



P A C I F I C

# Broadband Master Plan

PROPOSAL FOR  
City of Coachella

MARCH 11, 2024



**Tim Jonasson, PE**

44651 Village Court | Suite 123  
Palm Desert, CA 92260

Office 855.900.4742 + Direct 760.250.6722

[tjonasson@hrgreen.com](mailto:tjonasson@hrgreen.com)





▶ 44651 Village Court | Suite 123  
Palm Desert, CA 92260  
**Main** 760.250.6722 + **Fax** 713.965.0044  
▶ [HRGREEN.COM](http://HRGREEN.COM)

Celina Jimenez | Director of Economic Development  
City of Coachella  
53990 Enterprise Way  
Coachella, CA 92236

March 11, 2024

**Re: Broadband Master Plan**

Dear Celina and Other Members of the Selection Committee,

The City of Coachella is a fast growing, culturally-diverse and young/family-oriented community noted as an entertainment hub in the Coachella Valley and service-oriented and responsive partner to businesses. The ability to connect with friends, family, and coworkers while conducting business from the road is imperative. For many cities, **broadband has become an important ingredient for economic development** and a significant component for key aspects related to quality of life, expansion of affordability and accessibility, education, business attraction, and telemedicine. As a growing community with expanding business and quality of life opportunities, **having high quality broadband is imperative to maintaining a competitive edge** and providing public services to residents and businesses.

**Improving broadband takes leadership, good information, regional insight, and a proven process.**

Beginning with clear goals is vital to the success of the project. Because of the many factors that impact broadband, this can be a confusing process that can make it challenging to figure out the optimal path to achieving the City's vision and goals. Having a local firm with our national broadband experience can cut through this confusion, clarifying the community's viable options, and quickly eliminating irrelevant ones. **HR Green's (HR Green) team members have facilitated broadband visioning and goal setting sessions in communities across the Coachella Valley and the country.** Our team prides itself on providing broadband master plans that are practical so they can be the basis for preliminary and final designs of your broadband project.

**Our team has been providing similar broadband master planning services to the Coachella Valley Association of Governments, the cities of Palm Springs and Palm Desert, and 50+ clients nationwide, including in the western states of California, Oregon, Arizona, Utah, and Colorado.** We have helped agencies successfully deliver broadband initiatives from planning, design, through construction, and even operation.

Our **Project Manager, Irena Stevens**, responsible for delivering these local broadband master plan assignments, is well-versed in grant funding procurement and administration. She will oversee inventory of your existing broadband facilities and lead Coachella's team through master plan development. Our **local Municipal Advisory Services Manager, Tim Jonasson, PE**, a long-time Coachella Valley resident and Public Works Director with extensive community engagement and smart city experience, will coordinate the City's efforts with the regional partners to best utilize shared resources and access areas. **HR Green's Principal-in-Charge, George Wentz, PE**, also a Coachella Valley resident, is authorized to negotiate agreement terms and brings 30+ years of consulting experience to public agencies through the Coachella Valley. **Our task leaders are well-regarded subject matter thought leaders on broadband connectivity who regularly speak nationally on next generation and smart-grid fiber backbone systems** based on their hands-on, practical experience implementing successful projects. HR Green also will assign two bilingual engineers with applicable experience in the Coachella Valley to support community engagement efforts. Our in-house team will be augmented by **ADVANTEC Consulting Engineers**, a consulting partner who brings unparalleled knowledge of the CVAG's CV Sync project. They are supporting us on CVAG's broadband master planning assignment and already have extensive fiber data throughout the City of Coachella which will streamline your master planning efforts and provide cost savings.



**RESPONDING FIRM | CONTACT PERSON**

HR Green Pacific, Inc.  
44651 Village Court | Suite 123  
Palm Desert, CA 92260  
Tim Jonasson, PE  
T: 760.250.6722  
E: tjonasson@hrgreen.com  
F: 713.954.0044

**TAX IDENTIFICATION NUMBERS**

**Federal:** 82-1518456  
**State:** 9591386

**George Wentz, PE** is empowered by HR Green to sign our proposal and commit our firm to the obligations contained in the RFP response. Moreover, we will adhere to the provisions described in this RFP, as well as a commitment to enter a binding contract. HR Green has previously provided on-call services to the City and is confident we can enter into an agreement in order to hit the ground running in a time-efficient manner.

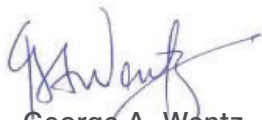
Our RFP response will remain valid for one hundred twenty (120) days following the closing date for the receipt of proposals.

Sincerely,

**HR GREEN PACIFIC, INC.**



**Irena Stevens**  
Project Manager



**George A. Wentz, PE**  
Principal-in-Charge



**Timothy R. Jonasson, PE**  
Municipal Advisory Services



Cover Letter .....	<i>precedes this page</i>
Approach to Services .....	1
Consultant Qualifications .....	5
Key Personnel .....	8
Subcontractor .....	16
Project Organizational Chart .....	18
Project Work Plan .....	20
Project Schedule .....	36
Fee Information .....	37
References .....	40
Interview Availability .....	49
Required Statements / Acknowledgment of Addendum .....	50
Sample Agreement Comments .....	52



## Approach to Services

## Local Presence and Knowledge

HR Green's case studies and experience matrix demonstrate our deep experience in successful projects containing all of the Scope of Work in your RFP. Our team's broadband master plan work in the Coachella Valley (CVAG, Palm Springs and Palm Desert) brings an unparalleled level of understanding and specific knowledge regarding broadband in and around the City. With the addition to our team of sub-consultant Advantec, with their strengths and knowledge of existing infrastructure, our team is unrivaled in the depth that we have of the City.

## Our Distinguishing Process

What is equally important and often overlooked is the central role of the process that tasks in a broadband study fit into. Every city has different broadband goals, budgets, and current broadband related circumstances. There are a lot of factors that impact current and future broadband in a community. An effective broadband study process needs to be able to define and clarify the real details within those factors and have an iterative path that leads the community through a series of decisions (based on the data found) that moves towards clearly defined steps to develop the factors to meet the community's broadband goals. Our process is proven to do that.

This distinguishes HR Green. Not all consultants have a clear process and many who do have a linear path to a templated outcome. For many years, consultants have begun projects with a planned outcome in mind. They would get some information, go back to their office and build the case for the idea they had. Then, they would come back to the client with one recommendation that met what they were thinking at the beginning.

One of the reasons we entered the broadband market years ago was because we saw how that led to inferior outcomes, which was unfair to communities. We even had to build our own tools to create a different process.

We were glad to see that our tools and process are geared for exactly what we understand Coachella is looking for as is described in your RFP. At the highest level, our process can be summarized in the following graphic.



This path encompasses all of the services in the Scope of Services listed in your RFP.

## VISION

To help communities develop a Vision of the broadband challenges they face and options they have to improve broadband, they need a good understanding of both the demand and supply sides of the broadband in their area. To determine the demand side, we utilize tools like GIS, a survey and stakeholder meetings which usually includes public agencies, first responders, schools, libraries, agencies who serve populations who might to define what needs there are in the community.

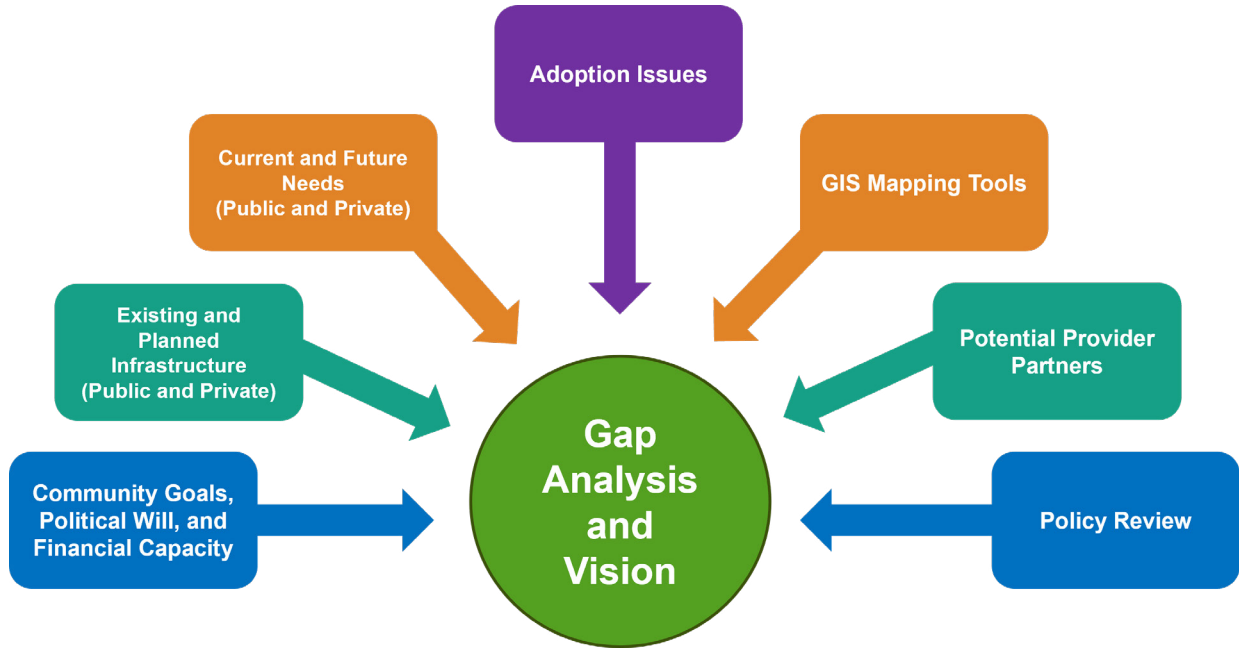
Studies often focus on access (having available infrastructure), which is important. We also feel it is important to address adoption (being able to take advantage of the infrastructure when it is available). Having a clear picture of adoption challenges is an important part of understanding the demand side of broadband (and will likely provide grant opportunities as the BEAD grant program rolls out).

For the supply side, we develop a GIS repository for public and private broadband related infrastructure. To bring this information together, we meet with public entities to gain knowledge of their broadband related assets and also develop relationships with the providers in the community to discuss their current assets and plans to expand.



Pulling this information together paints a clearer picture of the broadband concerns (or gaps) in the community. We bring this data together in GIS, so have a tool within which we can perform analysis and to help paint a picture of needs and assets. This data will all be used in the Plan phase of the project.

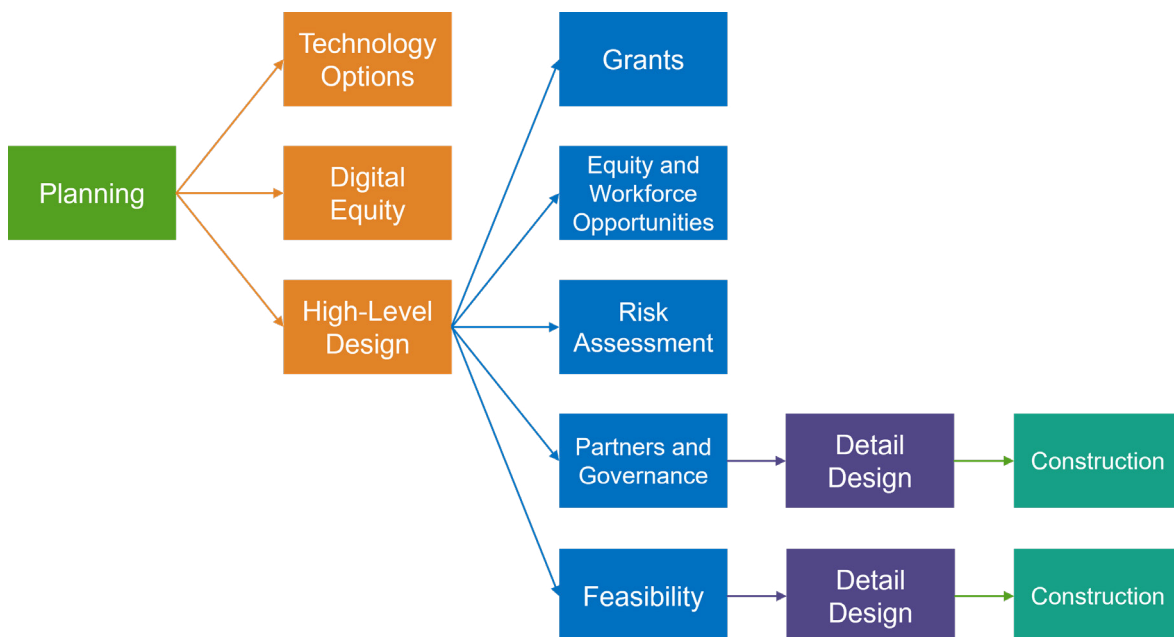
The below chart provides a graphical understanding of the Vision process. It culminates in a Gap Analysis and Visioning discussions.



With a gap analysis developed from good data, we work with the community to collaboratively formulate a Vision of what the needs are and a beginning point of thinking about options to improve broadband. This phase of our process aligns perfectly with Tasks 1 – 8 in your RFP.

## PLAN

With that vision, we can begin to Plan. This process typically follows the below path of options.



We develop an action plan for all of the steps of the third tier and beyond. An action plan for either Partners and Governance (working with private providers) or Feasibility (the community possibly building infrastructure) should lead to building infrastructure from one of the two paths (or, possibly both). It can and should also lead to workforce development options to fill the needs of the path that is chosen.

This phase of the project represents Tasks 9 – 11 in your RFP.

## DESIGN

If the community chooses to build their own infrastructure from the action items, then the Design phase from the broadband project life cycle path begins. This includes detail design/engineering, material and contractor selection, etc. in the services list. HR Green's strongly utilizes our thorough and effective project management system throughout the Vision and Plan phases and is also essential in construction phases of broadband projects.

From reviewing permitting processes and broadband related policies in the Plan phase, HR Green is well equipped to support permitting tasks to augment the needed capacity if needed. We have a staff augmentation group to specifically increase capacity to review permits.

## BUILD

Lastly, as part of our Build phase, we also have staff experienced in compliance monitoring and reporting.

The power of this process is that each task in each phase of the process gathers the needed information to make the best decisions for the step you are in. Those decisions determine what next step you take.

We call those decision points in the process, outlined on the following page, "off ramps" because you can take a path or you can even stop the process if the numbers or chosen path are not working.

The keys to success in a process that is iterative as you proceed are:

- The right tasks to gather the information that is needed to make the best decisions.
- The right tools that provide the data and the flexibility to explore the options that you feel that you need to evaluate.
- The right process that guides the steps and tasks correctly towards the best outcomes.
- Management of the process to keep it moving forward and organized (Task 12 in your RFP).

How we have thought through, developed and manage these factors are what have led to the success that we have helped our clients achieve.

We are glad to see that the Scope of Work in your RFP very closely aligns with HR Green's established process and expertise in the best practices of the life cycle of broadband projects. Below is a list of the tasks and deliverables that we recommend for each step of this work. We are glad to perform one of these services, any mix of them or the entire life cycle.

Our company **Mission Statement** is: **Building Communities. Improving Lives.** We believe broadband is an important component of that and we are excited to work with you to bring our expertise to the City of Coachella.



# BROADBAND

## Planning and Feasibility

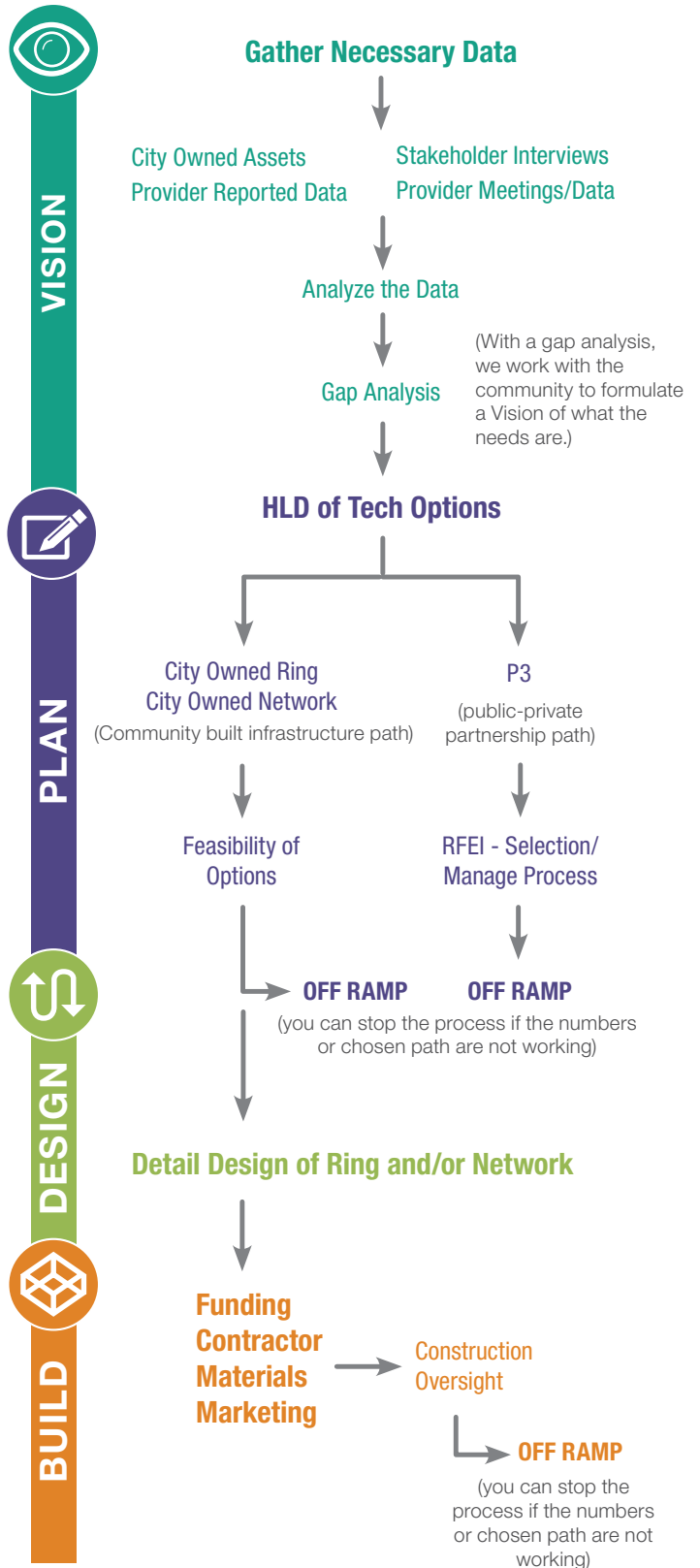
In the **Vision phase** we determine the demand and supply sides of broadband to your community. Utilizing tools like GIS, a survey (when appropriate), stakeholder meetings including public agencies, first responders, schools, etc.

HR Green's Project Management process includes a deliverable for every task, regular update meetings and work sessions with community leadership. All of these built-in milestones are designed so decision points are clear and thought through to keep intentionally moving towards the best outcomes for your community.

In the **Plan phase** a plan for either Partners and Governance (working with private providers) or Feasibility (the community possibly building infrastructure) should lead to building infrastructure from one of the two paths (or, possibly both).

In the **Design Phase** if the community chooses to build their own infrastructure, then the Design phase from the broadband project life cycle path begins. This includes detail design/engineering, material and contractor selection, etc.

In the **Build Phase** we have staff experienced in compliance monitoring and reporting.





## Consultant Qualifications

# Consultant Qualifications



CELEBRATING  
**110+**  
YEARS+

For more than a century, HR Green has been dedicated to providing the services our clients need to achieve success. We collaborate across geographies and markets to provide engineering, technical and management solutions. With more than 650 employees and offices in eight states, HR Green provides engineering consulting services in Broadband, Water, Transportation, Governmental Services Environmental Consulting, and Construction Management. One of America's longest operating design firms, HR Green is consistently ranked among ENR's Top 500 Design Firms in the United States, standing at #168 in 2023.

### Principal-in-Charge

George A. Wentz, PE  
E: gwentz@hrgreen.com

### Project Manager

Irena Stevens  
E: istevens@hrgreen.com

### Local Office

HR Green Pacific, Inc.  
44651 Village Court | Suite 123  
Palm Desert, CA 92260

**1913**

HR Green was founded in Cedar Rapids, Iowa in 1913 and has grown to 18 offices throughout the country, including two in California (Palm Desert and Corona).

**700+**  
**60+**

HR Green employs more than 700 people nationwide.

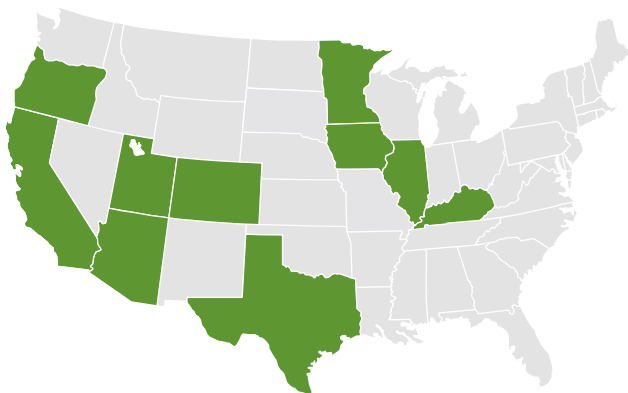
We have more than 60 staff members specializing in telecommunications and engineering.

► HR Green serves CVAG and seven of nine Coachella Valley cities out of our local Palm Desert office. This includes broadband master planning for CVAG and the cities of Palm Desert and Palm Springs.

## HR GREEN'S FIBER AND BROADBAND CAPABILITIES

HR Green's Broadband services cover more than broadband studies. We offer a full array of capabilities that cover strategic community efforts from inception to construction, and every stage between, including:

Strategic Policy Development & Implementation	Core Equipment & Architecture Design	Telecommunications Network Design
Regional Collaboration	Master Planning & Engineering	Project & Program Management
Operational Modeling	Business Model Assessment	Construction Management
Telecommunications Co-Location Consulting	Grant Writing & Administration	Smart Grid Analysis
Regulatory Compliance	Business Case Needs Assessment	Smart Grid Design & Implementation
Community Engagement	Market Assessment	Street Lighting Analysis & Design
ITS Design & Implementation	GIS Mapping	Fiber Capability Evaluation



### A NATIONAL BROADBAND PLATFORM Thought leadership + Unparalleled Knowledge of the Coachella Valley

- Broadband master planning leader in the Coachella Valley
- 75+ clients for master planning, design, construction management, and operations
- Broadband, fiber, wireless telecommunications facilities
- Extensive delivery of services in the western United States, including in desert environments



### Broadband Master Plan

► City of Coachella

## Sample Firm Experience

The HR Green team brings extensive broadband and fiber consulting experience throughout the United States. Below please find a representative sampling of similar projects. Detailed case studies with applicable references are included later in the proposal.

REPRESENTATIVE AGENCY CLIENTS (BROADBAND)	ASSESSMENTS					PLANNING & PROGRAM MANAGEMENT								NETWORK DESIGN & IMPLEMENTATION						
	Broadband / Fiber Optic	Technology Needs	Regulatory	Wireless	Market / Financial	Project / Program	Infrastructure Inventory	Business Modeling	Community Engagement	Staff Augmentation	Master Planning	Public Policy Development	Wireless Assessment	Grant Writing / Funding Sourcing	Utility Coordination	GIS Mapping	Permit Coordination	Wireless Implementation	Network Design	Construction Management
City of Palm Desert, CA	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●				
Coachella Valley Association of Governments, CA	●	●	●		●	●	●	●		●	●		●							
City of Palm Springs, CA	●	●	●	●	●	●	●	●		●	●	●			●	●				
City of Pico Rivera, CA	●	●	●	●	●	●	●	●		●	●		●		●	●	●		●	
City of McKinney, TX	●	●	●	●	●	●	●	●		●	●	●			●	●				
Top-Tier Telecommunications Company, TX															●		●	●	●	
Greater Des Moines Partnership, IA	●	●	●		●	●	●	●		●	●		●			●				
El Paso County, CO	●	●	●	●	●	●	●	●	●	●	●	●			●	●	●			
Tillamook Lightwave, OR	●	●			●	●	●	●		●	●		●		●	●			●	
City of Fort Dodge, IA	●	●			●	●	●	●		●			●		●	●			●	
Delta Montrose Electric Association, CO	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		●	●
Mountain Parks Electric, Inc., CO	●	●	●	●	●	●	●	●		●	●	●			●	●				
City of Portland, OR	●	●	●			●	●			●					●	●	●		●	●
Holy Cross Energy, CO	●	●	●	●	●	●	●	●		●		●			●	●	●	●	●	●
Snowmass Village, CO	●	●	●	●		●	●			●	●	●	●		●	●	●	●	●	●
Town of Bayfield, CO	●	●	●		●	●	●	●		●			●			●			●	
City of Sugar Land, TX	●	●	●	●	●	●	●			●		●				●			●	
ImOn Communications, IA	●	●			●	●	●	●							●	●	●		●	
City of West Des Moines, IA	●	●	●	●	●	●	●	●		●	●	●			●	●			●	
Village of Elk Grove, IL			●	●	●			●				●			●	●			●	

HR Green has a long-standing history of providing top-quality engineering and consulting services in the Coachella Valley. For many years, we have worked with local governments, organizations, and businesses to develop solutions to complex infrastructure challenges.

Our team has a deep understanding of the unique needs and challenges facing the Coachella Valley, including issues related to broadband, economic development, drainage, water, and transportation. We have worked on a variety of projects in the area, from designing and managing the construction of new water treatment facilities to developing broadband master plans that support the region’s economic growth.

Our ultimate goal is open communication so we can identify and resolve any challenges that exist and cultivate a productive relationship that meets and exceeds your needs. To facilitate our relationship with Palm Springs and other Coachella Valley clients, HR Green maintains a local office in Palm Desert, and several of our key staff reside in the Coachella Valley.

**COACHELLA VALLEY AGENCIES SERVED:**

City of Cathedral City	Civil Plan Review, CIP Project/Program Management, Design/Engineering
City of Coachella	On-Call Transportation Design
City of Desert Hot Springs	Civil Plan Review
City of Indian Wells	On-Call Engineering, Design
City of La Quinta	Building Plan Review, Civil Plan Review Construction Inspection
City of Palm Desert	<b>Broadband Master Plan</b> Building Plan Review, Civil Plan Review, Comprehensive Engineering, Design, Construction Management, Inspection
City of Palm Springs	<b>Broadband Master Plan</b>
City of Rancho Mirage	Civil Plan Review
Coachella Valley Association of Governments	<b>Broadband Strategic Plan</b> , On-Call Traffic Engineering



**HR Green’s Palm Desert Office**

**We Know the Coachella Valley**

- ▶ Our office and local personnel within a few short miles of Coachella
- ▶ Available bilingual team members (English/ Spanish) serving Coachella Valley agencies
- ▶ Broadband master plans for CVAG and the cities of Palm Desert and Palm Springs
- ▶ Presenters on Broadband and Smart Communities to APWA Desert Charter and ITE Conference in Palm Desert
- ▶ Multi-faceted consulting to CVAG and seven of nine Coachella Valley cities
- ▶ Staff collectively have served Coachella Valley agencies for 30+ years
- ▶ Former Interim Public Works Director, City of Palm Desert
- ▶ Former Public Works Director/City Engineer, City of La Quinta
- ▶ Two-time President of APWA’s Coachella Valley Chapter, working extensively with CVAG and cities to drive regional collaboration
- ▶ Chair, CVAG’s Policy Subcommittee for Regionwide Traffic Signal



## Key Personnel

# Key Personnel

Your primary local point of contact is **Tim Jonasson, PE**, our **QA/QC Manager**. Tim has served in this role for broadband master plan assignments with CVAG and the cities of Palm Desert and Palm Springs. As a local resident he has also served as a City Engineer/Public Works Director to various Coachella Valley cities and maintains well-established relationships with key stakeholders. **Irena Stevens**, our assigned **Project Manager**, will see that all resources are allocated to your project as needed and will be available for requested meetings. She has been instrumental in helping to deliver these local broadband master plans as well as similar broadband projects throughout the country. **Ben Lewis-Ramirez** brings extensive **community engagement and meeting facilitation experience** on broadband assignments. He will be supported locally by **Desiree Flores, PE** and **Berlyn Pimentel**, both of whom are bilingual and have supported Coachella Valley agencies on various CIP and land development coordination assignments. Resumes of our project team listed below, are found on the following pages.



Additional staff  
available as needed



## Irena Stevens | Project Manager

Irena brings more than 13 years of experience with vision, planning, regulatory, and financial review of options to recommend broadband related policies and solution. She has been instrumental in delivering successful broadband master plan projects in Coachella Valley and other parts of southern California as well as in Colorado, Oregon, Texas and the Midwest.

She has evaluated agency goals to help develop broadband infrastructure solutions and helped develop plans to provide high-speed connectivity in cost-effective ways. Irena has led several public outreach campaigns to evaluate community broadband capacities, community needs, and policy options to promote equitable access and affordability of Internet service offerings. She has also led efforts to assess stakeholder needs, document current infrastructure and provider options, prepare grant applications and financial models for broadband studies and master plans with cities, counties, and economic development agencies around the country.

### EXPERIENCE

13+ Years

### EDUCATION

MS, Interdisciplinary  
Telecommunications

MS, Public Policy, focus in  
Telecommunications Policy

BS, Political Science

BS, History

**Irena has handled diverse project management, feasibility, and community engagement tasks on many fiber and broadband master plans. These include:**

- ▶ **Broadband Master Plan, Coachella Valley Association of Governments (administer LATA Grant)**
- ▶ **Broadband Master Plan, City of Palm Desert**
- ▶ **Broadband Master Plan, City of Palm Springs (administer LATA Grant)**
- ▶ **Fiber Master Plan, City of Pico Rivera**
- ▶ **Broadband Assessment and Feasibility Study, Tillamook Lightwave (TLW), Tillamook County, OR**
- ▶ **Broadband Study, Yamhill County, OR**
- ▶ **Broadband and Fiber Study, Town of Avon, CO**
- ▶ **Network Strategic Plan, Holy Cross Energy, CO (NTIA Middle Mile Broadband Grant Application)**
- ▶ **Broadband Master Plan, Douglas County, CO**
- ▶ **Broadband Master Plan, Adams County, CO**
- ▶ **Broadband & 5G Planning, City of Fulshear, TX**
- ▶ **Communications Infrastructure Master Plan, City of Sugar Land, TX**
- ▶ **Broadband Infrastructure Analysis, Greater Des Moines Partnership, IA**
- ▶ **FTTP Feasibility Study, City of Fort Dodge, IA**





## George Wentz, PE | Principal-in-Charge

George serves as Vice President of HR Green, which offers a comprehensive suite of services to help local agencies function more effectively and efficiently. He brings more than 50 years of administrative, management, and local government related experience, focused on delivering consulting support to public agencies, including **most agencies in the Coachella Valley**. He has served as City Manager, Assistant City Manager, Public Works Director, City Engineer, Building Official, Planning Director, Traffic Engineer and Economic Development Manager.

George has directed and administered projects which range from on-call support to full city contract services. His responsibilities have ranged from accountability for day-to-day completion of activities associated with a contract to Principal-in-Charge of particular projects. His managerial experience and high level of success is well documented and recognized by the cities he has served.

**A long-time resident of the Coachella Valley, George is keenly aware of the issues the region faces. He has also worked closely with the APWA on their International Affairs Committee.**

- ▶ **Broadband Master Plan, City of Palm Desert**
- ▶ **Broadband Master Plan, City of Palm Springs**
- ▶ **Broadband Master Plan, Coachella Valley Association of Governments**
- ▶ **Fiber Master Plan, City of Pico Rivera**
- ▶ **On-Call Wireless Telecommunications Planning, Cities of Jurupa Valley, Redlands, Pasadena, Beverly Hills, and Malibu**
- ▶ **Small Cell and Broadband Master Planning, Town of Snowmass Village, CO**

### EXPERIENCE

50+ Years

### EDUCATION

Master, Public Administration

BS, Civil Engineering

### REGISTRATION / LICENSE

Registered Civil Engineer, CA, #43273



## Tim Jonasson, PE | QA/QC Manager

Tim has 33 years of design, CIP program management, design management, plan review, NPDES/water quality compliance, and construction management experience of municipal public improvement projects, including roads, drainage, water, sewer, traffic, grading, parks, recreational facilities, parking lots and parking structures. He has served as construction manager and design engineer on a variety of municipal improvement projects including bridge construction, street and landscape improvements, water and wastewater improvements, parks construction and rehabilitation, golf course improvements and pier reconstruction. **Tim is a local resident based in La Quinta and manages our Palm Desert office. He presented to Coachella Valley APWA on smart communities innovations, and to the Western Regional ITE Conference in Palm Springs, as well as to Southern California ITE and the International ASCE conferences.**

- ▶ **Broadband Master Plan, City of Palm Desert**
- ▶ **Broadband Master Plan, City of Palm Springs**
- ▶ **Broadband Master Plan, Coachella Valley Association of Governments**
- ▶ **Various Professional Consulting Services, Cities of Palm Desert, Cathedral City, Rancho Mirage, Desert Hot Springs, La Quinta, Indian Wells, and Coachella**
- ▶ **Fiber Master Plan, City of Pico Rivera**
- ▶ **Traffic Engineering, Coachella Valley Association of Governments**
- ▶ **Signal Synchronization Sub-Committee Chair, CVAG**
- ▶ **Small Cell Ordinance and Application Review, Various Southern California Agencies**

### EXPERIENCE

33 Years

### EDUCATION

Masters, Business Administration

BS, Civil Engineering

### REGISTRATION / LICENSE

Registered Civil Engineer, CA #45843



HRGreen.  
PACIFIC

## Broadband Master Plan

▶ City of Coachella



## Kevin Azzarello | Grants Coordinator

Kevin is a respected, detail-oriented Broadband Planner and Designer with more than 25 years of experience and a history of solving complex broadband problems. He has spearheaded the development and industry-leading professional design standards for roadway utility relocation projects and community broadband engagement and design practices for local governments. Kevin's approach to projects begins by defining the pivotal performance measures and utilizing them as critical success factors throughout the life of the project.

### EXPERIENCE

25+ Years

**He has planned and designed telecommunication road relocation projects for major interstates, highways, and bridges. Additionally, he has helped develop broadband plan of action road maps for municipalities and regional agencies, based on their specific data-driven needs and grant-funding programs.**

- ▶ **Broadband Master Plan, City of Palm Desert**
- ▶ **Broadband Market Analysis and Cost Study, Houston-Galveston Area Council, TX**
- ▶ **Broadband/Fiber Planning, State of Colorado**
- ▶ **Broadband/Fiber Planning, State of Texas**
- ▶ **Broadband Master Plan, City of Baytown, TX**
- ▶ **Fiber-to-the-Home Master Planned Communities, City of Austin, Cedar Park, Leander, and Round Rock, TX**



## Sam Beever, PE | Design and Costing Coordinator

Sam brings more than nine years of engineering experience and is skilled in developing cost-effective solutions, complex technical problem solving, identifying/delivering increased efficiencies reducing costs and increasing on time deliveries, collaborating with clients, and researching industry standards for consistent delivery of quality products. His experience includes outside plant, inside plant, fiber to the home, small cell, switched ethernet, traffic control, shelter/generator installation/design, review of geotechnical and structural reports, and large team coordination. Samuel has experience using Microsoft tools (Excel, Word, PowerPoint, Visio, etc.), ArcGIS, AramisDT, AutoCAD, Google Earth Pro, and Bluebeam Revu.

### EXPERIENCE

9 Years

### EDUCATION

BS, Civil Engineering

MS, Civil Engineering

### REGISTRATION/LICENSE

Registered Professional Engineer, KS #26998

**He has managed the creation of detailed construction specification documents that provided the methods and equipment to construct a fiber to the home network in the aerial and underground environment. In addition, Sam has provided services for Light Gig AT&T.**

- ▶ **Broadband Master Plan, City of Palm Desert**
- ▶ **Broadband Master Plan, City of Palm Springs**
- ▶ **Broadband Master Plan, Coachella Valley Association of Governments**
- ▶ **Fiber Master Plan, City of Pico Rivera**
- ▶ **Fiber Planning and Design, Castle Rock, Colorado Springs, Fountain, Snowmass Village, CO**
- ▶ **Fiber Design, City of Portland, OR**
- ▶ **Fiber Design, City of Lehi, UT**



## Will Bender, PE | Mapping Coordinator

Will is a Project Manager with experience managing project teams for multiple clients across the US to facilitate algorithmic network design. He has negotiated contracts and pricing for multiple subcontractors and facilitated multiple vendor and client introductions across the telecommunications industry. Will has developed construction drawings for telecommunication utility design, including field verification when necessary; optimized cost of all designs to meet customer demands in a timely manner; used best management practices to maintain high levels of safety for both the construction technicians and general public; developed private/public permit and easement drawings; and coordinated with field designers and supervisory engineers to maintain high quality and accuracy for all developed designs.

### EXPERIENCE

11 Years

### REGISTRATION/LICENSE

Registered Civil Engineer,  
CO #60156

Registered Civil Engineer,  
MN #61581

**Will has led broadband and fiber engineering teams of over 50+ staff on multiple varieties of telecommunications projects, including FTTP, small-cell, and permitting management.**

- ▶ **Broadband Master Plan, City of Palm Desert**
- ▶ **Broadband Master Plan, Coachella Valley Association of Governments**
- ▶ **Broadband Study, Jefferson County, CO**
- ▶ **Fiber Planning and Design, Avon, Colorado Springs, Fountain, and Golden, CO**
- ▶ **Fiber and Small Cell Study, City of Cherry Hills Village, CO**



## Ken Price, CGCIO, CCM | Wireless Technology Coordinator

Ken brings 30+ years expertise in planning and implementing both short-term and long-term strategies, work plans, budgets, and projects that provide for the planned, orderly, business justified, and cost-effective development, installation and operation of digital systems including information technology, Geographic Information Systems (GIS), networks, and telecommunications technologies. Ken has worked on small cell initiatives for a number of agencies, including Redlands, Pico Rivera, Jurupa Valley, nearly 10 Colorado cities, and various cities in Iowa, Illinois, and Texas. This has included developing small cell/5G design standards and providing reviews. He also served as the Information Services Director in charge of the Littleton, Colorado Small Cell Program. This included working with Community Development, Public Works, the City Attorney's Office, and multiple cellphone service providers to create a Small Cell Program Master License Agreement (MLA) for each provider, and a comprehensive documented / streamlined drawing approval process to provide small cells within Littleton.

### EXPERIENCE

30+ Years

### EDUCATION

MS, Computer Information  
Systems

BS, Computer Information  
Systems

### CERTIFICATIONS

Certified Government Chief  
Information Officer

Certified Change Manager

**Ken has served as a Project Manager for various broadband master plans in the Coachella Valley and wireless technology initiatives throughout Southern California.**

- ▶ **Broadband Master Plan, City of Palm Desert**
- ▶ **Broadband Master Plan, City of Palm Springs**
- ▶ **Broadband Master Plan, Coachella Valley Association of Governments**
- ▶ **Fiber Master Plan, City of Pico Rivera**
- ▶ **Small Cell Ordinance and Application Review, Various Southern California Agencies (Redlands, Jurupa Community Services District, Beverly Hills, Pasadena, and Malibu)**



## Ben Lewis-Ramirez | Community and Stakeholder Engagement Coordinator

Ben has over 15 years of management experience in the broadband, outside plant engineering and construction industries. He is a vocal advocate for the open application business model and has published numerous magazine articles and blog posts on the subject, in addition to speaking about it at conferences and other events around the country. He will bring this wealth of broadband experience to his work addressing underserved residents with Coachella, so that all stakeholder groups understand the project and its implications for them and their communities.

### EXPERIENCE

15+ Years

### EDUCATION

BA, Latin American Studies

**Ben has served as a Program and Project Manager for counties, cities, and school districts associated with broadband market assessments, business plans, strategic plans, and master plans, responsible for plan development, constructability analysis, and stakeholder engagement.**

- ▶ **Broadband Study, Yamhill County, OR**
- ▶ **Broadband Strategic Plan Implementation, El Paso County, CO**
- ▶ **Broadband Study, Jefferson County, CO**
- ▶ **Broadband Study, City of Thornton, CO**
- ▶ **Dotsero Fiber to the Home, Eagle County, CO**



## Desiree Flores, PE | Community and Stakeholder Engagement Support

A multi-talented and bilingual licensed civil engineer, Desiree has 10 years of experience and brings comprehensive experience managing/delivering CIP projects, processing permits, responding to public inquiries and utility concerns, reviewing/designing various utility plans, and has utilized AutoCAD to design infrastructure plans. She has provided grading, drainage, and erosion control plans; earthwork quantities; grading cross-sections; hydrology reports and calculations; designed LID BMPs, implemented SWPPPs, and rehabilitated sewer and pavement in congested downtown areas, involving traffic control plans, pipe sizing, and alignments for cities in Los Angeles, Orange, and Riverside Counties.

### EXPERIENCE

8 Years

### EDUCATION

MS, Civil Engineering - Focus on Construction Engineering and Management

BS, Civil Engineering

### REGISTRATION / LICENSE

Professional Engineer, CA #89868

**For the Pico Rivera fiber optic master plan, she translated community surveys from English to Spanish, performed public outreach by conducting workshops, and assisted in the analysis of data to assess broadband needs and opportunities.**

- ▶ **Fiber Optic Master Plan, City of Pico Rivera**
- ▶ **Public Works/Engineering Support, City of Jurupa Valley**
- ▶ **On-Call Engineering, Cities of Hemet and Moreno Valley**
- ▶ **Public Works/Engineering Support, City of Palos Verdes Estates**
- ▶ **Roadway Improvements, City of Claremont**
- ▶ **Land Development Coordination, City of Pomona**



## Berlyn Pimentel | Community and Stakeholder Engagement Support

Berlyn is a seasoned bilingual professional with 11 years of experience working for municipal governments. She has expertise in plan review and permit processing and coordinating with applicants and contractors. In addition, She is proficient in handling public document requests and utilizing city and county GIS and records data to determine site restrictions. Berlyn has provided support to Engineering and Public Works Technicians and assisted in the annexation processes. Berlyn is proficient in customer service and translation services, and provided assistance to residents, vendors, and developers. She routinely prepares and maintains database records, and generates reports on a regular and as-needed basis, including the preparation of monthly, quarterly, and year-end financial, summary, and other technical reports in various systems.

### EXPERIENCE

11 Years

### EDUCATION

College Coursework

**Berlyn has provided real-time translation services to constituents coming to a City services counter to handle various transactions and coordinate, with permitting and engineering staff, etc. She has also assisted in crafting Spanish language municipal documents.**

- ▶ **Public Counter, Plan Review, and Permit Processing, City of Jurupa Valley**
- ▶ **Date Palm Drive Rehabilitation, City of Cathedral City**
- ▶ **Engineering Support, Cities of Moreno Valley, Pomona, Palos Verdes Estates**



## Ken Demlow | Feasibility Coordinator

Ken brings 33 years of experience in the industry, from working in field construction installing fiber, to Google and Verizon projects, and several FTTH projects. Ken is nationally known for his industry knowledge on Smart Meters and Smart Grid. Ken has been very involved in working through the details of fiber projects, aggregation and economic development. He has spoken at several industry conferences, has authored several industry articles and recently served a state level economic development fellowship. Prior to HR Green, Ken was National Business Development Manager at NewCom Technologies where he was involved in the design, engineering, and operation of more than 200,000 miles of telecommunications plant, including more than 30,000 miles of lit fiber.

### EXPERIENCE

33 Years

### EDUCATION

BS, American Studies

### INSIGHT

Various white papers and presentations on Broadband Master Planning, Growing Role of Broadband in Utility Damage Prevention, Rights of Way Management for Efficient Fiber Deployment, 5G and Small Cell Deployment

**Ken oversees HR Green’s broadband master planning efforts nationwide, proactively engaging with cities, counties, and councils of governments). He is also a member of the APWA Utilities and Public Rights-of-Way Committee.**

- ▶ **Broadband Master Plan, City of Palm Desert**
- ▶ **Broadband Master Plan, City of Palm Springs**
- ▶ **Broadband Master Plan, Coachella Valley Association of Governments**
- ▶ **Fiber Master Plan, City of Pico Rivera**
- ▶ **Broadband Infrastructure Analysis, Greater Des Moines Partnership, IA**
- ▶ **Broadband Market Analysis and Cost Study, Houston-Galveston Area Council, TX**
- ▶ **FTTP Feasibility Study, Financial Modeling, High Level Design, and Construction City of Fort Dodge, IA**
- ▶ **Broadband Assessment and Feasibility Study - Tillamook Lightwave (TLW), Tillamook County, OR**



## Monika Kazmierski | Data and Bidding Coordinator

Monika has more than five years of experience as a data and management analyst, with more than four years of experience with local governments. She has provided innovative approaches to track and improve department functions, developed and managed communication programs related to policies and procedures, and assisted local governments with daily operations and maintenance of assets. Monika has helped municipalities with creating master infrastructure plans to address anticipated asset demands and needs. In addition, she has extensive experience with Cartegraph and Power BI Desktop for Business Intelligence.

### EXPERIENCE

5+ Years

### EDUCATION

MS, Earth and Environmental Resources Management

BS, Zoology, Concentration in Environmental Biology

### CERTIFICATIONS

Public Works Management Institute Certificate

**Monika is currently providing services to the City of Palm Springs. She is also a member of the American Public Works Association (APWA) Asset Management Committee's Knowledge Team.**

- ▶ **Broadband Master Plan, City of Palm Springs**
- ▶ **Broadband Master Plan, Coachella Valley Association of Governments**
- ▶ **Broadband Study, Yamhill County, OR**
- ▶ **Broadband Market Analysis and Cost Study, Houston-Galveston Area Council, TX**
- ▶ **Broadband Master Plan, Jefferson County, CO**



## Carlos Ortiz, PE, TE, PTOE | Fiber Field Assessment

As ADVANTEC's Chief Executive Officer, Carlos is a globally recognized expert bringing smart mobility and technology solutions to Smart Cities/Region, Connected/Automated Vehicles (CAV), Intelligent Transportation System (ITS), Traffic Engineering, and Transportation Planning and Engineering Projects and Programs for numerous agencies, private developments, and institutions. He has worked on many multi-modal and complex projects and has the ability to resolve problems quickly and efficiently by drawing on his many years of experience in our transportation industry.

### EXPERIENCE

33 Years

### EDUCATION

BS, Civil Engineering

### REGISTRATIONS

Civil Engineer, CA #C057535

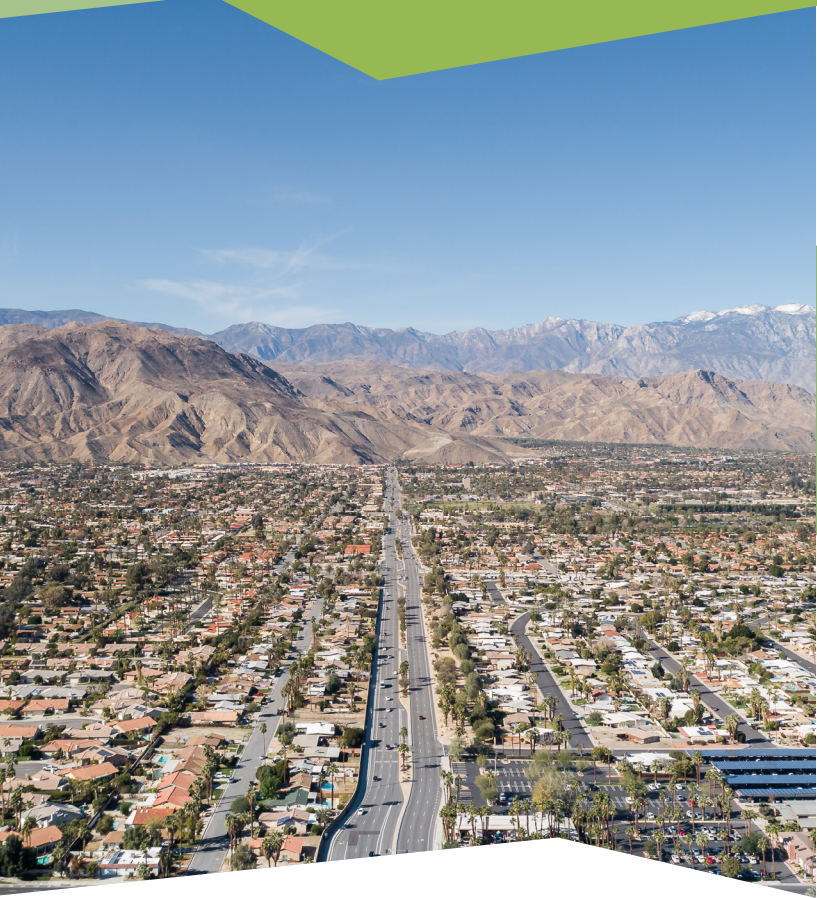
Traffic Engineer, CA #2025

Professional Traffic Operations Engineer, US #426

Carlos served on ITE's International Board of Direction as International Director, representing the ITE Western District. He is currently serving on the Board at ITS California.

**Carlos has provided extensive services to the Coachella Valley Association of Governments, including:**

- ▶ **Broadband Master Plan (subconsultant to HR Green)**
- ▶ **Smart Region Program – Regional Broadband Communications**
- ▶ **Smart Region Program – Phase I**
- ▶ **Smart Region Program – Phase II**



**Subcontractor**

## ADVANTEC Consulting Engineers, Inc. Fiber Field Assessment



ADVANTEC Consulting Engineers, Inc., a California Corporation, is a Certified Disadvantaged Business Enterprise (DBE) and Small Business (SBE) consulting firm specializing in Intelligent Transportation Systems (ITS), Systems Engineering, Smart Cities, Broadband Communications, Connected and Automated Vehicles (CAV) Transportation Technologies, and Construction Management and Inspection. ADVANTEC's mission is to provide quality planning and engineering to the community that would result in perceptible improvements towards the quality of life, safety, and efficiency of transportation. Founded in 1998, ADVANTEC is a professional consulting firm specializing in multi-modal transportation planning, engineering, and technology services. Their name stands for our focus to capture ADVANCEMENTS in TECHNOLOGY for the benefits of their clients, thus providing innovative solutions that meet the needs of clients and the public they serve.

**They have worked extensively with the Coachella Valley Association of Governments (CVAG), primarily on the multi-phase CV Sync project. Currently, they are supporting HR Green on the preparation of CVAG's Broadband Strategic Study.**

- ▶ **Multi-Modal Smart Mobility Solutions** – ADVANTEC has provided planning, design, and implementation for all aspects of Multi-Modal Smart Mobility and Intelligent Transportation Systems (ITS) programs. Our experience includes the development on Citywide and Regionwide ITS Master Plans, Connected/Automated Vehicles (CAV), Integrated Corridor Management (ICM), Bus Rapid Transit (BRT), Concept-of-Operations (ConOps), System Engineering Management Plans (SEMP), Technology Assessment, Signal Synchronization, and regional ITS architecture for local municipalities, Caltrans and FHWA.
- ▶ **Smart Cities/Region Program** – ADVANTEC and **Coachella Valley Association of Governments (CVAG)** are developing a Smart Region Program implementing ITS on a valley-wide basis to maximize highway and arterial system capacity, improve operational efficiency, improve safety, and improve

### KEY TECHNICAL LEAD / CONTACT PERSON

Carlos Ortiz, PE, TE, PTOE  
P: 949.861.4999  
E: cortiz@advantec-usa.com

the environment. In addition, other smart cities solutions are integrated in the program including Big Data, Smart Government, Internet-of-Things (IoT), Open Data, and Broadband Communications. Also, other non-transportation technologies are planned to be included under the program including Smart Weather Sensors, Smart Parking, and Smart Lighting System. Led by Carlos Ortiz and a team of over 10 engineers, ADVANTEC began with the Regionwide ITS Master Plan identifying emerging transportation technologies (i.e., connected and automated vehicles, ICM, Mobility-as-a-Service, Mobility-on-Demand, and Smart Cities initiatives), and continued through the project development process involving SEMP, ConOps, and System Requirements, Environmental, Preliminary Engineering, Systems Integrator Procurement and Design, System Implementation, Construction Management and Inspection, and Traffic Signal Synchronization. This includes coordination and approvals from Caltrans District 8, County of Riverside, and eight local agencies. ADVANTEC worked with CVAG in the development of the Cooperative Agreement at the initial phase of the program.

- ▶ **Broadband Communications** - As part of **CVAG's** Smart Region Program, broadband communications will be installed along 21 Corridors in the Coachella Valley. As a result of our ITS planning and design efforts recognized by the state, Highway 111 was selected for funding by California's Middle-Mile Broadband Initiative, which CVAG is the only agency that received funding other than Caltrans. ADVANTEC is working with CVAG, the local agencies, and the state for other funding opportunities to advance middle-mile broadband across the remaining corridors with connectivity to major and local educational institutions with access to disadvantaged communities to increase the quality of life throughout the region. In addition, ADVANTEC is working with CVAG and the local cities to provide Public-Private broadband communications within their communities.



► **Connected Vehicle to Everything (C-V2X)**

**Technologies** – As part of **CVAG's** Smart Region Program, ADVANTEC provided planning and design services for the implementation of C-V2X technologies across the Coachella Valley. ADVANTEC developed over 500 performance requirements for the selection of the Roadside Units (RSUs) and conducted a Pilot Project so the selected technologies met the performance requirements. The goal is to provide Signal Phasing and Timing (SPaT) messages and Basic Safety Messages (BSMs), including programmed messages for construction zones, advisory messages, wrong way driving, etc. to motorists via their vehicles On-Board Units (OBUs). The selected RSU will also provide WiFi/Bluetooth Arterial Management Data and can integrate 5G communications to provide C-V2X via cellular communications. In 2022 and 2023, ADVANTEC will be conducting additional Pilot Projects that includes Vehicle-to-Pedestrian (V2P) and Vehicle to Bicyclists (V2B) communications. In addition, ADVANTEC is working with various Automated Vehicles/Shuttles manufacturers to bring automated vehicles to the Coachella Valley during the 2023 Coachella Music Festival and other events.

► **Regional ITS Architecture** – ADVANTEC served as Prime Consultant to METRO for updating the Los Angeles County Regional ITS Architecture in 2018-2021, working with all 88 cities, Ports of Los Angeles and Long Beach, Los Angeles World Airports (LAWA), transit agencies, and other stakeholders. ADVANTEC also served as subconsultant on the SCAG Regional ITS Architecture Update project in 2017-2019. An update to the County Regional ITS Architectures was long overdue with a need to reflect new ITS services and interfaces found in the current National ITS Architecture. The County Regional ITS Architecture needed to reflect the many existing ITS deployments and planned ITS developments since 2004. This project presented a forward-looking opportunity for regional stakeholders to revisit the architecture as a planning framework to support the next wave of ITS investments and Smart City initiatives that will shape mobility in LA County in the years to come. The Los Angeles County Regional ITS Architecture Update considered AV/CV Deployments and addressed the needs of non-motorized users. Their expertise is paramount to assist local municipalities and Metro to adopt ITS design architectures that fit the regional requirements.





## Project Organizational Chart

# Project Organizational Chart

**Irena Stevens**, our assigned **Project Manager**, will coordinate the day-to-day tasks of our team, review project deliverables at key milestones with city staff, and be available for requested meetings with your staff and stakeholders. Your primary local point of contact is **Tim Jonasson, PE**, our **QA/QC Manager** and a long-time Coachella Valley resident. He has served in this role for broadband master plan assignments with CVAG and the cities of Palm Desert and Palm Springs and can quickly interface with City and local stakeholders, as needed. **Ben Lewis-Ramirez** will handle **community engagement and meeting facilitation** and will be supported locally by **Desiree Flores, PE** and **Berlyn Pimentel**, both of whom are bilingual and bring knowledge of the Coachella Valley area.



Additional staff  
available as needed

We understand that staffing levels are critical to the success of any project. Our team is composed of highly qualified professionals with the experience and expertise needed so your project is completed on time and within budget.

Our staffing levels are carefully calibrated to meet the specific needs of each project. We start by conducting a thorough analysis of your project requirements, including the scope of work, timeline, and budget. Based on this analysis, we develop a staffing plan that outlines the roles and responsibilities of each team member and the required qualifications and experience.

All of our proposed staff have worked together on broadband master plan projects throughout the western United States and nationally. Moreover, our core staff bring extensive Coachella Valley experience with senior leadership who have been long-time Coachella Valley residents and have served the majority of agencies in the region.

Our team members bring a specific blend of skills, experience, and ability to work collaboratively to achieve broadband project goals. We believe that diversity is key to success, and our team includes professionals with a range of backgrounds and perspectives. This diversity allows us to approach problems from different angles and develop innovative solutions that meet your project's unique challenges.

Once the staffing plan is approved by the City, we work closely with you so that our team is aligned with your project's goals and objectives. We provide ongoing communication and support so everyone is on the same page and working toward a common goal.

Our staffing levels are designed to provide flexibility and scalability. We can quickly ramp up or down the team size based on changing project needs or unexpected challenges. We believe that this flexibility is critical to the success of any project and allows us to adapt to changing circumstances quickly.



In addition to our team's technical expertise, we also place a strong emphasis on soft skills such as communication, problem-solving, and collaboration. We believe that these skills are just as important as technical expertise to promote project success. Our commitment to community engagement is centered around assigning a core team of staff not only familiar with the Coachella Valley, but also with the bilingual skills to facilitate outreach efforts.

We are committed to providing staffing levels that meet the highest standards of quality and excellence.

## Our Fiber and Broadband Capabilities



### Knowledge Of:

- Broadband Master Planning Across the United States
- Local, State, and Federal Laws
- Inventory and Infrastructure Identification and Needs Assessment
- Best Practices and Latest Techniques and Technology
- Conceptual Network Routes and Final Design Documents



### Our Core Staff

- Know and Understand Fiber and Broadband
- Local Knowledge of the Coachella Valley



### Keys to Success

- Experience Providing Similar Broadband Services from Conception to Construction
- Proactive Community Outreach and Management
- Nationally Demonstrated Ability Across Various Markets
- Locally-based and Knowledgeable Staff Members
- Quality Project Records
- Clear Communication
- Sound and Defensible Decisions/Recommendations
- Bilingual Staff with Experience in the Coachella Valley



## Project Work Plan

# Project Work Plan

## PROJECT MANAGEMENT (RFP TASK 12)

HR Green has been in business for 110 years. One of the main reasons for our success over so many years is our dedication to and development of a proven project management process. Our Project Managers are charged with the pivotal role of bringing our company's efforts together with your expectations, budget and schedule.

Our Project Management system is another factor that distinguishes us in the industry. Within the process discussed in the Approach section, we have built in project management tools that keep the process flowing and on track.

### Deliverables at Every Task

In our experience, an intermediate deliverable approach is the best way to accomplish this. In the specific tasks below, there are deliverables at every task. This provides an important way to monitor the progress of the project and to make sure the HR Green team and Coachella's leadership stay in alignment regarding project schedule, directions and outcomes. We often provide a deliverable from which our client realizes a need to make an alteration in the path of the project (building in the decision points mentioned in the Approach). At a deliverable level, that can be done. This process makes for a better project with better outcomes.

### Proven Project Managers

HR Green Project Managers will be accessible and responsive to you at all junctures in the project. Specifically, HR Green proposes the following methods to guide our overall project communication for this short-fuse project:

**PROACTIVE PROJECT COORDINATOR AND PROJECT MANAGEMENT:** To promote continuity your Project Manager will serve as your main point of contact and oversee all aspects of efficient project management, on-time and within budget service.

**PROJECT REPORTING:** MS Project will be utilized as the primary tool to create and manage the project milestones and deliverables. This will be modified based on community needs throughout the project.

**WEEKLY UPDATES/BI-WEEKLY MEETINGS:** We will provide weekly, written updates on project status, complete with percent complete on major milestones, issue logs and risk management logs. These tools will be managed and updated by HR Green and will be reviewed on a bi-weekly basis in person with your assigned project lead.

**PROJECT COORDINATION:** As we approach the deliverable milestones, update meetings will provide a focused opportunity to sit down together and review progress in the deliverables and on the project. This approach requires careful listening from the Project Manager to client input. It also requires the Project Manager to closely monitor the project schedule and budget to know when these milestones are approaching. Please note, finally, that it invites active participation with City leadership as part of one team. The voice of the community is crucial to the success of this management approach.

**RISK MANAGEMENT:** Our project management experience is a direct result of our client's need to accommodate demands for transparency, accountability, and good stewardship of tax dollars. Risk assessment and mitigation is an important part of the team's responsibilities. The first step is to develop a Risk Matrix, where specific and general risks can be noted and scored, along with action plans and status tracking. Each "risk" is evaluated for its potential impact on the project's cost and/or schedule. A risk mitigation action plan can be developed in collaboration with the project team.

History validates the effectiveness of this approach to client satisfaction. Some of HR Green's current clients have been with us for more than 70 years. The paths to successfully define and implement the actionable steps in the Plan phase are detailed in a Broadband Master/Strategic Plan. This Plan provides the details to implement the strategies and tasks, real recommendations with actionable next steps.

### DELIVERABLES

- ▶ Project schedule with updates
- ▶ Meeting Agendas and Meeting Minutes for update meetings
- ▶ Deliverables for each task (detailed in the tasks below)



# VISION

## TASK 1 - KICKOFF MEETING

With every community, we begin the process with a kickoff meeting to make sure everyone is on the same page about the goals and tasks of the project, who will be doing what, how those tasks will be done and when they will be worked on and completed. We also discuss any information that needs to be exchanged

### DELIVERABLES

- ▶ Agenda for the kickoff meeting (including information request)
- ▶ One meeting
- ▶ Minutes of kickoff meeting

## TASK 2: FIRST PRESENTATION TO COUNCIL

HR Green will prepare for and participate in a project introduction meeting with City Council to discuss the Scope of Services of the broadband master plan, including the anticipated timeline for the project. We will seek and listen for input from the Council and guidance for the project.

### DELIVERABLES

- ▶ Presentation for the meeting (coordinated with staff)
- ▶ Notes from City Council (to discuss further with staff)

## TASK 3: CURRENT AND FUTURE NEEDS ASSESSMENT

As you describe in your RFP, part of gaining a clear understanding of the current broadband strengths and weaknesses in the City involves a well-planned and orchestrated engagement with the key stakeholders involved in broadband in the City. Below we break out our approach and typical tasks in gathering the needed data to assess the current and future broadband needs.

### TASK 3A: COMMUNITY ENGAGEMENT – ENGAGEMENT PLAN

As you point out in your RFP, there are many stakeholders who can provide an important array of different perspectives regarding broadband in Coachella. We agree with the list of stakeholders in your RFP on page 7 (and the subsequent paragraph) and would suggest adding the library on Sixth Street (you may have considered that included within the government agencies) and regional organizations .

We plan and organize those interactions (survey and meetings) in the Engagement Plan. This is an incredibly important document in the process, because we provide drafts of survey questions, ways the survey will be promoted, lists of stakeholders, draft questions we will ask them, etc. It is a working document that we provide in draft form to be reviewed, edited and filled in as we progress through the stakeholder process. The Engagement Plan process helps keep the steps organized and provides the level of involvement you desire in everything that is done.

Engaging in a dialogue with community residents, businesses, public sector staff across departments, internet service providers (ISPs) and other stakeholders, individually and in small groups, helps determine the issues that the community, businesses and residents face when it comes to broadband access and utilization. We also ask for and verify data in these discussions.

Resident and business owner surveys can be effective ways to help decision makers better understand community needs. They can also confirm or challenge grant eligibility maps and information gathered in the Market Assessment. One-on-one and peer meetings with policymakers, anchor institutions and key influencers can also drive visibility into community needs and the goals that department leaders have.



These surveys and meetings will help determine the community's desire for improved levels of broadband service, current market conditions and deficiencies, stakeholder needs, and insights on what role local government should take in providing the service. In stakeholder meetings we also ask what needs are anticipated to help tailor any recommended steps to address current and future needs. For later planning phases, this information helps predict take rate and the optimum monthly cost users would be willing to pay for new services, if those data points are needed.

We have bilingual staff assigned to this project to help in discussions and the process of developing documents.

## DELIVERABLE

### ► Engagement Plan

## TASK 3B: COMMUNITY SURVEY

As mentioned in the Engagement Plan section, surveys are important to gather specific information like actual upload and download speeds, customer satisfaction, provider locations, etc. Also, questions can be asked to determine customer satisfaction and what role citizens and businesses would like the City to play in broadband improvement. Surveys can also help clarify revenue possibilities in infrastructure that might be built (help in defining take rate possibilities). HR Green has recommendations for questions that will provide the information that will be needed in the study, but feel it is important to collaborate with City leaders to finalize the survey.

Here are other uses the data in the survey can provide:

- **Real data:** The information in the Market Assessment is reported by the providers and goes through several steps to get to the maps we see. There are several opportunities in that process for the data to be incorrect. We have worked with providers who had mistakes in their reports. We have also found where the data was entered incorrectly at some point in the process. Survey data is a concrete, ground-truthed source of information to check the other data sources that are used in broadband decisions.
- **Refute maps:** Survey data can, then, be used to challenge the maps, if they are incorrect. To improve the maps if they are wrong, there needs to be actual, good data. The survey, if done correctly, can provide that information. Most Federal and State processes will include an opportunity to supply data to improve or correct maps – a survey is one of the strongest ways to do that.
- **High-level Design (HLD):** Once a Gap Analysis has been completed (within which the survey results will be an important data source), there may be an opportunity to do a high-level design of ways to improve broadband. An HLD requires addresses to design to. Survey addresses are some of the most accurate points to design to.
- **Providers:** Survey information is important to providers. Having a clear picture of broadband needs and what potential clients are looking for is valuable information for providers. Also, if they are considering installing broadband infrastructure to help solve broadband issues, a detail design will have to be done. The addresses in the survey information help them know that their designs will be accurate. Both the potential customer information and a confirmation of accurate addresses are valuable enough to be part of the conversation with providers.

In addition to gathering statistical data, the survey serves another, very important civic role. Several opportunities are given for citizens to share anecdotal evidence of their experience with broadband services and attitudes about possible solutions. Citizens thus feel that their concerns are being listened to, increasing the chances that they will buy into any solutions that meet those concerns.

HR Green utilizes a GIS based survey platform. Once the survey questions are ready, we load them into our survey tool and produce two links: One is for citizens and local businesses to take the survey and the other is given to staff through which they can see the progress of survey responses.

To gain both the quantitative (statistically valid) and qualitative (geographically and demographic) number of surveys desired, the survey will need to be promoted through all available channels. The different ways the survey will be promoted will be detailed in the Engagement Plan, but we highlight this topic because it is crucial to the success of the





survey and will require participation from City leaders and staff. The City's relationship with your citizens and businesses through your website, social media channels, newsletters, email blasts, events, stakeholders, etc. are key ingredients in letting people know to take the survey.

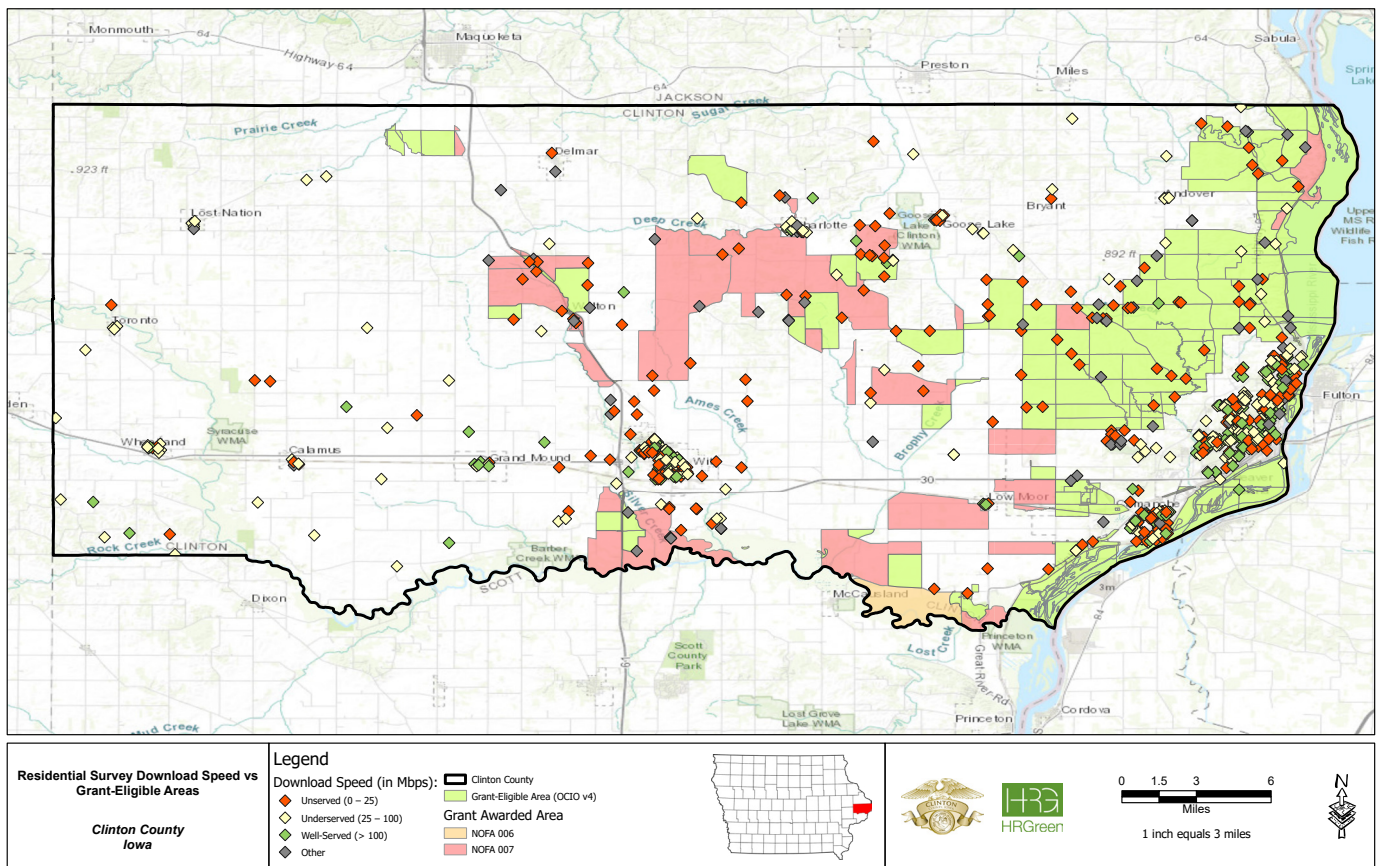
HR Green provides samples of wording for press releases, social media posts, emails, etc. (which will be in the Engagement Plan), but the degree to which the community has and uses channels to reach the citizens and businesses will have a significant impact on results. This is, truly, a collaborative effort.

Your RFP mentions in person survey promotion. It can be challenging to define costs for in-person promotion and for printed materials. We will provide costs that show our logic in how they were formulated. If other options are desired, we can easily change the inputs into those formulas to provide what is needed.

## DELIVERABLES

- ▶ GIS based survey
- ▶ Link to survey results
- ▶ Report of findings of survey results

The map below contains several pieces of data that were helpful to one of our clients. It contains survey results for that particular community, areas that are considered eligible in the current eligibility map for that state and areas that had received previous grants.



### TASK 3C: STAKEHOLDER MEETINGS

HR Green begins the stakeholder meeting process in the development of the Engagement Plan discussed above. We work with staff to clarify three things:

- The list of stakeholders
- The meeting schedule (how many meetings and who will be included in which meetings)
- What questions to ask stakeholders. We typically want to determine current and future internet service needs – and whether current connectivity meets those needs

As stated in the Engagement Plan section, we agree with the list in your RFP. Coachella contains a part of the City not found in all other cities – the large open areas to the East and Northeast. Defining stakeholders in those areas and what to discuss seems important. Also, discussions with regional entities (like CVAG) will be relevant to the study.

We also feel it is important to utilize the stakeholder meeting process as a way to build relationships with ISPs. They will likely play an important role in the final plans, so multiple meetings with them can be beneficial. As those relationships build, we can ask them to verify their coverage, encourage their input and let us know their future plans.

We will work with staff to finalize a list of organizations, determine meeting times and whether meetings will be virtual or in person. If in person, it is important to define available meeting locations and how meetings will be grouped to maximize on-site time. We will want to have a definitive number of businesses and resident group that fit within the agreed upon budget.

### DELIVERABLES

- ▶ Meetings with identified stakeholders
- ▶ Report of findings of input from stakeholders

### TASK 3D – DIGITAL EQUITY NEEDS AND PARTNERS

We were glad to see digital equity topics mentioned in your RFP. It can be an important community issue and there will be grants focused on digital equity. Not everyone has the same access to good broadband and some who have access can have difficulty using the services. Barriers to digital equity can be poverty, language challenges, age, etc.

Those who do not have access or who are not utilizing what is available are often not part of surveys and meetings. Working with agencies who can help bring those voices to the table can improve survey results and can help address digital equity issues.

Work on digital equity will be part of the Engagement Plan and work on addressing issues will begin when the preliminary Engagement Plan is adopted. Particular attention will be focused on:

- Trying to have representation in the survey.
- Working with agencies for paths to improving digital equity in action plans.

Addressing digital equity is important to help everyone participate in the digital world and digital economy. It is also a particularly relevant focus right now because a portion of the upcoming BEAD grants will focus on digital equity (the “E” in “BEAD”).

## DELIVERABLES

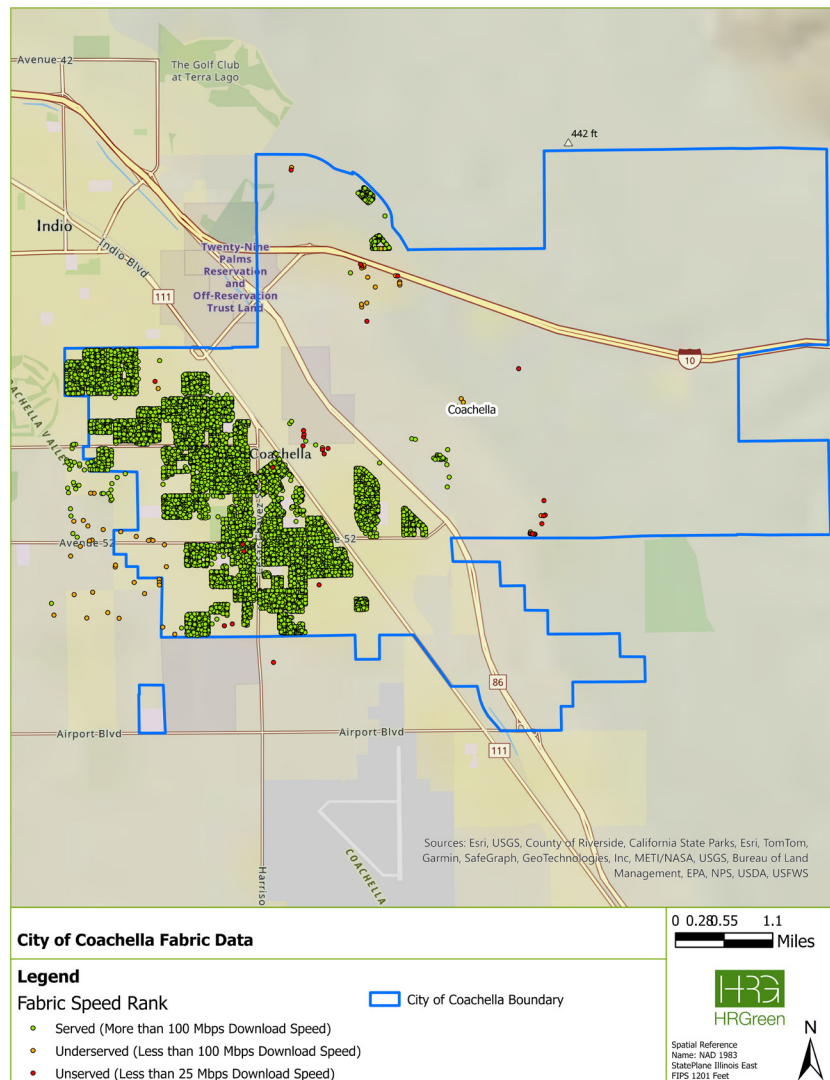
- ▶ Development of a list of agencies who might be able to help with digital equity outreach (as part of the Engagement Plan)
- ▶ Data in the survey to monitor participation of those who might have broadband adoptions challenges (as compared to census statistics)
- ▶ Meeting agendas and minutes of meeting with potential digital equity partners
- ▶ Report of findings of meetings with digital equity partners

## TASK 4: INVENTORY AND ASSESSMENT OF CITY-OWNED BROADBAND ASSETS

Very early in the project, we begin to build the asset inventory. This starts with gathering available GIS data. In our kickoff (or before), we will discuss what information we might need from the community to document broadband related assets in the community. These can help inform options for connecting and possible negotiation with potential partners. This part of the inventory is a GIS exchange.

There are several opportunities in the study process to gain information about City-owned broadband assets:

- In the kickoff meeting, we will provide an Information Request detailing lists of assets that are helpful to include in our map.
- In the stakeholder meetings, we will ask for information on any broadband related infrastructure they have (conduit, wireless assets, fiber, etc.). Often, these questions are for City Department leaders so any information they have is included.
- Field verification. HR Green has staff who provide field data collection and broadband infrastructure assessment. This can be challenging to define in scope and costs. For HR Green, these costs are based on hours and expenses. We will provide a number of hours and related costs that we think will be appropriate for collecting data on City-owned broadband assets. Through our sub-consultant Advantec, we anticipate having some information already from their work on the CV Sync project.

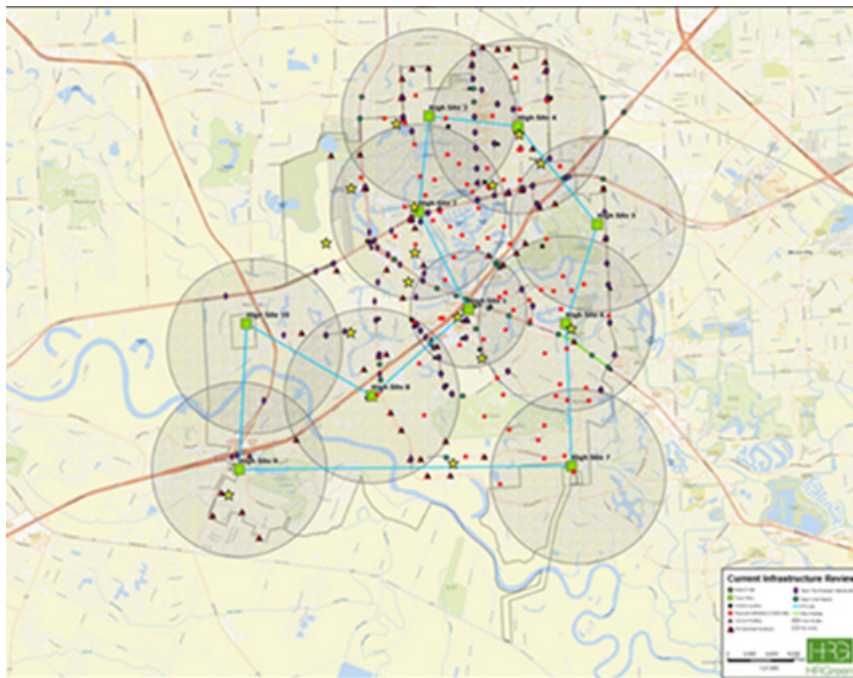


The inspection, verifications and inventories in the Scope of Work section on Page 15 of your RFP is a well thought out plan for developing a good understanding and documentation of City-owned broadband assets and capacity. We acknowledge this list and include it in our Scope.

We want to reiterate that HR Green is a 110 year old civil engineering firm that includes a business line devoted to Broadband. That combination fits very well with this section of your study. Documenting pavement project plans, CIP, real estate that could apply to broadband and vertical assets are all very typical components of civil engineering. HR Green has staff who work with those components for our municipal clients all day, every day. Utilizing their expertise and efficiency in these areas in collaboration with our broadband team adds depth, productivity and effectiveness.

HR Green will bring the data we receive into GIS (providing a map of existing infrastructure and related assets) and a technical memorandum of our findings. This can be a powerful process. For the City of Sugar Land, TX, we worked with their departments to bring together their broadband related assets and developed the below map.

When we showed this map in a meeting of the City leadership, one of the top leaders in the City commented, “I have never seen this before.” It also played a significant role in helping us develop plans for improving their broadband.



## DELIVERABLE

- ▶ GIS map of current community assets

## TASK 5: ASSESSMENT OF PRIVATELY AND NON-CITY OWNED BROADBAND RESOURCES

Task 5 contains several important steps.

**Market Assessment:** The FCC collects data from providers. HR Green accesses that information to determine what broadband services providers report they offer in community, what coverage and speeds they report, what technology they use, pricing plans, etc. This is important information because many grants base their eligibility on this data. It is known to have flaws and inaccuracies, so it needs to be checked.

Subsequent tasks provide the opportunity to get “ground-truthed” data that can be used to check the accuracy of this FCC data. HR Green will provide these data sources and our analysis to confirm or challenge the FCC information.

In the Market Assessment development, we identify the providers in the community, and we include them in the Community Engagement task to begin discussions with them to develop relationships and better understand their infrastructure and plans.

This task fulfills the beginning of the assessment of what providers offer in the community. This part of the provider assessment is early in the project flow for HR Green because it establishes a baseline that will be confirmed or challenged in subsequent tasks of the project.

**Provider Relationships:** As mentioned in the Engagement Plan and Stakeholder Meetings sections, building a relationship with the providers is important for their input, information they can provide and their role in final plans. In meetings with them, we will discuss their coverage and gain as much information as they will provide. They can be guarded in the information that they share, so we cannot guarantee what they will provide, but in comparing Market Assessment information, survey data, permit records and discussions with them, we will work towards as full a picture as possible..

**Stakeholder Discussions:** In talking with organizations like schools, libraries, healthcare, businesses, etc. in stakeholder meetings, we will ask what broadband related infrastructure they might have available. We will document any infrastructure that could be used in broadband improvement and include it in any plans that might develop.

**Pole Owners:** Pole owners and pole conditions determine the availability of aerial broadband construction (if aerial is needed). Given the City’s desire for underground utilities, we anticipate exploring aerial construction only when necessary (if at all). HR Green will talk with pole owners to see their willingness to allow attachment and their assessment of make ready costs. As attractive as aerial might appear in lowering broadband improvement costs, there are factors that might make that impossible or cost prohibitive. We will work to make an assessment of those issues and gain whatever pole data can be shared.

**Wireless:** There are different technologies in wireless communications and different levels of assessment of those options. HR Green has deep project experience in all aspects of broadband including cellular, WiFi, fixed wireless, CBRS, etc. Typically, fixed wireless providers are included in the provider meetings.

We will do a high-level assessment of cellular coverage and existing tower sites. Deeper study is possible, and we will offer that as an alternative. HR Green has some of the best and nationally recognized people for these evaluations.

HR Green will also do an analysis of WiFi and CBRS alternatives. We are doing very similar analysis in several cities across the country.

**CV Sync:** It will be important to understand and catalogue the infrastructure related to CVAG. With our sub-consultant Advantec, we will have the best data possible. This is a significant connection that will significantly help with information and coordination.

## DELIVERABLES

- ▶ Market Assessment report
- ▶ Report of technology options and their applicability to the City of Coachella
- ▶ GIS layer of findings
- ▶ Technical Memorandum of non-City owned broadband assets

## TASK 6: POLICY AND PERMIT PROCEDURE REVIEW AND RECOMMENDATIONS

City policies and permitting procedures can often help or hinder broadband investment. HR Green will review the City's policies and permit procedures related to broadband to see if they are typical and if they promote broadband expansion or could be problematic for private investment.

Communities can have different goals related to broadband expansion. Some communities want to attract broadband investment from private providers. Others have urban areas within which the Right of Way (ROW) is in jeopardy of being fully utilized. Some policies and procedures can be used to incentivize broadband investment to meet City goals. Others can be utilized to protect ROW segments that are running out of available space but can be done in ways that encourage private investment and collaboration for improving broadband where needed.

## DELIVERABLES

- ▶ Report of findings of broadband related policies and permitting procedures and recommended changes

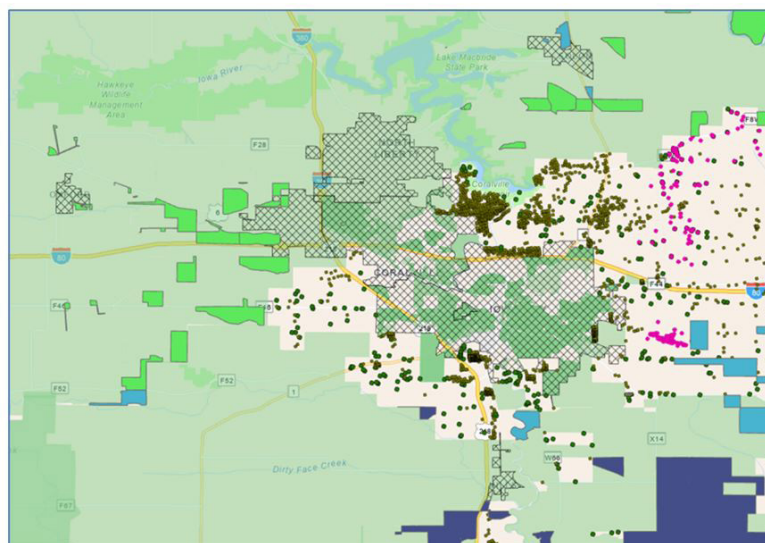
## TASK 7: GAP ANALYSIS

The information that details the needs will already be in place from the Market Analysis, Survey and Stakeholder meetings. With that information, HR Green will perform an analysis to determine where there are broadband concerns. These gaps could be lack of adequate connectivity, redundancy, insufficient capacity, future needs that current infrastructure will not be adequate for, economic development concerns, etc. We will analyze the findings to point out connectivity issues. The results of this analysis will be shown in report and map form.

## DELIVERABLES

- ▶ Report of findings of current and future connectivity concerns
- ▶ GIS map depicting broadband concerns
- ▶ SWOT analysis

Below is one example of bringing together data sources to form one type of gap analysis.



## TASK 8: MID-POINT PRESENTATION TO CITY COUNCIL - VISION MEETING/WORK SESSION

The data, gaps and gap analysis will tell a story. We have found it important to stop at this point and make sure community leadership see and understand the data and are clear on what gaps and concerns exist – we are also glad that you recognize that in your RFP also. We present this information in a work session (coordinated with City staff) and facilitate the development of broadband related goals as they flow from the real data and clear understanding of gaps.

These goals can consist of what broadband coverage the community leaders want residents, businesses and public sector entities to have; what forms of solutions they want to explore to fill gaps and address present and future concerns, the role they think the community should have in solutions, etc. These are important to understand as options for solutions are explored.

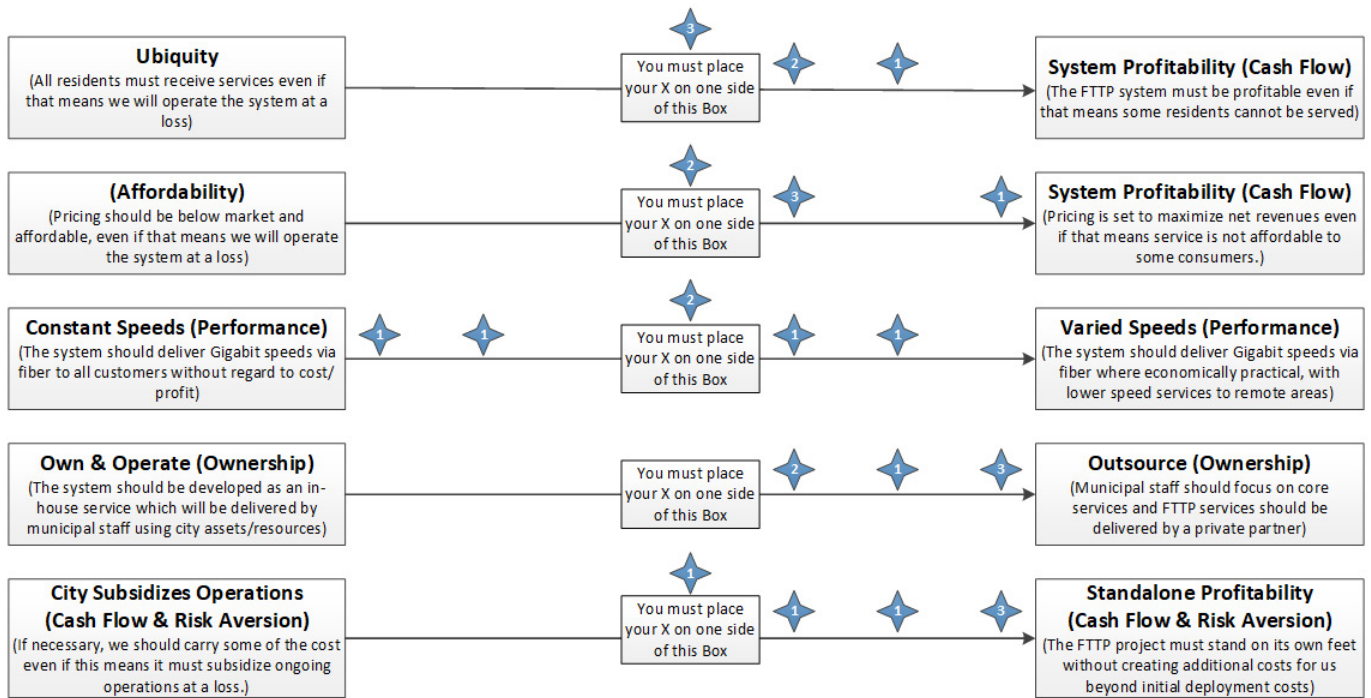
If City staff want to pursue a different approach or presentation of information, we are glad to do that.

### DELIVERABLES

- ▶ Presentation for City Council (to be coordinated with staff)
- ▶ One work session to present data and develop goals
- ▶ Notes from City Council session (to be discussed with staff)

Below is an example of one visioning tool:

### Council Competing Values Framework for Broadband Networks



## TASK 9: FEASIBILITY ANALYSIS - OPTIONS TO IMPROVE FIBER AND BROADBAND CONNECTIVITY (HIGH-LEVEL DESIGN)

“Feasibility” is a term that can have several meanings in broadband.

Typically, feasibility is a step that is taken if the City decides to build and own infrastructure. That would include the longer list of bullet points on Page 18 in your RFP. The thought process is that this level of feasibility is needed to help the City determine if building and owning will pay for itself and if it can be financed. To have that full picture, you have to know revenue, capital costs, operational costs, debt service, etc. Those will tell you if the project is sustainable and if financing institutions will provide the capital needed to build and own it.

This is one option to be considered and evaluated against the other options the City has. To be able to compare your options, we gather all of the information needed for the different possibilities you have. For example, in the survey, we ask questions about how likely a customer is to switch and how much they are paying. That data informs the revenue side of the City owned option.

The important thing to know is that you will probably not need to do a full feasibility on other options. If a provider offers an option that the City thinks is worth pursuing, then a higher-level cost/benefit analysis is all you would need.

Applying that understanding to the business models discussed on Page 18 of your RFP (which is a good picture of your options), a full feasibility would only be needed for dark fiber, possibly open access and the municipality-owned and controlled options. Status quo, policy change and P3 would likely only need a cost/benefit analysis.

Whatever options you choose to explore, with a clearer vision of the needs and opportunities for broadband in the City, HR Green will use GIS tools to develop a high-level design of potential options to improve those connectivity issues. We will provide a preliminary design of the options that make the most sense in the community.

Segment Number	Segment Description	Existing Underground Conduit Feet	New Underground Conduit Feet	Blended Path Feet	Hand Holes	Splice Points	Estimated	Estimated	Estimated	Estimated	Estimated	Estimated	Estimated	Estimated
							96ct or 24ct Material Costs	144ct or 24ct Material Costs	288ct or 24ct Material Costs	Backbone Installation Cost (no splicing)	Design Engineering and PMO Labor Cost	96ct Total Backbone Segment and Laterals w/Splicing Cost	144ct Total Backbone Segment and Laterals w/Splicing Cost	288ct Total Backbone Segment and Laterals w/Splicing Cost
1	Hwy 6/Southwest Fwy to 6625 Sansbury Blvd	0	29,227	29,227	21	8	\$83,540	\$95,300	\$137,106	\$76,587	\$179,147	\$1,107,694	\$1,135,413	\$1,225,751
2	Southwest Fwy/University Blvd to University Blvd/Elkins Pk	0	16,320	16,320	12	5	\$46,649	\$53,215	\$76,559	\$400,980	\$100,245	\$622,065	\$638,528	\$691,927
3	Lexington Blvd/Sweetwater Blvd to 2100 Austin Pkwy	0	5,206	5,206	5	3	\$14,881	\$16,976	\$24,423	\$129,759	\$32,450	\$206,855	\$214,704	\$239,527
5	Hwy 6/Settlers Way Blvd to 2235 Settlers Way Blvd	13,114	1,248	14,362	2	2	\$41,052	\$46,831	\$67,374	\$1,076,402	\$254,101	\$1,451,026	\$1,461,079	\$1,494,764
6	2700 Town Center Blvd N	1,148	0	1,148	1	1	\$3,281	\$3,743	\$5,385	\$88,950	\$22,038	\$129,436	\$131,792	\$139,142
7	Southwest Fwy/University Blvd to 1301 Chatham Ave	0	7,947	7,947	7	3	\$22,716	\$25,913	\$37,281	\$196,680	\$49,170	\$307,435	\$316,496	\$345,632
9	1 Circle Dr to Hwy 90A/Unich St	0	4,002	4,002	4	2	\$11,438	\$13,048	\$18,772	\$100,040	\$25,010	\$158,453	\$163,921	\$181,305
10	Southwest Fwy/Hwy 6 to Hwy 6/Brooks St	0	3,417	3,417	4	2	\$9,766	\$11,141	\$16,029	\$86,003	\$21,501	\$137,313	\$142,522	\$158,986
11	Hwy 90A/Hwy 6 to Hwy 6/Brooks St	0	6,826	6,826	6	3	\$19,511	\$22,258	\$32,022	\$169,224	\$42,306	\$266,157	\$274,723	\$302,095
12	Hwy 90A/Hwy 6 to 12888 S Highway 6	0	10,358	10,358	8	4	\$29,607	\$33,775	\$48,591	\$255,392	\$63,848	\$399,440	\$411,416	\$449,890
13	12888 S Highway 6 to 14601 Voss Rd	0	9,523	9,523	8	4	\$27,219	\$31,051	\$44,672	\$235,342	\$58,835	\$369,244	\$380,851	\$418,070
15	Hwy 6/Brooks St to 555 Mallage Way	0	3,345	3,345	4	2	\$9,560	\$10,906	\$15,690	\$84,272	\$21,068	\$134,706	\$139,882	\$156,233
16	555 Mallage Way to 188 Kemper St	0	3,081	3,081	4	2	\$8,805	\$10,045	\$14,451	\$77,934	\$19,484	\$125,162	\$130,221	\$146,156
17	188 Kemper St to Hwy 90A/Dany Ashford Rd	0	7,603	7,603	7	3	\$21,731	\$24,791	\$35,665	\$188,415	\$47,104	\$294,987	\$303,896	\$332,491
18	Hwy 90A/Gillingham Ln to 1040 Industrial Blvd	0	7,634	7,634	7	3	\$21,820	\$24,892	\$35,811	\$189,162	\$47,290	\$296,112	\$305,035	\$333,678
19	Jess Pirtle Blvd/Industrial Blvd to 1040 Corporate Dr	0	2,844	2,844	3	2	\$8,129	\$9,274	\$13,342	\$71,707	\$17,927	\$116,855	\$120,810	\$136,372
	<b>Sugar Land Lateral Design Totals</b>	<b>14,262</b>	<b>118,579</b>	<b>132,841</b>	<b>103</b>	<b>49</b>	<b>\$379,709</b>	<b>\$433,160</b>	<b>\$623,174</b>	<b>\$4,006,089</b>	<b>\$1,001,522</b>	<b>\$6,121,940</b>	<b>\$6,271,288</b>	<b>\$6,751,959</b>

The design for broadband expansion will be informed by community leadership and decisions that were made in the Vision phase of the project. At this point, we will provide industry level costing for the options to improve those connectivity concerns.

It is important to note that we can provide analysis on more options and can also provide a high-level desktop design for those options – these both just require more hours. If the community desires to see other options, HR Green’s tools can be utilized to explore other possibilities. Those could require additional scope and fee – we can discuss that if that is needed.

To be clear, the high-level design and costing are not constructable plans. They are full paths for broadband improvements but are not field verified or given final detail design (HR Green can provide those services in subsequent scope if needed).

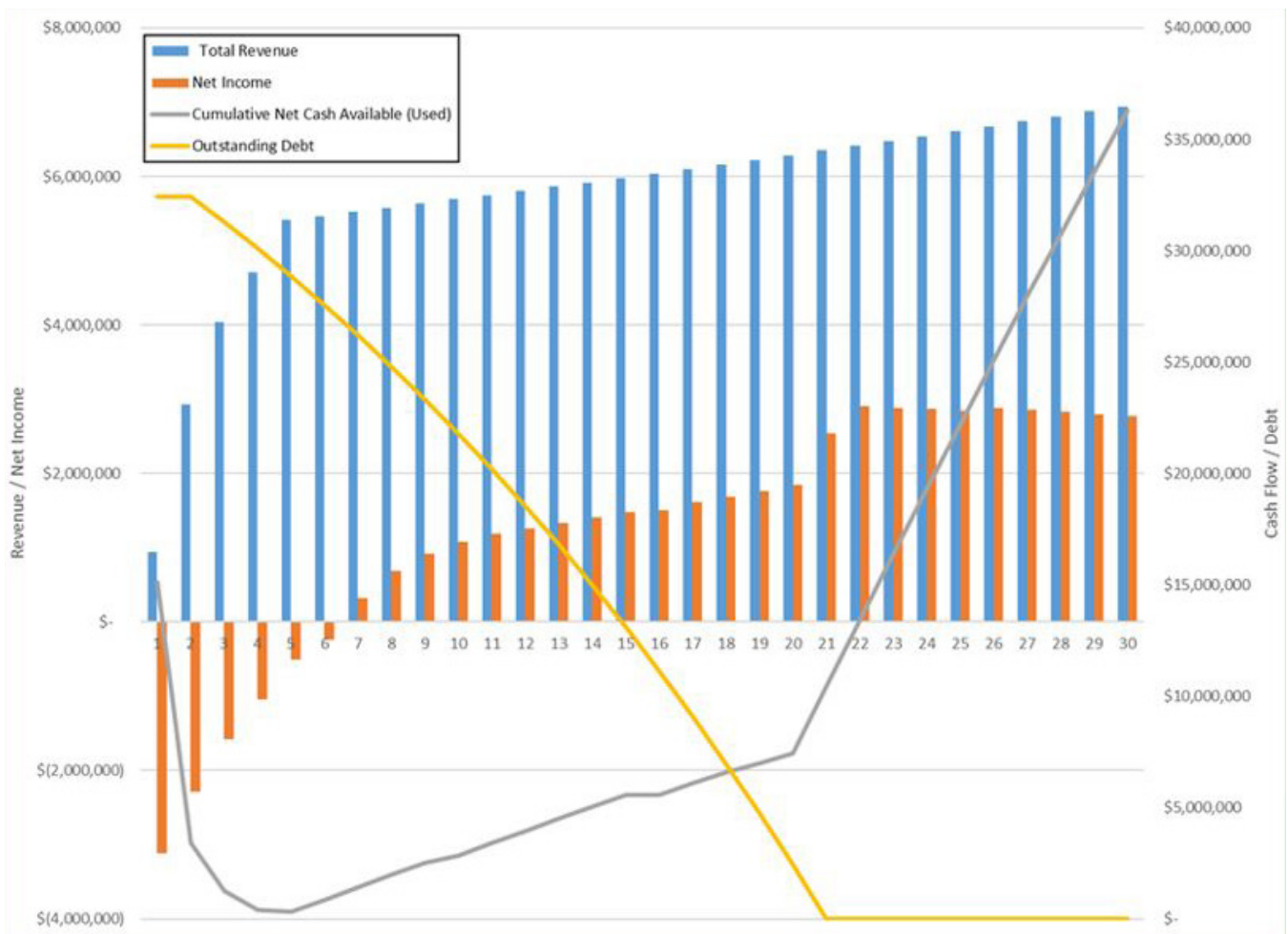


These high-level plans and high-level costs can be used to explore options with different providers, evaluate if the City wants to further explore building your own dark fiber, ring or network (for open access or municipality owned and operated), etc.

If the City does decide to explore building infrastructure you will own in any of the possible options (dark fiber, middle mile, open access, a municipal ring or a municipal network), a full feasibility would probably be necessary.

HR Green's feasibility includes all of the topics in your deliverables list on Page 18. To make the decisions of what to build, the leaders need a clear picture of anticipated revenue, capital costs, operating costs, debt service, etc. HR Green's feasibility is a full analysis of whether a network should be financially sustainable. Our feasibility is based off of real-world experience of building and running networks.

HR Green does not have a pre-set result – the data and numbers speak for themselves. If a project is not feasible on its own, we report the real results. As part of the feasibility project, we can also determine what level of grant dollars (if any are needed and available) the project would need to help make it feasible (if the grant dollars can lead to that result).



## DELIVERABLES

- ▶ High level design and costing to meet community broadband improvement needs for the scenarios identified by the City
- ▶ Full feasibility of up to two options (we are glad to perform feasibility for more options, we just needed a basis for calculating fees)

### TASK 10: DRAFT FIBER AND BROADBAND MASTER PLAN

HR Green combines all of the deliverables from the tasks completed during this project to form the basis of the final master plan. This is a full document containing all of the data collected, gap analysis, options to improve broadband and other information developed during the course of the project.

This document will also include HR Green's recommendations and actionable next steps. These are significant. HR Green provides real recommendations based on the data and the City's goals that can lead to broadband improvements. Additionally, our actionable next steps provide real and impactful steps the City can take to improve broadband challenges. The Master Plan will include the "road map" of recommendations and options for community.

Our Broadband Master Plan includes the bullet points on Pages 19 and 20 of your RFP, including the vision statement, infrastructure analysis, strategy and recommendations for initiatives and next steps, public access options and next steps, policy recommendations, financing options and overall implementation and action plan with specific steps over time.

For an example of a HR Green final broadband master plan, please follow this link: <https://epc-assets.elpasoco.com/wp-content/uploads/sites/2/El-Paso-County-Broadband-Strategy-Final-20190308.pdf>.

## DELIVERABLE

- ▶ Community Fiber and Broadband Master Plan

### TASK 11: BROADBAND MASTER PLAN REVIEW, REFINEMENT, AND ADOPTION

To finalize the draft Broadband Master Plan, as per your RFP, in collaboration with staff, HR Green will prepare agendas, record minutes and make revisions to the draft plan according to the meeting list:

- Agendas, minutes, revisions to plan
- Two meetings with City staff
- Three public presentations
- One City Council meeting/workshop

Based on the feedback from these meetings, HR Green will finalize the Broadband Master Plan.

Then, we will participate in up to two Council meetings to adopt the Broadband Master Plan (and any policies that the Council might put on the agenda).

## DELIVERABLES

- ▶ Agendas for meetings
- ▶ Notes from meetings
- ▶ Final Broadband Master Plan



## OPTIONAL TASK 13: EVALUATE OPPORTUNITIES FOR PUBLIC-PRIVATE PARTNERSHIPS

With the data and information developed in the previous tasks, the City will have a decision to make: Do you pursue working with private providers to improve broadband or does the City build some or all of a network. There is a separate task for governance that can go into more detail on the spectrum of options between build vs collaborate, but this task works through the process of how to evaluate opportunities with private providers.

We will provide examples of the most common partnerships (including what is being done within State laws) and help you identify potential partners. HR Green is not a law firm, so we cannot provide legal advice, but we can provide general industry norms for how these arrangements can work.

Your community can play a central role in collaborating with and organizing the efforts of private providers to improve broadband. For example, the community controls the Right-of-Way (ROW). The community also has several options with policy and permitting procedures through which you can help a provider get to market more quickly and possibly less expensively. And, you can support private providers in grant efforts.

### Request for Expressions of Interest Development and Advising

One mechanism to help coordinate the effort to organize options for private providers is through HR Green's Request for Expressions of Interest (RFEI). Starting with the community's goals and with the data collected in this process, HR Green will help the community through the formal RFEI process.

Basically, the goal in the RFEI is to let the providers know what the City hopes to achieve and asking them to propose how they can either solve those broadband issues or be part of a larger solution. The impacts of this process can be powerful. As the providers communicate and express their goals, a plan can be formed to achieve concrete solutions to broadband problems. HR Green will work with City staff to publish the RFEI, proactively reach out to vendors (building on the relationships developed in previous tasks) and advise staff through the RFEI process.

**The timing of this task will be important.** HR Green will work with staff to have the high-level design correspond with the RFEI. This will provide the City the opportunity to explore high-level design options and high-level costing based on the requests of the potential partners who express interest. **Rather than having one option (as is the case in most broadband studies), HR Green's process and tools provide the opportunity to evaluate the costs and benefits of the options the providers offer.**

### DELIVERABLES

- ▶ Up to 16 hours of meetings with Providers to explore interest in partnership models
- ▶ Report of current partnership model and list of possible partners and interview findings
- ▶ Develop RFEI for private partners
- ▶ Manage RFEI process (submission to potential partners, advising the City)

## OPTIONAL TASK 14: GOVERNANCE OPTIONS

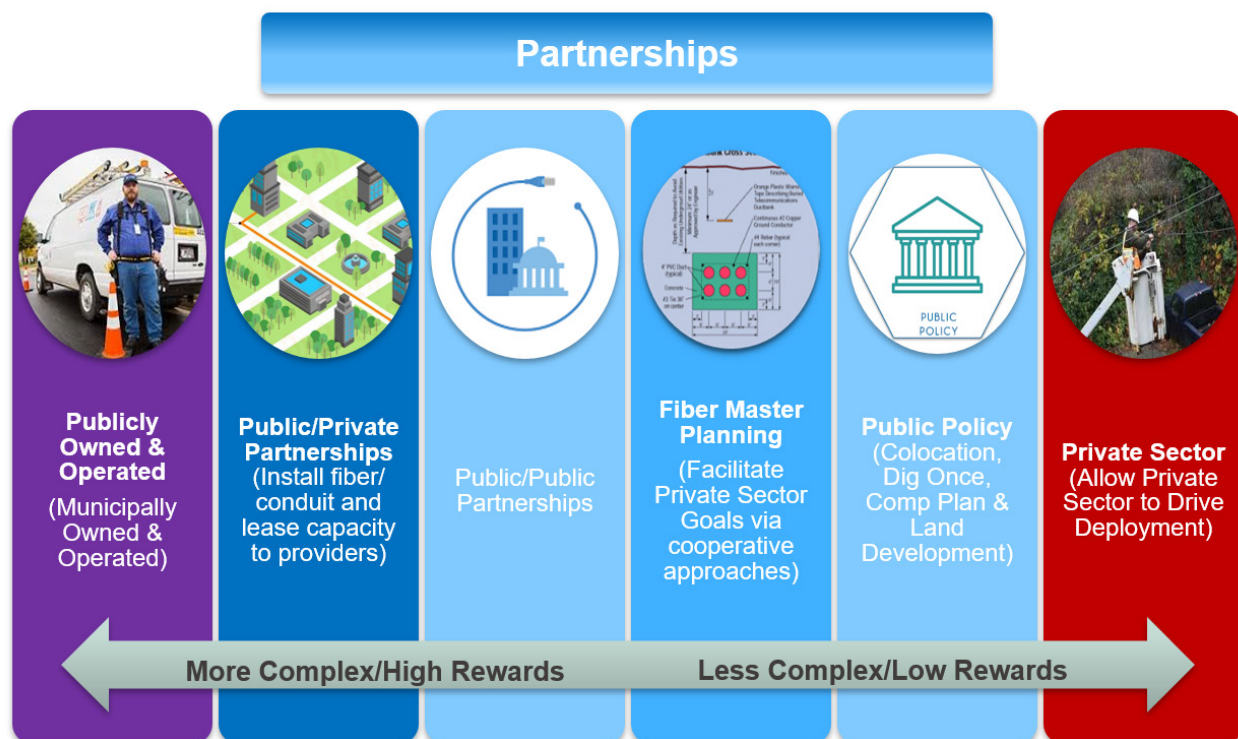
As options to improve broadband are defined, the different possibilities could have differing governance models. It is important to understand the benefits and risks of different ways of arranging ownership and support for infrastructure investment. HR Green has expertise, tools and a process to walk community leadership through those options to be the best stewards of public money and balance control of outcomes for community stakeholders.

HR Green will provide information on and lead a work session about what the differing governance options are and what the impacts of those would be to the community.

### DELIVERABLE

- ▶ Work session on business models and infrastructure governance.





### OPTIONAL TASK 15: DETAIL DESIGN

If a project is feasible and moves forward to detail design, HR Green has a nation leading design/engineering team. They can design both Outside Plant (OSP) and Inside Plan (ISP – network access equipment). Again, you will not need detail design unless the City decides to build infrastructure that you will own (for example a ring or a network).

**OSP NETWORK DESIGN:** The HR Green design team utilizes the high-level design to refine it to a mid-level design, then a final detail design. As a contiguous area is surveyed and posted, the actual fiber network is designed. The designer will optimize the network design by assessing the service points and all possible fiber routing options and existing infrastructures.

HR Green’s field personnel do field data collection to verify (or change) the routes determined in high-level design and collect all of the data on the final route that is needed for construction level designs. As the future service areas are established for a FTTH project, each fiber segment design, fiber assignment, and splice documents are completed. A comprehensive bill of materials (BOM) will then be generated for purposes of material requirements for construction of the network. This BOM will become part of a construction document set. HR Green’s detailed designs are used across the Country to build world class networks.

**PERMITTING PROCESS:** By submitting data in a format that is manageable in size and easily understandable, we have been able to quickly obtain permits and signoffs where others have struggled. Often times we will use the permitting agencies’ own data to support our case; and by providing detailed GIS maps of the project areas and potential impacts, we can focus on only potential problem areas not the entire route. If needed, HR Green also has staff augmentation personnel to help manage community permit volumes. If the City does decide to build a ring or network, permits will be necessary at least with the City and likely with other agencies.

**CONSTRUCTION DOCUMENTS:** A CD set will be printed for each fiber service area under the oversight of a licensed professional engineer. Included: one printed set of documents and a set in PDF digital form for reproduction. On project closeout, we will transfer to the community all geodatabase files, map documents and other files in their original format.

## **DELIVERABLES**

- ▶ Construction grade specifications and drawings of the complete outside plant network
- ▶ Inside plant equipment design when needed
- ▶ Permit drawings

## **OPTIONAL TASK 16: CONSTRUCTION OVERSIGHT/CONSTRUCTION PHASE SERVICES**

Our in-house Construction Services team will work as an owner’s representative to provide a contractor selection process and that the construction meets the engineered specifications of the project. Field inspectors will act as a liaison between the contractor and design engineers to minimize impacts on the construction timeline. Services may include:

- Attend a project kick-off meeting and facilitate regular project status conference calls with the Contractor.
- Review and approve Contractor’s project timelines for engineering and construction.
- Review of contractor construction management and safety plans.
- Develop quality assurance inspection checklists to facilitate construction oversight.
- Perform on-site inspection during construction for safety and workmanship.
- Perform on-site post-construction inspection for compliance with the approved designs and workmanship, to include a detailed review of accuracy and completeness for a sampling of as-built documentation provided by the Contractor. This may include verifying pole attachment clearances; confirming slack loop cable lengths; verifying proper bonding/grounding; and verifying location of outside plant assets (splice enclosures, slack loops, handholes, etc.) using precision GPS receivers.
- Review Contractor construction invoices for consistency with design and observed construction progress.
- Review all Contractor-provided fiber optic performance test data, and perform independent testing (OTDR and power meter) for a suitable sampling to validate Contractor-provided test data.
- Prepare a comprehensive report documenting the results of our test data review, independent testing, and post-construction inspection to provide verification that the network, as installed, is suitable for your purposes and conforms to the approved final design.

## **DELIVERABLES**

- ▶ Meeting agenda and minutes
- ▶ Inspection reports
- ▶ Correspondence
- ▶ Photography and video logs
- ▶ Requests for Information and Clarification
- ▶ Comprehensive report of construction phase activities



## Project Schedule

# Project Schedule

The duration of this schedule is mainly dependent on the scope of the City-owned asset inventory (as is the budget). If we can streamline the asset inventory, then this schedule should be able to be significantly reduced. This could easily be a six month project, but we wanted to reflect the amount of time it could take.

ID	Task Number and Name	Duration	Start	Finish	Quarter													
					Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan		
1	12 - Project Management & Meetings (Including Kickoff)	9 mons	Tue 4/2/24	Mon 12/9/24														
2	1 - Kickoff Meeting	1 day	Mon 4/1/24	Mon 4/1/24														
3	2 - First Presentation to City Council	1 day	Mon 4/22/24	Mon 4/22/24														
4	<b>3 - Current and Future Needs Assessment</b>	<b>75 days</b>	<b>Tue 4/2/24</b>	<b>Mon 7/15/24</b>														
5	3A - Engagement Plan	18 days	Tue 4/2/24	Thu 4/25/24														
6	3B - Survey	60 days	Tue 4/23/24	Mon 7/15/24														
7	3C - Stakeholder Meetings	60 days	Tue 4/23/24	Mon 7/15/24														
8	3D - Digital Equity	60 days	Tue 4/23/24	Mon 7/15/24														
9	4 - Inventory/Assessment of City Owned Assets	90 days	Tue 4/23/24	Mon 8/26/24														
10	5 - Assessment of Privately Owned Assets	90 days	Tue 4/2/24	Mon 8/5/24														
11	6 - Policy/Permit Process Review	14 days	Tue 4/23/24	Fri 5/10/24														
12	7 - Gap Analysis	30 days	Tue 8/27/24	Mon 10/7/24														
13	8 - Mid-Point Presentation to Council	1 day	Tue 10/8/24	Tue 10/8/24														
14	9 - Feasibility - HLD	21 days	Wed 10/9/24	Wed 11/6/24														
15	10 - Draft Master Plan	14 days	Thu 11/7/24	Tue 11/26/24														
16	Presentation to City Council	1 day	Wed 11/27/24	Wed 11/27/24														
17	11 - Master Plan Refinement and Adoption	14 days	Thu 11/28/24	Tue 12/17/24														
18	OPTIONAL 13 - Partnership Identification and Discussions																	
19	OPTIONAL 14 - Governance Options																	
20	OPTIONAL 15 - Detail Design																	
21	OPTIONAL 16 - Construction Oversight																	
22																		

City of Coachella Broadband Master Plan		Legend			
Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			



## Fee Information



# Fee Information

## In-Scope Tasks

RFP Scope Number / Task		Cost
12	Project Management & Meetings (Including Kickoff)	\$20,400
1	Kickoff Meeting	\$1,840
2	First Presentation to City Council	\$5,050
3	Current and Future Needs Assessment	
3A	Engagement Plan	\$4,260
3B	Survey	\$11,500
3C	Stakeholder Meetings	\$10,200
3D	Digital Equity	\$10,320
4	Inventory/Assessment of City Owned Assets	\$48,450
5	Assessment of Privately Owned Assets	\$11,160
6	Policy/Permit Process Review	\$7,960
7	Gap Analysis	\$12,500
8	Mid-Point Presentation to City Council	\$5,850
9	Feasibility - High Level Design	\$21,420
10	Draft Master Plan	\$12,300
11	Master Plan Refinement and Adoption	\$11,740
<b>TOTAL In-Scope Tasks</b>		<b>\$194,950</b>

## Optional Tasks

RFP Scope Number / Task		Cost
13	Partnership Identification and Discussions	\$12,500
14	Governance Options	\$7,240
15	Detail Design	TBD
16	Construction Oversight	TBD

HR Green's pricing shall remain firm for one hundred twenty (120) days following the closing date for the receipt of proposals.

The fees for this project have some important assumptions to consider. The way these assumptions are decided will have significant impacts on the budgets. Our hope would be to work together to save dollars in some categories to either be saved by the City or to be used in other ways to improve broadband in Coachella.

### **Assumptions:**

- Travel is built into tasks 2, 8 and 11 at \$2,500 per trip. We propose two people who will travel from out of state and two who will be local. One of the HR Green team will be bilingual.
- The survey includes translation for Spanish of promotional materials but does not include printing of surveys or promotional materials. Without knowing what needs to be printed, there is no way to quote those numbers. The City may prefer to print outreach materials or HR Green can develop a budget once outreach efforts and needs are better defined.
- Stakeholder meetings and digital equity meetings are planned to be virtual, but local HR Green staff can be available with 48 hours' notice. This budget is based on six stakeholder meetings (usually stakeholders grouped together).
- The largest budget item is inventory of City owned assets. This is a challenging budget to define - we based our number on 120 hours. This is a task in which dollars could be saved. The factors that will go into how the costs work on this task will be:
  - The data Advantec has.
  - The data we have from other projects.
  - The number of facilities to be inspected.
  - The level of inspection.
  - The number of trips needed by inspectors.
  - The data the City has.
  - The level of documentation/digitization required.

Very early in the project, it will be important to clarify each of these factors to verify they fit into 120 hours. It is possible that budget dollars can be saved in this task – that will depend on how the factors are defined. We propose a process of working together to define what data is available and what level of inspection will be needed – all with an eye to meeting or reducing the budget.

- Privately owned assets can be a challenge to collect. We start with provider relationships to help them understand what we are working on to see if they can provide information in a way that is acceptable to them and yet provides what we need. Sometimes NDAs can help (which we often sign) and a discussion of the level of information we need (which is not their competitive information) can help them provide what they can. Some providers do not give any data. Also, with our Market Assessment, other maps and survey data, we can often piece together data that providers might not offer (if needed).
- In our fees, we also want to point out that not all of the feasibility budget might be needed. For example, if the City does not choose to build a network for external use, you should not need a full feasibility. The difference between a cost/benefit analysis and a full feasibility that justifies funding is significant in costs and time.
- We also included some Optional Tasks that might be needed. For example, if you choose to work with providers instead of building a network that provides services to citizens and businesses, you very likely will not need a full feasibility, but you might need a partnership identification and discussions framework to help guide the provider selection/coordination process. A task for governance options can be included in that to work through what the ramifications of ownership models and investment mean and the impacts they can have. In that scenario, you would save a significant amount of the Feasibility budget and might need a Partnership task and Governance task – spending less in total. Detail design is only needed if you decide to build a revenue generating network and it is shown to be feasible. Then, if you decide to move forward, the next step would be detail design, but the cost for it would be rolled into the network building costs.



**HR GREEN**  
Billing Rate Schedule  
Effective January 1, 2024

---

<b>Professional Services</b>	<b>Billing Rate Range</b>
Principal	\$250- \$370
Senior Professional	\$250- \$370
Professional	\$170- \$250
Junior Professional	\$100- \$175
Senior Technician	\$130- \$180
Technician	\$75- \$145
Senior Field Personnel	\$140- \$225
Field Personnel	\$100- \$170
Junior Field Personnel	\$75- \$125
Administrative Coordinator	\$75-\$130
Administrative	\$75- \$130
Corporate Admin	\$100- \$160
Operators/Interns	\$75- \$150

**Reimbursable Expenses**

1. All materials and supplies used in the performance of work on this project will be billed at cost plus 10%.
2. Auto mileage will be charged per the standard mileage reimbursement rate established by the Internal Revenue Service. Survey and construction vehicle mileage will be charged on the basis of \$0.90 per mile or \$85.00 per day.
3. Charges for sub-consultants will be billed at their invoice cost plus 15%.
4. All other direct expenses will be invoiced at cost plus 10%.



## References



## Broadband Feasibility and Master Plan Study

### *City of Palm Desert, California*

**CHALLENGE:** The City of Palm Desert understood that the recent pandemic has drawn an even sharper focus of the impact that lack of internet access has on communities. No longer is broadband a luxury for video-on-demand and streaming services. Instead, it is a crucial part of how residents work, gain access to medical treatment, and how children learn, as well as a determining factor for businesses considering relocation. Effective broadband solutions are now critical to all phases of life. Based upon this understanding, a broadband master plan had been part of Palm Desert's strategic plan for many years.

Palm Desert, like many communities, wanted to take increasing control of their broadband future by creating an active strategy to serve its constituents and attract new businesses with meaningful broadband access. In addition, City staff expressed concerns about the challenges faced by the businesses and residents of Palm Desert in their broadband availability, capacity, and investment.

As part of their planning effort, the City wanted to leverage regional planning and investment efforts to create a series of prioritized programs that drive maximum impact. While the technology may vary, our team's efforts established a defined path forward that is crucial to closing the all too frequent broadband gap.

**SOLUTION:** In October of 2022, City leaders selected HR Green to complete a Broadband Feasibility and Master Plan Study that provides a broadband strategy to create the greatest opportunity and value to implement a network that is capable of meeting current and long-term community needs. The strategic plan also needed to provide recommended approaches to broadband implementation.

HR Green's approach was guided by a belief that the City must clearly articulate key issues and desired goals through a measured process that shepherds the process from study to action. Our team provided work products and deliverables in a framework that enabled the City to move quickly from visioning to planning and onward into deployment of facilitative solutions to drive availability and adoption of true broadband services.

### REFERENCE

Eric Ceja  
Director of Economic  
Development

City of Palm Desert  
73510 Fred Waring Drive  
Palm Desert, California 92260-  
2578  
P: 760.776.6384  
E: [eceja@cityofpalmdesert.org](mailto:eceja@cityofpalmdesert.org)

### HR GREEN STAFF

George Wentz, PE  
Tim Jonasson, PE  
Irena Stevens  
Will Bender, PE  
Ken Price, CGCIO, CCM

Our Study development process included conducting stakeholder meetings to identify how best to position and future-proof Palm Desert to maximize economic development, including retaining current businesses and attracting new businesses. Implementing a community engagement program that included the use of surveys of residents and business owners helped decision makers better understand community needs. HR Green team members also evaluated existing fiber-optic network and its architecture in order to understand its capability and how best to leverage this asset in the extension to the rest of the City. All the data and information gathered by our team was shared with City Council during a vision and goal setting workshop.



Based on the outcomes from a vision and goal setting workshop with the Palm Desert City Council, our engineers utilized GIS to prepare a system level design and cost estimate for developing a next generation network. Additionally, we evaluated federal and state programs that fund community networks. As part of the Study effort, our team then performed a cost-benefit assessment of various infrastructure and smart application options and identified a prioritized list of Smart Community technologies. We also helped the City identify one or more potential for-profit partners who were interested in leasing the core network assets, and in building and managing last-mile connectivity by build a list of potential partners and other interested parties, using a request for expressions of interest (RFEI).



Additionally, our team coordinated the City's efforts with the Coachella Valley Association of Government's (CVAG) valley-wide signal synchronization and Middle-Mile projects, as well as other regional broadband initiatives, including the initiatives of the local school districts, higher education institutions, Caltrans, and economic development organizations.



At the conclusion of the project, our team provided a Broadband Feasibility and Master Plan Study that is practical so it could be the basis for preliminary and final designs of Palm Desert's broadband project. Currently, the City is exploring the implementation of the recommended next steps included in the Study.



**BENEFIT:** The result was a comprehensive and practical Broadband Feasibility and Master Plan Study that can be the basis for preliminary and final designs of Palm Desert's broadband project. HR Green's work products and deliverables provided a framework that enabled the City to move quickly from visioning to planning and onward into deployment of facilitative solutions to drive availability and adoption of true broadband services.

HR Green's expertise and comprehensive approach helped Palm Desert to create an active strategy to serve its constituents and attract new businesses with meaningful broadband access. With HR Green's guidance, Palm Desert is well-positioned to achieve its broadband goals and support its residents, businesses, and institutions.





## Broadband Master Plan

### *City of Palm Springs, California*

**CHALLENGE:** The City of Palm Springs recognized the importance of encouraging the development of reliable and cost-effective next generation broadband services. As such, the City wanted to evaluate and develop strategies for the short-term and long-term development of advanced broadband services within the City. Palm Springs anticipated that “next generation” broadband services would have a net positive economic and social impact to the local economy, while enhancing the community’s quality of life through expanded innovation opportunities, workforce development training, the narrowing of the digital and/or economic divide, and improved organizational operation efficiencies.

**SOLUTION:** In July of 2023, City leaders selected HR Green to complete a Broadband Master Plan. Our team is currently completing various tasks and subtasks associated with the development of the Palm Springs Broadband Master Plan. Once those tasks are completed, the HR Green team will deliver to the City of Palm Springs a Broadband Master Plan that will:

- ▶ Develop a greater understanding with residents, businesses, and other governmental entities regarding the need and value of next generation high-speed broadband service.
- ▶ Engage and educate specific and general members of the public regarding the technology of delivering broadband.
- ▶ Determine the community’s needs and desires regarding broadband.
- ▶ Research and evaluate the current supply of broadband communications assets, products, and services.
- ▶ Create a structured evaluation of the wide range of strategies available to the City to facilitate the availability of “Next Generation” broadband service in Palm Springs. This will include inventory of assets, objective market demand research, financial modeling, and feasibility including a cost benefit analysis for the City being a service provider to underserved communities.
- ▶ Analyze implementation scenarios evaluated through modeling and fiscal analysis, as well as strategies for policies and business practices.

### REFERENCE

Larry Klingaman  
Director of Information  
Technology

City of Palm Springs  
3200 E. Tahquitz Canyon Way  
Palm Springs, CA 92262  
P: 760.323.8235  
E: Larry.Klingaman@  
palmspringsca.gov

### HR GREEN STAFF

George Wentz, PE  
Tim Jonasson, PE  
Irena Stevens  
Monika Kazmierski  
Ken Demlow  
Ken Price, CGCIO, CCM

*“Your (HR Green’s) group has been very helpful with us through the process.”*

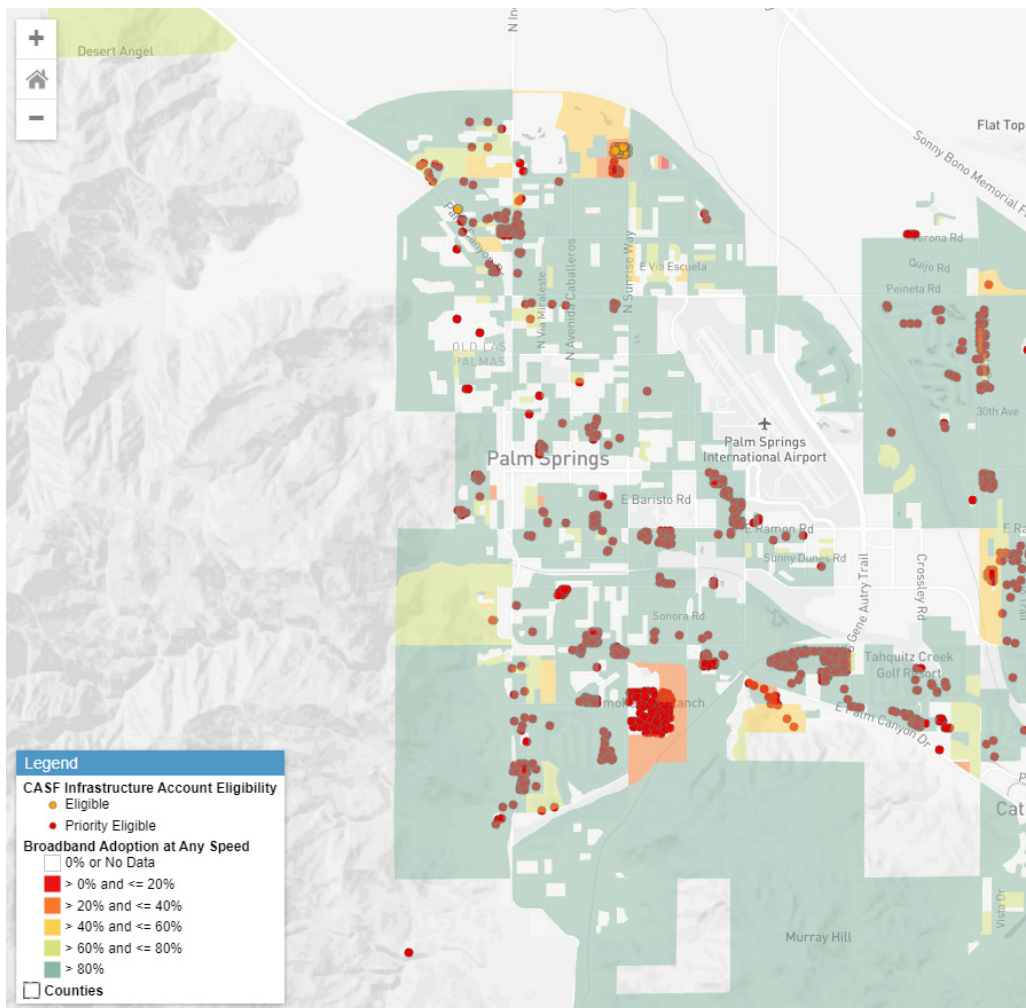
Larry Klingaman  
Director of Information Technology

Our approach is broken into various tasks, and subtasks, with deliverables at the completion of each task. All the deliverables will be compiled into the final comprehensive Broadband Master Plan.

Some of the tasks and subtasks are focusing on:

- ▶ Identifying, Inventorying, Mapping, and Analyzing Assets
- ▶ Assessing Needs and Goal Setting (including engaging stakeholders, surveying residents and businesses, assessing market conditions, and facilitating vision and goal setting workshops)
- ▶ Developing Preliminary Fiber Optic Network Designs, Cost Estimates, and Financial Analysis
- ▶ Evaluating Funding Alternatives (included state and federal grant programs, and more traditional funding opportunities such as loans and bonds) and Performing Capital Project Analysis (included exploring shovel ready capital projects where conduit and fiber could potentially be installed during the implementation of the capital project)
- ▶ Assessing City Policies

**BENEFIT:** Our team is developing a Broadband Master Plan that will include strategies for the short-term and long-term development of advanced broadband services within the City. It is anticipated that these strategies will help the City meet its goal of improving communitywide broadband services, which will have a net positive economic and social impact on the local economy, enhance the community's quality of life through expanded innovation opportunities, provide workforce development training, narrow the digital and/or economic divide, and improve the efficiency of organizational operations.







## Fiber Master Planning

### *City of Pico Rivera, California*

**CHALLENGE:** The City of Pico Rivera's new leadership team identified multiple projects underway in the city that were only loosely tied together but which represented a significant opportunity to create a smart platform for future development.

The City was pursuing the municipalization of its street lights through a Community Choice Aggregation initiative with Southern California Edison. As a significant commuter community with major transit routes, it also recognized that the coordination of signals was a crucial next step for the community.

**SOLUTION:** HR Green worked with Pico Rivera to develop a Fiber Optic Master Plan to help the City control its destiny by deploying a converged network and connected infrastructure model for future development. The proposed core network model chosen by the City will provide a platform for community needs, while creating capacity for a private sector ISP to increase broadband competition in the community. Pico Rivera subsequently selected SiFi Networks as its broadband provider and construction is underway. HR Green provided technical review of SiFi's proposed microtrenching deployment specifications and coordination of initial planned colocation builds.

**BENEFIT:** The master plan provided a basis for discussions with SiFi and helped the City to deploy fiber for its own use to City-owned infrastructure. Residents will have access to improved, gigabit internet options and the City has access to fibers necessary for current and future uses.

### REFERENCE

Monica Heredia  
Former Public Works Director

City of Pico Rivera  
6615 Passons Boulevard  
Pico Rivera, CA 90660  
P: 909.731.2667  
E: mheredia@cityofmontclair.org

### HR GREEN STAFF

Tim Jonasson, PE  
Irena Stevens  
Sam Beever, PE  
Ken Price, CGCIO, CCM  
Desiree Flores, PE



## Lightwave IGA Broadband Assessment and Feasibility Study

### *Tillamook County, Oregon*

**CHALLENGE:** Tillamook Lightwave (TLW) a consortium of Tillamook County, Tillamook People's Utility District, and the Port of Tillamook Bay, initiated a discovery study to gain a clearer understanding of broadband needs in the county. TLW contracted with HR Green, to complete this initial discovery phase.

With 21 miles of deployed fiber serving as a middle mile for providers and recognizing the increased demand for high-quality, fast broadband in its service area, TLW sought to answer key strategic questions:

- What role should Tillamook Lightwave play in expanding broadband services?
- How can this important asset expand to provide services outside of those provided to carriers and anchor institutions?
- What role should TLW play and should it consider becoming a direct service provider?

**SOLUTION:** HR Green is studying the issues outlined above, focusing initially on documenting current conditions and services in this coastal and rural county. TLW's board of directors and owner-partners will review the information collected in Phase I in order to formally develop its Vision for the future role of TLW in expanding broadband services. Once the Vision is established, HR Green will develop preliminary engineering designs based on the service model selected by TLW and develop robust financial feasibility studies to guide future development and deployment of fiber optic infrastructure.

**BENEFIT:** By establishing a clear path forward - supported by a strong understanding of technical and financial deployment issues – TLW will be in a position to leverage its current assets and improve broadband service to more than 25,000 residents who are generally underserved. This will mean improved access to telemedicine, improved work from home for its full-time and seasonal residents, and access to remote learning for its youth.

### REFERENCE

John Luquette  
Information Technology /  
Facilities Manager

Tillamook County  
1115 Pacific Avenue  
Tillamook, OR 97141  
P: 503.815.8615  
E: johnl@tpud.org

### HR GREEN STAFF

Irena Stevens  
Ken Demlow



## Broadband Regranting

### *Yamhill County, Oregon*

**CHALLENGE:** Yamhill County faces challenges common to many rural areas in the country, dealing with poor internet service quality, particularly in unincorporated regions beyond densely populated towns. The County government had no intention of offering broadband as a utility, and the private sector could not justify serving sparsely populated rural areas due to high costs divided among a small number of potential subscribers spread over a large area.

**SOLUTION:** HR Green initiated a regranting program to enable the County to subsidize the deployment of advanced broadband services using federal funds. Citizen outreach and surveys were conducted, and our GIS and Design Engineering teams collaborated with data from the FCC to map areas most in need and estimate the cost of constructing a fiber-to-the-home network.

We engaged a nationally renowned consultant to help create and implement a Regranting Program using the County's American Rescue Plan Act (ARPA) funds. This involved analyzing Targeted Improvement Zones defined by our engineers. Our team developed a Notice Of Funding Opportunity (NOFO), scoring rubric, public webinars, and various guidance materials to assist the County in selecting grant awardees and managing ongoing agreements. Around \$3 million in grant funds will be distributed to awardees in the summer and fall of 2024, with close coordination with the Oregon Broadband Office for success.

**BENEFIT:** The Regranting Program allows the County to proactively address residents' subpar connectivity without delving into operating its own broadband infrastructure. It strengthens the working relationship between the County and private sector companies, fostering a positive dynamic different from the adversarial relations often seen in service territories. Politically, it is a win for the County and sets the stage for future successful programs.

### REFERENCE

Justin Hogue, MPA  
Deputy County Administrator

Yamhill County  
434 NE Evans Street  
McMinnville, OR 97128  
P: 503.434.7501  
E: hoguej@co.yamhill.or.us

### HR GREEN STAFF

Irena Stevens  
Ben Lewis-Ramirez  
Ken Demlow  
Monika Kazmierski



## Broadband Infrastructure Analysis

*Greater Des Moines Partnership, Des Moines, Iowa*

**CHALLENGE:** Broadband coverage can be problematic, particularly in rural areas. Without specific connectivity data, municipal leaders do not know what options they might have to improve broadband, providers do not know where needs are and maps that are used to determine grants can be inaccurate to the point where grants might not be available where they are needed.

The Greater Des Moines Partnership developed this project to bring the different levels of government together to collaborate on real steps to improve broadband in this eleven county area. Through working together to identify access needs (where good broadband is not available) and where there is access but adoption issues (financial, language, ethnicity, age, etc.) and creating real, actionable steps to address those needs and issues, The Partnership identified an opportunity to help Central Iowa improve on an already great place to live and work.

**SOLUTION:** HR Green provided a survey of residents and businesses and meeting with other key stakeholders within the 11 county project area. The data received was used to inform leaders of where specific broadband issues exist, challenge any federal and state map inaccuracies (ensuring grant eligibility) and also provide a central collaboration tool to bring the needs, municipal leaders, providers and funding sources together to develop real solutions. This central collaboration tool is of particular note because it is a ground-breaking, an original creation by HR Green to develop solutions, rather than simply display issues.

**BENEFIT:** In thinking through how to develop processes and data building to lead to specific opportunities for solutions, this project not only provided valuable data to the 11 counties, but it also put them in a position to be eligible for grants and have tools and relationships to solve broadband issues. To maximize transparency, during the project all our final work-products were posted on the agency's website.

### REFERENCE

Stacie LoVan  
Vice President of Economic  
Development

Greater Des Moines  
Partnership  
700 Locust St., Suite 100  
Des Moines, IA 50309  
P: 515.286.4971  
E: slovan@DSMPartnership.  
com

### HR GREEN STAFF

Irena Stevens  
Ken Demlow



## Broadband Market Analysis and Cost Study

### *Houston-Galveston Area Council, Texas*

**CHALLENGE:** The Houston-Galveston Area Council (H-GAC) is a regional organization that is working to improve broadband in their thirteen counties. Knowing how important broadband is for students, citizens, businesses, economic development, telemedicine and many other areas of life, H-GAC has made better broadband a priority in the many functions they perform throughout the region.

**SOLUTION:** Given the complexity of determining and addressing broadband issues in such a large and diverse area, H-GAC engaged HR Green to institute the steps and processes needed to form action plans for better broadband.

Tasks to better understand connectivity in the thirteen counties include:

- ▶ A survey of citizens and businesses, including a portal to identify needs and digital equity response levels.
- ▶ Research on providers across the region and steps to include them in the process.
- ▶ Meetings with key public and private stakeholders.
- ▶ Digital equity research, improvement opportunities and grant options.
- ▶ A gap analysis.
- ▶ High-level design of options to improve broadband.
- ▶ Recommendations of ways to improve broadband.
- ▶ Work sessions to address smart applications of broadband, policy options, governance options and rural technology possibilities.
- ▶ Preparation for BEAD grant funding.

**BENEFIT:** The goals of the project are to provide clarity on broadband concerns across the region, coordination of efforts of the different agencies working on broadband improvement, identification of digital equity issues, an understanding of policy options, actionable next steps to improve broadband and preparation for BEAD grants in 2024.

### REFERENCE

Omar Fortune  
Senior Manager of Business and  
Economic Development

Houston-Galveston Area Council  
3555 Timmons Lane  
Houston, TX 77027  
P: 713-993-2409  
E: [omar.fortune@h-gac.com](mailto:omar.fortune@h-gac.com)

### HR GREEN STAFF

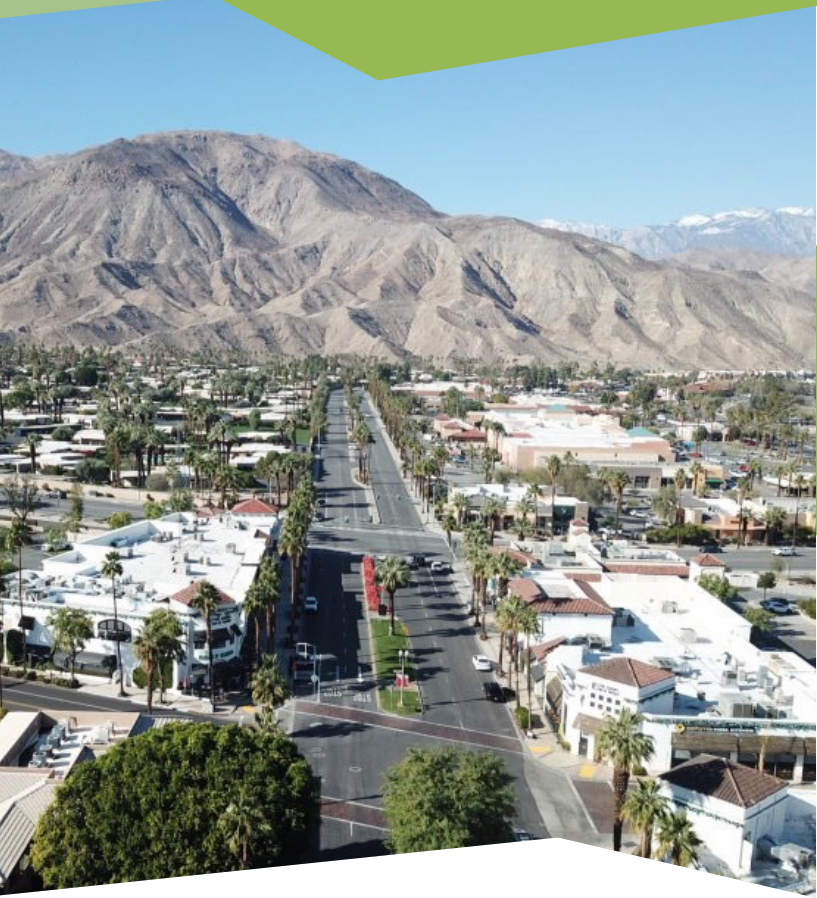
Irena Stevens  
Ken Demlow  
Kevin Azzarello  
Monika Kazmierski



## Interview Availability

# Interview Availability

HR Green understands that we may be requested to be available for an interview in the City of Coachella as part of the City's final selection process. We agree that our lead members of the consulting team will attend any interviews scheduled with the City of Coachella.



## Required Statements / Acknowledgment of Addendum



## Required Statements/Acknowledgment of Addendum

HR Green Pacific, Inc. will perform the services and adhere to the requirements described in this RFP, including any addenda. We acknowledge receipt of Addendum No. 1, dated February 26, 2024. The signed acknowledgment is included on the next page.

There has been no prior or pending litigation against HR Green Pacific, Inc.

HR Green Pacific, Inc. has had no bankruptcy or insolvency proceedings in the last ten (10) years.

HR Green Pacific, Inc.'s proposal remains valid for at least 120 days.

HR Green Pacific, Inc. and any individual who will perform work for our consultant team are free of any conflict of interest (e.g., employment by the City).

HR Green Pacific, Inc. attests there has been no collusion in the preparation and / or submission of the proposal.



**CITY OF COACHELLA**

**Broadband Master Plan Request for Proposals**

**ACKNOWLEDGEMENT OF ADDENDA**

The undersigned acknowledges the Bidder's receipt of the following addenda to this RFP and has incorporated information or changes in said addenda within its submittal (if no addenda were received, write "None" in the first blank):

Addendum No. <u>1</u>	Dated: <u>2/26/2024</u>
Addendum No. _____	Dated: _____
Addendum No. _____	Dated: _____
Addendum No. _____	Dated: _____
Addendum No. _____	Dated: _____

Note: It is the Bidder's responsibility to ensure it receives all addenda which are posted on the City of Coachella's website at:

<https://www.coachella.org/Home/Components/RFP/RFP/424/29>

  
\_\_\_\_\_  
Authorized Official Signature

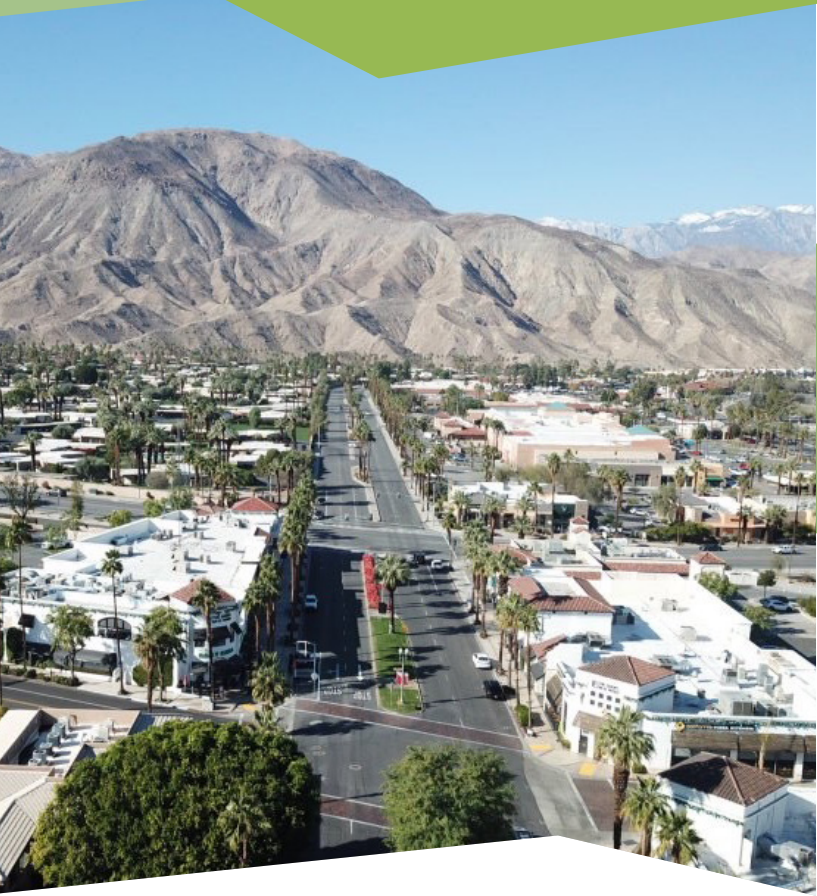
March 7, 2024  
\_\_\_\_\_  
Date of Signature

George A. Wentz, PE  
\_\_\_\_\_  
Authorized Official Printed Name

Vice President  
\_\_\_\_\_  
Authorized Official Title

Business Name of Bidder (Signer must match authorized official shown on Bidder Information form):





## Sample Agreement Comments

# Sample Agreement Comments

The sample contract provided contains language that should be modified or clarified to be more specific to the services being delivered. Based on our review, we believe revisions will provide greater clarity as to contractual obligations as well as compliance with state law requirements, which will benefit both parties. If selected, HR Green would like the opportunity to work with the City to develop the proposed agreement and address very specific issues. We would be prepared to discuss these matters immediately upon selection so no time is lost and that the proposed work can be carried out in a timely manner. Following, we have provided our suggested exceptions and considerations:

▲ 3.3.10.5 Water Quality Management and Compliance. Consultant shall keep itself and all subcontractors, staff, and employees fully informed of and in compliance with all local, state and federal laws, rules and regulations that may impact, or be implicated by the performance of the Services including, without limitation, all applicable provisions of the City's ordinances regulating water quality and storm water; the Federal Water Pollution Control Act (33 U.S.C. § 1251, *et seq.*); the California Porter-Cologne Water Quality Control Act (Water Code § 13000 *et seq.*); and any and all regulations, policies, or permits issued pursuant to any such authority. Consultant must additionally comply with the lawful requirements of the City, and any other municipality, drainage district, or other local agency with jurisdiction over the location where the Services are to be conducted, regulating water quality and storm water discharges. ~~City may seek damages from Consultant for delay in completing the Services caused by Consultant's failure to comply with the laws, regulations and policies described in this Section, or any other relevant water quality law, regulation, or policy.~~

**Reason:** This special damages clause creates professional liability insurance challenges. We would ask that we review for alternative language and/or strike.

(A) Commercial General Liability: (1) Additional Insured: The City, its officials, officers, employees, ~~agents, and volunteers~~ shall be additional insureds with regard to liability ~~and defense of suits or claims~~ arising out of the negligent performance of the services under the Agreement. ~~Additional Insured Endorsements shall not (1) be restricted to "ongoing operations"; (2) exclude "contractual liability"; (3) restrict coverage to "sole" liability of Consultant; or (4) contain any other exclusions contrary to the terms or purposes of this Agreement.~~ For all policies of Commercial General Liability insurance, Consultant shall provide endorsements in the form of ISO CG 20 10 10 01 and 20 37 10 01 (or endorsements providing the exact same coverage) to effectuate this requirement. (2) Cancellation: Required insurance policies shall not be canceled ~~or the coverage reduced~~ until a thirty (30) day written notice of cancellation has been served upon the City except ten (10) days shall be allowed for non-payment of premium.

**Reason:** The endorsements on our Commercial General Liability does not include these additional limitations. We request modification as noted.

(C) Professional Liability (Errors & Omissions): **\*\*\*INCLUDE ONLY IF APPLICABLE; DELETE OTHERWISE\*\*\*** (1) Cancellation: Required insurance policies shall not be canceled ~~or the coverage reduced~~ until a thirty (30) day written notice of cancellation has been served upon the City except ten (10) days shall be allowed for non-payment of premium. ~~(2) Contractual Liability Exclusion Deleted: This insurance shall include contractual liability applicable to this Agreement. The policy must "pay on behalf of" the insured and include a provision establishing the insurer's duty to defend.~~

**Reason:** Our Professional Liability insurance does not include contractual liability.



3.6.1 To the fullest extent permitted by law, Consultant shall defend (with counsel of City's choosing), indemnify and hold the City, its officials, officers, employees, ~~volunteers, and agents~~ free and harmless from any and all ~~claims, demands, causes of action~~, costs, ~~expenses~~, liability, ~~loss~~, damage or injury of any kind, in law or equity, to property or persons, including wrongful death, ~~to the extent caused by the negligent in any manner arising out of, pertaining to, or incident to any~~ acts, errors or omissions, or willful misconduct of Consultant, its officials, officers, employees, subcontractors, consultants or agents in connection with the performance of the Consultant's Services, the Project or this Agreement, including without limitation the payment of all damages, ~~expert witness fees~~ and reasonable attorney's fees and other related costs ~~and expenses~~ except such loss or damage caused by the ~~sole~~ negligence or willful misconduct of the City. Consultant's obligation to indemnify shall survive expiration or termination of this Agreement and shall not be restricted to insurance proceeds, if any, received by Consultant, the City, its officials, officers, employees, ~~agents, or volunteers~~.

**Reason:** The "defend/indemnification" clause is problematic and we would request deletion and further modification as noted in this section.



HRGreen®

P A C I F I C

TRANSPORTATION

+

WATER

+

GOVERNMENTAL SERVICES

+

LAND DEVELOPMENT

+

ENVIRONMENTAL

+

CONSTRUCTION