



**RECOMMENDED ACTION**

Authorize the Mayor to sign and submit the Application for Project Approval – GC/CM Delivery for construction of the new wastewater treatment plant (WWTP) to the State of Washington Capital Projects Advisory Review Board (CPARB) – Project Review Committee (PRC).

**ATTACHMENTS**

- Application for Project Approval – GC/CM Delivery



## **Clean Water Facility**

**State of Washington  
Capital Projects Advisory Review Board (CPARB)  
Project Review Committee (PRC)**

**Application for Project Approval  
GC/CM Delivery**

**Submitted by  
City of Oak Harbor, Public Works Department, Engineering Division  
February 21, 2014**

State of Washington  
Capital Projects Advisory Review Board (CPARB)  
Project Review Committee (PRC)

**APPLICATION FOR PROJECT APPROVAL**

**TO USE THE**  
**GENERAL CONTRACTOR/CONSTRUCTION MANAGER (GC/CM)**  
**or DESIGN-BUILD (D-B) ALTERNATIVE CONTRACTING PROCEDURE**

The CPARB PRC will only consider complete applications: Incomplete applications may result in delay of action on your application. Responses to Questions 1-8 and 10 should not exceed 20 pages (font size 11 or larger). Provide no more than six sketches, diagrams or drawings under Question 9. *(Note: A **Public Body** that is certified to use the GC/CM procedure and is seeking approval to use this procedure on a GC/CM project with a total project cost of less than **\$10 million** is not required to submit information for Questions 7 or 8.)*

**1. Identification of Applicant**

(a) Legal name of Public Body (your organization):

**City of Oak Harbor**  
**Public Works Department, Engineering Division**

(b) Address:

**865 SE Barrington Drive**  
**Oak Harbor, WA 98277**

(c) Contact Person Name: **Joe Stowell**  
Title: **City Engineer**

(d) Phone Number: **360-279-4520**  
Fax: **360-279-4507**  
E-mail: **sstowell@oakharbor.org**

**2. Brief Description of Proposed Project**

Please describe the project in no more than two short paragraphs.

The City of Oak Harbor must replace two aging wastewater treatment facilities with a new facility that meets modern standards for reliability and performance. This Project will replace existing facilities with a new facility that will allow the City to provide continued reliable wastewater service to the community of Oak Harbor while protecting and preserving the surrounding environment.

The City's wastewater system currently consists of two facilities: a rotating biological contactor (RBC) facility near Windjammer Park (RBC Plant), and a Lagoon Plant on the U.S. Navy Seaplane Base. Multiple alternatives were evaluated over a 2 year period to identify the best alternative to replace these facilities. The selected alternative consists of a new membrane bioreactor (MBR) treatment facility located in the vicinity of Windjammer Park, near the City's existing RBC plant. The Project will be completed in phases to accommodate existing and future flows and loads. Portions of the existing RBC plant must be kept in service throughout construction. The site is complex for a number of reasons, including: 1) challenging geotechnical conditions; 2) location relative to the 100-year flood plain; 3) adjacency to well-used public spaces; 4) potential for cultural resources to be discovered during construction; and 5) adjacency to existing commercial and other heavy traffic areas.

The treatment capacity of the initial phase of the Project is expected to be 2.7 million gallons per day (mgd). The estimated project cost for the initial phase of the WWTP is \$67.7 million in 2011 dollars. The project will include the following components:

- A new headworks (pumping and primary treatment) facility;
- Secondary treatment using the MBR treatment process;
- Disinfection with ultraviolet (UV) light;
- Solids treatment to Class A quality;
- Electrical service and primary/secondary distribution;
- Odor control;
- Associated non-process facilities (laboratory, administration, maintenance, etc.);
- Additional amenities/features selected by the City to allow the facility to fit within the surrounding environment.

**3. Projected Total Cost for the Project:**

*Note: By law, the D-B contracting procedure cannot be used unless the total cost of the project is over \$10 million. Although there is no total project cost requirement for using the GC/CM contracting procedure, every applicant must provide the information requested in Question 3.*

**A. Project Budget**

Treatment Plant Construction	\$51,400,000
Outfall Construction	\$2,300,000
Property Acquisition	\$2,000,000
Engineering, Legal, Admin	\$12,000,000
Total	\$67,700,000

**B. Funding Status**

Please describe the funding status for the whole project.

*(If funding is not available, please explain how and when funding is anticipated)*

The City has been taking steps to provide funding for the proposed wastewater treatment facility. A “Sewer Cost of Service Study” (Rate Study) (HDR, September 2010) recommended the wastewater treatment facility project to be funded by a combination of sewer reserves, capital paid directly by rates, with the remainder borrowed through revenue bonds. The Rate Study recommended ramping rates up each year over a nine-year period (2010 through 2018) to meet the estimated debt service payments.

With monthly sewer rates at \$36.52 per month in 2009, the Rate Study projected rates would need to be \$92.20 per month by 2018 to pay for the anticipated debt service. The surplus revenue generated by the rates would be set in reserve to reduce the amount of debt service required to fund the project.

Following the Rate Study, Ordinance 1587 established the first six years of rate increases set out by the study. By the year 2015 the monthly rate for sewer service

will be \$64.75. The City is currently updating the Rate Study and anticipates adopting a rate schedule that will extend through completion of the project.

In addition to rates and bonding, the City has submitted two applications for Clean Water State Revolving Funds. If successful, the City would receive low interest loans to help offset financing costs.

#### 4. **Anticipated Project Design and Construction Schedule**

Please provide:

- The anticipated project design and construction schedule, including (1) procurement; (2) hiring consultants if not already hired; and (3) employing staff or hiring consultants to manage the project if not already employed or hired. *(See Attachment B for an example schedule.)*

##### **Project Milestones:**

<b>Complete Facilities Plan</b>	<b>Q4, 2013--Complete</b>
<b>Preliminary Design</b>	<b>April, 2013-April, 2014</b>
<b>Submit PRC Application</b>	<b>Feb 21, 2014</b>
<b>PRC Presentation</b>	<b>March 27, 2014</b>
<b>Issue GCCM RFQ</b>	<b>March 28, 2014</b>
<b>Shortlist, Interview, Select GCCM</b>	<b>April 14-25, 2014</b>
<b>Final Design Phase, Preconstruction Servs.</b>	<b>April, 2014-April, 2015</b>
<b>Plant Construction, Commissioning</b>	<b>June 2015-Sept 2017</b>
<b>Plant Start up</b>	<b>Q4, 2017</b>

- If your project is already beyond completion of 30% drawings or schematic design, please list compelling reasons for using the GC/CM or D-B contracting procedure.

**N/A**

#### 5. **Why the GC/CM or D-B Contracting Procedure is Appropriate for this Project**

Please provide a detailed explanation of why use of the contracting procedure is appropriate for the proposed project. Please address the following, as appropriate:

For GC/CM projects:

- If implementation of the project involves complex scheduling, phasing, or coordination, what are the complexities?
- If the project involves construction at an existing facility that must continue to operate during construction, what are the operational impacts on occupants that must be addressed? *(Please identify functions within the existing facility which require relocation during construction and how construction sequencing will affect them. As part of your response you may refer to the drawings or sketches that you provide under Question 9.)*
- If involvement of the GC/CM is critical during the design phase, why is this involvement critical?
- If the project encompasses a complex or technical work environment, what is this environment?

- If the project requires specialized work on a building that has historical significance, why is the building of historical significance and what is the specialized work that must be done?

**The Oak Harbor Clean Water Facility meets four of the five GCCM criteria.**

**Complex phasing and scheduling is involved**

The most efficient, least-risk schedule involves starting the site development activities in the summer and fall of 2015 prior to completion of 100% construction documents as well as critical systems procurement including the Membrane Biological Reactor vendor. GCCM supports phased release and execution of bid packages. Subject to confirmation with our selected GCCM, we are currently planning several major bid packages: sitework, the MBR vendor, and possibly the mechanical and electrical contractors using MCCM and ECCM processes.

**The Project involves construction at an existing, operating treatment facility.**

Critical portions of this facility must be maintained in reliable operating condition throughout the construction phase.

**GCCM involvement is critical during the design phase**

In order to maximize the value of allocated funds, increase the financial and schedule predictability and coordinate the complex process control systems, GCCM involvement is critical

**The project involves complex and technical work environment**

Complex and technical systems within a waste water treatment environment include but not limited to: complex and challenging geotechnical conditions; elaborate earthwork, shoring, and dewatering requirements; integrated process control systems; MBR vendor selection; and work on a sensitive waterfront site.

**6. Public Benefit**

In addition to the above information, please provide information on how use of the GC/CM or D-B contracting procedure will serve the public interest. For example, your description must address, but is not limited to:

- How this contracting method provides a substantial fiscal benefit; or
- How the use of the traditional method of awarding contracts in a lump sum (the “design-bid-build method”) is not practical for meeting desired quality standards or delivery schedules.

**GC/CM will benefit the public by increasing predictability and reducing financial risks**

GC/CM delivery improved cost and schedule predictability beyond that available using Design-Bid-Build. With the core team members involved during design, cost comparison, value engineering and constructability review efforts are more accurate and more robust.

**A qualification-based contractor selection helps ensure quality execution**

Only a limited number of contractors have WWTP experience for a project of this scale and GCCM delivery will help ensure the contractor that builds this project is qualified and experienced.

**Planning, coordinating and executing complex building systems is best done with collaboration between designers and builders throughout the process.**

GCCM construction supports close collaboration during design, buyout, and construction and the use of modern technologies including Building Information Modeling, Virtual Design and Construction and early award of mechanical electrical subcontracts through ECCM and MCCM.

## 7. Public Body Qualifications

Please provide:

- A description of your organization's qualifications to use the GC/CM or D-B contracting procedure.
- A **Project** organizational chart, showing all existing or planned staff and consultant roles. *Note: The organizational chart must show the level of involvement and main responsibilities anticipated for each position throughout the project (for example, full-time project manager). If acronyms are used, a key should be provided. (See Attachment C for an example.)*
- Staff and consultant short biographies (not complete résumés).
- Provide the **experience and role on previous GC/CM or D-B projects** for each staff member or consultant in key positions on the proposed project. (See Attachment D for an example.)
- The qualifications of existing or planned for project manager and consultants. *Note: For design-build projects, you must have personnel who are independent of the design-build team, knowledgeable in the design-build process, and able to oversee and administer the contract.*
- The qualifications of an interim project manager until your organization has employed staff or hired a consultant as the project manager. Also indicate whether sufficient funds are available for this purpose and how long it is anticipated the interim project manager will serve. *Note: This information is required only if your organization has yet to select a project manager at the time of application.*
- A brief summary of the construction experience of your organization's project management team that is relevant to the project.
- A description of the controls your organization will have in place to ensure that the project is adequately managed.
- A brief description of your planned GC/CM or D-B procurement process.
- Verification that your organization has already developed (or provide your plan to develop) specific GC/CM or D-B contract terms.

**The City of Oak Harbor will be managing the project with a combination of experienced in-house staff supplemented by GC/CM consulting expertise with OAC and Carollo Engineers.**

The City Engineer, Joe Stowell is leading the overall design, siting, permitting and funding effort supported by Project Manager John Picconne. Both John and Joe will be involved during the pre-construction phase interacting with the designer and contractor.

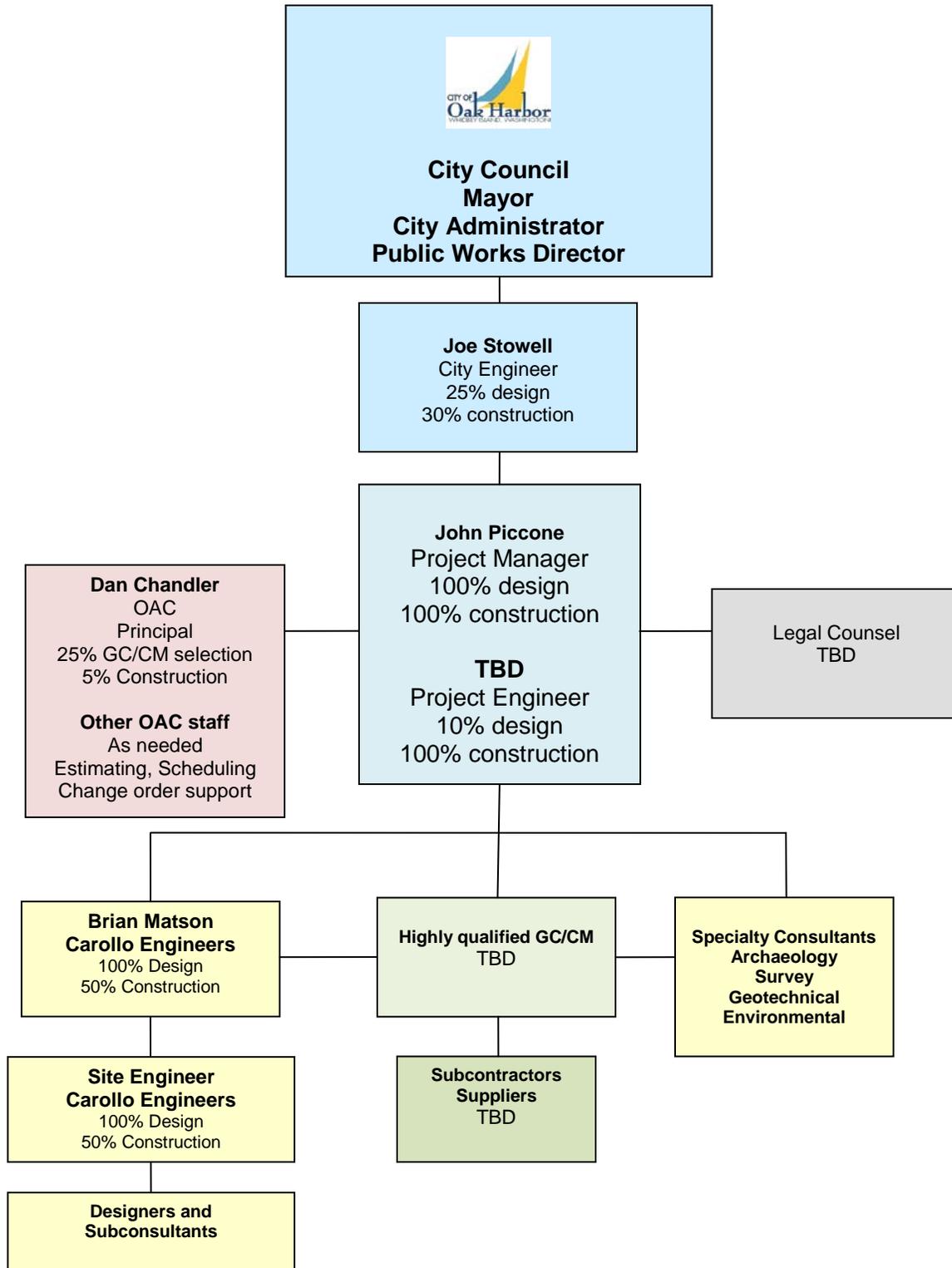
John will take the lead for the City on subcontractor and supplier buyout supported by OAC's Dan Chandler.

Dan will take the lead on GC/CM procurement including drafting procurement documents, leading discussion on evaluation, interviews and fee proposals.

Carollo's Brian Matson, an experienced GC/CM practitioner will help maximize the value of contractor involvement in pre-construction, buyout and execution.

Joe, John, Dan and Brian will collaborate with legal counsel in the development of contract language.

# Project Organization Chart



## **The Project Team**

### **Joe Stowell, City Engineer**

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Mr. Stowell has 18 years of experience as a professional civil engineer specializing in water and sewer capital improvement projects. Mr. Stowell has worked as project manager on several complex water and sewer expansion projects. Most notably, Mr. Stowell was responsible for managing a \$100 million water importation project in Reno, NV. As City Engineer, Mr. Stowell is responsible for planning and implementation of the City's capital improvement program. Mr. Stowell successfully collaborates with local businesses, citizens and the city government.

### **John Piccone, Project Manager**

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Mr. Piccone has 18 years of combined engineering and construction management experience. As a professional civil engineer he has managed numerous large civil infrastructure projects at the local, state and federal levels using traditional design/bid/build. Mr. Piccone has past experience as the civil project manager on several design build projects as well including the planning, design and construction phases of the work. In addition to his professional engineering experience; Mr. Piccone owned and operated a general contracting company for 7 years and his engineering experience is complimented with a thorough understanding construction management and the general contraction business.

### **City of Oak Harbor Project Engineer-Inspector**

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The City is fully committed to managing the project with adequate and capable staff members supported by Carollo Engineers and OAC Services for GC/CM procurement and management. In addition to Mr. Stowell and Mr. Piccone, the City plans to employ a full time project engineer-inspector to support the project during construction.

### **Brian Matson, Principal, Carollo Engineers**

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Brian is a Senior Project Manager at Carollo Engineers with nearly 20 years of experience in wastewater planning, design, and construction support services. Brian has served as the Project Manager on Oak Harbor's project since planning began in 2010. In the past eight years he has also managed a series of wastewater design projects that have led to facilities with a constructed value of nearly \$200 million. These include:

### **Site Engineer Carollo Engineers**

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In addition to specialty engineers and subconsultants assigned to the project, Carollo Engineers plans to have one full-time, on-site engineer to support the project during construction including design coordination, submittal reviews, quality assurance and other duties.

## **Dan Chandler, Principal, OAC Services**

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Mr. Chandler leads one of the region's premier project management consulting firms and will support the Oak Harbor Clean Water project with GCCM, ECCM and MCCM procurement, onboarding, contracting and GMP negotiations. A veteran of 36 alternative delivery projects including 22 GCCM projects, Mr. Chandler will work closely with the overall team to bring GCCM best practices to the project and help the City of Oak Harbor build its internal management capability.

## **Cost and schedule support staff, OAC Services**

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In addition to Mr. Chandler, OAC maintains a staff of 50 project management professionals including 12 staff members with GC/CM experience, Certified Cost Estimators and scheduling specialists. The City of Oak Harbor will have access to this support staff as needed throughout the design and construction period to review contractor-prepared estimates, proposed change orders, schedules and payment applications if needed.

### **Organizational Controls**

The City of Oak Harbor has existing project controls and reporting systems to effectively manage, the scope, schedule and budget for the project and is currently working with OAC and Carrollo to further develop systems for the Clean Water Project. Budget tracking tools will establish the overall detailed budget to be approved by the Oak Harbor City Council and then track actual expenses and forecast future costs. Schedule progress will be tracked against the master schedule.

### **Planned GC/CM Process**

The City of Oak Harbor is planning on utilizing a customized owner-contractor agreement along developed by legal counsel. In addition, Oak Harbor is planning on a comprehensive Pre-Construction Services scope of work and General Requirements (Division 01) that will be coordinated thoroughly with the contract agreement for the GC/CM construction procurement within Washington State.

Preparation of the GC/CM RFP and selection process will be based on an OAC standard form and modified with the latest lessons learned from other public owners. This process will include selection criteria, interviews and final selection evaluations.

The roles and responsibilities of the owner, construction management team, architect, and the GC/CM are defined and coordinated through a number of responsibilities and contractual requirements.

### **GC/CM Procurement**

Oak Harbor is planning on using a three-phased GC/CM selection model:

1. Public outreach followed by a Request for Qualifications
  - a. Focusing on relevant experience, proposed team and approach

- b. Short list for interviews—three, possible four firms
- 2. Extensive interviews, site and office visits
  - a. Focusing on team members proposed
- 3. Fee and Specified General Conditions Bidding
  - a. Focusing on competitive but reasonable fees

OAC and Oak Harbor will be comparing previous procurement approaches for refinement and implementation on this project.

**8. Public Body (your organization) Construction History:**

Provide a matrix summary of your organization's construction activity for the past six years outlining project data in content and format per the attached sample provided: *(labeled Att. 'E')*

- Project Number, Name, and Description
- Contracting method used
- Planned start and finish dates
- Actual start and finish dates
- Planned and actual budget amounts
- Reasons for budget or schedule overruns

**Please refer to Attachment B.**

**9. Preliminary Concepts, sketches or plans depicting the project**

To assist the PRC with understanding your proposed project, please provide a combination of up to six concepts, drawings, sketches, diagrams, or plan/section documents which best depict your project. In electronic submissions these documents must be provided in a PDF or JPEG format for easy distribution. Some examples are included in attachments E1 thru E6. At a minimum, please try to include the following:

- A overview site plan (indicating existing structure and new structures)
- Plan or section views which show existing vs. renovation plans particularly for areas that will remain occupied during construction.

*Note: applicant may utilize photos to further depict project issues during their presentation to the PRC*

**Please refer to Attachment C.**

**10. Resolution of Audit Findings on Previous Public Works Projects**

There have been no audit findings against the City of Oak Harbor on public works projects by the State of Washington for the past 10 years.

### **Caution to Applicants**

The definition of the project is at the applicant's discretion. The entire project, including all components, must meet the criteria to be approved.

### **Signature of Authorized Representative**

In submitting this application, you, as the authorized representative of your organization, understand that: (1) the PRC may request additional information about your organization, its construction history, and the proposed project; and (2) your organization is required to submit the information requested by the PRC. . You agree to submit this information in a timely manner and understand that failure to do so shall render your application incomplete.

Should the PRC approve your request to use the GC/CM or D-B contracting procedure, you also understand that: (1) your organization is required to participate in brief, state-sponsored surveys at the beginning and the end of your approved project; and (2) the data collected in these surveys will be used in a study by the state to evaluate the effectiveness of the GC/CM or D-B process. You also agree that your organization will complete these surveys within the time required by CPARB

Signature\_\_\_\_\_

Name (please print): Scott Dudley

Title: Mayor

Date: February 21, 2014

## ATTACHMENT “A” Team Experience

The following table lists some (but not all) of the relevant Alternative Delivery Experience of the Oak Harbor team.

Name	Summary of Experience	Projects	Construction Budget	Procurement Type	Role During Project Phases		
					Pre-Design	Design	Construction
Joe Stowell	City Engineer	SE Pioneer Way Reconstruction Project	\$8.5M	D/B/B	PM	PM	PM
		North Reservoir	\$5.5M	D/B/B	PM	PM	PM
		Vidler Water Importation Project	\$100M	D/B/B	PM	PM	PM
		Heppner Water System Expansion	\$7.5M	D/B/B	PM	PM	PM
		Spanish Springs Sewer Phase 1a	\$7M	D/B/B	PM	PM	PM
John Piccone, P.E.	Project Manager	VA Fuel Stations	\$1M	DB	PM	PM	PM
		Townsend Street Improvement	\$3M	D/B/B	PM	PM	PM
		Helena Aviation Readiness Center	\$55M	DB	PM	PM	NA
		Fort Harrison Infrastructure II & III	\$6M	D/B/B	PM	PM	PM
		MSU North Hedges	\$20M	DB	PM	PM	PM
Brian Matson, PE	Principal Carollo Engineers	Willow Lake WWTP, Salem OR	\$96M	CM/GC*	PIC	PIC	PIC
		Post Point WWTP, Bellingham	\$50M	GC/CM	PIC	PIC	PIC
		Everett WWTP Improvements	\$25M	GC/CM	PIC	PIC	PIC
Dan Chandler, PE, AIA	Principal, OAC Services PM CM Consulting Firm	Mason General Hospital	\$40M	GC/CM	PM PIC	PM PIC	PM PIC
		Nine Mile Falls Elementary Schools	\$19M	GC/CM	PM PIC	PM PIC	PM PIC
		Olympia City Hall	\$40M	D/B	PM PIC	PM PIC	PM PIC
		Six Clover Park Elementary Schools	\$140M	GCCM	PM PIC	PM PIC	PM PIC
		Norrhside Residence Hall, WSU	\$35M	DB	PM PIC	PM PIC	PM PIC

\*CM/GC is Oregon’s version of GC/CM

## ATTACHMENT "B"

### Public Project Experience

The following table lists some (but not all) of City of Oak Harbor capital projects executed from 2000-2014.

Project Name	Construction Costs		Delivery Method	Planning Start	Construction Start	Project Completion		Explanation of Budget or Schedule Overruns
	Planned	Actual				Planned	Actual	
Barrington Drive Extension	\$ .2M	\$ .2M	D/B/B	Feb-05	Oct-06	Feb-07	Jun-07	
Fort Nugent Park Phase 3	\$1.1M	\$1.1M	D/B/B	Mar-06	Jul-07	Jun-06	Nov-07	
SE Pioneer Way Water Main Replacement	\$ .3M	\$ .3M	D/B/B	Jan-02	Apr-08	Jun-08	Jun-08	
Scenic Heights Lift Station	\$1.1M	\$1.2M	D/B/B	Apr-05	May-07	Nov-07	Jul-08	
Lagoon Improvements	\$1.7M	\$1.6M	D/B/B	Feb-07	Oct-07	Apr-08	Aug-08	
NE 7th Sewer Extension	\$ .1M	\$ .1M	D/B/B	May-07	Sep-08	Oct-08	Sep-08	
SR20 Quiet Cove 24-inch Transmission Main Relocation	\$1.5M	\$2.0M	D/B/B	Sep-05	Jan-08	Jul-08	Nov-09	
Goldie Road Sewer Extension	\$2.1M	\$1.2M	D/B/B	Apr-08	Aug-09	May-10	Apr-10	
Regatta Water Extension	\$ .9M	\$ .5M	D/B/B	May-06	Jun-10	Aug-10	Aug-10	
Oak Harbor Street Reconstruction	\$2.0M	\$1.6M	D/B/B	Apr-05	Mar-10	Jul-10	Sep-10	
SE Pioneer Way Reconstruction	\$3.9M	\$4.4M	D/B/B	Apr-09	Feb-11	Sep-11	May-12	Archaeology
Gun Club Road Water Mains	\$2.4M	\$1.0M	D/B/B	May-09	May-12	Oct-12	Nov-12	
North Reservoir	\$5.5M	Under Const	D/B/B	May-09	May-13	Mar-14	N/A	

# ATTACHMENT "C"

## Site Plan and Preliminary Drawings

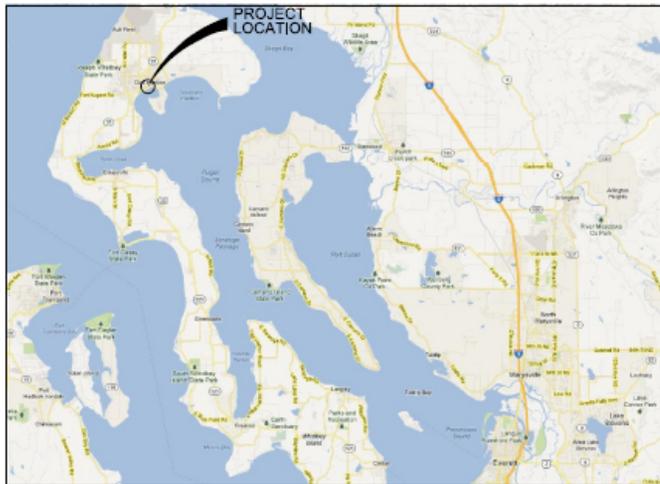
### CITY OF OAK HARBOR



# OAK HARBOR WASTEWATER TREATMENT PLANT

AUGUST 2013

# CONCEPTUAL DESIGN SUBMITTAL



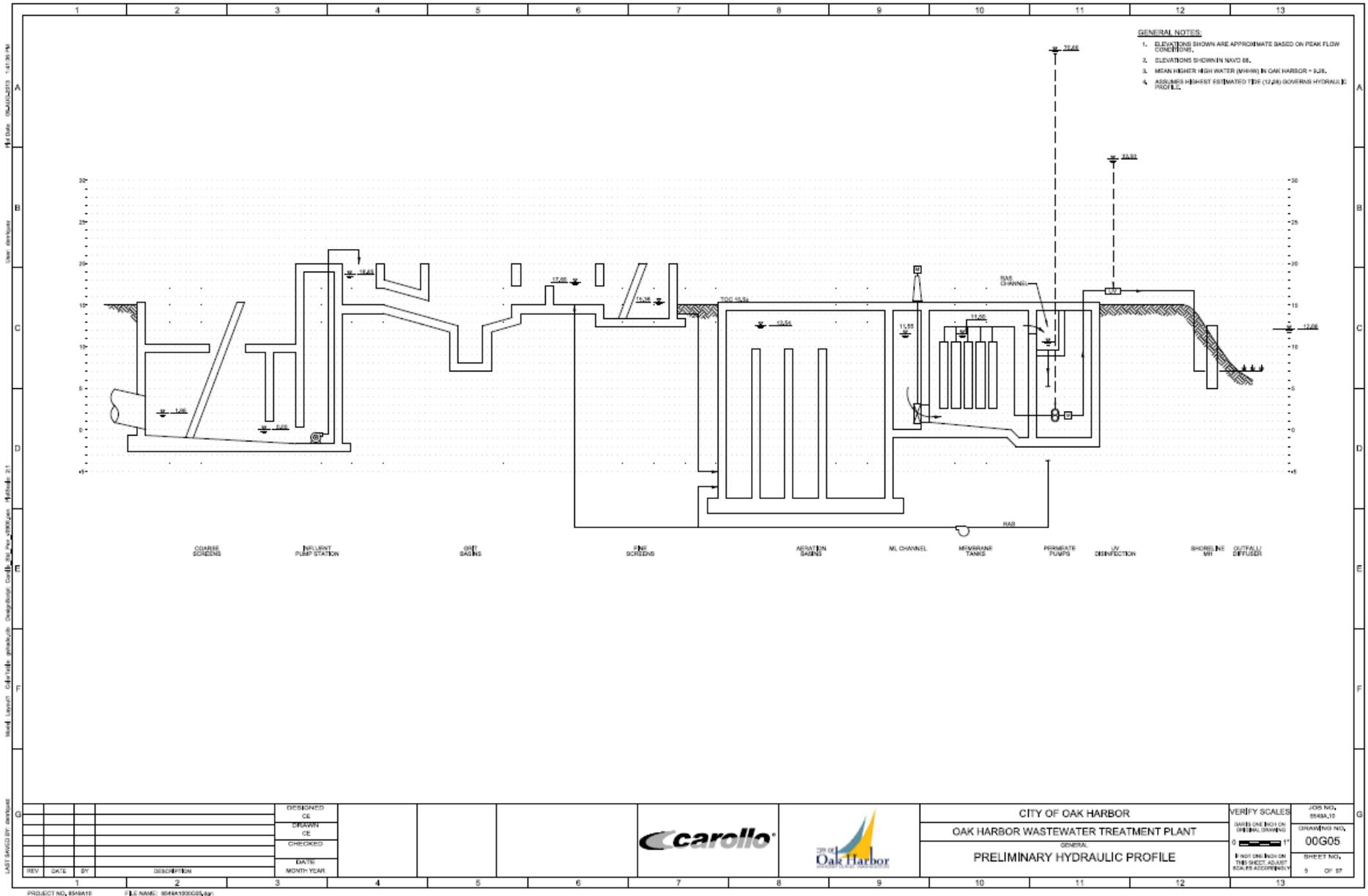
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LOCATION MAP  
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DRAWING NO.	00G01
SHEET NO.	1 OF 37



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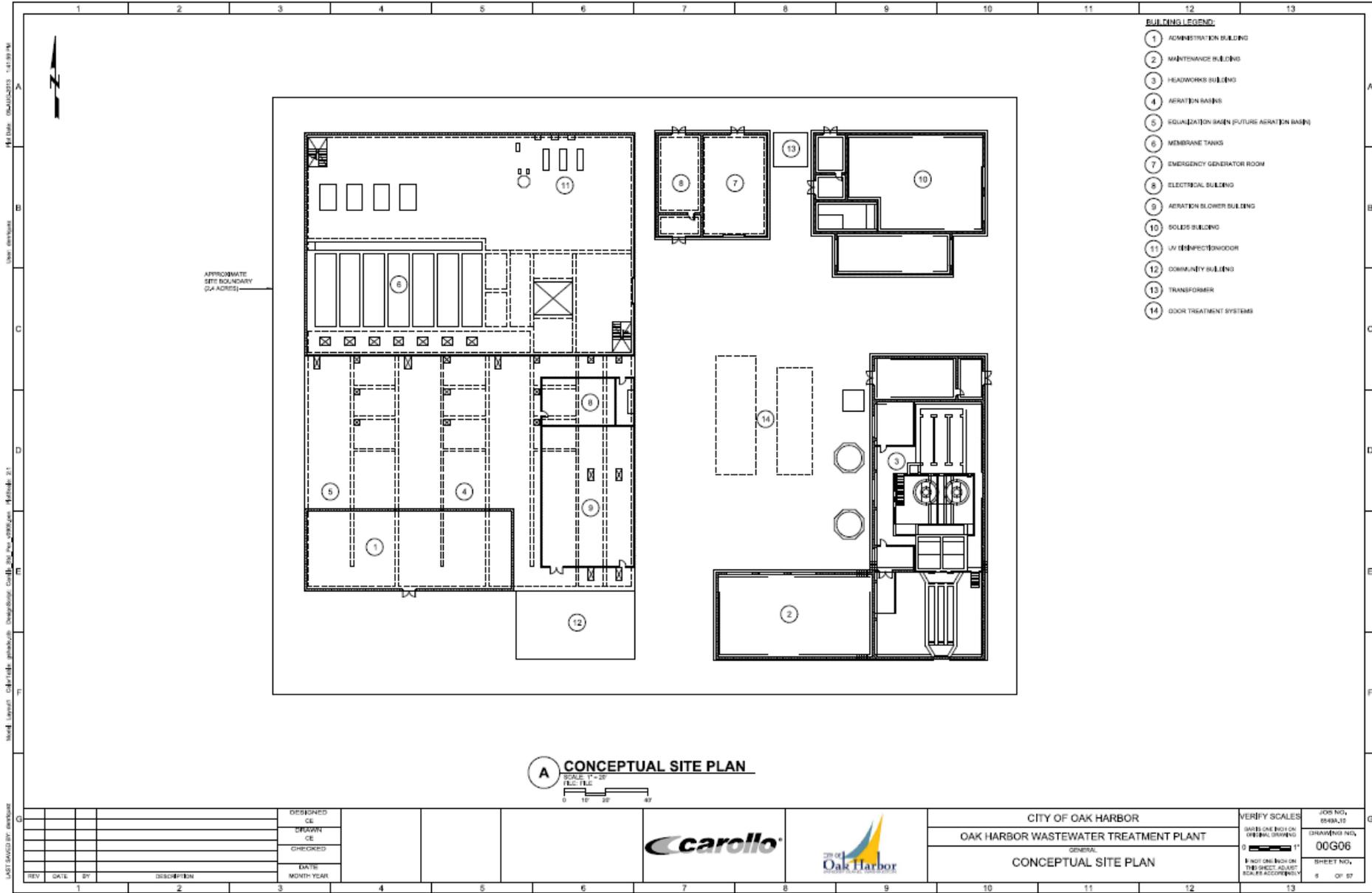
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CITY OF OAK HARBOR  
OAK HARBOR WASTEWATER TREATMENT PLANT  
GENERAL  
PRELIMINARY HYDRAULIC PROFILE

VERIFY SCALES	JOB NO.
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SCALE TWO INCH ON THIS SHEET ADJUST SCALES ACCORDINGLY	SHEET NO.
	5 OF 57

PROJECT NO. 058410      FILE NAME: 0544190005.dwg



- BUILDING LEGEND:**
- 1 ADMINISTRATION BUILDING
  - 2 MAINTENANCE BUILDING
  - 3 HEADWORKS BUILDING
  - 4 AERATION BASINS
  - 5 SQUARE AERATION BASIN (FUTURE AERATION BASIN)
  - 6 MEMBRANE TANKS
  - 7 EMERGENCY GENERATOR ROOM
  - 8 ELECTRICAL BUILDING
  - 9 AERATION BLOWER BUILDING
  - 10 SOLIDS BUILDING
  - 11 UV DISINFECTION HOOD
  - 12 COMMUNITY BUILDING
  - 13 TRANSFORMER
  - 14 ODOR TREATMENT SYSTEMS

**A CONCEPTUAL SITE PLAN**  
 SCALE: 1" = 20'  
 0 10 20 40'

REV	DATE	BY	DESCRIPTION

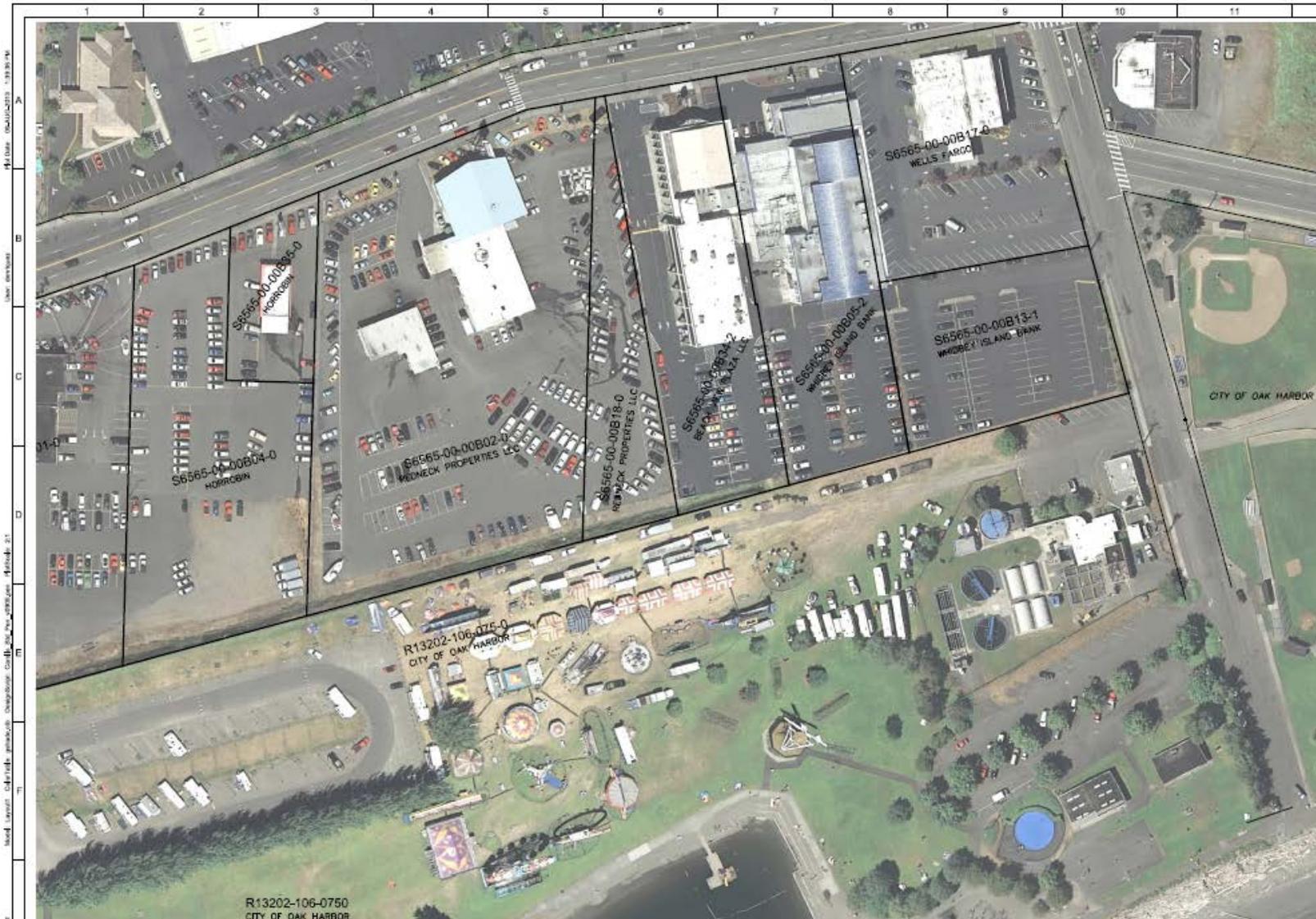
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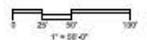
CITY OF OAK HARBOR  
 OAK HARBOR WASTEWATER TREATMENT PLANT  
 GENERAL  
 CONCEPTUAL SITE PLAN

VERIFY SCALES (BASED ON INCH ON ORIGINAL DRAWING)	JOB NO. / SHEETS
1"	00G06
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PROJECT NO. 0546410 FILE NAME: 0546410000.dwg



- GENERAL NOTES**
- GENERAL NOTES APPLY TO ALL CDD DRAWINGS.
  - ALL STRUCTURAL COORDINATES ARE TO OUTSIDE CORNER OF COLUMN OR BUILDING WALL UNLESS OTHERWISE NOTED.
  - ALL PIPING EXTERIOR TO THE LIMITS OF EXCAVATION FOR STRUCTURES SHALL BE TRENCHED PER TYPICAL DETAIL PERD AND THE SPECIFICATIONS UNO.
  - UNLESS SHOWN OTHERWISE, THE MINIMUM COVER DEPTH FROM FINISH GRADE TO TOP OF PIPE SHALL BE 3 FT.
  - ALL SUMP VALVES SHALL BE INSTALLED IN VALVE BOXES PER TYPICAL DETAIL PERD AND PEN.
  - VALVES THAT ARE MADE OF PLASTIC SHALL NOT BE USED IN BURIED APPLICATIONS EXCEPT FOR EXHAUSTION SERVICE.
  - UNLESS OTHERWISE INDICATED ON THE DRAWINGS, ALL PIPING SHALL HAVE A MINIMUM OF 12" VERTICAL AND HORIZONTAL CLEARANCE FROM NEAREST PERMANENT.
  - UNLESS OTHERWISE INDICATED, ALL POTABLE WATER LINES INCLUDING FIRE WATER SHALL BE INSTALLED A MINIMUM OF 10 FT HORIZONTALLY FROM AND 1 FT DEEPER THAN ALL NON-POTABLE LINES LOCATED PARALLEL TO THE POTABLE WATER LINES.
  - UNLESS OTHERWISE INDICATED, ALL POTABLE WATER LINES INCLUDING FIRE WATER SHALL BE INSTALLED A MINIMUM OF 1 FT DEEPER THAN ALL NON-POTABLE LINES CROSSING THE POTABLE WATER LINES.
  - LOCATOR WERE SHALL BE PROVIDED IN ACCORDANCE WITH THE SPECIFICATION PERD FOR ALL PIPING PER TYPICAL DETAILS 3000, PERFORM LOCATOR TEST FOR ALL WIPES.
  - ISOLATED PIPING SHALL HAVE UNDERGROUND WARNING AND LOCATION TAPS.
  - UNLESS SPECIFIED OTHERWISE IN THE SCHEDULE, ALL BURIED PIPING SHALL BE SELF-RESTRAINING, MECHANICAL RESTRAINT SYSTEMS THAT RELY ON WAFFLES, LIDS AND HOLES ARE NOT ACCEPTABLE.
  - ALL PIPING JOINTS SHALL BE MECHANICALLY RESTRAINED JOINTS, EXCEPT GRAVITY FLOW PIPING IN CONCRETE ENCASING, SUCH PIPING MAY BE UNRESTRAINED, THE USE OF TUBULE BLOCKS IS NOT ACCEPTABLE.
  - CONCRETE ENCASE PIPING LOCATED BENEATH STRUCTURES, CONCRETE SLABS, AND SIDEWALKS, PER TYPICAL DETAIL PERD.
  - CONTRACTOR SHALL INCLUDE IN THE BIDDING 20 GUARD POSTS IN ADDITION TO THOSE CALLED OUT ON PLANS INSTALLED PER TYPICAL DETAIL PERD, LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE OWNER PRIOR TO FINAL PAVING AND GRADING.
  - IN ORDER TO HYDROSTATIC TESTING, CONTRACTOR SHALL HAVE EACH PIPING SYSTEM PROPERLY RESTRAINED.
  - THE CONTRACTOR SHALL MAINTAIN AT ALL TIMES ADEQUATE DRAINAGE PATTERNING AT THE SITE, WATER SHALL NOT BE ALLOWED TO POND OR STAND DUE TO CONTRACTOR'S ACTIVITIES.
  - REFER TO SECTION 0140 AND OTHER APPLICABLE SECTIONS FOR WORK RESTRICTIONS AND CONDITIONS.



R13202-106-0750 CITY OF OAK HARBOR	
DESIGNED BY	
DRAWN AS	
CHECKED BY	
DATE	
REV	DATE
1	
2	

PROJECT NO. 858416	FILE NAME: 858416CDD.dwg
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CITY OF OAK HARBOR  
OAK HARBOR WASTEWATER TREATMENT PLANT  
VICINITY PLAN

VERIFY SCALES	JOB NO. 858416
SCALE ONE INCH ON SHEET EQUALS 10' 10/11	DRAWING NO. 10C01
IF NOT ONE INCH ON THE SHEET ADJUST SCALES ACCORDINGLY	SHEET NO. 9 OF 07

**City of Oak Harbor Clean Water Treatment Plant  
GC/CM Procurement Schedule**

