



# Get ready for IRWA's 67<sup>th</sup> ANNUAL INTERNATIONAL EDUCATION CONFERENCE

## A sneak peek at some of the upcoming educational sessions

For over 60 years, IRWA has invited members from around the globe to gather at the Annual International Education Conference. In addition to special events such as the awards ceremony, gala and networking opportunities, a highlight of the Annual Conference is the highly anticipated batch of educational sessions. These sessions allow members to share best practices, provide insight into the latest industry trends and report on the most challenging issues facing the right of way profession today.

This year will be no exception — even more exciting, the Association is offering two ways to attend the event this year. In order to keep members safe during the pandemic, IRWA invites you to attend either virtually or in person — the choice is yours! This means you can participate whether it's in the bustling city of San Antonio or in the comfort of your own home with a glass of homemade iced tea in hand. Either way, we're happy to feature a few of the many compelling sessions that will be offered at the conference this year.



# Schedule of Events

## Saturday, June 5, 2021

Registration

11:00 am – 5:00 pm

## Sunday, June 6, 2021

Registration

7:30 am – 5:00 pm

International Committee Meetings (*times vary*)

8:00 am – 12:00 pm

Exhibit Hall Open

11:00 am – 2:00 pm

First Timers' Orientation

12:45 pm – 1:45 pm

Opening Ceremony & Keynote Speaker

2:00 pm – 4:00 pm

Region Caucuses

4:00 pm – 5:30 pm

Welcome Reception

5:30 pm – 7:00 pm

## Monday, June 7, 2021

Continental Breakfast

7:30 am – 8:30 am

Registration

7:30 am – 5:00 pm

Educational Sessions (*times vary*)

8:00 am – 11:00 am

Morning Coffee Break in the Exhibit Hall

9:30 am – 10:00 am

Exhibit Hall Open

9:30 am – 11:30 am

SR/WA Recognition & Awards Luncheon

11:30 am – 1:15 pm

Educational Sessions (*times vary*)

1:30 pm – 4:30 pm

Exhibit Hall Open

1:30 pm – 5:00 pm

Afternoon Coffee Break in the Exhibit Hall

2:30 pm – 3:30 pm

Monday Night @ the Espee (*Foundation Event — registration required*)

6:00 pm – 10:00 pm

## Tuesday, June 8, 2021

Golf Tournament (*Foundation Event — registration required*)

7:00 am – END

Registration

7:30 am – 5:00 pm

Continental Breakfast

7:30 am – 8:30 am

General Session Speaker

8:30 am – 9:30 am

Morning Coffee Break

9:30 am – 10:00 am

Educational Sessions (*times vary*)

10:00 am – 12:00 pm

Educational Sessions (*times vary*)

1:00 pm – 4:30 pm

Afternoon Coffee Break

2:00 pm – 3:00 pm

## Wednesday, June 9, 2021

Registration

7:30 am – 12:00 pm

Educational Sessions (*times vary*)

8:00 am – 11:00 am

Board of Directors Meeting

1:30 pm – 4:00 pm

Closing Reception

6:00 pm – 7:00 pm

Dinner & Program

7:00 pm – 9:00 pm

Music & Dancing

9:00 pm

For a full schedule of events and listing of sessions, visit:

[www.irwasanantonio2021.org](http://www.irwasanantonio2021.org)

## Sponsor Highlight: Thank you to our exclusive host sponsor!



AWS has been a leader in right of way valuation since 1977. We provide appraisal and consulting services for large infrastructure projects such as pipelines, power lines, highways, and transportation corridors across the nation. We have one of the largest, most experienced appraisal staffs in the industry. Our mission is to exceed clients' expectations by combining expert analysis, accurate information and the latest technology to provide appraisals in the shortest amount of time possible.



# THE FUTURE OF TRANSPORTATION PROJECT PROGRAMMING — MORE ACCURATE COST-ESTIMATING TOOLS

BY CLAIRE TRONEL

The COVID-19 pandemic has placed enormous budget pressures on state and local governments, threatening deep and potentially lasting cuts to infrastructure projects and other critical programs. Traditional cost-estimating techniques can be time consuming and labor intensive, adding to these costs. Furthermore, industry research suggests that project overruns can be as high as 45 percent. In order to improve how cost estimates are done, we must first look at how we are currently estimating project right of way. To do that, we need to see where we are and where we want to go.

The traditional cost-estimating approach uses models derived from data based largely on projects previously delivered. These estimates are then amended as a project progresses, and the actual project scope and associated costs become known. However, this modeling approach typically considers just one or two variables or characteristics, such as the estimated market value of land and any damages to structures on the property. This is because traditional cost-estimating techniques are largely carried out manually with analysts inspecting data “by eye” to identify these correlations. This leads to models that use only a few cost drivers to create estimates. Additionally, while some organizations have a lot of historical project data, many don’t have the tools, people or time to crunch the data to get the most accurate costs. On the other hand, some organizations don’t have enough historical data to generate accurate estimates in the first place.

There are several ways to produce more accurate cost estimates in each situation more quickly; these ways also require fewer resources to perform compared to traditional methods. If there is an abundance of data available, then a cost-model approach, using algorithms to detect relationships between many different characteristics or variables to be discovered, removes subjectivity and uses more of the available project scope detail. Organizations with a lot of good quality historical data therefore benefit most from using this approach.

What if the organization does not have enough historical data or does not have the resources to gather and analyze the data? In one state, the preliminary right of way cost estimates were done with a tool that was based on a simple centerline buffer and applied multipliers dependent on geographic location as

well as the rural or urban nature of the properties. Because of the centerline and buffer approach, interchange estimations proved problematic to calculate and were appraised by a singular cost depending on interchange type, rather than the physical size of the design footprint. Compounding the issue, geographic and rural/urban multipliers were applied on an overall parcel value that included improvements, exaggerating costs when infrastructure is not taken. Because of the macro nature of the tool, along with the broad sense in which multipliers were applied to costs, the tool often provided inconsistent results.

As a result of these inconsistencies, AECOM developed a geospatially based impact calculation tool. This tool calculates impact costs based on actual proposed ROW limits rather than a simple centerline buffer. This is especially important in refining the accuracy of interchange impacts since they are based on proposed footprints rather than applying a one-cost-fits-all approach. The tool applies the same general criteria and multipliers used in the prior tool the client was using. Unlike previous tools, the improved value of properties is not applied toward property impacts unless the buildings on the property are actually taken. The Right of Way Cost Estimating Tool that we have developed notably refines the ROW estimation process, providing a more accurate estimation.

However, it has been observed that the largest remaining factor that affects right of way estimates is property damages. Damages to unique properties within a project study area often escalate impact costs. None of the tools previously used accounted for these damages. We have begun working with this client in defining damages and other costs on a parcel-type basis. This “working” list currently defines costs of takes associated with common business types. It is the intent to continually refine, expand and apply this list towards the accuracy of ROW estimates. As the ROW tool continues to be refined and historical data gathered, an automated application of these damages will be added to the tool. ✪



## AECOM

*Ms. Tronel is the regional manager of right of way services for AECOM. She has more than 35 years of diversified experience in operations, project and right of way management for the transportation industry. Ms. Tronel is the regional manager of right of way services for AECOM and is a member of IRWA Chapter 31.*



# COVID-19 IMPACT ON OFFICE FACILITY USAGE

MODERATED BY STEPHEN J. TOTH

COVID-19 has changed the way that we do business. Over the last year, we have all learned how to work remotely, using technology that had been available for some time. Suddenly, we found that the use of this technology made it possible for us to continue to meet the needs of our constituents and stakeholders. Those of us who were camera shy learned to get camera ready and be part of daily Zoom or Teams Meetings. Many organizations were forced to embrace technology to avoid interruptions and implemented the use of electronic signatures, remote notaries and electronic e-recordings. These are just some of the technologies that allowed us to continue working through the height of the pandemic.

Organizations that had been reluctant to allow staff to work from home for fear of lost productivity learned that in many cases, the workforce was actually more productive from home! Offices were used occasionally, but attendance was not required as long as employees could be productive from home. A paradigm shift in thinking occurred that is now being felt throughout the commercial real estate market. Rental rates are falling for commercial space as businesses realize that they can be productive without having a dedicated office or even a dedicated work space for every employee.

A panel of representatives from private organizations, public agencies and utility companies will share a diverse perspective on their experiences and what their future plans are for how to best use their office facilities. Has COVID-19 changed their facility planning for the future? Each panel member will share how their company or agency is rethinking how they plan to utilize their office facilities based on their experiences with a remote workforce during the pandemic.

Is your agency or company planning to return to work in the office or work remotely instead? Do you plan to have a combination of each? How is your organization planning to



utilize office space in a post-COVID-19 environment? Are you contemplating changes to office space or layouts? Is your agency or company planning on technology enhancements? Do you have plans for ongoing safety after the pandemic? If you are considering changes to your use of office space or technology, you won't want to miss this panel discussion and learn how others are planning for the future based on the lessons learned from their experiences during the pandemic.

The panel members represent a wide range of perspectives on facility usage including representatives from ORC, HDR, TxDOT, AEP and the ALLIANCE REGIONAL WATER AUTHORITY. Plan to join them for a lively discussion of embracing change as we move into the next new normal.

**Moderator:** Stephen J. Toth, R/W-RAC — ORC President & COO

**Panel Members:**

HDR — Lisa Cooper, SR/WA, R/W-RAC, senior right of way project manager

TxDOT — Kyle J. Madsen, JD, right of way division director

ALLIANCE REGIONAL WATER AUTHORITY — Graham Moore, P.E.

AEP (TX) — John M. Garcia, supervisor of real estate, west region



Steve started his right of way career with ORC in 1992 and is currently the president and chief operating officer for O. R. Colan Associates and its affiliate, ORC Utility & Infrastructure Land Services. Steve received his B.A. in accounting and finance from the University of Toledo and holds the IRWA Relocation Certification. Steve will be moderating a second session with Kent Bortz titled, "Best Practices for Quality Management on Projects." Be sure to check it out!

# UNDERSTANDING TREE AND LANDSCAPE APPRAISAL

BY ED STEIGERWALDT

In the appraisal and right of way field, one of the most difficult appraisal assignments is estimating the value of vegetation to be acquired. This is typically trees and landscaping.

Many right of way projects require taking out trees on fee-owned land or on those with easements. In reality, many of the appraisal assignments are “partial acquisitions” which, in the appraisal field, are often very difficult.

Trees and landscape are part of the entire real estate package and in most cases, they should be appraised this way. This is contradictory to the opinion of many arborists and appraisers who advocate that tree value is the cost to replace. When mature trees are part of the right of way acquisition, the cost to replace them can run into the \$10k to \$50k range or more.

Value is based on the concept of “willingness to pay” or market value. Cost is just that — the cost to place a specific item. Cost and value are two entirely different things.

The best way to keep this in perspective is to remember the unit rule for appraising: “The sum of the parts cannot exceed the whole.”

Well-thought-out and supported appraisals help both right of way professionals and property owners understand how values are derived. In appraisals or direct negotiations, it is helpful to ask what price difference the trees or landscape items would make if the property was sold or how much less the property would be worth without the plants being appraised.

The best way to show this is to begin with overall property value. If the property just sold for \$200k and the home is separately valued at \$150k, then all of the trees and land have a total value of \$50k. If similar lots with minimal tree cover sell for \$40k, then all trees on the lot contribute \$10k or \$500 each. This is without consideration for landscaping.

The above example is on a residential parcel, but remember that appraisals should be based on the highest and best use (HBU) of a property. This is the use that is legal, physically possible, economically feasible and maximally productive. Examples of HBU are commercial, residential, timber production, industrial or residential. Trees on a tract with a HBU of timber production should be valued as timber trees, and residential trees should be valued by their contribution to overall property value. A good tree appraisal begins by first determining HBU and then overall property value.

In the case of residential property, real estate brokers, appraisers and tax assessors can assist you in arriving at overall property value. Next, separate land and improvement values as we did in our example. Once you have the value of land with trees, you can estimate what value the trees contribute. Two surveys completed by real estate brokers and real estate appraisers show that trees and landscape can contribute 10 to 25 percent of land value. Both of these surveys are presented in a book by Steigerwaldt Land Services, Inc. titled, “A Practical Guide to Tree Appraisal.”

Once overall tree and landscape values are established, the next step would typically be to allocate the values to specific trees based on their species, size, condition and location. Typically, tall trees in excellent front yard positions contribute the highest value. The last step is to check your value for reasonableness. Does the tree value make sense in light of overall property value? If you have a sensible, supportable result, your appraisal will withstand the review it will likely get. 🍀



*Ed Steigerwaldt is a real estate appraiser and graduate forester with over 50 years of experience in tree appraisal. You can buy his book “A Practical Guide to Tree Appraisal” online at [www.steigerwaldt.com](http://www.steigerwaldt.com).*



# SOCIAL RISK IS A MATERIAL RISK

BY DAYNA MORGAN

The #1 hurdle facing projects today are non-technical (social) risks. Organizations can no longer rely on completing a checklist to ensure project acceptance and approval. An organization's public engagement approach to working with stakeholders is a vital part of planning, budgeting, resourcing, time management and execution.

The impacts of social risk are experienced in two ways: societal demands and investment dollars.

## Societal Demands

The voice of the public is stronger than ever, and with the vast reach of social media, this puts any type of development project under a microscope. When planning for stakeholder engagement, we must look for those who are directly affected, marginally affected or those who may be interested and can influence the project. Depending on the level of risk, various methods are needed to monitor, track and engage with different stakeholders.

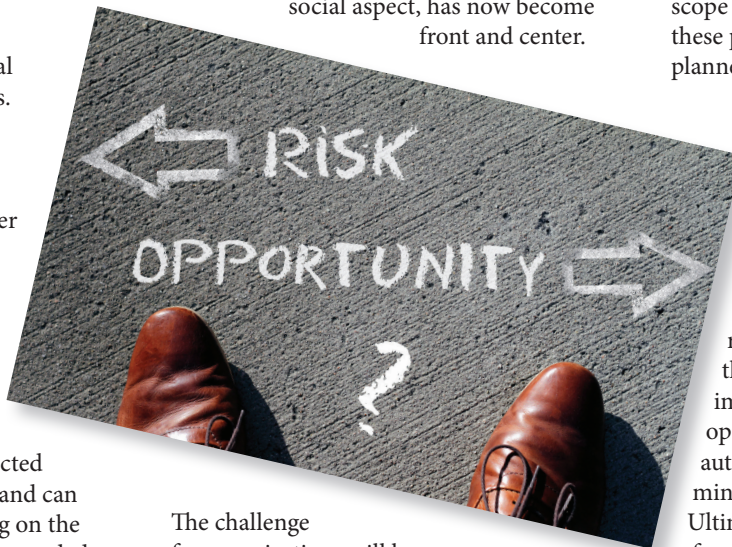
In addition to the multitude of stakeholders to consider, Indigenous communities are an important component to the social impact framework, and unique considerations must be given to their traditional and legal rights.

While the right of way profession is often involved in progressive, safe and sustainable human betterment projects, it is not always top of mind. Understanding public perception, strong key messaging and trust building within communities are as important as understanding the facts.

## Investment Dollars

Along with societal pressures, ESG (Environment, Social, Governance) has become a hot topic in the investment world and an important part of corporate sustainability. Not only are we hearing about ESG ratings as a sustainability priority, but

the largest investment firms are also looking to invest in highly rated ESG businesses. According to a 2019 Harvard Business Review article, "more than half of global asset owners are currently implementing or evaluating ESG considerations in their investment strategy." While the "E" in ESG continues to be a key priority, over the past two years, the "S," the social aspect, has now become front and center.



The challenge for organizations will be to ensure that ESG does not remain solely a financial metric or reporting tool. A conscious business is one that lives the ESG values, is purpose and stakeholder driven, has conscious leaders and a conscious culture. This seems like a lot of work, but is it worth it? Yes!

"Publicly traded conscious businesses outperformed and delivered up to 10x the value of their non-ESG peers" — Harvard Business Review, "Companies that Practice Conscious Capitalism Perform 10x Better."

## What Can I Do?

How can a right of way professional contribute to increasing project success with the increase of social risk factors?

First, understand the broader landscape of stakeholders who may be impacted, influenced or interested. Work alongside engagement specialists to design a fit-for-purpose engagement plan. The key here is

"fit for purpose." One size does not fit all. Every community, stakeholder group, and Indigenous community has different values and priorities. Remember, upfront work in stakeholder relations pays dividends in the end. Align your engagement plan with your acquisition plan. Break down the silos of what traditionally falls within a right of way agent's scope of work. The timing and execution of these project phases must be strategically planned and aligned.

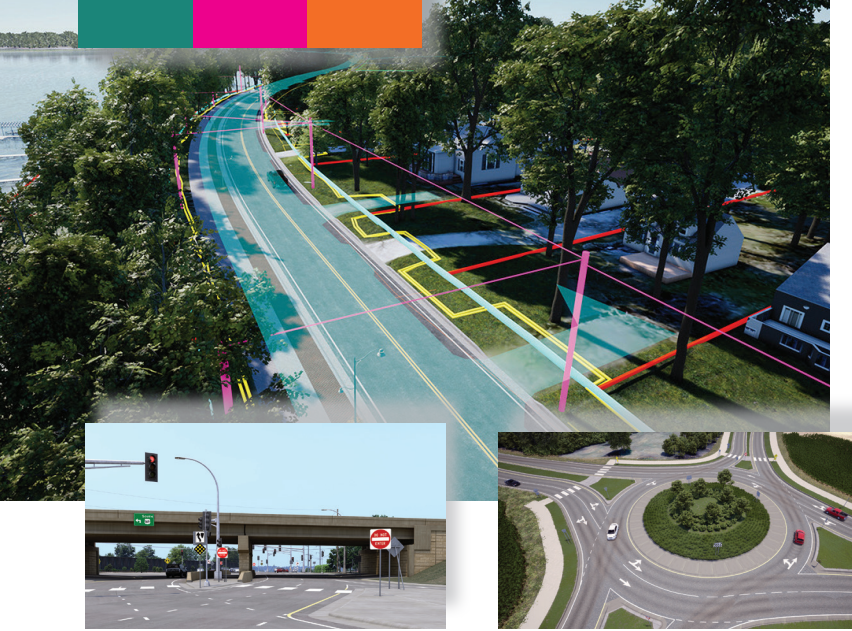
Second, ensure ESG does not remain a reporting metric. Investment dollars can quickly disappear when ESG values are not actively lived within an organization. While leaders have a duty ingrained in them within an organization's DNA, right of way professionals are often on the front lines and can have a direct impact on the public and stakeholders. By operating with a conscious effort, led by authentic engagement and a win-win-win mindset, stakeholder trust is established. Ultimately, this leads to a greater chance of success, which results in positive social opinion and cultivates future support and investment.

This is the bottom line with any development project: it is impossible to ignore the impact social factors will have. Those who embrace this new reality spend the time to understand their stakeholder landscape and engage early often and with purpose will greatly increase project success potential. There is an opportunity to turn social risk into an opportunity, creating advocates not adversaries. ★



*BRITT RADIUS is a consulting services firm, helping organizations achieve compliance and acceptance for projects that impact people and land. Dayna Morgan, COO, has worked in land access and stakeholder engagement*

*within various sectors for over 20 years. Her value add is in innovating and designing a plan that works through complexities and creates a clear path ahead.*



# CUTTING EDGE REAL-TIME, AR AND MR TECHNOLOGICAL ADVANCES WITHIN ROW

BY JEFF CHRISTIANSEN

The basis for my technological discussion will be to review 3D visualizations in various forms including passive animations, real-time visualizations, Virtual Reality (VR), Augmented Reality (AR), and Mixed Reality (MR) — how these disparate deliverables are created, how they work, what equipment is needed to view/facilitate the final deliverable, but equally important, how the different visualization capabilities will change the face of the right of way industry. Along with industry-specific examples of each, both advantages and disadvantages will be explained.

## 3D Visualization within ROW— Public Engagement

In order to fully educate the intended audience, one has to become fully engaged with the public, regardless if that is one person or 500 individuals. Real-time capabilities place the individual in the proverbial driver's seat, figuratively and literally. Visuals are processed 60,000 times faster than text alone. When people are engaged, roughly 90 percent of what they see and hear is cognitively locked in. Advances in both hardware and software have made it possible to digitally transport a stakeholder to their parcel and view it from anywhere within it at any time, with or without easements digitally included, and either before or after date of take. Additionally, this can be via a workstation or something as small as a Surface Pro. Line of sight issues can be shown on location, with before/after date of take details directly on screen, leaving very little to personal interpretation.

## Visualization Hardware

GPU what? The difference between GPU technology will be reviewed, giving you the basics of what to look for in your next computer. For instance, the amount of data being shown at once can be as small as 30 MB (highly optimized), but as much as 36 GBs of data on the high end. It's important to not only have as much RAM as possible, but also have the fastest RAM you can purchase. The often-forgotten hard drive has also seen an incredible boost in speed, especially solid state drives or SSDs. All of these contribute to the final fluid visualization of the data and ultimately, the immersive experience of virtual reality via high frames per second (fps).

## Real-time Visualization

Visualization software has been advancing at an ever-increasing rate. 12 months ago, the ability to review entire project corridors with every detail was just a dream. Today, through the use of 3D real-time visualization technologies, not only can you educate every shareholder at once, but you can also create corridor flight visualizations within minutes, not the typical three to four weeks. Gone are the days of not being able to show five different design alternatives — now, it's expected. This industry change took place within the last year and has allowed for real time experiences that will change the ROW industry forever. This game-changing capability will be shown through an actual project, reviewed step-by-step.

## Augmented Reality

Augmented reality (AR) will also transform the ROW industry as we know it. Being able to augment aerial views or pictures taken at the site with the geometrical changes added over the view is quite an experience. This AR experience will fundamentally change how right of way agents will work directly with parcel stakeholders. A little technology will go a long way to educate stakeholders to make better decisions.

## Mixed Reality via the HoloLens 2

The idea behind laser-based holographic imagery brought many to envision incredible uses for it. After 25 years of producing visualizations for many different industries, I've seen a lot of ridiculous technology, I am here to tell you that the user experience is unequivocally better! The ability walk around a 3D model of an area and change design elements in real-time, all while having an unobstructed view of your surroundings, is incredible. The viewer can change the scale of objects within the experience, much like pinching and pulling an image on your smartphone. Several different examples will be shown for those in attendance to better understand the technology, and if time allows, allowing someone to actually try the HoloLens2 themselves. 🌟



*Jeff Christiansen, principal and visualization manager, WSB, has worked within the 3D visualization industry for the last 25 years within disparate industries. His ability to understand complex data across multiple software environments affords him a critical eye for presenting data unlike anything seen before — a passion of his that is constantly dynamic and evolving.*





## AND COVID-19

BY DUSTIN WEAVER

2020 has brought our industry many new challenges through the wake of the COVID-19 pandemic on top of the tough environment created by some activist groups that do not support American energy independence and infrastructure development. Yes, COVID-19 created a new barrier in building infrastructure of all kinds across the U.S., from decreased energy demand and historically low natural resources prices, to a three-week shutdown of the U.S. How do we overcome these challenges, what road map can we create to ensure success on time and within budget with accuracy at completion, and lastly, how do we build trust in our teams under such turmoil? We will discuss this in detail and simple, effective solutions to ensure the best chances of re-engineering success in future projects.

**COMMUNICATION.** Scholar and Nobel Peace Prize winner George Bernard Shaw said, “The biggest lie in communication is the illusion that it has already take place.” If the biggest issue in communication is that our perception of communication is mostly wrong, how do we reestablish good communicating principles, especially when we are more commonly communicating through different digital platforms? Start with being mindful in your communication with your team: be all in, have high self-efficacy for your impact on others, especially through tone and openness for respectful discourse. This will ensure your messages are getting through to your stakeholders, team, leadership and most importantly, clients. Create an environment of trust, engage in open discussions and weekly Q&A sessions and lastly, always follow up on tasks and progression.

**RELATIONSHIPS.** Most projects succeed or fail based on the team’s ability to properly flow through the forming, storming, norming and finally PEFORMING model of group work. How does a team build enough trust to be firing on all cylinders? I recently was pulled into a project where the contracting company actually purchased a facility in the wrong location. Now, this was the very beginning of the line — the reason for the entire project to move product A to location B. How did this happen?? Not one person stood up and said, “HEY, we have a problem” — wow. This project took 9-10 months to develop and execute and now will potentially cost additional time and money — not to mention, high client “dissatisfaction.” To avoid this, focus on building trust

because it will provide a “passport” speak to open team discussions for tough questions. Secondly, set up an accountability chart with your client (decision maker). Lastly, COVID-19 has decreased our ability to create meaningful relationships with stakeholders and landowners because we must communicate digitally. Here are some tips to mastering this: remain dedicated to your role and continually refine your craft, educate yourself on all facets of the project and most importantly, always follow through on your promises.

**PROJECT MANAGERS.** This is the biggest opportunity for companies to succeed during the pandemic. Project managers must use all of the above while having little face-to-face meetings. It’s important to ensure you define your project scope, responsibilities and create a process to constantly check in with your team on each discipline required for execution. Defining your scope requires leadership participation, individual disciplines and outside vendors. Remember, project management is a team sport! Defining roles of responsibility early keeps the team swimming in their rhetorical lanes throughout the project. Lastly, create a process of team check-ins to ensure information sharing is happening across all teams. The project manager must be the hub of communications and be sensitive to the ROW agent — stakeholder feedback on routing, timing concerns or challenges. A very smart land VP once commented that ROW agents are buying property that isn’t for sale from people who are not in the market to sell. This sums up where the relationship can start without a skilled team backing the ROW agent up by ensuring they are armed with every tool to ensure success!

In conclusion, COVID-19 has added many challenges to executing infrastructure projects across every discipline. However, keeping mindful communication, dedication to building relationships and having strong project managers can ensure all your future projects’ success. We’re in this together! 🤝



*Dustin, MBA, is the president of Refined Land Services and has 15 years of real estate and land experience in the energy industry. As a former regional land manager, he managed land assets across 10 states. Dustin has consulted on ROW acquisitions, due diligence, construction and operational support for Energy Transfer, Exxon/XTO, Nustar Energy and CPS Energy.*