

Highway Design Manual (Volume I) **List of Major Revisions to Chapter 12**

1. Revision to Title to reflect additional material added
2. **Introduction**
 - a. Text revisions emphasizing importance of field review and other reconnaissance critical to design
3. **Field Survey & Base Plan Preparation**
 - a. Minor text revisions and procedural clarifications
 - b. Added 'Developing Base Plans without Survey' section and reference to new Appendix 12-1 Existing Data Locations
 - c. Added reference to new Appendix 12-3 Sample Cogo Report
 - d. Added 'Types of Survey' section covering Preliminary, Construction Line Layout and Post Construction Surveys
4. **Computations: Traverse & Benchlines**
 - a. No significant changes
5. **Field Books: Plotting Detail & Descriptions**
 - a. Added significance and importance of field survey books and scanned field book location
 - b. Added new Appendix 12-4 Scanned Field Book Location & Sample
6. **Other Field Information**
 - a. Clarification on other field information pertinent to the designer
 - b. Added reference to new Appendix 12-6 Bureau of Environment Organization Chart
 - c. Added reference to new Appendix 12-7 Field & Emergency Review Guidelines
7. **Aerial Survey**
 - a. Added note regarding limitations due to vegetative cover.
 - b. Added descriptions of two standard levels of required accuracy.
 - c. Convert to English units.
 - d. Added LIDAR reference
8. **Subsurface Investigation: Geotechnical & Utilities**
 - a. Added information regarding Subsurface Utility Engineering (S.U.E.) process being used by the Department
 - b. Added that Bureau of Environment should be consulted to determine if natural resources or hazardous materials are of concern
 - c. Added new Appendix 12-5 Bureau of Materials & Research Organization Chart
9. **Appendices added**
 - 12-1 Existing Data Locations
 - 12-2 Survey Request Slip
 - 12-3 Sample COGO (Coordinate Geometry) Report
 - 12-4 Field Book Location & Sample
 - 12-5 Bureau of Materials & Research Organization Chart
 - 12-6 Bureau of Environment Organization Chart
 - 12-7 Field & Emergency Review Guidelines