Nevada Dept. of Transportation 
Construction Manager at Risk (CMAR) 

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**CMAR Advantages**

- Important design decisions affecting time, materials, means and methods are made with input of the contractor.
- Project cost is lump sum with potential increased costs defined up front (Risk Reserve), no change orders.

**Design Build Advantages**

- Material design and construction risks are transferred from the Department to the design-build team.
- Project design and construction with greater cost and schedule certainty, however potential for change orders exists.
CMAR Advantages

- Contractors become partners with the Department in assessing and mitigating risk and identify constructability issues up front
- Construction impacts to the public can be minimized by identifying and working with stakeholders throughout project development

Design Build Advantages

- The design-build *contractor* participates in the design phase, which improves constructability, reduces errors and encourages innovation
- Construction can begin prior to the final design being completed, which results in faster project delivery
CMAR Advantages

• Higher quality projects may be realized through early collaboration and innovation by the contractor and NDOT

Design Build Advantages

• One entity, the design-build team, is responsible for delivery of the entire project

• Partnership opportunities between the Department, engineering service providers and contractors are provided by both CMAR and Design Build
CMAR Disadvantages

- Qualifications based selection may not result in lowest price cost
- Detailed attention needed to identity risk (Risk Reserve)

Design Build Disadvantages

- Best value selection may not result in lowest project cost
- Special attention to risk allocation is required due to the complexity of the contract
- The Department has less control over the final design
- Administrative costs and time commitments
CMAR Challenges

- Subcontracting – Nevada Law requires competitive bid process, pricing from subcontractors difficult during design/cost estimate process
- Scope – defined well enough so costs aren’t a surprise
- Expectations – set early so no surprises
- Risks – identified and quantified properly up front
- Change Orders – viewed negatively due to CMAR legislation passed on premise of no change orders
- Local Entities – other agencies are not following the laws appropriately, jeopardizing NDOT’s ability to continue
CMAR Lessons Learned

• Procure Independent Cost Estimator (ICE) prior to Contractor, helps NDOT make appropriate adjustments to budget (production based estimating)
• Identify Risk Reserve appropriately
• Partnering from the beginning
• Multiple GMP’s as applicable (early procurement of materials and first phases of construction)
• NDOT not afraid to procure contractor through Design BuildB, helps bring contractor in line with NDOT budget
CMAR Projects to Date
• 7 Projects
• $122M in Projects
• $30M Largest CMAR Project

Design Build Projects to Date
• 9 Projects
• $1.7B in Projects
• $960M Largest Design Build Project
NDOT’s Vision

“To be a leader and partner in delivering effective transportation solutions for a safe and connected Nevada”

CMAR is an effective method for project delivery:
• Speedy delivery
• Dept can quantify and assign risk appropriately
• More innovative designs by early collaboration with contractor