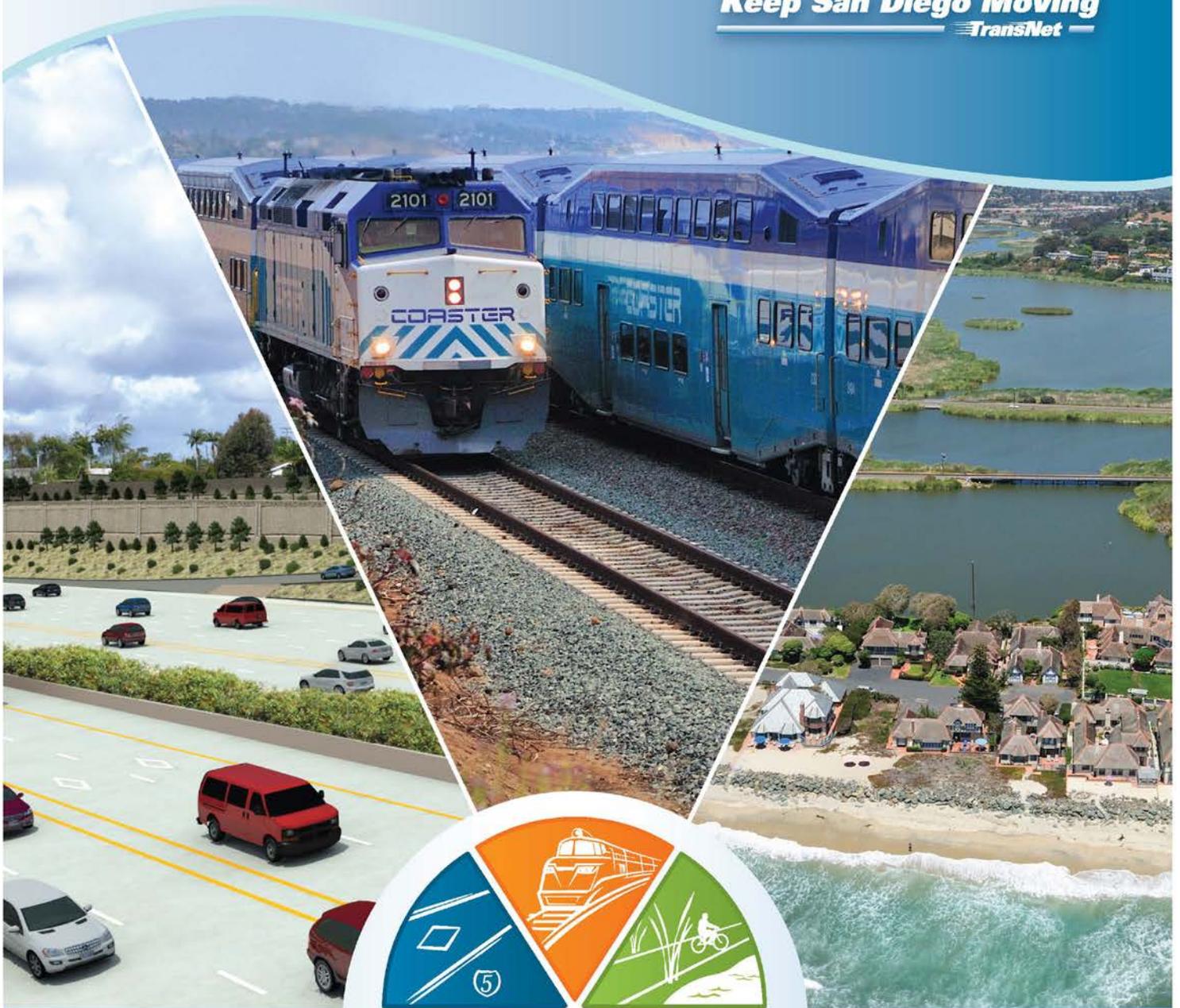


Keep San Diego Moving
TransNet



North Coast Corridor

A better environment for the future



Submitted By: **California Department of Transportation**
District 11
4050 Taylor Street
San Diego, CA 92110

CMGC
NOMINATION FACT SHEET
THE INTERSTATE 5 NORTH COAST CORRIDOR PROGRAM
PHASE 1

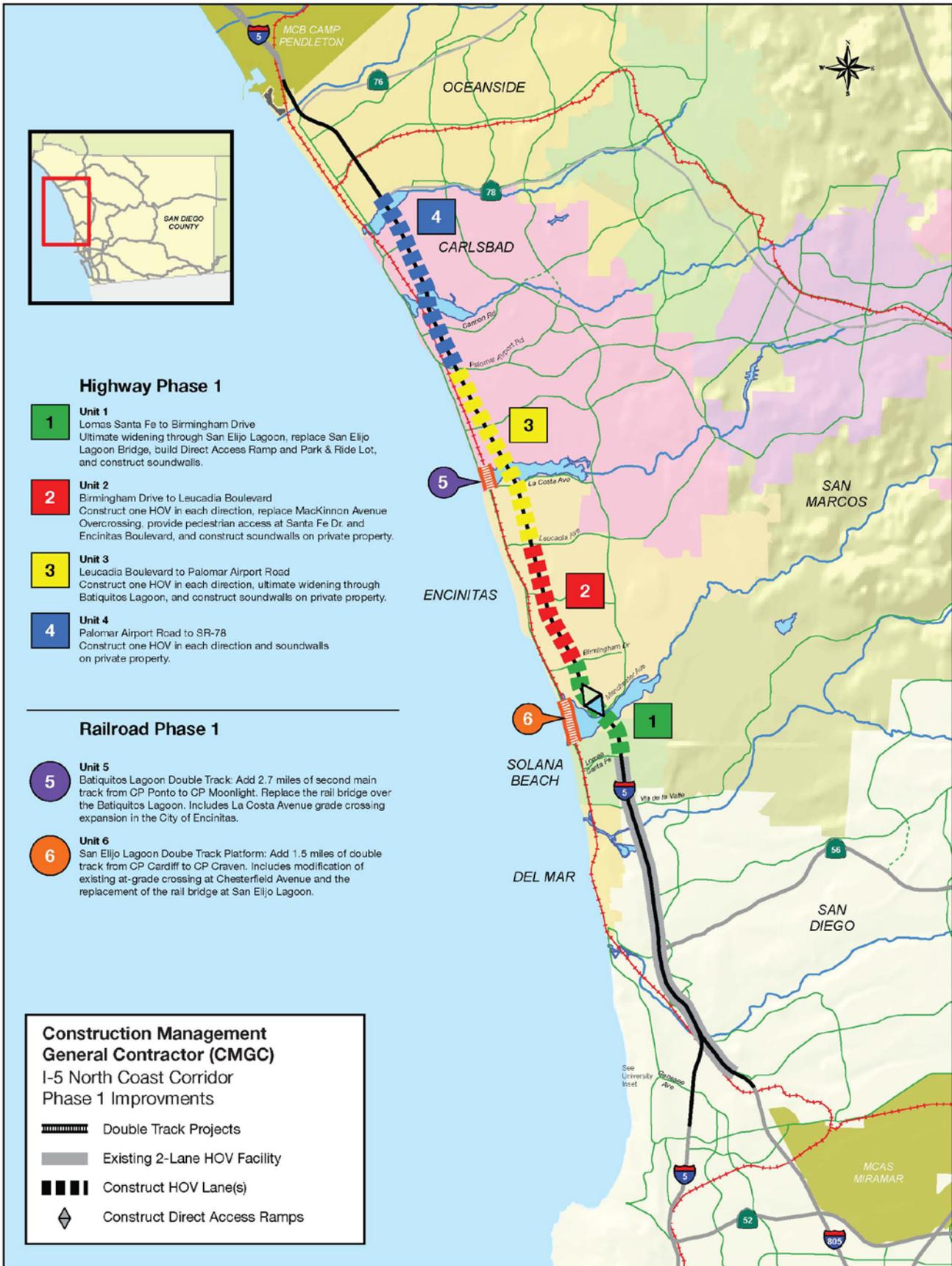
Project Description

The Interstate 5 (I-5) North Coast Corridor (NCC) Program is a 27-mile long project that proposes improvements to I-5, coastal rail and transit enhancements, environmental protection and coastal access improvements over 4 phases within the next 40 years. Caltrans, District 11, hereby proposes Phase 1 of the NCC Program as a candidate for the Construction Management/General Contractor (CMGC) pilot project.

Phase 1 represents a 14 freeway mile, 4.2 rail miles, \$606 million dollar investment on the designated corridor of the future. The current vision for Phase 1 is to construct one high occupancy vehicle (HOV) lane in each direction from Manchester Ave. to SR78; the replacement of MacKinnon Avenue Overcrossing; the construction of a direct access ramp (DAR) and park 'n ride at Manchester; the replacement of San Elijo and Batiquitos lagoon highway bridges; and the construction of soundwalls on private property. In addition, Phase 1 includes double tracking of the LOSSAN rail line between CP Ponto (MP 234.5) and CP Craven (MP 241.1) and the replacement of the rail bridges over Batiquitos and San Elijo lagoons. Please refer to Appendix A for additional background information about the complete NCC Program and I-5 corridor.

Given that, the I-5 corridor is a principal north-south transportation facility in the western United States and part of the National Highway System (and National Strategic Highway Network) and that travel demand has increased to almost 700,000 users per day without major capacity improvements for over 40 years. The NCC Program provides residents and visitors with increased regional mobility, transportation solutions for both highway and coastal rail corridors, access to San Diego's coastal destinations and unique resource enhancements. Through the CMGC delivery method, District 11 seeks to deliver these improvements in a stream line fashion, minimizing commuter impacts while maximizing public financing; meeting the I-5 corridor's many coastal zone challenges; and identifying the best approach of constructing bridges over environmentally sensitive lagoons which house several designated endangered species and contractual constraints.

Over the last 15 years, District 11 has gained valuable experience at implementing new and innovative delivery methods. Being Design Sequencing (I-15, SR 76, and SR 905) or Design Build (SR 125 & I-805 North), District 11 has shown the willingness and ability to emphasize the collaborate skills necessary to successfully implement the next generation of innovative construction management and procurement. We look forward to adding CMGC to our repertoire.



Project Proposal

Phase 1 of the NCC is an interim stage that adds one of the ultimate two HOV lanes in each direction of the NCC Program; ultimately additional phases will construct the second lane (approximately 7 to 10 years after Phase 1). Through a collaborative process, CMGC delivery will provide an opportunity to work with the contractor using Value analysis or Life cycle cost studies to determine “*what should be built in phase 1 and what should be built in the additional phases*” in order to reach a balance between short term need and long term cost effectiveness.

Presently, Phase 1 is staged as four consecutive adjacent highway and two independent rail projects. It is scheduled to begin in 2015 and be fully open to traffic by 2020. Given the I-5 corridor’s challenging constructability issues, complexity, environmental constraints and high public visibility, Phase 1 would provide a unique opportunity to showcase the CMGC delivery method’s flexibility as a way to maximize effectiveness of existing funding by proposing construction alternatives to balance short term congestion relief and long term cost effectiveness.

The NCC Program, which includes Phase 1’s highway component, is currently nearing completion of the environmental stage and is entering preliminary design for each of the four units (see schedule below). We believe that we are currently at a stage where it would be most beneficial for Phase 1’s design to include the input, experience and expertise that a selected qualified construction team would provide through the CMGC delivery method.

Phase 1 of the NCC Program’s is tentatively staged as follows:

Phase 1 Highway: \$482,000,000

Phase 1- Unit 1

Limits: From Lomas Santa Fe to Birmingham Drive

Description: Ultimate widening through San Elijo Lagoon, replace San Elijo Lagoon Bridge, build Direct Access Ramp and Park & Ride Lot, and construct soundwalls.

Phase 1- Unit 2

Limits: From Birmingham Drive To Leucadia Boulevard

Description: Construct one HOV in each direction, replace MacKinnon Avenue Overcrossing, provide pedestrian access at Santa Fe Dr. and Encinitas Boulevard, and construct soundwalls on private property.

Phase 1- Unit 3

Limits: From Leucadia Boulevard to Palomar Airport Road

Description: Construct One HOVE in each direction, ultimate widening through Batiquitos Lagoon, and construct soundwalls on private property.

Phase 1- Unit 4

Limits: From Palomar Airport Road to SR-78

Description: Construct One HOVE in each direction and soundwalls on private property.

LOSSAN Rail Line: \$124,000,000

Batiquitos Lagoon Double Track

This project will add 2.7 miles of second main track from CP Ponto (MP 234.5) to CP Moonlight (MP 237.2). It also includes the Batiquitos Lagoon Bridge replacement and La Costa Avenue grade crossing expansion in the City of Encinitas.

San Elijo Lagoon Double Track

The project includes 1.5 miles of new double-track from CP Cardiff (MP 239.6) to CP Craven (MP 241.1). The project also includes modification of an existing at-grade crossing at Chesterfield Ave, replacement of the San Elijo Lagoon Bridge, a new 700 foot bridge at MP 240.4, and a MOW siding from Approx. MP 239.7 to 239.9.

The NCC Program's final environmental document (FED) is expected by the summer of 2013 with Coastal Commission review in Spring 2014. Negotiations with property owners and utility companies will be upon completion of the FED. Unit 1 has some right of way risk in that there is limited time between FED and PSE of this unit to acquiring some of the adjacent parcels. While we anticipate the right of way process will not impact the schedule, the CM would provide input on alternatives to minimize any risks or even provide work-a-rounds to any right of way issues.

This proposal requests the use of one of the two available pilot projects to utilize local consultant contracts. While 70-80% of the design work is anticipated to be completed by in-house staff, some design elements would be given to consultants for their expertise in a given subject or to supplement state staff. Use of local consultants would also be utilized on the rail portion of the project.

Schedule

Highway Schedule:

Preliminary design is currently under way for Phase 1-Unit 1 (San Elijo) of the NCC Program. A Contractibility Review was held in March 2013. Units 2 through 4 of Phase 1 are at the preliminary engineering phase, approximately 10% designed. The current schedule of each unit is shown below. However, input from the CM on the phasing is encouraged. CMGC would assist in strategizing how the scope of each unit can be analyzed comprehensively to accelerate the open to traffic date.

Unit 1 - 20% complete

Limits: From Lomas Santa Fe to Birmingham Drive

PSE: Early 2015

RTL: Summer 2015

CCA: Spring 2019 (includes 1-year plant establishment)

Unit 2 – 10% complete

Limits: From Birmingham Drive To Leucadia Boulevard

PSE: Summer 2015

RTL: Winter 2015

CCA: Summer 2019 (includes 1-year plant establishment)

Unit 3 – 10% complete
Limits: From Leucadia Boulevard to Palomar Airport Road
PSE: Early 2016
RTL: Summer 2016
CCA: Winter 2020 (includes 1-year plant establishment)

Unit 4 – 10% complete
Limits: From Palomar Airport Road to SR-78
PSE: Summer 2016
RTL: Winter 2016
CCA: Summer 2020 (includes 1-year plant establishment)

LOSSAN Rail Schedule:

Batiquitos Lagoon Double Track – 0% complete
Limits: CP Ponto (MP 234.5) to CP Moonlight (MP 2372)
RTA: Winter 2016
CCA: Summer 2020

San Elijo Lagoon Double Track – 20% complete
Limits: CP Cardiff (MP 239.6) to CP Craven (MP 241.1)
RTA: Summer 2014
CCA: Early 2018

Cost/Funding

\$482 million is currently funded for design, right of way and construction activities of Phase 1 of the highway project. The funding is a combination of federal, state and local dollars.

The two LOSSAN rail projects (San Elijo Lagoon Double Track = \$ 76,100,000; Batiquitos Lagoon Double Track = \$ 48,500,000) included in Phase 1 of the NCC Program are funded with a combination of TransNet-MC, FTA-RSTP, FRA-PRIIA, FTA5307.

Permits/Agreements

The North Coast Corridor contains 27 miles of coastline with some of the largest remaining coastal lagoons in California. The entire project is located within the coastal zone and as such is subject to additional environmental constraints.

Senate Bill 468 requires that *“In order to reduce environmental impacts to the coastal lagoons, both rail and highway bridges crossing each lagoon shall be planned and constructed concurrently unless construction in phases will result in an environmentally superior alternative to concurrent construction”*. A CMGC team would allow us to accurately assess the cost, benefit, and potential opportunities related to building the bridges concurrently.

Permit requirements in the lagoon areas include maintaining open water tidal flows during construction of the lagoon bridges, keeping all debris out of the lagoon, and not using riprap in channel bottoms during bridge construction to minimize impacts to aquatic habitats. The CMGC process will provide opportunities for the contractor propose innovative construction methods in order to reduce both construction time as well as impacts.

Monthly coordination meetings between all the resource agencies are currently taking place with positive conceptual approval on the program and agreement of the resource enhancements so far. We believe it would be highly beneficial to have the general contractor on board early to attend these meeting thru CMGC. Key permits include, but are not limited to:

- Endangered Species Act, Section 7 – Consolation for impacts to Threatened and Endangered Species (404 Permit)
- Rivers and Harbors Act, Section 10 – Standard Individual Permit for Discharging Dredged or Fill Material in Water of the US
- Marine Protection Research and Sanctuaries Act of 1972, Section 103 Permit – for deposits of sediment into the ocean
- California Fish and Game Code, Section 1602 - Agreement for Streambed Alteration
- CWA Section 401 Certification
- CZMA Federal Consistency Certification
- Coastal Approval/Public Works Plan (PWP)
- Public Works Plan

Public/Political Support of Project

The North Coast Corridor Program is the result of more than 10 years of collaboration with local, state and federal partners, resource agencies and the public input.

The progress, scope and multi-agency approach to the development of the multi modal corridor with environmental and community enhancements demonstrates a high level of regional involvement and commitment to the goal of developing “the most aesthetically pleasing, technologically-efficient, and cost efficient travel corridor in the nation” (2000 North Coast Transportation Study). Additional indicators of this regional commitment to the corridor include:

- SANDAG, which is made up of all 18 local cities and the County of San Diego, has allocated funding of over \$1 billion for capacity increasing high way and rail projects currently under development in the corridor.
- Inclusion of the I-5 Express Lanes in San Diego County’s half-cent sales tax extension for transportation (*TransNet*). This designates \$900 million of local funding for the corridor over the next 40 years. The *TransNet* extension was supported by over two thirds of the voting public.
- Identification of the I-5 North Coast Corridor as *TransNet* Early Action Project (EAP). This provided bond funding (backed by future *TransNet* 2 revenue) to accelerate construction and design of key components and for the environmental clearance for the I-5 NC Express Lanes projects.

- The corridor successfully completed and received funding from the Corridor Mobility Improvement Account (CMIA) Program.
- Multi-Agency involvement in the I-5 North Coast Technical Working Group whose purpose is to scope and concur on traffic modeling and analysis.
- The I-5 North Coast Corridor was designated as a Corridor of the Future and selected for Federal Streamlining by the Federal Highway Association.
- Initiation by local agencies at several locations of locally funded projects to construct interchange improvements
- Senate Bill 468 has the support of all regional and environmental stakeholders.

In addition to SANDAG, FHWA, and the Department, a number of stakeholders are directly involved in efforts to improve mobility in this corridor:

- City of Carlsbad
- City of Del Mar
- City of Encinitas
- City of Oceanside
- City of San Diego
- City of Solana Beach
- North County Transit District (NCTD)
- San Diego Metropolitan Transit System (MTS)
- State and Federal Resource Agencies
- California Coastal Commission

Right of Way and Utilities

Right of way negotiations have begun as well as work to identify utility conflicts. Once the final environmental document is cleared, offers and agreements can commence. The right of way process will be handled by Caltrans internal staff, input from the CM is expected to help identify potential conflicts early and assist in resolutions.

Why is this project a good CMGC candidate?

Utilizing CMGC for phase 1 of the NCC Program will continue to build upon the holistic approach of the NCC Corridor. The CM will be able to provide input not on a typical single highway contract, but rather utilize their expertise looking at a program of projects as a whole. The CM will be able to provide input on issues including project phasing, traffic handling, staging, rail and highway constructability and innovative solutions to environmental constraints. Not only will the expertise of the CM help the state to determine the most efficient use of funds, but it will also provide the contractor with a better understanding of the unique environmental commitments and corridor constraints that this project brings. That input will result in lower bids, fewer claims and shorter construction schedules. Some of the anticipated benefits of delivering Phase 1 of the NCC Program as a CMGC include:

Best Value

Given the complexity, unique construction challenges and community and environmental sensitivity, procuring a qualified construction team through the CMGC process with experience addressing these challenges is an important step toward success. Selection criteria could include

- Experience with project elements and constraints
- Construction Claims and Partnering History
- Project Issues resolution and innovation
- Management, budget and schedule control, safety

By allowing the contractor to look at the 14 mile project holistically, refinement of the current phasing plans may provide Caltrans the opportunity to deliverable useable segments to the traveling public sooner.

Given the number of construction complexities and relatively unique project constraints, development of an accurate construction estimate is critical. Involvement of the CM will not only provide better clarity on this issue, but will also provide the contractor alternatives and tradeoffs if the proposed scope cannot be realized for the \$482 million in highway funding. Essentially, by using the CMGC process, we can maximize the value of the programmed public funding by “designing to cost”.

Using the CM’s experience, there will be opportunities to identify and maximize available resources (such as earthwork and mobilization costs) and schedule Phase 1 segments in such a manner as to maximize stockpiles and minimize throwaway temporary construction. The opportunity to look at the highway, rail and environmental projects as a package of improvements will also allow opportunities and flexibility to share resources and minimize conflicts.

Having the insight and cooperation of the construction contractor early in the process can yield innovative solutions that save significant time and cost.

Cost Certainty

Given the limited project funding, CMGC delivery method would provide a tool to propose construction alternatives to maximize effectiveness of the exiting funds balancing short term congestion relief and long term cost effectiveness.

Having multiple units in the corridor offers the opportunity for incremental bidding to provide an opportunity to expand or contract an individual project scope as needed to maximize the opportunities and minimize risks.

Environmental Stewardship

The adjacent lagoons include critical habitat that is home to several sensitive and endangered species. Consequently construction related water and noise impacts are of critical concern. CMGC will allow the contractor to participate in the design process and potential identify opportunities to reduce the risk of those impacts.

Given the location of the project relative to critical sensitive habitat, there are significant resource agency permit restrictions that affect construction activities in the area. CMGC will allow the contractor a full understanding of the restrictions and

opportunities of working in or adjacent to the lagoons prior to entering into the construction contract, thereby reducing the risk of surprises and construction related claims.

The CMGC delivery process provides an early opportunity for the Contractor to coordinate with the ongoing San Elijo Lagoon Restoration Project, resource agencies, local cities, and other key stakeholders to determine risks, resolve impacts, and to capture the benefits of having multiple projects taking place at the same time in the same lagoon.

Improved Traffic Handling/Stage Construction

ADTS along this segment of the corridor range from 200,000 to 250,000. This results in significant congestion not only during traditional commute times but also because of seasonal, recreational, and coastal access demands. Congestion commonly extends into off-peak and weekends. This results in short construction windows. The CMGC delivery method provides an opportunity to look at Phase 1 construction staging in a holistic manner, and thus the CMGC team would be better able to analyze and understand traffic patterns and strategically sequence segments to minimize traffic impacts and maximize construction windows.

Additionally, the project includes several main lane bridge replacements that will require temporary realignment of 10 freeway lanes. CMGC would allow the contractor to propose modifications to the staging and traffic control to reduce construction related traffic impacts.

There are several communities directly adjacent to these construction projects. CMGC would allow the contractor to propose input into the staging, construction methods to reduce construction related noise to those residents.

Minimize Contractual Risks

The CMGC process will provide a great platform and opportunity for collaboration between the department, resource agencies and the construction industry prior to construction contract execution as a key tool in reducing cost and schedule risks by encouraging innovation and creativity corridor wide.

CMGC would provide an opportunity for a contractor led independent quality review that can lead to reduced errors and omissions and help in identifying and quantifying project risks. The contractor will share ownership of the identified risks and thereby participate in identifying and resolving issues early on in the process.

Pre-project collaboration with project stakeholders to better understand opportunities and constraints, the CMGC process provides an opportunity for the contractor to work directly with resource agencies to address constructability issues, permit requirements and optimize construction methods to minimize risks.

<p style="text-align: center;">DESIGN RELATED</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Validate Department/Consultant design <input checked="" type="checkbox"/> Assist/input to Department/Consultant design <input checked="" type="checkbox"/> Design reviews <input type="checkbox"/> Design charrettes <input checked="" type="checkbox"/> Constructability reviews <input type="checkbox"/> Operability reviews <input type="checkbox"/> Regulatory reviews <input type="checkbox"/> Market surveys for design decisions <input checked="" type="checkbox"/> Verify/take-off quantities <input checked="" type="checkbox"/> Assistance shaping scope of work <input checked="" type="checkbox"/> Feasibility studies <input checked="" type="checkbox"/> Encourage innovation <p style="text-align: center;">COST RELATED</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Validate agency/consultant estimates <input checked="" type="checkbox"/> Prepare project estimates <input checked="" type="checkbox"/> Cost engineering reviews <input checked="" type="checkbox"/> Early award of critical bid packages <input type="checkbox"/> Life cycle cost analysis <input checked="" type="checkbox"/> Value analysis/engineering <input checked="" type="checkbox"/> Material cost forecasting <input checked="" type="checkbox"/> Cost risk analysis <input type="checkbox"/> Cash flow projections/Cost control <input checked="" type="checkbox"/> Shape the project scope to meet the budget <p style="text-align: center;">PRECONSTRUCTION WORK RELATED</p> <ul style="list-style-type: none"> <input type="checkbox"/> Utility Relocation <input type="checkbox"/> Potholing 	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Preliminary soil and geotech studies <input type="checkbox"/> Right of Way Demolition <input type="checkbox"/> Preliminary Surveying <p style="text-align: center;">SCHEDULE RELATED</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Validate agency/consultant schedules <input checked="" type="checkbox"/> Prepare and manage project schedules <input checked="" type="checkbox"/> Develop sequence of design work <input checked="" type="checkbox"/> Construction phasing <input checked="" type="checkbox"/> Schedule risk analysis/control <p style="text-align: center;">ADMINISTRATION RELATED</p> <ul style="list-style-type: none"> <input type="checkbox"/> Prepare Document Control <input type="checkbox"/> Coordinate contract documents <input checked="" type="checkbox"/> Coordinate with 3rd party stakeholders <input type="checkbox"/> Subcontractor bid packaging <input checked="" type="checkbox"/> Attend public meetings <input checked="" type="checkbox"/> Bidability reviews <input type="checkbox"/> Subcontractor bid packaging <input type="checkbox"/> Prequalifying Subcontractors <input type="checkbox"/> Assist in right-of-way acquisition <input type="checkbox"/> Assist in permitting actions <input type="checkbox"/> Study labor availability/conditions <input type="checkbox"/> Prepare sustainability certification application <input checked="" type="checkbox"/> Follow environmental commitments <input type="checkbox"/> Follow terms of Federal Grant <input type="checkbox"/> Coordinate site visits for subcontractors <input checked="" type="checkbox"/> Teamwork/Partnering meetings/sessions <input type="checkbox"/> Develop Quality and Safety plans
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Glossary of Preconstruction Services Terms

Design-Related Preconstruction Services

- **Validate agency/consultant design**—Construction Manager evaluates the design as it is originally intended and compares it to the scope of work with both the required budget and schedule to determine if the scope can be executed within those constraints. A validated design is one that can be constructed within the budget and schedule constraints of the project.
- **Assist/input to agency/consultant design**— Construction Manager will offer ideas/cost information to the designer to be evaluated during the design phase. Ultimately, the designer is still responsible for the design.
- **Design reviews**—done to identify errors, omissions, ambiguities, and with an eye to improving the constructability and economy of the design submittal.
- **Design charrettes**—Construction Manager would participate in structured brainstorming sessions with the designer and owner to generate ideas to solve design problems associated with the project.
- **Constructability reviews**—review of the capability of the industry to determine if the required level of tools, methods, techniques, and technology are available to permit a competent and qualified construction contractor to build the project feature in question to the level of quality required by the contract.
- **Operability reviews**—bringing in the agency’s operations and maintenance personnel and providing them with an opportunity to make suggestions that will improve the operations and maintenance of the completed projects.
- **Regulatory reviews**—a check to verify that the design complies with current codes and will not have difficulty obtaining the necessary permits.
- **Market surveys for design decisions**—furnish designers with alternative materials or equipment along with current pricing data and availability to assist them in making informed design decisions early in the process to reduce the need to change the design late in the process resulting from budget or schedule considerations.
- **Verify/take-off quantities**—Construction Manager verifies the quantities generated by the designer for the engineer’s estimate.
- **Assistance shaping scope of work**— Construction Manager generates priced alternatives from the designer and owner to ensure that the scope of work collates to the constraints dictated by the budget and/or schedule.
- **Feasibility studies**— Construction Manager investigates the feasibility of possible solutions to resolve design issue on the project.

Cost-Related Preconstruction Services

- **Validate agency/consultant estimates**—Construction Manager evaluates the estimate as it is originally intended and determines if the scope can be executed within the constraints of the budget.
- **Prepare project estimates**—Construction Manager provides real-time cost information on the project at different points in the design process to ensure that the project is staying within budget.
- **Cost engineering reviews**—review that includes not only the aspects of pricing but also focuses on the aspect that “time equals money” in construction projects.

- **Early award of critical bid packages**— Construction Manager determines which design packages should be completed first to ensure that pricing can be locked in on the packages.
- **Life-cycle cost analysis**— Construction Manager provides input to design decision that impact the performance of the project over its lifespan.
- **Value analysis**—process that takes place during preconstruction where the CMGC contractor identifies aspects of the design that either do not add value or whose value may be enhanced by changing them in some form or fashion. The change does not necessarily reduce the cost; it may actually decrease the life-cycle costs.
- **Value Engineering**—systematic review by a qualified agency and/or contractor personnel of a project, product, or process so as to improve performance, quality, safety, and life-cycle costs.
- **Material cost forecasting** – Construction Manager utilizes its contacts within the industry to develop estimates of construction material escalation to assist the owner and designer make decisions regarding material selection and early construction packages.
- **Cost risk analysis**—furnishing the agency with information regarding those cost items that have the greatest probability of being exceeded.
- **Cash flow projections/Cost control** – Construction Manager conducts earned value analysis to provide the owner with information on how project financing must be made available to avoid delaying project progress. This also may include an estimate of construction carrying costs to aid the owner in determining projected cash flow decisions.

Schedule-Related Preconstruction Services

- **Validate agency/consultant schedules**— Construction Manager evaluates if the current scope of work can be executed within the constraints of the schedule.
- **Prepare project schedules**— Construction Manager prepares schedules throughout the design phase to ensure that dates will be met, and notify the owner when issues arise.
- **Develop sequence of design work**— Construction Manager sequences the design work to mirror the construction work, so that early work packages can be developed.
- **Construction phasing** – Construction Manager develops a construction phasing plan to facilitate construction progress and ensure maintenance of traffic.
- **Schedule risk analysis/control**— Construction Manager evaluates the risks inherent to design decisions with regard to the schedule and offers alternative materials, means and/or methods to mitigate those risks.

Administrative-Related Preconstruction Services

- **Coordinate contract documents** – Construction Manager evaluates each component to the construction contract against all other components and identifies conflicts that can be resolved before award of the construction phase contract.
- **Coordinate with third-party stakeholders**— Construction Manager communicates with third parties involved in the project including but not limited to utilities, railroads, and the general public.
- **Public information-public relations** – Construction Manager implements a program to identify public relations issues and solve them to ensure the project is not delayed by public protest.
- **Attend public meetings** — Construction Manager can organize and attend public meetings to answer questions from the public about the construction of the project.

- **Biddability reviews** — Construction Manager reviews the design documents to ensure that subcontractor work packages can be bid out and receive competitive pricing. This action reduces the risk to the subcontractors because they are given the specific design product they need for their bids; not just told to find their work inside the full set of construction documents.
- **Subcontractor bid packaging** — Construction Manager coordinates the design work packaging to directly correlate with subcontractor work packages so that early packages can be easily bid out and awarded.
- **Prequalifying subcontractors** – Construction Manager develops a list of qualified subcontractors that are allowed to bid on packages as they are advertised.
- **Assist in right-of-way acquisition** – Construction Manager assists the designer in identifying options for right-of-way acquisitions by providing means and methods input. The primary purpose is to minimize the amount of right-of-way actions that must be undertaken.
- **Assist in permitting actions** – Construction Manager is empowered to meet with resource agencies and develop permit applications with assistance from the designer.
- **Study labor availability/conditions** – Construction Manager furnishes advice during design with regard to the availability of specialty trade subcontractors and the impact of that availability on project budget and schedule constraints.
- **Prepare sustainability certification application**– When certification for sustainability is desired, the Construction Manager is empowered to prepare the necessary paperwork to submit for certification

ATTACHMENT A BACKGROUND

Background

I-5 is a principal north-south transportation facility in the western United States. I-5 is part of the National Highway System (and National Strategic Highway Network) and extends between the Mexican and Canadian borders through portions of California, Oregon, and Washington. The project area begins in the northern portion of the City of San Diego, and extends northward to the northern part of San Diego County in the City of Oceanside.

I-5 also provides access to the region's primary tourism and recreational (coastal) sites. As such, periods of heavy demand for the corridor extend beyond the traditional weekday peak-periods and into the weekends. The resulting congestion not only significantly affects the region's quality of life, but also affects tourism-related revenue.

The entire segment of I-5 in this CSMP is located within the coastal zone and the facility crosses six coastal lagoons. These natural and scenic resources are not only very unique for an urban freeway; they are important assets to the region and are important elements to address in developing transportation improvements in the corridor.

The I-5 NCC Program is a 27-mile long project that proposes improvements to I-5, coastal rail and transit enhancements, environmental protection and coastal access improvements. The highway portion of the project proposes to construct two express lanes in either direction on I-5 from La Jolla Village Drive in San Diego to Vandergrift in Oceanside and the rail corridor proposes to complete the double track of corridor.

The I-5 NCC Program is proposed to maintain or improve future conditions compared to existing conditions, in order to improve the safe and efficient regional movement of people and goods to the project design year. This segment of I-5 was constructed through the Cities of San Diego, Solana Beach, Encinitas, Carlsbad, and Oceanside in the mid 1960s and early 1970s, with roughly two-thirds of the current daily trips in the North County coastal area occurring on it. Since original construction, traffic conditions have worsened while only minimal improvements have been constructed. Studies show the increased demand on the route is primarily due to regional population growth, increased goods movement, increased economic growth, and greater recreational and tourism demand. Growth forecasts for San Diego County and the surrounding regions show these trends will continue. As noted in the San Diego Association of Governments (SANDAG) 2050 RTP, by the year 2050, regional population is projected to grow by 36 percent. Traffic forecasting of the region shows that if no improvements are made to I-5, traffic conditions will continue to deteriorate. This would cause impacts on route operations and the ability to provide for the effective movement of people and goods through and within the region; and could have profound consequences within both the region and the State.

A Caltrans Design Guidelines for the I-5 Express Lanes Project was finalized on February 2013. It looks at the I-5 corridor in a holistic manner and includes design parameters, goals and objectives. The Design Guidelines sets regional context, scenic principals and design themes for the corridor. It includes design concepts for all of the lagoon bridges, gateway undercrossings and freeway overcrossings, as well as specific wall, barrier and landscape.

On March 1, 2013, a Draft PWP was distributed for initial public review. The San Diego Association of Governments (SANDAG) and the California Department of Transportation (Caltrans) have developed the PWP, which is the result of more than 10 years of collaboration and public input. The PWP provides an implementation blueprint for a \$6.5 billion, 40-year program of rail, highway, environmental and coastal access improvements. The PWP/TREP is a single, integrated regulatory document that will be considered by the California Coastal Commission in an effort to streamline project review that could otherwise require multiple coastal development permits.

The Draft Environmental Document for the I-5 Express Lanes Project was released for public review in July 2010. The Final Environmental Document will be released this summer and submitted along with the Public Works Plan (PWP) to the Coastal Commission for Review. The I-5 NCC Project will feature a regional investment of more than \$200 million to preserve and enhance sensitive coastal habitat and improve coastal access.

The NCC project impacts six sensitive lagoons (Phase 1 includes two of the six lagoons) as well other sensitive habitat. The NCC's lagoon habitats are biologically unique and cannot be replicated elsewhere. Efforts to protect and enhance the NCC's natural resources in conjunction with transportation improvements require a unique, comprehensive resource planning and management program, which ensures not only that transportation project impacts are appropriately mitigated, but which also facilitates a large-scale, systems-approach to resource enhancement for the benefit of the region. The NCC Program accommodates corridor and regional population and travel growth in an environmentally sustainable way that will provide a net benefit to the environment.