates for adoption without debate. Upon request of a single member board, any item may be removed from the consent agenda for separate consideration and action by the Council.
- Voting on motions and the election of officers will be conducted using the electronic voting keypads placed at each board's placard. In accordance with NCEES *Bylaws* 6.02, *Quorum and Voting*, "Only Member Boards shall be entitled to vote. Voting shall be by Member Boards, with each board entitled to one vote. If a Member Board is represented by more than one delegate present at the time of voting, the vote may be split proportionately if its delegates wish. ..." To do split a member board vote, the board should hold up the placard so that its split vote can be given verbally. After a motion is presented, there will be a two-minute period in which delegates can cast a vote.
- An associate member may serve as a member board delegate for voting purposes only when so designated by the board's chair through written, signed communication presented to NCEES staff prior to the opening session of the meeting. For boards that require authorization from the state, such designation may come from the agency director for that board.
- A majority vote of the member boards represented shall be required for affirmative action on all motions except for amendments to the *Bylaws*. An affirmative vote of two-thirds of member boards present and in good standing shall be required to adopt amendments to the *Bylaws*.
- Should any delegate have an emergency that requires early departure from the meeting, the delegate must notify a member of the NCEES staff before departing.

Provisions of the *Bylaws* Relating to the 2021 Annual Meeting

Section 3.01 Member Boards. A Member Board of NCEES shall be a state board, as defined in Article 1, Section 1.02, which is a member of the Council. Acceptance of a Member Board shall be by majority vote of the Council. Member Boards shall pay fees as set forth in the *Bylaws*.

Section 3.02 Members. A member of NCEES shall be a person who is a member of a Member Board.

Section 3.021 Associate Members. An associate member of NCEES shall be a designee of a Member Board, but not a member of a Member Board, who is appointed by the NCEES Board of Directors as an associate member of NCEES.

Recommendations for associate members of NCEES shall be submitted by Member Boards to the Board of Directors and become effective upon appointment by the Board of Directors. Such appointments shall be reviewed annually by each Member Board and shall remain in effect until the Board of Directors is notified otherwise by the Member Board.

Associate members of NCEES shall have the privilege of the floor upon approval of the presiding officer and may serve on any committee to which duly appointed under the *Bylaws*. Associate members are eligible to hold the elective office of zone Secretary-Treasurer but are not eligible to serve on the NCEES Board of Directors.

Section 3.022 Emeritus Members. An emeritus member of NCEES shall be a person who is a former member of a Member Board who is duly recommended by that Member Board and approved by the NCEES Board of Directors. Such appointments shall be reviewed annually by each Member Board and shall remain in effect until the Board of Directors is notified otherwise by the Member Board.

Emeritus members of NCEES shall have the privilege of the floor upon approval of the presiding officer and may serve on any committee to which duly appointed under the *Bylaws*.

Section 3.05 Delegates. A delegate shall be a member or an associate member designated by a Member Board to represent it at meetings of the Council. A Member Board may have as many delegates as it has members but may cast votes only as prescribed. Any delegate shall have the privilege of the floor.

Section 4.04 Elections and Terms of Office. The President-Elect shall be elected by the Council at each Annual Business Meeting in the manner prescribed in the *Bylaws*. The President-Elect shall serve the Council for a period of three years. The first year shall be as President-Elect. The second year, without further election, the President-Elect shall become President, holding that office until a successor has been installed. The third year, without further election, the President shall become Immediate Past President. Any member elected to the office of President-Elect shall be eligible to serve as President-Elect, President, and Immediate Past President, with full authority of the offices and board privileges. Past Presidents shall be ineligible for reelection as President-Elect of the Council.

The Treasurer shall be elected at the Annual Business Meeting every three years in the manner prescribed in the *Bylaws*. Treasurers shall not be eligible for reelection to the same office until at least one full term has elapsed. For the office of Treasurer, a partial term served shall not be considered a term for term-limit purposes.

Vice Presidents shall be elected at their respective Zone Interim Meeting every two years in the manner prescribed in the *Bylaws*. Vice Presidents from the Northeast and Southern Zones shall be elected in odd-numbered years. Vice Presidents from the Central and Western Zones shall be elected in even-numbered years. Vice Presidents shall not be eligible for reelection to the same office until at least one full term has elapsed. For the office of Vice President, a partial term served shall not be considered a term for term-limit purposes.

New members of the Board of Directors shall assume their duties at the conclusion of the Annual Business Meeting. Board members may continue to serve until the conclusion of the term of office to which they were elected even if their terms with Member Boards have ended.

Section 4.05 Qualifications. Any member of NCEES who is a citizen of the United States and a member of a Member Board sometime during the calendar year in which the nomination occurs is eligible to hold an elective office. Associate members are not eligible to serve on the NCEES Board of Directors.

To be eligible for the office of President-Elect, a person shall be a licensed engineer or surveyor, shall have been a member of NCEES at least three years, and shall have attended at least two NCEES Annual Business Meetings.

Members of the Board of Directors may run for President-Elect if:

- Their term on their state board has expired during their term as NCEES treasurer or vice president;
- They have obtained emeritus standing within the Council, they have the approval of their state board;
- It is their zone's rotation to elect a president-elect; and
- They have been nominated by the zone.

The President-Elect shall not be from the same zone as the President.

To be eligible for the office of Treasurer, a person shall be a licensed professional engineer, licensed professional surveyor, or public member.

To be eligible for the office of Vice President, a person shall be a licensed professional engineer or surveyor and shall be from the zone that elects him or her.

Section 5.01 President. The President shall, when present, preside at all meetings and shall present to the Council at the Annual Business Meeting a report of the activities during the term of office. The President shall appoint all members, chairs, vice-chairs, and consultants of standing committees, special committees, and task forces unless specific action of the Council or of the Board of Directors names the personnel of the committee or task force. The President shall also appoint all members of a Tellers Committee for the election of the President-Elect and Treasurer. The President shall appoint all official representatives of the Council to other organizations as authorized by the Board of Directors. The President shall be chair of the Board of Directors, shall be an ex-officio member of all committees, and shall perform all other duties ordinarily pertaining to the office of President.

If both the President and the President-Elect are absent, the Vice President from the zone that will be nominating the next President-Elect will be the acting President. The Vice President shall have all the powers of the President while presiding in this capacity.

Section 6.01 Annual Business Meetings. The Annual Business Meeting of the Council shall be held at the time and place selected by the Board of Directors.

Notice of the Annual Business Meeting shall be provided to each Member Board, member, associate member, International Affiliate Organization, and Participating Organization not less than four weeks prior to each meeting.

The Board of Directors shall prepare a consent agenda for each Annual Business Meeting. Individual motions may be removed from the consent agenda upon request by any Member Board.

Section 6.02 Quorum and Voting. A quorum for the transaction of business at the Annual Business Meetings of the Council shall be delegates from a majority of Member Boards. A majority vote of the Member Boards represented shall be required for affirmative action unless otherwise provided for in the Bylaws.

Only Member Boards shall be entitled to vote. Voting shall be by Member Boards, with each board entitled to one vote. If a Member Board is represented by more than one delegate present at the time of voting, the vote may be split proportionately if its delegates wish. An associate member may serve as a Member Board delegate for voting purposes only when so designated by the Member Board's chair through written, signed communication presented to NCEES staff prior to the opening session of the meeting. For Member Boards that require authorization from the state, such designation may come from the agency director for that board.

Section 6.05 Rules of Order. The Council shall be governed by the most recent edition of *Robert's Rules of Order, Newly Revised* when not in conflict with the Bylaws. The presiding officer shall rule on all questions pertaining to the Bylaws and rules of order in the conduct of the meetings. The President may appoint a parliamentarian to assist the presiding officer.

The order of business for the Annual Business Meeting shall be established by the President and published as part of the meeting agenda prior to the beginning of the meeting.

Section 9.01 Budget Preparation. The Committee on Finances shall submit a recommended annual budget for review by the Board of Directors. The Committee on Finances will present the budget as part of its committee report for Council approval at the Annual Meeting.

The fiscal year shall begin on October 1 and extend through September 30 of the following calendar year.

Section 11.01 Nominations. A nomination for the office of President-Elect shall be presented to the Board of Directors by the respective Zone Vice President as voted on by the respective zone at its Zone Interim Meeting. The order of rotation for President-Elect shall be Northeast Zone, Central Zone, Southern Zone, and Western Zone.

Member boards may submit nominations for qualified Treasurer candidates in the third year of the outgoing Treasurer's term. These nominations shall be filed with the Chief Executive Officer not later than 60 days prior to the opening of the Annual Business Meeting.

Any delegate shall have the privilege of making nominations for President-Elect and Treasurer from the floor. Such nominees from the floor must meet requirements set out in Section 4.05 and be seconded by at least four Member Boards.

Section 11.02 Tellers Committee. The Tellers Committee shall consist of five members, including a chair and one representative from each zone. No member of the committee is eligible to serve as a teller for an election in which he or she is a candidate. The Tellers Committee will tabulate the results for all votes taken and report the results to the President.

Section 11.03 Voting. All elections shall be by ballot at the Annual Business Meeting. All elections shall be by a majority of votes cast unless otherwise stipulated by the *Bylaws*.

Section 12.02 Amendments. The *Bylaws* may be amended at any Annual Business Meeting by a two-thirds affirmative vote of the Member Boards present and in good standing. Any amendment proposed shall be sent to a Special Committee on Bylaws by the President at the President's initiative or as requested based on action by the Council. Any amendments recommended by a Special Committee on Bylaws shall be submitted to all Member Boards at least 60 days prior to the date of the earliest zone meeting preceding the next Annual Business Meeting. Voting shall be by sections. All sections shall be considered in their proposed form, including punctuation and verbiage. Changes to the published amendments will not be permitted during the Annual Business Meeting. Copies of the proposed amendments to be voted upon shall be distributed in written form to delegates at the Annual Business Meeting.

Section 12.021 Effective Date of Amendments. An amendment to the *Bylaws* shall become effective upon certification by the presiding officer at the Annual Business Meeting of a two-thirds affirmative vote of the Member Boards in good standing represented.

NCEES Official Motions Form

2021 NCEES Annual Meeting

Instructions

- Any delegate wishing to make additions to the published agenda must present the addition in writing to Chief Executive Officer David Cox or Chief Operating Officer Davy McDowell and to all delegates no later than 8:00 a.m. (CDT) on Friday, August 20.
- All main motions—except those made by a committee, a task force, or the NCEES board of directors—shall be in writing on this official motions form, with hard copies distributed to all delegates by 8:00 a.m. (CDT) on Friday, August 20. The electronic version of this form can be downloaded from ncees.org/annual_meeting. It will also be available in the NCEES guest business office.

Print name: _____ Member board: _____

Signature: _____ Date: _____

Mr. President, I request the privilege of the floor to make the following motion.

MOVE THAT:

Acronyms and Abbreviations

| | |
|------------|---|
| AAEES | American Academy of Environmental Engineering and Scientists |
| ABET | Accreditation Board for Engineering and Technology, Inc. |
| ACCA | Advisory Committee on Council Activities |
| ACEC | American Council of Engineering Companies |
| ADA | Americans with Disabilities Act |
| AEI | Architectural Engineering Institute of ASCE |
| AIA | American Institute of Architects |
| AIChE | American Institute of Chemical Engineers |
| AIME | American Institute of Mining, Metallurgical, and Petroleum Engineers |
| ANS | American Nuclear Society |
| ANSAC/ABET | Applied and Natural Science Accreditation Commission of ABET |
| AP | NCEES administrative policy |
| APEC | Asia-Pacific Economic Cooperation |
| APEGA | Association of Professional Engineers and Geoscientists of Alberta |
| APEGBC | Association of Professional Engineers and Geoscientists of British Columbia |
| APEGM | Association of Professional Engineers and Geoscientists of Manitoba |
| ARPL | Alliance for Responsible Professional Licensing |
| ASABE | American Society of Agricultural and Biological Engineers |
| ASCE | American Society of Civil Engineers |
| ASEE | American Society for Engineering Education |
| ASHRAE | American Society of Heating, Refrigerating, and Air-Conditioning Engineers |
| ASME | American Society of Mechanical Engineers |
| ASPE | American Society of Plumbing Engineers |
| ASPRS | American Society for Photogrammetry and Remote Sensing |
| AUC | American University in Cairo |
| AUS | American University of Sharjah |
| CBT | Computer-based testing |
| CEAB | Canadian Engineering Accreditation Board |
| CESB | Council of Engineering and Scientific Specialty Boards |
| CIDQ | Council for Interior Design Qualification |
| CIE | Chinese Institute of Engineers (Taiwan) |
| CLARB | Council of Landscape Architectural Registration Boards |
| CLEAR | Council on Licensure, Enforcement, and Regulation |
| CLSA | California Land Surveyors Association |
| CPC | Continuing professional competency |
| CSBSR | Colonial States Boards of Surveyor Registration |
| E.I. | Engineer intern |
| E.I.T. | Engineer-in-training |
| EAC/ABET | Engineering Accreditation Commission of ABET |
| EAP | NCEES examination administration policy |
| EDP | NCEES examination development policy |
| EPE | Committee on Examinations for Professional Engineers |
| EPP | Committee on Examination Policy and Procedures |
| EPS | Committee on Examinations for Professional Surveyors |
| ETAC/ABET | Engineering Technology Accreditation Commission of ABET |
| EWB-USA | Engineers Without Borders USA |
| EWeek | DiscoverE Engineers Week |
| FE exam | Fundamentals of Engineering examination |
| FP | NCEES financial policy |
| FS exam | Fundamentals of Surveying examination |
| ICOR | Interprofessional Council on Registration |
| IEA | International Engineering Alliance |
| IEEE-USA | Institute of Electrical and Electronics Engineers-USA |
| IISE | Institute of Industrial and Systems Engineers |
| IPEA | International Professional Engineers Agreement |
| ISA | International Society of Automation |
| ITU | Istanbul Technical University |

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|----------|--|
| JPEC | Japan PE/FE Examiners Council |
| KPEA | Korean Professional Engineers Association |
| L.S. | Land surveyor |
| L.S.I. | Land surveyor intern |
| L.S.I.T. | Land-surveyor-in-training |
| MBA | Member board administrator |
| MLE | Model Law Engineer |
| MLS | Model Law Surveyor |
| MLSE | Model Law Structural Engineer |
| MSPS | Michigan Society of Professional Surveyors |
| NAE | National Academy of Engineering |
| NAFE | National Academy of Forensic Engineers |
| NCARB | National Council of Architectural Registration Boards |
| NCEES | National Council of Examiners for Engineering and Surveying |
| NCSEA | National Council of Structural Engineering Associations |
| NICET | National Institute for Certification in Engineering Technologies |
| NIEE | National Institute for Engineering Ethics |
| NSAE | National Society of Architectural Engineers |
| NSBE | National Society of Black Engineers |
| NSPE | National Society of Professional Engineers |
| NSPS | National Society of Professional Surveyors |
| PAKS | Professional activities and knowledge study |
| P.E. | Professional engineer |
| PE exam | Principles and Practice of Engineering examination |
| P.L.S. | Professional land surveyor |
| POLC | Participating Organizations Liaison Council |
| PP | NCEES professional policy |
| PS | NCEES position statement |
| P.S. | Professional surveyor |
| PS exam | Principles and Practice of Surveying examination |
| SaGES | Surveying and Geomatics Educators Society |
| SAME | Society of American Military Engineers |
| SCE | Saudi Council of Engineers |
| S.E. | Structural engineer |
| SEI | Structural Engineering Institute of ASCE |
| SFPE | Society of Fire Protection Engineers |
| SHPE | Society of Hispanic Professional Engineers |
| S.I. | Surveyor intern |
| S.I.T. | Surveyor-in-training |
| SME | Society for Mining, Metallurgy, and Exploration |
| SNAME | Society of Naval Architects and Marine Engineers |
| SPE | Society of Petroleum Engineers |
| SWE | Society of Women Engineers |
| TAMUQ | Texas A&M University at Qatar |
| TMS | The Minerals, Metals, and Materials Society |
| UESI | Utility Engineering and Surveying Institute of ASCE |
| UPLG | Committee on Uniform Procedures and Legislative Guidelines |

2020–21 NCEES Leadership

BOARD OF DIRECTORS/OFFICERS

President

Christopher Knotts, P.E.
Louisiana

President-elect

Brian Robertson, P.E.
Colorado

Past president

Dean Ringle, P.E., P.S.
Ohio

Treasurer

Paul Tyrell, P.E., P.L.S.
Massachusetts

Central Zone vice president

Michael Drewyor, P.E., P.S.
Michigan

Northeast Zone vice president

Christopher Duhamel, P.E., P.S.
Rhode Island

Southern Zone vice president

Timothy Lingerfelt, P.L.S.
Tennessee

Western Zone vice president

Scott Bishop, P.S.
Utah

Secretary/chief executive officer

David Cox
South Carolina

ZONE ASSISTANT VICE PRESIDENTS

Central Zone

Janice Bostelman, P.E.
Nebraska

Northeast Zone

Ronald Willey, Ph.D., P.E.
Massachusetts

Southern Zone

Andrew Zoutewelle, P.L.S.
North Carolina

Western Zone

Mohammad (Dr. Q) Qureshi, Ph.D., P.E.
California

ZONE SECRETARY-TREASURERS

Central Zone

Dennis Martenson, P.E.
Minnesota

Northeast Zone

John Mettee III, P.L.S.
Maryland

Southern Zone

Chris Ramseyer, Ph.D., P.E.
Oklahoma

Western Zone

Richard (Ric) Moore, P.L.S.
California



President's Report
Christopher Knotts, P.E.

As I write this message, we have just completed the virtual Southern Zone interim meeting, the first of our four zone interim meetings. COVID-19 forced the cancellation of the 2020 interim meetings. We had hoped to hold in-person zone meetings in 2021, but virtual was our only option due the continuing pandemic and restrictions on attendance numbers.

Being a very small group, the board of directors met in early November and again in late February, both times in Greenville, South Carolina.

At the November meeting, we discussed normal business topics such as committee and financial updates, but the biggest issue for us then was the upcoming zone meetings. Registration for the first zone meeting was opening in December, and there were no indications that large meetings would be allowed. Because of the pending large financial commitments associated with the meeting venues coupled with many boards having travel restrictions, in late November the board of directors made the difficult decision to move all the zone interim meetings to a virtual format. No one is more disappointed than I that we did not meeting in person, but it was the reasonable and responsible thing to do.

In February, the board of directors received reports from meetings, committees, and finances. The most spirited discussion focused on the Committee on Examinations for Professional Surveyors (EPS) and its work on the surveying divisions development. It appears that more work will need to be done before that effort is complete. I will leave the details to the EPS chair in that committee's report. The board of directors also discussed the annual meeting. It discussed and decided that an in-person annual meeting, even with a reduced number of attendees, would be required to ensure the business of the Council is accomplished. Due to the venue and local restrictions, attendance at the 2021 annual meeting must be limited to three delegates per board.

In mid-November, NCEES participated in the 2020 Leadership Summit hosted by the American Society of Civil Engineers. Other participants included ABET, the American Society for Engineering Education, and the National Society of Professional Engineers, with each group providing updates on important issues. The virtual format for this meeting proved very productive and allowed a broader participation by all organizations.

In January, Chief Executive Officer David Cox, Chief Operating Officer Davy McDowell, P.E., President-Elect Brian Robertson, P.E., and I participated in a virtual Interprofessional Council on Regulation (ICOR) meeting. ICOR brings together NCEES, the Council for Interior Design Qualification, the Council of Landscape Architectural Registration Boards, and the National Council of Architectural Registration Boards (NCARB) to discuss issues affecting our members. This year, NCEES hosted the meeting. We briefed the group on our response to COVID-19; COO McDowell covered exam updates and the transition to CBT. I briefed the group on committee and task force updates; the Engineering Licensure Model Task Force's work generated discussion. President-Elect Robertson provided his 2021–22 vision for NCEES. Finally, CEO Cox reviewed NCEES efforts to address threats to public protection. NCARB formed an Incidental Practice Task Force to discuss overlap between the professions. Immediate Past President Dean Ringle, P.E., P.S., is representing NCEES on that task force.

Shortly after the ICOR meeting, we held the virtual Member Board Administrators Meeting and the Board Presidents' Assembly on January 29. In addition to our normal updates, we held a test run of the voting procedure that would be used at all the zone meetings.

We hosted the Participating Organizations Liaison Council virtually in early March. This is an NCEES committee, and the member organizations are mainly those whose members serve on our exam development committees. Holding this meeting virtually was a great format for this group.

The board continued member board visits, both in person and virtually. These visits have been a useful avenue for communications between the board of directors and state boards.

Finally, the year 2020 was the centennial of the Council's founding. We recognized it throughout the year and will continue to celebrate this milestone throughout 2021, when NCEES will hold its 100th annual meeting. As part of these anniversaries, NCEES developed a special centennial website. I encourage you to visit it at ncees.org/100 to explore the history of NCEES and its accomplishments over the last 100 years.

I am sure every president before me said the same thing, but this year is passing very quickly. The lack of in-person meetings has made many things seem to run together, which probably added to how fast the year is going. Currently, we are still on track for our annual meeting in New Orleans. Stay safe, and I look forward to seeing you in August.



President-Elect's Report

Brian Robertson II, P.E.

Greetings! I am writing this report in the midst of our zone interim meetings and enjoying the changing seasons from winter to spring here in Colorado. This time of renewal and rebirth is inspiring, watching new flowers bloom, grass greening up from its long winter rest, and trees bud and blossom. It also appears that we are finally seeing the light at the end of the COVID-19 dark tunnel.

This last year has been a challenging one for the entire Council—our member boards, our committees, and our examinees. From canceled exam administrations and meetings to learning how to conduct our business virtually, we have all risen to the challenge in this most unusual year. I am especially grateful to our exam development volunteers and committees who adjusted their regular meetings and continued their important work throughout the year. We look forward to seeing one another in person again, and it appears that day may be coming soon.

Many of you may have heard my message at the zone interim meetings. I am setting three “big swing” goals for our Council next year.

First, in this inspiring springtime of renewal, I am looking to do a good spring cleaning to start the Council's second century. I will be assigning several standing committees, and perhaps creating a task force if needed, to review all NCEES policies and position statements—top to bottom—to assess whether they still serve and represent the needs of our 21st century Council. For example, at least nine different policies deal with education. Perhaps they could be combined into a singular policy for better clarity and easier management in the future. A few years ago, the Committee on Examination Policy and Procedures did a deep dive into the different examination development and examination administration policies and found that several topics in one policy belonged in another policy. I believe this is a good time to examine all of our policies and have an open discussion about them.

Second, I am continuing the work of the Committee on Examinations for Professional Surveyors (EPS) as it implements the Council's direction to study changing the Principles and Practice of Surveying examination to several separate divisions. The work of this committee over the past several years has laid the foundation for input from our psychometrician and the Committee on Finances to get a solid understanding of the potential size, duration, and cost of each division. This is supporting the next major step: commissioning a professional activities and knowledge study (PAKS) for each division and making final recommendations to the Council for action. There is still a lot of work to be done, and the EPS Committee is very committed to working on this continuing charge through another year.

Third, the Engineering Licensure Model Task Force spent this year researching past NCEES reports and studying licensure models in both domestic medical fields and foreign engineering models. When President Christopher Knotts, P.E., Immediate Past President Dean Ringle, P.E., P.S., and I discussed the need for this task force, we understood that it was going to span several years to complete its work. Next year, I am going to ask the task force to build upon this year's information and, specifically, to study a licensure model for incorporating engineering graduates, engineering technology graduates, and certified engineering technicians. Our current licensure model has served our professions well for the past century, but times are changing. While some of tomorrow's engineering graduates will enter the profession with legacy or traditional disciplines, some will do so with more modern, hybrid, and multidiscipline education. We may need to adapt our licensure model to be nimble while still maintaining the rigor necessary to meet our fundamental role—to protect the health, safety, and welfare of the public.

I am excited for the future of our great professions, and I am humbled to lead this amazing organization for the next year. Thank you for your enthusiasm and support for our noble mission.

Board of Directors' Action Items

Action items from the fifth meeting of the 2019–20 board of directors

August 27, 2020, virtual meeting

- Approved minutes of the fourth meeting of the 2019–20 board of directors
- Approved nominations from member boards for emeritus and associate member status
- Approved a resolution authorizing the CEO to execute contracts and other documents on behalf of the board and to select banks or other thrift institutions for the deposit of Council funds
- Approved an additional 4 percent contribution to the 401(k) retirement plan for all eligible NCEES staff participants

Action items from the first meeting of the 2020–21 board of directors

November 6–7, 2020, Greenville, South Carolina

- Approved minutes of the fifth meeting of the 2019–20 board of directors
- Ratified the NCEES president's nominations for ABET commission representatives
- Approved nominations from member boards for emeritus and associate member status
- Approved the International Affiliate Organizations dues
- Endorsed the Society of Fire Protection Engineers position paper *The Engineer and the Engineering Technician Designing Fire Protection Systems* and endorsed sharing with the society comments/recommendations from the task force
- Approved in-person zone interim meetings in 2021, with only two delegates per board allowed to attend the respective meetings
- Approved the agenda for the Board Presidents' Assembly
- Approved no fee for Participating Organizations Liaison Council dues
- Approved exam item replacement costs for 2021, with \$2,316 for each pencil-and-paper multiple-choice item, \$1,787 for each computer-based testing multiple-choice item, and \$16,361 for each constructed response item. Further, it approved \$3.4 million in designated assets as replacement costs in the event of a total examination breach.

Action items from the second meeting of the 2020–21 board of directors

February 26, 2021, Greenville, South Carolina

- Approved minutes of the first meeting of the 2020–21 board of directors
- Approved nominations from member boards for emeritus and associate member status
- Ratified the action taken by the NCEES board of directors to approve the audit report of the 2019–20 NCEES financial records
- Approved the 2020–21 financial auditors
- Ratified the appointment of the ETAC/ABET commission representative
- Ratified the action taken by the NCEES board of directors to change the 2021 zone interim meetings to a virtual format
- Ratified the action taken by the NCEES board of directors to approve \$25,000 for potential lobbying related to advocacy in Arizona as requested by the Arizona board
- Approved limiting the 2021 annual meeting to two delegates per member board
- Approved a \$40,000 budget variance related to the production of reference materials for the PE Civil examination
- Approved the future zone interim meeting schedule
- Approved delaying the examination audit of the following examinations until fiscal year 2021–22: Principles and Practice of Engineering (PE) Civil, PE Industrial and Systems, PE Mining and Mineral Processing, PE Naval Architecture and Marine Engineering, and Principles and Practice of Surveying (PS)
- Approved Patty Mamola, P.E., for a second term as chair of the Asia-Pacific Economic Cooperation Executive Committee of the International Engineering Alliance

**Action items from the third meeting of the 2020–21 board of directors
May 24–25, 2021, Hilton Head Island, South Carolina**

- Approved the minutes of the second meeting of the 2020–21 board of directors
- Approved nominations from member boards for emeritus and associate member status
- Ratified modifications to the investment guidelines
- Approved the recommendation from the Committee on Education for staff to send a memorandum to boards as outlined in the committee report
- Approved the 2021–22 operating budget and approved the 2020–21 capital budget as recommended by the Committee on Finances
- Approved the NCEES Committee on Awards recommendations for the NCEES Distinguished Service Award and Distinguished Examination Service Award
- Approved the Committee on Examinations for Professional Surveyors recommendation for starting the professional activities and knowledge study (PAKS) process in fiscal year 2021–22 and approved an additional \$90,250 to be added to the budget for approval at the annual meeting in August
- Adopted the consent agenda as approved for the 2021 annual meeting
- Adopted the order of business as revised for the 2021 annual meeting
- Approved for the board of directors to put forth a motion to modify *Bylaws* 6.02 to remove wording that allows for boards to split votes
- Approved the 2020–21 committee/task force/officer reports for publication in the annual meeting *Action Items and Conference Reports*

Motion to Approve the 2021 Consent Agenda

Move that the Council approve by general consent the items identified in the consent agenda shown on page 3.

Motion to Approve the 2020 Annual Meeting Minutes

Move that the Council approve the minutes of the 2020 annual meeting.

Board of directors position

Endorses, consent agenda



Treasurer's Report

Paul Tyrell, P.E., P.L.S.

Wow. I wonder if I were told before I decided to run for treasurer that we would experience a worldwide health emergency that would throw the financial markets into complete disarray and uncertainty whether I would have thrown my hat in the ring. Well, I am happy to inform you that due to years of sound leadership, conservative financial planning, and dedicated teams focused on the future of this organization, we have weathered the immediate storm and are well poised to address the uncertainties of the economic markets as they pull themselves out of this unprecedented financial crisis.

As with each NCEES assignment, my first year as treasurer has been all about learning. As treasurer, I serve as the board of directors liaison to the Committee on Finances, the Financial Audit Committee, and the Investment Advisory Group. I also served this past year as board of directors liaison to the Fire Protection Task Force, which was an interesting departure from the focusing on the organization's finances.

My work with each of the committees and with their dedicated members provides me with great confidence in my reporting and the financial health of our organization.

How did we finish the 2019–20 fiscal year?

Despite the \$1.7 million operational loss from last year due to exam cancellations, the Council's strong investment income resulted in a \$22,000 surplus. Exam revenue is the lifeblood of NCEES and is used to fund almost all of the services provided to member boards. It is a testament to our current and past leadership that our investment portfolio was critical to our ability to meet the financial test brought on by the pandemic.

How we stand for the 2020–21 fiscal year?

Through the first eight months of the year, COVID-19 continues to have a substantial financial impact on our operations. NCEES has a \$4.5 million gain from operations vs. a budgeted gain of \$5.4 million; therefore, we are short of the year-to-date budget by \$900,000.

Year-to-date revenue is \$4.2 million less than budget, due to continued lower-than-planned registrations for the pencil-and-paper exams and lower Fundamentals of Engineering exam revenue; year-to-date expenses are \$3.3 million less than budget due to the Council's continued cost-savings measures through reduced travel, virtual meetings, and outreach savings.

The board of directors and NCEES Investment Advisory Group have continued to monitor current financial trends and to consider appropriate adjustments to our investments to maintain our strong balance sheet. Members of the Investment Advisory Group have been limited to conference calls with Wealth Enhancement Group representatives several times throughout the past year, during which they provided NCEES with guidance regarding our investments to maximize our returns. In early March, the Investment Advisory Group met with Wealth Enhancement Group representatives to review the investment portfolio's performance and current asset allocation; as they do yearly, they made some suggested minor changes to the asset allocation. These recommendations are consistent with our conservative investment strategy and will serve to maintain our reserves at adequate levels with growth consistent with our goals. The recommended changes to the asset allocation were approved by the NCEES board of directors in June. Information about the value of NCEES investments can be found on page 41 of the NCEES 2020 annual report, which is available as a PDF file at ncees.org/annualreport.

Of particular interest this year was the development of the annual budget. Our 100-year-old organization has steadily grown. We purchased a new headquarters building, embraced computer-based testing, and faced

many more challenges. The rate of these changes, however, has slowed—and the changes were well planned for. How does the organization plan for the post-pandemic period? When will exam usage numbers return to normal? The 2021–22 fiscal year budget has been prepared based on the best available information. The Finance Committee and the board of directors reviewed it, and the Council will vote on approving it at the August annual meeting. Our financial staff, led by Chief Financial Officer Joe Scheving, CPA, has done an excellent job of responding to the financial turmoil created by COVID-19, and they have my full confidence in their ability to navigate the budget over the coming fiscal year.

I sincerely appreciate the opportunity you have given me to serve as your treasurer. If you have any questions about NCEES finances, please contact me through NCEES.



Central Zone Vice President's Report

Michael Drewyor, P.E., P.S.

I was excited to be able to run for the office of Central Zone vice president in 2020. My last board meeting with the Michigan PE and PS boards was in January 2020. I also retired from my full-time teaching position at Michigan Tech University in January 2020. My nomination from both Michigan boards to serve as an emeritus member was approved by the NCEES board of directors in February 2020. I then made a lot of preparations in advance of the all-zone interim meeting to be held in Houston to present my qualifications as a candidate for the Central Zone vice president position.

The world changed in March 2020 with the pandemic and then the cancellation of almost all face-to-face meeting activities of any kind, including all NCEES meetings. Consequently, a vote by ballot was held in July 2020. I was elected 2020–22 Central Zone vice president, and Janice Bostelman, P.E. (NE-PE) was elected 2020–22 Central Zone assistant vice president. Dennis Martenson, P.E. (MN) continued on as secretary–treasurer; his term expires in August 2021. Brian Robertson, P.E. (CO, Western Zone vice president) was elected to serve as the 2020–21 NCEES president-elect, and Paul Tyrell, P.E., P.E. (MA) was elected NCEES treasurer for a three-year term (2020–23).

I attended a series of three virtual webinars available to the entire NCEES Council in June and July 2020. These webinars covered most of the annual business meeting items for the Council. The annual meeting was then held virtually in August 2020. My thanks and appreciation go out to the 2019–20 zone officers, especially Central Zone Vice President Marlon Vogt, P.E. (IA) for his help in getting me oriented and Central Zone Secretary–Treasurer Dennis Martenson, P.E. (MN).

The Awards Committee identified two very deserving Central Zone Distinguished Service Award recipients during the 2019–20 year. Due to no zone meeting being held in 2020, no awards ceremony was held. The two recipients were Dennis Martenson and Steven Bishop, S.E. (IL-SE). They were recognized virtually at the Central Zone interim meeting in April 2021. The 2020–21 Awards Committee identified two excellent award recipients in Dean Ringle, P.E., P.S. (OH) and Larry Graham, P.E., L.S. (KS). They were also recognized virtually at the Central Zone interim meeting in April 2021. I thank the 2020–21 Awards Committee members and all of the volunteers who served on the zone standing committees this past year.

The highlight of my first year of service was the opportunity to finally have a face-to-face meeting with the NCEES board of directors in Greenville, South Carolina, at the new headquarters building. This was the first meeting of any kind held at the new building. This new facility is a great step up and will serve NCEES staff and its volunteers well into the foreseeable future. I also attended the virtual Board Presidents' Assembly in January 2021 and the 2020 monthly State of the Council virtual meetings.

The 2021 Central Zone interim meeting was held virtually on April 29, with two zone events leading up to it. First, an online New Members event was held on April 22, and it was well attended. This was followed by a virtual trivia night event on April 28. The April 29 virtual interim meeting was run from the headquarters building in Greenville. During the meeting, Sam Reed, P.E. (IN-PE) was elected zone secretary-treasurer; he will serve from August 2021 to August 2023. I thank him for volunteering and accepting this zone position.

As I write this report, NCEES is scheduled to hold the annual meeting as a face-to-face event in New Orleans in August 2021. There will be limited attendance because of local restrictions.

NCEES staff have stepped up to meet the challenge of the pandemic and continue to provide most services. I look forward to seeing some of you in person in New Orleans and also at your board meetings in the next year as life returns to normal.

Draft minutes from the interim meeting will be available for download at ncees.org/annual_meeting by August. The zone will vote on approving the minutes at the annual meeting.



Northeast Zone Vice President's Report

Christopher Duhamel, P.E., P.L.S.

I respectfully submit my final Northeast Zone Vice President report, which concludes the two- year term. The position has been a rewarding experience and has been an honor to serve. Given the pandemic restrictions, I have attended all of the board of director meetings virtually, with the February meeting recovering from Covid-19 myself. During the pandemic, I can report that the NCEES staff were outstanding with support and guidance to negotiate through all the rules to keep staff and volunteers safe while conducting Council business to progress and recover.

The Northeast Zone interim meeting was a great improvement over last year (last year it was canceled, so there was nowhere to go but up!). Although it wasn't in person where we could share stories and each other's company, we did get together to complete business. Thank you for your patience negotiating the virtual meeting format and for participating. This year, the past 2019 Northeast Zone meeting minutes and the 2020–21 Council committee reports were posted online for member board review. Thank you for approving the minutes. I hope you get a chance to view the committee report podcasts on MyNCEES/Board Resources. Thank you to the Northeast Zone members for your dedicated volunteer service on the committees.

Other business completed at the interim meeting include the following:

Northeast Zone Awards Committee

- Lesley Rosier-Tabor, P.E. (WV-PE), chair
- Azuanuka (Azu) Etoniru, P.E. (MA)
- Paul Rich, P.E. (DC)

The zone recognized the 2020 Distinguished Exam Service Award (ENNY) recipients:

- Paul Tyrell, P.E., P.L.S. (MA)
- Carmine Balascio, Ph.D., P.E. (DE-PE emeritus)

This year's 2021 Distinguished Exam Service Award recipient is

- Wayne Moore, P.E. (RI-PE)

Please take time to leave a message of congratulations on [NCEES.org/zones](https://www.ncees.org/zones).

Northeast Zone Nominating Committee

- Joseph Flynn, L.S. (VT-LS), chair
- Mandy Oliver Holway, P.E. (ME-PE)
- Scott Sabol, P.E. (VT-PE)
- Daniel Barbato, P.E. (DE-PE)

Nominations for the Northeast Zone vice president and Assistant Vice President and for the zone's nominee for NCEES president-elect were received. Election of officers were held at the interim meeting. Congratulations to the following:

- Thomas Orisich, P.L.S. (MD-LS), 2021–23 vice president
- Samuel Wilson, P.E. (DC), 2021–23 Assistant Vice President
- Chris Duhamel, P.E., P.L.S. (RI-PE), Northeast Zone nominee for 2021–22 NCEES president-elect

Draft minutes from the interim meeting will be available for download at [ncees.org/annual_meeting](https://www.ncees.org/annual_meeting) by August. The zone will vote on approving the minutes at the annual meeting.

As this term concludes, I thank Ronald Willey, P.E. (MA) for his service as Northeast Zone assistant vice president. Ron was very active as the leadership development chair who reached out to the dozens of new members. He went above and beyond his duties during the interim zoom meeting giving out his cell number to members that had difficulty logging in. Ron's term will end this year, and he has been a great colleague to work with.

I also thank John Mettee, P.L.S. (MD-LS) for his service as Northeast Zone secretary-treasurer. John is also chair of the Colonial States Surveyor Board. He works hard behind the scenes and is a strong advocate for licensure. John has another year to serve the zone as secretary-treasurer and I look forward to working with him.

I thank both Ron and John for the support over the past months on preparation for the Northeast Zone interim meeting and for working under difficult conditions.

The Site-Selection Committee consisted of Samuel Wilson, and me. The schedule of the Northeast Zone interim meetings is as follows:

- 2022: April 28–30, Newport, Rhode Island
- 2023: April 27–29, Houston, Texas
- 2024: May 2–4, Washington, D.C.
- 2025: Massachusetts

Newport, Rhode Island, is a beautiful city on the harbor that I hope you will be able to enjoy.

Finally, I express my sincere gratitude both for your support during my term as zone vice president and for selecting me as the Northeast Zone nominee for NCEES president-elect. I look forward to seeing you all soon.



Southern Zone Vice President's Report

Timothy Lingerfelt, P.L.S.

My second and final year as the Southern Zone vice president continues with challenges. Due to the COVID-19 pandemic, I became the first Southern Zone vice president to have not presided over an in-person interim zone meeting.

Service to the Southern Zone is a privilege that is difficult to understand until you have been involved. I continue to serve as board liaison for the Committee on Examinations for Professional Surveyors. This committee bears the most daunting charge—developing a plan to restructure the Principles and Practice of Surveying exam into divisions—since the conversion from pencil-and-paper examinations to computer-based testing. I also served as board liaison for the Committee on Law Enforcement. This is a group of long-standing members with a great passion for their job.

This year, I was honored to serve with the 2020–21 Southern Zone leadership of Assistant Vice President Andrew Zoutewelle, P.L.S. (NC) and Secretary-Treasurer Chris Ramseyer, Ph.D., P.E. (OK). Their service to our zone is greatly appreciated.

The NCEES board of directors continued to face previously unforeseen challenges due to the ongoing COVID-19 environment. Virtual meetings have become the norm and face-to-face meetings the rarity. Decisions had to be made months in advance and often were not popular choices. Our CEO and the NCEES staff went well above and beyond to make sure the business of the Council continues as seamless as possible. I applaud all of their efforts.

The Southern Zone conducted its 2021 interim meeting virtually with an abbreviated agenda. Elections for Southern Zone vice president and assistant vice president were held using the Innovision Inc. voting system. I congratulate Andrew Zoutewelle, P.L.S. (NC) as our new zone vice president and Lamberto (Bobby) Ballí, P.E. (TX) as our new zone assistant vice president. Having worked with both of them, I know the Southern Zone will be in very capable hands for the next two years. Draft minutes from the interim meeting will be available for download at ncees.org/annual_meeting by August. The zone will vote on approving the minutes at the annual meeting.

For upcoming meetings, Oklahoma will host the 2022 as a joint meeting with the Central Zone. The 2023 combined zone interim meeting with all four zones will be held in Houston. North Carolina will host the 2024 Southern Zone meeting.

The 2021 Awards Committee received a nomination for our zone's distinguished service award. The recipient is Bobby Ballí, P.E. (TX). This was a well-deserved choice for his service to the Southern Zone.

I thank all of the Southern Zone committee members for their service to the zone. The following are committee appointments for 2020–21:

Awards Committee

- Chair—Bobbie Shields, P.E. (NC)
- Nathan Johnson, P.E., P.L.S. (AL)
- Glen Smith, P.E., P.L.S. (OK)

Leadership Committee

- Chair—Andrew Zoutewelle, P.L.S. (NC)
- Bobby Ballí, P.E. (TX)
- Henry Dingle Jr., P.L.S. (SC)
- Zana Raybon (FL-PE MBA)

Nominating Committee

- Chair—Dennis Truax, Ph.D., P.E. (MS)
- Richard Bursi, P.E. (TN-PE)
- Kevin Fleming, P.E. (FL-PE)
- Jeffrey Pike, P.E. (LA)

Site Selection Committee

- Chair—Doyle Allen, L.S. (VA)
- David Beasley, Ph.D., P.E. (AR)
- Steven Hyde, P.S., P.S.M. (FL-LS)
- Antonio Medina-Delgado, P.E. (PR)

In closing, I thank each zone member for allowing me this opportunity to serve you as the zone's vice president. The Southern Zone clearly leads the way for the Council by its involvement and participation. So, to the members of the best zone, may God bless and I pray we can meet in person soon.



Western Zone Vice President's Report

Scott Bishop, P.S.

This has been a unique year, to say the least. Although my first year as Western Zone vice president has not gone as planned, it has still been a challenging and rewarding experience. Despite us not being able to meet in person, I have been amazed at how well the NCEES leadership and staff have reacted and overcome extraordinary circumstances to serve our member boards and our professional community. The decision to limit travel and conduct virtual meetings was hard, but I believe the decision was made to ensure safety for all those concerned.

We began the year planning for an in-person zone meeting in May 2021 in Bozeman, Montana, only to find that, once again, the in-person zone interim meeting would be canceled. I am thankful that we were able to hold a virtual zone meeting instead. I hope it will be the first and the last virtual zone meeting. And I am looking forward to meeting again in person, although with a somewhat smaller group, for the zone meeting in New Orleans at the annual meeting this August.

My thanks and appreciation go to the 2020–21 zone officers: Assistant Vice President Mohammad (Dr. Q) Qureshi, Ph.D., P.E. (CA) and Secretary-Treasurer Richard (Ric) Moore, P.L.S. (CA). We held monthly conference calls to stay connected and coordinated. I appreciate that our zone leadership was a team effort.

The Western Zone minutes from the August 2019 zone meeting were approved at the 2021 virtual zone interim meeting on May 13. Draft minutes from the interim meeting will be available for download at ncees.org/annual_meeting by August. The zone will vote on approving the minutes at the annual meeting.

Despite the worldwide pandemic, our zone committees were busy and continued the work of the zone. The Awards Committee identified two very deserving candidates for the Western Zone Distinguished Service Award. The 2021 award recipients are Glen Thurow, P.S., and Karl Tonander, P.E., both of New Mexico. Congratulations to both.

As a result of the canceled zone interim meeting last year and the virtual interim meeting this year, the future Western Zone interim meeting schedule was revised. The current schedule is as follows:

- 2022: May 19–21, Stateline, Nevada
- 2023: April 27–29, Houston, Texas (joint meeting with all zones)
- 2024: May 16–18, Bozeman, Montana
- 2025: New Mexico
- 2026: Oregon

Negotiations and contracts are already in the works for the 2023 and 2024 meetings, and our Site-Selection Committee will discuss whether to consider joint interim meetings in 2025 and/or 2026.

The Nominating Committee received four nominations for the 2021–23 secretary-treasurer position. Congratulations to Karl Tonander, P.E. (NM) for winning the election. It is going to be hard to replace Ric; I believe he has been the Western Zone secretary-treasurer for my entire time with NCEES. I am looking forward to working with Karl.

As Western Zone vice president, I was really looking forward to being able to get out and visit some of the Western Zone boards at one of their regular meetings during my term. Unfortunately, due to travel and meeting restrictions, I was unable to meet with any boards last year. Currently, I have a visit scheduled with the Wyoming board and hope to be able to visit several more boards next year. Here's to a brighter future!



Chief Executive Officer's Report

David Cox

NCEES staff is committed to supporting the member boards in protecting the public through engineering and surveying licensure. This report highlights some of our efforts in 2020–21 to implement and support various NCEES initiatives.

Coronavirus response

The COVID-19 pandemic has been a disruption to NCEES services and a significant concern regarding the health and well-being of our staff, volunteers, examinees, and meeting attendees. NCEES staff and leadership have worked diligently to develop and execute plans that focus on the safety of individuals as well as continuity of service for NCEES programs.

Pencil-and-paper exam administration

Following the cancellation of the April 2020 pencil-and-paper exam administration in response to the pandemic, NCEES anticipated a significant increase in the number of examinees for the October 2020 administration. Staff worked with member boards and test sites to ensure that we had the appropriate capacity to accommodate the extra examinees and the necessary space for proper social distancing.

We added an additional administration day for the October 2020 pencil-and-paper exams. These were offered October 22–23 to more than 12,000 examinees. We also added a regional testing option for the PE Civil exam on January 26, 2021. The PE Civil exam has the highest volume of examinees. Providing additional administrations for this exam at 14 cities across the United States offered additional testing opportunities for the PE Civil examinees and freed some exam seats for other examinees during the October 2020 pencil-and-paper administration.

We added an extra day to the April 2021 exam administration to allow seating for more examinees. The administration, which included almost 11,000 examinees, was held April 22–23.

Computer-based testing (CBT)

Reduced capacity requirements limited the number of CBT examinees who could schedule a seat for the October 22 single-day testing event at Pearson VUE test centers. (These administrations are held for some of the smaller-volume CBT exams.) Therefore, we added a single-day testing event on January 12 to accommodate examinees who were unable to schedule an appointment in October. The PE exams affected were Fire Protection, Industrial and Systems, Nuclear, and Petroleum.

We moved the transition of the PE Electrical and Computer: Power exam to CBT from April 2021 to December 1, 2020. This change freed up seats at the October 2020 pencil-and-paper exam sites to help deal with locally mandated restrictions. Because the exam will be offered year-round in CBT format, the change also gave those examinees flexibility in selecting their test date at Pearson VUE test centers.

We also accelerated the PE Civil exam's transition to CBT: it is now scheduled to be completed in April 2022 instead of April 2023.

Virtual NCEES meetings

Virtual meetings allowed NCEES to continue its initiatives and activities this year. These include meetings for exam development, standing committees and task forces, the Participating Organizations Liaison Council, and the Engineering and Surveying Education Award juries.

As part of NCEES' continuing response to the COVID-19 pandemic, the board of directors canceled the in-person 2021 zone interim meetings. Instead, zones held virtual interim meetings to ensure that business was conducted in a way that included all member boards while protecting the health and well-being of member board representatives and NCEES staff. NCEES staff assisted with planning, logistics, and communications for these meetings in April and May.

We introduced new platforms for communicating with member boards. We are holding monthly State of the Council presentations in the runup to the annual meeting to keep member board members and staff informed about Council updates as well as the latest information on the zone interim and NCEES annual meetings. Committee and task force video podcasts were a new vehicle to share reports from the chairs of standing committees and task forces and to help boards prepare for the business sessions at the annual meeting.

Current plans are to continue virtual meetings through the end of 2021, although we will monitor the situation and take guidance from the Centers for Disease Control and Prevention. Exceptions are being considered if necessary—including exam development meetings regarding CBT transitions and meetings for the board of directors and other executive activities—but these exceptions are only when a virtual format is not suitable for the meeting activities.

NCEES held its first virtual exam development committee meeting in June 2020. In the year that followed, we held 51 virtual meetings with 1,323 active participants. (Active participants are individuals who participated and completed tasks sufficient to earn continuing professional competency, or CPC, credits.)

NCEES faced a unique challenge in grading the PE Structural exam's constructed response, or essay, questions for the October 2020 exam administration. Normally, structural engineers from across the country travel to NCEES headquarters to grade these exam items. With travel and in-person meetings not possible, NCEES staff created a virtual system that would ensure exam security. In conjunction with Exam Development staff, IT staff developed a grading module for E3, our examinee management system. This system allowed 86 graders in 28 states across five time zones to grade almost 5,000 solution pamphlets in three days—and with no delay in releasing results and no loss of grading quality or validity. We now have a custom grading system that we can use in person or virtually as needed.

During the pandemic, these virtual meetings have been critical to continuing to fulfill our mission to advance licensure for engineers and surveyors. We would not have been able to hold such efficient and productive meetings without the dedication and adaptability of our officers, member board members and staff, committee members, and exam development volunteers. Thank you for helping make our virtual meetings a success.

Annual meeting

To allow for the most productive discussion and debate, the board of directors is committed to holding an in-person annual meeting. Capacity restrictions will limit the number of delegates, but each board will be able to have three voting delegates to represent it at the meeting.

While we have had to limit attendance for the business session, technology is providing the ability to live stream the meeting online so that member boards can remotely watch the proceedings. While this will not allow for remote participation, it will provide a method for real-time viewing.

Technology is also allowing for remote participation in forums and professional development sessions. The forums for engineering, surveying, member board administrators (MBAs), and law enforcement—which are typically held at the annual meeting—will be held virtually this year to allow for greater input from member boards. The forums for engineering, surveying, and MBAs will be held in July, and the forum for law enforcement will be held after the annual meeting. We are holding virtual professional development workshops for law enforcement staff and MBAs. In addition, the past presidents will meet virtually before the annual meeting so that we can solicit their feedback on the motions that will be presented at the annual meeting. Finally, we are meeting virtually with POLC representatives to review the annual meeting action items.

NCEES operations

NCEES staff members have been working at NCEES headquarters as needed in 2020–21, with a portion of staff working remotely. We plan to return to in-person operations for all employees in early July. The last time that staff were all working together was in March 2020, at our previous headquarters in Clemson, South Carolina. We are looking forward to everyone returning to our new headquarters in Greenville, South Carolina.

Centennial celebration

Due to the pandemic, we were not able to hold the 2020 centennial celebrations that we originally planned. As with so many plans, we have adapted. We are continuing our centennial celebrations in 2021 as we prepare for the 100th NCEES annual meeting in August.

As part of these celebrations, we published a new edition of *The History of NCEES* in December 2020. The book includes an engaging new design—complete with photos covering points of interest in our history—and a new chapter covering the years 2005 to 2020. We sent bound copies—along with centennial memorabilia—to each member board and past president earlier this year. A PDF is also available online at ncees.org/100.

The ncees.org/100 webpage is the home of our centennial website, which we launched this year to recognize engineering and surveying licensure milestones. We encourage you to celebrate with us by exploring the interactive site, which highlights the organization's initiatives and achievements over the past 100 years.

Threats to public protection

NCEES is committed to helping its member boards safeguard the public. Through its involvement with the Alliance for Responsible Professional Licensing (ARPL) and its direct support for member boards, the organization is addressing efforts to weaken licensure's public protections. ARPL is continuing to provide resources needed to promote and support responsible licensing.

ARPL released *Licensed to Move* in September 2020. This report provides a roadmap for successful interstate practice reform. It outlines the key elements of successful interstate practice, points out common pitfalls to avoid, and provides clear recommendations for making sure any changes actually improve the licensure process.

The organization released *Valuing Professional Licensing in the United States* in February 2021. ARPL commissioned Oxford Economics to produce this first-of-its-kind quantitative research study to explore the impacts of professional licensing in highly complex, technical fields. Key findings include

- Across all professions and occupations, licensing is associated with a 6.5 percent average increase in hourly earnings, even after accounting for the job holder's educational attainment, gender, and racial demographics.
- Among professionals in technical fields requiring significant education and training, a license narrows the gender-driven wage gap by about one third and the race-driven wage gap by about half.

These resources are available on the ARPL website, responsiblelicensing.org.

NCEES is providing direct support to member boards through the work of its advocacy and external engagement strategist. With more than 200 occupational licensure bills introduced in state chambers in the 2020–21 session, this is an area of concern for jurisdictions across the country. Since his appointment in July 2020, our strategist has assisted 20 member boards to address legislative activities, including help with testimony, fact sheets, outreach efforts, and strategy.

The NCEES Records program and other advocacy tools are also available to assist in eliminating barriers and expediting the comity process for licensees. In April, we added a new option to the NCEES Records program to assist military families with the comity licensure process. Active-duty military and their spouses are now eligible to transmit their NCEES Record to a state licensing board at no charge when military orders require them to relocate to that state. This new no-cost option will help members of the military and their spouses by simplifying and expediting the comity licensure process in their new state or territory. Military transmittals will include a special designation to alert the receiving licensing board of their priority status. Applying for comity licensure through the NCEES Records program can often be completed and a license issued within a matter of days.

CBT expansion

NCEES staff and exam development volunteers are continuing to move the remaining pencil-and-paper PE exams to a computer-based format. Most recently, the PE Electrical and Computer: Power, PE Fire Protection, and PE Industrial and Systems completed the transition to CBT in late 2020. The following exams are joining the CBT lineup in 2021:

- PE Agricultural and Biological Engineering
- PE Electrical and Computer: Computer Engineering

- PE Electrical and Computer: Electronics, Controls, and Communications
- PE Mining and Mineral Processing

After October 2021, the only NCEES exam left to administer in pencil-and-paper format will be the PE Structural exam. This exam may need to be offered regionally until it moves to CBT, which is currently scheduled for 2024.

Services to support the licensure process

In addition to developing licensing exams, NCEES staff continued to support the licensure process this year through its Member Services Department. This includes the Records program, Continuing Professional Competency Tracking, Exam Administration Services, and the Credentials Evaluations service.

The official statistics for all NCEES services, including member services and exam usage, are printed in the annual report and *Squared*. The latest editions, which cover fiscal year 2019–20, are available at ncees.org/annualreport.

Outreach

NCEES continues to support outreach initiatives to advance licensure through financial resources as well as staff and volunteer time. The pandemic has presented some challenges for outreach activities, but we have adapted existing initiatives and developed new ones to meet these challenges.

K–12 outreach

NCEES' support of K–12 outreach helps inspire future generations of professional engineers and surveyors.

NCEES continued its support of DiscoverE this year to promote the professions and the importance of licensure to a wider audience. The organization sponsored the regional and national special awards for Best Land Surveying Practices at the Future City Competition. Future City is a national competition in which teams of middle school students design and build cities of the future. Through the national and regional competitions, NCEES introduces more than 40,000 middle school students to the surveying profession each year. NCEES volunteers served as judges for the special award, which was presented at 31 regional competitions and at the national finals.

Engineering and Surveying awards

Since 2009, NCEES has been offering the NCEES Engineering Education Award to promote the responsibilities and privileges of licensure. The award recognizes engineering academic programs that encourage collaboration between students and professional engineers. The 2020 award cycle was canceled due to the COVID-19 pandemic, but NCEES encouraged programs to enter 2020 projects in the 2021 award cycle.

We received 48 entries for the 2021 competition, and the jury met virtually on June 15 to select the winners. The Milwaukee School of Engineering won the 2021 grand prize. Its Civil and Architectural Engineering and Construction Management Department. received the award for its project, *Sustainable Improvements for Guatemalan Cardamom Spice Dryers*. Seven other winners received awards of \$10,000 each.

We also held the fifth cycle of the NCEES Surveying Education Award. This award recognizes surveying programs that best reflect the organization's mission to advance licensure in order to safeguard the health, safety, and welfare of the public. As with the Engineering Education Award, the 2020 Surveying Education Award cycle was canceled in response to the pandemic.

The 2021 jury meeting was held virtually to protect the health and well-being of jurors and staff. Entries for the 2021 competition were due by May 21, and we received 17 entries. The jury met on June 24 and selected the Surveying Engineering Technology program from the University of Maine School of Engineering Technology to receive the \$25,000 grand prize. In addition, three programs received \$15,000 prizes and three programs received \$10,000 prizes.

Engineers Without Borders USA (EWB-USA)

NCEES is now in the final year of its three-year partnership with EWB-USA. This partnership includes a campaign to promote the value of licensure to EWB-USA's membership, which includes students, faculty advisors, mentors, and professionals.

We completed our second paid campaign, “Future Proof Your Career,” in fall 2020. These targeted ads on Facebook, Instagram, and LinkedIn reached more than 2 million people. They received almost 7 million impressions, which is the number of times that social media users were shown this content. The ads generated more than 17,000 clicks.

In February 2021, EWB-USA leveraged the excitement around DiscoverE Engineers Week to further promote this joint licensure campaign. Through its social media, targeted emails, and its website, EWB-USA shared important licensure information with its supporters and celebrated remarkable engineering feats. This campaign produced more than 430,000 impressions to help promote a career without limits.

We are now designing the Year 3 social media campaign, which will be targeted to young professionals and EWB-USA mentors. The summer 2021 campaign will run for approximately six weeks. We are also planning to include on-campus or virtual events geared toward undergraduate students in fall 2021.

Working with EWB-USA is giving us a greater reach than we have on our own, allowing us to promote licensure in new ways to new audiences.

Expanded outreach through SCORE

While NCEES has always contributed to the promotion of the surveying profession through our support of other organizations’ initiatives, we saw a need to expand our outreach efforts even more. In August 2020, we formally launched the SCORE initiative and hired a dedicated surveying marketing and outreach coordinator to promote the geomatics profession.

SCORE was created by a coalition of surveying organizations—including the National Society of Professional Surveyors and state surveying societies from Georgia, Maryland, North Carolina, Tennessee, and Virginia—to address recruitment in the geomatics profession, with an emphasis on increasing diversity. The NCEES board of directors supported this project and saw the need for this outreach not just on a regional level but also on a national level. The board approved funding for the SCORE initiative in August 2019, and we began developing a national marketing and outreach plan around this program.

Since August 2020, we have begun to gain traction in promoting the value of surveying licensure. We have also been able to bring more awareness about the surveying profession to increase the number of people entering the geomatics field.

Focus on virtual activities

In a typical year, we would attend many in-person events and career fairs to promote the value of engineering and surveying licensure. However, because of the pandemic, most of our marketing and outreach efforts have been virtual in 2020–21. We recently launched two initiatives to expand our virtual outreach.

NCEES introduced *Advance: An NCEES Podcast Series* in September 2020 to highlight professional engineers and surveyors across the country and their critical work helping safeguard the health, safety, and welfare of the public. Episodes of the monthly podcast are posted online at ncees.org/podcast. They are also available on Spotify, Stitcher, and Apple Podcasts.

We also started an *Engineer and Surveyor Profiles* series in 2020 to explore the benefits of licensure and how professional engineers and professional surveyors are working daily to safeguard the health, safety, and welfare of the public.

With these initiatives, we feature energetic, compelling, and unique licensed engineers and surveyors and their stories. We publicize new profiles and podcast episodes on our social media channels—including Facebook, Twitter, and LinkedIn—and on the NCEES website.

The organization updated its popular *Speaker’s Kit* in 2021 to adapt to changing needs. We released a prerecorded version of the *Speaker’s Kit* for engineers that can be used for virtual licensure presentations. Chief Operating Officer Davy McDowell, P.E., leads this presentation, which explains the process and value of licensure. Staff then direct a live virtual Q&A session to allow for a personalized experience and tailored information.

NCEES also worked with other organizations to increase our virtual outreach. We participated in other organizations' podcasts as guests to talk about our work at NCEES, including outreach initiatives and exam development. We participated in virtual expos of engineering and surveying societies to promote licensure and NCEES services.

In closing

While 2020–21 presented many challenges, we also enjoyed many successes. We continued to adapt to the unique needs of the COVID-19 pandemic. We experienced the satisfaction of making significant progress on many NCEES initiatives. I greatly appreciate the willingness of everyone involved in the work of NCEES—including NCEES and zone leadership, member boards, exam development volunteers, outreach volunteers, and staff—to adapt to new systems and processes this year. Your cooperation and commitment have brought NCEES through a difficult year and helped make it stronger.



Committee on Finances

Timothy Rickborn, P.E., Chair

ABSTRACT

The Committee on Finances was established under the NCEES *Bylaws* to study the financial needs of NCEES, recommend sources of income, recommend ways and means of securing adequate funds for the proper operation of NCEES, and assist the board of directors in financial matters. The committee reviews the previous year's budget performance and recommends the next year's budget.

The committee will propose six motions at the annual meeting. The first three motions relate to motions proposed by the 2019–20 committee that were tabled due to the pandemic. Motions four and five relate to the approval of the operating and capital budgets. The sixth motion is to modify an existing financial policy. The motions begin on page 35.

CHARGES

Charge 1

Review the 2019–20 Finance Committee report and proposed motions. Confirm that the proposed motions should be brought forward at the 2021 annual meeting. Propose motions accordingly.

The committee reviewed and discussed the 2019–20 committee rationale for proposed motions to financial policies 3B, 5, and 8. The 2020–21 committee agrees that language needs to be added to reflect the current practice of the Council and recommends that the motions be brought forward with minor editorial revisions to some of the language previously proposed. The committee will present Motions 1, 2, and 3 as a result of this charge.

Charge 2

Review the results of the 2019–20 financial audit and the current financial condition of the Council, including the recommended operating and capital budgets.

The committee reviewed and discussed the independent auditor's report and financial statements for the 2019–20 fiscal year. The committee noted that there were no concerns or irregularities identified in the audit report. The committee also reviewed the February financial statements for fiscal year 2020–21 and noted that the year-to-date results are unfavorable to the budget due to lower-than-anticipated exam volumes resulting from effects of the ongoing pandemic. The committee reviewed and discussed the current draft of the operating and capital budgets. The committee will present Motions 4 and 5 as a result of this charge.

Charge 3

Continue to monitor the revenue and cost trends throughout the transition of all exams to computer-based testing (CBT).

The committee reviewed and discussed available data for all exams that have been converted to CBT. The volume trends for exam registrations; administered exams; scheduled exams; and rescheduled, canceled, and expired exam appointments were reviewed.

Prior to the pandemic, volumes for the Fundamentals of Engineering (FE) and the Fundamentals of Surveying (FS) exams appeared to be trending in a positive direction, with FE exam volumes rebounding to pre-CBT levels. The Principles and Practice of Surveying (PS) exam volume appeared to have stabilized after its transition to CBT. The Principles and Practice of Engineering (PE) exams that have transitioned to CBT were performing at or near anticipated volumes, but below pre-CBT volumes. The volumes for the remaining pencil-and-paper PE exams were exceeding budgets due to decoupling of licensure requirements in several jurisdictions and due to planned transitions of the remaining PE exams to the CBT format.

The pandemic has negatively affected volumes of all CBT and pencil-and-paper exams. For this reason, the committee focused much of its time on review of the pre-pandemic trends associated with administration of both pencil-and-paper exams and computer-based testing. The committee evaluated rebound trends for the various exams in which sufficient time has elapsed following an exam's transition.

With the largest PE exam (PE Civil exam) now scheduled to transition to CBT in 2022, the committee reviewed exam volumes and recovery rates for the FE Civil discipline. Based on historical recovery rates for the FE Civil exam and other PE exams that have already transitioned to CBT, it is expected that CBT volumes for the PE Civil exam may follow similar rebound trends. The committee is optimistic that the recovery to pre-CBT volumes for the PE Civil exam may exceed expectations since the majority of the examinee population would have taken the FE as a CBT exam.

The committee expects that, as the pandemic subsides, exam volumes will stabilize and may increase slightly due to renewed demand and availability. However, the committee concluded that there will likely continue to be uncertainty in overall exam volumes and revenue.

The committee discussed concerns associated with the potential long-term impacts associated with the pandemic. Further discussions are needed within the Council to develop a strategy for additional outreach activities to reengage potential examinees whose interest in licensure may have been affected by the pandemic. The committee recommends continued monitoring of trends as the remaining exams transition to CBT. Once all transitions are complete, the committee recommends that further study of revenue and cost information for each exam be undertaken by the Council.

The committee has no motions as a result of this charge.

Charge 4

Study the financial needs of the Council, recommend sources of income and ways and means of securing adequate funds for the proper operation of the Council, assist the board of directors in assessing the financial year's budget performance, and report these findings to the Council.

After reviewing the current financial condition of the Council, the committee concluded that current revenue streams appear to have generated adequate funds for the operation of the Council despite the significant loss in revenue associated with the pandemic. The committee also concluded that the Council currently has adequate reserve funds to satisfy the requirements of Financial Policy 1C for an exam breach, the annual operating budget, and funds available for the NCEES mission. The committee discussed the potential impact that variations in income and expenses may have on the reserves as a result of the ongoing pandemic and continued transition of exams to CBT, especially with next year's transition of the PE Civil exam. The committee recommends no changes at this time.

Charge 5

Recommend a 2021–22 budget for the board of directors to approve before it is presented to the Council for final approval at the annual meeting.

The committee reviewed and discussed the proposed income and expense budget for 2021–22. While there is much hope that the short-term disruptions resulting from the pandemic will soon lessen, the committee discussed that longer-term financial impacts may continue to be realized for the foreseeable future. The committee discussed current and budgeted CBT exam revenue and direct expenses. The proposed budget recognizes a significant drop in revenue and increase in expenses that will be realized as the Civil PE exam transitions to CBT in January 2022.

The committee noted that the proposed 2021–22 budget projects a loss from operations of approximately \$2 million. The committee concluded that a loss from operations is tolerable over a short period of time; however, compounded losses of this magnitude are not sustainable over longer periods of time. Exams are the primary source of revenue for the Council and must generate positive income to ensure that sufficient resources are available to the Council. This income is used to fund many programs and services that support the Council's mission and provide value to the member boards and the general public. This should be taken into account during future studies of exam revenues and costs, as recommended under Charge 3.

The committee did not recommend any changes to the proposed operating budget prepared by staff. Chief Financial Officer Joe Scheving, CPA, indicated that any significant changes to the operating budget that may arise prior to the annual meeting will be presented to the committee as staff continues to monitor ongoing conditions and anticipated exam demand for the next fiscal year. The committee also discussed the capital budget and recommended no changes.

The operating budget and the capital budget are included in Appendices B and C of this report.

Charge 6

Work with the Committee on Examinations for Professional Surveyors (EPS) to estimate exam fees if and when the PS examination transitions to multidivisional examination.

The EPS Committee is currently in the early stages of discussion regarding the development of a multidivisional PS exam to replace the current 6-hour computer-based PS exam. Some basic information regarding the proposed multidivisional exam was presented to the Finance Committee.

The information presented to the committee indicated that potentially there will be five examination components. Each examination may consist of 50 exam questions and 10 pretest questions, with the seat time estimated as 2.5 hours in length. The committee was provided an estimated cost per examination using input from the Council's exam consultants and staff.

Based on the committee's review of the preliminary information, the committee concluded that providing an estimate of exams fees to the EPS Committee would be premature at this time. However, the anticipated cost to the Council per examination component is \$278. The committee emphasizes that this is the anticipated raw cost of each exam under a multidivisional scenario and not the exam fee. Setting of fees for each multidivisional exam requires further study and discussions with the EPS Committee to ensure that reasonable margins are maintained.

This cost information has been forwarded to the EPS Committee and the board of directors. The committee recommends that this charge be continued next year as discussions regarding the development of the multidivisional exam continue.

Charge 7

Clarify that the maximum of \$500,000 amount total in Financial Policy 1, Council Funds, paragraph D is per year and not per organization.

The committee reviewed the minutes of the 2018 annual meeting in which the Tennessee engineering board made a motion to place a \$500,000 limit on funding to outside organizations by the NCEES board of directors. The approved motion resulted in the formation of Financial Policy 1D. The minutes provided a clear and accurate record of the original intent of the motion. The committee will present Motion 6 to clarify that the total amount of all discretionary contributions that the NCEES board of directors is authorized to make may not exceed \$500,000 per fiscal year.

Respectfully submitted, the Committee on Finances:

Timothy Rickborn, P.E., Chair

Members

Steven Arndt, Ph.D., P.E.
Brian Berg Jr., P.E.
Brian Hanson, P.E.
Ivan Hoffman Jr., P.S.
Chun Lau, P.E., S.E.
Dale Sall, P.E.
Leonard (Joe) Timms Jr., P.E.
Sarah Tracy, P.E.

Ex officio

Brian Robertson, P.E.

Board liaison

Paul Tyrell, P.E., P.L.S.

Staff liaison

Joe Scheving, CPA

MOTIONS

Finance Motion 1

Move that Financial Policy 8 be amended as follows:

FP 8 Unbudgeted Expenditures

Necessary expenditures to carry on the business of the Council that are not in the current operating or capital budget shall have prior approval of either the chief executive officer, the president, or the treasurer for amounts up to ~~\$7,500~~ \$25,000. Expenditures of more than ~~\$7,500~~ \$25,000 and up to ~~\$15,000~~ \$50,000 shall have prior approval of two of the above persons, and expenditures in excess of ~~\$15,000~~ \$50,000 shall have the prior approval of the board of directors. Any expenditures not in the current budget shall be reviewed by the board of directors at its next meeting.

Rationale

The committee reviewed and discussed the 2019–20 committee rationale that the approval levels have not been revised since 2008 and that approval levels should be increased so that the Council’s operations and capital needs would not be delayed should an emergency or other unanticipated expenditure occur. The 2020–21 committee agrees with the proposed increases and will bring the motion forward at the 2021 annual meeting.

Board of directors’ position

Endorses, consent agenda

Finance Motion 2

Move that Financial Policy 3B be amended to add section 8 as follows:

FP 3 Travel Expenses

NCEES shall budget for and pay travel expenses for NCEES-funded meeting attendees as described below. NCEES shall also waive the registration fee for NCEES-funded attendees to the annual meeting and zone interim meetings but shall not pay the cost of optional functions that are not included in the registration fee. All authorized travel and reimbursements shall be in accordance with the NCEES travel policy. Unbudgeted international travel shall require authorization by the board of directors.

- B. NCEES annual business meetings
 - 1. Members of the current NCEES board of directors, incoming vice presidents, nominees for the incoming NCEES president-elect and treasurer positions, and past presidents. Registration fees shall be waived for a guest of each.
 - 2. A minimum of three funded delegates from each member board as specified by the member board. Member boards must meet the *Bylaws* requirements for voting to receive the benefits of funded delegates.
 - 3. Member board members who are attending their first annual meeting and who have been appointed to their board within 24 months before the annual meeting
 - 4. The designated member board administrator (MBA) of each member board. When an MBA represents more than one board, the funding shall be for the designated MBA only and not for the assistant MBA or for member board staff. Member boards must meet the *Bylaws* requirements for voting to receive the benefits of a funded MBA.
 - 5. Chairs of NCEES standing committees and task forces
 - 6. NCEES service award recipients. Registration fees shall be waived for a guest of each.
 - 7. Zone assistant vice presidents and zone secretary-treasurers

[8. The NCEES representative to the ABET board of delegates, the alternate NCEES ABET representative, and the commissioners on the Engineering Accreditation Commission of ABET, the Engineering Technology Accreditation Commission of ABET, and the Applied and Natural Science Accreditation Commission of ABET](#)

Rationale

The committee reviewed and discussed the 2019–20 committee rationale that, historically, the Council has funded the ABET representatives identified in paragraph 8 above. Therefore, the committee is moving to add this language to FP 3 to reflect the current NCEES practice of funding for these meetings.

The 2020–21 committee agrees that language needs to be added to reflect the current practice of the Council and will bring the motion forward with some minor editorial revisions to the language previously proposed.

Board of directors' position

Endorses, consent agenda

Finance Motion 3

Move that Financial Policy 5 be amended as follows:

FP 5 Guests of Annual Business Meeting

- A. The president is authorized to issue invitations to [professional](#) society presidents [or presidents-elect, to professional society executive directors](#), to International Affiliate Organizations, and to Participating Organizations to attend the annual business meeting as guests of the Council. All or part of the registration and activity fee [may shall](#) be waived.
- ~~B. Each past president of the Council will be invited to attend the annual business meeting. Registration fees will be waived for each past president and his or her guest. Travel expenses will be funded for each past president.~~
- ~~C. The Council may pay the travel expenses of each award recipient and his or her guest to attend the annual business meeting.~~

Rationale

The committee reviewed and discussed the 2019–20 committee rationale that, historically, the Council has waived the registration fees of each professional society president and executive director. Therefore, the committee is moving to revise the language in FP 5A to reflect the current NCEES practice of waiving the registration fee.

The 2020–21 committee agrees that language in FP 5A needs to be revised to reflect the current practice of the Council and will bring the motion forward with some minor editorial revisions to the language previously proposed. The committee also discussed and concluded that the content of FP 5B and 5C are redundant with points 1 and 6 of FP 3B and should be removed to avoid confusion.

Board of directors' position

Endorses, consent agenda

Finance Motion 4

Move that the adoption of the 2021–22 operating budget as shown in Appendix B be postponed to the end of the last business session in order to take into account any subsequent actions adopted by the Council that may affect this budget.

Board of directors' position

Endorses, consent agenda

Finance Motion 5

Move that the adoption of the 2021–22 capital budget as shown in Appendix C be postponed to the end of the last business session in order to take into account any subsequent actions adopted by the Council that may affect this budget.

Board of directors' position

Endorses, consent agenda

Finance Motion 6

Move that Financial Policy 1D be amended as follows:

FP 1 Council Funds

- D. ~~The NCEES board of directors shall have the authority to contribute a maximum of \$500,000 annually for funding of nonprofit organizations. A full Council vote is required to approve contributions above that amount.~~

The NCEES board of directors shall have the authority to make discretionary contributions for funding requests to outside nonprofit organizations. The total amount of all discretionary contributions that the NCEES board of directors is authorized to make may not exceed \$500,000 per fiscal year. Any funding above \$500,000 is required to be voted on by the full Council.

Rationale

The committee believes that the existing language in Financial Policy 1D needs clarification to be in accordance with the intent of the Tennessee engineering board motion and the actions taken by the Council at the 2018 annual meeting. The committee will bring the motion forward to revise FP 1D to provide the needed clarification.

Board of directors' position

Endorses, consent agenda

APPENDIX A: OPERATING BUDGET SUMMARY

| | 2021–22 Proposed Budget | 2020–21 Approved Budget |
|--------------------------------|--|--|
| INCOME | | |
| Support Services Revenue | 565,375 | 576,430 |
| Examination Services Revenue | 26,671,481 | 27,853,307 |
| Member Services Revenue | <u>5,067,267</u> | <u>7,540,582</u> |
| Total Income | <u>32,304,123</u> | <u>35,970,319</u> |
| EXPENSES | | |
| General and Administrative | 7,786,451 | 8,126,687 |
| Meetings and Outreach Services | 4,915,632 | 4,522,485 |
| Examination Services | 19,825,977 | 19,051,380 |
| Member Services | <u>1,873,599</u> | <u>3,798,303</u> |
| Total Expenses | <u>34,401,659</u> | <u>35,498,855</u> |
| NET OPERATING INCOME | (2,097,536) | 471,463 |
| NONOPERATING ITEMS | | |
| Interest and Investment Income | 1,251,713 | 1,346,450 |
| Other Income | <u>0</u> | <u>0</u> |
| NET INCOME | <u>(845,823)</u> | <u>1,817,914</u> |

APPENDIX B: 2021–22 PROPOSED OPERATING BUDGET

SUPPORT SERVICES REVENUE

| | |
|---|----------------|
| Member Board Fees | 411,750 |
| Participating Organizations Liaison Council (POLC) Fees | 0 |
| Annual Meeting Fees | 74,375 |
| Other Meeting Fees | 65,250 |
| Miscellaneous Income | 14,000 |
| Total Support Services Revenues | 565,375 |

SUPPORT SERVICES OPERATING EXPENSES

Officer/Staff Travel

| | |
|-------------------------------|----------------|
| President | 32,250 |
| Past President | 16,750 |
| President-Elect | 28,250 |
| Central Zone Vice President | 15,750 |
| Northeast Zone Vice President | 15,750 |
| Southern Zone Vice President | 15,750 |
| Western Zone Vice President | 15,750 |
| Treasurer | 14,750 |
| Chief Executive Officer | 49,000 |
| Staff | 31,005 |
| International | 52,000 |
| Subtotal | 287,005 |

Committee Travel and Expenses

| | |
|---|----------------|
| Advisory Committee on Council Activities | 16,500 |
| Bylaws Committee | 1,000 |
| Finance Committee | 16,000 |
| Member Board Administrators (MBA) Committee | 18,000 |
| Law Enforcement Committee | 16,000 |
| POLC | 14,000 |
| Education Committee | 19,000 |
| Uniform Procedures and Legislative Guidelines Committee | 16,000 |
| Ad Hoc Committees | 90,000 |
| Subtotal | 206,500 |

Annual Meeting

| | |
|--------------------------|------------------|
| Staff Travel | 56,857 |
| Expenses | 851,300 |
| Publications | 60,000 |
| Award Recipient Travel | 9,589 |
| Awards and Presentations | 10,616 |
| Funded Delegate Travel | 587,944 |
| Subtotal | 1,576,306 |

| | |
|--------------------------------|---------|
| Board Presidents/MBA Assembly | 73,983 |
| MBA Meeting and Board Attendee | 3,885 |
| Zone Meeting Expenses | 598,087 |
| Meeting Registration Expenses | 6,369 |

APPENDIX B: 2021–22 PROPOSED OPERATING BUDGET

| | |
|------------------------------------|------------------|
| Promotion and Outreach | |
| Engineering Education Award | 146,875 |
| Surveying Education Award | 125,222 |
| Discretionary Outreach | 500,000 |
| Licensure Outreach | 458,500 |
| Marketing | 897,500 |
| Newsletter | 35,400 |
| Subtotal | 2,163,497 |
| <hr/> | |
| Total Meetings and Outreach | 4,915,632 |

GENERAL AND ADMINISTRATIVE

| | |
|--------------------------------------|------------------|
| Personnel and Human Resources | |
| Salaries | 3,755,852 |
| Payroll Taxes (FICA) | 252,484 |
| Payroll Insurance (State) | 2,500 |
| Group Insurance | 393,426 |
| Employee Retirement Fund | 375,112 |
| Recruiting | 43,797 |
| Employee Development | 127,020 |
| Subtotal | 4,950,191 |

| | |
|---------------------------------|----------------|
| Office | |
| Electricity | 132,582 |
| Water | 12,384 |
| Building Security | 20,273 |
| Building Maintenance | 145,748 |
| Cleaning and Ground Maintenance | 244,911 |
| Subtotal | 555,898 |

| | |
|--------------------------|----------------|
| Administrative | |
| Postage | 4,426 |
| Supplies | 36,038 |
| Credit Card/Bank Fees | 6,237 |
| Administrative Printing | 60,000 |
| Strategic Planning | 24,257 |
| Noncapitalized Purchases | 8,500 |
| Subtotal | 139,458 |

| | |
|----------------------------|----------------|
| Technology Services | |
| Communications | 189,906 |
| Equipment Lease/Rental | 116,960 |
| Software | 175,852 |
| Noncapitalized Purchases | 96,739 |
| Hardware Maintenance | 13,000 |
| Subtotal | 592,457 |

| | |
|---------------------------|---------------|
| Insurance and Bond | |
| Travel | 9,560 |
| Building and Liability | 12,224 |
| Directors and Officers | 20,403 |
| Professional Liability | 19,714 |
| Workers' Compensation | 19,918 |
| Subtotal | 81,819 |

APPENDIX B: 2021–22 PROPOSED OPERATING BUDGET

| | |
|---|---------------------|
| Dues and Professional Fees | |
| ABET Dues and Meetings | 24,538 |
| Federations of Associations of Regulatory Boards | 8,765 |
| Alliance for Responsible Professional Licensing | 52,700 |
| Other Memberships and Dues | 10,626 |
| Legal Fees | 65,000 |
| Audit and Payroll Fees | 58,197 |
| Lobbying | 100,000 |
| Other Professional and Consulting Fees | 163,724 |
| Subtotal | 483,550 |
| Depreciation and Interest | |
| Interest Expense | 6,212 |
| Equipment and Furniture Depreciation | 558,356 |
| Building Depreciation | 418,510 |
| Subtotal | 983,078 |
| Total General and Administrative Expenses | 7,786,451 |
| TOTAL SUPPORT SERVICES OPERATING EXPENSES | 12,702,083 |
| GAIN/(LOSS) FROM SUPPORT SERVICES | (12,136,708) |
| EXAMINATION SERVICES OPERATING REVENUE | |
| EXAMINATIONS | |
| Fundamentals of Engineering | 11,238,750 |
| Principles and Practice of Engineering | 10,703,376 |
| Structural Engineering | 1,008,000 |
| Fundamentals of Surveying | 301,601 |
| Principles and Practice of Surveying | 225,138 |
| Examination Regrading | 1,500 |
| Subtotal | 23,478,365 |
| STUDY MATERIALS | |
| Publication Sales | 2,335,003 |
| Postage and Shipping Revenue | 858,113 |
| Subtotal | 3,193,116 |
| TOTAL EXAMINATION SERVICES OPERATING REVENUE | 26,671,481 |
| EXAMINATION SERVICES OPERATING EXPENSES | |
| EXAMINATIONS | |
| Fundamentals of Engineering | |
| Computer-Based Testing (CBT) Seat Fees | 7,789,556 |
| Contracted Services | 875 |
| Psychometric Consulting Services | 393,975 |
| Travel | 188,758 |
| Subtotal | 8,373,164 |

APPENDIX B: 2021–22 PROPOSED OPERATING BUDGET

| | |
|---|--------------------------|
| Principles and Practice of Engineering | |
| CBT Seat Fees | 2,989,319 |
| Contracted Services | 29,900 |
| Psychometric Consulting Services | 908,750 |
| Printing | 143,455 |
| Travel | 549,618 |
| Subtotal | <u>4,621,042</u> |
| | |
| Structural | |
| Contracted Services | 2,500 |
| Psychometric Consulting Services | 88,000 |
| Grading | 83,200 |
| Printing | 27,145 |
| Travel | 329,771 |
| Subtotal | <u>530,616</u> |
| | |
| Fundamentals of Surveying | |
| CBT Seat Fees | 208,031 |
| Contracted Services | 550 |
| Psychometric Consulting Services | 38,625 |
| Travel | 13,324 |
| Subtotal | <u>260,530</u> |
| | |
| Principles and Practice of Surveying | |
| CBT Seat Fees | 108,705 |
| Contracted Services | 575 |
| Psychometric Consulting Services | 44,713 |
| Travel | 16,655 |
| Subtotal | <u>170,648</u> |
| | |
| Committee Travel and Expenses | |
| Examination Audit Committee Travel | 23,399 |
| Examination Audit Psychometric Services | 8,000 |
| Committee on Examination Policy and Procedures (EPP) Travel | 17,159 |
| Committee on Examinations for Professional Engineers (EPE) Travel | 33,947 |
| EPE Psychometric Services | 14,760 |
| Committee on Examinations for Professional Surveyors (EPS) Travel | 24,990 |
| EPS Psychometric Services | 20,100 |
| Subtotal | <u>142,355</u> |
| | |
| Examination Materials and Shipping | |
| Freight and Shipping | 71,200 |
| Printing and Distribution | 53,400 |
| ADA Consulting Expense | 141,128 |
| Meeting Registration Fees | 9,551 |
| Subtotal | <u>275,279</u> |
| | |
| Examination Development | |
| Principles and Practice of Engineering Development—Cut Scores | 89,155 |
| Principles and Practice of Engineering Task Analysis | 308,659 |
| Principles and Practice of Surveying Task Analysis | 90,250 |
| Subtotal | <u>488,064</u> |
| | |
| Total Examination Expenses | <u>14,861,698</u> |

APPENDIX B: 2021–22 PROPOSED OPERATING BUDGET

STUDY MATERIALS

| | |
|---------------------------------------|-------------------------|
| Publication Printing Expense | 459,818 |
| Digital Product Expense | 50,000 |
| Postage and Shipping Expense | 858,113 |
| Total Study Materials Expenses | <u>1,367,931</u> |

OTHER DIRECT EXPENSE

| | |
|---|-------------------------|
| Salaries (Direct) | 2,330,515 |
| Payroll Taxes (Direct) | 173,435 |
| Benefits and Retirement (Direct) | 536,013 |
| Credit Card Processing (Revenue Ratio Allocation) | 516,503 |
| Compliance and Security | 39,882 |
| Total Other Direct Expenses | <u>3,596,348</u> |

TOTAL EXAMINATION SERVICES OPERATING EXPENSES

19,825,977

GAIN/(LOSS) FROM EXAMINATION SERVICES

6,845,504

MEMBER SERVICES OPERATING REVENUE

EXAM ADMINISTRATION SERVICES REVENUES

| | |
|--------------------------|-----------------------|
| Exam Administration Fees | <u>282,800</u> |
|--------------------------|-----------------------|

NCEES RECORDS/CREDENTIALS EVALUATIONS SERVICES REVENUES

| | |
|---|-------------------------|
| Application Fees—Records | 1,453,964 |
| Transmittal Fees—Records | 2,398,653 |
| Application Fees—Credentials | 908,950 |
| Reevaluation Fees—Credentials | 22,900 |
| Total Records/Credentials Revenues | <u>4,784,467</u> |

TOTAL MEMBER SERVICES OPERATING REVENUE

5,067,267

MEMBER SERVICES OPERATING EXPENSES

EXAM ADMINISTRATION SERVICES EXPENSES

| | |
|--|-----------------------|
| Site Rentals | 312,732 |
| Proctor Expense | 120,000 |
| Security Guards | 10,424 |
| Secure Storage | 46,910 |
| Supplies/Miscellaneous | 5,838 |
| Postage and Shipping | 1,208 |
| Printing | 3,704 |
| Travel | 9,402 |
| Training | 0 |
| Total Exam Administration Services Expenses | <u>510,218</u> |

NCEES RECORDS/CREDENTIALS EVALUATIONS SERVICES EXPENSES

| | |
|---|----------------------|
| Postage and Shipping | 1,000 |
| Travel/Audit—Credentials | 4,700 |
| Electronic Transcript Services | 5,000 |
| Total Records/Credentials Expenses | <u>10,700</u> |

APPENDIX B: 2021–22 PROPOSED OPERATING BUDGET

| | |
|---|--------------------------------|
| OTHER DIRECT EXPENSE | |
| Salaries (Direct) | 973,765 |
| Payroll Taxes (Direct) | 72,492 |
| Benefits and Retirement (Direct) | 201,563 |
| Credit Card Processing (Revenue Ratio Allocation) | 104,861 |
| Total Other Direct Expenses | <u>1,352,681</u> |
| TOTAL MEMBER SERVICES OPERATING EXPENSES | <u>1,873,599</u> |
| GAIN/(LOSS) FROM MEMBER SERVICES | <u><u>3,193,668</u></u> |
| OPERATION TOTALS | |
| TOTAL REVENUES | 32,304,123 |
| TOTAL EXPENSES | <u>34,401,659</u> |
| GAIN/(LOSS) FROM OPERATIONS | (2,097,536) |
| NONOPERATING ITEMS | |
| INTEREST AND INVESTMENT INCOME | |
| Interest and Investment Income | <u>1,251,713</u> |
| GRAND TOTALS | <u><u>(845,823)</u></u> |

APPENDIX C: 2021–22 PROPOSED CAPITAL BUDGET

CAPITAL PURCHASES/LEASES

Equipment

| | | |
|--|-----------|---------------|
| Security Cameras | \$ | 10,000 |
| Miscellaneous Furniture, Fixtures, and Equipment | \$ | 10,000 |
| | | <hr/> |
| | \$ | 20,000 |
| | | <hr/> |
| TOTAL | \$ | 20,000 |
| | | <hr/> <hr/> |



Advisory Committee on Council Activities

Kelly Fedele, P.E., P.S., Chair

ABSTRACT

The Advisory Committee on Council Activities (ACCA) provides advice and briefing to the president and the NCEES board of directors on new policy issues, problems, and plans that warrant preliminary assessment of policy choices and procedures not yet assigned to a standing committee or involving several existing committees. ACCA used Basecamp to conduct the preliminary work on the charges for 2021 and held two virtual meetings through Zoom in January 2021 to finalize the work done prior to the meeting and to make recommendations to the Council.

ACCA was assigned five charges. ACCA will present three motions from the 2019–20 ACCA report; in addition, it developed two motions for 2021 and has one recommendation. The recommendation from 2019–20 was addressed as a charge this year. The motions begin on page 49.

CHARGES

Charge 1

Review the 2019–20 ACCA report and proposed motions. Confirm that the proposed motions should be brought forward at the 2021 annual meeting. Propose motions accordingly.

ACCA conducted a thorough review of each charge that resulted in a motion on the 2019–20 committee report. After this review, ACCA determined that the report and proposed motions should be brought forward to the Council at the 2021 annual meeting. ACCA will present Motions 1, 2, and 3 as a result of this charge.

Charge 2

Review Administrative Policy (AP) 12, Awards, to determine if the number of Distinguished Examination Service Awards should be limited each year. Recommend revisions, if necessary, for Council adoption.

Background

The committee was asked to evaluate if nominations are received from all exam committees and if there are disparities between nominations from larger and smaller committees. The committee was also asked to recommend a target number, or limit, on the number of annual award winners.

Discussion

The subcommittee determined that there are approximately 964 exam committee volunteers. Five awards were presented in 2020, which represented 1 percent of the active exam volunteers. This number of awards is representative of, if not a bit higher than, historical numbers. It does not indicate a potential devaluation of the award significance. Not all nominees are selected for awards. There is a concern that committees with a larger number of volunteers (e.g., PE Civil and FE) might get a disproportional number of award recipients. However, these committees have discipline-specific subcommittees, which in many cases brings the numbers in each committee/subcommittee into alignment.

Exam committee chairs and NCEES member boards are allowed to make nominations for the award. The Committee on Examinations for Professional Engineers (EPE) and Committee on Examinations for Professional Surveyors (EPS), member boards, and all exam development committee chairs are notified of the award process annually. Several reminder emails are sent to notify them of the approaching deadline.

ACCA believes the current nomination process for the Distinguished Examination Service Award adequately identifies and selects appropriate numbers of award winners.

Charge 3

Consider creating a Past Presidents Committee that would be available as a resource to all committees, task forces, and NCEES staff.

Background

NCEES is fortunate to have a significant number of past presidents who are still active in the Council. These individuals are very knowledgeable about the history, operations, successes, failures, and governance of NCEES. It would be beneficial to be able to use this knowledge in order to have the Council operate more effectively and efficiently in the future.

Discussion

There was significant correspondence between subcommittee members concerning creation of a new committee composed entirely of past president members. This committee in theory would be available to act as a resource to other committees or task forces. It is unclear exactly how this Past Presidents Committee would be requested to provide information, assigned charges, conduct meetings, or be expected to perform in general. NCEES currently has ACCA, which almost always includes a number of past presidents and is given charges that don't neatly fit into other standing committees' charges. After considerable thought, the committee decided that the more desirable and more effective way to use the experience and knowledge of NCEES past presidents would be to assign one past president to each standing committee and task force if a past president were available and willing to serve. The past president position on the committee or task force would be as a full voting member of the committee or task force and would not take the place or satisfy any of the existing member requirements. The past president could be from any zone in the Council and could be a professional engineer or professional surveyor. If a past president were not available to serve on a particular committee and task force, that position would be left vacant.

ACCA will present Motion 4 as a result of this charge.

Charge 4

Review Bylaws 7.02, Advisory Committee on Council Activities, to determine if the committee should include two members from each zone or have at least one. Recommend revisions if appropriate.

Background

In 2018, each standing committee was charged with reviewing its committee details stated in the *Bylaws*. ACCA revised its definition in 2018 to include a professional surveyor and a member board administrator (MBA). History has held that at least two members from each zone are included, but this number is not defined.

Discussion

Bylaws 7.02 states that ACCA shall be made up of the chair and members from each zone. This wording obviously requires that each zone be represented but does not specify an exact number. Most NCEES standing committees (with the exception of two others) specify an exact number of members (either one, two, or three) from each zone. The charge before this committee was to look at only ACCA.

The question is, is it acceptable for ACCA to be different from most other committees, or should the *Bylaws* specify that a certain number of members (say, two) from each zone are required for the committee?

Bylaws 7.01 says, "The composition of committees should reflect the diversity of Council membership." This should take care of the concern about whether or not we should add more members simply to satisfy diversity issues. Diversity is a requirement regardless of number of members. ACCA already must include an engineer, a surveyor, and an MBA, so that particular diversity issue is covered. It would be the responsibility of the incoming president to make sure other diversity issues are covered, in accordance with *Bylaws 7.01*. This issue, therefore, is not part of the committee's charge.

ACCA is a unique committee in and of itself. It is commonly and unofficially known as the "president's committee" because of the nature of the issues and charges that come before it. Because of this, there is a certain amount of discretion afforded the incoming president relative to the makeup of the committee. Typically, individuals who have been around NCEES for a number of years and have served in NCEES leadership are chosen for the committee due to the need for institutional knowledge.

That being said, the committee is not exclusively comprised of those types of people, and other members are assigned in order to bring newer thought to ACCA charges. In recent years, ACCA has included two members from each of the four zones, although this is not specifically required. As a result of its discussions, ACCA will present Motion 5 to amend the Bylaws to incorporate this change.

ACCA recommends that a future charge be given to the two standing committees that do not have a *Bylaws* definition that includes the exact number of members from each zone—the Committee on Uniform Procedures and Legislative Guidelines and the Committee on Law Enforcement. Each committee should be charged to consider whether or not a specific number is prudent for it.

Charge 5

Determine if the NCEES Travel Policy should be included as part of the financial policies in the Manual of Policy and Position Statements. Recommend revisions if appropriate.

Background

The 2019–20 Committee on Finances was charged to review a portion of the *NCEES Travel Policy*. During its discussion, the committee suggested that the policy be incorporated into or referenced within the financial policies in the *Manual of Policy and Position Statements* and that the suggestion be addressed in a future charge to the committee. Currently, the board of directors reviews and updates the travel policy when revisions are needed.

Discussion

After ACCA's first review of the charge, the committee felt that the policy was referring to money that is used for travel that comes out of the NCEES annual budget. Making this policy a part of the manual that is approved at each annual meeting initially made sense. However, placing the travel policy in the manual means that it can be changed only once per year at the annual meeting, when the Council votes to approve changes to the manuals. This would take away the board of directors' authority and responsibility to make changes when necessary.

According to former Chief Financial Officer Betsy Pearson, CPA, the types of changes that are sent to the board of directors for approval are items that come from Finance Department staff based on what they are experiencing with expenses, receipts, and travel. If they come across trends that need to be addressed, they forward those concerns and suggestions to the chief executive officer so that he can take it to the board of directors at its next regularly scheduled meeting for implementation. In a non-COVID-19 year, NCEES spends up to \$4 million on travel and expenses. Staff needs to be able to manage any issues as they come up throughout the year. The travel policy is viewed as a product of day-to-day business operations; to wait until the annual business meeting to address and make changes that are approved by the board of directors would not be efficient.

ACCA does not think that it is practical to remove the flexibility of the board of directors by placing the travel policy inside a manual that is unwieldy to change quickly. The board of directors is elected by the membership, so there should be a high degree of trust by the members to allow the board of directors to make certain decisions on an as-needed basis.

Respectfully submitted, the Advisory Committee on Council Activities:

Kelly Fedele, P.E., P.S., Chair

Members

Michael Conzett, P.E.
Gene Dinkins, P.E., P.L.S.
John Mettee III, P.L.S.
James Purcell, P.E.
Muhammad Qureshi, Ph.D., P.E.
Andrew Ritter
Marlon Vogt, P.E.
David Whitman, Ph.D., P.E.

Consultant

Daniel Turner, Ph.D., P.E., P.L.S.

Board liaison

Christopher Knotts, P.E.

Staff liaison

Donna Moss, SHRM-CP, PHR

MOTIONS

ACCA Motion 1

Move that Administrative Policy 19 be adopted as follows:

AP 19 Representatives to the International Engineering Alliance (IEA) and Related Organizations

- A. NCEES shall be represented at IEA and related organizations by the president, president-elect, and chief executive officer. The president may, subject to approval by the board, appoint substitute representatives.
- B. All travel expenses shall be funded in accordance with Financial Policy 3 and the NCEES Travel Policy.
- C. When seeking election or reelection to an office or an appointment to a committee or working group of IEA or related organizations, an individual must first obtain approval of the NCEES board of directors.

Rationale

As detailed in the discussion in Charge 1, ACCA feels that a policy needs to be added to the *Manual of Policy and Position Statements* to clarify the process for appointing representatives who attend meetings of and/or seek office with IEA and related organizations. It presented the NCEES board of directors with its specific recommendations. After receiving feedback from the board of directors, it decided to propose the language shown above.

Board of directors' position

Endorses, consent agenda

ACCA Motion 2

Move that a Special Committee on Bylaws be charged with incorporating the following amendments into *Bylaws* 3.021 and 3.022.

Section 3.021 Associate Members. An Associate Member of NCEES shall be a designee of a Member Board, but not a member of a Member Board, who is appointed by the NCEES Board of Directors as an Associate Member of NCEES.

Recommendations for associate members of NCEES shall be submitted by Member Boards to the Board of Directors and become effective upon appointment by the Board of Directors. Such appointments shall be reviewed annually by each Member Board and shall remain in effect until the Board of Directors is notified otherwise by the Member Board.

Associate Members of NCEES shall have the privilege of the floor ~~upon approval of the presiding officer~~ and may serve on any committee to which duly appointed under the *Bylaws*. Associate Members are eligible to hold the elective office of zone Secretary-Treasurer but are not eligible to serve on the NCEES Board of Directors.

Section 3.022 Emeritus Members. An Emeritus Member of NCEES shall be a person who is a former member of a Member Board who is duly recommended by that Member Board and approved by the NCEES Board of Directors. Such appointments shall be reviewed annually by each Member Board and shall remain in effect until the Board of Directors is notified otherwise by the Member Board.

Emeritus Members of NCEES shall have the privilege of the floor ~~upon approval of the presiding officer~~ and may serve on any committee to which duly appointed under the *Bylaws*.

Rationale

Associate members are currently active in the Council and, through their attendance at the annual meeting, have the ability to participate and contribute to the discussion. Emeritus members are granted the privilege of the floor without having to request permission from the presiding officer. As past board members, they have a knowledge of the Council and some historical perspective. Their best interest should align with the Council's. If someone who is not a member, associate member, or emeritus member requests to speak, it should be up to the presiding officer to decide if that individual will be allowed the floor.

Board of directors' position

Endorses, consent agenda

ACCA Motion 3

Move that the appropriate committee be charged with incorporating the following language into the appropriate place within Examination Administration Policy 8.

EAP 8 Release and Use of Examination Results

All NCEES exam irregularities should be evaluated by NCEES with regard to invalidation of exam results. If a candidate fails to comply with the conditions stated in the NCEES Examinee Guide, then NCEES will have the authority to invalidate exam results and, furthermore, shall have the authority to suspend a candidate's ability to take an NCEES exam for up to three years. If deemed appropriate, NCEES shall also have the right to pursue additional restrictions on future testing, civil remedies, and/or criminal remedies.

Rationale

Making these changes will provide consistency in determining exam invalidation for examinees who violate the exam rules provided in the *NCEES Examinee Guide*. Member boards will no longer have to shoulder the responsibility for conducting investigations into exam irregularities. They will still be informed of the identity of any examinee whose results are invalidated, and the reason for invalidation will be noted in the NCEES Enforcement Exchange database.

If the Council approves the revision to EAP 8, the *NCEES Examinee Guide, Investigation and Enforcement Guidelines*, and *Security and Administrative Procedures Manual* will also be updated accordingly.

Board of directors' position

Endorses, consent agenda



Committee on Education

Wendy Amann, P.E., Chair

ABSTRACT

The 2020–21 Committee on Education met four times virtually to discuss and address its charges: September 23, 2020; November 9, 2020; December 8, 2020; and January 27, 2021.

The committee was assigned eight charges. The charges relate to future education standard requirements for licensure, the NCEES Engineering Education Award and NCEES Surveying Education Award, developing a primer regarding Washington Accord signatories, reviewing the *Model Rules* and the *Continuing Professional Competency (CPC) Guidelines* with respect to continuing professional development, and other engineering and surveying education-related issues. The committee also reviewed the 2019–20 report and motions.

The committee developed four motions in 2019–20, and the current committee believes these to be valid and will bring them forward as motions. The 2020–21 committee added two motions, for a total of six motions. The motions begin on page 57.

CHARGES

Charge 1

Review the 2019–20 Education Committee report and proposed motions. Confirm that the proposed motions should be brought forward at the 2021 annual meeting. Propose motions accordingly.

The Education Committee reviewed last year's committee motions and agreed that they should be brought forward to the Council with no changes. The committee is presenting them as Motions 1–4.

Charge 2

Evaluate the NCEES Engineering Education Award and the NCEES Surveying Education Award by reviewing the 2019 award cycles and previous award recipients' successes and recognitions as described in the 2018–19 and 2019–20 Education Committee conference reports. Recommend revisions as appropriate.

Engineering Education Award

Because of the COVID-19 pandemic, the 2020 Engineering Education Award was canceled. After extensive discussion between committee members via Basecamp and after reviewing survey results from various schools and past participants, the committee reached a consensus that the 2021 awards should proceed this year. Chief Operation Officer Davy McDowell, P.E., the committee's staff liaison, reported this to the board of directors on November 6, 2020. The board approved the awards' moving ahead. Depending on the number of submissions, the criteria may have to be adjusted. It was noted that NCEES should send a personal invitation to those who responded to the survey.

Surveying Education Award

Because of the COVID-19 pandemic, the 2020 Surveying Education Award was canceled. The committee discussed the 2021 award and decided to push forward with the award (see Engineering Award discussion above). For the surveying award, this committee recommends that next year's Education Committee be charged with reviewing the award and updating it as needed. This review would be held after the fifth cycle of the award, as per the original intention when it was established.

Charge 3

Establish definitions for the following terms used in Model Rules related to continuing professional competency: self-study, independent study, and group study. Recommend revisions to the Committee on Uniform Procedures and Legislative Guidelines (UPLG) for incorporation into the Model Rules. Review the CPC Guidelines, which currently says that self-study is not allowed. Update as appropriate.

The committee reviewed the *Model Law* and *Model Rules* and determined that the terms “self-study,” “independent study,” and “group study” are not defined. Some ambiguity can be seen as currently written, especially when comparing the *Model Rules* and *CPC Guidelines*. The committee discussed adding definitions to the model documents. It also noted that given the current pandemic situation with so much of our work and communications being done virtually, allowing self-study and independent study is critical. The committee checked with various agencies and associations for other definitions of self-study, independent study, and group study. There was not much to review. The committee discussed various board interpretations and current practices. The discussion came down to documented versus undocumented. If all study is documented, it can be counted. After these discussions, it was suggested that a change should be made.

The committee accepted the following proposed change to Section 240.30 C:
Successful completion of short courses, tutorials, webinars, and distance-education courses offered for documented individual or group study. The method of delivery can be through

- Face-to-face programs or live internet-based programs
- Archived prerecorded programs or archived correspondence programs.

Because the UPLG Committee already had a motion regarding *Model Rules* 240.30 C, Qualifying Activities, the revisions were sent to UPLG to consider. UPLG agreed and will present a motion to this effect.

Charge 4

Review the CPC Guidelines, Model Law, and Model Rules to determine if any changes need to be made in light of the increased growth of virtual learning as opposed to face-to-face seminars.

This charge is somewhat related to Charge 3. The committee wanted to verify if any wording is not acceptable in the current pandemic and post-pandemic world. The committee determined that the current language in the *CPC Guidelines* is broad enough to address pandemic and post-pandemic concerns. There are mechanisms in place to allow flexibility without any changes. Online delivery is more prevalent due to the pandemic, but that is not limited in the guidelines and, therefore, does not present a concern. Best practices include various delivery methods, but the key is to get suitable documentation.

The committee did feel that even though the guidelines and model documents do not hinder virtual learning, revisions are needed in the guidelines for clarification on the different modes of delivery of courses and clarification on recordkeeping. The revisions to the *CPC Guidelines* are to add a new section, Modes of Delivery, and to replace the current Recordkeeping section with the language shown below. These revisions will appear in the next publication of the *CPC Guidelines*.

Modes of Delivery

Courses and technical seminars may be presented/delivered through several different modes:

- Live, in-person courses or presentations—Both presenter/instructor and attendees are present in the same physical location. This mode provides an opportunity for direct interaction between course/seminar participants.
- Virtual, synchronous courses or presentations—Attendees are located remotely from the presenter/instructor, but the activity is conducted live over the internet or remote conferencing connection. This mode may or may not provide for interaction between the participants.
- Virtual, asynchronous courses or presentations—Content is archived for access via the internet by remote participants. There is no direct interaction between participants, but there may be communication with the instructor/presenter concerning the course/presentation content or course assignments.
- Hybrid courses—These are a combination of in-person and virtual learning modes. The attendees are expected to access archived material outside of class meetings, with the in-person sessions utilized for discussion and active learning activities.

Recordkeeping

As stated in the *Model Rules*, the requirement to maintain adequate records is the responsibility of the licensee. Licensing boards may conduct audits of licensees for verification purposes. Licensing boards should clearly state in their statutes and instructions that licensees are responsible for obtaining the requisite documentation at the time of attendance/participation to verify the licensee's participation and completion of the CPC course or activity in case the licensee is selected for audit. The *Model Rules* states that records required include but are not limited to the following:

- A log showing the type of activity claimed, sponsoring organization, location, duration, instructor's or speaker's name, and PDHs earned. This log provides specific information on each CPC activity in which PDH credit is claimed. For example, it is not acceptable to simply state, "Attending educational activities at ABC Company." Specific information on each activity is required. The log permits the proper reporting of the CPC activities at the time of renewal.
- Documentation that verifies the nature of the professional development activity and the number of PDHs claimed. The general rule is that the licensee must have sufficient verification for credits claimed. Documentation can be any physical evidence that provides this verification. Documentation must be provided by the activity provider; documentation created by the licensee is not acceptable. Examples of appropriate documentation are as follows:
 - Courses or seminars—certificates, transcripts, registration receipts
 - Courses taught—course syllabus, copy of published course schedule
 - Publications—preprint copy, copy of book or chapter title page
 - Patents—copy of patent
 - Professional societies—letter from organization verifying service
 - Standards setting—letter from organization verifying service
 - Outreach—letter from sponsor or published program

This list is not exclusive, but any documentation must be of a form that can be independently verified and will withstand the scrutiny of an audit.

Certainly, activities that are of a longer duration (such as over an hour) should have verification. On occasion, it is recognized that short activities, such as a meeting of a technical or professional society, might include a 30-minute presentation for which verification is not provided in the meeting. This should be an unlikely exception.

Licensees may use the NCEES CPC Tracking system to log courses, upload documentation (certificates, verification of attendance, etc.), list learning objectives, compare to the NCEES CPC Standard, and track real-time against jurisdictional requirements.

Though not specifically related to virtual learning, a professional society member asked if standards development could be considered continuing education. The committee discussed this and decided it would be acceptable if documented per the recordkeeping requirements of the *CPC Guidelines*. The committee will present Motion 5 to charge the UPLG Committee with incorporating these changes into *Model Rules 240.30 D*.

Charge 5

Consider the development of a program, possibly similar to the NCEES Engineering and Surveying Education Awards, that focuses on K–12 education. Make recommendations to the board of directors if appropriate.

Does NCEES need to develop a new program or join an existing program? The committee discussed this question and the types of existing outreach programs are available to join. K–12 programs may need volunteers more than they need financial assistance. The committee discussed whether NCEES could provide continuing education credits for licensees involved in programs but noted that NCEES model documents already allow 1 hour of outreach activities for continuing education credits, up to a maximum of 3 professional development hours (PDHs) per year. There is some disagreement among various jurisdictions on whether outreach really improves the engineer.

This charge resulted from a recommendation from the 2019–20 Public Affairs Task Force. This year's Education Committee had further discussions about the driving force behind the recommendation from the task force. Committee member Kathy Hart, who was part of the task force, said that the task force's intention was to address inner-city, rural, and economically and socially disadvantaged areas—mainly underserved populations. She said that the discussion was more of a brainstorming discussion and was not fully developed. The committee noted that per the discussions with Lance Kinney, Ph.D., P.E, the Public Outreach Task Force chair, the program could be a hybrid between a new NCEES program and a scholarship/awards program that could reach underserved groups. He also discussed the possibility of getting recommendations from the state boards on which groups would best be served by such.

The Education Committee's consensus was that it will be a challenge set up something new, especially for targeted areas and in the middle of a pandemic. It agreed that there are a number of existing programs and that NCEES should maintain a focus on its mission of safeguarding the health, welfare, and safety of the public.

The committee recommends creating a list of the organizations and societies that support outreach for K–12 students and for NCEES to let them know that it has support funding available if they would like to apply. It could be considered a donation, and it would go toward those who reach out and apply. This might evolve into a scholarship program rather than an awards program.

The committee recommends that NCEES not work on developing a new program.

Staff liaison McDowell noted that the board of directors has funding available to support initiatives like this. The committee recommends that the Public Affairs staff investigate what is currently being offered and bring back to the board of directors recommendations of potential programs to sponsor. The committee recognizes that there is a need and agreed something should be pursued by NCEES staff.

Charge 6

Consider moving paragraph C of Examination Administration Policy (EAP) 5 to the appropriate position statement rather than to be included in an exam policy.

In reviewing EAP 5, the committee agreed that paragraphs B and C are out of place since they are not associated with the offering of examinations by member boards. The committee feels that those two items are better suited to be part of the position statement on the use of the fundamentals exams for outcomes assessment. The committee determined that Position Statement (PS) 15 would be the appropriate policy in which to place the paragraphs from EAP 5. The committee also decided that PS 15 should include the Fundamentals of Surveying (FS) exam. Motion 6 shows the recommended revisions to EAP 5 and PS 15.

Charge 7

Review the process of how programs become denoted as Washington Accord programs. Prepare a document for dissemination to the member boards for their possible use.

After discussions, a subcommittee of members agreed to delve into the Washington Accord in greater detail and provide a document to disseminate the information to member boards. The subcommittee reviewed the original November 2005 NCEES memo to member boards outlining concerns with accepting Washington Accord programs as equivalent. Because NCEES already has a process for reviewing degrees from non-ABET-programs, the group does not feel it is necessary (or possible) to provide direction to the member boards on accepting Washington Accord applicants. There is not a backlog for credentials evaluations, and all are processed in a timely manner. Most boards are limited in what they can accept due to legislation. The committee feels that the information contained in the appendix will help boards conclude whether to accept Washington Accord-designated programs or if applicants should go through the NCEES Credentials Evaluations process. This is not as much of a barrier as perceived by some. The document is included in this report as an appendix.

The committee recommends that the NCEES board of directors approve the memorandum to be sent to each board to use as needed. This document will supersede previous information and help clarify the situation regarding Washington Accord programs.

Charge 8

Review the NCEES Engineering and Surveying Education Standards. Propose revisions, if necessary, to the Council for approval at the annual meeting.

The group discussed if any changes were needed in the Engineering Education Standard or the Surveying Education Standard. International applicants, if they fall short, are usually deficient in humanities or general education. Some states have processes to review. Various boards work with applicants to ask for more coursework.

Though the NCEES standard is no longer in sync with ABET in terms of general education or basic sciences, the committee feels like the current standards are sufficient and suggests no revisions.

Respectfully submitted, the Committee on Education:

Wendy Amann, P.E., Chair

Members

Alejandro Angel, Ph.D., P.E.
Teresa Helmlinger-Ratcliff, Ph.D., P.E.
Steven Hyde, P.S., P.S.M.
Michael Kelly, P.E.
Timothy Platz, P.S.
Sean St. Clair, Ph.D., P.E.
Garth Thomas Jr., P.E.
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Consultants

Steven Barrett, Ph.D., P.E.
David Beasley, Ph.D., P.E.
Joseph Flynn, L.S.
Kathy Hart
Michelle Roddenberry, Ph.D., P.E.

Board liaison

Michael Dreywor, P.E., P.S.

Staff liaison

Davy McDowell, P.E.

MOTIONS

Education Motion 1

Move that the UPLG Committee be charged with incorporating the following language into *Model Rules* 240.30 C.

240.30 Continuing Professional Competency

C. Qualifying Activities

PDHs may be earned as follows:

1. Successful completion of college courses
2. Successful completion of short courses, tutorials, webinars, and distance-education courses offered for self-study, independent study, or group study and through synchronous or asynchronous delivery methods such as live, correspondence, archival, or the Internet
3. Presenting or attending qualifying seminars, in-house courses, workshops, or professional or technical presentations made at meetings, conventions, conferences, or educational institutions
4. Teaching or instructing in 1 through 3 above
5. Authoring published papers, articles, books, or accepted licensing examination items
6. Active participation in professional or technical societies or in accrediting organizations
7. [Patents-Obtaining a patent](#)
8. Active participation in educational outreach activities pertaining to professional licensure or the surveying/engineering professions that involve K–12 or higher education students

Rationale

The work required to obtain a patent is usually typically part of a team. Usually, the work is engineering or surveying related. The committee feels that the efforts to obtain a patent are qualifying activities for PDHs. The current language simply states, "patent," and this motion corrects the language to be an action similar to the other items in section C.

Board of directors' position

Endorses, consent agenda

Education Motion 2

Move that the UPLG Committee be charged with incorporating the following language into *Model Rules* 240.30 E:

240.30 Continuing Professional Competency

E. Determination of Credit

The board has final authority with respect to approval of courses, credit, PDH value for courses, and other methods of earning credit.

1. Credit for college or community college approved courses will be based upon course credit established by the college. The Carnegie definition of a contact hour is based upon a minimum of 15 class meetings. Thus, a unit of credit equates to 3 hours of student work per class (1-hour lecture plus 2 hours of homework or 3 hours of lab) for 15 classes.
2. Credit for qualifying seminars and workshops will be based on 1 PDH for each hour of attendance. Attendance at qualifying programs presented at professional and/or technical society meetings will earn PDHs for the actual time of each program.
3. Credit determination for activities in subsections D.6 and D.8 is the responsibility of the licensee (subject to review as required by the board).
4. Credit for activity in subsection D.7, active participation in professional and technical societies (limited to 2 PDHs per organization), requires that a licensee serve as an officer and/or actively participate in a committee of the organization. PDHs are not earned until the end of each year of service is completed.

Rationale

Member boards treat professional development hours earned through college courses differently. Some follow the *Model Rules*; others define the number of hours based on contact hours. The committee feels that the current *Model Rules* addresses PDHs accurately and is providing the amendment above to help clarify why one semester hour is equal to 45 professional development hours.

Board of directors' position

Endorses, consent agenda

Education Motion 3

Move that Position Statement 7 be revised as follows:

~~PS 7 Evaluation of Applicants with Degrees in Technology~~

~~NCEES recommends that all member boards of licensure, whose statutes do not otherwise prohibit, be encouraged to observe and adhere to the following criteria for the examination of educational qualifications of applicants for licensure, or license, as professional engineers and surveyors:~~

- ~~A. Graduates of Engineering Technology Accreditation Commission of ABET (ETAC/ABET) accredited, four-year baccalaureate programs in engineering technology may be granted a maximum of two years of educational credit toward professional engineering licensure and four years of educational credit toward professional surveying licensure if the board determines that the degree contains prescribed surveying courses.~~
- ~~B. Applicants who entered ETAC/ABET accredited, four-year baccalaureate programs in engineering technology but did not complete requirements for the four-year baccalaureate degree may be given consideration for educational credit on a prorated basis of one-half year for each year satisfactorily completed, up to a maximum of two years' credit.~~
- ~~C. Graduates of non-ETAC/ABET accredited, four-year baccalaureate programs in engineering technology may be granted a maximum of one year of educational credit.~~

PS 7 Bachelor of Science Degree in Engineering Technology

NCEES recommends that the boards of licensure require any applicant who has a degree in engineering technology, who applies for engineering licensure in any jurisdiction of the United States, and who has not previously been licensed to practice by one of the boards of licensure be required to first demonstrate that he or she possesses at least a four-year bachelor of science degree in engineering technology, acquired through the successful completion of an ETAC/ABET-accredited program or through a board-approved program.

Recognizing that newly ETAC/ABET-accredited programs must spend several years in development before attaining accredited status, NCEES recommends that all applicants be considered as having graduated from an ETAC/ABET-accredited program if their program is/was accredited within three years after their graduation.

Rationale

In reviewing PS 8 and PS 9, the committee decided that the language in PS 7 is not consistent with them and does not appropriately define the bachelor of science degree in engineering technology. Also, the committee believes this change will align the policy statement with current ABET language.

Board of directors' position

Endorses, consent agenda

Education Motion 4

Move that Position Statement 13 be revised as follows:

PS 13 NCEES-Recommended Education/Experience Guidelines for P.E. Licensing

| 4-Year or More Degree | Years of Experience Required | Comments |
|---|-------------------------------------|---|
| EAC/ABET accredited | 4 | NCEES PS 8 |
| Canada (CEAB) accredited | 4 | |
| Non-EAC/ABET or non-CEAB accredited | 4 or more | Education should be evaluated using the NCEES Engineering Education Standard. |
| Recommendations below are only for member boards that must evaluate applicants who do not meet the minimum education of an EAC/ABET or equivalent degree as specified in PS 8. | | |
| ETAC/ABET accredited | 6 | Needed by some boards NCEES PS 7 |
| Related science* | 8 | Needed by some boards Education should be evaluated using the NCEES Engineering Education Standard. |
| No degree | 20 | Needed by some boards |

*A related science curriculum from a school or college approved by the board is defined as a four-year curriculum leading to a bachelor of science degree in chemistry, physics, mathematics, or similar science curriculum.

Rationale

Due to the change in PS 7, the table in PS 13 should be updated to align with PS 7 as well as PS 8. This cleans up the table and gives clear direction to the member boards.

Board of directors' position

Endorses, consent agenda

Education Motion 5

Move that the UPLG Committee be charged with incorporating the following language into *Model Rules* 240.30 D.

240.30 Continuing Professional Competency

D. Units

The conversion of other units of credit to PDHs is as follows:

- 1. 1 semester hour 45 PDHs
- 2. 1 quarter hour 30 PDHs
- 3. 1 continuing education unit 10 PDHs
- 4. 1 hour of professional development in coursework, seminars, or professional or technical presentations made at meetings, conventions, or conferences 1 PDH
- 5. For teaching in 1 through 4 above, apply multiple of 2*
- 6. Publications
 - a. Each published peer-reviewed paper or book in the licensee's area of professional practice 10 PDHs
 - b. Each published paper or article (other than 6.a above) in the licensee's area of professional practice 5 PDHs
- 7. Active participation in professional and technical society (each organization) 2 PDHs
- 8. Each patent 10 PDHs
- 9. [Active participation in standards or code development technical committees, standards, or code commissions](#) up to 4 PDHs
- 9.10. 1 hour of outreach activities 1 PDH (not to exceed 3 PDHs)

* Teaching credit is valid only for the first offering or presentation. Full-time faculty may not claim teaching credit associated with their regular duties.

Rationale

Volunteers who hold P.E./P.S. licenses and are active in standards or codes development spend many hours collaborating to develop these standards and guides. The work required to develop codes and standards is engineering or surveying related. The committee feels that the efforts to develop codes and standards within the engineering and surveying professions are qualifying activities for PDHs.

Board of directors' position

Endorses, consent agenda

Education Motion 6

Move that Examination Administration Policy 5 and Position Statement 15 be revised as follows:

EAP 5 NCEES Examinations Offered by a Member Board Within Its Jurisdiction

- A. A member board may offer NCEES examinations only in its jurisdiction. The member board must make suitable arrangements to protect the confidentiality and security of the examinations according to NCEES guidelines. Administration of examinations must conform to the NCEES scheduled timeframes for examinations. Individual applicants should apply to the sponsoring jurisdiction in accordance with that jurisdiction’s operating policies and procedures. This policy does not preclude an examinee from sitting for a CBT examination in a different jurisdiction.
- ~~B. NCEES may provide directly to a university or college FE or FS examination data that will help measure learning outcomes of the total engineering or surveying education.~~
- ~~C. Member boards are encouraged to sponsor or otherwise facilitate use of the FE and FS examination results for internal use of institutional outcomes assessment, but such use should not subordinate or endanger the function, concept, or security of the FE or FS examination’s primary purpose as the first examination for professional licensure, in keeping with the underlying mission of safeguarding the health, safety, and welfare of the public.~~
- DB. This policy does not preclude a member board from offering the examinations at an NCEES-approved site to U.S. military personnel stationed at military bases outside the United States.

PS 15 FE or FS Examination as an Outcomes Assessment Tool

- A. Engineering and surveying programs should strongly consider using the FE or FS exam topic-level performance data as part of their program assessment, with proper regard for the caveats described.*
- B. Programs that will gain the most from using the FE or FS exam as an assessment tool are those programs in which all students are required to take the FE or FS exam, all students are required to take the discipline-specific exam (applicable to the FE exam only), the faculty establish specific goals for their program, and comparisons are made with peer institutions that have similar requirements.
- ~~C. Member boards should become proactive in working with academic programs to stress the use and value of the FE exam as an assessment tool.~~
- C. Member boards are encouraged to sponsor or otherwise facilitate use of the FE and FS examination results for internal use of institutional outcomes assessment, but such use should not subordinate or endanger the function, concept, or security of the FE or FS examination’s primary purpose as the first examination for professional licensure, in keeping with the underlying mission of safeguarding the health, safety, and welfare of the public.
- D. Institutions must remember that the primary purpose of the FE or FS is to assess minimal technical competencies. Other assessment tools need to be used to assess higher-level theories or critical thought that might be the focus of some portion of their program.
- E. The results of each FE or FS exam should be sent directly to institutions for their use. NCEES may provide directly to a university or college additional FE or FS examination data that will help measure learning outcomes of the total engineering or surveying education.

*Refer to *Using the Fundamentals of Engineering (FE) Examination as an Outcomes Assessment Tool*, National Council of Examiners for Engineering and Surveying, March 2019.

Rationale

EAP sections B and C are clearly out of place since they are not associated with the offering of examinations by member boards. The committee feels that those two items are better suited to be part of the position statement on the use of the fundamentals exams for outcomes assessment. The committee also added the FS exam to section E to match current practice.

Board of directors’ position

Endorses, consent agenda

Appendix—The Washington Accord: A Brief for Member Boards

The number of engineering professionals who practice across national borders has been increasing. This trend has caused international licensure and the barriers to mobility that arise from differing requirements to become concerns for NCEES member boards. NCEES and other groups have been working to facilitate licensure mobility through international agreements. One of these agreements is the Washington Accord, the purpose of which is to define an internationally recognized standard for engineering education.

What is it?

The Washington Accord is one of three educational accords administered by the International Engineering Alliance. The Alliance is made up of national organizations, including NCEES, that are concerned with professional licensing in their respective jurisdictions. The purpose of the Alliance is to establish engineering education and professional competence standards that can provide the basis for international recognition of professional credentials in the jurisdictions represented by the Alliance.

The Washington Accord is an agreement between national organizations that accredit engineering educational programs—the programs that provide the education required for graduates to be qualified for professional licensure. The purposes of the Accord are to establish an internationally recognized standard for engineering education outcomes and to ensure that programs accredited by the signatory organizations meet this standard. The standard is expressed as a set of descriptors of the expected attributes of an engineering graduate and is published in *Graduate Attributes and Professional Competencies, Version 3, June 21, 2013*. [Key Documents: International Engineering Alliance (ieagreements.org)]

The signatory accreditation organizations conduct a periodic peer review to ensure that the standards being used by each signatory to accredit engineering programs are substantially equivalent. This equivalence results from the alignment of educational outcomes for all accredited programs with the desirable attributes for engineering graduates. Equivalence does not mean that all accredited programs have the same curricula or identical educational outcomes. The guiding principle is that all programs demonstrating that their graduates are exhibiting attributes aligned with the standards are accreditable under the Accord. In turn, graduates of programs accredited under the Washington Accord standard are considered to be qualified to obtain the necessary experience leading to professional licensure.

The Washington Accord is meant to facilitate mobility of graduates between signatory jurisdictions. The signatory organizations have agreed that graduates of programs accredited by all signatory accrediting bodies should be accorded the same recognition and privileges as graduates of their own accredited programs, including qualification for licensure. In some jurisdictions, the signatory body may not be the body that provides professional licensure and can only recommend that all Washington Accord program graduates be considered to have the same educational qualifications. This is the case in the United States, where ABET is the accrediting organization but licensure is administered by state, territorial, and district boards. Each licensing board may decide whether to accept the principles of the Accord and treat all Washington Accord program graduates as possessing the necessary educational qualifications for licensure. Acceptance by a board could also require changes to the board's enabling legislation if ABET accreditation is specified as the only acceptable education qualification for licensure.

Who are the signatories, and who is accredited?

The list below provides the current jurisdictions, the signatory accrediting bodies, and the date that full membership was granted. Only engineering programs accredited by one of the signatories after the date the signatory became a member are covered by the Washington Accord. Each of the accrediting bodies is responsible for maintaining a record of programs within their jurisdiction that are accredited under the Washington Accord provisions. These records are available on the websites of the respective accrediting bodies. It is worth noting that some accrediting bodies make these records easier to access than others.

Current Washington Accord signatories

- Korea—Represented by Accreditation Board for Engineering Education of Korea (ABEEK) (2007)
- Russia—Represented by Association for Engineering Education of Russia (AEER) (2012)
- Malaysia—Represented by Board of Engineers Malaysia (BEM) (2009)
- China—Represented by China Association for Science and Technology (CAST) (2016)
- South Africa—Represented by Engineering Council South Africa (ECSA) (1999)
- New Zealand—Represented by Engineering New Zealand (EngNZ) (1989)
- Australia—Represented by Engineers Australia (EA) (1989)
- Canada—Represented by Engineers Canada (EC) (1989)

Appendix—The Washington Accord: A Brief for Member Boards

- Ireland—Represented by Engineers Ireland (EI) (1989)
- Hong Kong China—Represented by The Hong Kong Institution of Engineers (HKIE) (1995)
- Chinese Taipei—Represented by Institute of Engineering Education Taiwan (IEET) (2007)
- Singapore—Represented by Institution of Engineers Singapore (IES) (2006)
- Sri Lanka—Represented by Institution of Engineers Sri Lanka (IESL) (2014)
- Japan—Represented by JABEE (2005)
- India—Represented by National Board of Accreditation (NBA) (2014)
- United States—Represented by Accreditation Board for Engineering and Technology (ABET) (1989)
- Turkey—Represented by Association for Evaluation and Accreditation of Engineering Programs (MÜDEK) (2011)
- United Kingdom—Represented by Engineering Council United Kingdom (ECUK) (1989)
- Costa Rica—Represented by Colegio Federado de Ingenieros y de Arquitectos de Costa Rica (CFIA) (2020)
- Pakistan—Represented by Pakistan Engineering Council (PEC) (2017)
- Peru—Represented by Instituto de Calidad y Acreditacion de Programas de Computacion, Ingenieria y Tecnologia (ICACIT) (2018)

How does the Washington Accord standard compare to the NCEES educational standards?

The NCEES Engineering Education Standard cannot be directly compared to the standard used by Washington Accord accrediting agencies. The NCEES standard specifies curriculum requirements; the Washington Accord standard specifies desired attributes of graduates from accredited programs. The curricula of the various Washington Accord programs may vary in content as well as the number of credit hours in particular curricular areas. Washington Accord programs are evaluated on the basis of their educational outcomes and whether they are meeting them, in addition to other criteria established by the accrediting organizations. The curricula of programs accredited by Washington Accord signatories may not satisfy the NCEES Engineering Education Standard due to differences in the number of credit hours assigned to general education, basic mathematics and science, and engineering topics. One idea embodied in the Washington Accord standard is that curricular uniformity is not a requirement to produce engineering graduates who will be competent to enter professional practice. Education quality is demonstrated by assessing what graduates can do with respect to a defined set of desired abilities.

Should Washington Accord-accredited degrees be accepted as ABET equivalent?

All Washington Accord signatory accrediting bodies have defined educational outcomes for their programs along with specifications for the curricula. The programs are required to have assessment processes like those employed by ABET-accredited programs. The standards and processes for accreditation employed by the signatories exhibit a good deal of commonality. While the learning outcomes employed by the various accrediting bodies are not identical, all of them are periodically peer reviewed to ensure that the learning outcomes are compatible with the *Graduate Attributes and Professional Competencies* guidelines. Washington Accord programs should be seen as ABET equivalent in that they are accredited using similar processes and standards. However, the licensing boards must decide if they are willing to accept an ABET equivalent.

The motivation for acceptance is reducing barriers to international mobility. Accepting degrees from Washington Accord-accredited programs as appropriate educational qualifications would eliminate the need for a Credentials Evaluation for some international licensure applicants. However, it would be necessary for someone from the member board or NCEES to verify that the degree was awarded by a Washington Accord-accredited program. It should be noted that the cost for an NCEES Credentials Evaluation is not excessive and that the turnaround is short for most licensure candidates. The NCEES evaluation becomes a significant barrier to mobility only in cases in which curricular deficiencies are found and additional education is required. Each licensing board will have to decide whether acceptance of a program that is part of the Washington Accord is a worthwhile step toward facilitating international mobility.



Committee on Examination Policy and Procedures

Jeffrey Jones, P.L.S., Chair

ABSTRACT

The Committee on Examination Policy and Procedures (EPP) is responsible for reviewing the effectiveness of the exams and recommending policies, specifications, and procedures consistent with trends in the engineering and surveying professions. The committee met virtually and performed additional work through the Basecamp collaboration website.

The committee was assigned five charges and developed 20 motions, with 19 carry-over motions from the 2019–2020 report and one additional motion. The motions begin on page 65.

CHARGES

Charge 1

Review all exam policies; specifically, review all Examination Development Policies (EDPs). Recommend revisions as appropriate.

Review the 2019–20 EPP Committee report and proposed motions. Confirm that the proposed motions should be brought forward at the 2021 annual meeting. Propose motions accordingly.

EPP conducted a thorough review of each charge that resulted in 19 motions in the 2019–20 report. This review resulted in a few minor wording changes in the motions previously prepared; those changes are noted in the motion rationale. After review, EPP determined that the updated report and proposed motions should be brought forward to the Council at the 2021 annual meeting.

Charge 2

Review all exam policies, specifically review all the Examination Administration Policies (EAPs). Recommend revisions as appropriate.

As part of last year's work, a detail review of the Examination Development Policies (EDPs) was performed. The committee also reviewed the EAPs and included a few changes to last year's motions; the changes are included in this year's report.

EPP is also presenting a motion that EAP 5 be modified to allow NCEES to offer the 16-hour Structural Engineering exam regionally, starting in April 2022, until such time that it is transitioned to CBT. This appears as Motion 20.

Charge 3

Review all examination policies to determine if references to the structural engineering examination should be consistent with the other PE examinations (i.e., PE Mechanical or PE Industrial and Systems vs. the current wording of 16-hour Structural Engineering). Recommend revisions as appropriate.

In 2019–20, the committee worked to ensure consistency in the names of exams. The committee recommends that although the 16-hour Structural Engineering exam is considered to be a PE exam per policy, it should continue to be referred to as the 16-hour Structural Engineering exam in order to differentiate it from the PE Civil Structural exam.

Charge 4

Review exam volumes with regard to EDP 8, Deleting/Combining/Renaming a Discipline or Module from the Examination Program, and provide recommendations to the NCEES board of directors.

As required by EDP 8, the EPP Committee reviewed the first-time examinee volumes to ensure that they meet the requirements. The EPP Committee recommends that the exams that did not meet the minimum requirements for first-time examinee volumes be given a one-year reprieve due to the COVID-19 pandemic. The committee will reexamine the volumes next year and bring forth new recommendations at that time.

Charge 5

Review the NCEES Examinee Guide for content and effectiveness.

EPP received feedback from staff concerning the recommendations from the 2019–20 report. All suggestions were implemented except item 12. The committee was informed that the slight differences between the Examinee Guide and the policy are for clarification related to examinee questions to staff, which require more detailed responses than included in the Examinee Guide.

Respectfully submitted, the Committee on Examination Policy and Procedures:

Jeffrey Jones, P.L.S., Chair

Members

- Ademola Adejokun, P.E.
- Steven Bishop, S.E.
- Howard Gibbs, P.E.
- Elizabeth Johnston, P.E.
- James (Don) Pedigo II, P.L.S.
- Stanley Postma, S.E.
- Kevin Skibiski, P.E., S.E., P.L.S.
- Ronald Willey, Ph.D., P.E.

Consultants

- Carmine Balascio, Ph.D., P.E.
- Aaron Morris, P.L.S.
- Zana Raybon

Board liaison

- Scott Bishop, P.S.

Staff liaison

- Timothy Miller, P.E.

MOTIONS

EPP Motion 1

Move that Exam Development Policy 1 be amended as follows:

EDP 1 Examinations

It shall be the policy of NCEES in all publications and correspondence to refer to the respective examinations only as follows:

- A. Fundamentals of Engineering (FE) examination
- B. Principles and Practice of Engineering (PE) examination, ~~including which includes~~ the 16-hour Structural Engineering (SE) examination
- C. Fundamentals of Surveying (FS) examination
- D. Principles and Practice of Surveying (PS) examination

The purpose of the examinations is to assess licensure candidates' abilities to practice competently as engineers or surveyors and to assist member boards in the regulation of the practice of engineering and surveying as it relates to safeguarding the health, safety, and welfare of the public.

Rationale

This change gives a more complete definition of the Structural Engineering exam.

Board of directors' position

Endorses, consent agenda

EPP Motion 2

Move that Exam Development Policy 3 be amended as follows:

EDP 3 Engineering and Surveying Examinations and Formats

- A. ~~The Fundamentals of Engineering examination shall be administered via computer-based testing (CBT) and have supplied references.~~
[Fundamentals of Engineering Examination](#)
~~The Fundamentals of Engineering examination shall be administered via computer-based testing (CBT) and have supplied references.~~
- B. [Principles and Practice of Engineering Examinations](#)
The Principles and Practice of Engineering examinations shall be offered ~~only~~ in the following disciplines and shall be open-book, pencil-and-paper examinations or offered via CBT with supplied references as defined in EAP 4:
1. Agricultural and Biological
 2. Architectural
 3. Chemical
 4. Civil
 5. Control Systems
 6. Electrical and Computer—Computer Engineering
 7. Electrical and Computer—Electronics, Controls, and Communications
 8. Electrical and Computer—Power
 9. Environmental
 10. Fire Protection
 11. Industrial and Systems
 12. Mechanical—HVAC and Refrigeration
 13. Mechanical—Machine Design and Materials
 14. Mechanical—Thermal and Fluid Systems
 15. Metallurgical and Materials
 16. Mining and Mineral Processing
 17. Naval Architecture and Marine
 18. Nuclear
 19. Petroleum
 20. 16-hour Structural Engineering
- C. [Surveying Examinations](#)
The surveying examinations shall be available as follows:
1. The Fundamentals of Surveying examination shall be administered via CBT and have supplied references.
 2. The Principles and Practice of Surveying examination shall be administered via CBT and have supplied references.
 3. Member boards shall reserve the right to administer, score, and report state-specific examinations.
- D. [Examination Item Banks](#)
Examination items for all examinations shall be maintained ~~solely either~~ at NCEES headquarters or at an offsite testing service that is able to demonstrate insurance, bond, or reserve to cover the pecuniary liability for the items should the items be compromised, lost, or damaged by the testing service.
1. At the time an exam development committee releases a linear, fixed form (LFF) exam to be published, the exam item bank shall contain sufficient operational items to create three times the number of [exam](#) forms available to examinees in a testing window.
 2. At the time an exam development committee releases a pool of items to be published for linear-on-the-fly testing (LOFT), the pool shall contain, at a minimum, the number of operational items required to create three unique, non-overlapping [exam](#) forms. At the time of publishing, the exam item bank shall have sufficient operational items to create two additional pools of similar composition. Pool size will be determined by the psychometric consultant per the criteria listed in the NCEES *Exam Development Procedures Manual*.
- E. [Exam Contingency Plans](#)
The chief executive officer shall have contingency plans available in the event of any irregularity that impacts the security of an exam or the ability to administer an exam per NCEES exam policies or prescribed schedules.

F. [Exam Preparation Material Development](#)

Exam preparation material shall be developed for each NCEES examination. This material shall provide sample questions and solutions on each major topic area sufficient to provide candidates with a sense of the structure, scope, and difficulty of the examination. Exam preparation material shall remain current and be available six months prior to the administration of an examination.

Rationale

The committee added headers for consistency, to make it easier to find specific topics, to remove extra adjectives, and to clarify the term “forms.” Note: Additional changes to EDP 3B are being proposed in Motion 3.

Board of directors’ position

Endorses, consent agenda

EPP Motion 3

Move that Exam Development Policy 3B, Exam Development Policy 15B, and Exam Administration Policy 8E be amended as follows:

EDP 3 Engineering and Surveying Examinations and Formats

B. The Principles and Practice of Engineering examination shall be offered only in the following disciplines and shall be open-book, pencil-and-paper examinations or offered via CBT with supplied references as defined in EAP 4:

20. 16-hour Structural Engineering

[The 16-hour Structural Engineering examination shall consist of two 8-hour components: the Vertical Forces \(gravity/other\) and Incidental Lateral component and the Lateral Forces \(wind/earthquake\) component. The 16-hour Structural Engineering examination shall be considered and referred to as one examination.](#)

EDP 15 Reporting of Scores

~~B. 16 Hour Structural Engineering~~

~~The Structural Engineering examination shall be considered and referred to as one 16 hour examination.~~

~~The Structural Engineering examination shall consist of two 8 hour components: the Vertical Forces (gravity/other) and Incidental Lateral component and the Lateral Forces (wind/earthquake) component. A candidate must receive acceptable results on both 8 hour components to pass the Structural Engineering examination. A candidate may sit for each component in separate exam administrations.~~

~~A component results notice will be transmitted to the member board for each administration that a candidate takes a component. After a candidate has received an acceptable result on both components, an examination pass notice will be transmitted to the member board to indicate that the candidate has passed the Structural Engineering examination.~~

EAP 8 Release and Use of Examination Results

E. ~~The Structural Engineering examination shall be considered and referred to as one 16-hour examination.~~ For the 16-hour Structural Engineering examination, a candidate may sit for either component in separate exam administrations but must receive acceptable results on both components within a five-year period in order to pass the examination.
A component results notice will be transmitted to the member board for each administration in which a candidate takes a component. Receiving an acceptable result on only one 8-hour component shall not be sufficient for any licensure purposes. After a candidate has received an acceptable result on both components, an examination pass notice will be transmitted to the member board to indicate that the candidate has passed the 16-hour Structural Engineering examination.

Rationale

The deleted language in EDP 15 B is being moved to more appropriate policies or eliminated to remove redundancy with other policies. EAP 8 is being modified for clarity and to be consistent with this year’s EPP recommendation in Charge 3. If this motion passes, EDP 15 C and D will be renumbered accordingly. Note: Additional changes to EAP 8E are being proposed in Motion 16.

Board of directors’ position

Endorses, consent agenda

EPP Motion 4

Move that Exam Development Policy 4 be deleted.

EDP 4 Availability

- A. ~~The following examinations shall be available on a regular schedule per EAP 2:~~
 - 1. ~~Fundamentals of Engineering~~
 - 2. ~~Principles and Practice of Engineering~~
 - 3. ~~Fundamentals of Surveying~~
 - 4. ~~Principles and Practice of Surveying~~
- B. ~~Depth modules for the Principles and Practice of Surveying examination shall be offered on a regular schedule as adopted by the board of directors.~~
- C. ~~CBT examinations shall be made available in testing windows.~~

Rationale

This information is more associated with administering the exams, not developing them; therefore, it should not be a development policy. It is also adequately covered in EAP 2. If this motion passes, EDP 5–17 will be renumbered accordingly.

Board of directors’ position

Endorses, consent agenda

EPP Motion 5

Move that Exam Development Policy 5 be amended as follows:

EDP 5 Entry of New Discipline or Depth Module or Reinstatement to PE Examination Status

- A. [Accreditation Requirement](#)
No discipline shall be added or reinstated to the examination program unless there is an EAC/ABET-accredited program in the discipline.
- B. [Technical Society Requirement](#)
No discipline shall be added or reinstated unless a technical society agrees to sponsor the examination. All technical societies that sponsor examinations shall sign an agreement with NCEES delineating the responsibilities of both parties in developing the examinations.
- C. [Member Board Requirement](#)
Requests for examinations and/or depth modules shall be made by no fewer than 10 member boards collectively who can each demonstrate a need for the examination or depth module in their jurisdiction. A request older than four years must be reaffirmed by the member board. Requests shall include proof of such need, estimate of usage, and impact on safeguarding the health, safety, and welfare of the public. Proof of need shall include evidence that knowledge areas and skills are not adequately measured in an existing examination or module and that additional knowledge areas and skills required for the discipline are sufficient to support a new examination or module.
- D. [Minimum Number of Exam Candidates](#)
No discipline or depth module shall be added or reinstated to the examination program unless the number of candidates for an ongoing examination conforms to NCEES policies and procedures. If that is demonstrated, a professional activities and knowledge study (PAKS) shall be conducted to establish that the addition in question is composed of a unique set of knowledges important for safeguarding the health, safety, and welfare of the public.
- E. [CBT Format](#)
The request shall include a plan to develop the exam in CBT format.
- F. [Notification to Member Boards](#)
Member boards shall be notified one year in advance of the addition or reinstatement of any discipline or depth module to the PE examination program.

Rationale

The committee added headers for consistency and to make it easier to find specific topics.

Board of directors' position

Endorses, consent agenda

EPP Motion 6

Move that Exam Development Policy 6 be amended as follows:

EDP 6 Adoption of a New Discipline-Specific FE Examination

- A. [Accreditation Requirement](#)
No discipline shall be added to the examination program unless there is an EAC/ABET-accredited program in the discipline.
- B. [Member Board Requirement](#)
Requests for the discipline-specific FE examination must be made by no fewer than 10 member boards collectively who can each demonstrate a need for that discipline in their jurisdiction. Requests shall include proof of such need, estimate of usage, and impact on safeguarding the health, safety, and welfare of the public. Proof of such need shall include evidence that knowledge areas and skills are not adequately measured in an existing FE examination and evidence that those knowledge areas and skills are required for the discipline are sufficient to support a new FE examination.

C. [Notification to Member Boards](#)

Member boards shall be notified at least one year in advance of the addition of any discipline-specific module to the FE examination program.

Rationale

The committee added headers for consistency and to make it easier to find specific topics.

Board of directors' position

Endorses, consent agenda

EPP Motion 7

Move that Exam Development Policy 8 be amended as follows:

EDP 8 Deleting/Combining/Renaming a Discipline or Module from the Examination Program

A. [Deleting/Combining of Pencil-and-Paper Examinations](#)

If in two consecutive administrations of pencil-and-paper examinations, there have been fewer than 50 total first-time examinees from NCEES jurisdictions in a specific examination or module, the Committee on Examination Policy and Procedures (EPP) shall review the desirability of continuing the subject examination or module and make one of the following recommendations to the board of directors:

1. Continue to prepare the examination or module.
2. Request the appropriate exam development committee to prepare and submit a specific remedial action plan for increasing the number of first-time takers to a level that meets or exceeds the minimum candidate requirements in the time period specified by the EPP Committee.
3. [Recommend that Place](#) the examination or module ~~be placed~~ on probation. The EPP Committee shall specify the conditions of the probation, including a time frame for corrective action. The recommendation may include the combination of the examination with another examination or other such action as the EPP Committee deems appropriate.
4. Discontinue the examination or module.

B. [Deleting/Combining of CBT Examinations](#)

If the population of first-time examinees from NCEES jurisdictions for any NCEES CBT examination or module is not adequate to provide for accurate psychometric analysis, the EPP Committee shall review the desirability of continuing the subject examination or module and make one of the following recommendations to the board of directors:

1. Continue to prepare the examination or module.
2. Request the appropriate exam development committee to prepare and submit a specific remedial action plan for increasing the number of first-time takers to a level that meets or exceeds the minimum candidate requirements in the time period specified by the EPP Committee.
3. [Recommend that Place](#) the examination or module ~~be placed~~ on probation. The EPP Committee shall specify the conditions of the probation, including a time frame for corrective action. The recommendation may include the combination of the examination with another examination or other such action as the EPP Committee deems appropriate.
4. Discontinue the examination or module.

C. [Request to Delete an Examination or Module](#)

If an NCEES committee, technical society, or other group desires to have an examination or module deleted, it should make a request to the EPE/EPS Committee. The EPE/EPS Committee will review the request and make a recommendation to the board of directors.

B. [Pass-Point Evaluation Team Requirements](#)

Exam committees shall require that at least one person who [participates on the pass-point evaluation team](#) ~~will participate on the pass-point evaluation team~~ [be a person who](#) has worked on the current development of an examination undergoing a pass-point evaluation. The number of current exam development members participating in the pass-point evaluation ~~for Group I exams shall be no more than one-quarter of the pass-point evaluation team~~ [and for Group II exams shall be no more than one-third of the pass-point evaluation team](#). Any exam committee member involved in preliminary testing of the examination undergoing the pass-point evaluation shall be excluded from participating on the pass-point evaluation team for that examination.

C. [Restriction on Teaching Refresher Courses](#)

Any person serving on an NCEES examination development committee or involved in a pass-point evaluation panel shall not teach a refresher course related to that examination within three years ~~of~~ [after](#) serving on the committee or panel.

D. [Exam Developers Requirement](#)

Any person involved in the development of an NCEES examination who is later required by a [jurisdiction member board](#) to sit for that examination must inform that ~~jurisdiction member board~~ [jurisdiction member board](#) that he or she worked on the development of that examination.

Rationale

The committee added headers for consistency and to make it easier to find specific items; it also edited language for consistency and clarity.

Board of directors' position

Endorses, consent agenda

EPP Motion 10

Move that Exam Development Policy 13 be amended as follows:

EDP 13 Security of Examination Material

No items or item banks in current use for NCEES examinations shall be used for any purpose outside of the NCEES examination program.

~~All member boards shall observe approved NCEES requirements.~~

Rationale

The committee feels that the sentence is not needed.

Board of directors' position

Endorses, consent agenda

EPP Motion 11

Move that Exam Development Policy 16 be amended as follows:

EDP 16 EPE and EPS Committee Members

Committee Qualifications

Members of the EPE and EPS Committees should, ~~to the extent practicable, be representatives of the engineering and surveying disciplines within the various~~ include current and/or past representatives from their respective exam development committees.

Rationale

The committee is proposing these changes to make the language more consistent with other language in the policy manual.

Board of directors' position

Endorses, consent agenda

EPP Motion 12

Move that Exam Development Policy 17 be amended as follows:

EDP 17 Examination Audits

The Examination Audit Committee shall audit all examinations developed by NCEES. The following constraints shall be used:

A. Pencil-and-paper examinations

1. All benchmark exams, which are the first exams administered following a professional activities and knowledge study (PAKS), shall be audited.
2. Each exam shall be audited at least once between benchmark exam audits.
3. There shall be no more than four years between audits.

B. CBT examinations

1. CBT representative examinations (as created by the testing service psychometrician) from the benchmark item pool, which is the first item pool following a PAKS, shall be audited.
2. CBT representative examinations shall be audited at least once between benchmark item pool audits.
3. There shall be no more than four years between audits.

The president-elect shall, in developing charges for the Examination Audit Committee, develop a list of examinations for audit in consultation with the current chair of the Examination Audit Committee and the NCEES examination services director. Circumstances may prevail that would affect which examinations are selected for audit in a given year.

The Examination Audit Committee shall review each exam audited as to its conformance with specified criteria set forth in the Examination Audit Committee procedures.

Rationale

The committee added language to define terms and to make it more concise.

Board of directors' position

Endorses, consent agenda

EPP Motion 13

Move that Exam Administration Policy 1 be amended as follows:

EAP 1 Administration of Examinations

- A. Guidelines and Procedures
NCEES will publish examination administrative procedures that will provide guidelines and procedures ~~for~~ that member boards shall follow in the use of NCEES engineering and surveying examinations. The guidelines and procedures will cover matters concerning security, use, scoring, and general administration of such examinations for the purposes for which they are designated to ensure fair and equitable treatment of ~~jurisdictions~~ member boards and examination candidates.
- B. Testing Regulations
Member boards or their designated representative will provide to each candidate approved to take NCEES examinations information regarding regulations to be observed during the examinations and actions that may be taken in the event of a testing irregularity.
- C. Candidate Admission
Approval of candidates applying to take NCEES examinations shall be by the individual member boards or their designated representative. To sit for an NCEES examination, candidates will be required to obtain a unique identification number from NCEES. Only candidates with an NCEES-supplied identification number will be allowed admission into the examination site. Candidates not allowed admission to the morning session of a pencil-and-paper examination will not be admitted to the afternoon session.
- D. Restriction of Who Can Be in the Examination Room
For pencil-and-paper examinations, only preauthorized member board members, member board staff, proctors, NCEES-designated representatives, and candidates actually taking an examination will be permitted in the examination room.
- E. Restriction of Retaking an Examination
Candidates who have passed an examination may not retake that same examination unless required by a member board.
- F. Irregularity Restriction
If a candidate's examination results are not released due to a suspected exam irregularity, the candidate will not be allowed to register for another exam until the investigation is complete and the irregularity has been resolved per the *Security and Administrative Procedures Manual*.
- G. Examination Scheduling Restriction
A candidate for a CBT exam may take the examination only one time per testing window and no more than three times in a 12-month period.
- H. Committee on Examination Audit
The Committee on Examination Audit shall include, as part of its auditing responsibilities, a review of the examination administrative procedures manual for content and effectiveness.
- I. Banned Registration Requirements
If a member board bans an examinee from registering for an examination as referenced in EAP 8, it shall be the responsibility of that member board to notify NCEES of the specific terms and reasons for the ban. NCEES will make this information available to all member boards. The decision as to whether another member board agrees to honor the terms of the original member board's decision to ban this examinee's registration will remain with the individual member boards.

Rationale

The committee amended language for clarity and added headings for consistency.

Board of directors' position

Endorses, consent agenda

EPP Motion 14

Move that Exam Administration Policy 4 be amended as follows:

EAP 4 Materials Permitted and Not Permitted in Examination Room

- A. Pencil-and-Paper and CBT Examinations
 - 1. Devices or materials that might compromise the security of the examination or examination process are not permitted. These include any devices with copying, recording, or communication capabilities.
 - 2. Only models of calculators as specified or supplied by NCEES are permitted in the examination room.
 - 3. Only NCEES-supplied marking and erasing instruments are permitted for use in the examination room.
 - 4. Other items specifically allowed by the current NCEES *Examinee Guide* are permitted.
- B. Open-Book Examinations
 - 1. The following reference materials and aids may be brought into the examination room by the examinee for his or her personal use only:
 - a. Handbooks and textbooks
 - b. Bound reference materials, provided that the material be and remain contained (bound) in a cover during the entire examination, ~~bound referring to:~~ [The term "bound" refers to the following:](#)
 - (1) Material bound permanently, i.e., stitched or glued
 - (2) Material fastened securely in its cover by fasteners that penetrate all papers, e.g., ring binders, spiral binders, plastic snap binders, brads, screw posts. Loose material inside binder pockets does not qualify as bound.
 - 2. Examinees are not permitted to exchange any reference materials.
 - 3. Writing tablets, unbound tables, or unbound notes are not permitted in the examination room.
 - 4. Examinees may tab reference books prior to the examination with Post-it™ type notes and flags, but pads of Post-it type notes and flags are not permitted in the examination room.
- C. Closed-Book Examinations
 - Only NCEES-supplied reference materials are permitted for use in the examination room.

Rationale

The committee amended language for clarity.

Board of directors' position

Endorses, consent agenda

EPP Motion 15

Move that Exam Administration Policy 5 be amended as follows:

EAP 5 NCEES Examinations Offered by a Member Board Within Its Jurisdiction

- A. [Jurisdiction Limitation](#)

A member board may offer NCEES examinations only in its jurisdiction. The member board must make suitable arrangements to protect the confidentiality and security of the examinations according to NCEES guidelines. Administration of examinations must conform to the NCEES scheduled timeframes for examinations. Individual applicants should apply to the sponsoring [jurisdiction-member board](#) in accordance with that jurisdiction's operating policies and procedures. This policy does not preclude an examinee from sitting for a CBT examination in a different jurisdiction.

- C. Member boards are encouraged to sponsor or otherwise facilitate use of the FE and FS examination results for internal use of institutional outcomes assessment, but such use should not subordinate or endanger the function, concept, or security of the FE or FS examination's primary purpose as the first examination for professional licensure, in keeping with the underlying mission of safeguarding the health, safety, and welfare of the public.

D. [U.S. Military Base Exemption](#)

This policy does not preclude a member board from offering the examinations at an NCEES-approved site to U.S. military personnel stationed at military bases outside the United States.

Rationale

The committee amended language to be concise and added headings for consistency. Note: Additional changes to EAP 5 are proposed in Motions 16 and 20. Section B is not shown above because Motion 16 is proposing to move it to another section; if that Motion 16 passes, then Sections C and D above will be renumbered accordingly.

Board of directors' position

Endorses, consent agenda

EPP Motion 16

Move that Exam Administration Policy 8, Exam Administration Policy 5B, and Exam Development Policy 15 C and D be amended as follows:

EAP 8 Release and Use of Examination Results

A. [Results Reporting](#)

Examination results shall be released only to the respective member board, to its designee, or directly to examinees as directed by the member board. Examination results for candidates suspected of an exam irregularity shall not be released until the irregularity has been resolved per the *Security and Administrative Procedures Manual*. [Reporting of examination results for candidates will be reported only as pass or fail. All failing candidates will be provided with a diagnostic report to indicate performance on those sections attempted.](#)

[The converted scores for each candidate will be furnished to member boards upon request. The use of individual candidate scores is for licensure purposes only, that is, to establish minimum competency. Individual candidate names and scores shall not be published, made public, used to make related comparisons, or used for purposes other than licensure. For example, scores above passing shall not be used to rank-order or differentiate among passing candidates.](#)

B. [Validity and Integrity](#)

NCEES shall strive to ensure that the validity and integrity of the examinations are preserved and examinees are treated in a fair and equitable manner. NCEES reserves the right to treat exam scores as final and not subject to change after one year has passed from the date of release from NCEES to the member boards. If there is a post-roster change within a year of the date NCEES releases the examination results roster to the member boards, then NCEES will notify the member board only if the post-roster change alters a candidate's status from fail to pass.

NCEES reserves the right to notify the member boards at any time if it learns that a candidate engaged in any improper conduct relating to the exam on which the score was obtained or took any action that jeopardized the security of any other NCEES exam or exam administration.

C. [In Case of an Irregularity](#)

Examination results for any examinee suspected of an exam irregularity will be provided ~~in perpetuity~~ to the affected member board in a report segregated from all other examinee score reports. This ~~special~~ report will identify the examinee and provide the examinee score information. After the release of the ~~special~~ score report, NCEES will provide the member board with the results of any analysis conducted or other information pertaining to the suspected irregularity. The member board will conduct a review and notify NCEES of its findings and any action taken. An examination irregularity is one that potentially compromises the exam integrity or provides individual candidates with benefits not afforded to other candidates.

D. [Examinee Non-Compliance](#)

Examination results for any examinee who fails to comply with the conditions stated in the NCEES *Examinee Guide* are subject to invalidation by NCEES in accordance with the list below. Exam irregularities that may be grounds for exam invalidation by the member boards are included in the second list below. The

identity of any examinee whose results are invalidated and the reason for invalidation will be provided to the affected member board. Examinees identified by post-exam collusion analysis are subject to EAP 8C above.

The following items in the NCEES *Examinee Guide* are grounds for a candidate to be dismissed from the exam room and for a candidate's exam results to be invalidated by NCEES:

- Having a device with copying, recording, or communication capabilities in his or her possession
- Having a calculator that is not on the NCEES-approved list
- Removing pages from his or her exam booklet on pencil-and-paper examinations
- Leaving the exam area without authorization

The following are the items in the NCEES *Examinee Guide* that are grounds for a candidate's exam results to be invalidated by a member board:

- Having loose papers, legal pads, writing tablets, or unbound notes in his or her possession
- Using a non-NCEES writing instrument or eraser to complete any portion of the exam
- Beginning the exam before the proctor instructs him or her to do so
- Failing to stop writing immediately when time is called on pencil-and-paper examinations
- Writing on anything other than the exam booklet or answer sheet on pencil-and-paper examinations
- Violating any other terms stated in these regulations that are cause for dismissal or exam invalidation

The following item in the NCEES *Examinee Guide* falls under collusion and is already grounds for invalidation by the member boards:

- Copying from another examinee's answer sheet or colluding with other examinees

E. [Structural Engineering Examinations](#)

~~The Structural Engineering examination shall be considered and referred to as one 16-hour examination.~~

For the [16-hour](#) Structural Engineering examination, a candidate may sit for either component in separate exam administrations but must receive acceptable results on both components within a five-year period in order to pass the examination. Receiving an acceptable result on only one 8-hour component shall not be sufficient for any licensure purposes.

F. [Release to Universities and Colleges](#)

[NCEES may provide directly to a university or college FE or FS examination data that will help measure learning outcomes of the total engineering or surveying education.](#)

EDP 15 Reporting of Scores

~~C. Candidate Score Reports~~

~~Reporting of examination results for candidates will be reported only as pass or fail. All failing candidates will be provided with a diagnostic report to indicate performance on those sections attempted.~~

~~D. Release of Candidate Scores to Member Boards~~

~~The converted scores for each candidate will be furnished to member boards upon request. The use of individual candidate scores is for licensure purposes only, that is, to establish minimum competency. Individual candidate names and scores shall not be published, made public, used to make related comparisons, or used for purposes other than licensure. For example, scores above passing shall not be used to rank order or differentiate among passing candidates.~~

EAP 5 NCEES Examinations Offered by a Member Board Within Its Jurisdiction

~~B. NCEES may provide directly to a university or college FE or FS examination data that will help measure learning outcomes of the total engineering or surveying education.~~

Rationale

The committee added language to be concise and to follow the previous definition, added headings for consistency, and moved language from EDP 15C and 15D to EAP 8A, and moved language from EAP 5B to EAP 8F. Note: Additional changes to EDP 8E were proposed in Motion 3.

Board of directors' position

Endorses, consent agenda

EPP Motion 17

Move that Exam Administration Policy 10 be amended as follows:

EAP 10 NCEES Examinations Offered to a Foreign Entity

A. Authority of CEO

Upon receiving a request, the chief executive officer may be authorized by the NCEES board of directors to enter into discussions with a foreign entity concerning the administration of NCEES examinations at a foreign site. The discussions will include an assurance that NCEES examinations will be administered in full compliance with all NCEES examination policies and procedures. All costs borne by NCEES to carry out this provision will be reimbursed.

B. Contracting with Foreign Entities

NCEES may contract with the foreign entity to provide administration of its examinations to the foreign entity’s engineering or surveying applicants, upon approval of the Council. A draft agreement that defines areas of responsibility for the foreign entity and NCEES may then be created. The agreement will require, at a minimum, that the foreign entity reimburse all costs borne by NCEES to carry out the provisions of the agreement.

As an exception, the NCEES board of directors is authorized to permit the Fundamentals of Engineering and the Fundamentals of Surveying examinations to be administered at NCEES-approved test sites to applicants from a foreign ABET-accredited engineering or surveying program. At a minimum, all costs borne by NCEES to carry out this provision will be reimbursed.

C. Minimum Criteria for Examinees

For any approved agreement, NCEES will establish minimum criteria for examinees of the foreign entity that are in general conformance with the existing NCEES *Model Law* and *Model Rules*. NCEES will retain the score information for examinees of foreign entities and will transmit that information to any member board when requested.

D. Use of Examination Results for Licensure

The examinations may be used to assist examinees interested in applying for licensure as a professional engineer or surveyor with an NCEES member board as well as an outcomes assessment tool to assist in measuring the outcomes of a foreign-based education system.

However, in the event that the examinee elects to use the results of the examination for the purpose of applying for licensure, the member board may not be precluded from imposing any additional requirements related to state licensure, including but not limited to educational and experience requirements.

E. Restriction on Use of Examination Results

Examinee performance data from examinations provided to a foreign entity shall not be included in exam evaluation or development, used to establish cut scores, or included in exam result statistics for NCEES jurisdictions. Examinee performance data from exams provided to a foreign entity may be evaluated and reported separately.

F. Release of Examinee Performance Data

NCEES may release examinee performance data to an ABET-accredited foreign educational program or to the foreign governing body or professional organization as provided in the contract or as approved by the board of directors.

Rationale

The committee added headings for consistency.

Board of directors’ position

Endorses, consent agenda

EPP Motion 18

Move that Exam Administration Policy 12 be amended as follows:

EAP 12 Exam Administration Audits

Member boards or their authorized representatives are required to participate in exam administration audits as established by the NCEES board of directors exam administration audit plan in order to ensure consistency in exam administration and security.

Member boards or their authorized representatives will follow the procedures established in the Auditing Compliance with Exam Procedures section of the NCEES *Security and Administrative Procedures Manual*. These will include member board self-audits, onsite follow-up audits, and the use of current NCEES Compliance and Security Audit forms.

CBT examination forensics, including a secret shopper-type program ([which shall include a person who is requested to take the exam at a test center to verify quality assurance of the examination process](#)), may be performed in accordance with the vendor-NCEES contract. Secret shopper exposure to NCEES examination content is restricted to an NCEES staff member or a licensed engineer or surveyor who has already passed the appropriate NCEES exam.

Rationale

The committee added language for clarity.

Board of directors' position

Endorses, consent agenda

EPP Motion 19

Move that Exam Administration Policy 13 be amended as follows:

EAP 13 Proctors for Administration of ~~Pencil and Paper~~ Examinations

Any person who teaches a refresher course or is actively involved in preparation of non-NCEES-sponsored review material for an NCEES ~~pencil and paper~~ examination shall not serve as a proctor for any NCEES examination.

Rationale

Added language to be concise so that the policy would include CBT vendor as well.

Board of directors' position

Endorses, consent agenda



Committee on Uniform Procedures and Legislative Guidelines

Lamberto (Bobby) Ballí, P.E., Chair

ABSTRACT

The Committee on Uniform Procedures and Legislative Guidelines (UPLG) promotes effective procedures for uniform comity by maintaining the NCEES *Model Law* and *Model Rules*. The committee incorporates revisions to the model language as a result of motions, recommendations, and comments from NCEES committees, task forces, and member boards. The committee conducts a comprehensive review of the *Model Law* and *Model Rules* at least once every five years. It last completed that review in 2017–18.

The 2020–21 UPLG Committee was assigned two charges. UPLG used Basecamp to conduct the preliminary work on the charges for 2021 and held five virtual meetings through Zoom to finalize its motions and recommendations.

UPLG will present three motions from the 2019–20 UPLG Committee report; in addition, it developed one additional motion and has one recommendation. The motions begin on page 85.

CHARGES

Charge 1

Review the 2019–20 UPLG Committee report and proposed motions. Confirm that the proposed motions should be brought forward at the 2021 annual meeting. Propose motions accordingly.

The 2019–20 UPLG Committee developed three motions. Because the 2020 annual meeting was held virtually, all motions not essential to day-to-day Council business were put on hold and assigned to the 2020–21 committees to review. UPLG reviewed the three 2019–20 motions and agreed to present them at the 2021 annual meeting as Motions 1–3.

Charge 2

Review the Model Law and Model Rules to determine if processes outlined within the documents place an unintended barrier to potential licensees from underrepresented groups. Recommend revisions if appropriate.

The committee addressed Charge 2 with the following understanding:

- Although there may be possible barriers to the actual professions of engineering and surveying, the committee at this time only addressed the charge by reviewing and recommending revisions to possible unintended barriers to licensure through the language in the NCEES *Model Law* and *Model Rules*.
- Underrepresented groups would be defined per the following National Science Foundation statement: “The representation of certain groups of people in science and engineering (S&E) education and employment differs from their representation in the U.S. population. Women, persons with disabilities, and three racial and ethnic groups—blacks, Hispanics, and American Indians or Alaska Natives—are underrepresented in S&E.”
- Any recommended revisions to the *Model Law* or *Model Rules* would not be appropriate if they lower the bar for engineering or surveying licensure requirements.
- The committee acknowledged that no complaints or scenarios had been presented by the NCEES board of directors or staff in which a barrier to licensure was perceived.
- The charge did not request a review of the NCEES *Bylaws*.

In addressing this charge, the committee reviewed the *Model Law* and *Model Rules* for the following possible barriers related to the following issues.

Issue 1: Responsible charge

- Questions: Does the requirement of supervision or the definition of supervision or responsible charge create an unintended barrier? Can the issue of current supervision, management, or oversight of person(s) in this group be a barrier?
- Discussion: Although several scenarios were discussed (for engineering and surveying), the consensus of the committee was that these issues could be present as a result of a supervisor's deficiencies or cultural insensitivity. This scenario could even expand beyond underrepresented groups to remote employees. However, the problem cannot be abated with any revisions to the *Model Law* or the *Model Rules*. The committee could only identify issues that are related to a specific workplace issue and, therefore, are a human resources matter.
- Action: UPLG determined that no action is necessary.

Issue 2: Exams taken by visually or hearing impaired

- Questions: Do current requirements in taking the exam and conditions while taking the exam create an unintended barrier? How about access to ABET-accredited programs for persons with disabilities?
- Discussion: The committee identified federal rules and regulations requiring every exam and educational facility to provide equal or greater access to all individuals with a disability. There being no possible language revision that gives NCEES the ability to enforce this matter, the committee acknowledged that federal guidelines were already in effect to eliminate barriers at testing sites, universities, and other learning centers.
- Action: UPLG determined that no action is necessary.

Issue 3: Mastery of the English language

- Question: Does the requirement of mastery of the language of commerce with a degree from a non-U.S. engineering or surveying program create an unintended barrier?
- Discussion: *Model Law* 130.10 B.2. was discussed as it pertains to the requirement of communicating in the language of commerce. Regardless of whether or not a person with a foreign degree is interpreted as being underrepresented, the committee concurred that the requirement of the language of commerce (i.e., English) was necessary in protecting the public. The committee determined that any revision would lower the bar to licensure. The committee also noted that *Model Rules* 230.40, Examinations, states in Section F, "The language of the examination shall be in English." This language matches that of NCEES Exam Development Policy 14, Foreign Language, which states, "NCEES shall prepare examinations only in the English language."
- Action: UPLG determined that no action is necessary.

Issue 4: Residency status

- Question: Does the U.S. citizenship requirement to serve on an engineering or surveying licensure board create a hardship for licensure??
- Discussion: The committee agreed that this was not a licensure issue but that it could be construed to be impartial in some states that allow permanent residency as well as U.S. citizenship. The committee determined that this issue was outside the scope of Charge 2 but did want to include documentation of its discussion since this is an issue that may need to be reviewed in the future.
- Action: UPLG recommends that the appropriate committee be charged with considering whether the citizenship requirement in *Model Law* 120.20, Board Qualifications, should be expanded to include permanent U.S. residents.

Issue 5: Experience requirement of a specific number of years

- Question: Does the required amount of experience for licensure cause undue hardship either financially or for reasons of lack of access to education, etc.?
- Discussion: This item was discussed for a short while both for underrepresented groups and for licensing candidates from remote areas or areas with economic hardships. The committee concurred that there were no other options to *Model Law* that would not lower the bar for licensure.
- Action: UPLG determined that no action is necessary.

Issue 6: Number of reference requirements

- Question: Does the required number of references for licensure cause undue hardship either financially or for reasons of lack of access to additional P.E.s, etc.?
- Discussion: The committee held the same discussion and reached the same conclusion as with Issue 5.
- Action: UPLG determined that no action is necessary.

Issue 7: Foreign degrees in the *Model Rules* but not in the *Model Law*

- Question: Are the additional requirements for licensure candidates with foreign degrees an unintended barrier to the licensure of underrepresented groups?
- Discussion: Discussion ensued relating to the applicability of this issue and the accreditation process and the applicability to the scope of Charge 2.
- Action: UPLG determined that no action is necessary.

Issue 8: Required field experience for surveyors

- Question: Does the requirement of having a minimum amount of field experience for licensure as a professional surveyor create a barrier to licensure for underrepresented groups?
- Discussion: The discussion started with the minimum requirement of three years of field experience for licensure as a professional surveyor. Some states have requirements for a minimum amount of time spent in the field, but not all. The discussion focused on whether or not this was necessary, given that it may be more important for different types of surveying (boundary, mapping, hydrographic, etc.) than others, thus the recommendation to provide the option (“/or”) for field experience. The consensus was that having a requirement for a minimum amount of field experience is not a barrier for women or minority groups but certainly could be for persons with physical disabilities.
- Action: Revise *Model Law* 130.10 C2a to read, “A surveyor intern with a specific record of four years or more of ~~combined office and~~ progressive ~~field~~ experience satisfactory to the board in surveying, ~~of which a minimum of three years of progressive field experience satisfactory on surveying projects~~ under the supervision of a professional surveyor, shall be admitted to the NCEES Principles and Practice of Surveying examination and any required state-specific examinations. Upon passing these examinations, the applicant shall be licensed as a professional surveyor, if otherwise qualified.” UPLG will propose Motion 4 to make this change.

Issue 9: Inactive status

- Questions: Is there a barrier for women during pregnancy or during child-rearing years once they move to inactive status? Are the allowances or lack thereof an unintended barrier?
- Discussion: In the event a disability is considered, there is a viable CPC exemption under *Model Rules* 240.30 G.3, for anyone—underrepresented or not—to maintain inactive status on an equal basis.
- Action: UPLG determined that no action is necessary.

Respectfully submitted, the Committee on Uniform Procedures and Legislative Guidelines:

Lamberto (Bobby) Ballí, P.E., Chair

Members

Clifford Baker, P.L.S.
Charles Coyle, P.L.S.
Ken Fuller, P.E.
William (Rick) Huett
Gale Jamison, P.E.
Wayne Moore, P.E.
Monte Phillips, Ph.D., P.E.
Milena Trust, Esq.

Consultants

Iarelis (Ia) Hall, P.S.M.
Bobbie Shields, P.E.
Samuel Wilson, P.E.

Board liaison

Christopher Duhamel,
P.E., P.L.S.

Staff liaison

Keri Anderson

UPLG Motion 2

Move that the *Model Rules* 240.30 B be amended as follows.

240.30 Continuing Professional Competency

B. Definitions

Terms used in this section are defined as follows:

1. Professional Development Hour (PDH)—One contact hour (nominal) of instruction or presentation. The PDH is the common denominator for other units of credit.
 - a. The term “contact hour” is defined as a minimum of 50 minutes of course/activity.
 - b. The total number of hours allowed for a course/activity cannot exceed the actual number of clock hours.

Rationale

The 2018–19 Committee on Education proposed a motion to charge UPLG with adding 240.30 B1a and B1b related to continuing professional competency definitions. The Education Committee’s rationale for adding the language was as follows: “One of the goals of NCEES is to advance licensure standards for all professional engineers[/surveyors]. These standards describe the technical and professional competency needed to safeguard the health, safety, and welfare of the public. The Council recognizes that future demands for increasing technical and professional skills have resulted in the need for additional education beyond the bachelor’s degree for those entering the engineering profession. Because of the variety of definitions for a credit hour and without a current definition in the *Model Rules*, the committee is proposing these changes to clarify the definition so that all boards can incorporate into a uniform standard.” The motion passed, and the 2019–20 UPLG Committee was charged with incorporating the language.

Last year’s UPLG Committee reviewed the language and modified it in paragraph 1a to simplify it (as shown below in black with underlines and strikethroughs. It deleted “the amount of time scheduled to allow for instruction in a course (lecture or laboratory)” because it felt that the language is outdated and does not allow for different ways that materials are presented. It changed the original proposed language in 1b for consistency. This year’s UPLG Committee is presenting the same language that last year’s UPLG Committee developed (as shown above in blue).

240.30 Continuing Professional Competency

B. Definitions

- a. The term “contact hour” ~~will be is~~ defined as ~~the amount of time scheduled to allow for instruction in a course (lecture or laboratory) that provides, at~~ a minimum, of 50 minutes of ~~interaction between the instructor and the student of~~ course/activity.
- b. The total number of hours allowed for a ~~continuing education program~~ course/activity cannot exceed the actual number of clock hours.

Board of directors’ position

Endorses, consent agenda

UPLG Motion 3

Move that the *Model Rules* 240.30 C and E be amended as follows.

240.30 Continuing Professional Competency

The purpose of the continuing professional competency requirement is to demonstrate a continuing level of competency of licensees.

C. Qualifying Activities

PDHs may be earned as follows:

1. Successful completion of college courses
2. ~~Successful completion of short courses, tutorials, webinars, and distance education courses offered for self study, independent study, or group study and through synchronous or asynchronous delivery methods such as live, correspondence, archival, or the Internet~~
2. Successful completion of short courses, tutorials, webinars, and distance-education courses offered for documented individual or group study. The method of delivery can be through the following:
 - a. Face-to-face programs or live internet-based programs
 - b. Archived prerecorded programs or archived correspondence programs
3. Presenting or attending qualifying seminars, in-house courses, workshops, or professional or technical presentations made at meetings, conventions, conferences, or educational institutions
4. Teaching or instructing in 1 through 3 above
5. Authoring published papers, articles, books, or accepted licensing examination items
6. Active participation in professional or technical societies or in accrediting organizations
7. Patents
8. Active participation in educational outreach activities pertaining to professional licensure or the surveying/engineering professions that involve K–12 or higher education students

E. Determination of Credit

The board has final authority with respect to approval of courses, credit, PDH value for courses, and other methods of earning credit.

1. Credit for college or community college approved courses will be based upon course credit established by the college.
2. Credit for qualifying seminars and workshops will be based on 1 PDH for each hour of attendance. Attendance at qualifying programs presented at professional and/or technical society meetings will earn PDHs for the actual time of each program.
3. Credit determination for activities in subsections D.6 and D.8 is the responsibility of the licensee (subject to review as required by the board).
4. Credit for activity in subsection D.7, active participation in professional and technical societies (limited to 2 PDHs per organization), requires that a licensee serve as an officer and/or actively participate in a committee of the organization. PDHs are not earned until the end of each year of service is completed.
5. No more than 8 PDHs may be obtained during a 24-hour period.

Rationale

The 2018–19 Committee on Education proposed a motion to charge UPLG with modifying 240.30 C and E related to continuing professional competency requirements. The Education Committee’s rationale for modifying the language was as follows: “The committee discussed this charge at length and, based on the assortment of courses being offered today, agreed that there needs to be a better definition as to how courses are presented. In addressing the charge, the committee feels that the *Model Rules* needs to spell out the differences between web-based live, web-based pre-recorded, and live face-to-face seminars in the Qualifying Activities section. Because of the increase in the number of courses being offered by a variety of different media, the committee is also proposing that licensees be held to obtaining only 8 PDHs in a 24-hour period.”

The 2019–20 UPLG Committee decided to propose the motion as presented by the Education Committee but recommended that the appropriate committee review and define the terms “self-study” and “independent study,” including a clarification of the difference between the two terms. They are already included in current language but not defined. It asked the Education Committee to consider whether these terms should be defined based on measurable outcomes.

Because this motion was put on hold due to the pandemic, the 2020–21 Education Committee reviewed the terms “self-study” and “independent study” and agreed that the terms needed to change. The Education Committee did not think the term “self-study” should be used at all. It felt that “documented individual or group study” works best and that using the word “documented” is especially important. Therefore, the term was

changed to “documented individual,” rather than “self-study” or “independent study,” as shown in C.2 above. If this motion passes, the *Continuing Professional Competency Guidelines* will need to be reviewed to ensure that the terminology matches.

Board of directors’ position

Endorses, consent agenda

UPLG Motion 4

Move that the *Model Law* 130.10 C be amended as follows.

130.10 General Requirements for Licensure

Education, experience, and examinations are required for licensure as a professional engineer or professional surveyor as set forth by the jurisdiction.

C. Surveying

2. Licensure as a Professional Surveyor

a. Initial Licensure as a Professional Surveyor

A surveyor intern with a specific record of four years or more of ~~combined office and progressive field~~ experience satisfactory to the board in surveying, ~~of which a minimum of three years of progressive field experience satisfactory on surveying projects~~ under the supervision of a professional surveyor, shall be admitted to the NCEES Principles and Practice of Surveying examination and any required state-specific examinations. Upon passing these examinations, the applicant shall be licensed as a professional surveyor, if otherwise qualified.

Rationale

This year’s UPLG Committee was charged with reviewing the *Model Law* and *Model Rules* to determine if processes outlined within the documents place an unintended barrier to potential licensees from underrepresented groups. As a result of this review, the committee decided that the *Model Law* terms “combined office” and “field experience”—as well as the number of years required for field experience—could be a barrier to people with physical disabilities. It is therefore proposing to remove the specifics of office and field experience in the model document and to instead make it clear that the progressive experience should be satisfactory to the board. Making the language broader would help facilitate comity licensure among boards.

Board of directors’ position

Endorses, non-consent agenda



Fire Protection Task Force

Dale Jans, P.E., Chair

ABSTRACT

The Fire Protection Task Force was charged with reviewing both the NCEES position statement on fire protection engineering and a position paper written by the Society of Fire Protection Engineers (SFPE) entitled *The Engineer and the Engineering Technician Designing Fire Protection Systems*. The task force met virtually in September, October, November, and December of 2020 to discuss and evaluate its charges.

The task force was formed when SFPE asked NCEES to endorse the newly created position paper *The Engineer and the Engineering Technician Designing Fire Protection Systems*. NCEES Administrative Policy 6, Views, Opinions, Interpretations, and Positions, directs support or endorsement of something of this nature to be approved by the Council or to be authorized by the NCEES board of directors. Because the board of directors did not have direct knowledge of fire protection systems, President Christopher Knotts, P.E., formed the task force to review the position paper and to report back to the board of directors with recommendations. President Knotts also charged the task force with reviewing the current NCEES position statement regarding fire protection engineering.

The task force has one motion for Council action. The motion is shown beginning on page 90.

CHARGES

Charge 1

Review NCEES Position Statement (PS) 22, Fire Protection, to consider if the position statement is still relevant and accurate. Recommend revisions if appropriate.

The task force reviewed the current NCEES position statement. The task force feels that PS 22 needs modification and developed Motion 1 to amend it.

In the discussions of the current position statement, the task force felt that the definition of fire protection engineering needs to be expanded beyond fire sprinkler and fire alarm design. The discussion led to a debate on the roles and services of professional engineers, contractors, and engineering technicians allowed by each jurisdiction. The task force feels that the position statement needs to acknowledge the varying jurisdictional differences while maintaining that certain design and analysis aspects of fire protection engineering fall under the definition of engineering and thus should be completed by a professional engineer.

One other topic of conversation was the oversight of installation of fire protection systems. The task force feels that the current position statement needs to be revised to more accurately reflect what oversight professional engineers should provide.

In its discussions, the task force noted that in one jurisdiction, the fire marshal commented that nearly 80% of designs submitted for review were incorrect. The group agreed that this is an issue in other jurisdictions as well and encourages member boards to be diligent in making sure that engineering documents submitted are completed by a professional engineer with the requisite education and fire protection systems design experience.

Charge 2

Review the Society of Fire Protection Engineers Position Statement, The Engineer and the Engineering Technician Designing Fire Protection Systems. Make endorsement recommendations to the NCEES board of directors.

The task force reviewed the SFPE position statement *The Engineer and the Engineering Technician Designing Fire Protection Systems*. The task force was impressed with the thoroughness of the document and, in general, agreed with it. The task force noted that many other organizations had endorsed the SFPE position statement:

ABET, the American Fire Sprinkler Association (AFSA), the American Society of Certified Engineering Technicians (ASCET), the Automatic Fire Alarm Association (AFAA), the Fire Suppression Systems Association (FSSA), the National Fire Sprinkler Association (NFSA), the National Institute for Certification in Engineering Technologies (NICET), and the National Society of Professional Engineers (NSPE).

Task force members recognized that they were charged with reviewing the position statement and not trying to rewrite it, as this is the position of SFPE and not NCEES. The task force members did find several places in which they felt further explanation was necessary. The task force provided comments to SFPE and received a detailed response. In its response, SFPE communicated that it would not be modifying the text of the current position statement based on the comments received from NCEES. However, SFPE acknowledged that the concerns highlighted areas for discussion and emphasis when presenting and using the position statement. While the task force would like to have seen revisions based on the comments, the task force encourages the NCEES board of directors to endorse the position statement.

Respectfully submitted, the Fire Protection Task Force:

Dale Jans, P.E., Chair

Members

Scott Drury, P.E.
Wayne Moore, P.E.
Richard Ray, P.E.

Board liaison

Paul Tyrell, P.E., P.L.S.

Staff liaison

Davy McDowell, P.E.

Resources

Robert Brady, P.E.
Brandon Wilkerson, P.E.

MOTION

Fire Protection Task Force Motion 1

Move that the current Position Statement 22 be replaced as follows.

PS 22 Fire Protection

~~NCEES recognizes that fire protection systems—including fire detection, alarm, and suppression systems—play an important role in safeguarding the health, safety, and welfare of the public. NCEES also recognizes the design and calculation of fire protection systems to be the practice of engineering.~~

~~NCEES recommends that member boards actively pursue enforcement of state statutes and rules with local permitting authorities having jurisdiction regarding the engineering supervision over the specification, design, and calculation of fire protection systems.~~

~~To implement the above, the following are recommended:~~

- ~~A. Contract drawings should include a set of fire protection drawings that are sealed by a licensed professional engineer.~~
- ~~B. Supervision by a licensed professional engineer is required in the review of fire protection installation shop drawings for compliance with the engineer's design and specifications.~~
- ~~C. Oversight by a licensed professional engineer is required in the installation of an original permitted design.~~

PS 22 Fire Protection

NCEES recognizes that fire protection plays an important role in safeguarding the health, safety, and welfare of the public. NCEES also recognizes that the application of science and engineering principles to safeguard life, property, income, and the environment from the effects of fires, explosions, and related hazards to be the practice of fire protection engineering.

NCEES recommends that member boards actively pursue enforcement of state statutes, rules, and regulatory codes, with local permitting authorities having jurisdiction regarding the analysis and application of fire protection engineering.

NCEES recognizes that many states and territories do not license professional engineers by engineering discipline and that various aspects of fire protection engineering may be performed by licensed professionals (architects or engineers) with experience in the analysis, design, and application of fire protection systems.



Public Outreach Task Force
Samuel Wilson, P.E., Chair

ABSTRACT

The Public Outreach Task Force was charged with developing plans and recommendations for promoting and enhancing outreach activities and messages to the various NCEES and member board audiences.

The task force was assigned three charges. It has one motion for Council action and several recommendations. The motion is shown on page 93.

CHARGES

Charge 1

Review the 2019–20 Public Outreach Task Force report. Review any recommendations from the report, and propose motions if appropriate.

The 2019–20 task force has three recommendations. The first is for the NCEES board of directors to implement a standing/rotating group of young engineers and surveyors, similar to the 2015–16 Emerging Leaders Group, to provide insight and guidance on communications with engineers and surveyors of the future. The current task force agrees that having such a group would be beneficial. However, it believes more thought and discussion are needed to ensure the group has clearly defined objectives and includes a balanced representation of engineers and surveyors at various stages of the licensure process.

The Public Outreach Task Force will present Motion 1 for a committee or task force to be charged with identifying objectives for the group to accomplish, the makeup of the group, and the process for selecting participants.

The second recommendation is for NCEES to engage with members of the Participating Organizations Liaison Council (POLC) to partner with messaging, funding, and delivery of outreach concerning engineering, surveying, and professional licensure. The task force recognizes the value of the POLC communications between NCEES and other professional societies and organizations. However, it believes that the individual representatives who attend the POLC meetings are not those who are involved in outreach activities and that outreach is better achieved through NCEES' existing level of engagement with those organizations.

The third recommendation is for NCEES and the board of directors to develop a program to support K–12 engineering and surveying education initiatives for underserved, underfunded, or challenged school districts or programs. The task force confirmed that these groups are existing target audiences in NCEES marketing and outreach efforts and budgets and that no further action is required at this time. This year's Committee on Education also addressed a similar charge this year, as described in its report.

Charge 2

Review Position Statement (PS) 33, Promotion of Licensure, to consider adding the purpose and importance of NCEES outreach efforts and their connection to the health, safety, and welfare of the public. Recommend revisions if appropriate.

The task force reviewed PS 33, Promotion of Licensure, which currently states, "The mission of NCEES is to advance licensure for engineers and surveyors in order to safeguard the health, safety, and welfare of the public. As such, the Council is committed to promoting and will promote the value of licensure to all audiences." The task force decided the language as currently written does not need to be amended. The general nature of the statement is effective, as it allows member boards to engage in outreach activities at a level and type of their choosing. Adding outreach-specific details could limit a member board to only those activities presented in the statement.

Charge 3

Develop a best practices procedure that could be provided to governors to aid in the appointment of engineers and surveyors to their respective boards. The procedure should inform governors of the responsibility state board members have at the national level to shape the future of professional engineering and surveying licensure.

The task force discussed the need for a best practices procedure as described in Charge 3 and recommends that NCEES staff be charged with creating and distributing a document that describes the national responsibilities of engineering and surveying state and territory (jurisdiction) board members. The document should be short and to the point, with graphics for emphasis. The primary message should focus on how the jurisdiction benefits from board members taking an active role at the national level to highlight the jurisdiction's opportunity to influence national policies. Supporting messages should include the jurisdiction's responsibility to work with other jurisdictions to address comity/interstate licensure, the need for the governor to encourage and set an expectation for participation at the national level, and the need for diversity as it relates to engineering and surveying disciplines and areas of expertise.

Respectfully submitted, the Public Outreach Task Force:

Samuel Wilson, P.E., Chair

Members

Theresa Hilliard Hodge, P.E.
Christina Martin, P.L.S.
Karen Purcell, P.E.

Board liaison

Dean Ringle, P.E., P.S.

Staff liaison

Nina Norris

MOTION

Public Outreach Task Force Motion 1

Move that NCEES staff develop a format for a group of young engineers and surveyors that can provide insight to the Council. The process should include providing a framework that includes clear objectives to accomplish, eligibility requirements, the process for selecting participants, oversight, and ways to effectively provide input to and communicate with the Council.

Rationale

As mentioned in the task force report, the purpose of this motion is to implement a standing/rotating group of young engineers and surveyors, similar to the 2015–16 Emerging Leaders Group, to provide insight and guidance on communications with engineers and surveyors of the future. The task force believes the group should have clearly defined objectives and include a balanced representation of engineers and surveyors at various stages of the licensure process.

Board of directors' position

Endorses, consent agenda

Board of Directors

Move that a Special Committee on Bylaws be charged with incorporating the following amendments into Bylaws 6.02.

Section 6.02 Quorum and Voting. A quorum for the transaction of business at the Annual Business Meetings of the Council shall be delegates from a majority of Member Boards. A majority vote of the Member Boards represented shall be required for affirmative action unless otherwise provided for in the Bylaws.

Only Member Boards shall be entitled to vote. Voting shall be by Member Boards, with each board entitled to one vote. ~~If a Member Board is represented by more than one delegate present at the time of voting, the vote may be split proportionately if its delegates wish.~~ An associate member may serve as a Member Board delegate for voting purposes only when so designated by the Member Board’s chair through written, signed communication presented to NCEES staff prior to the opening session of the meeting. For Member Boards that require authorization from the state, such designation may come from the agency director for that board.

Voting by one Member Board on behalf of another Member Board not physically present in the meeting room at the time of the vote shall not be permitted.

Board of directors’ position
Endorses, non-consent agenda

Board of directors’ rationale
The board of directors is proposing to have this language removed because each board has one vote; for that board’s vote to make a difference, it needs to be counted as whole vote. When a board splits its vote, it is essentially nullifying its vote because the split votes cancel each other out. If a member board cannot come to an agreement on its vote for or against a motion, it can always choose to abstain from voting on the motion.



Committee on Awards
Robert Krebs, P.E., L.S., Chair

ABSTRACT

The Committee on Awards is charged with canvassing member boards for nominations for the service awards to be given at the annual meeting. These awards are the Distinguished Service Award with Special Commendation, the Meritorious Service Award, the Distinguished Examination Service Award, and the President's Award. After receiving the nominations, the committee held a conference call to review nominees based on the criteria shown below. From these nominations, the committee recommended recipients for the board of directors to consider. The committee is guided by NCEES Administrative Policy (AP) 12, which is as follows:

AP 12 Awards

NCEES will officially recognize members, associate members, emeritus members, and other volunteers who provide or have provided outstanding service to NCEES. The members of the Committee on Awards and the board of directors shall not be nominated for these awards while serving on the Committee on Awards or on the board of directors. In evaluating nominations, the following guidelines are to be observed:

Distinguished Service Award

- Must be a current member, a former member, or an emeritus member
- Must promote engineering or surveying licensure at the state or national level
- Must demonstrate positive contributions to the advancement of the engineering or surveying profession and the mission and vision of NCEES
- May include participation in professional or technical societies as a consideration
- Must demonstrate active participation in member board activities
- Must include distinguished service on at least one NCEES committee
- May be nominated by a member board

Distinguished Service Award with Special Commendation

- Must have received the Distinguished Service Award at least six years prior to receiving the Distinguished Service Award with Special Commendation. Any exception based on extraordinary circumstances must be approved by the NCEES board of directors with recommendation by the Committee on Awards.
- Must demonstrate service prior to and after receiving Distinguished Service Award
- Must be a current member, a former member, or an emeritus member
- Must promote engineering or surveying licensure at the national level
- Must demonstrate positive contributions to the advancement of the engineering or surveying profession and the mission and vision of NCEES
- May include participation in professional or technical societies as a consideration
- Must demonstrate active participation in member board activities
- Must include leadership or exemplary service on at least one NCEES committee
- May be nominated by a member board

Meritorious Service Award

- Must be a current or former associate member
- Must demonstrate positive contributions to the advancement of the engineering or surveying profession and the mission, vision, and goals of his or her board and NCEES
- Must participate in member board activities
- Must participate in the promotion of licensure or the enforcement of member board laws and rules
- Must include distinguished service on at least one NCEES committee
- May be nominated by a member board

Distinguished Examination Service Award

- Must demonstrate positive contributions and longtime commitment to the NCEES examination program
- Must have served on at least one of the Council's examination committees or exam-related task forces
- Must demonstrate exemplary service and leadership in the advancement and improvement of NCEES examinations and the exam-development process
- May be nominated by a member board, an exam committee, or the board of directors

President's Award

- May be given by the president to recognize an individual for outstanding service in support of NCEES

TEXT**Charge 1**

Canvass member boards by October 1, 2020, for nominations for awards to be presented at the 2021 annual meeting. Nominations should be received no later than January 31, 2021.

In accordance with Charge 1, nominations for awards were solicited by October 1, 2020, and were received by January 31, 2021. Nominations were as follows:

- 8 Nominees—Distinguished Service Award
- 0 Nominees—Distinguished Service Award with Special Commendation
- 0 Nominees—Meritorious Service Award
- 9 Nominees—Distinguished Examination Service Award

Charge 2

Provide recommendations to the NCEES board of directors for awards to be presented at the 2021 annual meeting.

The committee made individual ratings of the nominees, and these were forwarded to the chair for tabulation. The combined ratings were returned to the members for review. The committee held a conference call and reached agreement on the recipients. Recommendations to the board of directors were as follows:

- 2 Nominees—Distinguished Service Award
- 0 Nominees—Distinguished Service Award with Special Commendation
- 0 Nominees—Meritorious Service Award
- 2 Nominees—Distinguished Examination Service Award

Respectfully submitted, the Committee on Awards:

Robert Krebs, P.E., L.S., Chair

Members

Richard (Dick) Cottingham, P.E., P.L.S.
Karol Grove, P.S.
Howard (Skip) Harclerode II, P.E.
Patty Mamola, P.E.

Board liaison

Dean Ringle, P.E., P.S.

Staff liaison

Sherrie Dyer, CAP-OM



Committee on Examination Audit

Christy VanBuskirk, P.E., Chair

ABSTRACT

With all standing committee meetings being held virtually through the end of 2021, the in-person Committee on Examination Audit meeting scheduled for March 19–20, 2021, was canceled. The committee chair, board liaison, and NCEES staff liaison met virtually via Zoom on January 8, 2021, to review the 2020–21 committee charges and discuss potential alternatives and options. Recommendations were forwarded to and approved by the board of directors at its February 2021 meeting.

The 2020–21 NCEES Examination Audit Committee had four charges. The committee has no motions for Council action.

CHARGES

Charge 1

Review all aspects of the NCEES exam development process for the exams being audited to ensure that recognized and accepted psychometric standards for licensing purposes continue to be used and met.

This is a general recurring charge and is addressed through accomplishing the charges of the committee.

Charge 2

Review exam audit findings from the 2019–20 audit cycle to ensure that items were appropriately addressed for the following examinations:

- *Fundamentals of Surveying (item pool administered beginning July 2018)*
- *Principles and Practice of Engineering (PE) Chemical (item pool administered beginning January 2018)*
- *PE Control Systems (pencil-and-paper exam administered October 2019, PAKS, and standard setting)*
- *PE Industrial and Systems (pencil-and-paper exam administered April 2019)*
- *PE Metallurgical and Materials (pencil-and-paper exam administered October 2019)*
- *PE Nuclear (computer-based exam administered October 2019)*
- *PE Petroleum (computer-based exam administered October 2019)*
- *Other general and previously unresolved audit findings*

The committee reviewed last year's audit findings and found that all but two findings were satisfactorily resolved:

- 2019–20 audit finding number two for PE Petroleum exam
- 2019–20 audit finding number three for an older PE Industrial and Systems exam

The committee recommends that the resolution of the two findings be reviewed by next year's Examination Audit Committee.

Charge 3

Audit the most recent administration of the following examinations for which sufficient performance data and analyses have been completed:

- *PE Civil (pencil-and-paper exam administered October 2019)*
- *PE Industrial and Systems (computer-based exam administered October 2020, PAKS, and standard setting)*
- *PE Mining and Mineral Processing (pencil-and-paper exam administered October 2020)*
- *PE Naval Architecture and Marine (pencil-and-paper exam administered October 2020)*
- *Principles and Practice of Surveying (computer-based item pool administered beginning January 2019, PAKS, and standard setting)*

This charge would be difficult to accomplish in the virtual world. The committee considered a number of options, including the following:

- NCEES staff (exam development engineers or other licensed P.E.s) performing all scheduled exam audits, followed by audit committee member review of the findings virtually via Zoom (essentially a staff-performed audit, with after-the-fact audit committee review/oversight)
- Auditing only computer-based testing (CBT) exams scheduled this year virtually and delaying pencil-and-paper exam audits until the next in-person meeting in a future year. Two of the nine scheduled audits were for CBT exams.
- Completely skipping this year's audits and doubling up the audits next year. This would involve expanding next year's audit committee membership as needed.
- Factors considered were ExamDeveloper access, exam security, and logistics of a virtual audit. Many of the audit activities involve the review of paper files (secure documents), discussions with EDEs, and coordination with other committee members—which are best conducted in person.

The board of directors approved the committee's recommendation to delay this charge and address it with the 2021–22 Examination Audit Committee. This may involve expanding the committee membership as needed.

Charge 4

Receive and audit the following standard-setting observation reports conducted by the 2019–20 Exam Audit Committee:

- *PE Industrial and Systems (computer-based exam administered October 2020)*
- *PE Nuclear (computer-based exam administered October 2021)*

The PE Industrial and Systems standard-setting study was conducted in February 2020. The 2019–20 Exam Audit Committee reviewed the report. No action or follow up was required. The PE Nuclear standard-setting study is scheduled to be held virtually July 16–17, 2021. A committee member has been assigned as an observer. Due to the timing, the results of this audit cannot be included in this year's report but will be delivered to next year's Exam Audit Committee (as has been done before in similar situations).

Respectfully submitted, the Committee on Examination Audit:

Christy VanBuskirk, P.E., Chair

Members

Daniel Barbato, P.E.
Dennis Micko, P.E.
Shannon Stanfill
Gary Thompson, P.L.S.

Board liaison

Christopher Duhamel, P.E.

Staff liaison

Lehmon Dekle, P.E.

Consultants

Carmine Balascio, Ph.D., P.E., EPE Committee
Aaron Morris, P.L.S., EPS Committee



Committee on Examinations for Professional Engineers

Carmine Balascio, Ph.D., P.E., Chair

ABSTRACT

The Examinations for Professional Engineers Committee (EPE) oversees the development and scoring of the Fundamentals of Engineering (FE) and Principles and Practice of Engineering (PE) exams. It reviews item performance, monitors the training of exam development volunteers, and recommends changes to exam policies and procedures. EPE used Basecamp to conduct the preliminary work on the charges for 2021 and held two virtual meetings—February 8 and 15, 2021—to finalize the work done prior to the virtual meeting and to make recommendations to Council.

The EPE Committee addressed all of its charges. The committee has no motions for Council action.

CHARGES

Charge 1

Review the 2019–20 EPE Committee report. Review any recommendations from the report and propose motions if appropriate.

There were no motions to present that were intended for the 2020 annual meeting. The committee reviewed the report. While there were two recommendations that resulted from Charges 2 and 3, no changes were required and the 2019-20 EPE Committee report is submitted as is.

Charge 2

Accomplish all recurring committee activities:

- *Oversee the development and maintenance of necessary exam items for future FE and PE examinations in accordance with current exam development policies, to include monitoring the preparation and submission of all examinations in a timely manner as set forth by NCEES guidelines.*
- *Conduct professional activities and knowledge studies (PAKS) as appropriate to update exam specifications.*
- *Review the Examination Audit Committee's recommendations, and ensure implementation of any changes approved by the NCEES board of directors.*
- *Monitor training of the exam development subcommittee members to ensure that they understand the concepts of scaling, equating, setting cut scores, and constructing examinations.*
- *Annually review exam development committee member data. Compare them with benchmarks as established by the EPE Committee as part of the NCEES Exam Development Volunteer Diversity Monitoring plan.*
 - *Annually review progress on data collection from target populations.*
 - *Conduct a review of the NCEES Exam Development Volunteer Diversity Monitoring plan on a periodic basis. The time between reviews shall not exceed six years.*
 - *Establish exam development committee membership benchmarks. Review and modify them as needed every five calendar years that end in zero or five (e.g., 2020, 2025, 2030).*
- *Review NCEES exam policies and procedures and refer any recommendations to the Committee on Examination Policy and Procedures (EPP) for appropriate action*
- *Ensure appropriate use of codes and standards for examinations.*

Due to the COVID-19 pandemic, the two EPE meetings were held virtually rather than in person. Normally, each exam committee would give a report on its progress during the past year. Due to the difficult logistics of having so many different people trying to present virtually, NCEES staff presented the necessary information for each exam development committee sufficient for the EPE Committee to meet its oversight charge.

The committee addressed the charge as follows:

- The FE and PE exams have sufficient quantities of exam questions in their banks to create future exams.
- The Professional Activities and Knowledge studies (PAKS) have been placed on hold until face-to-face meetings can be held again. The exam development committees are meeting virtually, and all required tasks are being completed.
- The appendix shows the most up-to-date CBT transition schedule.

Respectfully submitted, the Committee on Examinations for Professional Engineers:

Carmine Balascio, Ph.D., P.E., Chair

Laura Sievers, P.E., Vice Chair

Members

Abiodun (Abe) Adewale, P.E.

Kent Anderson, P.E.

Alireza Asgari, Ph.D., P.E., S.E.

William Atkinson, P.E.

Janice Bostelman, P.E.

Chimin (Jimmy) Chao, P.E.

Pastor Farinas, P.E.

Mandy Holway, P.E.

George Murgel, Ph.D., P.E.

Govind Nadkarni, P.E.

James Riney, P.E., P.S.

Board liaison

Brian Robertson, P.E.

Staff liaison

Timothy Miller, P.E.

EPE Appendix: CBT transition of remaining PE examinations

| Exam | Last pencil-and-paper administration | First CBT administration | CBT exam type* | Notes |
|--|--------------------------------------|--------------------------|----------------|---------------------------------------|
| Agricultural and Biological Engineering | October 2020 | October 2021 | LFF | |
| Electrical and Computer: Computer Engineering | October 2020 | October 2021 | LFF | |
| Electrical and Computer: Electronics, Controls, and Communications | October 2020 | October 2021 | LFF | |
| Mining and Mineral Processing | October 2020 | October 2021 | LFF | |
| Architectural Engineering | April 2021 | October 2022 | LFF | |
| Naval Architecture and Marine | April 2021 | October 2022 | LFF | |
| Civil (5 exams) | October 2021 | April 2022 | LOFT | Was originally planned for April 2023 |
| Controls System | October 2021 | October 2022 | LFF | |
| Metallurgical and Materials | October 2021 | October 2022 | LFF | |
| 16-hour Structural | October 2023 | April 2024 | LFF/LOFT | Sooner, if possible |

*LFF: Linear, fixed form

*LOFT: Linear-on-the-fly testing



Committee on Examinations for Professional Surveyors

Aaron L. Morris, P.S., Chair

ABSTRACT

The Committee on Examinations for Professional Surveyors (EPS) supervises the preparation of exam specifications and is responsible for the content and scoring of all Fundamentals of Surveying (FS) and Principles and Practice of Surveying (PS) examinations.

The committee was assigned four charges. Due to COVID-19 and the limits placed on travel and safety concerns, scheduled meetings were held virtually. The committee held multiple virtual meetings in October. It addressed Charges 1 and 2 with no significant issues and started to review the pre-PAKS. The professional activities and knowledge study (PAKS) is a tool used in testing to determine the topics which are to be tested. Typically, this involves not only NCEES volunteer exam development subject-matter experts but also people not affiliated with NCEES to ensure that other voices are heard. As part of the required due diligence by EPS prior to the actual PAKS being performed, a pre-PAKS meeting was proposed to make an initial estimate on topics that could potentially be covered in the five divisions. The meeting's purpose was to determine if each division could be developed as a statistical valid stand-alone exam.

The pre-PAKS meeting was originally scheduled for April 2020 and was moved to a virtual meeting in September due to COVID-19. The EPS Committee concentrated on determining the appropriate length and time of individual divisional examinations. The EPS Committee then divided into teams. Each team worked separately from the EPS Committee by holding virtual meetings to further review and refine the pre-PAKS data. From January to April 2021, multiple meetings were again held—both as teams and as a committee, working toward finalizing the committee's findings and passing along determinations to NCEES staff to move forward with the preparation of the formal PAKS. In late January and early February, EPS forwarded preliminary exam development and implementation costs to the Finance Committee and the Finance Committee developed a preliminary cost including seat fees and indirect costs. The Finance Committee report may be referenced for those costs. EPS will continue to work toward analyzing and minimizing exam development costs.

This past year has been, to say the least, interesting for the EPS Committee, as the pandemic has impacted all of us. Unfortunately, it placed restrictions on each of us. In years past, it would have slowed or stopped the process. Thankfully, we were able to keep our committee and teams moving forward. Although we may have missed out on team building in person, we came together as a committee via virtual meetings and Basecamp to complete the tasks at hand. Each committee member is to be commended for their valiant efforts in working on this important task for NCEES.

CHARGES

Charge 1

Review the 2019–20 EPS Committee report. Review any recommendations from the report and propose motions if appropriate.

During October's meeting, the committee reviewed the report and brought the membership up to date on the advancements of the previous committee. No changes to last year's report are recommended.

Charge 2

Accomplish all recurring committee activities:

- *Oversee the development and maintenance of necessary exam items for future FS and PS exams in accordance with existing exam development policies.*
- *Review and evaluate exam administrations for conformity of results; prepare, review, and refine future examinations.*
- *Review the pass rates and item performance for recent exam administrations.*
- *Review the Committee on Examination Audit's recommendations, and ensure implementation of any changes approved by the NCEES board of directors.*

The committee received reports from the NCEES Chief Officer of Examinations Timothy Miller, P.E., as well as from the FS and PS exam development committee chairs and found that the exams are being produced and administered in accordance with NCEES exam development policies.

Charge 3

Continue the development of a plan to restructure the PS examination into the following separately scored divisions as described in the 2018–19 Surveying Exam Module Task Force motion:

- Core PS
- Boundary
- Public Land Survey System (PLSS)
- Mapping Science
- Incidental Drainage Design

Our efforts are a continuation of last year's committee that developed and sent a questionnaire to member boards and their administrators regarding which divisions they would potentially use for licensing. This data was preliminary, and responses varied from state to state. This report's appendix includes the entire questionnaire and responses. The number of responses to the questionnaire was affected by the pandemic, as many board offices were closed; however, we received responses from 34 of the 54 surveying boards. Their replies are very much appreciated. Here is the zone breakdown of the 34 boards that responded:

- Northeast—9
- Central—6
- Southern—9
- Western—10

A summary of the questionnaire results shows that 34 of 34 responses indicated their boards would require the Core PS division and the Boundary division. They would remain as separate divisions to allow the boards who wish to develop a separate license for mapping science by requiring only the Core PS and Mapping Science divisions. Of the 34 boards, 27 would require the Mapping Science division, and 19 would require the PLSS division. Only 5 of the 34 boards indicated that they would require the Incidental Drainage Design division. The questionnaire indicated that the answers to the questions were not binding.

Below are highlights of some of the questions that the 34 surveying boards answered. This report's appendix includes the complete survey responses, including questions about state law and rules changes and open-ended responses.

Indicate if moving to this format will allow you to eliminate or reduce the size of your state-specific exam.

- Eliminate—3
- Reduce—17
- Neither—14

See the appendix for open-ended responses as to how the divisional format would or would not allow them to reduce the size of their state-specific surveying exam.

Assuming laws allow for other types of surveying licenses and all other licensing requirements would be satisfied, would the passing of only the Core and Mapping Science divisions allow you to create a license for mapping science professionals? A mapping science professional is licensed to prepare a geographic information system, drone mapping, and traditional aerial mapping—including topography and related ground control.

- Yes—12
- No—15
- We already license this activity—6
- No response—1

What is the likelihood that you would create a license for mapping science professionals?

- Likely—4
- Unlikely—1
- Unsure—7
- No response—22

Would you be willing to offer the NCEES incidental drainage division in lieu of testing it on your state-specific exam?

- Yes—5
- No—2
- No response—27

After reviewing the questionnaire answers from the boards, the committee continued to work on test development. It reviewed the work from the September meeting regarding the pre-PAKS, then broke into teams to address the pre-PAKS for each divisional exam. Due to COVID-19, the teams worked on a tight timeline to accomplish their goals. Team members evaluated Pearson VUE recommendations on the minimum number of questions per division. The teams

- Reviewed information from the pre-PAKS to preliminarily determine if there are enough topics and questions that can be tested on each division
- Reviewed feedback from member boards on which divisions they might require for licensure in their jurisdiction as well as projected number of takers
- Evaluated a preliminary implementation schedule
- Evaluated projected costs for exam development during and after implementation

The teams, along with NCEES staff, and taking into account recommendations from the psychometric consultants from Pearson VUE, looked at the validity of each divisional exam as well as the time and cost of each exam. With regard to validity, the committee recommends the following format:

- Each exam would consist of 60 questions, 10 of which would be pre-test questions. This is a recommendation from Pearson VUE using the reliability data of the existing PS exam and reducing the number of questions until the reliability statistic is at the minimum recommended level.
- Each exam would have a maximum time limit of 2.5 hours. This was derived using computer-based testing (CBT) data from the existing PS exam—the examinees' average time to answer questions multiplied by the proposed 60 questions, resulting in an appointment time of 2.5 hours.
- The number of items in the item banks for each divisional exam will meet Exam Development Policy 3D.
- Research to date indicates that the anticipated volume of examinees would likely support a linear-on-the-fly (LOFT) delivery method for three divisions (Core, Boundary, and PLSS), with a linear, fixed form (LFF) delivery method for divisions with anticipated smaller volume of examinees (Mapping Science and Incidental Drainage Design).

Preliminary exam development cost to develop and implement the five-division format was forwarded to the Finance Committee (see the Finance Committee report for further discussion). The costs associated with developing and implementing five divisions will require considerable attention from next years' EPS Committee. The committee continues to research ways to save exam development costs. By performing the PAKS virtually, a savings of approximately \$200,000 will be realized.

As the next step in the process, the committee recommends a PAKS associated with the five divisions for the purpose of confirming the supporting research and recommendations. This PAKS for the existing PS is currently planned for 2023–24 in accordance with the Council's normal examination schedules. The committee believes that by initiating the PAKS earlier in this process, the Council will realize the following:

- An economy of scale by accommodating all five divisions together
- A much clearer path forward regarding anticipated examination content and examinee volumes
- A more reliable estimation of costs to both the Council and the examinees

To that end, the committee recommended to the board of directors at its May board meeting that \$90,250 for a virtual PAKS be added to the 2021 budget. At its May meeting, the board of directors approved the recommendation from EPS.

The EPS Committee requests that Charge 3 be continued in 2021–22 to fulfill the intent of the 2018–19 motion from the Surveying Exam Module Task Force and the 2019–20 work from the EPS Committee.

All in all, by conducting committee and team meetings virtually, we were able to accomplish much more than had we met in person. With the availability of online meeting formats, we have been able to conduct meetings on

the fly, if needed. We were fortunate to be able to work with so many amazing committee members, advisors, consultants, and liaisons.

Respectfully submitted, the Committee on Examinations for Professional Surveyors:

Aaron Morris, P.L.S., Chair
Glen Thurow, P.S., Vice Chair

Members

Aaron Blaisdell, P.L.S.
James (Jay) Caughman III, P.L.S.
Larry Graham, P.E., L.S.
Jason Henderson, P.S.
Coleen Johnson, R.P.L.S.
Ginger Michalski-Wallace, P.S.
Roy Shrewsbury II, P.S.
Richard (Rich) Smith Jr., P.S.
Joseph Wichert, L.S.
Steven Wilson, P.E., P.L.S.
Andrew Zoutewelle, P.L.S.

Resources

Joseph Flynn, L.S.
Gary Thompson, P.L.S.

Consultants

William (Davey) Edwards, Ph.D., R.P.L.S., L.S.L.S.
Richard (Ric) Moore, P.L.S.
Robin Petzold, P.S.M.

Board liaison

Timothy Lingerfelt, P.L.S.

Staff liaison

Timothy Miller, P.E.

| Please select your board. | Once the divisional format is implemented, which of the five divisions would you require applicants to pass to be licensed in your jurisdiction? | | | | | Estimate the number of examinees in your jurisdiction by division per year. Please make one selection for each division. | | | | | Will implementing this divisional format require a law change in your jurisdiction? | Will implementing this divisional format require a rules change in your jurisdiction? |
|---------------------------|--|----------|---------------------------------------|-----------------|----------------------------|--|----------|---------------------------------------|-----------------|----------------------------|---|---|
| Response | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | Incidental drainage design | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | Incidental drainage design | Response | Response |
| Arkansas | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | | 1-10 | 1-10 | 11-20 | 1-10 | N/A | Yes | Yes |
| California | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | | >150 | >150 | >150 | >150 | N/A | No | No |
| Florida LS | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | | 51-75 | 51-75 | 51-75 | 51-75 | N/A | No | Yes |
| Guam | Core PS | Boundary | | Mapping science | | 1-10 | 1-10 | 0 | 1-10 | 0 | No | Yes |
| Hawaii | Core PS | Boundary | | Mapping science | | 1-10 | 1-10 | 1-10 | 1-10 | N/A | Yes | Yes |
| Idaho | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | | 1-10 | 1-10 | 1-10 | 1-10 | 0 | No | No |

| Please select your board. | Once the divisional format is implemented, which of the five divisions would you require applicants to pass to be licensed in your jurisdiction? | | | | | Estimate the number of examinees in your jurisdiction by division per year. Please make one selection for each division. | | | | | Will implementing this divisional format require a law change in your jurisdiction? | Will implementing this divisional format require a rules change in your jurisdiction? |
|---------------------------|--|----------|---------------------------------------|-----------------|----------------------------|--|----------|---------------------------------------|-----------------|----------------------------|---|---|
| Response | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | Incidental drainage design | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | Incidental drainage design | Response | Response |
| Indiana LS | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | Incidental drainage design | 31–40 | 31–40 | 31–40 | 31–40 | 31–40 | Yes | Yes |
| Kansas | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | | | 11–20 | 11–20 | 11–20 | N/A | N/A | No | No |
| Maine LS | Core PS | Boundary | | Mapping science | | 1–10 | 1–10 | N/A | 1–10 | N/A | No | No |
| Maryland LS | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | Incidental drainage design | 31–40 | 31–40 | 31–40 | 31–40 | 31–40 | No | No |
| Massachusetts | Core PS | Boundary | | Mapping science | | 11–20 | 11–20 | N/A | 11–20 | N/A | No | Yes |
| Michigan LS | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | Incidental drainage design | 1–10 | 1–10 | 1–10 | 1–10 | 1–10 | Yes | No |
| Minnesota | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | | 21–30 | 21–30 | 21–30 | 21–30 | N/A | No | Yes |

| Please select your board. | Once the divisional format is implemented, which of the five divisions would you require applicants to pass to be licensed in your jurisdiction? | | | | | Estimate the number of examinees in your jurisdiction by division per year. Please make one selection for each division. | | | | | Will implementing this divisional format require a law change in your jurisdiction? | Will implementing this divisional format require a rules change in your jurisdiction? |
|---------------------------|--|----------|---------------------------------------|-----------------|----------------------------|--|----------|---------------------------------------|-----------------|----------------------------|---|---|
| Response | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | Incidental drainage design | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | Incidental drainage design | Response | Response |
| Mississippi | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | | 1-10 | 1-10 | 1-10 | 1-10 | 1-10 | No | Yes |
| Montana | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | | 11-20 | 11-20 | 11-20 | 11-20 | 0 | No | Yes |
| New Hampshire LS | Core PS | Boundary | | Mapping science | | 11-20 | 11-20 | N/A | 11-20 | N/A | No | No |
| New Jersey | Core PS | Boundary | | Mapping science | | 11-20 | 11-20 | N/A | 11-20 | N/A | No | No |
| New Mexico | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | | | 21-30 | 21-30 | 21-30 | 21-30 | 11-20 | No | No |
| New York | Core PS | Boundary | | Mapping science | | 41-50 | 41-50 | N/A | 41-50 | N/A | No | Yes |
| North Carolina | Core PS | Boundary | | Mapping science | | 41-50 | 41-50 | N/A | 1-10 | N/A | No | No |

| Please select your board. | Once the divisional format is implemented, which of the five divisions would you require applicants to pass to be licensed in your jurisdiction? | | | | | Estimate the number of examinees in your jurisdiction by division per year. Please make one selection for each division. | | | | | Will implementing this divisional format require a law change in your jurisdiction? | Will implementing this divisional format require a rules change in your jurisdiction? |
|---------------------------|--|----------|---------------------------------------|-----------------|----------------------------|--|----------|---------------------------------------|-----------------|----------------------------|---|---|
| Response | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | Incidental drainage design | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | Incidental drainage design | Response | Response |
| North Dakota | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | | 11-20 | 11-20 | 11-20 | 1-10 | 0 | No | Yes |
| Oregon | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | | | 51-75 | 51-75 | 51-75 | 1-10 | 0 | No | Yes |
| Puerto Rico | Core PS | Boundary | | Mapping science | | 1-10 | 1-10 | N/A | 1-10 | N/A | No | No |
| Rhode Island LS | Core PS | Boundary | | Mapping science | Incidental drainage design | 1-10 | 1-10 | 0 | 1-10 | 1-10 | No | No |
| South Carolina | Core PS | Boundary | | Mapping science | | 1-10 | 1-10 | N/A | 1-10 | N/A | No | No |

| Please select your board. | Once the divisional format is implemented, which of the five divisions would you require applicants to pass to be licensed in your jurisdiction? | | | | | Estimate the number of examinees in your jurisdiction by division per year. Please make one selection for each division. | | | | | Will implementing this divisional format require a law change in your jurisdiction? | Will implementing this divisional format require a rules change in your jurisdiction? |
|---------------------------|--|----------|---------------------------------------|-----------------|----------------------------|--|----------|---------------------------------------|-----------------|----------------------------|---|---|
| Response | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | Incidental drainage design | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | Incidental drainage design | Response | Response |
| South Dakota | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | | 1–10 | 1–10 | 0 | 0 | 0 | No | No |
| Tennessee LS | Core PS | Boundary | | | | 41–50 | 41–50 | N/A | N/A | N/A | No | No |
| Texas | Core PS | Boundary | | | | 101–150 | 101–150 | N/A | N/A | N/A | No | Yes |
| Utah | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | | 11–20 | 11–20 | 11–20 | 11–20 | N/A | No | No |

| Please select your board. | Once the divisional format is implemented, which of the five divisions would you require applicants to pass to be licensed in your jurisdiction? | | | | | Estimate the number of examinees in your jurisdiction by division per year. Please make one selection for each division. | | | | | Will implementing this divisional format require a law change in your jurisdiction? | Will implementing this divisional format require a rules change in your jurisdiction? |
|---------------------------|--|----------|---------------------------------------|-----------------|----------------------------|--|----------|---------------------------------------|-----------------|----------------------------|---|---|
| Response | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | Incidental drainage design | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | Incidental drainage design | Response | Response |
| Vermont LS | Core PS | Boundary | | | | 11–20 | 11–20 | N/A | N/A | N/A | No | Yes |
| Virginia | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | Incidental drainage design | 31–40 | 31–40 | 31–40 | 31–40 | 31–40 | No | No |
| Washington | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | Mapping science | | 76–100 | 76–100 | 76–100 | 76–100 | N/A | No | No |
| West Virginia LS | Core PS | Boundary | | Mapping science | | 11–20 | 11–20 | 11–20 | 11–20 | 0 | No | No |
| Wyoming | Core PS | Boundary | U.S. Public Land Survey System (PLSS) | | | 11–20 | 11–20 | 11–20 | N/A | N/A | No | Yes |

| Please select your board. | Indicate if moving to this format will allow you to eliminate or reduce the size of your state-specific exam. | Please describe how moving to this format would allow you to reduce the size of the state-specific examination. | Please explain why moving to this format will NOT allow you to eliminate or reduce the size of your state-specific exam. | NCEES uses a process called the professional activities and knowledges study (PAKS) to determine the topics included on an exam. Are there specific content areas you would like to see included in the PAKS process that could possibly end up as a topic on the divisions? |
|---------------------------|---|--|--|--|
| Response | Response | Open-Ended Response | Open-Ended Response | Open-Ended Response |
| Arkansas | Neither | | It will not test applicants on the uniqueness of the PLSS in Arkansas. | Yes |
| California | Reduce the size of your state-specific examination | California designs its state specific test plan specifications and examination based upon an occupation analysis conducted every 5-6 years which also includes a comparison to the NCEES PS examination. Any topic considered as unique or specific to California or any topic not tested sufficiently at the national level is included on the state specific examination. At this time, while the California Board anticipates an impact to the number of questions on the state examination resulting from an implementation of the council-approved divisions, the Board is unable to expressly quantify to what level that impact will have on the state examination. | | Not at this time – suggest this question is asked again of the member boards when the new test plan specifications are available so each board can determine if there should be any other topic. |
| Florida LS | Neither | | The Florida Jurisdictional Exam covers statutes and rules, not surveying components | No |
| Guam | Reduce the size of your state-specific examination | Our Guam Land Matters exam can be a "take home" exam that covers specific Guam laws. | | No |
| Hawaii | Neither | | Exam wouldn't cover topics like the land system, rules and history specific to Hawaii. | Surveying calculations such as DMD, leveling, error of closure, magnetic declination, taping errors etc. |
| Idaho | Reduce the size of your state-specific examination | The State specific would only need to test the PLSS items unique to our region/jurisdiction. | | We would like to see the PLSS module include questions on the "three mile method" of subdividing a section. non-rectangular entities and sources and types of federal survey records. |

| Please select your board. | Indicate if moving to this format will allow you to eliminate or reduce the size of your state-specific exam. | Please describe how moving to this format would allow you to reduce the size of the state-specific examination. | Please explain why moving to this format will NOT allow you to eliminate or reduce the size of your state-specific exam. | NCEES uses a process called the professional activities and knowledges study (PAKS) to determine the topics included on an exam. Are there specific content areas you would like to see included in the PAKS process that could possibly end up as a topic on the divisions? |
|---------------------------|---|---|--|---|
| Response | Response | Open-Ended Response | Open-Ended Response | Open-Ended Response |
| Indiana LS | Reduce the size of your state-specific examination | Assuming the items that end up being included in the division exams meet our expectations, we will likely only require the writing of a real property description for our state exam. | | Not as a separate division, but topic-wise, I think section corner perpetuation and evaluation of obliterated corners get short shrift in favor of the simple math of lost corners. Yet in some states like Indiana, there are relatively few lost corners and a lack of focus on obliterated corners leads to surveyors improperly applying proportionate measure to obliterated corners. I also think we should be emphasizing a broader, more proactive role for surveyors in dealing with boundary and title problems. I would be happy to speak on that topic to a broader NCEES audience. |
| Kansas | Reduce the size of your state-specific examination | it would allow us to eliminate the uspls questions | Required by law | NO |
| Maine LS | Neither | | State specific exam is legislative requirement | Colonial states issues: water boundaries, riparian and ocean |
| Maryland LS | Reduce the size of your state-specific examination | Currently we are administering two separate exams, state law and minor engineering. Moving forward with this format would allow us to eliminate the minor engineering examination. We would also look to alternative formats for the state law exam to make it more accessible to our applicants. | | Minor engineering topics |
| Massachusetts | Neither | | The size of the state specific exam was recently reduced / unique factors for Land Surveying in Massachusetts must be evaluated. | Yes |
| Michigan LS | Eliminate your state-specific examination | | | N/A |
| Minnesota | Reduce the size of your state-specific examination | Less Pressure on enhance PLSS questions | | Enhance PLSS Questions |

| Please select your board. | Indicate if moving to this format will allow you to eliminate or reduce the size of your state-specific exam. | Please describe how moving to this format would allow you to reduce the size of the state-specific examination. | Please explain why moving to this format will NOT allow you to eliminate or reduce the size of your state-specific exam. | NCEES uses a process called the professional activities and knowledges study (PAKS) to determine the topics included on an exam. Are there specific content areas you would like to see included in the PAKS process that could possibly end up as a topic on the divisions? |
|---------------------------|---|--|---|---|
| Response | Response | Open-Ended Response | Open-Ended Response | Open-Ended Response |
| Mississippi | Neither | | The Board does not wish to see a "dummying down" for the current PPS examination. Merely added questions for the public land area. | Again, the Board does not wish to see a "dummying down" for the current PPS examination. Merely added questions for the public land area. |
| Montana | Reduce the size of your state-specific examination | Our state exam is 90 questions, and moving to this format would probably allow the board to reduce the size by 25%. | | No |
| New Hampshire LS | Reduce the size of your state-specific examination | Reduce the scope of the exam | | No |
| New Jersey | Neither | | Our test covers NJ Specific Statutes and Code as well as NJ Specific Common Law interpretations. Adverse Possession requirements, remnant rule, Tidelands... | GPS/RTK systems and adjustments |
| New Mexico | Reduce the size of your state-specific examination | We would eliminate the PLSS questions from the State Specific exam. | | UAS and LiDAR |
| New York | Reduce the size of your state-specific examination | Depending on the final content and specifics of the questions within the modules it may be possible for New York to reduce its state specific test | | 1. Continuously Operating Reference Stations (CORS) - The National Geodetic Survey (NGS) manages and operates the CORS (Continuously Operating Reference Stations) program. CORS comprises a nationwide network of permanently operating Global Positioning System (GPS) receivers. NGS provides access to GPS data from this network free of charge via the Internet. The program's primary objective is to enable GPS users to determine precise positional coordinates relative to the National Spatial Reference System (NSRS). 2. Federal Wetland regulations and the location of wetlands by surveyors 3. Federal standard for the survey mapping of Canals |
| North Carolina | Neither | | NC will keep the state specific exam at this time. Moving to the format noted would not allow NC to get rid of the state specific exam due to we would still want to test applicants on NC rules and laws. In addition, the nation drainage module places an imbalance on the importance of drainage and we would continue to test drainage on the NC state specific exam and not require them to take the incidental drainage module of the national format. | NC requests incidental drainage as a blueprint area within the core PS exam in the event the Incidental Drainage Divisional Exam is not implemented. We would like to address incidental drainage on the PS exam, but feel a separate exam would disproportionately test the drainage topic. A separate blueprint area on the Core PS exam would enable testing applicants in an appropriately proportionate manner. |

| Please select your board. | Indicate if moving to this format will allow you to eliminate or reduce the size of your state-specific exam. | Please describe how moving to this format would allow you to reduce the size of the state-specific examination. | Please explain why moving to this format will NOT allow you to eliminate or reduce the size of your state-specific exam. | NCEES uses a process called the professional activities and knowledges study (PAKS) to determine the topics included on an exam. Are there specific content areas you would like to see included in the PAKS process that could possibly end up as a topic on the divisions? |
|---------------------------|---|---|--|--|
| Response | Response | Open-Ended Response | Open-Ended Response | Open-Ended Response |
| North Dakota | Neither | | Our state-specific exam is, as the name indicates, specific to our state and our state laws. | None that I can think of. |
| Oregon | Reduce the size of your state-specific examination | Addition of a robust PLSS module will allow for a reduction in the size of the Oregon Specific exam but will not eliminate the need for a State Specific examination. There are specific statutes in Oregon which would not still not be covered in the national exam. Oregon specific survey filing requirements and right of entry notifications process are two of the major topics, but there are also other state specific statutory requirements which would be included in a revised Oregon Specific Exam. | | Mapping Sciences broken out in to specific areas of: •Photogrammetry, •LiDAR, •Hydrographic surveying, •GIS |
| Puerto Rico | Neither | | Puerto Rico is a US territory, however many of the local surveying laws and regulations were established under the previous four centuries of Spain jurisdiction All licensed surveyors, locals, reciprocals or by comity, must be proficient in all island applicable laws and regulations. | Any exam modification must be make in consensus with the universities in order to ensure that curriculums match the exams. |
| Rhode Island LS | Neither | | no | n0 |
| South Carolina | Neither | | SC state-specific exam is required by regulation and address practice specific to SC. | N/A |

| Please select your board. | Indicate if moving to this format will allow you to eliminate or reduce the size of your state-specific exam. | Please describe how moving to this format would allow you to reduce the size of the state-specific examination. | Please explain why moving to this format will NOT allow you to eliminate or reduce the size of your state-specific exam. | NCEES uses a process called the professional activities and knowledges study (PAKS) to determine the topics included on an exam. Are there specific content areas you would like to see included in the PAKS process that could possibly end up as a topic on the divisions? |
|---------------------------|---|---|--|---|
| Response | Response | Open-Ended Response | Open-Ended Response | Open-Ended Response |
| South Dakota | Reduce the size of your state-specific examination | We are looking mostly at more testing exposure on the PLSS. Our state specific exam, while woefully inadequate, covers a few questions on the PLSS. We felt that we could shorten the state specific test to lessen the total test time, while covering the PLSS more thoroughly. | | <p>In my opinion, as I am a more traditional surveyor, the PS Core, Boundary and the PLSS divisions are the most important to our profession. When I started surveying in 1976 these divisions were acquired through education and good tutorship. Education is now much better than it was back then, even though I had a college degree, most of my surveying education was either mentored knowledge or self-taught. In my opinion, boundary work is best taught through good reference material, experience and exceptional mentorship. I have the same feeling about the PLSS and was fortunate to acquire contracts for over 10-years with the US Forest Service for Public Lands retracement surveys. Frankly, I personally am not very enthusiastic about the mapping science division, I am sure the GIS people would not like my attitude but my experience is the public seems to believe the GIS mapping simply because of the availability of it online. Sadly, it is not just the public that does not understand the limits of GIS - I once had a City Engineer red flag a plat that I had prepared because the local GIS mapping showed the boundary line going through the adjacent motel. The only way I could convince him that it was not so was to meet him on site and show him where the property corners were positioned. Also, I am having a bit of trouble seeing how the geodetic surveyor could jeopardize the health, safety and welfare of the public but I am sure there is an argument there. South Dakota Law does not allow surveyors to do drainage calculations or minor drainage plans. I am not sure really what you are looking for in this question, but surveying is basically the same as it has always been only the tools have changed.</p> |
| Tennessee LS | Eliminate your state-specific examination | | | The current PAKS embraces what is necessary to test on. |
| Texas | Neither | | We are currently moving to the PS exam w/state specific. We are not sure of the size of the state-specific, but it will only contain Texas law/rule/process items. | Unknown at this time. We are working on our own PAKS for state-specific exam development. |
| Utah | Neither | | Utah's state-specific exam is exactly that... state-specific. It tests the knowledge of Utah laws and rules, licensing and practice standards. | The current PAKS has served us well. |

| Please select your board. | Indicate if moving to this format will allow you to eliminate or reduce the size of your state-specific exam. | Please describe how moving to this format would allow you to reduce the size of the state-specific examination. | Please explain why moving to this format will NOT allow you to eliminate or reduce the size of your state-specific exam. | NCEES uses a process called the professional activities and knowledges study (PAKS) to determine the topics included on an exam. Are there specific content areas you would like to see included in the PAKS process that could possibly end up as a topic on the divisions? |
|---------------------------|---|--|--|--|
| Response | Response | Open-Ended Response | Open-Ended Response | Open-Ended Response |
| Vermont LS | Eliminate your state-specific examination | | | Boundary Law; Topographic surveys |
| Virginia | Reduce the size of your state-specific examination | We can narrow number of topics. | | Incidental drainage, map and sciences and environmental resources (coastal surveys) |
| Washington | Reduce the size of your state-specific examination | It will reduced the number of items that may be covered in the national exam. (Reduce duplication) | | Tideland and shore land, donation land claims |
| West Virginia LS | Reduce the size of your state-specific examination | WV could review current State Specific Exam and develop the exam only on WV Law, Statue, Rules, Case Law and Court System. | | Retracement Procedures and Practices |
| Wyoming | Reduce the size of your state-specific examination | We would reduce or even eleminate all questions that deal with the PLSS. | | No. |

| Please select your board. | Assuming laws allow for other types of surveying licenses and all other licensing requirements would be satisfied, would the passing of only the core and mapping science divisions allow you to create a license for mapping science professionals? A mapping science professional is licensed to prepare a geographic information system, drone mapping, and traditional aerial mapping—including topography and related ground control. | What is the likelihood that you would create a license for mapping science professionals? | Do your statutes currently allow incidental drainage design or any type of incidental design by licensed surveyors? | Would you support a change to your statutes to allow licensed surveyors to practice incidental drainage design in your state, if they were to pass the Incidental Drainage Design division? | Would you be willing to offer the NCEES incidental drainage division in lieu of testing it on your state-specific exam? | Please provide any additional information you would like the EPS Committee to consider in its deliberations. |
|---------------------------|--|---|---|---|---|---|
| Response | Response | Response | Response | Response | Response | Open-Ended Response |
| Arkansas | No | | No | No | | EPS Committee needs to consider if the module exam will actually improve mobility between states. |
| California | We already license this activity. | | No | No | | From California Board: There are no current efforts intended to create additional levels of professional licenses related to land surveying such as "mapping professional"; the topics covered under 'Incidental Drainage Design' are already included within the regulated practice of civil engineering in California; We urge the EPS Committee to immediately begin work towards creation of these council-approved divisions rather than just sending out a questionnaire, which seems to duplicate much of what the prior Task Force has already communicated and accomplished with their assigned charges. |
| Florida LS | No | | No | No | | The divisional exams could change our approach on our state exam and could allow for mapping science professionals but would take a change in statute and would take time |
| Guam | Yes | Likely | No | Yes | | Differentiate or define clearly what GIS practitioners can do as some of their activities possibly infringe onto survey practice. |
| Hawaii | No | | No | No | | For the mapping standards focus on the standards and not new technology like Lidar. We selected this section as Core and Boundary isn't enough. We wanted to add topo standards and some of the other sections within the mapping but don't agree with everything that was listed. |
| Idaho | Yes | Likely | No | No | | These modules will provide a consistent method of testing minimum competence for boards and licensees. In the near-term they will improve portability between Colonial and PLSS States. In the future the modules will provide a method of licensing the emerging disciplines of surveying. Good move... |

| Please select your board. | Assuming laws allow for other types of surveying licenses and all other licensing requirements would be satisfied, would the passing of only the core and mapping science divisions allow you to create a license for mapping science professionals? A mapping science professional is licensed to prepare a geographic information system, drone mapping, and traditional aerial mapping—including topography and related ground control. | What is the likelihood that you would create a license for mapping science professionals? | Do your statutes currently allow incidental drainage design or any type of incidental design by licensed surveyors? | Would you support a change to your statutes to allow licensed surveyors to practice incidental drainage design in your state, if they were to pass the Incidental Drainage Design division? | Would you be willing to offer the NCEES incidental drainage division in lieu of testing it on your state-specific exam? | Please provide any additional information you would like the EPS Committee to consider in its deliberations. |
|---------------------------|--|---|---|---|---|--|
| Response | Response | Response | Response | Response | Response | Open-Ended Response |
| Indiana LS | Yes | Unsure | Yes | | Yes | Our state allows not just drainage design, but also streets and gravity sanitary sewers, so my answer to the last question might or might not be true. I STRONGLY believe we should be promoting a national license or universal comity for every aspect of surveying except boundary/legal descriptions/subdivision-related work which should be licensed and tested separately. |
| Kansas | No | | No | No | | |
| Maine LS | No | | No | Yes | | |
| Maryland LS | No | | Yes | | Yes | |
| Massachusetts | Yes | Unsure | No | No | | NA |
| Michigan LS | No | | Yes | | Yes | I will attempt to answer the questions to the best of my ability. Please consider this a draft and non-official until I receive input from LARA and other Professional Surveyors Licensing Board Member feedback. Licensing and Regulatory Affairs (LARA) is the Department that oversees Professional Licensing in Michigan. They would be the Department that would review and make any final decisions based on Michigan's Public Act for testing for Professional Surveyors in Michigan. |
| Minnesota | Yes | Unsure | No | No | | I suspect this may affect how Model Law is designated with NCEES. Creating better harmony for indivial states to better accept Model Law into the future |

| Please select your board. | Assuming laws allow for other types of surveying licenses and all other licensing requirements would be satisfied, would the passing of only the core and mapping science divisions allow you to create a license for mapping science professionals? A mapping science professional is licensed to prepare a geographic information system, drone mapping, and traditional aerial mapping—including topography and related ground control. | What is the likelihood that you would create a license for mapping science professionals? | Do your statutes currently allow incidental drainage design or any type of incidental design by licensed surveyors? | Would you support a change to your statutes to allow licensed surveyors to practice incidental drainage design in your state, if they were to pass the Incidental Drainage Design division? | Would you be willing to offer the NCEES incidental drainage division in lieu of testing it on your state-specific exam? | Please provide any additional information you would like the EPS Committee to consider in its deliberations. |
|---------------------------|--|---|---|---|---|--|
| Response | Response | Response | Response | Response | Response | Open-Ended Response |
| Mississippi | No | | No | No | | The Board does not wish to see a "dummying down" for the current PPS examination. Merely added questions for the public land area. |
| Montana | No | | No | No | | |
| New Hampshire LS | Yes | Unsure | No | No | | N/A |
| New Jersey | Yes | Unsure | No | No | | The GIS community needs to show interest in licensure. |
| New Mexico | No | | No | Yes | | Regarding the creation of a mapping license, we would be able to only if we changed our law and rules to do so. |
| New York | Yes | Unsure | No | No | | Nothing at this time |
| North Carolina | We already license this activity. | | Yes | | No | For incidental drainage question #17, see response to PAKS question. |

| Please select your board. | Assuming laws allow for other types of surveying licenses and all other licensing requirements would be satisfied, would the passing of only the core and mapping science divisions allow you to create a license for mapping science professionals? A mapping science professional is licensed to prepare a geographic information system, drone mapping, and traditional aerial mapping—including topography and related ground control. | What is the likelihood that you would create a license for mapping science professionals? | Do your statutes currently allow incidental drainage design or any type of incidental design by licensed surveyors? | Would you support a change to your statutes to allow licensed surveyors to practice incidental drainage design in your state, if they were to pass the Incidental Drainage Design division? | Would you be willing to offer the NCEES incidental drainage division in lieu of testing it on your state-specific exam? | Please provide any additional information you would like the EPS Committee to consider in its deliberations. |
|---------------------------|--|---|---|---|---|--|
| Response | Response | Response | Response | Response | Response | Open-Ended Response |
| North Dakota | No | | No | No | | |
| Oregon | We already license this activity. | | No | | | <p>The Oregon Board currently has statutory authority to license the practice of photogrammetry. We currently use the Colonial States Mapping Science Exam for those applicants wishing to obtain Photogrammetry Licensure. We are hopeful that the NCEES mapping sciences module will provide a suitable replacement for the Colonial States Mapping Sciences exam. Note- Oregon has had no applicants apply for Photogrammetry licensure other than those that were grandfathered in at the time we started licensure. Currently Oregon does not have a mapping science licensure requirement, and the Board would not be empowered to develop a specific mapping science license without statutory authorization. The mapping sciences module seems to cover a wide breadth of topics- seems like this module should be further subdivided into photogrammetry and remote sensing, GIS, and Hydrographic Surveying.</p> |
| Puerto Rico | No | | No | No | | <p>In Puerto Rico the US Public Land System does not apply and it is not well covered in BS degrees programs. None of the professors have experience in it. However, it is part of the FS and PS exams and currently is the biggest obstacle for our students to get licensed.</p> |
| Rhode Island LS | | | | | | |
| South Carolina | We already license this activity. | | Yes | | No | Tier B Surveyors (separate license category) perform Incidental Drainage Design and are required to pass a separate exam. |

| Please select your board. | Assuming laws allow for other types of surveying licenses and all other licensing requirements would be satisfied, would the passing of only the core and mapping science divisions allow you to create a license for mapping science professionals? A mapping science professional is licensed to prepare a geographic information system, drone mapping, and traditional aerial mapping—including topography and related ground control. | What is the likelihood that you would create a license for mapping science professionals? | Do your statutes currently allow incidental drainage design or any type of incidental design by licensed surveyors? | Would you support a change to your statutes to allow licensed surveyors to practice incidental drainage design in your state, if they were to pass the Incidental Drainage Design division? | Would you be willing to offer the NCEES incidental drainage division in lieu of testing it on your state-specific exam? | Please provide any additional information you would like the EPS Committee to consider in its deliberations. |
|---------------------------|--|---|---|---|---|---|
| Response | Response | Response | Response | Response | Response | Open-Ended Response |
| South Dakota | Yes | Unlikely | No | No | | Non |
| Tennessee LS | Yes | Unsure | Yes | | Yes | A recommendation to state boards for the relationship of the divisional PS exam and their state specific exam |
| Texas | No | | No | No | | We can't really add/change areas of practice in law (GIS, drainage, etc.) That is a legislative function. |
| Utah | We already license this activity. | | No | Yes | | |

| Please select your board. | Assuming laws allow for other types of surveying licenses and all other licensing requirements would be satisfied, would the passing of only the core and mapping science divisions allow you to create a license for mapping science professionals? A mapping science professional is licensed to prepare a geographic information system, drone mapping, and traditional aerial mapping—including topography and related ground control. | What is the likelihood that you would create a license for mapping science professionals? | Do your statutes currently allow incidental drainage design or any type of incidental design by licensed surveyors? | Would you support a change to your statutes to allow licensed surveyors to practice incidental drainage design in your state, if they were to pass the Incidental Drainage Design division? | Would you be willing to offer the NCEES incidental drainage division in lieu of testing it on your state-specific exam? | Please provide any additional information you would like the EPS Committee to consider in its deliberations. |
|---------------------------|--|---|---|---|---|--|
| Response | Response | Response | Response | Response | Response | Open-Ended Response |
| Vermont LS | Yes | Likely | No | Yes | | The movement towards this format will increase license mobility and allow for a more robust exam in the defined areas due to topic specific PAKS. Mobility between states with similar statutes and rules. |
| Virginia | We already license this activity. | | Yes | | Yes | Our biggest concern is the bifurcation of the boundary knowledge. |
| Washington | No | | No | No | | The WA Board would consider multiple options within this task but would need deliberate the specifics of Statues changes and the overall stakeholder perspective. |
| West Virginia LS | No | | No | No | | WV PS Board is unsure if the changes would require the Board to submit rule changes. WV PS current rule states...."an individual has passed AN examination.....which I know "an" is singular and I still would see the PS exam as 1(singular) exam, an examinee would just need to pass certain sections within the PS Exam for WV..... If so then, I don't think a Code change would be required. |
| Wyoming | Yes | Likely | No | No | | None Keep up the hard work! |



Committee on Law Enforcement
Jill Short, Chair

ABSTRACT

The Committee on Law Enforcement was established under NCEES Bylaws 7.10. The committee considers and recommends methods for member boards to achieve more efficient and uniform enforcement of licensing acts necessary for greater interstate coordination.

This year's committee addressed seven charges and prepared recommendations for each charge through Basecamp and three virtual meetings. The committee has no motions for Council action.

CHARGES

Charge 1

Review the 2019–20 Law Enforcement Committee report. Review any recommendations from the report and propose motions if appropriate.

The committee reviewed the 2019–20 Law Enforcement Committee report and recommended updates to the 2019–20 recommendations for Charges 3 and 4.

- Charge 3: Review Enforcement Exchange and recommend changes to NCEES staff. For identity verification, review a requirement to make date of birth a mandatory entry. The Law Enforcement Committee recommends that the date of birth should be a mandatory entry or an opt-out entry (if the date of birth is unavailable or if a member board is not allowed to enter dates of birth based on board rules).
- Charge 4: Review and make a recommendation as to whether NCEES should enter this information into Enforcement Exchange for exam results invalidated by NCEES. For egregious irregularities (such as an examinee who modified a calculator and scanned exam content, an examinee with a hidden camera who copied exam content, an examinee who verbally recorded exam content on a watch, and an examinee who permitted impersonation by another individual/candidate), the committee recommends that the member boards or NCEES add these irregularities to Enforcement Exchange.

Charge 2

Review the 2019 annual meeting Law Enforcement Program and Forum. Organize similar activities for the 2021 annual meeting.

- Law Enforcement Program: The proposed Law Enforcement Program (Saturday workshop) for the 2020 annual meeting was Joseph Buckley from John E. Reid and Associates. Reid and Associates was scheduled to present a one-day training program focusing on interviewing techniques designed to elicit information in a non-coercive manner from adverse or reluctant witnesses during the investigative interview. Principles of verbal, vocal, and nonverbal behavior symptom analysis would be discussed in detail to discern truth from deception during the interview process. Because of the pandemic, the workshop was not held at the 2020 annual meeting. Instead, the Law Enforcement Committee recommended holding this program as an online workshop this summer. The virtual workshop will be held June 15–16.
- Law Enforcement Forum: The committee considered offering webinars to discuss topics of interest. The webinars would be offered in late summer or during the fall. The committee would like to send out requests for topics of interest via the online Law Enforcement Basecamp project.

Charge 3

Publish an ongoing column in Licensure Exchange (six issues per year) related to law enforcement issues.

The following Enforcement Beat articles ran in *Licensure Exchange* in the 2020–21 fiscal year:

- October 2020: “COVID-19 pandemic impacts enforcement activities” (members of the Committee on Law Enforcement)
- December 2020: “COVID-19 presents training opportunities” (James Szatkowski, P.E.)
- February 2021: “New member orientation essential to understanding law enforcement guidelines” (Bruce Pitts, P.L.S.)
- April 2021: “Unlicensed practice as a construction manager may not be obvious” (James Szatkowski, P.E.)
- June 2021: “Policing our own is part of protecting the public” (Paul Santos, P.L.S.)
- August 2021: TBD

Charge 4

Review the Investigation and Enforcement Guidelines appendices; revise as appropriate.

The committee began revising the 26 appendices of the *Investigation and Enforcement Guidelines*. Edits, additions, and deletions were made throughout the appendices. Significant changes are as follows. These changes will be made when the *Investigation and Enforcement Guidelines* are updated after the annual meeting.

- Appendix C, Investigative report form: Replace with investigative summary report
- Appendix D, Summary investigative report form: Delete
- Appendix I, Letter regarding illegal phone listing: Delete
- Appendix L, Letter regarding illegal classified advertising: Delete
- Appendix P, Three letters of censure: Delete

While the committee made significant progress on this charge this year, it recommends that the charge be carried over for next year’s committee to continue the review.

Charge 5

Develop a uniform presentation with reference to the Model Law and Model Rules and make the material available for use at large.

The committee worked on a presentation based on a program used by the Ohio board. The plan is to create a template based on the *Model Law* and *Model Rules* that member boards could overlay their laws/rules. The committee continues to work on this charge and recommends that the charge be carried over for next year’s committee.

Charge 6

Develop recommendations for conducting a virtual investigation.

The committee developed guidelines/tips for conducting a virtual investigation, which will be added to the *Investigation and Enforcement Guidelines*.

Charge 7

Review Chapter 6—Writing Reports of the Investigative Training Manual and revise as appropriate. Gather sample investigative reports from various member boards and develop a master or investigative report and/or templates.

The committee developed an investigation summary report/template, which will be added to the *Investigative Training Manual* and/or the *Investigation and Enforcement Guidelines*.

Respectfully submitted, the Committee on Law Enforcement:

Jill Short, Chair

Members

Dave Blume, P.E.
John Greenhalge
Grant Grigg
David Jackson, Esq.
Reginald Jeter, P.E.
Jason Kent, P.E.
Russell Pennington, P.E.
Paul Santos, P.L.S.
James Szatkowski, P.E.
James Valenti, P.E.

Board liaison

Timothy Lingerfelt, P.L.S.

Staff liaison

Bob Whorton, P.E.



Committee on Member Board Administrators

Heather Richardson, Chair

ABSTRACT

The Committee on Member Board Administrators (MBAs) was established as a forum for the MBAs to convene and provide input on Council issues and activities relevant to the operations of member boards and the implementation of Council actions. The MBA Committee is composed of a diverse group of members representing a wide range of experience and a wealth of institutional knowledge. The committee consists of nine MBAs representing all four zones, two member board members, a NCEES board of directors liaison, and NCEES staff liaison. The committee held virtual meetings on September 23 and December 8, 2020.

CHARGES

Charge 1

Review the 2019–20 Committee on Member Board Administrators (MBA) report.

The MBA Committee reviewed the 2019–20 committee charges and found that the outcome of Charge 5, which was the development of the Resolution of Cooperation, is still relevant and much needed. The agreement was originally planned to launch as part of the MBAs' participation at the NCEES 100 years anniversary in 2020 but was put on hold due to the pandemic.

The Resolution of Cooperation is a nonbinding agreement that would serve as guidance for member boards to find ways to reduce barriers to licensure and expedite comity licensure. The 2020–21 MBA Committee is dedicated to presenting and implementing this agreement between state boards. The Resolution of Cooperation, which is shown in this report's appendix, was discussed at the MBA Forums during the virtual zone interim meetings.

Charge 2

Mentor new MBAs.

New MBAs face a steep learning curve regarding NCEES activities and operations. The MBA Committee recognizes that new MBAs may be coming into the positions with different levels of experience and understanding regarding these activities and operation. Whatever the level of experience, it is imperative to have a formalized onboarding process to facilitate this process.

The MBA Committee, with the assistance of NCEES staff, developed a process to introduce new MBAs to NCEES and help them become knowledgeable about NCEES services and processes. The MBA Committee recommends that it have a standing charge to review this process annually. The MBA Committee is requesting for the onboarding process to include, at a minimum, the following:

- Bring new MBAs to the NCEES headquarters to conduct a face-to-face orientation.
- Provide new MBAs with a list of NCEES services and a single point of contact at NCEES when seeking assistance.
- Have NCEES notify the MBA Committee as soon as a new MBA has been hired, including providing contact information and a bio.
- Develop material to present to new MBAs; ensure that the material is up to date and manageable for entry into the new position.

Other recommendations from the MBA Committee regarding improved communication between NCEES and MBAs—whether new or seasoned—are as follows:

- Periodically hold meetings for all MBAs at NCEES headquarters.
- Charge the MBA Committee with ensuring that member boards are reminded to update their profiles so that accurate information about each board is displayed.

Charge 3

Coordinate, develop agendas for, and provide leaders for all meetings of the MBAs (annual meeting, Board President's Assembly, MBA meeting, and zone meetings).

Annual meeting

The MBA Committee worked with NCEES staff to identify professional development of interest for MBAs attending the virtual workshops at the 2021 annual meeting. Further, the MBA Forum will be structured to ensure that critical information is provided and to allow an opportunity for open discussions.

Board President's Assembly

The MBA Committee worked with NCEES staff to ensure that all MBAs in attendance not only received information on the MBA Committee activities, but also were presented with up-to-date information regarding NCEES member services. It conducted a separate networking session for MBAs.

Zone interim meeting

The MBA Committee chair presented an overview of the committee's work as part of the Committee and Task Force Video Podcast series published before the zone meetings. The Resolution of Cooperation was also discussed at the MBA Forum during the zone meetings. Prior to the meetings, a common agenda was developed for uniform discussions.

Charge 4

Submit articles for inclusion in Licensure Exchange (six issues per year).

Members of the MBA Committee coordinated with NCEES staff to write articles for *Licensure Exchange*. The following articles were published in the 2020–2021 fiscal year:

- October 2020: "NCEES Expands member board outreach support with webinar resource program" (Lance Kinney, Ph.D., P.E.)
- December 2020: "Navigating the legislative process" (Jon Wilbeck)
- February 2021: "Changing lanes and looking for new opportunities when facing pandemic roadblocks" (Lesley Rosier-Tabor, P.E.)
- April 2021: "Board operations: business as usual in unusual times" (Kate Nosbisch)
- June 2021: TBD
- August 2021: TBD

Charge 5

Assist NCEES staff in developing a program of regular MBA video conferences for virtual MBA meetings to replace the face-to-face biennial MBA meeting.

Since the program was created, the following webinars have been presented. They are available online in the members-only section of MyNCEES under Board Resources/MBA webinar series.

- Webinar 1: "How to host a webinar." Hosted by NCEES on September 16, 2020, with speaker Lance Kinney, Ph.D., P.E.
- Webinar 2: "Licensed to move: pathways, principles, and pitfalls for interstate practice." Jointly hosted on September 29, 2020, by NCEES and the Alliance for Responsible Professional Licensing.

These video conferences provide valuable information and have been well received by MBAs as well as member board staff. To continue this successful program, the MBA Committee suggests possible future topics as follows:

- Continue to provide a summary of annual meeting motions presentation before each annual meeting.
- Resolution of Cooperation
- Decoupling experience requirements from the requirements to sit for the professional exams
- State-specific exams
- Licensing according to disciplines
- Navigating Enforcement Exchange
- Update and overview of NCEES outreach tools and organization of an outreach page to assist MBAs

Respectfully submitted, the Committee on Member Board Administrators:

Heather Richardson, Chair

Members

Thomas Anderson
Richard Bursi, P.E.
Christine Horne
Judy Kempker
Kathleen (Kate) Nosbisch
Lesley Rosier-Tabor, P.E.
Donna Sentell
Keith Simila, P.E.
Perry Valdez
Jon Wilbeck

Board liaison

Brian Robertson, P.E.

Staff liaison

Stef Goodenow

APPENDIX: DRAFT RESOLUTION OF COOPERATION TO FACILITATE INTERSTATE LICENSURE FOR PROFESSIONAL ENGINEERS AND PROFESSIONAL SURVEYORS

- WHEREAS, The National Council of Examiners for Engineering and Surveying (NCEES) is a national organization created by state licensing boards in 1920 to facilitate professional licensing mobility and promote uniformity of the U.S. licensure processes through services for its member licensing boards and licensees; and
- WHEREAS, NCEES' members are the engineering and surveying licensure boards from all 50 states, the District of Columbia, Guam, Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands; and
- WHEREAS, The mission of NCEES is to advance licensure for engineers and surveyors in order to safeguard the health, safety, and welfare of the public; and
- WHEREAS, The NCEES *Model Law*, *Model Rules*, and *Manual of Policy and Position Statements* are publications adopted by the membership of NCEES; and
- WHEREAS, The adopted model licensure concepts within these publications set a common standard for licensure mobility and portability among its member boards to facilitate an efficient, streamlined, expedited administrative procedure and approval process; and
- WHEREAS, Alignment of licensure processes and requirements is imperative to facilitate portability of licenses between member boards of NCEES; and
- WHEREAS, Increased licensure portability aligns with government initiatives to diversify economies and support economic growth; and
- WHEREAS, In the absence of licensure portability efforts, unnecessary barriers to licensure can remain in variable state laws, rules, administrative procedures and approval processes; and
- WHEREAS, Unnecessary barriers to licensure, whether perceived or real, could threaten the health, safety, and welfare of the public and may also perpetuate or introduce unnecessary processes that an applicant must undertake, which could become barriers to employment; and
- WHEREAS, It is recognized that some member boards may have challenges, such as staffing or obtaining authority to revise statutes and rules, which may impede streamlined processes; and
- WHEREAS, NCEES will commemorate 100 years of advancing licensure through the licensing of professional engineers and land surveyors in 2020; therefore, be it
- RESOLVED, That the following signatories agree to license a comity applicant that meets nationally recognized standards in the most expeditious manner available within jurisdiction licensing laws, rules, and mission; and furthermore, be it
- RESOLVED, That signatory boards are committed to identifying and working to remove unnecessary barriers to licensure portability and mobility which are not in the best interest of the public and not required to fulfill the mission of safeguarding the health, safety, and welfare of the public; and furthermore, be it
- RESOLVED, That signatory boards are committed to work towards revising current licensing laws, rules, and policies to allow for more streamlined approval processes for NCEES Model Law Engineer, Model Law Surveyor, and Model Law Structural Engineer applicants and other qualifying applicants; and furthermore, be it
- RESOLVED, That signatory boards are committed to minimizing or eliminating unnecessary jurisdiction-specific licensure requirements.

The undersigned hereby certifies that he/she is the duly qualified member board representative to serve as signatory of this non-binding Resolution of Cooperation in recognition of the NCEES 100th anniversary celebration.



Engineering Licensure Model Task Force

David Beasley, Ph.D., P.E., Chair

ABSTRACT

The Engineering Licensure Model Task Force was established to explore whether the current professional engineering (P.E.) licensure model remains adequate or whether NCEES should explore a more comprehensive model that might possibly include all members of an engineering team—similar to the medical models of a medical doctor (M.D.), physician assistant (P.A.), and registered nurse (R.N.).

The task force is made up of engineers from each of the four zones. It met virtually a number of times to organize and discuss previous licensure studies, as well as to review current presentations on licensure models.

CHARGE

Charge 1

Review the current NCEES engineering licensure model: graduating from an engineering program (EAC/ABET), passing the Fundamentals of Engineering (FE) and Principles and Practice of Engineering (PE) examinations, and earning four years of progressive experience. Assess whether a tiered licensure model would include more of the engineering team, who have credentials other than the current NCEES ones. An example of such a tiered model is the medical profession with medical doctors, physician assistants, and registered nurses.

The task force held three virtual meetings during fall 2020 and two virtual meetings in winter 2021. During the meetings, the task force discussed the general charge and expanded on it. Two presentations were made by task force members regarding the Engineering Licensure Qualifications Task Force (NCEES, 2001–03) and the *Licensure Models for the Fourth Industrial Revolution* (Engineering Change Lab–USA, Summit 10).

The task force recommends that it be continued so that it can study licensure models in other countries, particularly those that involve tiers and/or certifications. The task force would also address blurring of boundaries within and between engineering disciplines.

Respectfully submitted, the Engineering Licensure Model Task Force:

David Beasley, Ph.D., P.E., Chair

Members

Carmine Balascio, Ph.D., P.E.
Vincent Drnevich, Ph.D., P.E.
Douglas Hendrickson, P.E.
Lance Kinney, Ph.D., P.E.
Shelley Macy, P.E.
Jon Nelson, P.E.
Megan O'Callaghan, P.E.
Patricia Steere, P.E.
Dennis Truax, Ph.D., P.E.

Consultant

Wendy Amann, P.E.

Board liaison

Christopher Knotts, P.E.

Staff liaison

Stef Goodenow



NCEES
*advancing licensure for
engineers and surveyors*

ncees.org

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14.d. Digital Signatures

15. Committee Reports

15.a. Administrative Procedures Oversight Committee

15.b. Legislative Committee

15.b.i. Eliminating
Application Fees for
Military Veterans and
Spouses of Military
Veterans



MEMORANDUM

June 25, 2021

To: Board Members
From: Patty Mamola, Executive Director
Subject: Veteran and Veteran Spouse Application Fees

Background

During the 2021 legislative session Senate Bill 402 put forward by the Senate Committee on Labor and Commerce, proposed a reduction of endorsement licensure application fees for active or veteran military members and active or veteran military spouses by half.

The board reduced application fees (endorsement and initial) for active military and active military spouses to \$0 on July 1, 2019.

The current application fee for initial licensure is \$25 and for endorsement license is \$125.

Discussion

Although SB 402 did not proceed, the fact that all application fees for active military and active military spouses are already reduced to \$0, the legislative committee recommends that all application fees for military veterans and military veteran spouses also be reduced to the same amount, \$0. The anticipated revenue loss is less than \$5,000 per year.

Proposed Action

The board to consider and possibly act on reducing application fees—endorsement and initial—for military veterans and military veteran spouses to \$0.

15.b.ii. Eliminating
Nevada Specific Exam
for PE Endorsement
Licensure Applicants



MEMORANDUM

June 25, 2021

To: Board Members
From: Patty Mamola, Executive Director
Subject: Nevada Specific Short Take Home Exam for PE Endorsement Applicants

Background

Senate Bill 402 put forward by the Senate Committee on Labor and Commerce, proposed licensure without additional examination for endorsement licensure applicants who are active or veteran military members or active or veteran military spouses.

Currently the regulation states:

NAC 625.240 Licensure on basis of previous licensure in another jurisdiction; examinations.
1. An applicant who applies for licensure in this State on the basis of previous licensure in another state, territory, possession of the United States or country that is a signatory to the mobility agreements of the International Engineering Alliance must:
(b) Pass a short-written examination on chapter 625 of NRS and the regulations and code of conduct of the Board

Discussion

Although SB 402 did not proceed, in discussions related to the required short Nevada specific take home examination, the legislative committee recommends the take home examination for all PE endorsement applicants be eliminated and be replaced with an attestation of familiarity with Nevada engineering statutes and regulations.

Proposed Action

The board consider and possibly act on replacing the short Nevada specific take home examination for PE endorsement applicants with an attestation of familiarity with Nevada engineering statutes and regulations..

15.b.iii. Future Bill Draft
Request to Update NRS
338.173



MEMORANDUM

June 25, 2021

To: Board Members
From: Patty Mamola, Executive Director
Subject: Consider BDR for NRS 338.173 relating to Certificates of Eligibility

Background

During the 2011 legislative session SB 268 created a statute to provide local preference for engineering and lands surveying firms when competing for public works projects. The statute references a Certificate of Eligibility to be issued to design professionals by the board who had met an excise tax payment minimum threshold over a period of time as a means of preference. The statute also contains a section stating that the board shall adopt regulations to issue Certificates of Eligibility.

Regulations were proposed by the board despite fatal flaws in the statute. During the public comment process and the Legislative Counsel Bureau hearing to adopt the regulations, the fatal flaws were highlighted, and it was realized that the practical application of the statute conflicted with its original intent.

In late October of 2011, the Legislative Counsel Bureau sent a memo to the board deferring regulations relating to the issuance of Certificates of Eligibility until further notice. The reason given by the LCB was that the dollar amount of the annual tax requirement was at a level that would exclude small local firms from meeting the qualification necessary to receive the preference.

Discussion

The statute is frequently referenced in agency Request for Proposal documents. Professionals proposing on public works projects contact the board enquiring about a local preference Certificate of Eligibility—only to be informed that there is no process for issuance and that the certificate does not actually exist.

No further guidance has been received from the Legislative Counsel Bureau and no amendment has been proposed by the original sponsor of SB 268, Senator John Lee. The board's Legislative Committee recommends the board pursue a remedy.

Proposed Action

The board to consider a bill draft request—in collaboration with the other impacted professional boards—to propose amended language or repeal of the statute.

PREFERENCE WHEN COMPETING FOR PUBLIC WORKS

NRS 338.173 Certificate of eligibility to receive preference when competing for public works to certain design professionals: Issuance; duration; ineligibility for submission of false information; regulations; fees; written objections.

1. The State Board of Architecture, Interior Design and Residential Design shall issue a certificate of eligibility to receive a preference when competing for public works to a person who holds a certificate of registration to engage in the practice of architecture pursuant to the provisions of chapter 623 of NRS and submits to the Board an affidavit from a certified public accountant setting forth that the person has, while holding a certificate of registration to engage in the practice of architecture in this State:

(a) Paid directly, on his or her own behalf the excise tax imposed upon an employer by NRS 363B.110 of not less than \$1,500 for each consecutive 12-month period for 36 months immediately preceding the submission of the affidavit from the certified public accountant; or

(b) Acquired, by purchase, inheritance, gift or transfer through a stock option plan, all the assets and liabilities of a viable, operating business that engages in the practice of architecture that:

(1) Satisfies the requirements of NRS 623.350; and

(2) Possesses a certificate of eligibility to receive a preference when competing for public works.

2. The State Board of Landscape Architecture shall issue a certificate of eligibility to receive a preference when competing for public works to a person who holds a certificate of registration to engage in the practice of landscape architecture pursuant to the provisions of chapter 623A of NRS and submits to the Board an affidavit from a certified public accountant setting forth that the person has, while holding a certificate of registration to engage in the practice of landscape architecture in this State:

(a) Paid directly, on his or her own behalf the excise tax imposed upon an employer by NRS 363B.110 of not less than \$1,500 for each consecutive 12-month period for 36 months immediately preceding the submission of the affidavit from the certified public accountant; or

(b) Acquired, by purchase, inheritance, gift or transfer through a stock option plan, all the assets and liabilities of a viable, operating business that engages in the practice of landscape architecture that:

(1) Satisfies the requirements of NRS 623A.250; and

(2) Possesses a certificate of eligibility to receive a preference when competing for public works.

3. The State Board of Professional Engineers and Land Surveyors shall issue a certificate of eligibility to receive a preference when competing for public works to a professional engineer or professional land surveyor who is licensed pursuant to the provisions of chapter 625 of NRS and submits to the

Board an affidavit from a certified public accountant setting forth that the professional engineer or professional land surveyor has, while licensed as a professional engineer or professional land surveyor in this State:

(a) Paid directly, on his or her own behalf the excise tax imposed upon an employer by NRS 363B.110 of not less than \$1,500 for each consecutive 12-month period for 36 months immediately preceding the submission of the affidavit from the certified public accountant; or

(b) Acquired, by purchase, inheritance, gift or transfer through a stock option plan, all the assets and liabilities of a viable, operating business that engages in engineering or land surveying that:

(1) Satisfies the requirements of NRS 625.407; and

(2) Possesses a certificate of eligibility to receive a preference when competing for public works.

4. For the purposes of complying with the requirements set forth in paragraph (a) of subsection 1, paragraph (a) of subsection 2 and paragraph (a) of subsection 3, a person shall be deemed to have paid:

(a) The excise tax imposed upon an employer by NRS 363B.110 by an affiliate or parent company of the person, if the affiliate or parent company also satisfies the requirements of NRS 623.350, 623A.250 or 625.407, as applicable; and

(b) The excise tax imposed upon an employer by NRS 363B.110 by a joint venture in which the person is a participant, in proportion to the amount of interest the person has in the joint venture.

5. A design professional who has received a certificate of eligibility to receive a preference when competing for public works pursuant to subsection 1, 2 or 3 must, at the time for the renewal of his or her professional license or certificate of registration, as applicable, pursuant to chapter 623, 623A or 625 of NRS, submit to the applicable licensing board an affidavit from a certified public accountant setting forth that the design professional has, during the immediately preceding 12 months, paid the taxes required pursuant to paragraph (a) of subsection 1, paragraph (a) of subsection 2 or paragraph (a) of subsection 3, as applicable, to maintain eligibility to hold such a certificate.

6. A design professional who fails to submit an affidavit to the applicable licensing board pursuant to subsection 5 ceases to be eligible to receive a preference when competing for public works unless the design professional reapplies for and receives a certificate of eligibility pursuant to subsection 1, 2 or 3, as applicable.

7. If a design professional holds more than one license or certificate of registration, the design professional must submit a separate application for each license or certificate of registration pursuant to which the design professional wishes to qualify for a preference when competing for public works. Upon issuance, the certificate of eligibility to receive a preference when competing for public works becomes part of the design professional's license or certificate of registration for which the design professional submitted the application.

8. If a design professional who applies to a licensing board for a certificate of eligibility to receive a preference when competing for public works pursuant to subsection 1, 2 or 3 submits false information to the licensing board regarding the required payment of taxes, the design professional is not eligible to receive a preference when competing for public works for a period of 5 years after the date on which the licensing board becomes aware of the submission of the false information.

9. The State Board of Architecture, Interior Design and Residential Design, the State Board of Landscape Architecture and the State Board of Professional Engineers and Land Surveyors shall adopt regulations and may assess reasonable fees relating to their respective certification of design professionals for a preference when competing for public works.

10. A person or entity who believes that a design professional wrongfully holds a certificate of eligibility to receive a preference when competing for public works may challenge the validity of the certificate by filing a written objection with the public body which selected, for the purpose of providing services for a public work, the design professional who holds the certificate. A written objection authorized pursuant to this subsection must:

(a) Set forth proof or substantiating evidence to support the belief of the person or entity that the design professional wrongfully holds a certificate of eligibility to receive a preference when competing for public works; and

(b) Be filed with the public body not later than 3 business days after:

(1) The date on which the public body makes available to the public pursuant to subsection 3 of NRS 338.1725 the information required by that subsection, if the design-build team of which the design professional who holds the certificate is a part was selected as a finalist pursuant to NRS 338.1725;

(2) The date on which the Department of Transportation makes available to the public pursuant to subsection 3 of NRS 408.3885 the information required by that subsection, if the design-build team of which the design professional who holds the certificate is a part was selected as a finalist pursuant to NRS 408.3885; or

(3) The date on which the licensing board which issued the certificate to the design professional posted on its Internet website the information required by NRS 338.1425, if the design professional is identified in that information as being selected for a contract governed by NRS 338.155.

11. If a public body receives a written objection pursuant to subsection 10, the public body shall determine whether the objection is accompanied by the proof or substantiating evidence required pursuant to paragraph (a) of that subsection. If the public body determines that the objection is not accompanied by the required proof or substantiating evidence, the public body shall dismiss the objection and the public body or its authorized representative may proceed immediately to award the contract. If the public body determines that the objection is accompanied by the required proof or substantiating evidence, the public body shall determine whether the design professional qualifies for the certificate pursuant to the provisions of this section and the public body or its authorized representative may proceed to award the contract accordingly. (Added to NRS by 2011, 3678)

15.b.iv. Future Bill Draft
Request to Update NRS
625.050



MEMORANDUM

June 25, 2021

To: Board Members
From: Patty Mamola, Executive Director
Subject: Consider BDR to Update NRS 625.050 Related to Inspection and Testing Services

Background

The board disciplined a professional in 2010 for violations related to responsible charge of special inspections and testing associated with the Harmon Tower in Las Vegas. The board's Advisory Committee recommended the board review statutory language to consider if changes were needed related to duties of an engineering manager in responsible charge of special inspection and materials testing services.

The board appointed a taskforce to review related statutes and regulations and to determine if revisions would provide better protection for the public. The taskforce was requested to issue a whitepaper on its findings. Following a thorough review, a whitepaper—*The Role of the Engineer in Responsible Charge of Inspection and Testing Services*—was authored and included recommendations to update NRS 625.050.

In a recent review of the taskforce's whitepaper, it was discovered that the recommendation to amend NRS 625.050 had not been completed.

Discussion

The legislative committee recommends the board consider the recommendations of the taskforce and determine whether a bill draft request to revise language in NRS 625.050 is still an appropriate course of action.

Proposed Action

The board to consider a bill draft request to update language in NRS 625.050.



**STATE OF NEVADA
BOARD OF PROFESSIONAL ENGINEERS
AND LAND SURVEYORS**

Michael B. Holloway, P.E., P.Eng., Ph.D., Chairman, Las Vegas
Randall M. Long, P.E., Vice Chairman, Reno
Patty Mamola, P.E., Past Chairman, Reno
Ruedy P. Edgington, P.E., Reno
Christine A. Milburn, Public, Boulder City
Alan R. Riekkil, P.L.S., Las Vegas
Kenneth H. Gardner, P.E., Las Vegas
Robert O. LaRiviere, P.L.S., Reno
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Noni Johnson
Executive Director

TASK FORCE WHITEPAPER

ON

**THE ROLE OF THE ENGINEER IN RESPONSIBLE CHARGE OF
INSPECTION AND TESTING SERVICES**

OCTOBER 28, 2010

Introduction

The Nevada State Board of Professional Engineers and Land Surveyors (Board) was established by the State Legislature in 1919 with the ultimate purpose of the Board being to safeguard life, health and property, and to promote the public welfare by providing for the licensure of qualified and competent professional engineers and professional land surveyors. The Board was created by, and now governed by, Section 625 of the Nevada Revised Statutes (NRS 625) and subsequently Section 625 of the Nevada Administrative Code (NAC 625).

The practice of the engineering and land surveying professions has become very dynamic to accommodate changes due to the continued development of science, construction techniques, technology, and changes within the market. The profession's governing regulations are not, however, always as dynamic or fluid as the profession. Therefore, the Board is often required to use its authority and discretion when applying regulations to current day issues. The majority of the Board's use of its discretion occurs during compliance related matters. When the Board has acted on reoccurring compliance matters or ones with similar characteristics, the Board is provided with case history to use in its deliberations. It is not uncommon, however, for the Board to receive a compliance issue that is altogether new to the Board. An example is the Board's compliance related matter of September 2009, where the Board was provided with a complaint relating to inspection of a multi-story building located in Las Vegas. Until September of 2009, the Board had little experience in applying NRS 625 and NAC 625 to inspection related complaints or issues.

In September of 2009, a complaint was filed with the Board alleging that the Engineer in Responsible Charge (EIRC), while providing inspection related services for concrete and structural steel for a multi-story building, was not in responsible charge. The complaint stated that rebar in the link beams was missing or positioned in such a way that the design capacity of the building was seriously compromised. The Board, pursuant to the findings and recommendations made by the Advisory Committee, found that the EIRC had violated NRS/NAC 625 on five counts. Subsequently, the Board executed a stipulated agreement whereby the engineer's license was suspended with the suspension being stayed. Additionally, the engineer was placed on probation for 2 years, required to complete Board approved college level courses in ethics and organizational management, and the engineer was required to pay administrative and investigative costs totaling \$25,900.

In March of 2010, the Board appointed a Task Force in accordance with NAC 625.646 (c). The Board's charge to the Task Force was to address the recommendation from the Advisory Committee, which was to "...revisit and possibly revise the language in NRS to specifically address special inspector and duties of Engineer Manager in responsible charge of these services." Also, the Board requested that the Task Force issue a "whitepaper" of its findings to the Board. For clarification purposes, a **white paper** (or "**whitepaper**") is often used in politics, business and technical fields as an authoritative report or guide to address issues and how to solve them. Whitepapers are typically used to educate readers and help people, in this case the Board, make decisions.

The Board's intent upon creation of the Task Force was to determine if the system was broken and what involvement should or could the Board have in amending NRS 625 or NAC 625 to provide better protection for the public. The Board appointed Task Force consisted of five members; three civil engineers employed in the private sector, one structural engineer employed by a public agency, and one civil engineering member of the Board. The Task Force first met on March 26, 2010 to review its charge, as provided by the Board, establish an approach, set goals and objectives for the whitepaper, and establish an overall schedule. The Task Force also met on May 8, 2010 and interviewed Ron Lynn, CBO of Clark County Department of Development Services and Dan Campbell, P.E. representing the Structural Engineers Association of Southern Nevada regarding the role of the engineer providing professional inspection and testing services. Additionally, the Task Force conducted several conference calls between April and October of 2010.

Initially, the Task Force deliberated over the Board's specific charge to "...revisit and possibly revise the language in NRS to specifically address special inspector and duties of Engineer Manager in responsible charge of these services." The Task Force, however, felt the special inspection issue was too narrow, and it should be broadened to include any inspection requiring a professional engineer of any discipline, as defined by NAC 625.220, to be in responsible charge.

The following whitepaper summarizes the sections of NRS 625 and NAC 625 that are applicable to an EIRC providing inspection and testing services, defines the role of an EIRC when providing testing and inspection services, differentiates the role of an EIRC as it relates to design services, compared to inspection and testing services, defines subordinates, and provides the Task Force's ensuing recommendations.

Statutes and Codes Specific to this Whitepaper

Nevada Revised Statute (NRS) 625 is applicable to professional engineers engaged in providing inspection and testing services. Several of the NRS 625 sections are particularly applicable to the discussions in this whitepaper. They include:

- NRS 625.050: "Practice of Professional Engineering" defined.
- NRS 625.080: "Responsible Charge of Work" defined.
- NRS 625.090: "Subordinate" defined.

The following highlights the portions of these sections that are specific to the discussions in this whitepaper and sets forth the Task Force's interpretations of these sections.

NRS 625.050 states as follows:

1. *"The practice of professional engineering" includes, but is not limited to:*
 - (a) *Any professional service which involves the application of engineering principles and data, such as surveying, consultation, investigation, evaluation, planning and design, or responsible supervision of construction or operation in connection with any public or private utility, structure, building, machine, equipment, process, work or project, wherein the public welfare or the safeguarding of life, health or property is concerned or involved.*
 - (b) *Such other services as are necessary to the planning, progress and completion of any engineering project or to the performance of any engineering service.*

This paragraph is interpreted to mean the inspection and testing of construction falls within the practice of professional engineering. This interpretation can be derived from the language of many parts of the above section.

The statement "responsible supervision of construction" is thought to specifically refer to construction inspection and testing. Our research indicates that this language has been in NRS 625.050 since at least 1937. At that time and up through about the 1960's to 1970s's, inspection and testing services were commonly referred to as responsible supervision of construction or simply supervision of construction. Over the years, this terminology has fallen out of favor, as supervision of construction now refers to activities reserved solely for the construction contractor, which are not part of the practice of professional engineering. Furthermore, engineering services provided for the owner during construction, including inspection

and testing, are not intended to relieve the construction contractor of his responsibility to independently comply with the construction contract.

NRS 625.080 states as follows:

"Responsible charge of work" means the independent control and direction, by the use of initiative, skill and independent judgment of the investigation or design of professional engineering or land-surveying work or the supervision of such work.

This definition is applicable to inspection and testing services. This whitepaper more fully explains the application of this provision in the current practices in the inspection and testing fields in the subsequent discussion.

NRS 625.090 states as follows:

"Subordinate" means any person directly supervised by a professional land surveyor or professional engineer who assists a professional land surveyor or professional engineer in the practice of land surveying or professional engineering.

This definition is applicable to inspection and testing services. Subordinates in inspection and testing services are typically inspectors and testing technicians, but may also include subordinate engineers, managers, and supervisors. Further discussion of the use of subordinates in inspection and testing is contained in subsequent sections of this whitepaper.

NAC 625 is applicable to professional engineers engaged in providing inspection and testing services. Several of the NAC 625 sections are particularly applicable to the discussions in this whitepaper. They include:

- NAC 625.210 through 625.490: Licensure requirements.
- NAC 625.530: Relations with employers and clients.
- NAC 625.610: Stamps, seals and signatures on documents.
- NAC 625.612: Reports, studies, test reports, certifications and calculations submitted to public authority: Stamps and signatures.

The following highlights the portions of these sections that are specific to the discussions in this whitepaper and sets forth the Task Force's interpretations of these sections.

NAC sections 625.210 through 625.490 present the requirements for original and on-going licensure in the various engineering disciplines. These requirements are applicable to engineers providing these services in the inspection and testing fields for all of the engineering disciplines as listed in NAC 625.220.

NAC 625.530, paragraph 5 states the professional engineer shall:

5. *Undertake only those engineering (or land surveying) assignments for which he is qualified and engage or advise his employer or client to engage specialists and*

cooperate with them whenever his employer's or client's interests are served best by such an arrangement.

In the inspection and testing field, an engineer is considered qualified when meeting the licensure requirements of NAC 625 and when working within his discipline or expertise. For example, engineers providing professional engineering services in inspection and testing on civil engineering projects should be licensed in the civil discipline, for mechanical systems in the mechanical discipline, electrical in the electrical discipline, and so on. Current practice is that professional engineers licensed in the civil discipline are qualified to be in responsible charge of the inspection and testing of structural elements, including those where licensure in the structural discipline is required for design.

With respect to the engagement of specialists, these may be subconsultants or subordinates. It is common in the inspection and testing fields for subordinates to possess expertise that the professional engineer does not possess. For example, a technician may be qualified and certified to perform welding inspection or radiographic or ultrasonic testing and be under the responsible charge of an engineer not possessing those qualifications. It remains the engineer's responsibility to supervise this individual and orchestrate expert services, whether by a subconsultant or subordinate, within the overall inspection and testing program to develop an engineering opinion regarding the compliance of work with the design documents or codes.

NAC 625.610 paragraph 6 states:

6. *For the purposes of NRS 625.565, a professional engineer has "responsible charge of the work" and may sign, stamp or seal plans, specifications, plats or reports which were not prepared by him:*
 - (a) *If he personally supervises the work on the plans, specifications, plats or reports to the degree that he is satisfied that the work is completed in a proper and professional manner; or*
 - (b) *Where plans, specifications, plats or reports are not prepared under his personal supervision, if he or persons under his personal supervision review the work as necessary for the professional engineer to determine that the work has been completed in a proper and professional manner.*

The description of responsible charge in this paragraph is representative of the inspection and testing field. Later in this whitepaper the application of responsible charge, as it often occurs in inspection and testing, will be discussed in detail.

NAC 625.612 states as follows:

Each report, study, test result, certification or calculation which is submitted to a public authority must be stamped, signed and dated by the licensee who had responsible charge of that report study, test result, certification or calculation.

This is representative of the current practice in the inspection and testing field.

Engineer In Responsible Charge of Inspection and Testing Services

Engineering design and inspection and testing related to those designs both require engineering knowledge, expertise, and experience, but the roles of the EIRC in design services and the EIRC in inspection and testing services differ in some respects. These differences relate primarily to the relationship between the EIRC and subordinates to which the EIRC delegates work.

For design services, when the EIRC delegates work to a subordinate, the EIRC can directly review the engineering calculations, plans, specifications, and reports prior to submittal to the client. This oversight goes beyond supervising the subordinate and is a direct review of the engineering work product.

For inspection and testing services, the work delegated to a subordinate is often performed independently by the subordinate at a site remote to the EIRC. Although the EIRC can review paperwork prepared by the subordinate documenting the inspection and testing work, the EIRC typically neither physically observes the subordinate performing the inspection and testing work nor does the EIRC often inspect or test the construction work and compare the results with inspections and tests by the subordinate. This makes personnel management and supervision a much larger component of responsible charge than it is for design services.

This "indirect" supervision is complicated by the fact that subordinates may possess skills and expertise specific to the inspection or testing task that the EIRC does not possess, such as the welding inspection or radiographic or ultrasonic testing previously mentioned. Additionally, sub-consultants, with specialized expertise, may also be used by the EIRC to formulate an opinion regarding the compliance or non-compliance of the overall work being inspected or tested. These differences make defining responsible charge for inspection and testing services difficult and the topic of this whitepaper.

As it relates to the EIRC, there are three basic organizational approaches to providing inspection and testing services:

1. The EIRC performs the inspections and tests.
2. The EIRC is the immediate and direct supervisor of a subordinate who performs the inspections and tests.
3. The EIRC manages and supervises an organizational chain of command that may include other subordinate managers and supervisors who then supervise the subordinates who perform the inspections and tests.

Although these organizational approaches vary in complexity, they share commonalities that are necessary for the engineer to be in responsible charge. That commonality is that the individual, be he the EIRC or a subordinate performing an inspection or test, should be competent for the assigned task and have the physical

and human resources necessary to properly execute his assignment. To be in responsible charge, the EIRC must have the ability to control the inspection and testing effort so the EIRC has reasonable confidence the inspection and testing work is being performed by competent subordinates with the necessary resources.

If the EIRC meets the NRS 625 and NAC 625 qualification criteria, it is straightforward that organizational approaches 1 and 2 achieve the responsible charge requirements. In addition to the NRS 625 and NAC 625 requirements, the EIRC may also have to meet the requirements of other governing authorities, such as building departments, transportation departments, federal agencies, airport authorities, and even project specifications. It is typically considered to be the responsibility of the EIRC to assure these requirements are achieved or to execute corrective actions if they are not.

Determining if responsible charge has been achieved under organizational approach 3 is more difficult. The testing and inspection industry has a number of guide standards that have been established that provide guidance for the organizational components that are necessary to have an agency, public or private, where the engineers in responsible charge can develop a reasonable degree of confidence that services under their responsible charge are being competently provided.

Many jurisdictions and project specifications require compliance and even third party accreditation in these standards. Many agencies providing inspection and testing services have adopted these standards as their management practices with the objective to comply with these standards paragraph by paragraph.

Regardless of whether an agency is accredited or how formally it has executed these standards, these standards represent management and supervisory practices that should be components of an organizational approach to provide the engineer with responsible charge. An engineer actively engaged in providing inspection and testing services within the general boundaries of the standards listed below will be in responsible charge of those services.

For reference, some of these standards include:

- American Society of Testing and Materials, ASTM, E 329, *Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction*
- International Accreditation Service of the International Code Council AC291, *Accreditation Criteria for International Building Code Special Inspection Agencies*
- American Association of State Highway and Transportation Officials R 18, *Establishing and Implementing a Quality Management System for Construction Materials Testing Laboratories*
- International Standards Organization, ISO, 17020, *General Criteria for the Operation of Various Types of Bodies Performing Inspection*

- ISO 17025, *General Requirements for the Competence of Testing and Calibration Laboratories*
- ASTM C 1077, *Practice for Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation*
- ASTM D 3666, *Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials*
- ASTM D 3740, *Practice for Minimum Requirements for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction*
- ASTM C 1093, *Practice of Accreditation of Testing Agencies for Masonry*

Although each of these standards may differ in some of their details and have been developed by different agencies, the organizational and operational components are nearly identical, and almost all specifically require an engineer to be in responsible charge and incorporate registered professionals into their standards.

A summary of the requirements of these standards is as follows:

- Defined Organizational Structure:
 - Organization Chart defining positions and responsibilities and showing the supervisory and authority relationships between the various positions.
 - Typically includes:
 - Operational and technical management.
 - Quality manager.
 - Engineer in responsible charge.
 - Project managers.
 - Field and laboratory supervisors.
 - Field and laboratory inspectors and technicians.
 - Administrative positions.
 - Position/Job Descriptions for each position in the organizational chart:
 - Minimum Qualifications:
 - Education.
 - Experience.
 - Registration and Certification.
 - Supervision exercised and received.
 - Description of the duties, responsibilities, and authority.
- Personnel Competency Verification:
 - Methods used to verify competency of individuals to perform assigned tasks both initially and on-going.
 - Positions with authority to verify competency of other inspectors or technicians.
 - Record keeping system to document competency verification.
- Personnel Training:
 - Methods of training.
 - Record keeping documenting training.

- Personnel Supervision:
 - Assignment of Personnel:
 - Systems to assure individuals assigned specific tasks meet the Job Description Minimum Qualifications, have been adequately trained, and have had their competency verified.
 - Systems to assure personnel meet the minimum qualification requirements of governing authorities.
 - Systems that assure personnel meet the minimum qualifications established by project specifications.
 - EIRC authority with respect to assignment of personnel should be clear and provide the engineer with responsible charge.
 - Systems of supervision where subordinate managers, supervisors, and engineers provide operational and technical supervision of third tier subordinates, including inspectors and technicians:
 - EIRC authority with respect to these subordinate supervisors should be clear and provide the engineer with responsible charge.
 - EIRC authority should include control of the assignment of subordinate managers and supervisors and knowledge that those subordinate managers and supervisors meet the Assignment of Personnel requirements for their positions.
 - Systems typically include lines of communication and reporting through the chain of supervisory and management control.
 - Decision trees: It should be clear the authority of each position to make various types of decisions and specifically which decisions must have EIRC involvement and approval or may only be made by the EIRC and decisions requiring engineering registration.
 - Systems should include active involvement of the EIRC, such as periodic site visits, report review, progress meetings, etc.
- Physical Resources:
 - Equipment: Use of task proper, currently calibrated equipment.
 - Reference materials: Current plans, specifications, and standards.
 - Forms and records: Standard forms and report records should meet the EIRC's requirements for the project.
 - Record keeping system: Systems should be in place meeting the EIRC's requirements for field and laboratory reports and include a system of routing and review by supervisors, managers, and the EIRC.
- Diagnostic and Preventative Procedures and Corrective Actions:
 - Systems to identify performance issues, such as third party assessments, reference sample testing, internal audits, etc.
 - Systems to deal with technical complaints from any source.
 - Methods of analyzing and correcting deficiencies and complaints.
- Subcontracting:
 - Methods of subcontracting to subconsultants that assure subconsultants meet standards acceptable to the EIRC.

- Assuring that subconsultant work is clearly identified as performed by the subconsultant, including sealing for the subconsultant's EIRC when appropriate.

Again, some organizations may have very detailed programs that include Quality System Manuals and third party verification and accreditation, where other organizations may achieve the above objectives less formally. The key criteria either way, is that management and supervisory systems are in place giving the EIRC a reasonable degree of confidence that the individuals performing the tasks to which they are assigned are competent. The EIRC should have knowledge the systems are in place and operating and should be knowledgeable and engaged in those systems. The EIRC should have the authority to remove subordinates, including subordinate managers, supervisors, inspectors, and technicians who the EIRC believes are not competent for the specific project or task assignment.

Recommendations

NRS 625 and NAC 625, presently in place and as written, sufficiently define the role of the EIRC for inspection and testing services. It is important to recognize the differences in the role of the EIRC that may exist between design services and inspection and testing services.

It would be beneficial to revise NRS 625.050 paragraph 1 (a) to make it consistent with current terminology. The following is a suggestion for such a revision:

Delete the words "responsible supervision of construction or operation" and replace them with: "observation, inspection, and testing of construction for the purpose of providing the client with a greater degree of confidence that construction complies with the project documents."

Closing

The Subcommittee appreciates to opportunity to provide the Board with our industry perspective of the role of the engineer in responsible charge of inspection and testing services. Please do not hesitate to contact any of the Subcommittee members with any questions.

Respectfully submitted,



Samuel D. Palmer, P.E., P.Eng, Terracon Consultants, Committee Chair
Mark W. Rodgers, P.E., S.E., City of North Las Vegas
Christopher L. White, P.E., Western Technologies, Inc.
William W. Taylor, P.E., GeoTek, Inc.
Randall M. Long, P.E., NBPELS Board Member
Thomas A. Foote, P.L.S., NBPELS Staff Liaison

15.c. Professional Association Liaison Committee

15.d. Public Outreach Committee

15.e. PLS Standards of Practice Subcommittee

15.f. Committee for
Planning and Hosting of
2022 NCEES Western
Zone Meeting

16. Board Committee Assignments for July 1, 2021 thru June 30, 2022



COMMITTEE ASSIGNMENTS 2021-2022

ADMINISTRATIVE PROCEDURES OVERSIGHT COMMITTEE

Thomas Matter, Public Member, Chair
Brent Wright, PE/SE
Angelo Spata, PE
Patty Mamola, Executive Director (Staff Liaison)
Murray Blaney, Operations/Compliance (Staff Liaison)

LEGISLATIVE COMMITTEE

Angelo Spata, PE, Chair
Michael Kidd, PLS
Matt Gingerich, PLS
Robert Fyda, PE
Chris MacKenzie, Board Counsel (Staff Liaison)
Patty Mamola, Executive Director (Staff Liaison)
Murray Blaney, Operations/Compliance (Staff Liaison)

PROFESSIONAL ASSOCIATION LIAISON COMMITTEE

Brent Wright, PE/SE, Chair
Matt Gingrich, PLS
Lynette Russell, PE
Karen Purcell, PE
Patty Mamola, Executive Director (Staff Liaison)

PUBLIC OUTREACH COMMITTEE

Robert Fyda, PE, Chair
Karen Purcell, PE
Lynette Russell, PE
Thomas Matter, Public Member
Patty Mamola, Executive Director (Staff Liaison)
Murray Blaney, Operations/Compliance (Staff Liaison)

17. Legislative Session
Report by Board's
Government Liaison
Susan Fisher



Nevada's 81st Session Legislative Report (2021)

Provided by
McDonald Carano's Government
Affairs & Advocacy Group

The 81st Session of the Nevada Legislature commenced on February 1, 2021 and ran the full 120 days allowed by the Nevada Constitution. Every legislative session since the advent of term limits has brought challenges to Nevada businesses and major industries, alike – but the 81st Session will stand out as perhaps one of the most difficult to maneuver. The COVID-19 pandemic kept the legislative building closed to the public for the first 75 days of the session. Despite early requests from the public to open the building, including a lawsuit filed by a group of lobbyists which was ultimately dismissed, it was not until April 15th that the building became accessible to lobbyists and members of the public. While the building was “open,” members of the public were required to obtain daily passes for entry and submit proof of vaccination or take a rapid COVID-19 test prior to entering. Strict social distancing and capacity restrictions continued to limit in-person access to committee hearings and floor sessions through the end, causing the flow of information and negotiations to slow and creating widespread uncertainty among both lawmakers and lobbyists.

The virtual nature of the first months of session, along with staff illnesses, impeded bill drafting by the Legislative Counsel Bureau. Several deadlines were pushed back by leadership in an effort to introduce, hear and move legislation before time expired. In total, 1,022 pieces of legislation were introduced between both houses, and only 515 bills made it to the Governor’s desk for final approval. Just four measures were vetoed by the Governor, including a controversial tenant rights bill that was sponsored by a Democratic Senator.

Despite the many twists and turns of the 81st Legislative Session, the McDonald Carano Government Affairs & Advocacy Group emerged with several wins and strong footing going into the 2021-2022 interim.

Democratic Priorities

With a Democrat majority at the helm in both houses of the Legislature and in the Executive Branch, democratic policy proposals took priority this session, but not all crossed the finish line. The challenges that characterized 2020 and the start of 2021 highlighted the need for investment in education and public health, but certain policy initiatives remained at the forefront of legislative discussion - among the most publicized of which were social issues, election law reform, mining taxes and employment issues.

Notably, two high-profile progressive policy proposals failed without a vote in either house after Governor Sisolak signaled he would not sign the legislation; one bill proposed to ban the death penalty and the other authorized medical aid-in-dying. The two bills created a split among progressives and more moderate democrats, who did not view the bills as a priority. The dismissal of the two proposals can also be attributed to ethical dilemmas and a hesitancy to pass contentious legislation during a predominately virtual session when the public had restricted access to lawmakers.

Employment Law Themes

Nevada has long been considered a top prospect for businesses to locate due to our business-friendly environment, however, over this past several session and two recent special sessions, we’ve seen a shift toward a more employee-centric focus. In the wake of the COVID-19 pandemic -- labor unions, the Nevada Justice Association (commonly referred to as the Trial Lawyers) and other progressive groups, took center stage, pushing for legislation that will bolster employee protections and lead Nevada away from its pro-business reputation. The influence of the pandemic and unions with membership on The Strip led to passage of “Right to Return” legislation, paid leave, liability protections, wrongful termination, and unlawful employment practices, which were signed by Governor Sisolak.

Landlord/Tenant Themes

Not surprisingly, the trend of tenant-friendly bills continued this session with legal aid offices north and south, and progressive advocacy groups, leading the charge. Working closely with the Realtors Association we were able to amend some, but not all, of the more onerous bills. We were, however, successful in convincing the Governor to veto [SB 254](#), Senator Dina Neal's "Ban the Box" bill.

Taxes

With sufficient revenues to meet the recommended budget, there was no significant effort at a broad-based tax proposal. The mining industry, facing the threat of multiple ballot questions in 2022, agreed to pay approximately \$170,000,000 biennially in new taxes in exchange for the removal of the ballot questions. As part of a grand bargain, those funds were directed to K-12 education, charter schools and Opportunity Scholarships in exchange for the Clark County Education Association agreeing to withdraw ballot questions to raise the sales and gaming tax. Other broad tax proposals, such as enacting a tax on digital goods, were considered but ultimately failed to advance.

What's Next?

While lawmakers and lobbyists relish the end of the 81st Legislative Session, many are already looking ahead to Special Session(s) anticipated to occur sometime later this year. The Legislature has two primary and formidable tasks to undertake - the allocation and distribution of incoming American Rescue Plan COVID-19 relief funds and the redrawing of the state's electoral district boundaries.

The legislature's Interim Finance Committee (IFC) met last week for its first meeting since the end of the 81st Legislative Session. Along with funding various work programs, the committee was tasked with accepting the state's allocation of the next round of federal COVID relief funds through the American Rescue Plan. Nevada received a total of \$2,738,837,229 in relief, which will be dispersed periodically as the state and IFC determines priorities. \$40-million was approved for rental assistance with the bulk of the funds being directed to Clark County. \$5.6-million was sent to the Department of Employment, Training and Rehabilitation (DETR) and \$12-million was tapped for homeowner's assistance. And, \$5.1-million was earmarked for a statewide vaccination incentive program announced by Governor Sisolak last week. The Vax Nevada Days program is a partnership between the Nevada Department of Health and Human Services and Immunize Nevada to give away \$5-million in cash prizes to nearly 2,000 Nevada residents who have initiated the vaccination process. Every Nevadan ages 12+ who has had at least one dose of a COVID-19 vaccine will be automatically entered in the drawings. Drawings will be every Thursday, July 8 through August 26, when the grand prize drawing for \$1-million will be held.

Legislature Turnover

Several Senate and Assembly members will not be returning to the legislature next session due to term limits. Senators can serve three four-year terms for a total of 12 years, and Assembly members can serve six two-year terms for a total of 12 years. The following legislators will be termed out on Election Day 2022:

Senate

- Senator James Settelmeyer (R) – Minority Leader
- Senator Joe Hardy (R) – Assistant Minority Leader

- Senator Ben Kieckhefer (R)
- Senator Mo Denis (D) – President Pro-Tempore

Assembly

- Assemblywoman Teresa Benitez-Thompson (D) – Majority Leader
- Assemblywoman Maggie Carlton (D)
- Assemblyman John Ellison (R)

In addition, some legislators have already indicated that they will not be running for re-election. Assemblyman Tom Roberts (R) has announced that he will run for Clark County Sheriff, and Assembly Minority Leader Robin Titus (R) and Assemblyman Jim Wheeler (R) have indicated an interest in running for Senator James Settelmeyer's seat. Both of their Assembly districts are nested in Settelmeyer's Senate district; however, redistricting may change that district.

Other legislators are rumored to be considering appointments or other elected offices and may not return to Carson City, including House Speaker Jason Frierson and Senate Majority Leader Nicole Cannizzaro. Senator Julia Ratti (D) and Assemblywoman Jill Tolles (R), both from northern Nevada, are also rumored to not be returning.

The Road to the 2022 Election

The 2022 election cycle is poised to be eventful, as constitutional offices are up for grabs, including the Governor's seat. Republicans have their sights set on replacing first term Governor Steve Sisolak (D), and the field is already crowded. John Lee (R), the former Democrat turned Republican and current Mayor of North Las Vegas, has announced his intention to run, as has Clark County Sheriff Joe Lombardo (R) and Reno-based boxer-turned personal injury lawyer Joey Gilbert. While they are the only candidates to announce to date, several other prominent Republicans in the state are said to be mulling a run for the seat, including former Nevada U.S. Senator Dean Heller (R) and Congressman Mark Amodei (R). In the race for Lieutenant Governor, state Senator Heidi Seevers Gansert may challenge first term incumbent Kate Marshall (D). Seevers Gansert will be mid-term during the 2022 election, so if she loses the race for Lieutenant Governor, she will return to her state Senate seat.

Attorney General Aaron Ford (D) will be challenged by newcomer, Sigal Chattah (R), with potentially more challengers to come, and Secretary of State Barbara Cegavske (R) will face former Harry Reid staffer Cisco Aguilar (D).

Finally, U.S. Senator Catherine Cortez Masto (D) is up for re-election in 2022. While no candidates have officially declared to run against her, it is rumored that former Nevada Attorney General Adam Laxalt (R) will seek the seat. Laxalt previously ran unsuccessfully for Governor against Steve Sisolak in 2018. The filing deadline is in March 2022, so stay tuned to our McDonald Carano Updates for more information.

NPCLS Bill Highlights

AB 173 - Revises provisions relating to the exemption from licensure as a professional engineer for employees of certain public utility companies, and revises provisions relating to required examinations for licensure as a professional land surveyor. (PASSED)

Sponsor: Assemblywoman Sandra Jauregui (D)

AB 173 was introduced by Assemblywoman Jauregui at the request of the Nevada State Board of Professional Engineers and Land Surveyors (NPELS). The National Transportation Safety Board (NTSB) had urged Governor Sisolak to eliminate the statutorily professional engineering license exemption for gas pipeline utility operators. This was a call to action following the NTSB investigation and report on a deadly gas line explosion in Massachusetts. The bill also provides flexibility in the examination process for land surveyors by decoupling land surveying experience requirements from the examination.

Bottom Line: This two-fold bill improves public safety as well as streamlines statutes and regulations for its licensees.

Assembly Passage: 40-0, 2 excused

Senate Passage: 21-0

Approved by Governor: May 26, 2021

Effective: Upon passage and approval for adoption of regulations and July 1, 2021 for all other purposes.

SB 335 - Revises provisions relating to professional and occupational licensing (FAILED)

Sponsor: Senator Joe Hardy (R)

SB 335 would have created the Division of Occupational Licensing within the Department of Business and Industry and created the position of the administrator. The bill abolished the Nevada Board of Homeopathic Medical Examiners, the Board of Dental Examiners of Nevada, the State Board of Oriental Medicine, Board of Athletic Trainers, the Board of Massage Therapy, and the State Barbers' Health and Sanitation Board. The new Division would be tasked to administer and enforce the provisions concerning the practice of athletic training, barbering, dentistry, homeopathic medicine, massage therapy, and oriental medicine, and authorized the administrator to appoint advisory boards to provide advice relating to the regulation of the professions and occupations overseen by the Division. The bill also authorized the Division to adopt certain regulations, conduct a review of any board that regulates a profession or occupation pursuant to Title 54 ("Professions, Occupations and Business") of Nevada Revised Statutes (NRS), and to submit certain recommendations to the legislator including, but not limited to, abolishment of any board.

The most hotly debated section of the bill proposed to create the occupational licensing account within the State General Fund to be administered by the Division. The bill required 5 percent of fees received by 16 boards that regulate various healthcare providers be deposited in the Occupational Licensing Account. Finally, the bill expands the membership of the Board of Medical Examiners and the State Board of Osteopathic Medicine to add to each board a member who is a licensed physician assistant.

Bottom Line: This effort to create an Administrator of Boards was not a new suggestion and will likely come back in some form in future sessions. Rather than streamlining government, it would have taken jobs from non-state employees and created a behemoth government-run regulatory agency.

SB 155 - Revises provisions relating to the Division of Water Resources of the State Department of Conservation and Natural Resources (FAILED)

Sponsor: Senate Committee on Natural Resources

This bill aimed to change the title of the executive head of the Division of Water Resources in the State Department of Conservation and Natural Resources and revised the qualifications for the executive head. Additionally the bill revised the qualifications for the executive head of the division to require that

an Administrator: 1) be experienced and competent in water resources management and conservation; 2) have the demonstrated ability to administer a major public agency; and 3_ with limited exception, be a licensed professional engineer with skill and experience in water-related engineering. The bill further provided that the person appointed as Administrator would not be required to be such a licensed engineer if: 1) a deputy administrator of the Division is a licensed professional engineer with skill and experience in water-related engineering; and 2) the person has the theoretical knowledge, practical experience, and technical skills necessary for the position.

Bottom Line: NPELS opposed the bill on the grounds that managing water resources requires knowledge of relevant physical sciences and technology in which licensed professional engineers are uniquely qualified.

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18. Status of Board and Staff Assignments

Action List

BOARD MEETING ITEMS

September 12, 2019 Board Meeting

12. Administrative report by Executive Director

b. Action items related to the 2017-2021 Strategic Plan

Mr DeSart asked that dates be posted on our website of when the Las Vegas board office is staffed. **Staff**

January 16, 2020 Board Meeting

18. Discussion and possible action on Nevada specific Professional Land Surveyor exam, Nevada Revised Statutes 625.280 and Nevada Administrative Code 625.310 (4).

Target date for release of reference material and practice exam June 1, 2020. Date to be determined – based on number of exams currently scheduled for the first quarter of 2021. **Staff**

March 30, 2021 Special Board Meeting

8. Consider updating regulations to include language about minimum standard for submittals to a public entity.

Item was referred back to PAL Committee to fully understand issues. Additional agencies have indicated they want to participate in the discussion, and we need to hear the perspective before considering any action. Will move the discussion to a task force to be created as directed by the board.

May 20, 2021 Board Meeting

11. Discussion and possible action on sub-lease of Las Vegas office space.

Negotiate terms with LGA and develop sublease for signature with Mr MacKenzie and adjust budget to account for revenue offset. **Ms Mamola DONE**

14. Discussion and possible action on administrative report by Executive Director.

c. Items related to National Council of Examiners for Engineering & Surveying (NCEES)

Agenda item added to July board meeting to discuss issues to be voted on at the NCEES annual meeting. **Ms Mamola DONE**

15. Discussion and possible action on board committee reports.

a. Administrative Procedures Oversight Committee, Chair Michael Kidd

Create schedule of interim board meetings to consider initial licensure application. **Ms Mamola** **DONE**

b. Legislative Committee report, Chair Angelo Spata

Compile R 140-20RP1 packet for submittal to SOS and LCB. **Staff + Mr MacKenzie** **DONE**

c. Professional Association Liaison Committee, Chair Matt Gingerich

Form taskforce to consider the issues related to quality of engineering and land surveying documents submitted to public agencies. Notify interested parties. **Ms Mamola** **DONE**

17. Discussion and possible action on future licensing of emerging technology engineering disciplines.

Add to agenda of next legislative committee meeting. **Ms Mamola** **DONE**

Reminders to all board members on the date and time of legislative committee meetings. **Ms Mamola** **DONE**

22. Discussion and possible action on status of Board and staff assignments.

Hard copy print run of the statute and regulation handbook include NRS/NAC 327 and 329. **Staff**

Ms Russell to be added to the western zone interim meeting planning committee. **Ms Mamola** **DONE**

23. Discussion and possible action on meeting dates.

July board meeting move to Wednesday July 14, 2021, and November board meeting to Thursday November 18, 2021. **Ms Mamola** **DONE**

COMMITTEE ITEMS

PROFESSIONAL ASSOCIATION LIAISON COMMITTEE

September 28, 2020 Meeting

5. Facilitated discussion between public agencies and professionals regarding quality of engineering and land surveying documents submitted to public agencies (follow-up to March 4, 2020, May 14, 2020, and July 15, 2020 PAL Committee meeting discussions).

Each participating entity and association were asked to review and discuss internally the ideas suggested and to report back at a future meeting with more refined ideas.

Entities

Fees – incentives + disincentives

Workshops – hosted by public entities

Virtual efficiencies – doc/screen share technology + virtual meetings

Review staff capacity in relation to industry demand – outsourcing to bridge the gap

Report those who repeated submit work of poor initial quality

Industry

Education – by industry groups + PDH incentive options

Board

Communication – key messages to wider licensee group, highlight Blue Book section on submittals

(move to Public Outreach)

Education – topics on engineering submittal quality, dealing with pressure from developers

(move to Public Outreach)

Discipline – explore options short of disciplinary action, program of training for “remedial” action, rehabilitate repeat offenders

(move to LegComm)

December 8, 2020 Meeting

5. Facilitated discussion between public agencies and professionals regarding quality of engineering and land surveying documents submitted to public agencies (follow-up to March 4, 2020, May 14, 2020, July 15, 2020, and September 28, 2020, PAL Committee meeting discussions).

Entities and associations asked for more time to consider ideas/options highlighted at the September 28, 2020 committee meeting

Topic to remain a standing agenda item for future committee meetings

February 9, 2021 Meeting

5. Facilitated discussion between public agencies and professionals regarding quality of engineering and land surveying documents submitted to public agencies (follow-up to March 4, 2020, May 14, 2020, July 15, 2020, September 28, 2020, and December 8, 2020, PAL Committee meeting discussions).

Entities and associations asked for more time to consider ideas/options highlighted at the September 28, 2020, committee meeting

7. Discuss board’s updated Strategic Plan—goals and strategies related to PAL Committee and discuss possible tactics/action items.

Goal 2: Licensure – Strategy (5): *Provide options to meet land surveyor educational requirements*

Consider forming sub-committee to contact with UNLV Dean of Engineering about creating a minor in land surveying

May 19, 2021 Meeting

5. Recap of September 28, 2020, PAL Committee meeting that focused on the quality of engineering and land surveying documents submitted to public agencies, please refer to September 28, 2020 approved PAL Committee meeting minutes

Consideration of working group (SEs + CEs) to consider structural limitations on CE license

Training/continuing education by professional association to address issues highlighted with lateral load design deficiencies. Share any training information (dates/times/location) with all associations.

Individual agencies to compile list of most common quality issues/mistakes made in plan submittals. Share information with all groups.

Issue of why “dry utilities” are not required on plans was raised. Consensus was they should, but hurdles in doing that were highlighted. Not an action item – just to be noted.

Additional items:

Ongoing review and update Electronic Submittal/Digital Signature guide based on feedback/issues from receiving entities

ADMINISTRATIVE PROCEDURES OVERSIGHT COMMITTEE

March 30, 2021 Meeting

5. Discuss third-party verification of digital signatures for licensees of the board and possible role of the board in the verification process including cost participation.

Continue to monitor other states regulations relating to third-party verification requirements.

10. Consider strategies and tactics associated with board strategic plan goals.

Staff to propose tactics for committee consideration.

Additional Items:

Review board *Rules of Practice* (following regulation update)

PUBLIC OUTREACH COMMITTEE

January 6, 2021 Meeting

5. Consider and discuss tactics and action items for Public Outreach Committee related to updated Strategic Plan

Draft *Tactics* from committee discussion

Develop messaging relating to quality of plan submittals (and from PAL)

8. Consider and discuss next six to twelve months public outreach/social media efforts.

Local school districts be informed if/when the Speakers Bureau on the board website is in place to as a resource for presenters on STEM topics in local schools.

March 10, 2021 Meeting

5. Discuss public communications analytics that were presented to the board at its January 14, 2021 regular board meeting.

Continue to monitor social metrics for comparison against previous campaign.

7. Consider and discuss next fiscal year public communications/social media efforts and budget needs.

In recap of campaign with Vogel seek advice on tactics – based on what has been learned from the campaign – to support the revised strategies of the board

LEGISLATIVE COMMITTEE

Legislative Committee Meeting – April 16, 2020

4. Discuss potential changes to Nevada Administrative Code chapter 625

Mr MacKenzie suggested that the relevance of previous discipline be included as a consideration in the determination of appropriate discipline in a current matter be added as a specific item for the committee to address. He said there's references in policy – the disciplinary matrix – but not currently in regulation. Mr MacKenzie said he would draft text for consideration by the committee. **Chris MacKenzie**

5. Discuss potential changes to Nevada Administrative Code chapter 329 related to perpetuation of corners

NAC 329 and NRS 327 regulations to be included in the next printed version of chapters 625, 329, and 327.

Staff

Legislative Committee Meeting – May 5, 2020

4. Consider the following changes to Nevada Revised Statute 625, 327

NRS 625.175—discipline specific vs PE state (discipline specific language added in 1975, AB 604—Committee on Judiciary)--on hold until we can discuss with our NCEES counterparts at a future NCEES meeting. (see revision per LegComm meeting 6.17.2021 below)

NRS 327—Nevada Coordinate System; Geographic Names--waiting for NALS to provide proposed changes to NRS 327 and will work to include in board's bill draft request.

Legislative Committee Meeting – November 4, 2020

5. Discuss proposed NAC 625.310(4), requiring engineering applicants to pass a short exam on chapter 625 of NRS and NAC.

Short exam on chapter 625 of NRS and NAC to be updated by staff (periodically) and submitted to LegComm for approval.

Hard copy format of Chapters 625,329, and 327 to be produced and made available on request. Request section to be added to website.

9. Discuss 2-hours of ethics and 1-hour Nevada laws and rules training required to meet biennial continuing education requirements per NAC 625.430.

Adjust license renewal materials to include attestation section for compliance with revised continuing education requirements

Legislative Committee Meeting – June 17, 2021

5. Consider future licensing of engineers as it relates to emerging technologies and blended engineering degrees including considering retention and/or modification of specific disciplines licensed by the board.

Develop position statement of the issues to be addressed. This item to encompass discipline specific vs PE state discussion action item from the LegComm meeting 5.20.2020 (above). Ms Purcell and Ms Mamola

Form working group to discuss and identify possible solutions to the issues identified by position statement. Ms Purcell will lead the working group.

6. Discuss Nevada legislature Senate Bill 402 as it relates to elimination of state specific exam for professional engineering endorsement licensure for military and military spouses. Consider elimination for all applicants seeking professional engineering endorsement licensure. Also, consider re-purposing current 24-question exam required for endorsement licensure and any associated regulatory changes.

Committee recommendation to reduce application fees to \$0 for veterans and veteran spouses. Add item to July board meeting agenda for full board consideration. **DONE**

Committee recommendation to eliminate short take home exam on Nevada statutes and regulations for endorsement licensure applicants and replace with attestation confirming familiarity with the laws and rules of the state. Add item to July board meeting agenda for full board consideration. **DONE**

7. Consider alternative paths to licensure for teaching professors and PhD applicants.

The committee recommended no action be taken on this item. Item to be removed from action item list.

DONE (will be removed from action list)

Committee discussed public comment from 5.20.2021 board meeting requesting consideration of waving license renewal fees for university faculty. The committee recommended no action be taken on this item.

DONE

8. Consider alternative option to state specific exam for Western state professional land surveyor endorsement applicants.

Committee recommended no action at this time, to be reconsidered following the release of NCEES PLSS module. Add item to July board meeting agenda for full board consideration. **DONE**

9. Consider a future bill draft request to update Nevada Revised Statute 338.173 related to certificates of eligibility.

Add as an agenda item to the next PAL committee meeting (July 13). **DONE**

Add as agenda item to July board meeting (July 14) to initiate discussion. **DONE**

10. Consider a future bill draft request to update Nevada Revised Statute 625.050 related to engineer in responsible charge of observation, inspection, and testing of construction.

Add as agenda item to July board meeting (July 14) to initiate discussion. Committee's recommendation was to pursue BDR to amend language as proposed by taskforce. **DONE**

Additional items:

Present *Strategies* identified from Strategic Plan refresh to the committee to develop *Tactics*

Update on R141-20P

From POC - Path to licensure for teaching professors and PhDs – consideration of waiver for FE/PE **DONE**

From POC - Consider regulation about minimum standard for submittals to a public entity

From PAL - Explore options short of disciplinary action, program of training for “remedial” action, rehabilitate repeat offenders relating to poor or incomplete submittals to a public entity

State specific PLS exam review and consideration of two options (one for Western States comity applicants and a second for initial applicants and comity from outside the west) after review of PLSS content of other Western State specific exams **DONE**

Further review of NAC 625.610

– section 10 for “verifiable” requirements associated with digital signature

- section 13 for further clarity in revision of original plans prepared by another licensee

Further review of NAC 625.611

- consideration of verbiage relating to electronic submittals (format details)
- relating to completeness or minimum standard for a plan set submittal (details beyond admin requirements)

Consideration of additional affidavit requirement for license renewal—good character and dishonesty

- relating to NRS 625.183.2 (a) / NRS 625.270.2 (a) / NRS 625.410.4

SPECIAL SUB-COMMITTEE (PLS Standards of Practice)

February 25, 2021 Meeting

3. Discuss regulations related to standards of practice for land surveying, refer to Addendum A for list of regulations.

Review statutes relating to PLS and identify regulatory gaps.

Mr Cormier to forward list of issues commonly seen PLS submittals in southern Nevada. **DONE**

Mr Gingerich to connect with Mr Handrock (Washoe County Surveyor) for list common issues seen in northern Nevada submittals.

Staff to format issue list and forward to other Nevada reviewing entities for input and comment.

Next meeting to be set after statute gap analysis and feedback received on common issues.

SPECIAL SUB-COMMITTEE (NCEES Western Zone Interim Meeting Planning)

April 19, 2021 Meeting

3. Discuss hosting of NCEES Western Zone Interim meeting in Nevada, May 19-21, 2022.

Possible lunch/dinner speakers

- Ms Mamola to contact Edgewood Tahoe for recommendations
- Mr Matter to forward name of Lake Tahoe/Nevada history speaker
- Ms Mamola to contact Andy Kirk (NV Cold War history) and Paul Pace (Von Schmidt Line)

STRATEGIC PLAN ITEMS

Executive Summary REVISED – Approved November 12, 2020

Present *Strategies* identified from Strategic Plan refresh to respective committee to develop *Tactics*.

Format *Tactics* from committee discussions and draft supporting *Action Items* for implementation.

DRAFT *Annual Report* for APOC/Public Outreach committee review.

BUSINESS PLAN ITEMS

Electronic submittals + digital signing of documents.

System database comprehensive upgrade.

Website effectiveness.

19. Future Meeting Dates

BOARD MEETING DATES

Board meetings are typically scheduled for the second Thursday of every other month.

September 16, 2021 — Las Vegas

November 18, 2021 — Reno

January 20, 2022 — Las Vegas

March 10, 2022 — Reno

May 12, 2022 — Las Vegas

July 14, 2022 — Reno

September 15, 2022 — Las Vegas

Future NCEES Meetings

NCEES Western Zone Interim Meetings

May 19-21, 2022 — Stateline, Nevada

May 2023 — Houston, Texas (all four zones)

May 16-18, 2024 — Bozeman, Montana

NCEES Annual Meetings

August 18-21, 2021 — New Orleans, Louisiana

August 23-26, 2022 — Carlsbad, California

August 15-18, 2023 — Boston, Massachusetts

August 20-23, 2024 — Chicago, Illinois

20. Topics for Future Meetings

21. Public Comment