PF&RD/GEOMATICS/LIS DIVISION

QUICK REFERENCE GUIDE

FOR

DIGITAL SUBMISSION OF SUBDIVISION MAPS

AUGUST 1, 1997

Orange County Ordinance 3809 requires that subdivision maps in unincorporated territory be submitted to the Orange County Surveyor in both digital and hardcopy formats. To enhance the usefulness of the digital data, it must be structured. The data is used for computational purposes in checking the map, for maintaining our digital landbase and in document retrieval systems. This guide is an abbreviated version of The Specifications for Digital Submission of Cadastral Surveys, dated September 4, 1991. It is not intended to replace the specifications, but to ease the process of digital submission. Copies of the original specifications are available at the office of the County Surveyor.

The digital submission will consist of two deliverables – traverse data and a 2D to scale graphic representation. Traverse data should be transmitted as an ASCII file. The 2D graphic representation should preferably be transmitted as a .DWG file or a .DGN file. A .DXF file is also acceptable. Files should be submitted on a 3 ½" floppy diskette.

The graphic data must be on the following 8 levels (layers) only:

Level 1 – Boundary
Level 2 – Centerlines
Level 3 – Lot Lines
Level 4 – Right of Way
Level 5 – Easements
Level 6 – Basis of Bearings and GPS Ties
Level 7 – Annotation
Level 8 – North Arrow Miscellaneous

The distinctive boundary should be transmitted on level 1 as a closed figure. All lines intended to intersect must intersect to allow for the construction of a complex shape or polyline. The boundary should not be shown as a series of lines, arcs and curves.

If any of the lines shown on levels 1 through 5 are coterminous, e.g. a boundary line is coincidental, the following hierarchy should be used to eliminate duplication of data (except when boundary line and lot line are coincidental):

a) Boundary
b) Centerlines
c) Right of Way
d) Lot Line – Duplicate when common with boundary
e) Easement

All linework on levels 1 through 6 must be shown to scale. Do not use broken scale symbols within the electronic file. Linework is to be referenced or rotated to north (pointing toward the top of the computer screen). **Do not** show any annotation on these levels.

The basis of bearings and GPS tie linework to the Orange County Surveyor's GPS Control (NAD 83 Datum) will be shown on level 6. The GPS point number will be shown beside each point used on level 7. **Do not** show any annotation on level 6.

All annotation will be shown on level 7. It will be limited to tract number, lot numbers, street names and GPS point numbers. **Do not** show bearings, distances, coordinates, monument or easement notes.

Level 8 may contain any miscellaneous information, such as a north arrow and monument symbols. Note that this information **is not** used by the County Surveyor and is not required.

The floppy diskette containing the traverse and 2D data graphics representation should be submitted with the original map when asked for by the County Surveyor. This will significantly reduce the possibility of the digital map not being in agreement with the hardcopy due to last minute revisions. Your original map will not be sent to the County Recorder until the digital data has been reviewed and approved by the County Surveyor. The 2D digital data will be checked for the following:

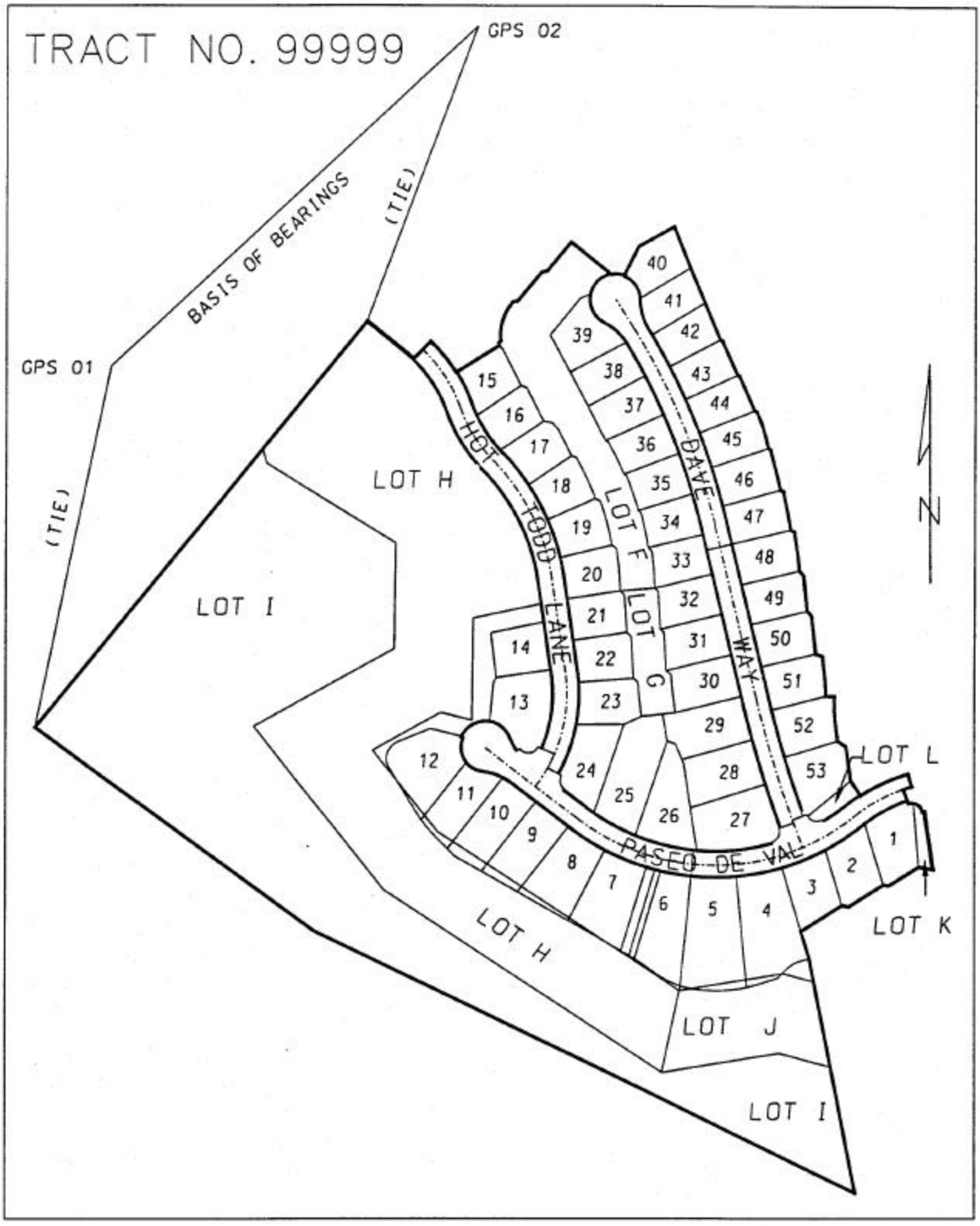
a) Correct layering
b) Consistency between the digital and hardcopy maps
c) Correct geographical position using NAD 83 datum
d) Mathematical closure

The following attached exhibits, show exactly how the graphic representation of the subdivision should be submitted. If you have any questions about the process of digital map submission, please contact Mike Leat at 834-3499 or Dave Unger at 834-3478. If you are unable to provide us with a digital copy of your subdivision, you may write a letter to John Canas, County Surveyor, requesting that we do it for you. You will be charged the hourly map checking rate. The money will be deducted from your initial deposit for map checking.

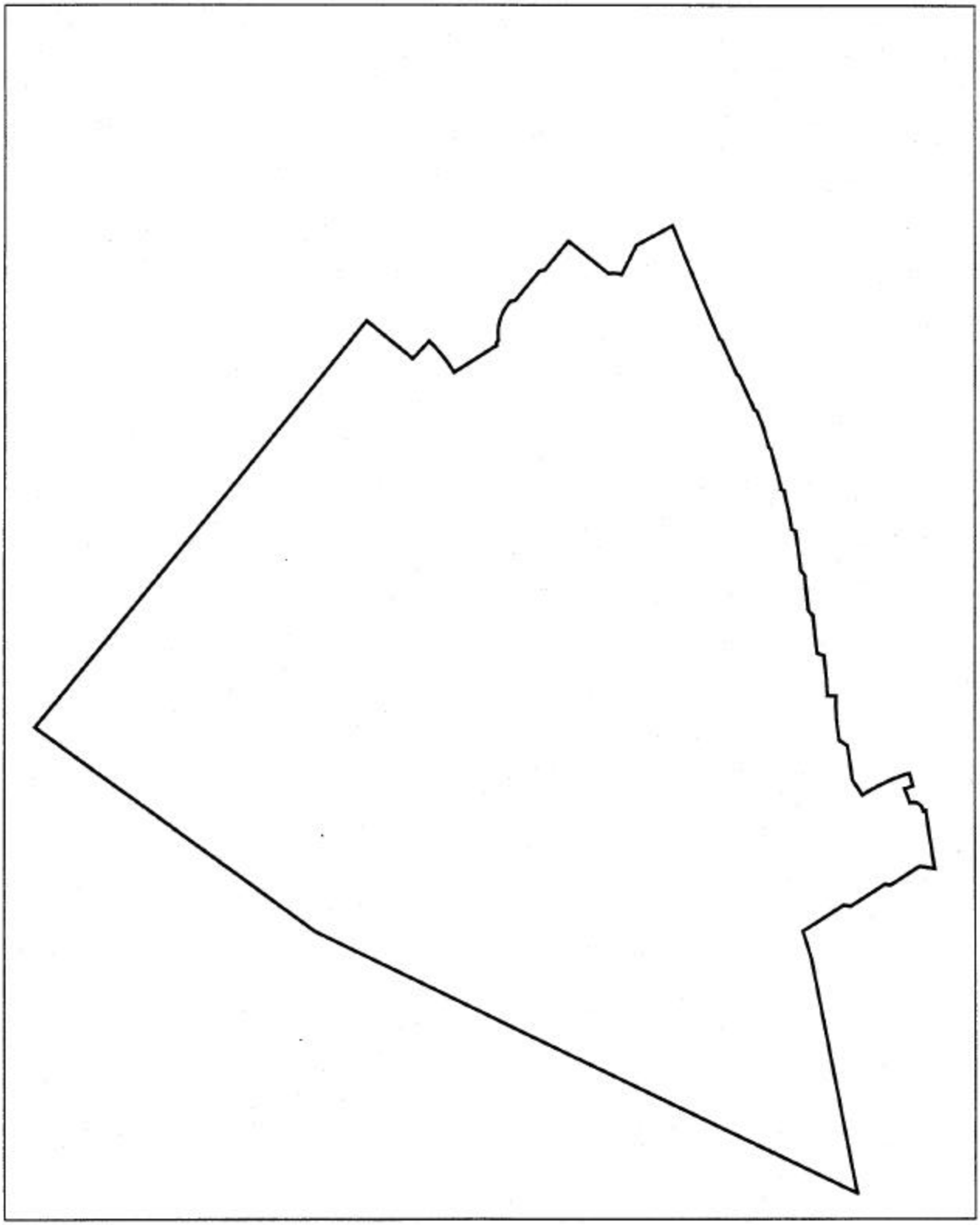
INDEX FOR DATA LAYERING EXAMPLES	LINE WEIGHTS
Page 3 – Entire Subdivision (Levels 1 through 8 turned on)	1 & 3
Page 4 – Boundary Only (Level 1 only turned on)	3
Page 5 – Centerlines Only (Level 2 only turned on)	1
Page 6 – Lot Lines Only (Level 3 only turned on)	1
Page 7 – Right of Way Only (Level 4 only turned on)	1
Page 8 – Easements Only (Level 5 only turned on)	1
Page 9 – Basis of Bearings and GPS Ties Linework Only (Level 6 only turned on)	1
Page 10 – Annotation Only (Level 7 only turned on)	1
Page 11 – North Arrow – Misc. (Level 8 only turned on)	1

Note: Do not put each level in a separate design file.

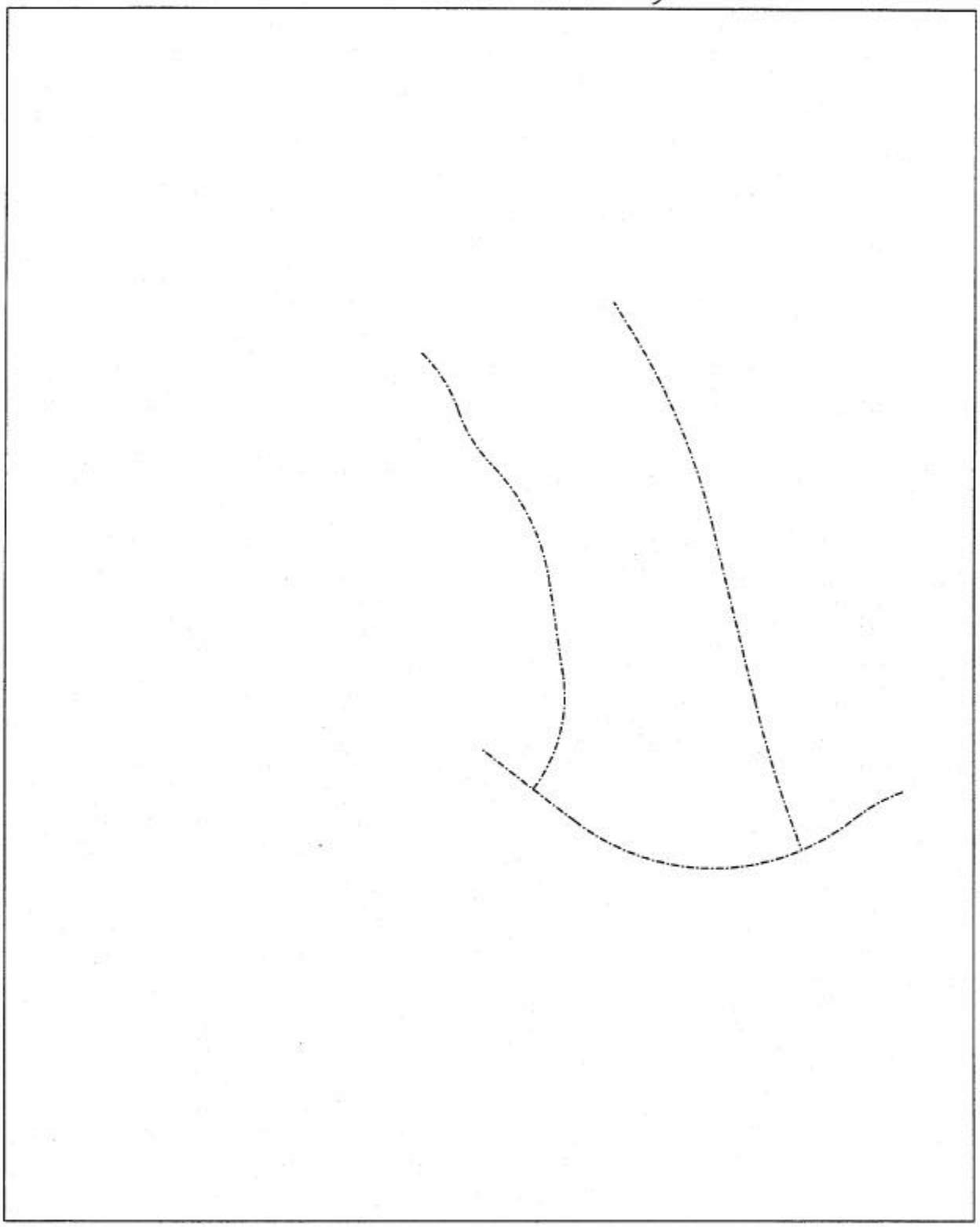
LEVELS (Layers) 1 - 8 ON ENTIRE SUBDIVISION



LEVEL (Layer) 1 ON
Boundary Only (polyline)

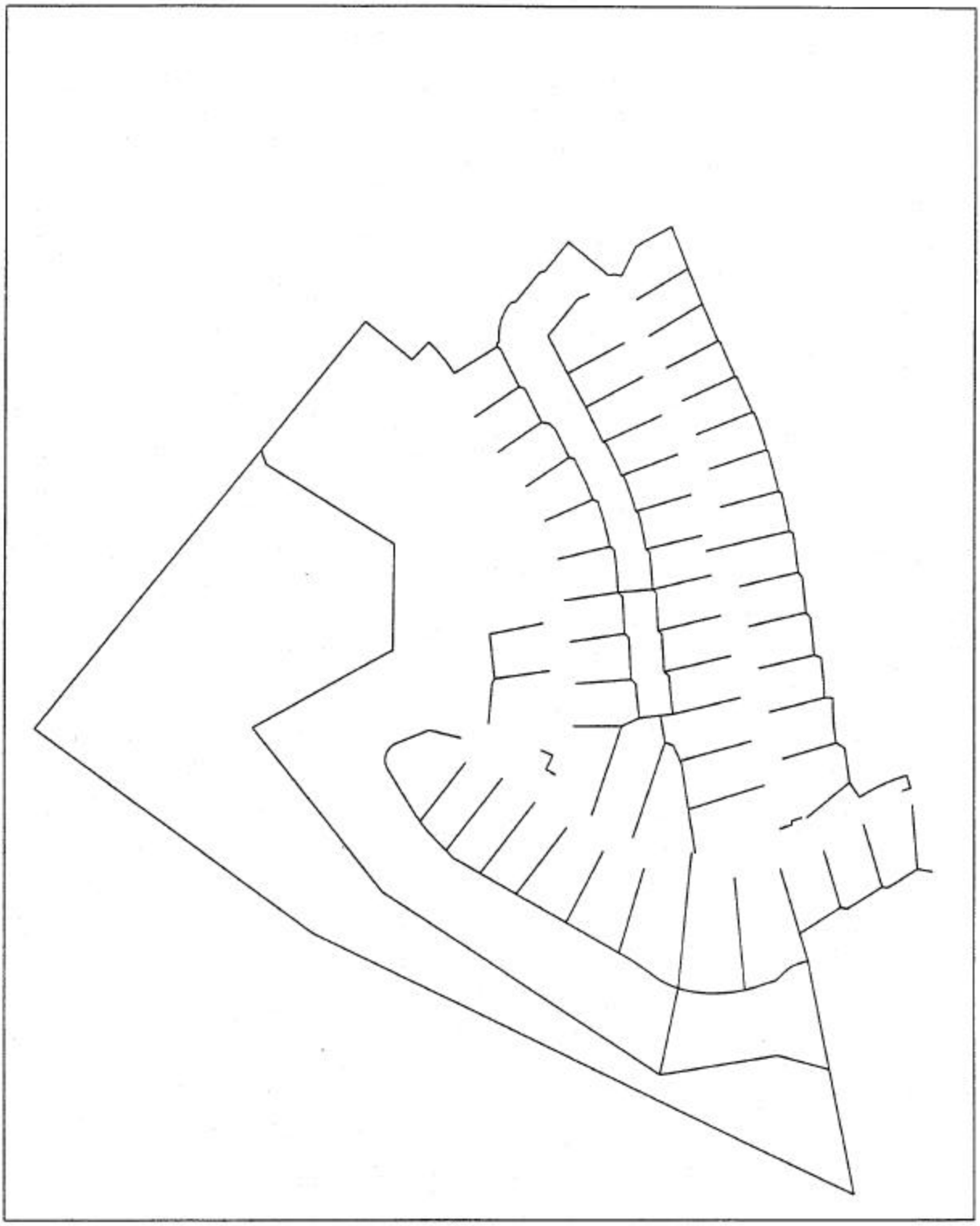


LEVEL (Layer) 2 ON
Centerlines Only



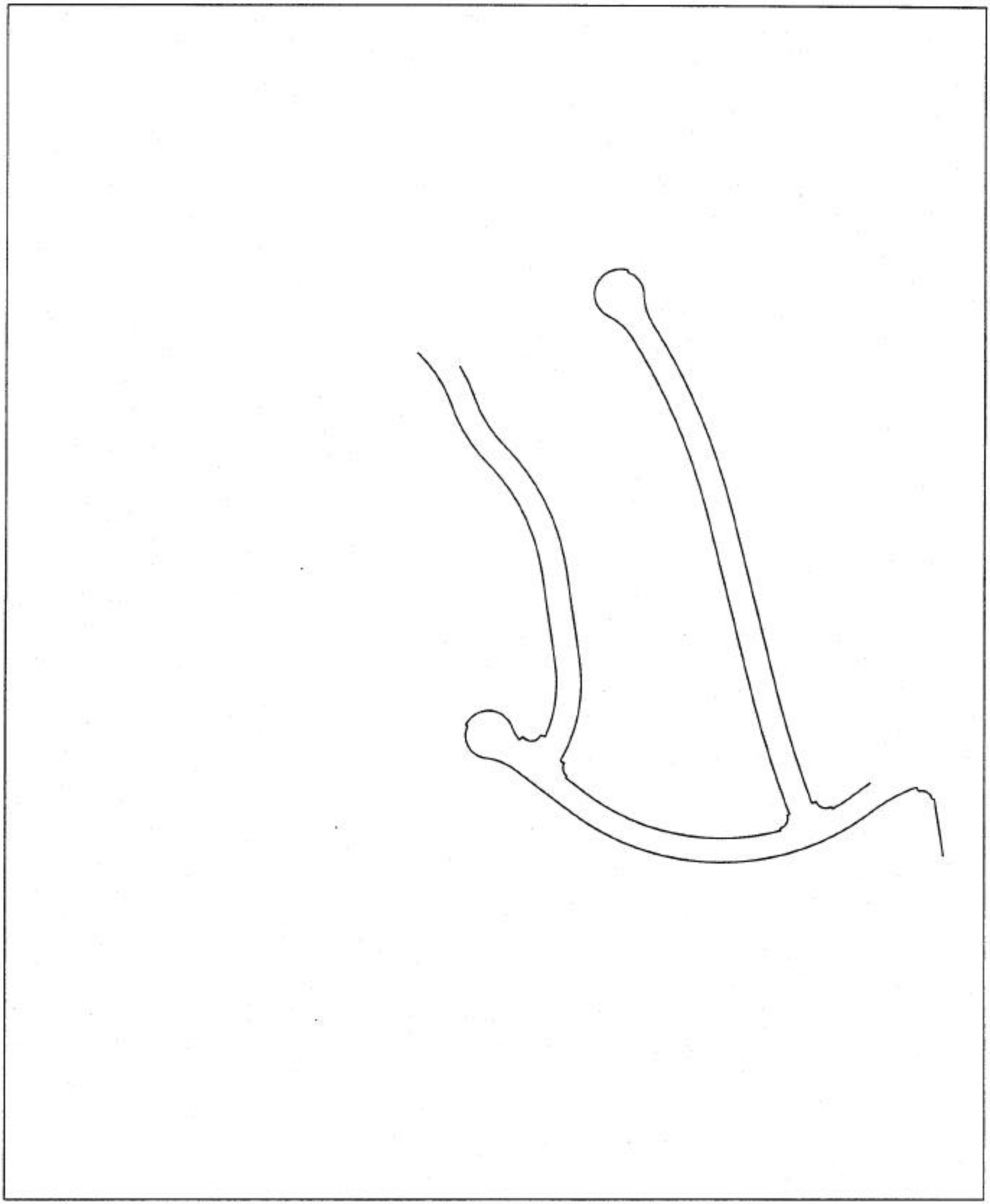
LEVEL (Layer) 3 ON

Lot Lines Only

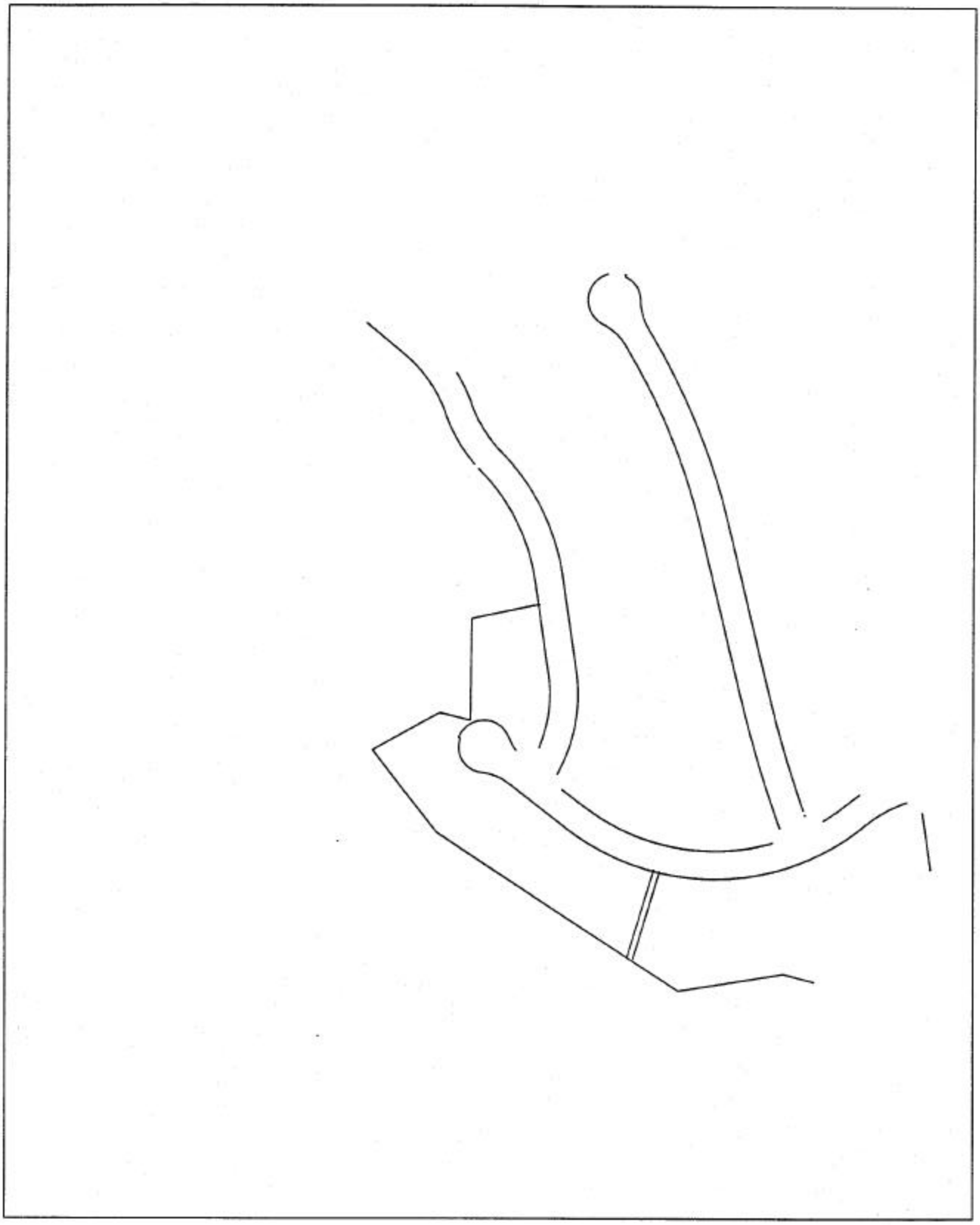


LEVEL (Layer) 4 ON

R/W Lines Only

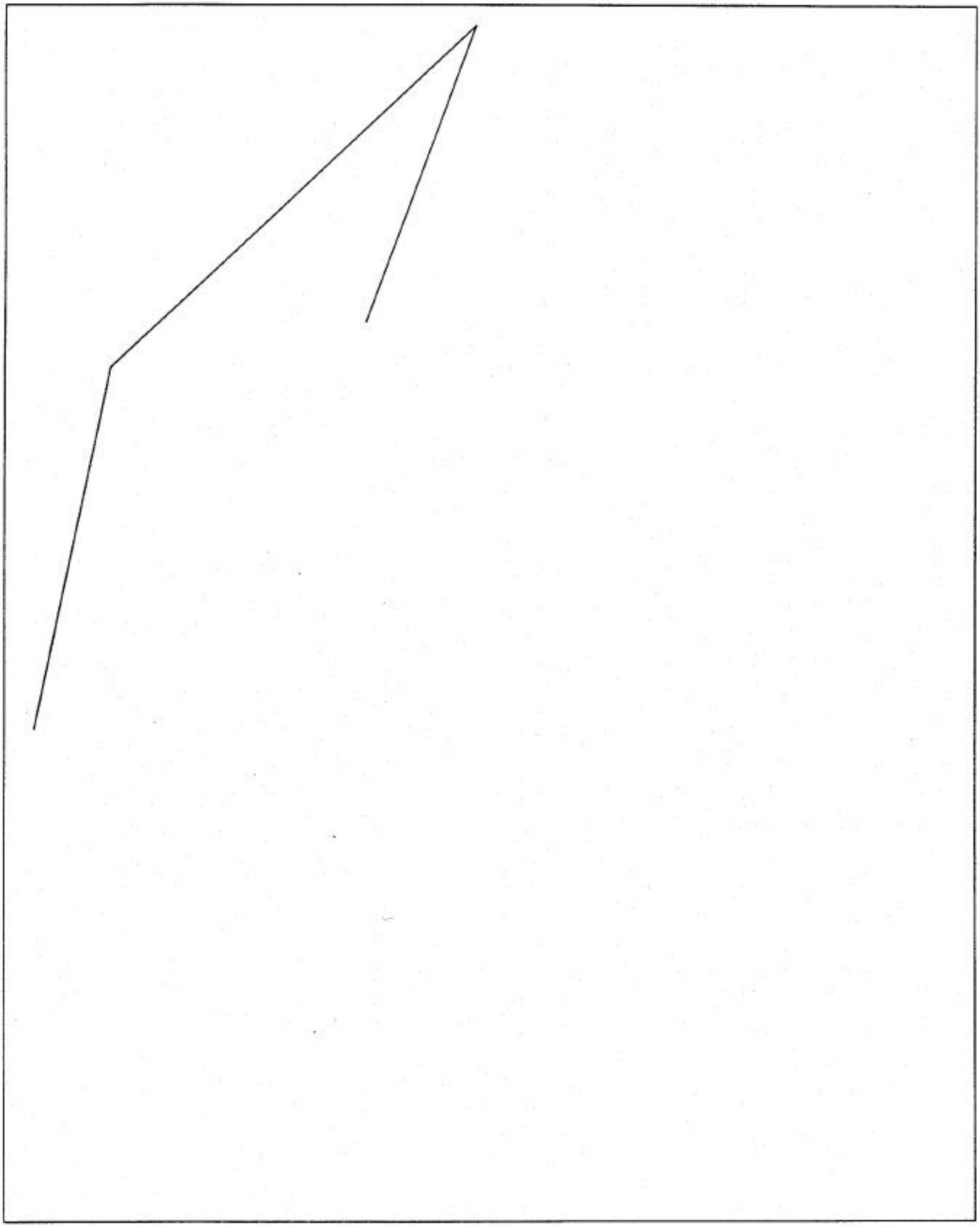


LEVEL (Layer) 5 ON
Easements Only

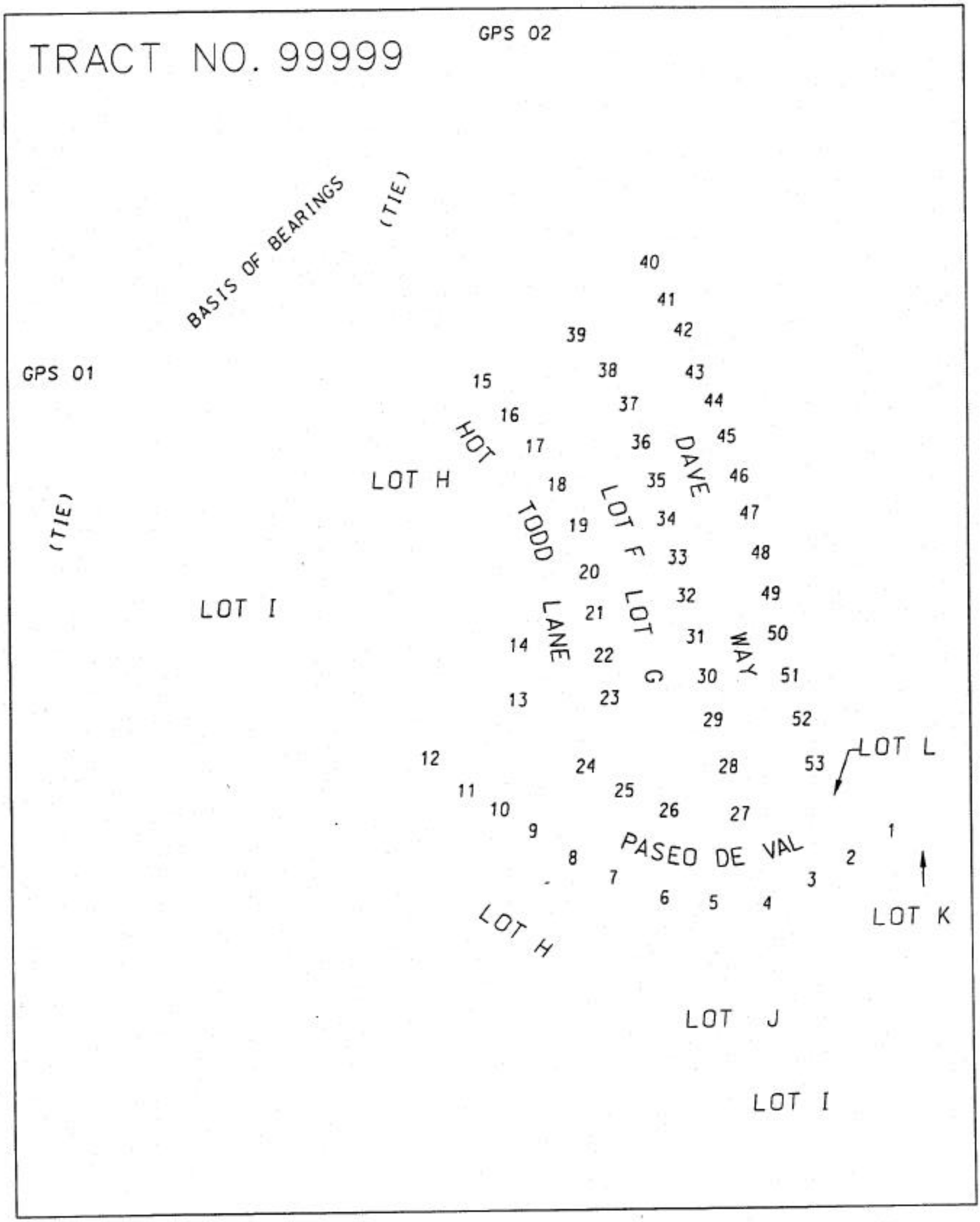


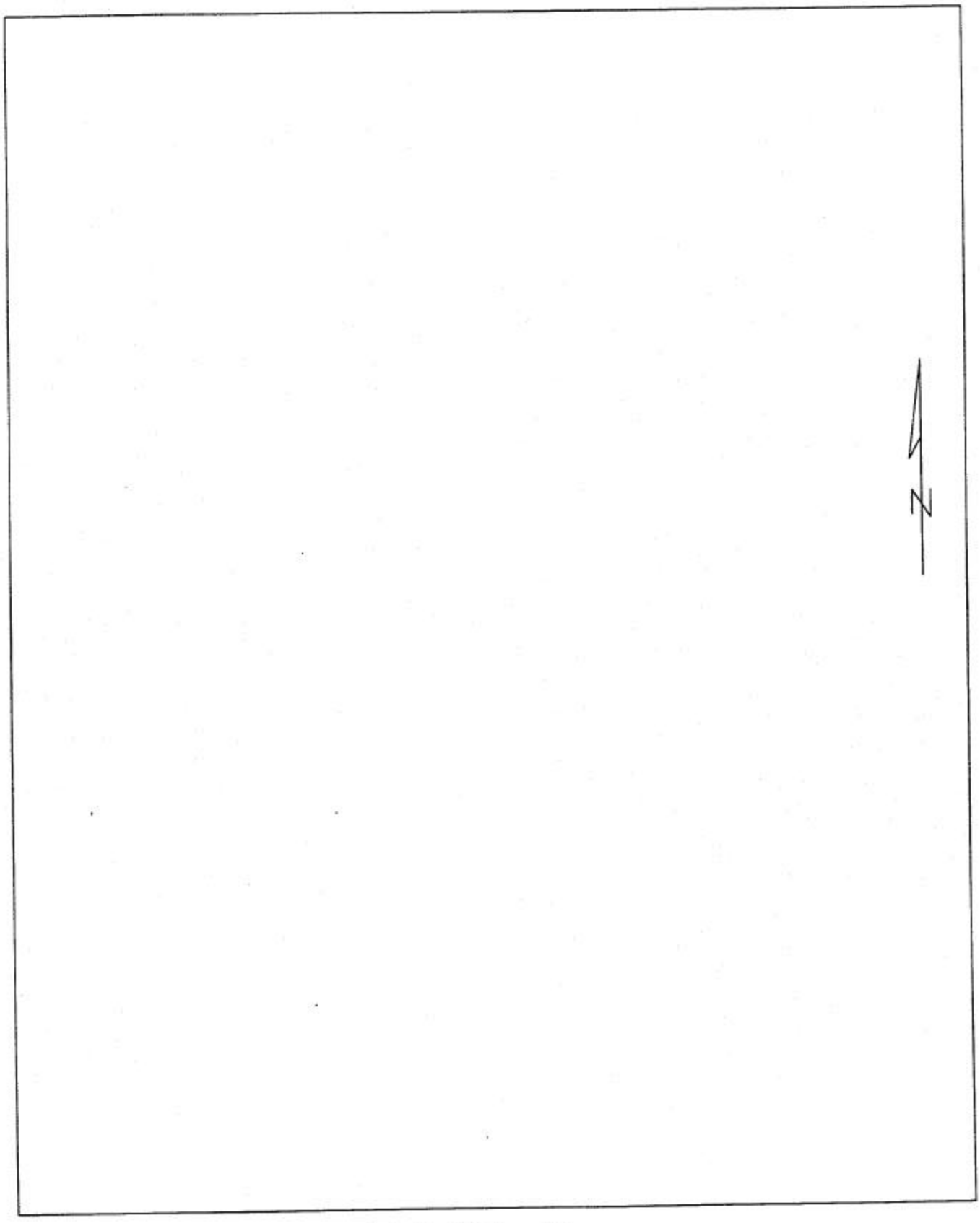
LEVEL (Layer) 6 ON

Basis of Bearings & GPS Tie (Linework Only)



LEVEL (Layer) 7 ON
Annotation Only



LEVEL (Layer) 8 ON

Misc. - North Arrow