2022 Virtual Workshops 1-1 Introduction to CAD Recorded 11/15/2022

The opening session of the 2022 Virtual Workshops introduced participants to IntelliCAD 2023 and Carlson 2023, focusing on CAD fundamentals, interface navigation, and drafting precision. Jennifer DiBona guided attendees through command usage, settings, object snaps, polylines, text tools, and practical workflow tips for survey and civil design professionals.

Key Topics:

- Workshop logistics and GoToWebinar Q&A setup
- Overview of Carlson 2023 (IntelliCAD 10.1) release and stability improvements
- CAD interface elements: command line, toolbars, menus, ribbons, workspaces
- Default settings, options, and drafting preferences
- Command entry, quick keys, and aliases
- Object snaps (OSNAP) and precision drafting
- Lines vs. polylines, grips, and selection methods
- Text creation (single-line vs multi-line) and editing
- Saving, backups, and workspace management

This session was presented by Jennifer DiBona on 11/15/2022.

2022 Virtual Workshops 6-5 – Tips & Tricks and Management of Project Data
Recorded 12/13/2022

In the final session of That CAD Girl’s 2022 Virtual Workshop series, Travis demonstrated advanced CAD project management workflows using tables, custom fields, and sheet sets. The session also covered Civil 3D conversions, LIDAR data handling, grading, watershed analysis, and integration with HEC-RAS for hydrology modeling.

Key Topics:

- Automating project data with tables and custom fields
- Using Sheet Set Manager for large projects
- Civil 3D file conversion and XREF management
- LIDAR data processing and surface creation
- Watershed analysis and drainage modeling
- HEC-RAS integration for hydraulic design
- Grading and pad design enhancements

Descriptions, transcripts and other details of this recording have been AI-generated and may contain errors.

This session was presented by Travis Maxwell on 12/13/2022.

2022 Virtual Workshops 6-4 Live Design_New Techniques for Better Project Design with Carlson Civil Recorded 12/13/2022

This virtual workshop session features civil engineer Bill Dennis demonstrating a streamlined field-to-office GIS and CAD workflow using Carlson Software. The presentation covers integrating GPS data, GIS mapping, and CAD design to improve efficiency in large-scale land development projects.

Key Topics:

- Field-to-office GIS and CAD integration
- GPS-based conceptual design workflows
- Carlson Software tools for civil engineering
- Data export/import between CAD, GIS, and mobile devices
- Real-world project demonstration

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This session was presented by Bill Dennis of Civil Design Team LLC of Greer on 12/13/2022.

2022 Virtual Workshops 6-3 – Fire Flow Analysis Case Study Recorded 12/13/2022

This Carlson Software virtual workshop session, led by Travis Maxwell, demonstrates how to model waterline extensions and perform fire flow and hydrostatic pressure analysis using Carlson’s Pressure Pipe Network tools. The presentation covers setup, data input, hydraulic grade line calculations, and integration with EPA Net for validation.

Key Topics:

- Pressure Pipe Network setup and configuration
- Fire flow and hydrostatic pressure testing
- Hydraulic grade line (HGL) and PSI-to-head conversions
- Integration with EPA Net for model verification
- Managing pipe crossings, profiles, and demand nodes

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This session was presented by Travis Maxwell on 12/13/2022.

2022 Virtual Workshops 6-2 – Pervious Paver Parking Lot

Design
Recorded 12/13/2022

This virtual workshop showcased a real-world case study on designing a permeable paver stormwater system using Carlson HydroNet. Engineers from Finch & Associates demonstrated how to model complex drainage networks, link watershed areas, and simulate stormwater detention using Carlson’s 2022–2023 hydrology tools.

Key Topics:

- Permeable paver stormwater design
- Carlson HydroNet modeling and routing
- Stormwater detention and drainage analysis
- Project case study: Veterinary hospital expansion in Knigh tdale, NC

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This session was presented by Finch & Associates from Raleigh, NC on 12/07/2022.

2022 Virtual Workshops 6-1-

Wet Pond Design for Multi-Family Development Recorded 12/13/2022

This virtual workshop demonstrates advanced stormwater design te chniques using Carlson Software’s HydroNet Explorer. Presenter T ravis Maxwell guides attendees through converting Civil 3D files , creating surfaces from Google Earth data, and designing detent ion and wet ponds within Carlson’s hydrology tools.

Key Topics:

- Carlson Hydrology and HydroNet Explorer workflows
- Stormwater detention and wet pond design
- Civil 3D data conversion and surface modeling
- Curve number and time of concentration calculations
- Integration with Google Earth and LiDAR data

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This session was presented by Travis Maxwell on 12/13/2022.

2022 Virtual Workshops 5-3 – Civil Design in Carlson

Software
Recorded 12/07/2022

This recorded session from the 2022 Virtual Workshops features Carlson Software’s Mark Long demonstrating step-by-step civil design workflows in Carlson Civil and Hydrology. The class covers sanitary-sewer and storm-drain network setup, surface merging, pipe-network editing, and profile design techniques used in real-world subdivision projects.

Key Topics:

- Creating and merging surface models (existing, finished-grade, merged)
- Designing sanitary-sewer networks and setting pipe parameters
- Storm-drain design with hydrology and hydraulic calculations
- Using Carlson’s Spreadsheet Sewer Editor and profile-view editing
- Managing automation, slopes, inverts, and crossings
- Workflow philosophy and training plans for future instructional videos

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This session was presented by Mark Long on 12/07/2022.

2022 Virtual Workshops 5-2 – Civil Design in Carlson Software
Recorded 12/07/2022

This Carlson Software virtual workshop provides an in-depth demonstration of RoadNet for roadway and subdivision design, including surface modeling, template management, intersections, and grading workflows. The session covers practical techniques for widening roads, handling intersections, creating cul-de-sacs, and balancing earthwork using Carlson Civil tools.

Key Topics:

- RoadNet setup and file structure
- Template Point Center Line and Template Series usage
- Intersection grading and profile adjustments
- Super elevation and cul-de-sac design
- Earthwork balancing and volume calculations
- Profile and cross-section generation

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This session was presented by Mark Long on 12/07/2022.

2022 Virtual Workshops 5-1 – Civil Design in Carlson Software
Recorded 12/07/2022

This session from the 2022 Virtual Workshops features Mark Long of Carlson Software demonstrating advanced CAD workflows using Carlson's LotNet and RoadNet tools. The training covers efficient subdivision layout, automated lot labeling, setbacks, and roadway design for civil engineering and hydrology applications.

Key Topics:

- Carlson LotNet setup and automation for subdivision design
- RoadNet configuration, templates, and grading workflows
- Surface modeling and triangulation (TIN) creation and validation
- Hydrology preparation and ground-cover planning
- Troubleshooting performance and CAD layer management

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This session was presented by Mark Long on 12/07/2022.

2022 Virtual Workshops 4-3 –

Field to Finish from Start to Finish
Recorded 12/06/2022

This session from the 2022 Virtual Workshops series covers advanced “Field to Finish” workflows in Carlson Software, led by Doug . The training focuses on coding strategies, symbol rotation, scaling, pipe and tree features, and automated labeling techniques for survey drafting efficiency.

Key Topics:

- Field to Finish code setup and management
- Special codes (ROT, SZ, RAMP, etc.)
- Multi-point and rotation symbol handling
- Pipe and tree feature configuration
- GIS notes, attributes, and formulas
- Field-to-Finish Inspector and troubleshooting

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This session was presented by Doug Aaberg on 12/06/2022.