STATE OF NEVADA—DEPARTMENT OF PERSONNEL

CLASS SPECIFICATION

TITLE	GRADE	EEO-4	CODE
ADMINISTRATOR II, PROFESSIONAL ENGINEER	**47***	**A**	**6.221**
ADMINISTRATOR I, PROFESSIONAL ENGINEER	**45***	**A**	**6.223**

BENCHMARK DESCRIPTIONS

The following benchmark descriptions are representative examples of how positions are classified at each level, but they are not intended to be all-inclusive. Allocation of new or existing positions not described below must be determined by a review of the nature and complexity of work performed; the knowledge, skills and abilities required; independence/supervision received; scope of responsibility/consequence of error; authority to take action/decision-making; and personal contacts necessary to complete work.

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ADMINISTRATOR II, PROFESSIONAL ENGINEER

Construction Division: Administer the statewide Construction Division to include ensuring the highway system is constructed in accordance with the highest quality standards utilizing available resources; administer statutory regulations and department policies through contract and correspondence reviews; develop human resource requirements for upcoming work programs; recommend the use of consultants when appropriate and select consultant firms to augment construction forces.

Formulate and implement division policy and procedures; develop and track the division budget; represent the department in court for contractor claims or lawsuits; sit on, and take turn at chairing the Bid Review and Analysis Team (BRAT); serve as department representative to the Western Association of State Highway and Transportation Officials (WASHTO) and the American Association of State Highway and Transportation Officials (AASHTO) subcommittees; and serve on other committees and boards as assigned.

Administer the construction specifications process by ensuring specifications are current, understandable, functional and fair; evaluate contract special provisions to ensure items unique to a specific contract are properly covered and in compliance.

Districts: Direct, manage and oversee the administration of the district to ensure compliance with departmental policies and procedures regarding the operations and activities conducted in the district; represent the department and coordinate activities with local entities, law enforcement agencies, planning commissions, the Bureau of Land Management and other federal agencies.

Administer construction operations for the district, request reviews of district roadway sections not prioritized by the Pavement Management System; participate or assign staff to accompany design and construction personnel in field reviews of projects under design; review plans, specifications and agreements and participate in formal specification review meetings; monitor and review construction projects in progress and conduct periodic field reviews for acceptance of project; monitor the construction engineering labor maintenance system; review and approve change orders and issue prior approvals when needed; coordinate public information with regard to construction projects to include receiving complaints and ensuring that justified complaints are addressed and corrections made in a timely manner; monitor construction activities for compliance with plans and specifications and environmental concerns; and review traffic control and signage on construction projects.

***Reflects a 2-grade, special salary adjustment authorized by the 2001 Legislature to improve recruitment and retention.**

BENCHMARK DESCRIPTIONS (cont'd)

ADMINISTRATOR II, PROFESSIONAL ENGINEER (cont'd)

Districts: (cont'd)
Administer the maintenance functions for the district, approve the district's work plan submittals and set work priorities; inspect existing highway facilities and advise other divisions of conditions and/or deficiencies as appropriate; monitor normal maintenance activities and betterment projects and review accomplishments for effectiveness and productivity; and provide assistance to other agencies during emergencies and/or natural disasters.

Location Division: Administer the activities of the Location Division to include surveying, aerial photography, imagery, mapping and other preliminary engineering activities for highway engineering projects; oversee location advisory team studies of possible location or relocation of highway segments.

Oversee the development, implementation and program management of the department's Geographic Information System (GIS) linking graphic map features with descriptive data from within the department and other jurisdictions.

Determine the need for consultants; ensure projects meet and conform to applicable State, federal and departmental standards and division criteria.

Maintenance and Operations Division: Administer the activities of the statewide Maintenance and Operations Division to ensure highway maintenance and operations are achieved at the highest level possible utilizing available resources; provide program authority and direction including development of a road network prioritization plan; develop and coordinate a cooperative plan with outside entities to maintain all maintainable features in the Lake Tahoe Basin, and develop and implement master planning, policies, standards and procedures related to highway operations and the utilization of Intelligent Transportation System devices.

Direct planning processes to include approving the districts' annual work programs, budgets, and equipment rental requests; review and recommend approval on annual statewide material and equipment purchases; coordinate and implement maintenance station facility improvements with other divisions; develop an emergency response plan for hazardous materials spills on roadways; review and monitor the development and implementation of the statewide maintenance training program; plan, implement and monitor revisions and updates to the maintenance Management System; develop general statewide maintenance policies for implementation at the district level.

Direct the development, testing, implementation, and updating of the department plans for facility security and emergency operations.

Direct the preparation of various reports and write interpretative text with summary and recommendations and disseminate reports to interested entities.

Serve as department representative to Western Association of State Highway and Transportation Officials (WASHTO) and American Association of State Highway and Transportation Officials (AASHTO) subcommittees on Maintenance; and serve on other committees and boards as assigned.

Materials Division: Administer the activities of the Materials Division to include directing the operational branches of the division and the statewide materials testing and inspection program to ensure design quality control and appropriate evaluation of highway structural sections.

Establish and develop division policies, technical methods and procedures to be applied in testing, inspecting and applying construction materials; manage payment preservation prioritization program,

BENCHMARK DESCRIPTIONS (cont'd)

ADMINISTRATOR II, PROFESSIONAL ENGINEER (cont'd)

Materials Division: (cont'd)
coordinate and consolidate conflicting recommendations on the selection and application of materials to road and bridge construction projects; provide materials expertise on highway construction materials to personnel in other divisions, federal agencies, city and county agencies, contractors and consultants.

Road Design Division: Administer the activities of the Road Design Division by reviewing preliminary plans, construction cost estimates and project schedules; direct the preparation of roadway design plans, ensuring and certifying that design projects conform to applicable federal and departmental standards and design criteria; determine the need for consultants; recommend project advertising dates; review preliminary design field study reports for major maintenance projects and resurfacing, rehabilitation and renovation projects to ensure the scope of work is within project guidelines; review design-related change orders by checking for necessity and for repetitive errors and formally requesting the change order through the Chief Construction Engineer.

Perform engineering functions to include examining plans, specifications and estimates with emphasis on applicable design codes to ensure proposed projects meet safety standards; initiate, review and approve modifications to the standard plans and design manual, checking or oversee the checking of design project estimates, and review contractors' bids to recommend acceptance/denial to management.

Structural Design Division: Administer the activities of the Structural Design Division and establish policies to ensure consistency in design; approve preliminary structural plans of bridges for submission to the Federal Highway Administration or for certification acceptance; confer with designers during the production of structural designs to provide direction and code interpretation; request the use of consultants when appropriate; contract with consultants as required; monitor work and designs produced by consultants to ensure compliance with consultant agreement; approve final contract plans for structures; certify construction drawings; and give final approval of standard plan drawings for inclusion in the department's standard plan publication.

Administer the structure construction management process by recommending approval or denial of contract change orders; provide technical assistance to construction personnel; and conduct on-site reviews to monitor progress and ensure proper construction.

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Construction Division: Oversee the management and administration of project contracts; review all project correspondence, contract change orders, critical path method schedules, and value engineering proposals to ensure conformance with all specifications, plans, policies and procedures to determine cost savings; initiate and sign prior approvals for contract change orders; conduct preconstruction conferences; assign engineers to construction projects based on department's work program; assign office staff to ensure contractor and consultant payments, documentation requirements and all other construction related items are performed in accordance with established guidelines; review and approve projects; and determine liquidated damages for material, traffic control deficiencies, time overruns or other items not complying with project specifications.

Receive, review and evaluate contractor claims by meeting with contractors to resolve claims through discussion, records review and negotiations; prepare and present unresolved claim disputes to the Claims Review Board; develop the department's defense by evaluating all records, documents and events relevant to the claim, and prepare charts and other information to ensure the department's position is presented in a clear and accurate manner.

BENCHMARK DESCRIPTIONS (cont'd)

ADMINISTRATOR I, PROFESSIONAL ENGINEER (cont'd)

Districts: Administer the district's highway maintenance or construction work program; monitor expenditures to ensure compliance with approved budget; set priorities for placement of labor and equipment; make judgments as to types of materials to be used for specific conditions; review various management system outputs to ensure compliance; ensure contracts are built in conformance with plans and specifications; provide proper support to maintenance and construction programs.

Develop the annual work program for presentation to the district administration; review the Pavement Management System to determine required and cost effective projects.

Conduct inspections of highway facilities in conjunction with headquarters engineers or with subordinate supervisors to determine appropriate strategies for preventive maintenance, overlays, reconstruction, structures, or safety appurtenances; develop contracts and agreements with local firms for products and services as necessary by establishing specifications, quantities and locations for contracted materials for future betterment programs.

Administer, direct and manage district maintenance, equipment shops, equipment stores, and communications by establishing district maintenance policies and goals; monitor work performed and ensure conformance to State, department and district policies and procedures; review and develop general priority guidelines for the repair of equipment; monitor and direct the communications function for the district; review work, monitor annual preventive maintenance schedule on repeater sites, review inventories of radios and priorities for installations; review, monitor and approve annual budgets and direct emergency repair of radios and telephone equipment; and monitor and review the operations of the district stockroom to ensure compliance with State purchasing regulations.

Review and approve highway maintenance encroachment permits issued by the district; perform field reviews and recommend changes to bring plans into compliance with standards; conduct meetings with consultants to review plans and recommend changes and deletions to bring permits to an acceptable approval level.

Environmental Services Division: Administer the activities of the Environmental Services Division and establish policies to ensure consistency in project design and permitting; approve preliminary plans for submission to the Federal Highway Administration or for certification acceptance; confer with designers during project development to provide direction and law/regulation interpretation and guidance; request the use of consultants when appropriate; contract with consultants as required; monitor work and designs produced by consultants to ensure compliance with consultant agreement and applicable laws and regulations; approve and certify final contract documents for environmental legal sufficiency; and give final approval of standard plan drawings for inclusion in the department's standard plan publication.

Administer the environmental services process by recommending approval or denial of contract change orders; provide technical assistance to construction personnel; and conduct on-site reviews to monitor progress and ensure proper construction.

Materials Division: Administer the operational branches of the division; plan, organize, direct and control daily operations to achieve established goals and objectives; review and authorize changes to highway contracts that are related to materials; review field construction practices to resolve materials/engineering problems and ensure quality management; represent the division at preconstruction conferences to review contract plans and specifications in order to interpret materials-related aspects of designs and specifications; formulate and recommend divisional policies and procedures; provide administrative decisions on materials-related issues; review and recommend approval of highway structural component designs; ensure compliance of all materials related designs, material properties, specifications and quality assurance test procedures with Federal Highway Administration requirements;

BENCHMARK DESCRIPTIONS (cont'd)

ADMINISTRATOR I, PROFESSIONAL ENGINEER (cont'd)

Materials Division: (cont'd)
and ensure all materials incorporated into contract highway construction projects meet the minimum requirements as specified in the contract plans and specifications.

Geotechnical Engineering Section: Administer the operation and activities of geotechnical engineers, geotechnical laboratory and field exploration crew in the Geotechnical Engineering Section; plan, organize, and direct daily operations to achieve established goals and objectives; oversee the development of standard plans, standard specifications, and policies and procedures to be incorporated into the Geotechnical Policies and Procedures Manual; establish design policies and procedures; recommend revisions to standard materials and construction specifications due to changing codes and technologies; identify the need for consultant services; interview, select and negotiate fees for consultant services and write contract agreements; review and recommend changes to construction contracts that relate to geotechnical designs; review field construction practices to resolve geotechnical engineering problems and ensure quality management; prepare lists and costs of needed items to be included in the fiscal year budget; oversee research functions in the area of geotechnical design, construction and materials; make recommendations regarding the use of new products; identify potential subjects to be researched; assign research work to geotechnical engineers; review recommendations and develop a design policy based on the research findings; oversee design of projects including the geotechnical design aspects of bridges, roadways, sign supports, retaining walls, and maintenance and drainage facilities; oversee design of cut and fill slope modifications; assist construction division personnel in reviewing and evaluating contractor claims in regard to geotechnical matters; assist construction and legal divisions in defending the department's position in legal cases; oversee assistance to construction and maintenance crews.

Road Design Division: Administer design planning including assignment and supervision of projects assigned to the division; certify that road projects are designed to the latest standards of the department, the Federal Highway Administration, and county and city entities; coordinate the activities and priorities of the division with those of other department divisions to ensure projects are on schedule and meet anticipated costs; review projects and write and review legal agreements between the department and consulting engineers, government agencies, individuals, land developers, and corporations, ensuring complete understanding between the parties of the agreement.

Perform engineering functions to include directing the preparation of roadway construction plans, displays, estimates and other related work; prepare cost estimates for department road contracts; write and recommend approval of change orders to existing roadway contracts when conditions in the field change, errors are detected in the original plans, or the scope of work is modified or changed; prepare detailed economic analysis of design alternatives; examine plan specifications and estimates to determine directions in the design process.

Administer and manage the activities of the Scheduling and Estimating Section including the Project Scheduling and Management System (PSAMS); ensure schedules are prepared, updated, and tracked throughout a project's life; recommend policies and prepare guidance on project and program cost estimating to ensure costs are identified, tracked and updated as necessary.

Safety Engineering Division: Direct the Highway Safety Improvement Program by prioritizing and approving safety projects based upon engineering analysis performed by subordinates; authorize the allocation of federal funding to identify and provide surveillance of high accident locations, traffic engineering services, highway related aspects of pedestrian safety, and grants to local agencies, institutions and individuals for training and education; and review recommendations and determine projects to be selected for implementation under the Guardrail Replacement Program and Fence Project Program.

BENCHMARK DESCRIPTIONS (cont'd)

ADMINISTRATOR I, PROFESSIONAL ENGINEER (cont'd)

Safety Engineering Division: (cont'd)
Initiate and develop, in cooperation with other agencies, statewide traffic safety awareness programs by assessing needs, priorities and problems affecting the traveling public and making determinations on how best to address these needs; organize and schedule conferences and seminars for professionals in safety engineering and related fields; organize presentations and speak at various safety conferences and forums; advise, assist and cooperate with the department's legal division by providing requested information, interpreting technical data, and acting as an expert witness for the department in safety-related litigation.

Structural Design Division: Administer the statewide Federal Highway Bridge Replacement and Rehabilitation Program; oversee bridge projects including the design of bridges, sign supports, retaining walls and maintenance facilities; establish design policies and procedures; review and approve final estimates and plans; and certify that plans have been designed in compliance with codes, policies and procedures.

Oversee the development of standard plans, standard specifications, and policies and procedures to be incorporated into the Bridge Manual; recommend revisions to standard specifications due to changing codes and technologies; coordinate with other divisions to review and revise standard specifications when problems arise; and coordinate the development or revision of policies and procedures used within the division.

Review and approve bridge encroachment permits and sign encroachment permits dealing with bridges to ensure that the encroachment will not adversely affect the structure and will keep the structure maintainable.

Identify the need for consultant services; interview, select and negotiate for consultant services and write contract agreements.

Oversee research functions in the area of bridge design, construction, materials and maintenance; make recommendations regarding the use of and/or need for new products; identify potential items to be researched; assign research work to a bridge design squad; and review recommendations and develop a design policy based on the research findings.

Traffic Engineering: Administer the planning, assignment and supervision of work assigned to the traffic engineering section of the road design division; initiate traffic engineering recommendations on major roadway design projects; provide traffic engineering analysis of State controlled highways to evaluate the need for traffic control devices including traffic signals, stop signs, traffic movement restrictions and other devices that warn, regulate and guide the driving public; establish speed limits on State highways based on results and recommendations from engineering studies; review traffic impact reports for development as required by State regulations; and investigate, resolve and answer requests and complaints from the general public.

BENCHMARK DESCRIPTIONS (cont'd)

These benchmark descriptions are 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.

	6.221	6.223
ESTABLISHED:	7/1/93P	7/1/93P
	8/31/92PC	8/31/92PC
REVISED:		7/1/93P
		6/25/93PC
REVISED:		11/17/93UC
REVISED:	6/29/95UC	6/29/95UC
REVISED:	1/27/97R	1/27/97R
	3/23/99UC	3/23/99UC
REVISED:	7/1/01LG	7/1/01LG
REVISED:	11/8/05PC	11/8/05PC