Brian Sandoval
Governor

Julia Teska
Director

Lee-Ann Easton
Administrator

STATE OF NEVADA
DEPARTMENT OF ADMINISTRATION
Division of Human Resource Management

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MEMORANDUM
HR#36-14

June 6, 2014

TO: Personnel Commission Members
Department Directors
Division Administrators
Agency Personnel Liaisons
Agency Personnel Representatives
Employee Representatives

FROM: Lee-Ann Easton, Administrator *Lee-Ann Easton*
Division of Human Resource Management

SUBJECT: PROPOSED CLASSIFICATION CHANGES

Attached are proposed classification changes for your information pursuant to NRS 284.160, subsections 3 through 5. If you have any comments or objections regarding these changes, please send your written notification to Peter Long at plong@admin.nv.gov no later than July 9, 2014.

If no written objections are received in this office by July 9, 2014, action will be taken to effect the changes and a report will be made to the Personnel Commission.

Attachments

LE:lf/kh/tp

NOTICE OF PROPOSED CLASSIFICATION CHANGES

Number: Posting #23-14
Posting Expires: July 9, 2014

Per NRS 284.160, the Administrator may make a change in classification without the prior approval of the Commission. The following change(s) are proposed:

CURRENT				PROPOSED			
CODE	**TITLE**	**GRADE**	**EEO-4**	**CODE**	**TITLE**	**GRADE**	**EE0-4**
	NEW			***6.105***	***Geodesist IV***	***39***	***B***
6.108	Geodesist III			6.108	Geodesist III	36	B
6.109	Geodesist II			6.109	Geodesist II	33	B
6.115	Geodesist I			6.115	Geodesist I	30	B

Basis for Recommendation

As a result of an individual study, Human Resource Management recommends re-establishing the supervisor level for the Geodesist series.

The Geodesist series was formerly a four-level series which described a trainee (grade 30), advanced trainee level (grade 33), journey level (grade 36) and supervisor (grade 39). In 2003, it was determined that the supervisory level was no longer used and so it was abolished. In the Nevada Department of Transportation, Geodesy, a position currently exists which performs the full range of duties outlined in the series concept and, in addition, supervises the geodetic survey section and develops standards for the collection, analysis and dissemination of geodetic data. The incumbent also creates and manages survey data archive workflows; creates job estimates and maintains estimate database; creates and maintains the SharePoint intranet; generates error analysis for NDOT pipe inventory; and adjusts a statewide network of land survey control monuments.

Because there has been no significant change in the duties of the supervisor level since its abolishment, Human Resource Management recommends establishing a Geodesist IV at the same grade, grade 39, which existed prior to 2003, to serve as supervisor over the day-to-day operations of the section. It is also recommended that minor revisions to the knowledge, skills and abilities of the existing levels be made to clarify what is required in order to perform the duties of each level.

During this review, Human Resource Management worked closely with staff from the Nevada Department of Transportation who assisted in revising the class specification.

The formal recommendations and specifications are on file with the Division Administrator, Human Resource Management. To view a copy in Carson City, go to 209 East Musser Street, Room 101; in Las Vegas, go to 555 East Washington Avenue, Room 1400. For more information call (775) 684-0130.

Objections to the proposed change(s) must be received in writing by July 9, 2014. Objections should be addressed to Peter Long, Deputy Division Administrator, Compensation, Classification and Recruitment, Section of the Division of Human Resource Management, 209 East Musser Street, Room 101, Carson City, Nevada 89701-4204.

POSTING DATE: June 6, 2014

STATE OF NEVADA
Department of Administration
Division of Human Resource Management

CLASS SPECIFICATION

TITLE	GRADE	EEO-4	CODE
GEODESIST IV	***39***	***B***	***6.105***
GEODESIST III	**36**	**B**	**6.108**
GEODESIST II	**33**	**B**	**6.109**
GEODESIST I	**30**	**B**	**6.115**

SERIES CONCEPT

Geodesists perform specialized professional and technical work involving the determination of geodetic control by calculating the exact horizontal and vertical position of points on the earth's surface. This data is utilized in preliminary engineering design work, aerial surveying, general planimetric mapping and for other land surveying purposes.

Compute horizontal coordinates of control networks utilizing standard geodetic survey techniques such as triangulation, trilateration and traversing; compute vertical coordinates for control networks using the theory and practice of direct leveling on various projects to establish elevation, height and grade representing the features of the earth's surface; compare horizontal and vertical networks to established survey standards; make adjustments to the control networks, document, verify values and compare to established horizontal control.

Assess existing control and acquire additional survey control for engineering projects; analyze existing control and raw survey data to ensure desired project specifications and land survey standards are met; verify newly collected survey data for mathematical correctness; request additional survey data when field collection errors occur or engineering surveying specifications are not maintained.

Compute coordinates on the various geographic grid systems, do conversions between the systems and correlate existing surveys to match the required geodetic or rectangular cartesian coordinate systems; convert data between various national datum and further to a ground elevation dependent grid; compute, retrace and adjust existing surveys such as highway alignments, property boundaries, utilities, old control surveys and other miscellaneous surveys to match the ground elevation dependent grid, geodetic grids, and property boundaries as desired to ensure accuracy and continuity of data used on engineering, surveying and construction works.

Maintain geodetic data and related information and enter into computer database including coordinates, their descriptions, and quality assurance numbers; distribute compiled geodetic data upon request to various State and local agencies, sections within the department and the general public.

Create a survey control plan sheet for inclusion into contract plans and further verify contract plans for completeness of survey information by reviewing and checking contract alignments and basis of surveys.

Provide training and interpretation in the use of geodetic data, methods and procedures for observing and checking control for geodetic and State plane coordinates to ensure standards are maintained; review existing standards, controls and equipment utilized by the department and recommend changes, improvements or modifications.

Perform related duties as assigned.

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GEODESIST IV	***39***	***B***	***6.105***
GEODESIST III	**36**	**B**	**6.108**
GEODESIST II	**33**	**B**	**6.109**
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CLASS CONCEPTS

Geodesist IV: ***Under general direction, performs the full range of duties in the series concept and, in addition, supervises the geodetic survey section and develops standards for the collection, analysis and dissemination of geodetic data. Additionally, the incumbent creates and manages survey data archive workflows; creates job estimates and maintains estimate database; creates and maintains the SharePoint intranet; generates error analysis for NDOT pipe inventory; and adjusts a statewide network of land survey control monuments.***

Geodesist III: Under general direction, incumbents perform the full range of duties in the series concept and perform specialized geodetic work in the determination of geodetic control by calculating horizontal and vertical positions of points on the earth's surface. This is the journey level in the series.

Geodesist II: Under general supervision, incumbents continue to receive training and gain experience in performing duties described in the series concept. Work is reviewed on a regular basis. This is the second training level in the series, and progression to the journey level may occur upon meeting minimum qualifications and with the recommendation of the appointing authority.

Geodesist I: Under close supervision, incumbents receive training in the performance of all or part of the duties outlined in the series concept. This is the entry level in the series, and progression to the next level may occur upon meeting minimum qualifications and with the recommendation of the appointing authority.

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MINIMUM QUALIFICATIONS

GEODESIST IV

EDUCATION AND EXPERIENCE: Licensure as a Professional Land Surveyor in the State of Nevada and experience supervising personnel; OR a Bachelor's degree from an accredited college or university in math, physics, civil engineering, land surveying or closely related field and three years of progressively responsible experience involving the determination of geodetic control for civil engineering, surveying, or photogrammetric work, which also included supervision of staff; OR one year of experience as a Geodesist III in Nevada State service; OR and equivalent combination of education and experience.

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at the time of application):
Detailed knowledge of: survey principles used to determine the positions of points on the earth's surface; solid geometry, calculus and statistics used in determining geodetic coordinates. Working knowledge of: supervisory principles and practices; State and local classification and acquisition standards applicable to geodetic, construction, and land surveying projects; computer systems and design programs for use in geodetic work. Skill in: calculating positions of monuments, determining location of boundaries and preparing documents for supervisory review and recordation. Ability to: write technical computer programs for use in geodetic computations and in data analysis; establish policies, procedures and standards for the collection and dissemination of geodetic data; and all the knowledge, skills and abilities required at the lower levels.

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):
Working knowledge of: functions of the different divisions of the department to obtain needed information and/or where to direct questions; federal, State and local offices to coordinate and research geodetic data. Ability to: supervise and direct subordinate staff; resolve problems diplomatically with other agencies, departments, private businesses and the general public.

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MINIMUM QUALIFICATIONS (cont'd)

GEODESIST III

EDUCATION AND EXPERIENCE: Bachelor's degree from an accredited college or university in math, physics, civil engineering, land surveying or closely related field and two years of progressively responsible experience involving the determination of geodetic control for civil engineering, surveying or photogrammetric work; **OR** one year of experience as a Geodesist II in Nevada State service; **OR** an equivalent combination of education and experience.

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):
Working knowledge of: survey principles used to determine the positions of points on the earth's surface; and classification and acquisition standards applicable to geodetic, construction, and land surveying projects; ***U.S. rectangular survey system and Bureau of Land Management's restoration of lost and obliterated corners and subdivisions of sections; agency policies and software used in geodetic control.*** **Ability to:** prepare and present technical oral and written reports; update existing technical manuals for publication; provide information and explain policies to individuals and groups; ensure compliance with procedures and standards for the collection and dissemination of geodetic data; independently analyze, evaluate, process and compute geodetic survey data; calculate positions of monuments determining location of boundaries and preparing documents for supervisory review and recordation; create survey control plan sheets with minimal direction; and work independently and follow through on assignments with minimal direction; *and all knowledge, skills and abilities required at the lower levels.*

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):
[~~**Detailed knowledge of:** survey principles used to determine the positions of points on the earth's surface; solid geometry, calculus and statistics used in determining geodetic coordinates. **Working knowledge of:** State and local classification and acquisition standards applicable to geodetic, construction, and land surveying projects. **Skill in:** calculating positions of monuments, determining location of boundaries and preparing documents for supervisory review and recordation. **Ability to:** make proper adjustments to coordinates based on geodetic control data; and write technical computer programs for use in geodetic computations and in data analysis.~~] ***(These are identical to the Entry Level Knowledge, Skills, and Abilities for Geodesist IV.)***

GEODESIST II

EDUCATION AND EXPERIENCE: Bachelor's degree from an accredited college or university in math, physics, civil engineering, land surveying or closely related field and one year of progressively responsible experience involving civil engineering, surveying or photogrammetric work; **OR** one year of experience as a Geodesist I in Nevada State service; **OR** an equivalent combination of education and experience.

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):
Working knowledge of: algebra, trigonometry, geometry, calculus and statistics used in determining geodetic coordinates; ***the functions of the different divisions of the department to obtain needed information and/or where to direct questions; and federal, State and local offices to coordinate and research geodetic data; national and international standards for geodetic control.*** **General knowledge of:** ***Nevada Revised Statutes Chapters 329 and 625; and Nevada Administrative Code Chapter 625***; classification and acquisition standards applicable to geodetic, construction, and land surveying projects; U.S. rectangular survey system and Bureau of Land Management's restoration of lost and obliterated corners and subdivisions of sections; photogrammetric techniques; ***computer software and design programs for use in geodetic work*** **Ability to:** adapt to changes in workload and adjust priorities quickly as circumstances dictate; ***read and interpret a variety of technical manuals, including geodetic triangulation; make proper adjustments to coordinates based on geodetic control data; establish and maintain***

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GEODESIST III	**36**	**B**	**6.108**
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MINIMUM QUALIFICATIONS (cont'd)

GEODESIST II (cont'd)

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (cont'd)
cooperative working relationships with co-workers and the public; communicate effectively to obtain information, describe situations and explain data; use field instruments for testing, inspection and surveying purposes; and read and interpret maps and construction plans; and all knowledge, skills and abilities required at the lower level.

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):
[~~**Working knowledge of:** U.S. rectangular survey system and Bureau of Land Management's restoration of lost and obliterated corners and subdivisions of sections; agency policies and software used in geodetic control.~~] ***(These are identical to the Entry Level Knowledge, Skills, and Abilities for Geodesist III.)***

GEODESIST I

EDUCATION AND EXPERIENCE: Bachelor's degree from an accredited college or university in math, physics, civil engineering, land surveying or closely related field; **OR** graduation from high school or equivalent education and three years of experience performing work that involved determination of geodetic control, performing preliminary engineering design work, aerial surveying, general planimetric mapping or land surveying; **OR** an equivalent combination of education and experience.

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):
Working knowledge of: algebra, trigonometry and geometry; land surveying techniques; and engineering surveying methods and sources of information. **General knowledge of:** drafting methods and conventional symbols; international and national standards for geodetic control; photogrammetric techniques; calculus and statistics; and principles and practices of public relations. **Ability to:** accurately copy, post or transcribe data; operate a scientific calculator, personal computer and associated ancillary equipment.

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):
[~~**Working knowledge of:** the functions of the different divisions of the department to obtain needed information and/or where to direct questions; and federal, State and local offices to coordinate and research geodetic data. **General knowledge of:** computer software and design programs for use in geodetic work. **Ability to:** read and interpret a variety of technical manuals, including geodetic triangulation; establish and maintain cooperative working relationships with co-workers and the public; communicate effectively to obtain information, describe situations and explain data; use field instruments for testing, inspection and surveying purposes; and read and interpret maps and construction plans.~~] ***(These are identical to the Entry Level Knowledge, Skills, and Abilities for Geodesist II.)***

GEODESIST IV	***39***	***B***	***6.105***
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This class specification is used for classification, recruitment and examination purposes. It is not to be considered a substitute for work performance standards for positions assigned to this class.

	6.105	6.108	6.109	6.115
ESTABLISHED:	***12/3/13R***	1/1/69	12/1/61	7/1/93P
	07/09/14UC			8/31/92PC
REVISED:			1/1/69	
REVISED:		7/1/93P	7/1/93P	
		8/31/92PC	8/31/92PC	
REVISED:		6/27/03PC	6/27/03PC	6/27/03PC
REVISED:				