Introductions

Chris McCray, Transportation Manager, Pawnee Nation

- CM/GC Project Lead – Represents the Owner in Project & Cost Meetings & Mini GMP Development
- Issues Notice to Proceed
- Approves Pay Applications
- Monitors Project Progress (Diary & Photos)
- Reports to Funding Agencies: Federal Highway Administration (FHWA), U.S. Department of Housing for Urban Development (HUD), National Recreation and Park Association and the Walt Disney Company.
- Reports to Stakeholders: Tribal Leadership, City of Pawnee and Community Members

Frank Hickson, PE, CONSOR Engineers

- Lead Roadway Engineer for Pawnee Nation and Pueblo of Acoma Innovative CM/GC Programs
- Developed designs with innovative 3D technology where applicable
- Coordinated designs with applicable design codes and regulations
- Outside the box thinking
- Draws on experience gained while working for the FDOT Transportation Development Office for over 12 years
- Specialization in design and transportation studies
- Previously utilized innovative delivery such as Design-Build, Smart Plans, Letter Plans, etc.
What is Construction Manager / General Contractor (CM/GC) delivery?

CMAR  CM@Risk  CMc
Integrated Approach

Owner, Designer & CM work collaboratively develop the project scope, optimize the design, improve quality, and manage costs to deliver projects **early and under budget**.

What would be possible if the people around you **refused** to let you fail?
Why are Owners Choosing CM/GC?
Myth: Low Bid Method is Cheaper

- **Design-Bid-Build**: 100% (Base Cost)
- **CM/GC**: 84% (Base Cost) + 4% (GMP)
- **Design-Build**: 106% (Base Cost) + 4% (Overruns & Change Orders)

[Bar chart showing cost comparisons for different construction methods]
“It is not the answer that enlightens, but the question.” – Eugene Ionesco
CM/GC PROCUREMENT
HOW DID WE GET STARTED

CM/GC training April 3-4, 2018

- Project Matrix
- Tribal Resolution supporting CM/GC

Internal Meetings

- Executive Director
- Finance
- Procurement
- TERO
- Department Directors

Projects

- Project selection
- Project Management
- Budgets
- Schedule
- Procurement
- RFQ/RFP's
CM/GC - RFQ/RFP

Design - RFQ
- Engineer / Architect

CM/GC - RFP
- Construction Manager / General Contractor

ICE - RFP
- Independent Cost Estimator
<table>
<thead>
<tr>
<th>RFQ/RFP CONTENTS</th>
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<tr>
<td>Owner’s Intent of the RFQ</td>
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<td>TERO/ DBE / Indian owned, etc. statement</td>
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<td>Submittal instructions &amp; Pre-Proposal meeting &amp; site visit</td>
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<td>Schedule of Activities</td>
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<td>Proposal – Designer specific</td>
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<td>Selection process/ criteria</td>
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<td>Scope of Work – detailed projects (including current funds available)</td>
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<tr>
<td>CM/GC process (including project goals, meetings, budget, schedule, NEPA, GMP)</td>
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<td>Design Consultant Activities</td>
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<td>CM/GC Basic Principles</td>
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<tr>
<td>Attachments (i.e. Owner’s Schedule, Scope of Pre Construction Services, Pre-Construction Price Proposal, Fixed Price Proposal, etc.)</td>
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SELECTION AND MEETINGS

Preproposal (Mandatory) June 27, 2018
- Morning – Overview/Vision
- Afternoon – Project site visit

Selection
- Design
- CM/GC
- ICE

2-Day Kickoff August 21-22, 2018
- Overview
- Cost Model
- Production Meeting schedule
- Risk Register
- Cost/Time Savings
“A wise man can learn more from a foolish question than a fool can learn from a wise answer.” – Bruce Lee
Introduction

- Chris McCray – Pawnee Nation Transportation Manager
Internal Planning Meetings

• Weekly Meetings
• Engaged TERO from the beginning
• Developed projects
• Developed RFP/Q’s
TERO STATEMENT

The Pawnee Nation has adopted a Tribal Employment Rights Ordinance (TERO). The Contractor, its appointed agents and all other parties will agree to recognize the rights, responsibility, authority and determinations of TERO. The Contractor and all other parties will recognize that TERO has a primary commitment to the employment of Pawnee Nation members and the hiring of Indian preference employees.

Pawnee TERO client referrals become employees of the General Contractor or any sub-contractor with an awarded contract. TERO will refer qualified Pawnee Members or Indians for all skilled and non-skilled positions. Core crew expectations are listed in the TERO Ordinance. TERO Director or tribal designee shall be given notice for all employee issues where a TERO Client referral is concerned. Union requirements shall NOT be enforced on TERO referrals. Not to be pushed, coerced, or bullied into joining a Union, even when employed a Union Signatory Contractor.

All Contractors and subcontractors will be required to attend a TERO orientation and certification, be given a TERO Compliance and Utilization plan to complete and sign during the Kickoff meeting. TERO agreements will be signed by all contractors prior to commencement of work.

A TERO Fee will be assessed to the Pawnee Nation CM/GC Suite of Projects. The fee will be covered under the Pawnee Nation federally funded departments but will need to be included when figuring the Guaranteed Maximum Price (GMP).
(4) TERO/Workforce (10 points)
The work to be performed under this contract is subject to Section 7(b) of the Indian 4 Self-Determination Act (25 U.S.C. 450e(b)). Section 7(b) requires that to the greatest extent feasible: (i) preference and opportunities for training and employment shall be given to Indians, and (ii) preference in the award of contracts and subcontracts shall be given to Indian organizations or Indian-owned economic enterprises.

The parties to this contract shall comply with the provisions of section 7(b) of the 11 Indian Act. The Owner highly encourages employment of a local workforce and local businesses to deliver a substantial portion of this suite of projects. Local is defined as having residence or an existing significant place of business located within the electoral and taxing boundaries of Pawnee County. Offerors will be evaluated based on their approach, creativity, and their demonstrated commitment to maximizing use of local residents, local material suppliers and local specialty contractors to deliver this suite of projects. Your approach will lay out which steps you will commit to as a company to ensure that the local individuals and local businesses are given the maximum opportunity to participate in the performance of this contract.

- Outline your approach to locating and maximizing inclusion of a local workforce, suppliers and subcontractors in the project, i.e., job fairs, breaking construction plans into small packages that enable the local trades to easily complete, etc.
- Identify potential “on the job” training/mentoring opportunities you envision for the Project.
- Include relevant examples of past project experience in which substantial local participation has been achieved, with specific project data listing the percentage of local businesses under contract versus the total cost of the work, as a percentage of the overall construction contract, i.e., 50% of the overall final contact value went to the locals.
- Provide the name and title of the individual on the CM’s team who will be responsible for overseeing efforts to reach out to and assist individuals and local businesses to compete for work and to successfully perform as integral members of the CM’s team.
Pre – Construction Planning

- Setup a job fair with the Construction Manager/General Contractor
  - Described the projects and what type of skills that would be needed
- Started a list of applicants and skills
- Agenda item for our Production meetings for TERO
  - Updates
  - Needs
  - Requests
  - Challenges
  - Questions
## Guaranteed Maximum Price (GMP)

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## TERO Fee

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TERO Statistics

- To Date.....
  - Over 12 different TERO workers have been employed throughout ALL the projects
  - 3 TERO workers continuously working
  - 850 Hours worked
  - 75% of the workers on ALL the projects have been Native American
  - 5 out of 8 of the CM/GC sub-contractors have been Native American owned companies
  - 95% of employees of the CM/GC on the projects are Native American
  - The CM/GC and Independent Cost Estimator (ICE) companies are both 100% Native American Owned companies
  - The Design company was recently acquired in a merger which negated being a Native American owned company; 2 of their 5 subs are Native American owned companies.
  - Using local businesses for materials (rock, concrete, wood, etc.)
  - TERO sending people to Construction training (i.e. Flagger, OSHA, etc.)
Construction pics
Construction pics
“A prudent question is one-half of wisdom.” – Francis Bacon
Pawnee Nation CM/GC Planning Process

- Scope, Schedule and Budget
- CM/GC Training - April 3-4, 2018
- Weekly Meetings
- Engaged Executive Director, TERO, Finance, Procurement & others
- Identified projects & funding sources
- RFP/Q’s Notice – June 15, 2018
- Kickoff Meeting – August 13-14, 2018
- 1st Guaranteed Maximum Price (GMP) Contract – September 7, 2018
- 1st Notice to Proceed (NTP) – September 10, 2018
- Variety of funding sources, including grant funding
Deliver a 7-10 year program in less than 24 months

Pawnee Nation Program

Big Picture Objectives

• Bundle horizontal and vertical construction projects
• Rapid and best value delivery using CM/GC contracting
• Complete construction on all projects by end of May 2020
• Break ground on at least one project within 30-days of NTP
• Complete all projects under budget and ahead of schedule
• Innovate cost-savings with CM/GC team
• Leverage cost-savings to build additional project scope
Pawnee Nation Safety and Enhancement Projects

- 7 – FHWA funded projects
- 4 – Tribal funded projects
- 1 – ICDBG funded project
- 1- Disney grant project
1st Street Safety Improvements

- Objectives
  - Roadway reconstruction
  - School bus safety
  - Add sidewalks
  - Improve drainage
  - Improve safety and efficiency at US-64 connection
1st Street Safety Improvements

- **Schedule**
  - Completion Date May 2020
  - Projected Completion Date October 2019

- **Budget**
  - Construction Budget $1.8 million
  - Target Budget $1.26 million
  - Projected Actual Cost $1.5 million (16.6% under budget)

- **Innovation**
  - Minimized lane widths
  - Elimination of a portion of curb and gutter
  - Low cost retaining wall
  - Forta–Fiber pavement design $300,000 in savings
  - Savings funded additional underground utility work
  - Savings funded brick stamped crosswalk enhancements
  - Rapid Flashing Beacon (RFB) for pedestrian access across highway
Morris Rd. Project

- **Objectives**
  - Improve Pedestrian safety
  - Add sidewalks
  - Add 6 LED lights
  - Road maintenance
Morris Rd. Project

• **Schedule**
  • Completion Date May 2020
  • Projected Completion Date September 2019

• **Budget**
  • Construction Budget $737,500
  • Target Budget $516,250
  • Projected Actual Cost $600,000 (18.6% under budget)

• **Innovation**
  • Used existing terrain to eliminate the need for curb and gutter, $150,000 in savings
  • LED lights
Morris Rd. to Hwy 64/18 Project

• Objectives
  • Use savings from other projects
  • Reconstruct sidewalk
  • Entrance signage
  • Roadway maintenance
  • Other enhancements
Morris Rd. to Hwy 64/18 Project

• Schedule
  • Completion Date May 2020
  • Projected Completion Date October 2019
• Budget
  • Construction Budget $400,000
  • Target Budget $280,000
  • Projected Actual Cost $57,800 (85.5% under budget)
• Innovation
  • Funded through project savings
  • Fog seal instead of overlay
  • Work done simultaneously with other projects, $6,500 savings
Fog Seal Project

- **Objectives**
  - Roadway maintenance

- **Schedule**
  - Completion Date May 2020
  - Projected Completion Date September 2019

- **Budget**
  - Construction Budget $50,000
  - Target Budget $35,000
  - Projected Actual Cost $47,321 (0.53% under budget)

- **Innovation**
  - Work done simultaneously with other projects, $5,500 savings
Lights on Catlett Rd. Project

• **Objectives**
  • Quality of life improvement
  • Pedestrian safety

• **Schedule**
  • Completion Date May 2020
  • Projected Completion Date September 2019

• **Budget**
  • Construction Budget $ 40,000
  • Target Budget $ 28,000
  • Projected Actual Cost $ 90,000 (125% over budget)

• **Innovation**
  • Work done simultaneously with other projects, $12,000 savings
  • Funded 6 additional lights and wiring upgrade for future expansion through project savings
  • LED lights
Directional Signage Project

• **Objectives**
  - Attractive and Functional signage
  - Assist visitors to their destination

• **Schedule**
  - Completion Date May 2020
  - Projected Completion Date September 2019

• **Budget**
  - Construction Budget $10,000
  - Target Budget $7,000
  - Projected Actual Cost $23,000 (130% over budget)

• **Innovation**
  - Work done simultaneously with other projects, $1,000 savings
  - Funded additional sign through project savings
Green Bridge Project

- **Objectives**
  - Replace or rehabilitation Fracture Critical Bridge

- **Schedule**
  - Completion Date May 2020
  - Projected Completion Date May 2020

- **Budget**
  - Construction Budget $1.3 million
  - Target Budget $910,000
  - Projected Actual Cost $unknown

- **Innovation**
  - Waiting on FHWA Bridge funds
ICDBG Campgrounds & Fit Trail Project

- Objectives
  - Update existing Dance Arbor
  - Update Electrical and water utilities
  - New ADA bathroom
  - Nature fit trail with solar lighting
  - Pedestrian bridge
ICDBG Campgrounds & Fit Trail Project

- **Schedule**
  - Completion Date October 2019
  - Projected Completion Date October 2019

- **Budget**
  - Construction Budget $800,000
  - Target Budget $800,000
  - Projected Actual Cost $800,000 (grant objective to spend all funds)

- **Innovation**
  - Underground electric
  - Metal building with rock veneer for bathroom, $75,000 savings
  - Single post design for Dance Arbor
  - Repurpose bridge timbers for pedestrian bridge
  - First time combination Vertical and Horizontal CM/GC projects
Building 1 Roof & Demo Project

- **Objectives**
  - Remove and Replace roof
  - Demolition a 348 sq.ft. non-original additional

- **Schedule**
  - Completion Date May 2020
  - Projected Completion Date September 2018

- **Budget**
  - Construction Budget $25,000
  - Target Budget $17,500
  - Projected Actual Cost $21,500 (14% under budget)

- **Innovation**
  - Work done simultaneously with other projects, $1,000 savings
  - Funded through insurance and tribal funds
Trading Post Roof & RoamChief Porch Project

• Objectives
  • Removing and replacing roof
  • Larger porch for cultural funeral preparation

• Schedule
  • Completion Date May 2020
  • Projected Completion Date September 2018 (roof)

• Budget
  • Construction Budget $ 13,500
  • Target Budget $9,450
  • Projected Actual Cost $12,100 (10.3% under budget to date)

• Innovation
  • Work done simultaneously with other projects, $1,000 savings
  • Funded through insurance and tribal funds
Meet Me at the Park Project

- Objectives
  - Expansion of existing Pirau Park
  - Full-court Basketball area
  - Horseshoe area
  - Installation of Frost-free water hydrants
  - Renovation of existing bathroom

- Schedule
  - Completion Date October 2018
  - Projected Completion Date October 2018

- Budget
  - Construction Budget $30,000
  - Target Budget $30,000
  - Projected Actual Cost $30,000 (grant objective to spend all funds)

- Innovation
  - Had a Volunteer day with over 20 participants
  - Used free wood chip mulch
  - Used rehabilitated equipment for bathroom
  - Some Park equipment purchased by tribal programs
  - 1st time grant awarded to Native American tribe
Pawnee Nation Program
The Results – Worth Celebrating!

• First successful bundling of horizontal and vertical construction on tribal lands
• Innovative & communicative Teamwork
• 20 different mini GMP’s between 13 different projects (To Date)
• On schedule to complete 11 of 13 projects, $4million +, in 13 months
• 7-year program on schedule to be completed in less than 18-months
• Over $300,000 in savings used to fund other projects and enhancements
• Over 12 TERO jobs created
Construction Manager/General Contractor
PAWNEE NATION
QUESTIONS?

National Transportation in Indian Country Conference (NTICC)
September 18, 2019 • Big Sky, Montana