STATE OF WISCONSIN

DECISION AND ORDER

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ROBERT THEEL.	*		
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Appellant,	*		
	*		
v.	*		
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Secretary, DEPARTMENT OF	*		
TRANSPORTATION, & Secretary,	*		
DEPARTMENT OF EMPLOYMENT	*		
RELATIONS.	*		
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Respondents.			
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Case No. 84-0074-PC	*		
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This matter is before the Commission as an appeal from the denial of a reclassification request. The parties agreed to the following issue for hearing:

Whether or not the respondents' decision of February 15, 1984, denying the reclassification of the appellant's position from Engineering Technician 3 (PR 6-10) to Engineering Technician 4 (PR 14-02) was correct.

# FINDINGS OF FACT

1. At all times relevant to this proceeding the appellant has been employed by the Department of Transportation, Division of Highways and Transportation Facilities, Special Services Section.

2. Appellant's first line supervisor is Robert Holdridge, who is responsible for the Geodetic Control Unit and the Photogrammetry Unit within the Special Services Section.

3. The Geodetic Control Unit is staffed by a group leader and four staff. The unit is responsible for geodetics, survey computation, analytical triangulation and methods development.

4. Steven Root is the coordinator and lead worker of the analytical triangulation responsibility within the Geodetic Control Unit. Mr. Root and the appellant are the only two person within the unit responsible for analytical triangulation. Mr. Root is involved in the development of more sophisticated techniques of analytical triangulation for use in the unit. In addition, he performs the final review and refinement of the data produced.

5. Analytical triangulation is the mathematical computation of survey control point coordinates using a limited number of known points which are provided by geodetic survey. Analytical triangulation is a less expensive alternative to land surveys for establishing the coordinate data. The procedure involves the analysis of the inter-relationship between aerial photographs taken of the same land area from different perspectives. Once the coordinates are developed by analytical triangulation (which includes the construction and adjustment of a mathematical model) the data is sent to the Photogrammetry Unit for stereoplotting. The topographical maps and cross sections that are produced may then be used by the respondent for designing highways, paying contractors for highway construction materials and purchasing land needed for highway construction.

6. The appellant's responsibilities are accurately described in his position description, a copy of which is attached hereto and in corporated by reference as if fully set out below.

7. The position standard for the Engineering Technician series provides in part as follows:

#### ENGINEERING TECHNICIAN 3

Under supervision, independently performs skilled and technical duties in such areas as photogrammetrics, or field location surveying, or complex layout of structures, roadways, etc. Set up and operate intricate photogrammetric instruments, or have thorough knowledge of surveying operation and the ability to interpret rough engineering sketches; or have thorough knowledge

and understanding of trigonometry and horizontal curve geometrics, and ability to lay out complex skewed, curved, and tapered structures; or the ability to lay out and complete complex and difficult plans from basic and elementary information and engineering sketches; or perform related work as required.

## \* \* \*

# ENGINEERING TECHNICIAN 4

Under supervision, performs difficult and complex technical and/or supervisory or coordinating duties such as layout of most complex and unique structures, or independent inspection of plants fabricating routine steel structures or preparation of Planning and Research reports based upon analysis and forecast of traffic and land use patterns; or supervising a district program of marking and signing, or a medium sized construction project, or a geodetic field crew, or a central laboratory testing unit. Incumbent must have extensive knowledge of testing procedures and specification requirements for material testing or inspection, or ability to organize, supervise, and direct a routine construction project or portions of a district traffic program, to include interpretation and application of routine plans and specifications. May perform related work as required.

8. The appellant's position is predominately involved in setting up and operating intricate photogrammetric instruments. The appellant is not a lead worker.

9. Two positions within DOT that are classified at the ET 4 level and which may be considered to be responsible for technical duties comparable to these assigned to the appellant, have lead work responsibility.

10. The appellant's position is best described by the ET 3 classitication.

### CONCLUSIONS OF LAW

The Commission has jurisdiction over this appeal pursuant to
\$230.44(1)(b), Stats.

2. The appellant has the burden of establishing that respondents' decision to deny his request to reclassify his position was incorrect.

3. The appellant has failed to meet the burden of proof.

4. The respondents' decision not to reclassify the appellant's position from ET 3 to ET 4 was correct.

#### OPINION

As one of two persons performing analytical triangulations, the appellant performs a technical responsibility that involves the use of several photogrammetric instruments. The position standards for the Engineering Technician series, specifically identify at the ET 3 level those positions performing "skilled and technical duties in such areas as photogrammetrics" and which may "[s]et up and operate intricate photogrammetric instruments." In contrast, the examples of ET 4 responsibilities make no mention of photogrammetrics. The ET 4 position standard refers to positions which perform "difficult and complex technical and/or supervisory or coordinating duties."

The appellant offered testimony by the personnel specialist (Ms. Jill Thomas) who originally reviewed his reclassification request. Ms. Thomas had recommended reclassification but the respondent subsequently decided to deny the request. Ms. Thomas testified that while the examples cited in the ET 4 specification did not include positions performing work similar to the appellant's, there had been changes in the allocation pattern since the position standards had been adopted in 1967. Ms. Thomas concluded that in terms of such factors as the judgment exercised, independence, complexity and consequence of error, the appellant's position was comparable to a geometric layout specialist and a location survey crew chief classified at the ET 4 level. The specifications describe those positions as follows:

Location Survey Crew Chief (routine and moderately complex) -Directs and supervises a location crew responsible for running base line and bench levels, taking original cross sections, tying in of section corners and lot pins. Also computes curve notes, and records pertinent topography. This field information is used in design of roadway, and bench marks established are later used by construction survey crews as their reference points.

> <u>Geometric Layout Specialist</u> - Does geometric layout of complex projects, including the trigonometric computations required.

Ms. Thomas also stated that she looked at the position description for both a location survey crew chief and a geometric layout specialist in making her comparison. However, the position descriptions were not submitted as exhibits nor was there any other evidence regarding the duties of the geometric layout specialist beyond that set out above. The survey crew chief clearly has lead work (formerly supervisory) responsibility while the appellant does not. The ET 3 specifications make no mention of supervisory or coordinative responsibilities while these functions are specifically noted in the ET 4 specifications. There is also not enough evidence in the record on which the Commission could conclude that the appellant's duties are of a similar degree of difficulty and complexity as the duties of a geometric layout specialist. Therefore, the appellant has failed to establish that his position is comparable to those two positions identified by Ms. Thomas as justifying reclassification.

The appellant focused on three positions as comparables for the purpose of classifying his own position. The first comparable was the ET 4 position held by the appellant's lead worker, Mr. Root, until 1972. At that time, Mr. Root's position had a working title of analytical triangulation supervisor and 70% of his work involved the "supervision of a group engaged in the coordination, design, collection, instrumentation and interpretation of data used for analytical triangulation input and output." Mr. Root's position was reclassified to the ET 5 level in 1972 and to the ET 6 level sometime after 1978. Mr. Root clearly was functioning as a coordinator/supervisor when he was classified at the ET 4 level. In contrast, the appellant's current position description shows he spends just 10% of his time acting as a coordinator in Mr. Root's absence. In addition, it should be noted that the analytical triangulation "unit" consists

of just two people. When Mr. Root is absent, appellant may be responsible for performing some of the work usually done by Mr. Root, but the appellant is not in a position to act as a lead worker.<sup>FN</sup>

Another comparable position, held by Lauren Bomkamp, is also at the ET 4 level. Mr. Bomkamp's current position description indicates that the working title of his position is cartographic coordinator and as such he is responsible for "coordinat[ing] a group engaged in updating and correcting of the Official State Highway Map and County Highway Maps." When his position was reclassified in 1972, the justification for the request stated that Ms. Bomkamp was "functioning as the lead worker in training, reviewing and assigning work to several other photogrammetric specialists."

The final comparison suggested by the appellant is to the ET 4 position of aerial photographer occupied by William Cronkrite. Mr. Conkrite's current position description indicates he spends 30% of his time in performing the goal of a "[c]oordination of Photo Compilation Group as lead worker and in the absence of coordinator."

The appellant's position can be distinguished from both the Bomkamp and Cronkite positions because it does not include significant lead work responsibility.

Respondent offered testimony to the effect that the ET 4 classification was intended to primarily identify positions that are coordinative in nature, i.e. positions acting to coordinate or in charge of programmatic

<sup>&</sup>lt;sup>FN</sup> The evidence established that on three occasions, for a total of approximately five weeks between 1981 and 1984, another person (Mr. Eckes-Schmidt) joined the analytical triangulation "unit" and performed some of the work. It is conceivable that the appellant acted as a lead worker for at least part of the five week period, but this is not a significant responsibility as indicated by the fact that it does not appear in the appellant's position description.

work and leading the work of other employes. The comparables that were identified at hearing are consistent with this conclusion. However, the ET 4 class specifications identify positions performing "difficult and complex technical <u>and/or</u> supervisory or coordinating duties." The language of the specifications shows that classification to the ET 4 level is appropriate for a position that performs difficult and complex technical duties, even though the position has no lead work responsibility. In the present case, the appellant failed to establish that his position was comparable to <u>non-</u> lead workers classified as ET 4's.

Even if the appellant had been able to show that his technical responsibilities were of a similar degree of difficulty and complexity as ET 4's with no lead work (or 10% coordinative) responsibility, he would still have to overcome the specific identification in the ET 3 specifications for positions that set up and operate photogrammetric instruments." Because the appellant has not established those facts, he has not met the burden of persuasion in this matter and the respondent's decision must be affirmed.

# ORDER

Respondents' decision denying appellant's reclassification request is affirmed and the appeal is dismissed.

Nev. 8 ,1984 STATE PERSONNEL COMMISSION Dated: DONALD R. MURPHY, Chairp

McCALLUM, Commissioner

DENNIS P. McGILLIGAN, Commigioner

KMS:jab ORDER

Parties

Robert Theel DOT Rm 5B Madison, WI 53707 Lowell Jackson Secretary, DOT P. O. Box 7910 Madison, WI 53702 Howard Fuller Secretary, DER P. O. Box 7855 Madison, WI 53707

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		<b>D</b> I	De	pt. of Trans	portation			
Robert J.	Theel	Personnel	Highways & Transportation Facilities					
6 CLASSIFICATIO	IN TITLE OF POSITION	Commission	Special Services Section Rm 5B					
Engineerin	g Technician III		4802 Sheboygan Avenue Madison Wisconsin 53702					
7 CLASS TITLE O	PTION (To be Filled Out By	Personnel Office)	8 NA	ME AND CLASS OF	FORMER INCUMBENT			
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9 AGENCY WORK	ING TITLE OF POSITION		10 NAME AND CLASS OF EMPLOYES PERFORMING SIMILAR DUTTE					
Analytical Photogrammetric Specialist None								
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Robert H.	Holdridge		PERFORMED THE WORK DESCRIBED BELOW?					
CE 5 (Tran	is) Supervisor		March, 1982					
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14 POSITION SUM	MARY - PLEASE DESCRI	BE BELOW THE MAJOR GOA	LS OF T	HIS POSITION	. <u></u>			
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	integral part of the highway design process.							
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20%	A: Stereoscopi	c transfer of conj	ugate	image point	s needed as photoco	ntroi for		
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Position Number 012179

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- A.1 Accomplish interior orientation through achieving and maintaining the plane of coincidence, optical wedge alignment, and drill centering. Since the strength of camera orientation during strip formation and block adjustment is a direct function of point transfer accuracy, extreme care is required to maintain an absolute interior orientation within the point-transfer device for every point transfer.
- 15% A.2 Accomplish exterior orientation by the removal of all tangential parallax through the use of the four translational motions. Residual Parallax is then eliminated through a precise multitudinous phase rotation of the dove prisms. Only after the operator passes judgement on all points marked can the diapositives be passed onto the mensuration portion of analytical triangulation instrumentation.
- 30% B: Orientation, correlation, operation and calibration of instrumentation used for the mensuration of rectangular coordinates of pass, tie, and control points on a diapositive plane surface for photocontrol extension in analytical triangulation.
  - B.1 Place (exterior orientation) diapositives onto the X & Y stages and maintain proper relation between the comparator coordinate system and the photo coordinate system. Adjust (interior orientation) the depth of field to achieve plane of coincidence with the emulsion and eyepiece reticle.
  - B.2 Achieve correlation by recording the "x & y" plate coordinates. Correlation is the adjustment of the intrarelationship between the Electronic Metrigraphic Terminal, Mono-Comparator with pressurized air bearing X & Y stages, and the Input/Output unit.
  - 20% B.3 Measure and record raw plate coordinates for all image points required for photocontrol extension to maintain one micron resolution during mensuration and achieve a repeatability of three microns root mean square error.
    - B.4 Measure a precise grid plate periodically to maintain calibration to assure perpendicularity of the X & Y comparator stages.
- 15% C: Design of all pass and tie points that are used for analytical photocontrol of stereomodels. Special consideration is given to the location and placement of these points in order to achieve a strong orientation matrix, which is the basis for establishing a strong analytical model. A strong model formation is the key to the analytical sequential and simultaneous adjustments.
  - 10% C.1 Design pass points through analytical geometric requirements and necessity for recoverability within the stereomodel that is used for absolute orientation.
    - C.2 Design tie points to meet the requirements of the analytical simultaneous collinearity adjustment of all photographs.

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Position Number 01217

- D.1 Coordinate data necessary for input to the aerotriangulation system. The aerotriangulation system organizes units of measurements into arbitrary strip configurations and adjusts the assembled units to fit the ground control.
- 10% D.2 Interact with the data as the adjustment progresses within the program system. This is accomplished through the TSO video terminal which allows direct batch communications with the mainframe computer. This interaction allows the user to recognize and eliminate or correct for blunders and systematic errors caused during analytical instrumentation.
  - D.3 Evaluate the polynomial strip adjustments to assure that the quality and strength of triangulation is consistent. This includes error analysis of ground control used for adjustment.
- E: Coordination of activities in the absence of the Analytical Triangulation Coordinator. Planning and production of analytical photocontrol, and coordination of control problems.
  - E.1 Accountable for various activities in the absence of the Group Coordinator.
  - E.2 Coordinate with the Geodetic Survey Engineers the correction of ground control errors before input to the simultaneous adjustment and finalization process. Control error detection results from analyzing the first and second degree polynomial curve data from the horizontal and vertical adjustments. Control error type, location and magnitude is given to the Geodetic Survey Engineers for field varification and correction or replacement.
  - D.1, D.2, D.3

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- 0% F: Analytical determination of accurate horizontal coordinate location of special features needed for highway design and real estate acquisition. The special features are: centerline location, property line location, railroad location, sideroad centerline location and powerline crossings.
  - F.1 Transfer stereoscopically conjugate image points that will define all special features and incorporate these into the analytical system of data collection.

B.1, B.2, B.3, D.1, D.2, D.3

RJ.T. 8-29-83 RAM 8-29-83

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