

STATE OF OHIO (DAS)CLASSIFICATION
SPECIFICATION**CLASSIFICATION SERIES**

Natural Resources Engineer

SERIES NUMBER

8576

MAJOR AGENCIES

Ohio Department of Agriculture, Ohio Department of Natural Resources

EFFECTIVE

11/04/2012

SERIES PURPOSE

The purpose of the natural resources engineer occupation is to provide professional engineering services for Ohio Department of Natural Resources' programs & development & maintenance of its facilities, or in the Ohio Department of Agriculture, to provide professional engineering services for concentrated animal feeding facilities.

At the three lower levels, incumbents make engineering analyses or conduct field investigations & inspections under supervision from a higher-level engineer, with assignments increasing in the degree of complexity & independence as an employee progresses through the levels.

At the middle three levels, employees work as first, second or third line supervisors or staff specialists in a particular component of an assigned program function (e.g., electrical or mechanical design, hazardous waste disposal, mining or coastal engineering; inspection & operation of permitting concentrated animal feeding facilities).

At the highest level, employee works as the assistant chief engineer of ODNR in overall administration of the office, program development & management & advice on engineering matters related to department administration.

The purpose of the natural resources engineer design technician occupation is to review drawings, plans or designs.

At the first level, incumbents coordinate review of drawings.

At the second level, incumbents review designs for final approval & direct one or more sections, or plan projects to anticipate needs of state, region &/or community & monitor activities of personnel involved in planning or evaluation of plans.

Note: This class is restricted for employees who are not registered engineers.

The purpose of the natural resources engineer technician is to inspect, coordinate & monitor construction sites.

At the first level, incumbents oversee project construction.

At the second level, incumbents inspect construction sites.

Note: This class is restricted for employees who are not registered engineers.

CLASS TITLE

Natural Resources Engineer Intern

CLASS NUMBER

85760

PAY RANGE

31

EFFECTIVE

11/04/2012

CLASS CONCEPT

The first developmental level class works under very close supervision from a higher-level registered professional engineer & requires working knowledge of engineering methods in order to make engineering analysis of stability of slopes, water resources data & existing & proposed coastal structures, dams, dikes & levees to include general & detailed hydrologic, hydraulic, stability investigations or conduct field investigations of proposed projects and review active construction projects at state parks, state forests, wildlife areas, nature preserves active or abandoned mine lands or projects that require authorization under the Coastal Structure Permitting, Coastal Erosion Area permitting or Submerged Lands programs.

CLASS TITLE

Natural Resources Engineer 1

CLASS NUMBER

85761

PAY RANGE

32

EFFECTIVE

11/04/2012

CLASS CONCEPT

The second developmental level class works under supervision from a higher-level registered professional engineer & requires considerable knowledge of engineering methods in order to conduct field investigations to gather & analyze data to define scope of work and review active construction for projects at state parks, state forests, wildlife areas, nature preserves, canals or active or abandoned mine lands or conduct field investigations of floods, water resources data,

dams, dikes & levees , permanent structures located within a designated Coastal Erosion Area & coastal structures which are under construction or already exist to ensure compliance with state regulations, or provides assistance in technical reviews of applications for Coastal Structure Permits, Coastal Erosion Area permits or assist with reviews of Submerged Lands authorizations and/or Federal and State Consistency determinations.

<u>CLASS TITLE</u>	<u>CLASS NUMBER</u>	<u>PAY RANGE</u>	<u>EFFECTIVE</u>
Natural Resources Engineer 2	85762	33	11/04/2012

CLASS CONCEPT

The full performance level class works under supervision from a higher-level registered professional engineer & requires considerable knowledge of engineering methods in order to perform design calculations & prepare construction plans and review active construction projects for water & water treatment plants, active or abandoned mining & reclamation projects, golf course irrigation, boat ramps, marinas, fishing piers, campgrounds, canal structures, dams & parking facilities, or make engineering analysis & inspection of dams, dikes, levees, canal structures, floods, flood flows &/or water resource projects or provides technical reviews of applications for Coastal Structure Permits, Coastal Erosion Area permits or assist with reviews of Submerged Lands authorizations and/or Federal and State Consistency determinations. OR in Department of Agriculture, conducts technical reviews of permits to install applications, permits to operate applications & review compliance certificates & National Pollution Discharge Elimination System (i.e., NPDES) permit applications for concentrated animal feeding facilities to ensure compliance with technical requirements for issuance & performs technical assistance in livestock & manure facility design, hydro-geological, & soils design involving manure holding ponds & manure treatment lagoons.

<u>CLASS TITLE</u>	<u>CLASS NUMBER</u>	<u>PAY RANGE</u>	<u>EFFECTIVE</u>
Natural Resources Engineer Design Technician 1	85763	31	11/04/2012

CLASS CONCEPT

The first full performance level class works under general supervision & requires considerable knowledge of engineering in order to prepare original design work for state projects, review work performed by engineers & suggest corrections & improvements, or act as lead worker over technicians involved in design work.

<u>CLASS TITLE</u>	<u>CLASS NUMBER</u>	<u>PAY RANGE</u>	<u>EFFECTIVE</u>
Natural Resources Engineer Design Technician 2	85764	33	11/04/2012

CLASS CONCEPT

The second full performance level class works under general supervision & requires through knowledge of engineering in order to coordinate & review plans, designs & specifications submitted by contractors or field districts & suggest revisions.

<u>CLASS TITLE</u>	<u>CLASS NUMBER</u>	<u>PAY RANGE</u>	<u>EFFECTIVE</u>
Natural Resources Engineer Technician 1	85765	31	11/04/2012

CLASS CONCEPT

The first full performance level class works under general supervision & requires considerable knowledge of engineering in order to oversee project construction carried out by contractor to ensure compliance with state & federal regulations.

<u>CLASS TITLE</u>	<u>CLASS NUMBER</u>	<u>PAY RANGE</u>	<u>EFFECTIVE</u>
Natural Resources Engineer Technician 2	85766	32	11/04/2012

CLASS CONCEPT

The second full performance level class works under general supervision & requires considerable knowledge of engineering in order to inspect construction sites, gather data for evaluations & ensure that project work conforms to contract specifications & state & federal regulations.

<u>CLASS TITLE</u>	<u>CLASS NUMBER</u>	<u>B. U.</u>	<u>EFFECTIVE</u>	<u>PAY RANGE</u>
Natural Resources Engineer Intern	85760	013	11/04/2012	31

JOB DUTIES IN ORDER OF IMPORTANCE (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

In the Division of Soil and Water Resources, Dam Safety Engineering Program, under close supervision from higher level registered professional engineer, makes engineering analysis (i.e., general & detailed hydrologic, hydraulic, stability investigations & determination of hazard potential) of existing & proposed projects ;(e.g., coastal structures, dams, dikes, canals, flood & water resources data) to include general & detailed hydrological, hydraulic, stability investigations & determination of hazard potential;

OR

Under close supervision from higher level registered professional engineer, makes engineering analysis of existing & proposed projects (e.g., coastal structures, dams, dikes, canals, flood & water resources data, coal mines, active or abandoned mining & reclamation) to include general & detailed hydrologic, hydraulic, stability investigations & determination of hazard potential;

OR

In the Division of Soil and Water Resources, Dam Safety Program, under close supervision from higher-level registered professional engineer, conducts field investigations (e.g., survey work, physical & visual inspection, data recording, measurements & photos) of proposed projects at state parks, state forests, state canals, wildlife areas, nature preserves or abandoned mine lands, gathers data & researches related projects & prepares preliminary & final construction drawings for small projects or for parts of larger projects.

OR

Under close supervision from higher-level registered professional engineer, conducts field investigations of proposed projects at state parks, state forests, state canals, wildlife areas, nature preserves or abandoned mine lands, gathers data & researches related projects & prepares preliminary & final construction drawings for small projects or for parts of larger projects.

Assists in inventory of dams & identification of dams to be inspected; tabulates pertinent data; makes periodic field inspections & investigations of dams, dikes & levees which are under construction or already exist.

Assists in review of construction drawings & specifications prepared by others & prepares reports of findings & recommendations; assists in field observation of construction projects to ensure work is in compliance with plans & specifications; maintains project log or diary of assigned construction projects; checks contractors' submittals (e.g., schedules, shop drawings, pay estimates) & submits for processing with appropriate recommendations.

Assists with providing technical assistance to local units of government land owners & other interested parties; attends & participates in meetings, seminars, training sessions & conferences to improve technical knowledge; reviews literature on pertinent technical matter; assists supervisor in meetings with government agency personnel, land owners, utilities & other ODNR divisions to coordinate & inform about projects.

Assists with development and implementation of procedures and policies of the coastal permits and lease programs; assists with conducting meetings to discuss rules and operation procedures; assist with public relations duties to facilitate awareness of and compliance with the programs; furnishes information and explains coastal programs to the public; assist with providing technical advice to aid in decision making concerning coastal initiatives.

MAJOR WORKER CHARACTERISTICS:

Knowledge of civil mining, coastal or agricultural engineering; field investigation techniques & methods; geographic information management systems agency, state & federal engineering laws, rules & guidelines. Skill in use of CADD & drafting equipment for preparation of construction drawings &/or blueprints. Ability to interpret extensive variety of technical material in books, journals & manuals; use geometry & trigonometry; review, prepare & edit specifications, construction plans & related engineering documents & prepare technical reports. Agility to negotiate safe distances from on-site heavy equipment; demonstrate physical fitness (e.g., to walk & climb steep embankments, spillways, uneven terrain); lift & carry up to 25 pounds.

(*)Developed after employment.

MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:

Engineering degree from recognized school or college which has been accredited by accreditation board for engineering & technology. Valid certificate as Engineer-In-Training issued or accepted as equivalent by a State Licensing Board.

TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:

Not applicable.

UNUSUAL WORKING CONDITIONS:

May be exposed to inclement weather & unsafe conditions during inspections of projects to include walking long and short distances, climbing & navigating rough terrain, steep slopes & embankments & spillways & ladders while carrying needed equipment.

<u>CLASS TITLE</u>	<u>CLASS NUMBER</u>	<u>B. U.</u>	<u>EFFECTIVE</u>	<u>PAY RANGE</u>
Natural Resources Engineer 1	85761	013	11/04/2012	32

JOB DUTIES IN ORDER OF IMPORTANCE (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

Under supervision of higher-level registered professional engineer, conducts field investigations to gather & analyze field data to define scope of work for projects at state parks, state forests, wildlife areas, nature preserves or active or abandoned mine areas & prepares preliminary reports & designs for site work, drainage structures, utilities, roads, parking areas or recreational facilities;

OR

Under supervision of higher-level registered professional engineer, conducts periodic field investigations of dams, dikes, levees & canal structures which are under construction or already exist to ensure compliance with state regulations, inspects earth embankments & spillways, prepares reports of inspections, reviews plans for remedial work to existing structures & monitors repair & reconstruction work to ensure compliance to plans & analyzes flood & water resources data;

OR

Reviews construction plans; checks quantity calculations; monitors & observes survey engineering work pertaining to control & inspection of projects; maintains project log or diary; reviews contractor submittals to include shop drawings & pay estimates & forwards for processing; assists in inventory of dams & identification of dams to be inspected; performs routine surveying; tabulates pertinent data; answers questions about programs & specific items of work; attends & participates in meetings, seminars & training sessions; meets with government agencies & general public.

Attends & participates in meetings, seminars, training sessions & conferences to improve technical knowledge; reviews literature on pertinent technical matter; assists supervisor in meetings with government agency personnel, land owners, utilities & other ODNR divisions to coordinate & inform about projects.

MAJOR WORKER CHARACTERISTICS:

Knowledge of civil, coastal, or agricultural engineering; field investigation techniques & methods; geographic information management systems; agency, state & federal engineering laws, rules & guidelines. Skill in use of CADD & drafting equipment for preparation of construction drawings &/or blueprints. Ability to interpret extensive variety of technical material in books, journals & manuals; use geometry & trigonometry; review, prepare & edit specifications, construction plans & related engineering documents & prepare technical reports.

(*)Developed after employment.

MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:

Engineering degree from recognized school or college which has been accredited by accreditation board for engineering & technology; valid certificate as Engineer-In-Training issued by State Licensing Board; 1 yr. engineering related experience.

TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:

Not applicable.

UNUSUAL WORKING CONDITIONS:

May be exposed to inclement weather & unsafe conditions during inspections of projects to include walking long and short distances, climbing & navigating rough terrain, steep slopes & embankments & spillways & ladders while carrying needed equipment.

<u>CLASS TITLE</u>	<u>CLASS NUMBER</u>	<u>B. U.</u>	<u>EFFECTIVE</u>	<u>PAY RANGE</u>
Natural Resources Engineer 2	85762	013	11/04/2012	33

JOB DUTIES IN ORDER OF IMPORTANCE: (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

Under general supervision from exempt engineer, performs design calculations & prepares construction plans for water & wastewater treatment plants, mining & reclamation projects, golf course irrigation, boat ramps, marinas, fishing piers, campgrounds, dams & parking facilities;

OR

Under general supervision from exempt engineer, makes detailed engineering analysis & inspections of dams, dikes & levees, canal structures, water resource projects, flood flows, performs hydrologic, hydraulic & stability analyses of embankments to include construction inspections, spillways, foundations & other appurtenances to evaluate their integrity & safety, determines hazard potential of dams, dikes & levees & prepares detailed reports of dams inspected & studied to include summaries of field observations & engineering analyses & specific recommendations for modification & remedial work;

OR

Assists with the development & implementation of a compliance monitoring & enforcement plan for regulatory programs; responds to public & internal reports of unauthorized activities; conducts field investigations; corresponds directly with private land owners, state agencies, cities, counties, developers, utility companies & others in performing all functions necessary to investigate reports of unauthorized activity; reviews preliminary construction & as-built drawings; assesses impacts of structures neighboring properties & coastal processes; assists with the review of reports of violations & makes recommendations to supervisor on unauthorized activities; advises property owners of violations; prepares documents, reports & correspondence; reviews & responds to inquiries & complaints; prepares information for public meetings; coordinates & attends meetings as required;

OR

Under general supervision from exempt engineer, assists with the review of projects to ensure compliance with the federal and state consistency provisions with respect to the policies & authorities of the Ohio Coastal Management Program; advises & negotiates with applicants & state federal agencies on technical resources management techniques to modify projects to achieve federal and state consistency requirements to ensure defensible monitoring & enforcement; coordinates with other ODNR staff & management on consistency & environmental review of projects likely to affect coastal resources;

OR

In Ohio Department of Agriculture, under general supervision from exempt engineer, conducts technical reviews of permits to install applications, permits to operate applications & reviews compliance certificates & National Pollution Discharge Elimination System (i.e., NPDES) permit applications for concentrated animal feeding facilities to ensure compliance with technical requirements for issuance, performs technical assistance in livestock & manure facility design & construction (i.e., to include fabricated structural designs of concrete, steel, wood & masonry, hydro-geological, geological, & soils designs involving manure holding ponds & manure treatment lagoons, provides technical assistance in design, review, installation & inspection of storm water, sediment & erosion control practices adjacent to applicable facilities & develops & reviews plans for utilization, treatment, & distribution of manure for reuse as crop nutrient or other processed product.

Design, review, installation & inspection of storm water, sediment & erosion control practices adjacent to facilities, & develops & reviews plans for utilization, treatment, & distribution of manure for reuse as crop nutrient or other processed product.

Reviews detailed plans & specifications, reports & coal mining permit applications to determine accuracy & compliance with state & federal laws & regulations; negotiates consulting engineer contracts; review in-house & contract designs for mining reclamation projects & for water, wastewater, road paving & boat ramps; assists in construction inspection of agency owned facilities & active coal mining operations; reviews construction plans for dams, dikes & levees; inspects earth embankments, spillways, outlet works & other appurtenances; assists in collection of flood & water resource data; assists in inventory of dams; answers requests about assigned projects & programs; meets with public & government officials; participates in meetings & seminars on dam safety, water & wastewater treatment, erosion control & other

technical subjects pertaining to job duties; conducts inspections of concentrated animal feeding facilities to ensure proper operation & maintenance; completes inspection reports & prepares technical compliance & enforcement documents.

Attends & participates in meetings, seminars, training sessions & conferences to improve technical knowledge; Prepares & presents information on issues related to coastal engineering & coastal processes, reviews literature on pertinent technical matter; assists supervisor in meetings with government agency personnel, land owners, utilities & other ODNR divisions to coordinate & inform about projects.

MAJOR WORKER CHARACTERISTICS:

Knowledge of environmental, civil, coastal, agricultural, hydrologic, hydraulic, mechanical or electrical engineering; natural science (e.g., water quality, ecological, agronomy, animal science); field investigation techniques & methods; geographic information management systems; agency, state & federal engineering laws, rules & guidelines*; employee training & development*. Skill in use of CADD & drafting equipment for preparation of construction drawings &/or blueprints. Ability to interpret extensive variety of technical material in books, journals & manuals; use geometry & trigonometry; review, prepare & edit specifications, construction plans & related engineering documents & prepare technical reports.

(*)Developed after employment.

MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:

Engineering degree from recognized school or college which has been accredited by accreditation board for engineering & technology; valid certificate as Engineer-In-Training issued by State Licensing Board; 2 yrs. engineering related experience.

TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:

Not applicable.

UNUSUAL WORKING CONDITIONS:

May be exposed to inclement weather & unsafe conditions during inspections of projects to include walking long and short distances, climbing & navigating rough terrain, steep slopes & embankments & spillways & ladders while carrying needed equipment; in Ohio Department of Agriculture, frequent contact with animals, manure, dust, & odors.

<u>CLASS TITLE</u>	<u>CLASS NUMBER</u>	<u>B. U.</u>	<u>EFFECTIVE</u>	<u>PAY RANGE</u>
Natural Resources Engineer Design Technician 1	85763	13	11/04/2012	31

JOB DUTIES IN ORDER OF IMPORTANCE: (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

Prepares original design work for various state projects; or designs projects (e.g., lighting, minor road or roadside construction) or re-designs projects to conform to all design criteria, processes change orders & design details not covered by standard drawings & lays out vertical & horizontal curves on construction plans.

Makes revisions, change orders & calculations on construction plans or reviews construction plans that have been prepared by others which may include monitoring activities of contracted workers & field checks for obtaining information; coordinates work flow & assists supervisor as needed (e.g., recommends actions, attends meetings, seminars); writes project proposals, contract specifications, technical reports, assists in formulation of design criteria, policies & procedures; consults with contractors, local &/or other agency officials on plans & design criteria.

Attends meetings & acts as coordinator for design segment of projects; or instructs trainees in methods & procedures to complete or review plans; reviews &/or monitors review of preliminary or final plans to ensure conformity to design criteria, including work distribution & duty assignments; maintains computer programs for plans & designs; monitors project progress & analyzes data.

Works in field, checking survey data, reviewing plans, collecting data & revising projects; acts as liaison or coordinator on projects which overlap bureaus; meets with public to answer questions (e.g., landowners, city or county officials); assists in preparation for such meetings.

MAJOR WORKER CHARACTERISTICS:

Knowledge of supervision*; engineering or engineering design; computer programming*; office practices & procedures*; government structure*; public relations*. Skill in operation of calculator*; personal computer*. Ability to understand engineering design; define problems, collect data, establish facts & draw valid conclusions or understand practical field of study; interpret extensive variety of technical materials in books, journals, manuals; use algebra, geometry, trigonometry, statistical analyses &/or calculus; gather, collate & classify information; write contract specifications; cooperate with co-workers on group projects, work alone or establish friendly atmosphere.

(*)Developed after employment.

MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:

12 mos. exp. as Design Specialist 1, 85821 or in comparable position involving performance of engineering design work.

-Or 3 yrs. trg. &/or exp. in engineering or engineering design technology which included 1 course or 3 mos. trg. &/or exp. in one of following: shop math, geometry, trigonometry or calculus & 1 course or 3 mos. trg. &/or exp. in reading blueprints &/or specifications; or demonstrate proficiency.

TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:

N.A.

UNUSUAL WORKING CONDITIONS:

May be exposed to inclement weather & unsafe conditions during inspections of projects, to include walking long and short distances, climbing & navigating rough terrain, steep slopes & embankments & spillways & ladders while carrying needed equipment.

<u>CLASS TITLE</u>	<u>CLASS NUMBER</u>	<u>B. U.</u>	<u>EFFECTIVE</u>	<u>PAY RANGE</u>
Natural Resources Engineer Design Technician 2	85764	13	11/04/2012	33

JOB DUTIES IN ORDER OF IMPORTANCE: (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

Coordinates review of drawings, plans or designs submitted by contractors or field districts, suggests revisions as needed, analyzes studies done for proposed projects, summarizes data, & makes judgments & writes reports, correspondence & manuals.

Initiates literature review & research to design studies & develop conventional field testing procedures; designs projects &/or revises designs for district offices; prepares or monitors preparation of divisional design & construction standards & specifications.

Assists supervisor; meets with public officials, contractors, consultants & others to confer on design of projects; acts as liaison with other bureaus or agencies for project programming & scheduling; coordinates activities with districts, consultants to expedite projects & conducts field investigations to verify progress.

MAJOR WORKER CHARACTERISTICS:

Knowledge of supervision*; office practices*; engineering. Ability to understand practical field of study; use trigonometry & geometry; establish friendly work atmosphere as coordinator.

(*)Developed after employment.

MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:

12 months experience as Design Specialist 2, 85822 or in comparable positions involving engineering design work.

-Or 4 years trg. &/or exp. in engineering or engineering design technology which included 1 course or 3 months trg. &/or exp. in one of following: shop math, geometry, trigonometry or calculus & 1 course or 3 months training &/or experience in reading blueprints &/or specifications; or demonstrate proficiency.

TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:

N.A.

UNUSUAL WORKING CONDITIONS:

May be exposed to inclement weather & unsafe conditions during inspections of projects, to include walking long and short distances, climbing & navigating rough terrain, steep slopes & embankments & spillways & ladders while carrying needed equipment.

<u>CLASS TITLE</u>	<u>CLASS NUMBER</u>	<u>B. U.</u>	<u>EFFECTIVE</u>	<u>PAY RANGE</u>
Natural Resources Engineer Technician 1	85765	13	11/04/2012	31

JOB DUTIES IN ORDER OF IMPORTANCE: (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

Oversees project construction carried out by contractors working on state construction projects to ensure compliance with state & federal regulations.

Calculates, reviews, records & generally completes all project field office work; keeps project diary, reviews plans, checks quantity calculations, checks various records & maintains files; estimates costs for contract jobs; checks estimated costs submitted by contractors; analyzes technical reports; prepares for & assists in plan reviews; administers highway construction plans, interprets contract provisions & makes decisions; fills out all related forms.

Prepares plans & drafts detail drawings; writes specifications for projects; reviews permit applications; does research (e.g., statistical, courthouse) & makes suggestions on basis of results (e.g., reading deeds, title changes to establish property lines); writes reports for technical manuals; enforces equal opportunity employment standards on construction sites; keeps records & reports on all such activity; generally enforces all state requirements; aids public, local or state officials seeking information to include speaking with property owners.

MAJOR WORKER CHARACTERISTICS:

Knowledge of manpower planning*; employee training & development*; management*; supervision*; safety practices*; public relations*; office practices*; construction project inspection or engineering. Ability to understand practical field of study; use geometry, trigonometry or calculus; understand & interpret technical instructions.

(*)Developed after employment.

MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:

3 yrs. trg. or 3 yrs. exp. in any one or combination of following areas: design, drafting, cartography, materials testing &/or control, bituminous plant inspection, support surveying activities &/or other comparable engineering technical support function, of which included 1 course or 3 mos. trg. or 3 mos. exp. in shop math & 1 course or 3 mos. trg. or 3 mos. exp. in reading blueprints &/or specifications; or demonstrate proficiency. Applicants having 2 yrs. training or 2 yrs. exp. in construction project inspection which included at least 6 mos. trg. or 6 mos. exp. as lead worker, qualify; must be able to provide own transportation.

TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:

N.A.

UNUSUAL WORKING CONDITIONS:

May be exposed to inclement weather & unsafe conditions during inspections of projects, to include walking long and short distances, climbing & navigating rough terrain, steep slopes & embankments & spillways & ladders while carrying needed equipment.

<u>CLASS TITLE</u>	<u>CLASS NUMBER</u>	<u>B. U.</u>	<u>EFFECTIVE</u>	<u>PAY RANGE</u>
Natural Resources Engineer Technician 2	85766	13	11/04/2012	32

JOB DUTIES IN ORDER OF IMPORTANCE: (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

Inspects construction sites, gathers data for evaluation, assures project work conforms to contract specifications & state & federal regulations, reviews & verifies plan accuracy in field, troubleshoots problems on construction projects & reviews all project records &/or consultant reports & inspects finished structures periodically, determines state of deterioration & documents & recommends action.

Establishes staffing needs for offices; monitors office staff performing specialized functions; administers contracts & acts as lead worker (i.e., provides work direction & training) over all state personnel involved in construction or other contracted projects; assists supervisor when appropriate; coordinates projects with community/bureau; acts as public relations liaison (e.g., meets property owners, local officials or utility officials); testifies in court; conducts complaint investigation.

Analyzes field data, reviews of plans, rate increase requests &/or other records; audits utilities' books or contractors' records; prepares staff reports; collates data &/or information gathered in field for analysis. recommends action; initiates change orders; reviews permit applications; writes specifications; reviews reports & prepares contract time extensions.

Designs plans or projects; reviews plans, projects &/or aids in formulation to design policy; aids in programming work & program methodology; advises superior on project status; reports to & counsels other engineers; maintains current knowledge of appropriate engineering development.

MAJOR WORKER CHARACTERISTICS:

Knowledge of inventory control; management*; labor relations*; supervision*; safety practices*; office practices*; construction project inspection or engineering. Ability to understand a practical field of study; use trigonometry & algebra; write & understand technical instructions; establish friendly atmosphere as project coordinator.

(*)Developed after employment.

MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:

12 mos. exp. as Construction Project Specialist 1, 85831 or in comparable position involving construction project inspection; or 3 yrs. trg. or 3 mos. exp. in one of following: shop math, geometry, trigonometry or calculus & 1 course or 3 mos. trg. or 3 mos. exp. in reading blueprints &/or specifications; or demonstrate proficiency; must be able to provide own transportation.

TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:

N.A.

UNUSUAL WORKING CONDITIONS:

Requires travel; works outside exposed to weather & unsafe conditions during inspections of projects, to include walking long and short distances, climbing & navigating rough terrain, steep slopes & embankments & spillways & ladders while carrying needed equipment.