WFLHD SUPPLEMENT 9.5.9-1

9.5.9 RIGHT-OF-WAY AND UTILITY CONSIDERATIONS

Supplement with the following:

9.5.9.1 Land Use Determination for Right-Of-Way Coordination

This supplement explains how to evaluate and provide design information to Realty Services for the purpose of obtaining the proper right-of-way (ROW) and documenting the requirements. The objective is to provide common expectations and standard practices between Design and Realty Services, and establish a clear understanding of how existing land will be used during the construction of a project.

Two types of land use needs are defined for the purpose of coordinating with Realty Services:

Permanent Installation

These areas will be occupied by constructed elements in the final state. Roadway and associated elements such as pavement structures, slopes, walls, culvert pipes, bridges, spillways, parking areas, sidewalks, and light poles are considered permanent installations. Areas that must be kept free of obstructions, areas requiring free access for routine maintenance, or other associated structures such as swales and retention ponds are also considered permanent installations.

Temporary Installation

These areas are required only for construction related activities. Areas needed for detours, staging areas, material sources, culvert diversions, and abandoned or decommissioned roadways are considered temporary installations. Other areas to be included are access routes for material hauling, drilling and blasting operation access, equipment setup and maneuverability areas, and areas for forming and other falsework.

The following procedures further outline Design's role in assuring all project land use is identified and presented in a standard format to Realty Services. Design must use judgment and evaluate project land needs according to PDDM Chapter 9.5.9, *Right-of-Way and Utility Consideration*, in conjunction with Cross Functional Team (CFT) involvement. Reality Services then coordinates and/or obtains the appropriate ROW and easement documents using the information provided by Design.

Key workflow items for each department are the following:

Design

1. While developing the design, follow the land use determination procedures described in this supplement to assess, identify, and document all land uses within the project boundaries
2. Provide links to Project Management and Realty Services of final project land use needs at required project milestones. Project Managers will coordinate concurrence of Identification of Roadway Footprint to Initiate Right-of-Way Activities memo.

3. Communicate any project land use determination updates to Realty Services in a timely manner. Seek approval from both Project Manager and Realty Services if changes to the footprint are being considered.

Realty Services

1. Coordinate and clarifies project land uses with Design
2. Review land use plan submittals
3. Coordinate with Partners to ensure right-of-way needs and requirements are met.
4. Develop ROW plans and parcel exhibits.
5. Process and execute standard procedures for acquisition of project right-of-way.

Use the following sections to determine land use area types for various roadway corridor features.

9.5.9.1.1 Roadway Corridor Land Use Area Types

Item / Type	Task	Quality Checks	Detailing
Produce cross-sections	• Automate as much of the cross-sections as possible • Avoid hand edits or use only to achieve difficult slope procedures and/or features	• Use standard quality control measures and practices to assure accuracy of cross sections	• Apply hand edits to cross sections before running any routines or reports
Produce Limits of Construction **Permanent installation** – *Limits of Construction* lines are generally categorized as permanent installations	• Run GEOPAK's *Limits of Construction* command using final cross sections • Visualize designated horizontal alignment file (HA) using WFLHD standards	• Evaluate construction limit lines for accuracy • Check for large deviations or sudden swings in limits • Ensure limits of construction are visualized to standard in the plans sheets (PS&E)	• Detail any additional limits for roadway construction using standard symbology

Item / Type	Task	Quality Checks	Detailing
Produce and visualize Clearing Limits **Permanent installation** – *Clearing Limits* are generally categorized as permanent installations	• Run GEOPAK's *Clearing* report command to produce clearing report (.clr) o Add required additional clearing and slope rounding at cuts and/or fills from the command menu o Add any exception and/or additional clearing at stations and offsets to the menu for areas such as staging, waste area, disposal areas, or similar that are within cross section limits • Run "*DRAW Clearing Limits in Plan view*" from GEOPAK's Design & Computation Manager using final clearing report (.clr) file	• Reconcile clearing limit lines with report for accuracy • Consult Realty, Construction, and/or other CFT members to ensure construction practices are considered when finalizing land use • Ensure additional clearing limits were incorporated by report routine • Ensure clearing limits lines are visualized according to the following: o Level: P_RDW_Clearing_ Limits (#6283) o Color: 0 o Weight: 3 o Style: 6 • Ensure clearing limits are visualized in the designated horizontal alignment file (HA)	• Adjust and re-run GEOPAK's *Clearing* report command to account for adjustments. Automation allows easier detailing and produces an accurate clearing report. Perform Check bulleted above • If needed, adjust clearing limits lines to account for any anomalies and provide better transitions • Important to note: adjusted clearing limit lines in the drawings are not reflected back into the Clearing Limit report (.clr) files. Therefore designers must make sure to account for additional clearing and seeding areas by adding the detailed areas to final reports as supplements and adding areas to the estimated quantities

Consider all roadway elements, operations, and construction practices when detailing land use installations. See the Land Use Example for sample land use delineation in a drawing. Detail all installation types with the clearing limit lines in the designated horizontal alignment file (HA). Visualize detailed line work and text according to the following symbology:

- Level: P_ RDW_Clearing_Limits
- Color: 0
- Weight: 3
- Style: 1 (Note change, this style is for detailing additional line work)
- Text Style: Normal

Add text call outs to label the land use activity (i.e. “Waste Area”, “Access Road”, “Staging Area”, etc.). Label the Installation type as either “Permanent installation” or “Temporary installation”.

9.5.9.1.2 Other Land Use Area Types

Item	Type	Detailing
Structures	**Temporary Installation**	• Assess equipment access needs for structural excavation and installation, including large fills • Take into account equipment type and maneuvering capabilities • Allow for formwork and other falsework installation and removal • Consult Realty, Geotechnical, Structures, and Construction CFT members for assessment • Include access for drainage structure installation
Drainage	**Permanent Installation**	• Automate as much of drainage design into the cross sections as possible to account for drainage features, such as catch basins and drainage structures • Account for installation of channel work, dissipater installations, terminal sections, headwalls, or other drainage appurtenances as referenced by plan sheets and specifications
Material Source / Waste Area	**Permanent Installation**	• Detail material excavation and waste boundaries outside of the areas that have been accounted for in the cross sections runs and reports • See clearing report to not double count areas • Consult Realty, Geotechnical, Structures, and Construction CFT members to assess areas needed
Material Source / Waste Area	**Temporary Installation** Access routes and staging area can be rehabilitated to original land use	• Assess and detail areas needed for equipment access for drilling and blasting • Assess and detail areas needed for stockpiling, material handling, and processing equipment such as crushers and batch plants and include haul routes • Detail rehabilitation areas and access area used by equipment
Staging Area	**Temporary Installation**	• Detail boundaries of areas used for staging and storing of equipment and/or construction material outside of the areas that have been accounted for in the cross sections runs and reports • See clearing report to not double count areas • Detail rehabilitation areas and access areas used by equipment

Item	Type	Detailing
Maintenance	**Permanent Installation** To provide unobstructed access for maintenance and inspection, permanent installation is required	• Assess need for long term maintenance access or required access for inspection of structures • Assess equipment access for maintenance and inspection