MEMORANDUM

TO: Town Council FROM: David E. Cox, Town Manager

DATE: July 7, 2022

SUBJECT: Agenda Information – 7/12/2022

The following is additional or summary information regarding matters on the upcoming Town Council Agenda. The numbering below follows the agenda, and some routine or self-explanatory items are not discussed in this memo. As you review your packet materials, please do not hesitate to contact the appropriate staff member or me prior to the Council meeting with any questions or concerns. Often, these conversations can help staff and me be prepared for the Council meeting and be ready to facilitate a more productive and efficient meeting for everyone.

7 Resolutions/Ordinances/Policies/Proclamations

7a Resolution regarding a Historic Document Preservation Grant – The Council is requested to adopt a Resolution accepting and authorizing execution of documents related to a Historic Document Preservation Grant received by the Town Clerk's Office. This year, the \$5,500 grant will be used to restore and preserve 21 maps in the records of the Town that have been evaluated as being in "poor" or "bad" condition. Through the grant work, the maps will be cleaned, including removal of residual tape, flattened, mended, mounted, trimmed as necessary and then encapsulated for future archive protection. The maps date from 1900 to 1946.

Recommendation: Approve the resolution.

8 Continued Business

8b Consideration of a waiver of competitive bidding and contract award for Stone Wall replacement – The Town Council is asked to consider a proposed contract to rebuild the existing stone wall along Lakeview Street (RT 196) in front of the residential property south of the Lakeview Cemetery. Further, as discussed at the last Council meeting, the Council is asked to consider waiving the competitive bidding process in favor of the three quotes that were received for the work. The required public notice regarding the potential waiver of competitive bidding was made. At the last meeting, Council discussed whether this work should be wrapped into the proposed Village Center sidewalk project, which is proposed for STEAP grant funding. Based on the timing of the STEAP grant process, the earliest the work would be performed would be spring of 2023. If allowed to proceed on its own, it is expected the stone wall work would be done this summer or fall. Further, it is noted that if the wall work is wrapped into the Village Center project, it will become subject to the prevailing wage rules applicable to large projects and, it can be expected, the price would increase somewhat, which would offset some of the potential savings. Further, the Council was asked to consider whether it wishes to use ARPA Funds or the Town's Capital Reserve funds for sidewalks on the wall replacement, which is Town Council - Agenda Information – 7/12/2022 July 7, 2022 Page 2

expected to cost \$33,500. If the project is included with the STEAP grant project, use of ARPA funds is specifically excluded.

Recommendation: Waive competitive bidding, award the contract and earmark ARPA funds for the project.

8c Consideration of a Full Time Parks and Recreation Program Lead – In follow up to a discussion that took place at the May 24 Council meeting, the Council is asked to authorize hiring a Full Time Program Lead for the Parks and Recreation Department. The position and its benefits would be 100% funded by program revenue and not general taxes. In the previous discussion, the Council was asked to consider a new combined position that wrapped the existing administrative position into a programing position under the title of Program Manager. That plan, which called for the administrative work to continue to be funded by taxes, has been dropped. The Department is seeking to expand the existing Program Lead position to full time in support of expanded programming.

Recommendation: Approve the full time position funded through program revenue.

9 New Business

9a Consideration of the RFP documents for Lake Pocotopaug Watershed Improvements – The Council is asked to consider and approve issuance of the bidding documents for watershed improvement projects to be funded using grants and from the Capital Reserve Fund. Projects for bidding that are funded with the Watershed grant include enhancements of ponds and detention basins on the Christopher Road property, Paul's and Sandy's Too and the Edgewater Pond ("Town Hall" pond), restoration and enhancement of a drainage area on Bay Road and enhancements to the creek and wetlands area near Edgemere Condominiums. Projects for bidding that are being funded through the Capital Reserve Fund include enhancement of the walkway and beach area of Sears Park and enhancements of drainage areas on Spellman Point and at the Brookhaven Park Beach.

Recommendation: Approve the two RFP/bidding documents.

The remainder of the items are of a routine nature, in the sole purview of the Council or are announcements. Please contact me or the appropriate staff member with questions or concerns.

Town of East Hampton Town Council Regular Meeting Tuesday, June 28, 2022 Town Hall Council Chambers and Zoom

MINUTES

Present: Chairman Mark Philhower, Vice Chairman Tim Feegel, Council Members Pete Brown, Brandon Goff, Eric Peterson and Alison Walck and Town Manager David Cox.

Not Present: Kevin Reich

Call to Order & Pledge of Allegiance

Chairman Philhower called the meeting to order at 6:30 p.m. in the Town Hall Council Chambers and via Zoom.

Adoption of Agenda

A motion was made by Ms. Walck, seconded by Mr. Feegel, to adopt the agenda as presented. Voted (6-0).

Approval of Minutes

A motion was made by Ms. Walck, seconded by Mr. Goff, to approve the minutes of the Town Council Regular Meeting of June 14, 2022 as written. Voted (6-0)

Public Remarks

None

<u>Presentations</u> None

Bids & Contracts

None

Resolution/ Ordinances/ Policies/ Proclamation None

Continued Business

Sub-Committee Reports & Updates

Mr. Cox reported that the Water Sub-Committee met with Environmental Partners and reviewed the Preliminary Engineering Report (PER). There will be conversations with the public in July. Water sources have been identified and need to be tested.

The American Rescue Plan Act (ARPA) Sub-Committee met prior to this meeting. More details will be discussed later in the meeting with the discussion on the water system and stone wall repair.

Follow Up on Ambulance Association Discussion

Mr. Cox received information from Barbara Moore on the ambulance boards progress. They have hired Holdsworth Group consultants who are evaluating their operations. The consultants are

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interviewing ambulance members and board members. They are also meeting with neighboring ambulance groups. The board has moved from quarterly meetings to monthly meetings.

Consideration of Adoption of Affordable Housing Plan

Jeremy DeCarli provided an overview of East Hampton's portion of the Affordable Housing Plan that will be included in the Regional Housing Plan. Suggested changes to the plan include removing section 2.5, 2.8 and 3.2.

A motion was made by Ms. Walck, seconded by Mr. Feegel, to approve the Affordable Housing Plan with the deletions noted above. Voted (6-0).

Water System

1. Review and Approve Scope of Services for Next Phase

2. Consideration of Supplemental Funding Using ARPA Funds

Mr. Cox provided an overview and reviewed the Preliminary Engineering Report Phase 2 Letter Proposal from Environmental Partners. The next phase will be water testing and the beginning of the work to design a system. Oakum Dock would be the main water source. Chairman Philhower would like to get the number of gallons needed to provide water to the full Village Center and the Route 66 corridor. There was a question about the Cobalt wellfields being in a flood plain and what work needs to be done to fix that issue. There was discussion of not including the Marlborough water location.

A motion was made by Mr. Goff, seconded by Mr. Feegel, to approve Phase 2 of the Preliminary Engineering Report in the amount of \$209,600 excluding the Marlborough water site. Voted (6-0)

A motion was made by Mr. Goff, seconded by Ms. Walck, to adopt the resolution to utilize \$7,000 from ARPA Funds to cover the shortfall from the grant for Phase 2 of the Preliminary Engineering Report. Voted (6-0)

<u>New Business</u>

Review & Possible Approval of Police Department General Order 5.3 - Equipment

Police Chief Dennis Woessner provided an overview of Police Department General Order 5.3 – Equipment which includes language specific to the equipment required to safely transport infants and young children in the appropriate child restraint system. Mr. Peterson questioned the use of unmarked vehicles for routine patrol.

A motion was made by Ms. Walck, seconded by Mr. Goff, to approve Police Department General Order 5.3 – Equipment as presented. Voted (5-0-1) Mr. Peterson abstained.

Review of Village Center Streetscape Improvements & Funding Sources (STEAP & TIF)

Jeremy DeCarli provided an overview of the Village Center Streetscape Improvements plan that was started last year with an intern. If the Council is comfortable with the proposed concept, staff would meet with the Village Center businesses and get their feedback. Staff would then seek a Small Town Economic Assistance Program (STEAP) grant to fund the first phases of the project.

The Council discussed the bike lanes and cars parking on the sides of the street in the Village Center. Mr. Goff asked about the repair of the Lakeview Street stonewall near the cemetery being added into this STEAP project. Mr. Philhower asked when the parking lot next to the Goff House became their property and not the town's property. Mr. Cox will check into this. The Council agreed that the concept of the plan as presented was acceptable as discussed.

Consideration to Waive Bidding and Award Stone Wall Repair Project

The Council is asked to consider a proposed contract to rebuild the existing stone wall along Lakeview Street near the cemetery. The Council is also asked to consider waiving the competitive bidding process. If that is approved, the Council will be asked to consider whether it would like to use ARPA funds or the Town's Capital Reserve funds for sidewalks. The project is expected to cost approximately \$33,500. Waiving the bidding process requires a legal notice to inform residents of the request.

A motion was made by Mr. Goff, seconded by Mr. Brown, to advertise the bid waiver for the stone wall that will be discussed at the July 12, 2022 meeting. Voted (6-0)

Discussion of 13 Summit Street Property

Following the recent tax sale, the Town will take ownership (following the redemption period) of the property at 13 Summit Street. Mr. Cox referred to the Request for Proposal that was issued last year, which outlines the intended plan for the buildings in that area. The intent is for the Town to use its grant resources and the resources of a potential developer to get the site cleaned and redeveloped into an acceptable private use.

Town Manager Report

Mr. Cox provided his written report for the Council members which will be included with the minutes filed in the Town Clerk's Office.

Appointments

None

<u>Tax Refunds</u>

A motion was made by Ms. Walck, seconded by Mr. Goff, to approve tax refunds in the amount of \$9,604.50. Voted (6-0).

Public Remarks

Fire Chief Greg Voelker, 18 Michael Drive, has complained previously to the Police Chief about the parking on both sides of the road in the Village Center. The Police Chief and Fire Chief should be consulted before the plan is finalized. Being a State road there is also a question of jurisdiction for this area.

<u>Communications, Correspondence & Announcement</u> None

<u>Adjournment</u>

A motion was made by Mr. Goff, seconded by Mr. Feegel, to adjourn the meeting at 8:11pm. Voted (6-0)

Respectfully Submitted,

Cathy Sirois Recording Clerk

PUBLIC WATER SUPPLY EVALUATION PRELIMINARY ENGINEERING REPORT

Town of East Hampton, Connecticut

June 2022





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APPENDIX A: Groundwater Desktop Exploration Technical Memo

SECTION 1 PROJECT OVERVIEW

On behalf of the Town of East Hampton (the Town), Environmental Partners CT, LLC (EP) has prepared this Preliminary Engineering Report (PER) for the proposed water supply exploration for the Town's proposed water system expansion project. The Town is seeking funding for developing and expanding its existing water supply system through the Drinking Water State Revolving Fund (DWSRF) Program as administered by the Connecticut Department of Public Health (CTDPH).

The DWSRF Program requires that the Town prepare this PER as the initial stage of the funding process. As part of this program, the CTDPH has developed an Engineering Report Application Checklist and we have structured this report to address all items documented in the checklist. EP prepared this report using information obtained during discussions with the Town, during site visits, and from the following Town reports:

- Proposed Municipal Water System Preliminary Engineering Report Dated January 2006
- Town of East Hampton Water Supply Plan Dated September 2010
- East Hampton Municipal Water System Environmental Site Assessment Dated July 2005
- The Need for and Feasibility of a Centralized Water System Dated July 2006

SECTION 1.1 PROJECT DESCRIPTION

The Town is seeking to design and construct a municipal water system to serve the residents of the Town of East Hampton. The Town of East Hampton, in Middlesex County, is located in the geographic center of the state of Connecticut and has a population of about 12,700. Currently, most East Hampton residents rely on private groundwater wells for their potable water supply. Over the past several decades, there have been several groundwater contamination events, rendering private groundwater wells within the Town unsafe for public use.

Additionally, there are several small, isolated water systems in East Hampton. These private water systems were built to serve housing developments or businesses. Additionally, two Town-operated water systems, the Village Center System and the Royal Oaks System, serve a portion of the Town's residents. The Town's Water Pollution Control Authority (WPCA) operates the existing water systems and is also responsible for operation and maintenance of the Town's sanitary collection and treatment system.

The Town is looking to establish a centralized water system to serve more residents along with current and future businesses in East Hampton. During discussions with CTDPH and other State officials, the Town has explained that the extension of the existing water system and development of existing and future water supply sources is essential for public health and future development. The Town has initiated this project with the understanding that the selection and location of future water sources will inform and impact the configuration, cost, and available quantity of water for the proposed system. EP has encouraged the completion of this initial phase of the project before beginning final system design.

SECTION 1.2 HISTORY OF THE PROJECT

The Town has been studying the need for and feasibility of a public water system for over half of a century. For decades, East Hampton's Water Sub-Committee has supported the development of a centralized, municipally-owned and operated water system. With this goal, the Town has conducted various water supply studies which yielded no potential surface water sources but several possible groundwater sources.

Section 1.2.1 Water System Expansion

The Town attempted to introduce a municipal water system in a 1962 referendum for the first time, but this effort failed. In 1963, a water district was established for East Hampton by Special Act No. 216 of the Connecticut Legislature. Then, in 1983, the Village Center area experienced a groundwater contamination issue, which triggered CTDPH to order the Town to provide the affected residents with potable drinking water. Shortly thereafter, in 1988, the Village Center area experienced another contamination event with high levels of trichloroethylene (TCE) in the groundwater, further highlighting the need for the Town to establish a potable water system. In 1992, the Town brought the Village Center Water System online to serve customers and businesses in the Village Center area of East Hampton following groundwater water quality issues which plagued the private wells operating in the area.

In 2005, the Town constructed the Royal Oaks System, which currently supplies water to 113 service connections, including the Memorial School and Center School. The Royal Oaks System has two groundwater supplies with treatment systems: one located at the Memorial School and the second located east and north of the Royal Oaks subdivision.

The WPCA supply and distribution system currently includes six wells, three atmospheric and three hydropneumatic storage tanks, various water treatment systems, and approximately 2 miles of water mains. The Town currently holds an Exclusive Service Area that encompasses the majority of the Town. Aquarion Water Company and Connecticut Water Company also have small Exclusive Service Areas coincident with their water systems within the Town of East Hampton. EP has provided a complete description of the existing water facilities in East Hampton in Section 3.

Section 1.2.2 Past Water Supply Planning

In 2000, the Town funded an Engineering Study to determine the feasibility of establishing a municipal water system from a hydraulic and environmental permitting standpoint. This study evaluated three potential water supply aquifers including the Salmon River, Pine Brook, and Connecticut River as potential water supply sources for the Town. Ultimately, the report confirmed that the most viable option was the Connecticut River aquifer due to CTDPH Diversion Permit restrictions and the potential yield of the three aquifers.

In 2004, the State of Connecticut directed the Town to produce an Initial Water Supply Plan (IWSP), which was a significant step towards establishing a comprehensive water system. The IWSP explored

possible siting options and retained the Town as the Exclusive Service Area provider for the Town of East Hampton. The Town updated its Water Supply Plan (WSP) most recently in September 2010 to discuss changes since the IWSP and its goals to expand its system to serve more of the Town's population.

Also in 2004, the Town developed and permitted the Cobalt Landing Wellfield. The well permitting process included performing a 5-day long pump test at the Cobalt Landing Wellfield, which established a pumping rate of 264 and 252 gallons per minute (gpm) for the two individual wells and an estimated safe yield of 743,000 gallons per day for the wellfield.

In 2006, the Town produced a Preliminary Engineering Report (PER) with Maguire Group, Inc., and this report documents the most recent attempt to establish a Town-wide water system. The PER recommended the most viable approach for constructing a Town-wide water system, which included a water supply source at the Cobalt Landing adjacent to the Connecticut River and Edgemere Wellfields. The report states that this supply option would provide ample water supply to a populous area of about six square miles of residences and businesses in the Town.

Additionally, the PER proposed one centralized water treatment plant, one wastewater pumping station, one water booster pump station, and two tanks. The 2006 PER divided the capital expenditures and facility construction into three phases. Phase I involved construction of water supply and treatment facilities as well as all associated distribution assets to serve an average daily demand of up to 0.75 million gallons per day (mgd). Phases II and III established the groundwork for constructing a water treatment and distribution system which could satisfy demands through the fifty year planning period.

Since the original PER, the planning period of fifty years has been shifted into the future. EP reviewed the original population and water demand projections and we believe that the 2006 projections are still valid due to limited population and business growth. Following discussions with the Town, EP believes that the limited growth is due to a lack of an expanded water supply and distribution system. With this project, the Town plans to build on the findings of the original PER to complete the current phase of its efforts to establish a municipal water system, which will be to establish safe and reliable water supply sources.

SECTION 1.3 PROJECT GOALS

The main goal of this project is for the Town to establish a centralized municipal water system and most importantly to provide the residents of East Hampton with reliable, safe drinking water. To do so, the Town has prepared this PER to present the alternatives considered and factors prioritized to select the most feasible and cost effective options for further exploration of supply sources for the proposed water system.

In order to establish a municipally-operated water system to serve the residents of East Hampton, the Town must first establish basic water system infrastructure to connect the Cobalt Landing

Wellfield to the Town center while also locating and constructing an additional water supply source to allow for and maintain consistent residential and commercial growth. After establishing viable water supply sources, the Town can better define, site, design and construct other water system components, including water supply, treatment, distribution, storage, pumping, and piping improvements. EP believes that the next crucial step for the Town is to establish its future viable water sources that are needed to supply growth through the 2070 planning year in advance of full system design. Therefore, we recommend that the Town establish future potential drinking water sources to better determine the general configuration of the water system, as well as establishing associated costs.

SECTION 1.4 REPORT ORGANIZATION

Section 1 provides a project description and project goals.

Section 2 describes existing environmental resources present in the project boundaries as well as population trends and community engagement approaches.

Section 3 details the Town's existing water system facilities.

Section 4 describes the need for constructing a centralized water system to serve the residents of East Hampton.

Section 5 discusses alternatives considered for establishing a water supply source.

Section 6 presents the preliminary project setup for the chosen water supply sources and associated permitting requirements, schedule, and cost estimates.

Section 7 presents a final conclusion and recommendations for the Town of East Hampton to pursue establishing a groundwater supply source.

SECTION 2.1PROJECT PLANNINGSECTION 2.1PROJECT LOCATION

The Town of East Hampton is 36.8 square miles in area. East Hampton is bordered by the Towns of Glastonbury, Marlborough, Colchester, East Haddam, Haddam, and Portland and the City of Middletown. East Hampton is bordered to the south west by the Connecticut River and contains multiple surface water bodies, the largest of which, Lake Pocotopaug, is located near the geographic center of town and in close proximity to East Hampton's Village Center area. Elevation within the Town of East Hampton ranges greatly from 10-feet to greater than 900-feet (NAVD) with lower elevations generally located in the southern portion of East Hampton, which progressively increase toward the north of town.

As of the 2020 US Census, the Town of East Hampton has 12,700 residents where the East Hampton Water Pollution Control Authority (WPCA) operates and maintains its public utilities. Currently, the WPCA provides the residents of East Hampton with sewer utility service. The WPCA maintains 113 water service connections through its Royal Oaks and Village Center water systems, while the remaining customers are served by private wells.

SECTION 2.2 ENVIRONMENTAL RESOURCES PRESENT

As previously mentioned, there are several surface water bodies within the borders of East Hampton. The WPCA's sole wastewater treatment plant discharges into the Connecticut River. The Town is planning to study the feasibility of establishing new water sources and intends to consider the environmental resources and potential impacts of establishing a groundwater water supply source at each potential site. The Town is also proposing to construct new water main and water system facilities within previously disturbed roadways and in undeveloped areas as a result of the future groundwater exploration and pumping studies.

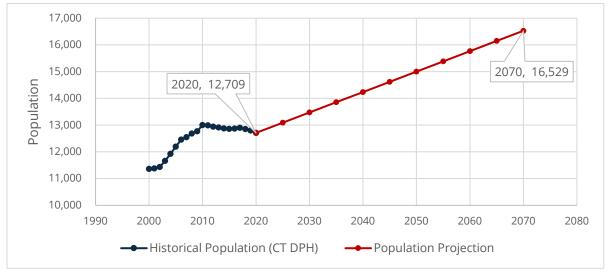
The Town will take precautions to protect environmental resources in project areas during all construction activities. To mitigate potential disruption to the chosen project sites and surrounding areas, EP will include specifications for all necessary environmental protection and sedimentation/erosion control measures in the construction plans and documents. The Town also plans to provide construction observations to provide a greater degree of confidence that the contractor follows these requirements and provides protection for surface and groundwater systems in East Hampton. Finally, the Town will submit all required environmental permitting documents during the final design phase.

SECTION 2.3 POPULATION AND DEMAND PROJECTIONS

Section 2.3.1 Population Trends

EP utilized US Census data and the Town's 2010 Water Supply Plan (WSP) to project future population and water consumption for the Town of East Hampton. As previously mentioned and documented in the 2010 WSP, the WPCA currently serves 113 service connections, which equates to about 1,377 people being served in some capacity by the WPCA. As documented in the Town's 2010 WSP, the existing water system also supplies the Center and Memorial Schools. According to US Census data, as of 2020, the Town of East Hampton has a population of 12,709, which represents a decrease of approximately 300 people since 2010. As discussed previously, EP believes that the lack of an expanded public water supply has likely limited or stalled commercial and residential development.

The 2010 WSP projected the population of East Hampton through the year 2060 using data from the Connecticut State Data Center (CT SDC). US Census data reveals that the population recorded in 2020 was actually 12,709, as opposed to the 2010 WSP projection of 12,500. The 2010 projection was 1.6 percent lower than the actual population. While the population of East Hampton has trended downward over the past decade, EP believes that the establishment of a centralized water system will likely promote community growth, and therefore we have conservatively realigned population projections with the growth rate originally calculated in the 2004 and 2010 WSPs. In the 2010 WSP, a population trend line was approximated based on the number and zone classification of undeveloped parcels within the Town. EP used the growth rate calculated in the 2010 WSP to project the population of East Hampton over the fifty-year planning horizon. **Figure 2-1** shows historical population documented by CTDPH alongside the projected population of the Town of East Hampton based on the previously mentioned methodology.





EP projected the population of East Hampton to be approximately 16,529 in 2070, the end of the fifty-year planning horizon. Based on the data in **Figure 2-1**, the Town of East Hampton would

benefit from establishing a centralized water system to promote community and economic growth. EP recommends that the Town establish a centralized water system that can meet the anticipated 2070 average daily demand (ADD) at a minimum. Under this scenario, the proposed water supply sources should provide supply in excess of all future anticipated demands through the 2070 planning period, which may depend on the service area boundaries to be established by the Town during the design process. **Section 2.3.2** documents detailed projected water demands.

Section 2.3.2 Water Demand Trends

EP utilized historical water consumption and population trends to analyze present and future water demands. According to the Town's 2010 WSP, the Town of East Hampton is primarily zoned as Residential Land with Town-wide, residential demands estimated at 75 gallons per capita per day (gpcd).

The WPCA currently serves about 2.2 percent of the Town's total population. Due to underutilized connections within the existing water systems, the Town estimates that the WPCA's existing systems are fully developed on the basis of water demand. According to WPCA production records, the WPCA produced a total of approximately 8.19 million gallons of water in 2021 between the Royal Oaks and Village Center Systems, amounting to an average daily demand of 22,425 gallons per day. The present water demand per capita of these systems is approximately 16.29 gallons per capita per day. This value is low when compared to standard residential demand per capita per day because some system users are encompassed in the institutional user category .

When the water system expands, EP projects that the system's ADD will be about 1.18 MGD at full buildout in 2070. The ADD projection is based on the increase in residential population, institutional and commercial growth, and the introduction of industrial demand to the system. With the limited water system expansion, EP believes that the 2010 WSP projected demands by service category were postponed and will begin to increase as shown in Table 2-1.

User Category	2021 (in gpd)	2025 (in gpd)	2040 (in gpd)	2070 (in gpd)
Residential	13,958	100,825	747,750	910,650
Institutional	2,000	2,200	35,000	43,300
Commercial	4,000	4,500	20,250	36,000
Industrial	-	-	24,750	45,000
Design Development	-	-	22,500	28,152
Public Authority	-	-	2,450	3,030
Total Revenue Water	19,958	107,525	852,700	1,066,105
Non-Revenue Water (%)	11%	10%	10%	10%
Non-Revenue Water	2,467	11,947	94,744	118,456
Total Consumption	22,425	119,472	947,444	1,184,561

Table 2-1: Projected Demands by User Category

To meet best industry practice and standards, the Town should size its water supply sources to meet peak demands. Typically, water systems experience maximum demands in the summer months, and without adequately sized supply and treatment facilities, the Town's authorities will need to exercise water curtailment restrictions. As established in the 2010 WSP, projected demands for the proposed municipal water system were calculated using a peaking factor of 1.21 for the maximum month demand and a peaking factor of 1.75 for the peak day demand. Based on this methodology, **Table 2-2** summarizes the projected water demands for East Hampton.

Year	Average Day Demand (gpd)	Maximum Month Demand (gpd)	Peak Day Demand (gpd)
2021	22,425	27,134	39,243
2025	119,472	144,561	209,076
2040	947,444	1,146,407	1,658,027
2070	1,184,561	1,433,319	2,072,982

Table 2-2: Demand	l Projections	through the	e Fifty-Year	Planning Horizon
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Total water demand for the Town's proposed system will be dependent on the established service area boundaries; however, based on the Town's goal of providing water to the greatest number of residents, according to the 2010 WSP, the maximum month and peak day demands for the Town are projected to be 1.43 and 2.07 MGD, respectively.

SECTION 2.4 COMMUNITY ENGAGEMENT

The Town and Water Sub-Committee plan to hold several Town Meetings about the project to inform their residents about the scope and intent of the project. To date, the Town Council and Water Sub-Committee have hosted several public meetings to discuss the Town's intentions to expand the WPCA's water system. The Town plans to schedule additional public meetings to present the project to the community and provide progress updates when appropriate and with assistance from EP.

SECTION 3 EXISTING FACILITIES

The Town issued Water Supply Plan documents in 2004 and 2010, which detailed the existing water system facilities within the Town of East Hampton. The East Hampton WPCA operates two separate water systems: the Royal Oaks System and the Village Center System. Additionally, there are multiple non-community water system facilities within the Town of East Hampton, mainly owned by private developments and water companies.

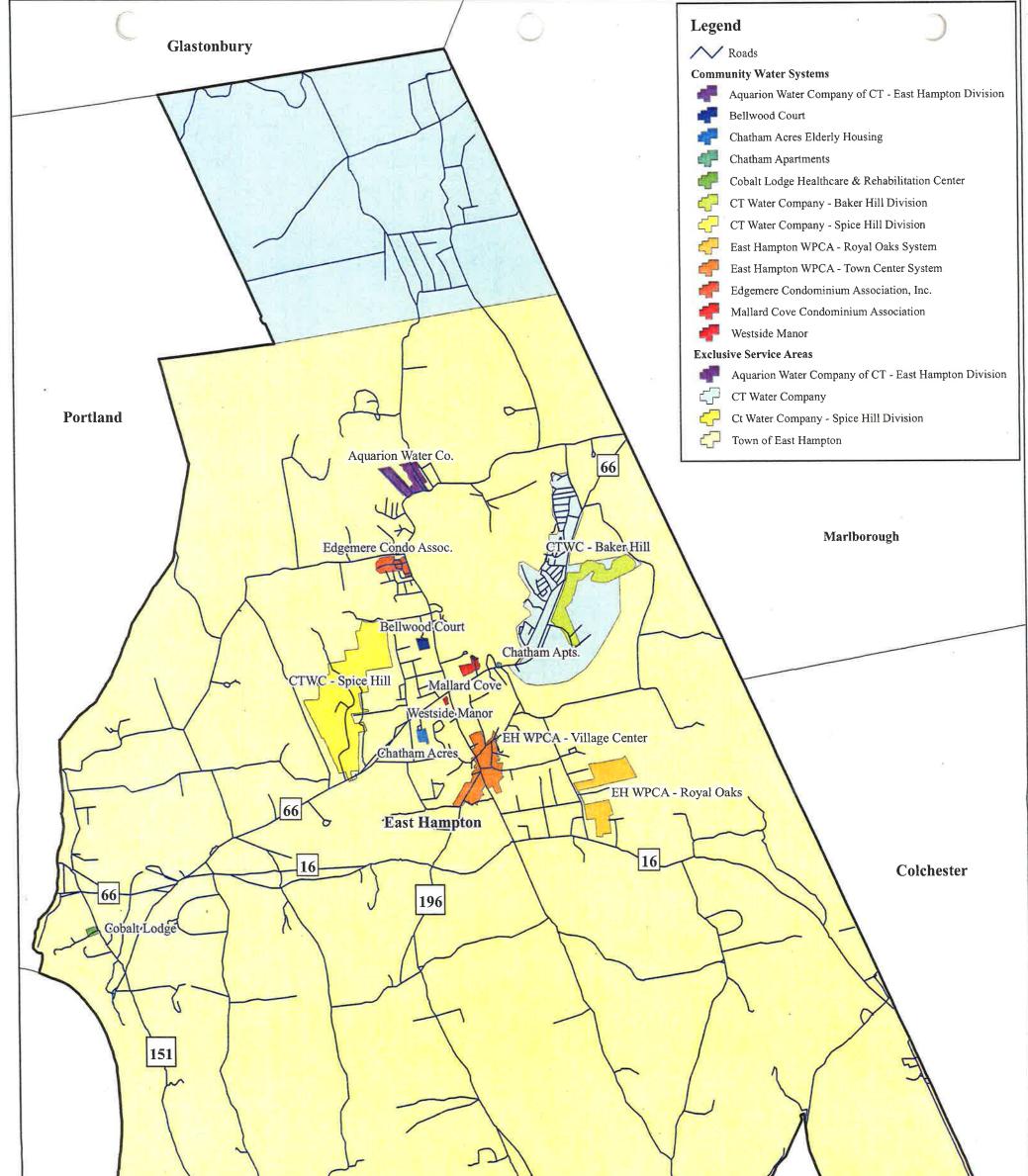
SECTION 3.1 COMMUNITY WATER SYSTEM FACILITIES

As previously mentioned, the East Hampton WPCA operates and maintains two water systems, the Village Center System and the Royal Oaks System. These systems serve 92 residential water service connections and 22 commercial and institutional water service connections. **Table 3-1** presents a breakdown of the customers served by the WPCA by category.

Category	Village Center System	Royal Oaks System	Total
Residential	10	82	92
Commercial/Public	20	0	20
Institutional	1	1	2
Total	31	83	114

Table 3-1: WPCA Service Connections by User Category

In addition to the two water systems owned by the WPCA, there are eleven public water systems within the Town of East Hampton, according to the CTDPH Community Water System list. **Figure 3-1** shows the existing community water system extents within the Town of East Hampton.



Middletown	Haddam	196	East Haddam	
Engineering, Landscape Architecture and Environmental Science		tems & Exclusive Service Areas	LOCATION: East Ha	mpton, CT
99 Realty Drive Cheshire, Connecticut 06410 (203) 271-1773 Fax: (203) 272-9733 www.miloneandmacbroom.com	MMI#: 3083-06 MXD: H:\AppFig1.mxd SOURCE: CT DEP, CT DPH	N Town of East Hampton Water Supply Plan	Map By: SJB Date: 9/17/2010 Scale: 1:42,000	SHEET: Appended Figure 1

Section 3.1.1 Water Supply

WPCA-Owned Existing Water Supply

The Royal Oaks and Village Center Systems, owned and operated by the WPCA, utilizes groundwater wells to supply their respective systems. According to the 2010 WSP, the Royal Oaks System currently contains four groundwater wells: Well #1, Well #3, Well #4, and the Memorial School Well. Combined, these wells have a total safe yield of 39,852 gallons per day.



Photo 1: Royal Oaks Wellfield

The Village Center System currently contains two groundwater wells: Well #1 and Well #2, with a total safe yield of 55,080 gallons per day according to the 2010 WSP.

As previously mentioned, the Village Center and Royal Oaks Systems have ample present and future water supply capacities. **Table 3-2** details the specific physical characteristics for each well.

		Royal Oak	Village (Center System		
_	Well 1	Well 3	Well 4	Memorial School	Well 1	Well 2
Location	Royal Oaks	Royal Oaks	Royal Oaks	Memorial School	Basement of Center School	Behind Baseball Backstop at Center School
Туре	Bedrock – drilled	Bedrock – drilled				
Diameter	6-inch	6-inch	6-inch	8-inch	6-inch	8-inch
Depth	405 feet	405 feet	405 feet	N/A	160 feet	300 feet
Pumping Capacity	9.9 gpm	9.9 gpm				
Safe Yield	9.0 gpm	9.0 gpm	9.0 gpm	N/A	23 gpm	28 gpm

Table 3-2: WPCA-Owned Well Characteristics

Pump capacity for each community water system not owned by the WPCA is variable by system. Section 5 presents information on available water supply for existing community systems

Cobalt Landing Wellfield

In addition to the six wells utilized by the WPCA for water supply, the WPCA owns two wells at the Cobalt Landing Wellfield, in close proximity to the Connecticut River. The WPCA drilled these two wells in 2004 to determine the available water supply at this location in case of future water system expansion. The wells at the Cobalt Landing Wellfield are permitted to supply up to 0.90 MGD, but are not currently operational or connected to any customers. EP discusses the Cobalt Landing Wellfield further in **Section 5. Figure 3-2** shows the existing conditions at the Cobalt Wellfield Site.



Photo 2: Cobalt Wellfield Existing Conditions

Section 3.1.2 Water Treatment Facilities

The WPCA operates three treatment facilities: one for the Village Center System and two for the Royal Oaks System. The unit processes at the Village Center System treatment facility include initial sodium hypochlorite addition for oxidation of metals, potassium carbonate addition for pH adjustment, alkalinity adjustment, and softening, Greensand filtration for removal of metals, granular activated carbon (GAC) adsorption for PFAS removal, and final sodium hypochlorite addition for residual disinfection. The treatment facility for the Village Center System is located in the Center School. Following treatment, water enters the distribution system.

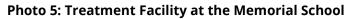


Photo 3: Treatment Facility for the Village Center System

Similar treatment chemicals are used for treating the raw water supplied by Wells No. 1, 3, and 4 in the Royal Oaks System. The unit processes at the Village Center System treatment facility include initial sodium hypochlorite addition for oxidation of metals, potassium carbonate addition for pH adjustment, alkalinity adjustment, and softening, Greensand filtration for removal of metals, granular activated carbon (GAC) adsorption for PFAS removal, and final sodium hypochlorite addition for residual disinfection. The Memorial School Well pumps water into its own treatment facility within the Memorial School; the treatment process for this water is a dosage of soda ash and treatment via GAC for PFAS removal before being discharged to the school and distribution facility.



Photo 4: Treatment Facility for the Royal Oaks System





Section 3.1.3 Storage Facilities

The WPCA operates three tanks between their two systems. The Village Center System utilizes one 40,000-gallon concrete atmospheric tank. The Royal Oaks System utilizes two steel atmospheric storage tanks, with a storage capacity of 15,000-gallons each. The Town cannot provide adequate fire protection with its current available storage facilities.

Section 3.1.4 Water Distribution System

The WPCA currently owns and maintains 10,575 feet, or 2.00 miles of water main. All water mains, with the exception of transmission main, are installed within the roadway right-of-ways and beneath roads. The WPCA finances, designs, and constructs all water main within their systems. System developers pay for water main installed for other community water systems, which are approved by the WPCA. **Table 3-3** details the existing water main characteristics within the WPCA's water systems.

	Street	Diameter (inches)	Material	Length (feet)
	Joseph Court	8	DI	180
c	Julia Terrace	8	DI	540
sten	Mathieu Lane	8	DI	1860
is Sy	Nicholas Court	8	DI	180
Oak	Rachael Drive	8	DI	250
Royal Oaks System	Ray Lane	8	DI	230
Ā	Royal Oaks Avenue	8	DI	1700
	Smith Street	12	DI	840
E	Bevin Boulevard	12	DI	130
yste	Main Street	12	DI	1025
ter S	Skinner Street	12	DI	1070
Cen	Summit Street	12	DI	890
Village Center System	Walnut Avenue	12	DI	720
Vill	Waltrous Street	12	DI	960

Table 3-3: WPCA-Owned Distribution System Characteristics

Due to the location and higher elevations of the Royal Oaks and Village Center Systems, the hydraulic grade line is relatively high compared to the elevation range within the Town of East Hampton. The Village Center System serves customers at ground level elevations ranging from 360 feet to 420 feet. The Royal Oaks System serves customers at ground level elevations ranging from 505 feet to 600 feet.

The WPCA's distribution system cannot provide fire protection. In the event of a fire, the Town utilizes hydrants connected to surface waters and other methods of fire protection. **Section 4** describes fire protection within the system.

SECTION 3.2 NON-COMMUNITY WATER SYSTEMS

In addition to the thirteen community water systems in the Town of East Hampton, there are 42 non-community water systems within the Town. By definition, these water systems are considered to be non-transient systems, which regularly serve at least 25 people over six months of the year, or transient systems, which serve customers who do not remain for long periods of time.

SECTION 4 NEED FOR THE PROJECT

The need for this project is well documented in past reports and studies of the system. Establishing a centralized water system for the residents of East Hampton would be mutually beneficial for its potential customers and for the WPCA. Both the community and non-community systems within the Town have experienced a history of deficiencies, which could be remedied by a centralized water system. By developing a centralized water system, the Town will enhance supply reliability, maintain public safety, promote community growth, and support the Town's overall health and well-being.

SECTION 4.1 BENEFITS TO PUBLIC HEALTH

Many areas within the Town of East Hampton have experienced a history of groundwater quality issues. As most of the Town is served by private wells on each resident's property, groundwater pollution is of great concern for East Hampton.

The Town has suffered from a history of widespread groundwater contamination originating near the Village Center and later in the WPCA's wells. As documented by the CTDPH, the Chatham Health District has also reported contamination in private wells regularly. When first establishing the Village Center System, the Town's primary goal was treating groundwater that was contaminated with volatile organic compounds, including hydrocarbons, PFAS, and methyl-tert-butyl-ether (MTBE), a gasoline additive. Even with the few satellite treatment systems online, the WPCA still faces water quality and quantity issues, including naturally occurring factors such as bacteria and iron and manganese presence in the raw water supply, as well as unreliable water supply during droughts.

As of 2006, most community water systems not operated by the WPCA are in violation of drinking water codes and regulations, as presented in the *Need and Feasibility of a Centralized Water System for East Hampton* report. These non-compliance events are magnified by the administrative burden placed on the CTDPH to monitor water quality data and issue violations. This issue is ongoing, as private well owners are rarely required to test their drinking water for regulated contaminants, if at all. By establishing a centralized water system, the WPCA can relieve residents of requirements to monitor and treat their water by delegating this task to trained operators.

Unreliability of potable water is a health concern. By expanding its existing water system, the WPCA will establish redundant water supply sources and improve fire protection for the residents of East Hampton. Additionally, by consolidating water system ownership to the WPCA, the Town can reduce cost per gallon of operation by optimizing system operations, instead of relying on the owners and operators of each private water system.

Finally, the WPCA currently faces fire flow deficiencies throughout the Town. The Town's firefighting ability is restricted to tanker-truck and some surface water sources. By developing and extending the existing water system, the WPCA will extend the distribution system with more hydrants and construct storage tanks with sufficient fire flow storage to enhance fire protection capabilities for the residents of East Hampton.

SECTION 4.2 COMMUNITY GROWTH

As discussed previously, the WPCA cannot expand its water customer base with the current water supply and treatment capabilities in the Village Center and Royal Oaks Systems. Therefore, EP does not anticipate increasing development and corresponding water demands over the next few decades within these existing systems. By establishing a centralized and expanded water system, East Hampton can prepare for and promote overall residential and commercial growth.

As mentioned in **Section 2**, the Town of East Hampton experienced a decline in population over the past decade. While population has declined, the Town anticipates future residential and commercial sector growth, if the water system is expanded. Without increasing its drinking water supply and extending the distribution system, the Town cannot rely on the existing water supply facilities and private wells with water quality issues while also encouraging future economic development within East Hampton. As discussed, the Town cannot develop future residential and commercial areas due to the lack of adequate water sources within the Town.

As the community continues to grow, the Town has expressed interest in retaining its Exclusive Service Area rights to the Town of East Hampton. To avoid forfeiting these rights, the Town must take action to provide its residents safe and reliable drinking water via its own system by developing existing and new water supply sources and expanding the distribution system.

SECTION 5 ALTERNATIVES CONSIDERED

In this section, EP describes the potential alternatives for water supply sources, which is the foundational step in developing a centralized municipal water system. The Town initially explored proposed water sources and assessed future growth and development while preparing the following planning evaluations:

- 2004 Initial Water Supply Plan,
- 2006 Preliminary Engineering Report, and
- 2010 Water Supply Plan.

EP has further described and modified these potential alternatives for future water supply sources in this report. EP is proposing the exploration of two additional sources of water to serve as many people as possible in the Town of East Hampton while remaining financially and geographically feasible.

EP evaluated several sources of water supply within the Town of East Hampton. Following discussions with the Town of East Hampton's Water Sub-Committee, EP examined the following considerations for establishing water supply sources:

- Land Ownership
- Redundancy of Supply
- Presence of Existing and Potential Contamination
- "Permitability" with Connecticut State Departments
- Adequacy of Water Supply Volume Available

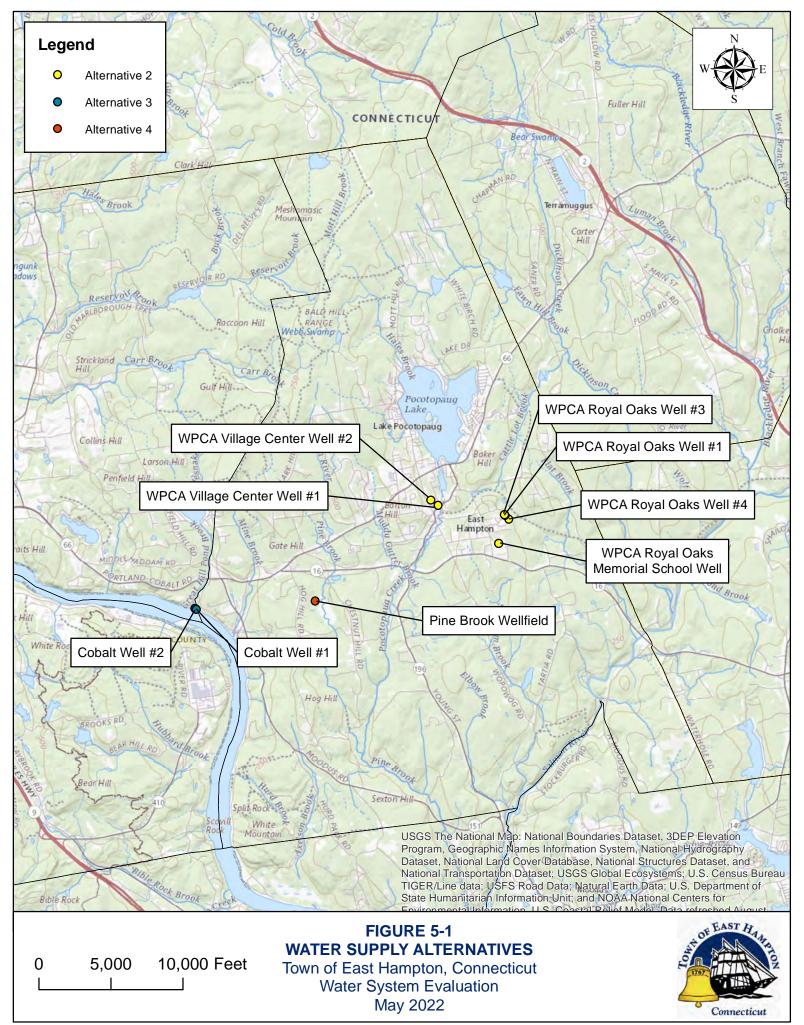
EP completed a desktop groundwater evaluation of potential water sources within the Town of East Hampton using the aforementioned considerations. EP first limited potential sites to land owned by the Town or the State of Connecticut, including parcels which may be purchased by the Town for water supply. Next, EP evaluated the surficial geology and aquifer potential of the Town- and Stateowned parcels within the Town of East Hampton. EP also sifted through the remaining viable sites to further analyze sites only with non-regulated groundwater and without contamination. Finally, EP chose sites for further exploration that were classified as open space and had little to no environmental impacts. The full methodology for the desktop groundwater evaluation is presented in Appendix A.

Following extensive research and discussions with the Town, EP presented the following water supply alternatives for further exploration:

- 1. Alternative 1 No Action
- 2. Alternative 2 Combine Existing Water Systems
- 3. Alternative 3 Connect Cobalt Landing Wellfield
- 4. Alternative 4 Develop Pine Brook Wellfield

5. Alternative 5 – Evaluate Water Supply Interconnections with Adjacent Water Suppliers

Figure 5-1 shows the location of each water supply alternative explored within the Town of East Hampton.



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SECTION 5.1 ALTERNATIVE 1: NO ACTION

Section 5.1.1 Description

EP evaluated the "No Action" alternative, in which the WPCA would continue to operate its Royal Oaks and Village Center Systems, community systems would remain operationally separate, and customers without municipal water service would continue to utilize private wells.

Section 5.1.2 Advantages

For the "No Action" alternative, the Town would not incur any new capital costs or disrupt residents or traffic patterns in any of the proposed areas because there would be no construction. This approach eliminates any potential short-term construction-related and work force problems. Additionally, this alternative would not have any adverse side effects to ecological and natural factors because no construction would occur.

Section 5.1.3 Disadvantages

Without further developing the municipal water system, the residents and businesses of East Hampton continue to be susceptible to water quality and available fire flow concerns. This approach would perpetuate public safety concerns related to limited or no available potable drinking water supply within the Town for consumption if water quality issues arise as they have historically. The Town has been concerned with a resurgence of issues as contaminated groundwater plumes migrate towards established private and community groundwater supply sources.

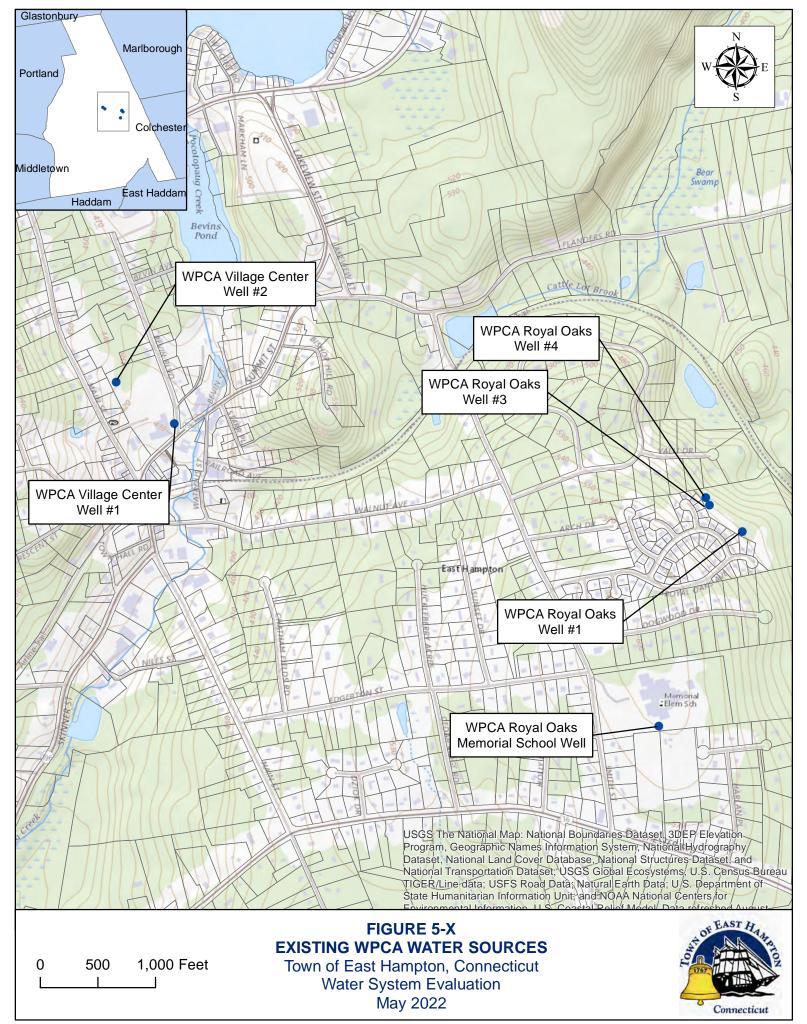
SECTION 5.2 ALTERNATIVE 2 – COMBINE EXISTING WATER SYSTEMS

Section 5.2.1 Description

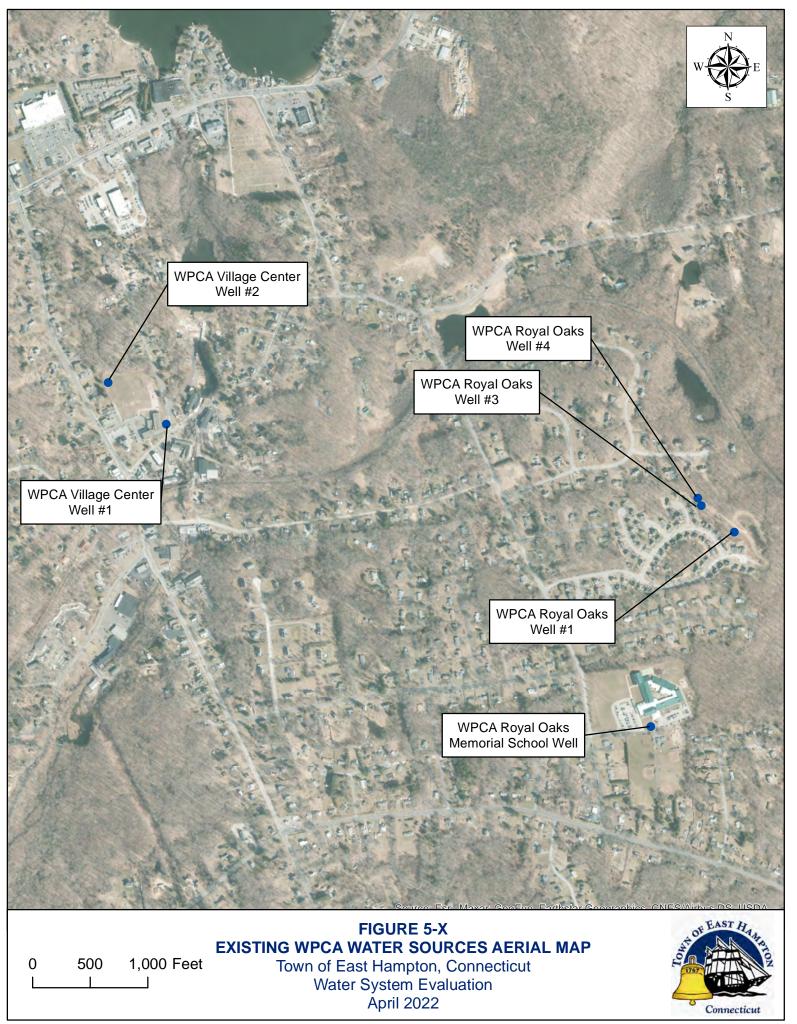
EP evaluated combing existing community water systems to centralize the Town's water system and consolidate current water supply sources. As described in Section 3, the Town's WPCA currently owns and operates six groundwater wells which currently serve the Village Center and Royal Oaks Systems. The combined safe yield available from the existing wells in the Royal Oaks System is 27.0 gpm, equivalent to 39,852 gallons per day. The combined safe yield available from the existing wells in the Village Center System is 51.0 gpm, equivalent to 55,080 gallons per day. Currently, the safe yield of the Village Center System wells is almost double that of the Royal Oaks System wells.

Location

The existing WPCA wells are located near the geographic center of East Hampton, near the village center area of Town. The existing Village Center Wells are located at 7 Summit Street on a Townowned parcel. The existing Royal Oaks Wells 1, 3, and 4 are located in the parcel behind the residential properties on Matheiu Lane. The Royal Oaks Memorial School Well is located on the property of the Memorial School building. **Figure 5-2** provides the USGS map of the WPCA well locations and **Figure 5-3** presents the aerial map of the WPCA wells.



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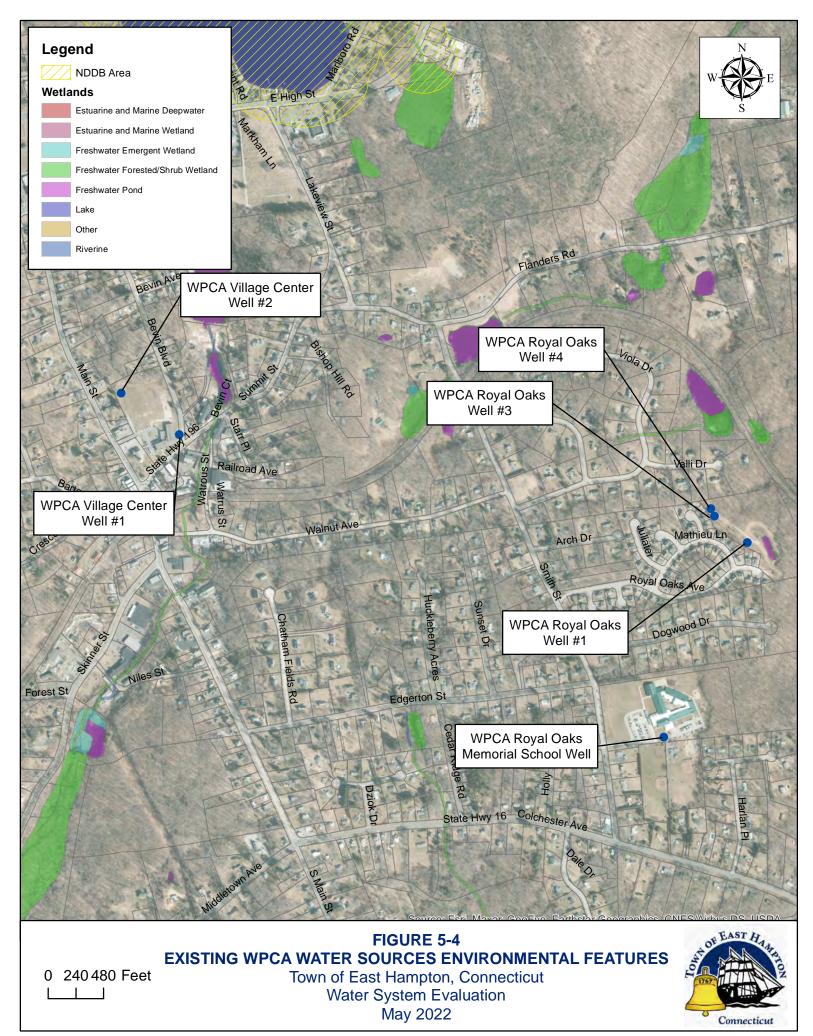


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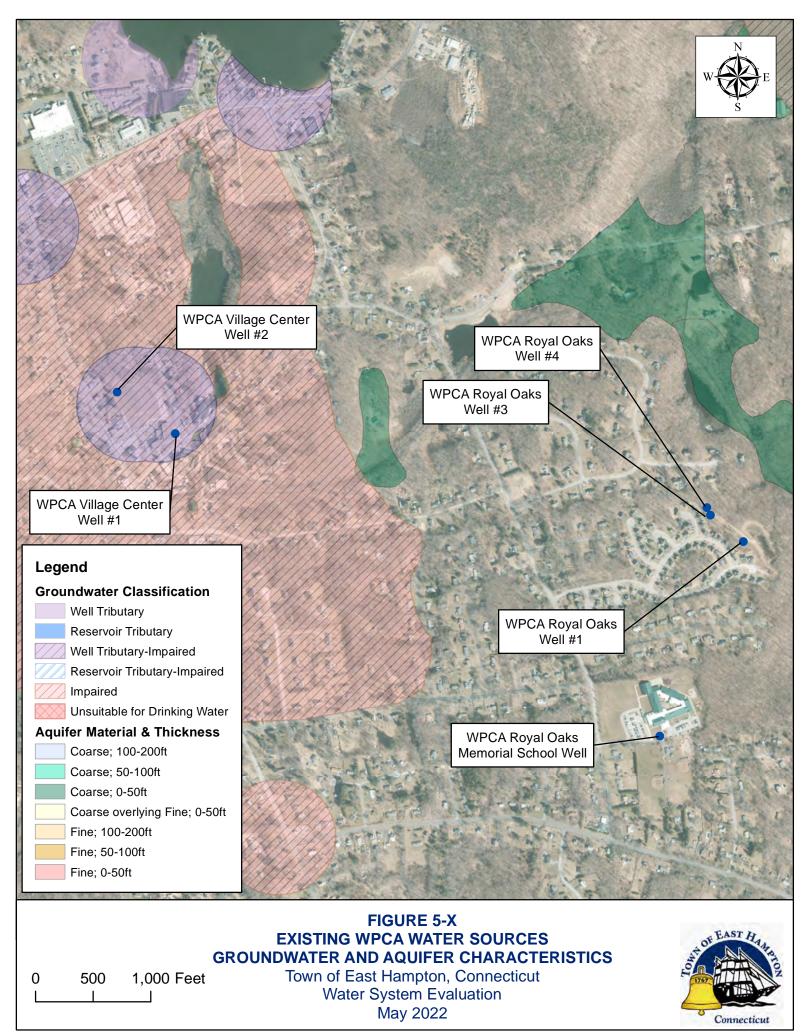
Environmental Factors and Groundwater Evaluation

EP anticipates very minimal impact to environmental resources during the construction of this alternative, which will primarily include the installation of water mains to connect the existing water systems. All construction activities will occur within the roadway right-of-way and in previously disturbed areas. **Figure 5-4** shows the environmental resources located in the proposed project area based on the Connecticut Department of Energy and Environmental Protection (CTDEEP) GIS Open Data Layers. If the Town decides to carry out this alternative through construction, EP will assist the Town with filing all required environmental permitting as needed during the final design phase. The Town will also include detailed erosion and sediment control measures in the Contract Documents while observing all construction work with a Resident Project Representative (RPR).

Additionally, EP evaluated groundwater quality and aquifer material at the sites. While the existing WPCA wells have been functional for several years, evaluating proximity to contamination points and other groundwater quality concerns is important in determining the longevity of combining the existing WPCA systems as a solution for establishing a centralized water system. As shown in the following figure, the Village Center Wells are located in an impaired area. **Figure 5-5** shows the existing Royal Oaks and Village Center well site groundwater characteristics.



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Section 5.2.2 Advantages

If the existing water supply sources are maintained and the distribution system is expanded to connect these sources, the Town would avoid additional capital expenditures on the labor and material involved in completing pump tests, groundwater quality analysis, and well construction. Additionally, the Town would avoid the potential environmental impacts and permitting associated with establishing a new groundwater water supply source.

This alternative also allows the Town to establish redundant sources of supply for its centralized system. By utilizing the existing well sources, the Town would have six separate sources for use and could maintain service to its customers in the event of a point failure at one of the wells or within the system. Additionally, the existing wells for the Village Center and Royal Oaks Systems are already located near the most populous area of Town, minimizing the need for lengthy and large diameter transmission mains. The Town would also increase revenue with additional water customers connecting to the new water mains installed between the existing satellite systems.

Section 5.2.3 Disadvantages

To connect the WPCA's existing systems into one centralized system, the Town would need to construct several miles of water main, posing challenges with traffic control and environmental resource disruption. Additionally, this alternative would require a water quality evaluation to analyze potential outcomes of mixing potable treated water from separate supply sources. The hydraulic grade varies for each system, which complicates the sharing water between the systems, if connected.

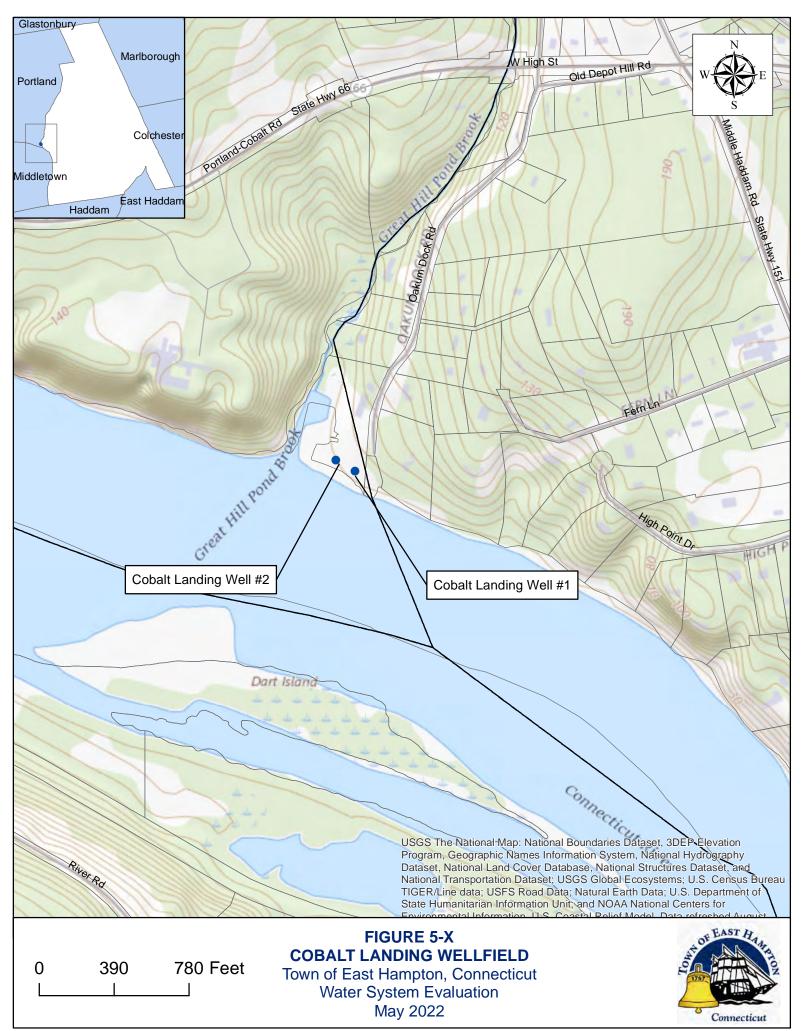
Additionally, the existing well supplies have a combined safe yield of 0.112 MGD. While this supply volume is adequate for serving the current customers in the Royal Oaks and Village Center areas, this supply volume is not great enough to serve a centralized municipal water system with additional customers and anticipated community growth. Additionally, the well facilities at these locations are built out to house the current pumps and storage tanks used for these systems, so altering the physical configuration of the current well sources would pose logistical difficulties and capital expenditures associated with renovating the existing facilities. Finally, as shown in **Figure 5-4**, the Village Center wells are located in an area with impaired groundwater quality, which may impact the longevity of these wells as a water source.

SECTION 5.3 ALTERNATIVE 3 – COBALT LANDING WELLFIELD Section 5.3.1 Description

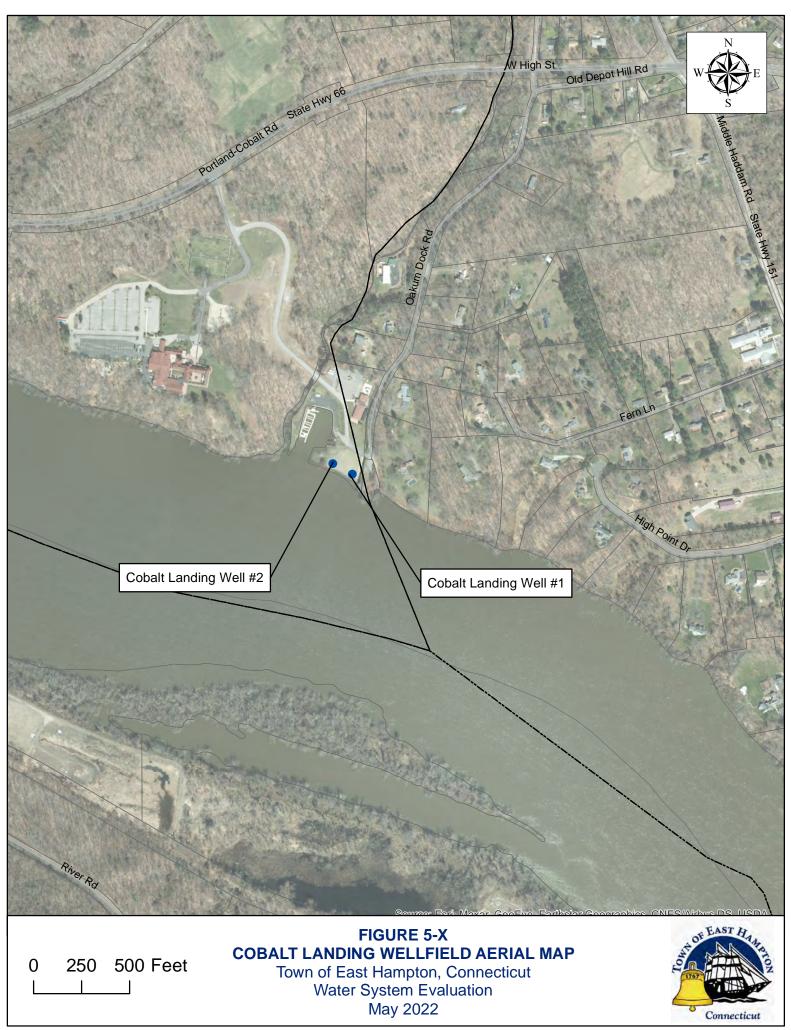
The Cobalt Landing Wellfield is located adjacent to the Connecticut River at the end of Oakum Dock Road on a Town-owned easement near the East Hampton/Portland Town Line. In 2004, the Town installed two production wells at the site for potential source water production. A 5-day pump test was performed in accordance with the Connecticut Department of Environmental Protection (CTDEP, now recognized as CTDEEP) Level A Standards, established pumping rates of 264 and 252 gpm for the two wells. Following the diversion permitting process, the CTDEP established a safe yield for the wellfield of about 743,000 gallons per day following the pump test.

Location

The Cobalt Landing Wellfield is located at the end of Oakum Dock Road along the Connecticut River. The wellsite is located to the west of the Village Center area of Town and the well station improvements will occur within a Town-owned easement for this alternative. **Figure 5-6** provides the USGS map of the project area and **Figure 5-7** presents the aerial map of the proposed wellsite.



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Environmental Factors and Groundwater Evaluation

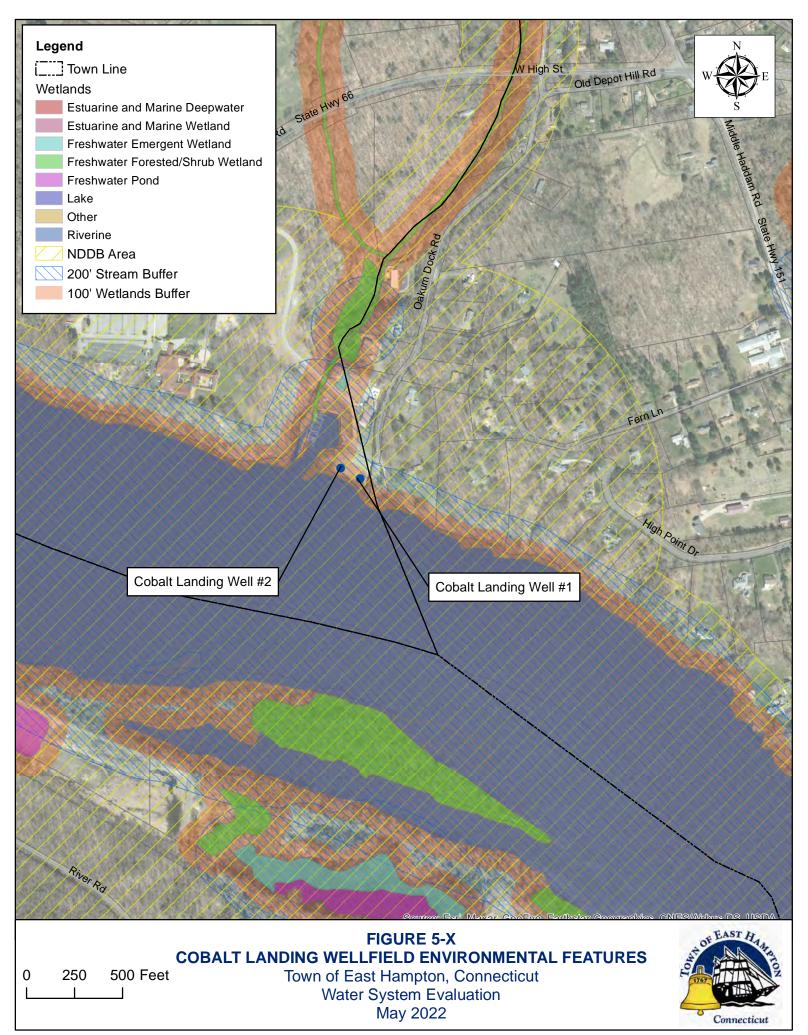
EP anticipates minimal impact to environmental resources during the additional construction of this wellfield, which will primarily include the installation of submersible pumps, pitless adapters, and connection water mains along with associated instrumentation/SCADA and electrical connections for the proposed wells. Water main construction will mainly occur in previously disturbed areas. Additional drilling will not be required, as the two wells at the site can be used for water supply.

There are some wetlands areas in the vicinity of the existing wells, including Freshwater Forester/Shrub Wetlands. CTDEEP delineated the wetland areas and produced GIS Open Data Layers as shown on **Figure 5-8.** The Cobalt Landing wells are not located within the area or buffer zone of any existing wetlands as shown by CT DEEP GIS Open Data layers. However, the Cobalt Landing Wellfield falls within a critical habitat, delineated as a Natural Diversity Database (NDDB) area. Also, the Cobalt Landing Wellfield is located within the 200-foot stream buffer of the Connecticut River.

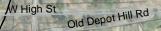
EP's desktop groundwater evaluation revealed that the Cobalt Landing wellsite is rich with course aquifer material. Additionally, there are no areas of known contamination in close proximity to the proposed wellsite. The results of the groundwater evaluation are indicative that the wellsite has favorable conditions as a groundwater supply source. **Figure 5-9** shows the results of the groundwater study, including the existing easement and aquifer materials and thicknesses.

According to an analysis of the FEMA National Flood Hazard Layer (NFHL), the existing Cobalt Landing wellsite is located in FEMA Flood Zone A. Because the site is located in the 100-year flood plain, if the Town decides to construct wells at this site, the wells will need to be water-tight and flood proofing measures will need to be implemented. **Figure 5-10** shows the FEMA NFHL Flood Zones at the Cobalt Landing site.

During the final design phase, the Town will complete all necessary environmental permitting to minimize adverse impacts to wetlands and wildlife in the area, including an NDDB Request to CTDEEP and Notice of Intent for the abutment of the stream buffer zone. EP will also detail all erosion and sediment control measures in the Contract Documents while observing all construction work with an RPR.



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, Haddam Rd

State Hwy

Cobalt Landing Well #2

Portland Cobalt Pd State Hwy 66

Cobalt Landing Well #1

tigh Point Dr

Legend

0

Town Line

Groundwater Classification

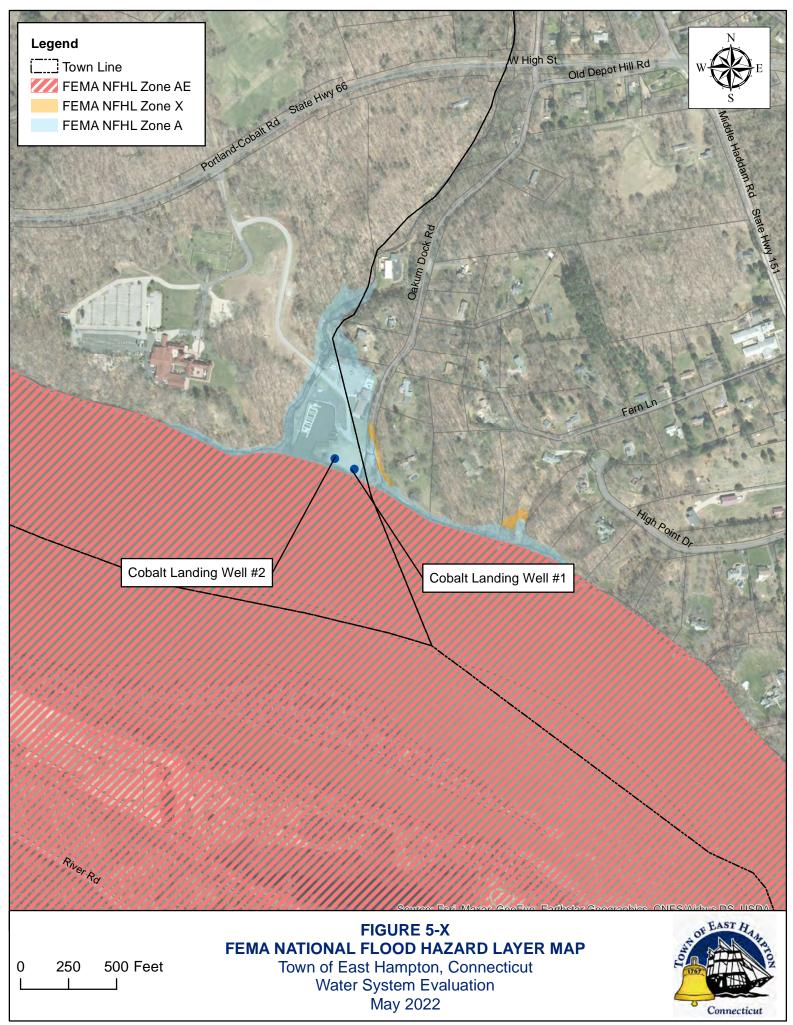


 250
 500 Feet

 Image: Solution of East Hampton, Connecticut Water System Evaluation May 2022



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Section 5.3.2 Advantages

The Cobalt Landing Wellfield has the potential to be able serve the Town with potable water at a rate of almost 0.75 MGD, making this source feasible for satisfying a portion of predicted current and future demand conditions. Additionally, this site is both town-owned and consists of course aquifer material, which is ideal for groundwater production as documented EP's desktop groundwater evaluation.

Also, the Town already owns the wellsite, which avoids the difficulties associated with procuring easements. The Town has also permitted this wellsite for use through the CTDEEP Diversion Permit Authorization process, which authorizes the Town to withdraw up to 0.90 MGD from Cobalt Wells 1 and 2. This permit will expire on September 21, 2031.

Section 5.3.3 Disadvantages

The most populous area of Town is the Village Center area of Town, located in the geographic center of East Hampton. While the Cobalt Landing Wellfield boasts high groundwater quality and volume, it is located on the western edge of East Hampton and would require the installation of several miles of water mains to carry water from the west side of town to the targeted service area.

Additionally, the Cobalt Landing Wellfield is located in close proximity to a newly construction reception hall and marina at the end of Oakum Dock Road. By developing a wellfield at this location, the Town may experience resistance from the reception hall property owner due to concerns regarding aesthetics at this location. However, the Town is responsible for providing safe drinking water to the residents and businesses of East Hampton in an effort to maintain and enhance public health. Therefore, visual aesthetics of the wellfield may be placed at a lower importance than establishing a drinking water source. Also, the Town will need to provide flood proofing measures at Cobalt Landing because the wellsite is located in FEMA Flood Zone A as discussed above.

Finally, the Cobalt Landing groundwater supply cannot supply sufficient drinking water volumes to satisfy East Hampton's needs through the recommended fifty years planning period. At a pumping rate of 0.75 MGD, and an assumed residential demand of 75 gallons per capita per day, this well source would be able to serve 10,000 residents, not including the water needed to supply businesses and maintain adequate fire protection.

SECTION 5.4 ALTERNATIVE 4 – PINE BROOK WELLFIELD Section 5.4.1 Description

EP evaluated the possibility of establishing a wellfield at Pine Brook as Alternative 4. Alternative 4 includes constructing groundwater supply sources within a Town-owned parcel to the west of Pine Brook, which has a large area of course aquifer material. For this alternative, the Town would install groundwater supply wells at the Pine Brook site and construct water main to serve the system.

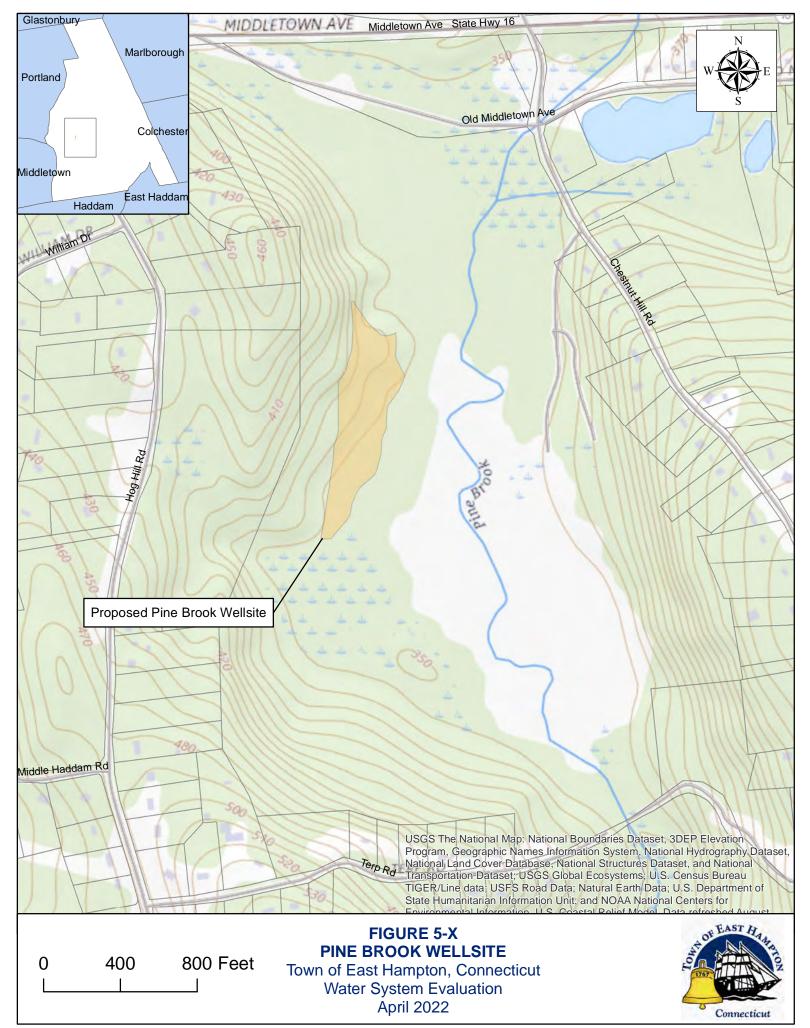
Location

The wellsite is located in the geographic west of East Hampton within Parcel No. 06-14A, west of Pine Brook. EP determined that this site may be promising as a future groundwater supply after performing our desktop groundwater exploration, which is attached in Appendix A.



Photo 6: Existing Conditions at Pine Brook Wellsite

This potential wellsite is relatively close to the populated Village Center area of East Hampton; **Figure 5-11** provides the USGS map of the project area and **Figure 5-12** presents the aerial map of the proposed wellsite.



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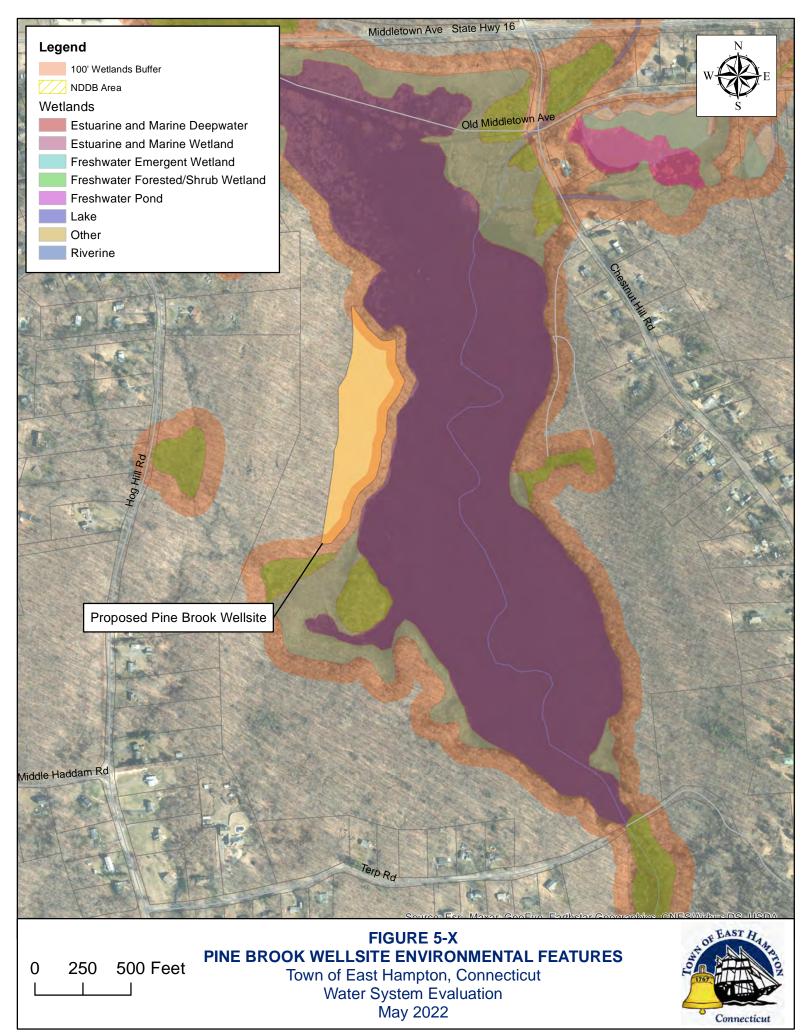
Environmental Factors and Groundwater Evaluation

The Pine Brook Wellfield would involve disruption to previously undisturbed areas near the brook. However, EP carefully located the potential wellsite outside of environmental resource areas. In the surrounding area of the potential Pine Brook Wellfield, there are several wetland areas classified as Freshwater Forested/Shrub Wetlands, Freshwater Emergent Wetlands, and Lake Wetlands, according to CTDEEP GIS Open Data layers. There are no critical habitat areas in the vicinity of the wellfield. While the well would be situated in an undisturbed area, the associated water main piping would mostly be constructed within upland areas and previously disturbed and paved roadway. **Figure 5-13** shows the environmental resources present at the Pine Brook site based on CTDEEP GIS Open Data layers.

EP also evaluated the Pine Brook site for aquifer permeability during the desktop groundwater study and determined that the proposed Pine Brook site west of Pine Brook is rich in course aquifer material. The groundwater evaluation results indicate that the proposed wellsite has favorable conditions as a groundwater supply source. **Figure 5-14** presents the findings of the groundwater evaluation.

The Pine Brook site has areas which are within the FEMA 100-year flood plain according to FEMA NFHL analysis. If the final well locations are situated within the 100-year flood plain (Zone A), the Town will ensure that the immediate area surrounding the wells is above the flood plain and flood proofing measures are taken to reduce the risk of inundation. **Figure 5-15** shows the FEMA NHFL flood zones within the area of the Pine Brook wellsite.

According to CTDEEP GIS Open Data Layers, this proposed site falls within a CTDEEP Protected Open Space Area. The Pine Brook parcel is classified as Land Use Code 923. The Estate of Carl Terp deeded parcel to the Town in 1971 as protected open space. The Town researched the deed and land records and did not find any restrictions on developing a water supply source on the property. EP and the Town plan to meet with CTDEEP prior to any groundwater explorations to discuss the viability of this site as a public drinking water source with this land designation.



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Old Middletown Ave

Legend

Groundwater Classification

Well Tributary
Reservoir Tributary
Well Tributary-Impaired
Reservoir Tributary-Impaired
Impaired
Unsuitable for Drinking Water
Aquifer Material & Thickness
Coarse; 100-200ft
Coarse; 0-50ft
Coarse overlying Fine; 0-50ft
Fine; 100-200ft
Fine; 50-100ft
Fine; 50-100ft
Fine; 0-50ft

480 Feet

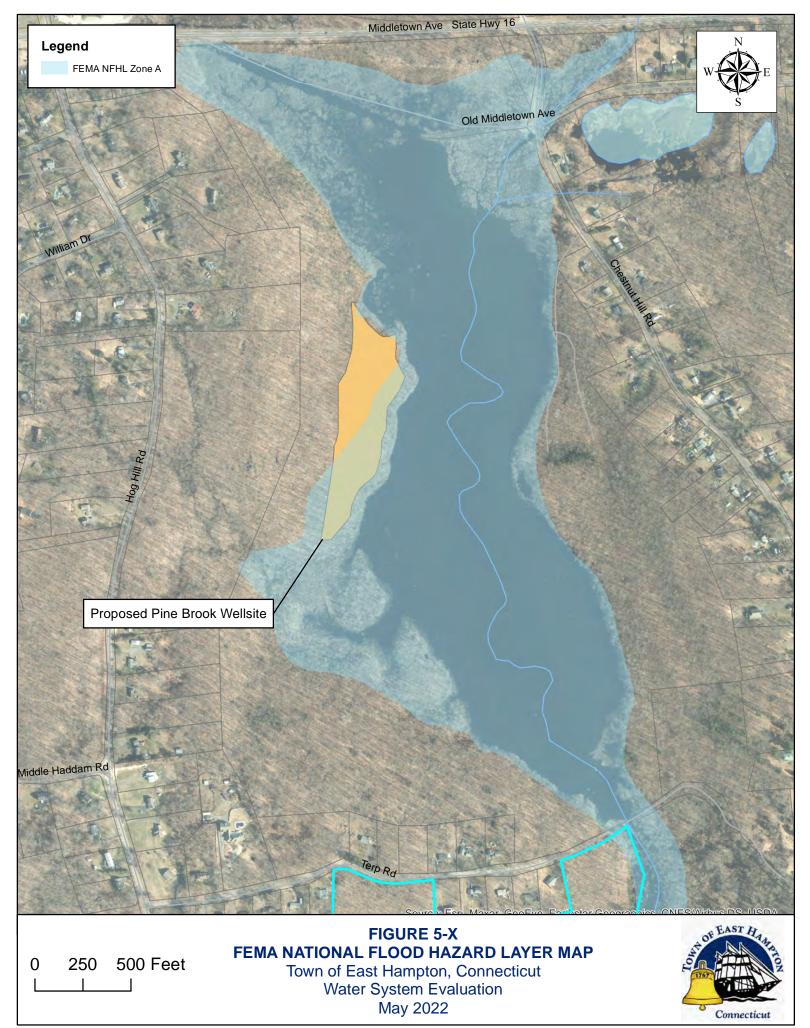
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FIGURE 5-13 PINE BROOK WELLSITE GROUNDWATER AND AQUIFER CHARACTERISTICS Town of East Hampton, Connecticut Water System Evaluation May 2022



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Section 5.4.2 Advantages

By establishing a water supply source at this location, the Town would achieve its goal of developing a more centralized water system. If the well site can provide adequate water volume and quality, the Town may utilize it to serve a greater portion of the Town through the 2070 planning period. Additionally, the Town benefits by locating the future groundwater sources at this site because the site is located in a Town-owned easement, thereby avoiding the potentially costly and long-term easement procurement process. The proposed Pine Brook site is also geographically located relatively close to the most populated areas of Town, which may minimize the amount of transmission piping needed.

As documented in desktop groundwater evaluation (attached), EP determined that this site consists of course aquifer material, which is ideal for groundwater production. Finally, this site is located in a relatively undeveloped area, minimizing the likelihood of spills and polluted soils and groundwater which can impair water quality.

Section 5.4.3 Disadvantages

While this site is promising due to its aquifer material characterization, the Town still needs to drill test wells to confirm the availability of groundwater in sufficient quantity and acceptable quality for a viable drinking water supply for East Hampton's current and future needs. Therefore, the Town will need to expend some of its capital budget on performing pumping tests prior to determining that the Pine Brook site is feasibility. Additionally, establishing a groundwater supply source at this site would require permitting through CTDEEP and CTDPH. This site may also require procurement of an easement for access to the site from Hog Hill Road due to the area's topographic conditions and environmental resources present. EP will confirm site access constraints and document any constructability concerns during the next phase of this project.

SECTION 5.6 ALTERNATIVE 5 – INTERCONNECTIONS WITH ADJACENT WATER SUPPLIERS

Section 5.6.1 Description

EP explored the viability of establishing interconnections with adjacent water suppliers as a source of water for the Town. The Town would construct interconnection stations and associated transmission main piping in order to purchase wholesale water from neighboring water suppliers under this alternative. Ultimately, this alternative would involve conversations between the Town and neighboring water systems to determine the viability of an interconnection based on water usage and availability of excess water. To determine the capacity of neighboring systems to serve East Hampton, site interconnections and confirm potential pumping requirements, the Town would need to conduct a hydraulic investigations.

Following discussions with the Town, EP understands that the Portland Water Department, Aquarion Water Company, and the Connecticut Water Company may be potential wholesale water suppliers.

Section 5.6.2 Advantages

Under this alternative, the Town would avoid the capital expenditures associated with groundwater exploration and well and water treatment facility construction. Also, because the water supplier's water supply is already active, the Town would avoid some difficulties with permitting a new water supply source.

Section 5.6.3 Disadvantages

While this alternative would allow the Town to forgo exploring a new water supply source for now, there are several disadvantages associated with relying on an adjacent water supplier for the majority of the Town's water. The Town would need to construct interconnection components and transmission main to deliver water from the neighboring water supplier to the areas of Town that they are interested in providing service to, which would be a large capital expenditure and potentially an inconvenient task due to hydraulic conditions. Additionally, this alternative would require permitting through the CTDEEP Diversion Permit program. Each water supplier would need to evaluate its capacity to provide the Town with water. The Town would likely need to pursue additional investigations in order to do so.

Ultimately, this alternative leaves the Town at the mercy of its outside water supplier. The potential water supplier may have the ability to suspend the transfer of water to the Town under emergency or drought conditions.

In order to determine the viability of this solution, the Town will need to analyze excess water capacities and pumping requirements for each potential interconnection. These investigations are discussed in more detail in Section 6.2.3: Water System Facility Siting and Hydraulic Evaluation.

SECTION 6RECOMMENDATIONSECTION 6.1INTRODUCTION

Although the Pine Brook wellfield site appears to be a very promising water supply option, EP recommends that the Town perform a groundwater exploration and testing program to confirm this assumption. As discussed in the desktop groundwater evaluation, the results suggest that the Town can site a new groundwater supply facility at this location, but the Town must first confirm the quantity and quality of the groundwater is acceptable for a municipal water supply source. If water production appears feasible, the Town will also have to confirm the required infrastructure improvements needed to convey water from the existing and proposed sources to supply the Town for at least the next 50 years.

EP also understands that the Town was recently approached by property owners in the Town of Marlborough about a potential public water supply site near the Marlborough - East Hampton town line. The property owner indicated that they may be willing to work with the Town to develop a water supply site for East Hampton at this location, if the site proves feasible. As such, this scope of services also includes evaluating this parcel in Marlborough.

In this section, EP has provided our recommendations for the next phase of this project, which will include the following two phases:

- Perform a groundwater exploration and testing program
- Develop a water system hydraulic model to document future needed water system facilities

EP has provided our anticipated scope of services and estimated project costs in the text below.

SECTION 6.2PINE BROOK GROUNDWATER EXPLORATION PROGRAMSection 6.2.1Potential Available Water Supply

As described above, the Town will need to find other reliable and viable water supply options to satisfy potential drinking water needs through the 2070 planning period. EP is recommending that East Hampton investigate the Pine Brook aquifer to the east of Hog Hill Road between Middletown Avenue and Terp Road. As the Town expands its public water supply system, East Hampton will need an additional water supply source to combine with its existing water supply sources and the Cobalt Landing wellfield to provide adequate water supply volume for the service area during current average and maximum day demands, as well as maximum day demands in the fifty-year planning period. These demand projections are presented in Section 2.3 of this report.

To determine the volume of water supply available, the Town must assess the maximum pumping capacities of all existing permitted groundwater sources. For Alternative 4 (potential Pine Brook Wellfield), EP recommends that the Town perform a groundwater exploration program as the first task in the next phase of this water system expansion project. By performing this groundwater

exploration program, the Town will confirm whether the Pine Brook aquifer is a viable and sufficiently productive source.

Table 6-1 shows the safe yield of each alternative explored. For Alternative 5 (Potential Water Supply Interconnections), EP recommends that the available water supply volumes be determined during the next phase of the project as discussed in Section 5 and later in this section.

Alternative	Source	Safe Yield (GPD)
2	WPCA Royal Oaks Wells	38,880
2	WPCA Village Center Wells	73,440
3	Cobalt Landing Wellfield	743,000
4	Pine Brook Wellfield	Unknown
5	Potential Water Supply Interconnections	Unknown

Table 6-1: Available Water Supply at Potential Groundwater Supply Sources

As documented earlier, EP has performed a desktop evaluation of potential future groundwater sources and determined that the area west of Pine Brook was the most promising site within the Town boundaries for a future groundwater supply source. Therefore, we have provided below our recommended scope of services for this proposed groundwater exploration program.

EP also learned that the Town was approached by a property owner in Marlborough, CT offering to sell land on the East Hampton border to serve as a potential site for a groundwater supply. EP became aware of the Marlborough site as a possibility at the end of this project and after completing the Alternatives Analysis. Our initial investigations indicate that this property may be a viable option for water supply to East Hampton; however, EP will need to perform a more extensive desktop analysis to determine whether further exploration is warranted for this site. Therefore, we have included this desktop evaluation as the first task in the Pine Brook groundwater exploration scope of services provided below.

Section 6.2.2 Groundwater Exploration Program

Based on the findings of the Pine Brook aquifer desktop evaluation, EP has provided our proposed scope of services, schedule, and estimated project costs below for the Groundwater Exploration program. As document above, we have also included a desktop evaluation of the potential site in Marlborough, which borders East Hampton.

Scope of Services

EP recommends the following scope of services to evaluate the water supply potential for the Pine Brook aquifer on the Town-owned property east of Hog Hill Road and the water supply potential of a property in Marlborough, CT on the East Hampton town line. We have listed our recommended tasks for this groundwater exploration below.

• Task 1: Conduct Desktop Evaluation of Potential Marlborough, CT Water Supply Site

- Task 2: Pine Brook Site Exploration
- Task 3: Prepare Letter Report
- Task 4 (Optional): Marlborough Site Exploration

Task 1: Conduct Desktop Evaluation of Potential Marlborough, CT Water Supply Site

Similar to the Pine Brook aquifer evaluation, EP will complete a site screening analysis of the Town of Marlborough, CT property, which is 109.30 acres in area, for potential water supply development and to identify potential areas for groundwater exploration.

For the initial screening of the Marlborough property, EP will perform the following:

- 1. Collect and review existing available information regarding the Marlborough property and nearby water supply well sites, including potential deed restrictions or conservation areas, engineering reports, test well boring logs, and pumping records, as available and/or collected and provided by the Town.
- 2. Prepare a map of the property that identifies potential water supply development areas:
 - Area of sufficient size to locate a circular 400-foot diameter area of land (200-foot sanitary radius for wellfield).
 - Groundwater favorability layers from Connecticut GIS, including
 - Aquifer Zones, Materials and Thickness
 - Groundwater Classifications
 - Surficial Geology and Overburden Thickness
 - Potential Environmental Impacts
 - Surrounding Land Use

The site screening will include the identification and location of the following potential environmental impacts on the development of a new public water supply well:

- Areas of Critical Environmental Concern
- Priority habitats for rare and endangered species
- Lakes and ponds
- Vernal pools
- Public and private water supplies
- National Pollution Discharge Elimination System (NPDES) permit sites
- Hazardous waste sites
- Stocked trout streams and cold-water fisheries
- Federal Emergency Management Agency (FEMA) flood zones

- Automobile graveyards and junkyards
- Petroleum and oil bulk stations and terminals
- Agricultural uses
- Industrial Parks
- CSOs and SSOs
- Landfills
- Wastewater treatment facilities
- Wellhead protection areas
- Parcel Conservation restrictions

EP will use CTDEEP GIS and USGS databases to identify these critical components. Upon completion of the desktop evaluation, EP will conduct a field reconnaissance site walkover to identify potential site conditions that could impact development of a public water supply well, both favorable and unfavorable, and to determine exploratory drill locations.

In this task, EP included the following:

- Attend up to one meeting with the Town to review the results of the desktop study
 - o Discuss the groundwater exploration maps
 - o Review tables and figures
 - o Present EP's recommendations for future development of the Marlborough property
- Conduct a site reconnaissance walkover

At this meeting, EP will review the proposed locations for exploratory drilling on the Marlborough site to get concurrence from the Town and discuss coordination with the property owner and the Town of Marlborough before initiating Task 2. EP assumes that the Town will coordinate with the property owner to gain access to the property for the site reconnaissance and drilling and testing under Task 4.

Task 2: Pine Brook Site Exploration

Based on the results of the Pine Brook desktop study, EP recommends performing subsurface exploration and testing in the Pine Brook aquifer. While the Town still needs to assess the Marlborough property as described in Task 1, we have produced this scope of work to include exploration at the Pine Brook site and provided an optional task (Task 4) for exploration of the Marlborough site, if the results of Task 1 above are favorable for a viable groundwater supply source. Based on the results of the Marlborough site desktop study and the exploration results from the Pine Brook site, EP may recommend additional exploration at the Marlborough site. We have described the recommended field exploration and testing activities in detail below.

Exploratory Drilling

This task includes installation of two test wells and one offset well at the proposed exploration site(s) to provide lithologic and specific capacity data. EP will use this information and data to locate and evaluate a potential water supply well site.

EP will contract a driller to advance the borings and install the two, 2-inch test wells and one, 2-inch observation well. The two test wells and one offset well will be installed using a Geoprobe direct push drilling rig. In each of the test well borings, the well driller will collect continuous 5-foot cores from the ground surface to a depth of up to 50 feet below ground surface (bgs) or refusal, whichever is encountered first. By collecting these soil samples, EP can obtain and document detailed lithologic data to support the design of a production well. If favorable aquifer material is identified in the boring, the driller will install a 2-inch diameter well consisting of a 10-foot section of stainless-steel screen and PVC riser within the borehole.

The driller will allow the annular spacing around the well screen to collapse with native material. The spacing around the PVC riser will be backfilled with natural material to within three feet of the

ground surface. The driller will install a protective steel casing and fill the top three feet of the annular spacing with a cement grout seal to complete the well installation.

The driller will install an offset well adjacent to the test well with the most favorable aquifer material, based on field observations and lithology. This well will be completed in the same stratigraphic interval as the test well but will be constructed with schedule 40 PVC screen and riser material. The offset observation well will be used to monitor water levels during the pump test. In the offset well, the well driller will not collect core samples until the objective screen zone is reached. Core samples will be collected from the screen zone and classified in the field for lithology.

Well Development and Testing

Under EP's supervision, the driller will develop the two test wells and one observation well by surging and/or pumping with a diaphragm pump. After development, EP will manage and coordinate with the driller to perform a two-hour constant-rate pumping test. Drawdown will be measured in the two-foot offset observation well and the other test well using an electronic water level probe. This data will be used to evaluate the specific capacity of the formation and potential well yield.

EP has estimated that up to four days will be required per site to complete the drilling, well installation, development, and pump test; however, adverse weather and/or subsurface conditions could result in an increased budget and schedule. EP included a separate line item for each additional day of drilling. EP will not perform additional drilling beyond 50 feet per well or three days per site without prior approval from the Town.

Water quality samples will be collected immediately prior to shut down of the pump test. EP will measure specific conductivity, pH, and temperature in the field. EP will also collect water samples for laboratory analysis of VOCs by Method 524.2, iron, manganese, nitrate, nitrite, and per- and polyfluoroalkyl substances (PFAS) by Method 537.1.

EP also recommend that similar water quality sampling be performed at the Cobalt Wellfield to confirm that the raw water quality at this permitted water supply source meets or exceeds current water quality requirements and standards. EP has included in this task one day of well pumping at Cobalt Wellfield and collection of groundwater samples for VOCs by Method 524.2, iron, manganese, nitrate, nitrite, and emerging contaminants PFAS by Method 537.1 and 1,4-dioxane by Method 522. This scope and budget assumes that pumping and testing of the Cobalt Wellfield is performed immediately after completion of the Pine Brook and/or Marlborough site so that a second mobilization is not required.

This scope of work does not include any permitting if required for the drilling and assumes that the Town will arrange for access to the drilling locations with the property owner, and the Town will perform any clearing necessary to access the drill locations. EP assumed that the subsurface geology (lithology and overburden thickness) is suitable for drilling with a Geoprobe direct push drilling rig and that depth to groundwater is suitable for pumping with a diaphragm pump. Geoprobe drilling is suitable for unconsolidated gravel, sand, silt, and clay to a total depth of 70 to 75 feet bgs. If overburden aquifer material is deeper than the limits of the Geoprobe or abundant cobbles or boulders are present, then an alternative drilling method and a modified schedule and budget will be required.

Task 3 – Prepare Letter Report

EP will compile data from the desktop study and subsurface exploration and testing, and EP will prepare a letter reporting which includes summary maps, boring and well construction logs, and a discussion of the results. A well specific capacity will be calculated from the pumping rate and drawdown during the pump tests and water quality sample results will be summarized. In the report, EP will discuss the viability of developing potential future new source(s) water supply and recommended location for the Pine Brook and Marlborough sites.

EP has included in this task one meeting (either virtual or in person) to review the results of desktop study, exploration, and testing.

Task 4 (Optional) – Marlborough Site Exploration

EP has included as an optional task in this scope and budget exploration at the Marlborough, CT site, assuming favorable results from Task 1. Exploration at the Marlborough site would be conducted as described in Task 2. This scope and budget assume that the work is performed immediately after completion of the Pine Brook site so that a second mobilization is not required.

Schedule

EP anticipates approximately three months to complete the desktop study, water supply exploration at the proposed Pine Brook site, and preparation of a summary letter report. If the Marlborough site is tested, then the schedule would be extended by approximately two weeks. We may require additional time based on access to the sites, discussions with the Town and coordination with the Marlborough site property owner. Following is a summary of the estimated schedule by task.

Task Description	Duration	
Task 1: Conduct Desktop Evaluation of Potential Marlborough, CT	2 weeks	
Water Supply Site		
Task 2: Pine Brook Site Exploration	6 weeks	
Task 3: Prepare Letter Report	4 weeks	
Total Project Duration	12 weeks	
Task 4 (Optional): Marlborough Site Exploration	2 weeks	

Project Cost Estimate

Based on findings and information collected during the PER, EP proposes a lump sum fee of <u>Eighty-</u> <u>Three Thousand, Three Hundred Dollars (\$83,300) for Tasks 1 through 3 of the groundwater</u> exploration program. For Tasks 1 through 4, EP proposes a lump sum fee of <u>One Hundred and Forty</u> <u>Thousand, Seven Hundred Dollars (\$140,700)</u>. If needed, additional drilling/testing costs per day will be billed on a time and material basis at Seven Thousand, Five Hundred Dollars (\$7,500). We have presented a breakdown of the project cost estimate by project task in the table below.

Groundwater Exploration Task Description	Budget
Task 1: Conduct Desktop Study for Potential Marlborough Water Supply Site	\$5,000
Task 2: Pine Brook Site Exploration	\$60,500
Task 3: Prepare Letter Report	\$17,800
Total	\$83,300
Task 4 (Optional): Marlborough Site Exploration	\$57,400
Total (with Optional Task 4):	\$140,700
Additional Drilling/Testing Cost per Day	\$7,500

As indicated above, this scope of work includes groundwater supply exploration at the Pine Brook site. EP has included exploration at the Marlborough site as an optional task (Task 4), which will only be performed if specifically approved by the Town. EP included a separate line item for each additional day of drilling or testing, if required. Additional drilling or testing will not be performed without prior approval from the Town.

Section 6.2.3 Water System Facility Siting and Hydraulic Evaluation

After completing the groundwater exploration program, EP and the Town will better understand the locations and available capacities of potential water supply sources. As discussed during recent meetings, the Town must confirm the location and capacity of future raw water supplies along with water quality before siting and sizing of the needed water treatment, storage, transmission, and distribution, including interconnection facilities if needed.

Additionally, as discussed in Section 5, if the additional field investigations do not produce a viable second well source, EP recommends that the Town evaluate potential interconnection capacities as a source of water through hydraulic field investigations and modeling potential flow volumes.

We have provided our anticipated scope of services, schedule, and fee for this evaluation below.

Scope of Services

After determining the potential viability of the proposed Pine Brook and Marlborough groundwater sources, EP recommends the following scope of services to evaluate the siting and sizing of future water system components. The tasks listed below will provide information on needed flows and pressures throughout the proposed expanded water supply system in East Hampton. Due to the significant fluctuations in elevations across the Town, EP anticipates that several service areas will be required to serve existing and future water customers with adequate water pressure, flow, and fire protection. The Town must develop a water system hydraulic model using current modeling software to size future water system facilities while also defining the extent of the proposed hydraulic pressure zones.

EP recommends the following list of tasks for the proposed water system facility siting and hydraulic evaluation.

Task 1 – Perform Field Program

- Gather and evaluate historical flow test data, if available. Sources of flow test data shall include the Fire Department, Insurance Services Office (ISO), previous reports, and any other available Town records. After review of the existing flow test data, develop and submit a hydrant flow testing plan to the Town for review.
- Determine whether finished water pump curves are available and, if not, plan pump tests to accurately confirm current pump operating conditions and curves.
- Attend a hydrant flow test planning meeting to review the field program and make required revisions based on historical system knowledge, and locations of recent water main improvements where previous hydrant flow test were performed.
- Develop and perform up to five hydrant fire flow tests throughout the Town's existing distribution system to verify hydraulic grade line (HGL) conditions and pressures within the existing systems. During field-testing, the Town's personnel will assist in operating hydrants, gate valves, and setting up equipment. To the extent possible, flow testing will be coordinated with the Town to minimize dirty water complaints. EP assumes all field testing will be completed in a single day.

Task 2 – Develop Hydraulic Model of the Current System and Potential Expanded Water System

- Develop hydraulic model using current software using the 2006 Preliminary Engineering Report (PER) as a guide for the expansion of the Town's water system.
- Revise pump characteristics with pump hydraulics information confirmed during the field program.
- Use 2010 Water Supply Plan projected water consumption data to calculate and systematically allocate water demands into the model. Distribute unaccounted for water evenly throughout the distribution system.
- Review recent available pump test and SCADA data from each of the Town's wells and Water Treatment Facilities to check existing pump data and controls to be used in the model.
- Calibrate model using data obtained from investigations and field-testing. Steady state calibration will be performed by adjusting Hazen-Williams "C" values. Calibrate model to within AWWA water system modeling standards for the difference between field-measured and predicted residual pressures during hydrant flow tests.
- Document all required simulations and hydraulic conditions with tables, figures and/or maps.
- Attend a meeting to discuss model updates and recalibration.

Task 3 – Recommend Capital Improvement Program

- Develop a prioritized program of recommended alternatives and improvements to address deficiencies identified in the previous tasks under existing and future demand conditions.
- Confirm needed water system improvements to expand and develop the Town's future water system to utilize available source water supply from the Cobalt wellfield along with the

Pine Brook and Marlborough groundwater sources, if they prove viable following the groundwater exploration program (defined earlier).

- Investigate potential interconnections with adjacent water systems. Viability of interconnections can be determined by determining the availability of excess water and performing preliminary hydraulic investigations for pumping facility sizing.
- Prepare a plan (map) showing recommended improvements for inclusion in the report. The recommended improvement plan shall be submitted on flash drive via a portable document format (pdf).
- Estimate total project conceptual, planning-level costs for each recommended system improvement. Prioritize all recommended water system improvements based on priority of need and schedule compatibility with other planned improvement programs (i.e., replacement of other utilities, ongoing street pavement improvements, etc.).
- Categorize the recommended improvements in order of importance (public health and safety, water quality, expansion of the water system, etc.).
- Prepare an implementation plan for the recommended improvements. The implementation plan will categorize the improvements into various groups (i.e. those recommended to be completed immediately, within the next 3-5 years, 6-10 years, and 11-20 years).

Task 4 – Prepare Water System Facility Site and Hydraulic Evaluation Report

- Prepare and submit five copies of a draft report for the Town's review and comments. The report shall include an executive summary, descriptions on each of the tasks outlined above, tables of any data used to support the conclusions and recommendations made in the report, and printed map of the water distribution system showing the recommended improvements highlighted in color. We will also append the results of the groundwater exploration program.
- Meet with the Town to review the draft report. Work closely with the Town on the accuracy of the report and validity of recommendations and conclusions before producing the final report.
- Deliver to the Town five copies of the final printed report, including all printed maps generated as part of the report.
- Attend up to two public meetings to present the findings and recommendations of the report to the residents of East Hampton and other special interest groups.

Schedule

EP anticipates approximately five months to complete the Water System Facilities Siting and Hydraulic Evaluation after the proposed Groundwater Exploration program is finalized.

Water System Facility Siting and Hydraulic Evaluation Budget

For the scope of services listed above, EP estimates a lump sum fee to be <u>One Hundred Twenty Six</u> <u>Thousand, Three Hundred Dollars (\$126,300)</u>. We have presented a breakdown of the project cost estimate by project task in the table below.

Water System Task Description	Budget
Task 1: Perform Field Program	\$25,360
Task 2: Develop Hydraulic Model of the Current System and Potential Expanded Water System	\$28,870
Task 3: Recommend Capital Improvement Program	\$36,970
Task 4: Prepare Water System Facility Siting and Hydraulic Evaluation Report	\$35,100
Total:	\$126,300

SECTION 7 CONCLUSIONS AND RECOMMENDATIONS

In conclusion, the Town has demonstrated a long-standing need for establishing an expanded and centralized municipal water system. The first step in achieving this goal is the establishment of water supply sources. The Town has explored several alternatives for potential groundwater supply sources and has selected the most advantageous combination of these alternatives based on land ownership, availability of water, and aquifer and groundwater quality.

With our finding in this PER, EP recommends that the Town perform additional water quantity and quality investigations at the Cobalt Landing Wellfield along with performing a groundwater exploration program at Pine Brook Wellfield and potentially the available Marlborough parcel at the East Hampton town line.

After confirming the quantity and water quality at these potential raw water sources, we recommend that the Town evaluate the siting of future water supply facilities and assess hydraulic conditions needed to expand the water system throughout East Hampton. EP will document water treatment needs after confirming the raw water quality at the Cobalt Landing Wellfield and other potential future groundwater sources.

APPENDIX A

Groundwater Desktop Evaluation Technical Memorandum



MEMORANDUM

Date: May 18, 2022

То	Mr. David E. Cox, Town Manager, Town of East Hampton	
From	Charles Adelsberger, P.E., BCEE, Environmental Partners	
сс	Ann Marie Turbeville, Director of Geosciences, Environmental Partners	
	Kevin Rathbun, Senior Project Engineer, Environmental Partners	
	Hanna Schenkel, Engineer, Environmental Partners	

Subject Town of East Hampton Water Supply Source Groundwater Desktop Evaluation

Summary

The Town of East Hampton (the Town) is seeking to establish a centralized municipal water system. Currently, the residents of East Hampton obtain water from either private wells, smaller community water systems, or the East Hampton Water Pollution Control Authority (WCPA). However, in recent decades, the Town has experienced numerous instances of water quality issues at private wells and within community water systems. Additionally, the WPCA and community water systems are only able to serve a portion of the Town, leaving the unserved residents and businesses within the Town to use private wells, which may be located in contaminated areas. To promote public health, provide fire flow protection, and spark the community's economic growth, the Town is proposing to establish a municipal water system.

In order to determine the most effective and cost efficient course of action for designing and constructing the centralized municipal water system, the Town must explore potential water supply sources. To advance the Town towards this goal, Environmental Partners (EP) has performed a Groundwater Desktop Exploration, in which potential well sites were identified for further investigation. For the most part, this desktop study focused on Town- and State-owned parcels, but could be expanded to include potential private parcels of land for future acquisition. This desktop study included:

• Reviewing the 2010 East Hampton Water Supply Plan (Milone & Macbroom, Inc.)

- Reviewing the 2006 Preliminary Engineering Report (Maguire)
- Compiling Town- and State-owned parcels that can support a required sanitary radius
- Evaluating sites with respect to aquifer potential
- Evaluating sites with respect to receptors and potential sources of contamination
- Evaluate sites with respect to other criteria (i.e., geologic conditions, land use restrictions, etc.)

Figure 1 is a preliminary site screening map showing potential public water supply sites. The following is a summary of the desktop study results:

- 1. A total of 72 potential sites satisfied the land ownership requirement for potential public water supply sites. The 72 sites, of which 51 were State-owned and 21 were Town-owned, are shown on **Figure 1**.
- 2. The majority of potential water supply parcels were eliminated from further consideration because of no potential aquifer material. **Figure 2** shows the Town-owned sites where potential aquifer material may be present.
- 3. The following Town-owned sites were identified as potential water supply sites for further consideration and field evaluation:
 - a. Site #1: Cobalt Landing Wellfield, shown on **Figure 7**
 - b. Site #2: Pine Brook Site, shown on Figure 8

Based on the results of the Desktop Study, the next steps in the new water source process are to further evaluate the most favorable sites with a subsurface groundwater exploration test well drilling program and to explore groundwater quality.

In 2004, the Town conducted a subsurface exploration at the Cobalt Landing Wellfield that included the installation of a test well and observation well. The Town conducted a 5-day pump test in accordance with the Connecticut Department of Environmental Protection's Level A Standards at the time. Based on this investigation, the Cobalt Landing Wellfield safe yield was established at 743,000 gallons per day, based on pumping 24 hours a day. The Cobalt Landing Wellfield is already permitted through the CT Department of Energy and Environmental Protection (DEEP) Diversion Permit.

A Phase I Environmental Site Assessment (ESA) was conducted by Maguire Group Inc. in 2005 to evaluate the relative environmental risk associated with the current and former land uses of the Cobalt Landing Wellfield property and to determine the likelihood that a "release" of oil or hazardous materials has occurred. The Phase I ESA identified five (5) Potential Release Areas at the site, including 1- Existing Above Ground Storage Tanks (ASTs); 2- Former Underground Storage Tank; 3- Existing Drywell; 4- Exterior Vehicle Loading/Unloading and Boat Docking Area; and 5- Building 1 Septic System Area. Should the Town decide to proceed with development of the Cobalt Landing Wellfield, EP recommends that the existing wells be tested to determine groundwater quality. In particularly, the Cobalt Landing Wellfield groundwater should be tested for emerging contaminants, including 1,4-dioxane and Per- and Polyfluoroalkyl Substances (PFAS) Following the Groundwater Desktop Evaluation, EP recommends that the Town further explores the groundwater characteristics at the Pine Brook Site as well, which shows promising results for groundwater quality and quantity.

The scope, methodology and results of the new source water supply desktop study and exploration results are discussed in more detail below.

Background

The Town's most recent Water Supply Plan update in 2010 recommended that the Town establish several new water supply wells. While the Town had explored establishing new water sources in their 2006 Preliminary Engineering Report, the Town has not connected any of the new sources that were explored to a centralized municipal water system.

Some areas within the Town of East Hampton have been plagued by poor groundwater quality. In recent decades, the Town has experienced several e. coli outbreaks among private well users, as well as in some of the WPCA's existing well supplies. Establishing a centralized municipal water system would benefit the Town greatly as the residents of East Hampton would be able to rely on a safer and less expensive source of potable water. In order to establish a municipal water system, the Town must find a safe and reliable source of water with ample water supply availability. While the previously permitted Cobalt Wellfield is a promising candidate for a future groundwater supply source, EP recommends that the Town explores establishing additional groundwater supply sites for supply redundancy and to meet the projected water demands outlined in the 2010 Water Supply.

Desktop Site Screening Methodology

Initial Screening

EP conducted a new source water supply screening desktop study for the Town. As an initial screening, Town and State owned parcels were compiled to determine if the Town or State owned and controlled the sanitary radius of the potential groundwater source, which is the CT DEEP required protective radius required around a public water supply well. In Connecticut, the sanitary radius of any well pumping greater than fifty gallons per minute is 200 feet. Full control of the sanitary radius is required for all new wells per Connecticut General Statutes Section 25-33(b), and current and/or future land uses within the sanitary radius must be limited to those directly related to the provision of public drinking water or will have no significant adverse impact on water quality. Town and State owned parcels were compiled on a map and a 200-foot buffer mapped on each parcel.

In addition, Connecticut State Regulations 19-13-B51d. requires that wells with a withdrawal rate of more than fifty gallons per minute must be located at least 200 feet from a system for disposal of sewage or other source of pollution and must be located at least 50 feet of the high water mark of any surface water body.

The open space area inside this 200-foot buffer and at least 50 feet from any surface water body is the area owned by the Town that could support a public water supply well. Town owned parcels with the 200-foot sanitary radius are shown on **Figure 1**. As shown on **Figure 1**, a total of 72 parcels were

identified as potential water supply parcels and were evaluated further based on the following criteria:

- Potential Aquifer Material
- Proximity to Environmental Receptors
- Potential Sources of Contamination
- Other Additional Criteria (i.e., geologic conditions, land use restrictions, etc.)

Proximity to Environmental Receptors

The Town of East Hampton is located in the geographic center of the State of Connecticut and borders the Connecticut River. There are numerous surface water bodies, wetlands, and streams within the Town, as well as abundant shallow bedrock and thin till material (non-aquifer material). Potential presence of aquifer material was used as an initial screening criteria. Proximity to environmental receptors was then used to screen the parcels in which the Town or State owns and the Town controls a 200-foot sanitary radius to identify potential new source water supply sites. The CT DEEP GIS Open Data database was used to identify the following sensitive environmental receptors:

- Areas of Critical Environmental Concern (ACEC)
- Natural Heritage and Endangered Species Program (NHESP) Priority Habitats of Rare Species
- NHESP Estimated Habitats of Rare Wildlife
- Vernal Pools (Certified and Potential)
- Wetlands

Finally, potential water supply sites were limited to areas on streams and rivers which were not determined to be DEEP cold-water fisheries.

Geologic Conditions

Generally, courser aquifer materials are favorable for groundwater supply sources as they are less penetrable than finer materials. Aquifer material is considered one of the most accurate indicators for potentially favorable groundwater supply sites. EP utilized the Surficial Aquifer Potential Map of Connecticut to analyze the potential presence and thickness of surficial aquifer deposits. **Figure 2** displays aquifer material classifications within the Town of East Hampton.

CT DEEP aquifer maps and surficial geology maps were used to evaluate the potential presence or absence of aquifer material. The Surficial Aquifer Potential Map of Connecticut was prepared by the Connecticut Geological Survey for statewide resource protection, water management, non-point source pollution prevention, and land use planning. **Figure 3** displays the surficial geology throughout the Town of East Hampton. Analyzing surficial geology may inform the Town of landforms and unconsolidated sediments (potential aquifer material) throughout the Town, as well as areas of shallow bedrock and thin till (non-aquifer material). Generally, melt-out till and melt-out till - moderate to bedrock are considered potentially favorable for groundwater supply sites.

Potential Sources of Contamination

Land use maps were examined for potential water supply sites that passed initial screening to determine if any potential sources of contamination to groundwater are located nearby or within a 200-foot radius. In accordance with DPH Sec. 19-13-B51d,

"No such well shall be located within two hundred feet of a system for disposal of sewage or other source of pollution. If conditions warrant, greater distance shall be required Sanitary conditions in the area within the radial distance required shall be under control of the well owner by ownership, easement, or other arrangement approved by the commissioner of health. If a sewer is constructed of extra heavy cast iron pipe with leaded joints or equal approved type of tight joint, a minimum separating distance of one hundred feet shall be maintained."

Potentially sources of pollution include active or abandoned sanitary landfills, major fuel storage and/or transmission facilities, automobile graveyards and junkyards, road salt stockpile areas lacking adequate containment structures, agricultural uses, hazardous substances storage areas, etc. Special groundwater classification within the Town of East Hampton can be divided into several categories, including Well Tributary, Reservoir Tributary, Well Tributary-Impaired, Impaired, and Unsuitable for Drinking Water. When choosing potential groundwater supply sites, EP omitted sites within the previously discussed categories from the potential list of sites. Additionally, EP omitted sites within EPA and Resource Conservation and Recovery Act (RCRA) regulated hazardous waste sites, as well as PCB contamination sites. **Figure 4** shows potential sites and groundwater classifications within the Town of East Hampton. **Figure 5** shows potential sites and environmental impacts within the Town.

Additional Site Screening

In additional to environmental receptors and sources of contamination, potential water supply sites were screened based on the following criteria:

- Land Use For potential water supply sites that passed the initial site screening, the CT DEEP GIS Open Data database land use maps were reviewed to identify land use classifications for potential sites. Figure 6 displays current land uses within the Town of East Hampton.
- Hydraulic Benefit to the Water System The location of the existing water sources and the topology and geometry of the water system create a varied pressure profile. As a result, certain regions are more water-stressed than others, and the introduction of a water source offers varied benefits depending on location.
- 3. *Previous Investigations* The Town of East Hampton has explored water supply sources in the past. EP reviewed the *Proposed Municipal Water System Preliminary Engineering Report* by Maguire Group Inc. dated January 3, 2006 to evaluate subsurface geology and potential aquifer conditions, as well as previous pump testing results.
- 4. Proximity to Populated Areas The Town's most populated area is the village center area of Town, located south of Lake Pocotopaug. A large percentage of the Town's businesses, residences, and schools reside in this general area. The Town hopes to provide this area with water service following the construction of the water system. EP favored sites near this area of Town in order to conserve future costs and simplify water system design.

It should be noted that this basic level of screening is based on readily available online databases. In addition, this study included a preliminary evaluation of potential conservation or deed restrictions

that may exist on these Town-owned properties that could exclude the use of this land for public water supply development. EP utilized CT DEEP GIS Protected Open Space data layers to evaluate potential restrictions to well development at each potential site. Additional research may be required for this purpose. Data from this desktop study may need to be updated if more than six months old.

Desktop Site Screening Results

As shown on the **Figure 1** through **Figure 6**, EP identified 71 potential parcels in which the Town or State owns and controls the sanitary radius. These 72 sites were evaluated based on potential presence of aquifer material, proximity to potential receptors, and potential sources of contamination.

In summary, many sites are considered <u>unfavorable</u> for obvious reasons and are not evaluated further, including:

- Located within an area with unfavorable aquifer conditions;
- Proximity to potential sources of contamination; and
- Proximity to the center of Town, where most of the Town's population resides.

The existing Royal Oaks and Village Center well sites are considered potential public water supply sites, but because these sites are already utilized in existing WPCA infrastructure, an additional desktop screening was not performed for these parcels, but could be performed at a later date. While the current wells at these sites cannot satisfy potential current and future demands for the Town, these parcels should be preserved for potential future water supply development.

Based on the criteria evaluated, EP found two potential groundwater supply sites of the 72 possible sites. The following sites are considered potentially <u>favorable</u> and are evaluated further:

- 1. Cobalt Landing Wellfield (Site #1)
- 2. Pine Brook Wellfield (Site #2)

As part of the desktop study, the two sites that were considered potentially favorable public water supply sites were evaluated in more detail and the results of this analysis are discussed in the following sections. It is important to note that while the Groundwater Desktop Evaluation presents these sites as potentially favorable, additional field investigations will be required to determine the viability of these sites as groundwater supply sources.

Site #1 – Cobalt Landing Wellfield

As previously discussed, the Town currently owns an easement at the Cobalt Landing Wellfield, located at the end of Oakum Dock Road on the Connecticut River. A 5-day pump test was performed on two wellheads on the potential site in 2004, yielding a total safe yield of 743,000 gallons per day. EP evaluated this site further through the Groundwater Desktop Evaluation to analyze current characteristics of the site, which led to the conclusion that Site #1: Cobalt Landing Wellfield:

- Is located within a Town-owned easement;
- Is located within an area mapped as a potentially high yield aquifer;
- Is located within an area with favorable surficial geology;

• Is currently permitted for the diversion of water for consumptive purposes through the CT DEEP Diversion Permit through 2031.

The Cobalt Landing Wellfield Site was used as a Marina Facility consisting of three buildings, a loading platform, a boat basin, and grounds. Building 2 was used as a boat fabrication and repair shop. A Phase I Environmental Site Assessment (ESA) was conducted by Maguire Group Inc. to evaluate the relative environmental risk associated with the current and former land uses of the Site and to determine the likelihood that a "release" of oil or hazardous materials has occurred. The Phase I ESA identified five (5) Potential Release Areas at the site, including: 1- Existing Above Ground Storage Tanks (ASTs); 2- Former Underground Storage Tank; 3- Existing Drywell; 4- Exterior Vehicle Loading/Unloading and Boat Docking Area; and 5- Building 1 Septic System Area. Based on the results of the Phase I ESA, a Phase II ESA was performed to determine the absence or presence of release conditions at the site.

The results of the Phase II ESA indicated that:

- 1. Soil and groundwater sample test results from the ASTs, Drywell and Septic System Area did <u>not</u>indicate "releases" of hazardous or contaminated materials within these areas.
- 2. Low concentrations of VOCs and metals were detected in limited soil samples collected from the Exterior Vehicle Loading/Unloading and Boat Docking Area, which may be due to fill material.
- 3. A groundwater sample collected from within the Exterior Vehicle Loading/Unloading and Boat Docking Area contained elevated concentrations of metals which may indicate an upgradient off site source or be possibly a sampling anomaly.
- 4. A soil sample collected from a boring the end of Oakum Dock Road contained TPH at a concentration exceeding DEP standards, possibly due to a surficial release.
- 5. Soil and groundwater sample test results from the Former Underground Storage Tank area indicate that a "release" of gasoline from the historic UST has occurred within this area.

Figure 7 shows the Cobalt Wellfield Site, easement, Sanitary Radius and Potential Aquifer Material and Thickness. As shown, coarse aquifer material 50 to 100 feet thick is identified.

This site should be considered for further evaluation as a potential public water supply site. While the site is not near the village center area of Town and will require several miles of transmission piping as well as water booster pumps due to the low elevation of the site, the results of the Desktop Evaluation show this site is favorable as a public water supply source. Next steps for evaluation are expanded upon later in this analysis, and include additional groundwater quality tests.

Site #2 – Pine Brook Site

The Pine Brook site is located on the west side of Pine Brook. EP evaluated the current conditions at this site and found that Site #2, Pine Brook site:

- Is located on a parcel owned by the Town of East Hampton;
- Is located within an area mapped as a potentially high yield aquifer;
- Is located within an area with favorable surficial geology;

- Is close to the populated village center area of Town; and
- Is not located in proximity to any known EPA/RCRA hazardous waste areas, PCB-contaminated sites, or impaired groundwater areas.

The potential wellsite boundaries were chosen based on location of aquifer material, the 200-foot Sanitary Radius buffer, and 50-foot wetland buffer. The current conditions at the Pine Brook site and potential wellsite are highlighted in **Figure 8**.

It is important to note that this site is located within land listed as CT DEEP Protected Open Space. The property record card for this parcel indicates that the site is classified as Land Use Code 923. The Town and EP plan to meet with CT DEEP to confirm the viability of this site as a groundwater supply source before carrying out additional explorations.

In summary, the results of the Groundwater Desktop Evaluation show that the Pine Brook site may be favorable for establishing a groundwater supply source. EP highlights further recommendations for determining the viability of the site in the following section.

Conclusions and Recommendations

EP has worked with the Town to develop recommendations for potential groundwater supply sources. The Groundwater Desktop Evaluation is a systematic evaluation of site characteristics to identify potentially viable groundwater supply sites. A total of 72 sites were reviewed, and 70 sites were eliminated from further consideration due to proximity to lack of aquifer material, environmental receptors, and/or site location. EP believes that the Town will be better informed on the water system requirements for its proposed municipal water system after performing additional investigations at the Cobalt Landing Wellfield and the Pine Brook site.

As previously discussed, the Cobalt Landing and Pine Brook sites, shown respectively on **Figures 7** and **8**, are identified as the most viable potential groundwater supply sites. However, the Groundwater Desktop Evaluation does not analyze water quality and quantity available at each site, as field conditions may differ from the results of this study.

Cobalt Landing Site

As indicated from the Phase I and Phase II ESAs conducted at the Cobalt Landing Site, potential sources of contamination were identified based on site uses and impacts to soil and groundwater were identified. Soil and groundwater sampling and analyses were conducted in 2005 and analyzed for a limited suite of parameters (petroleum hydrocarbons, volatile organic compounds and copper, lead and zinc). EP recommends that the Town evaluate the water quality at the Cobalt Landing site for a wider suite of analyses, including emerging contaminants 1,4-dioxand and PFAS compounds. Based on the results of these additional analyses, EP recommends that the Town works with CT DPH to discuss the groundwater quality findings.

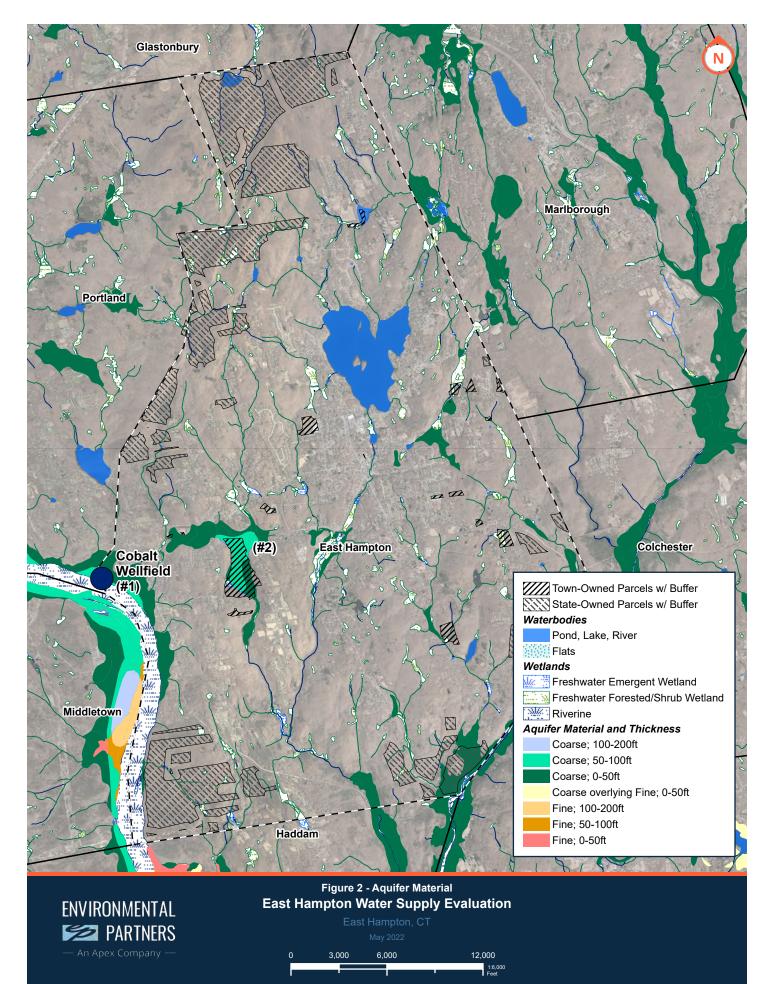
Pine Brook Site

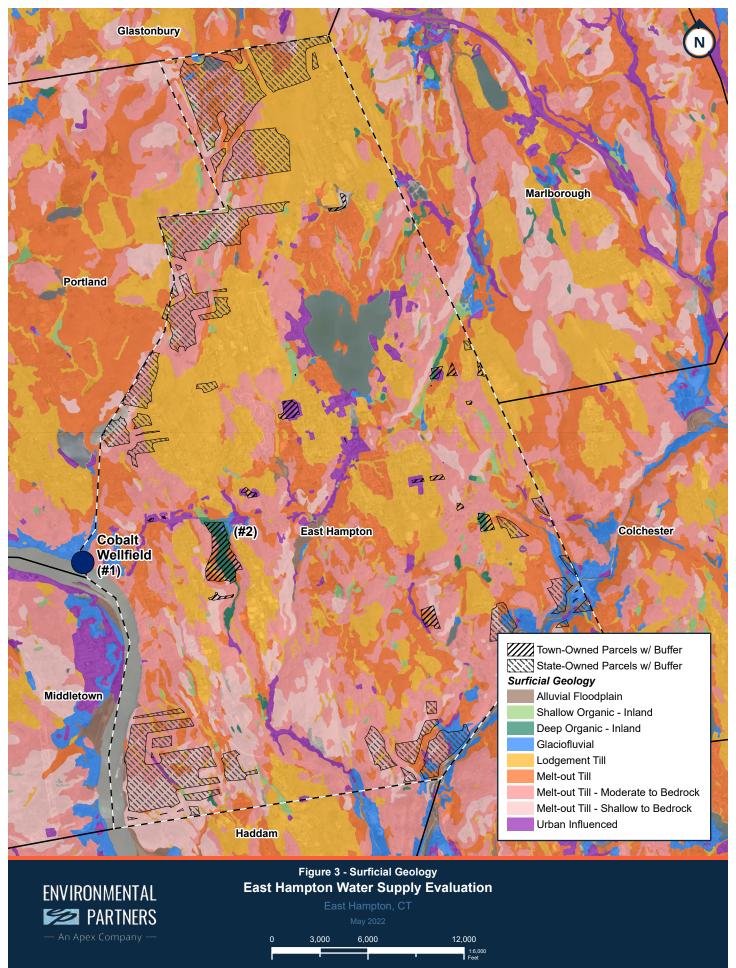
Following a discussion with CT DEEP to confirm the viability of the Pine Brook site as a water supply site under the CT DEEP Open Space Program, EP recommends that the Town conduct exploration and testing at the Pine Brook Site to determine water quantity and quality. In order to better evaluate the site, EP recommends installation of at least two test wells to identify the best location

for evaluating water quantity and quality. A minimum two-hour Pump Test should be performed at the best test well site to determine specific capacity (pumping capacity in gallons per minute per foot of drawdown) and potential wellfield yield. At the end of the two-hour Pump Test water quality samples should be collected and analyzed for preliminary screening parameters (most commonly associated with water quality issues), including VOCs, nitrate, nitrate, metals and PFAS compounds. The Pine Brook Site is large enough that, if the initial exploration results indicate a potentially viable water supply site, additional test wells may be installed at a later date to identify the best location for development of a public water supply well.

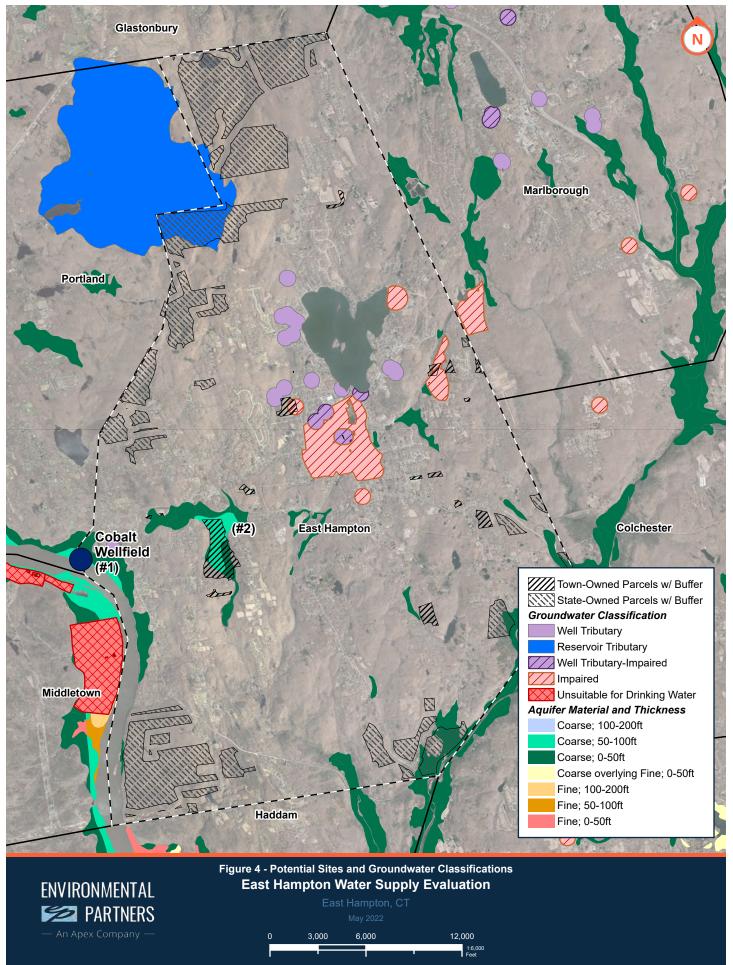
ATTACHMENT A Groundwater Desktop Evaluation Figures

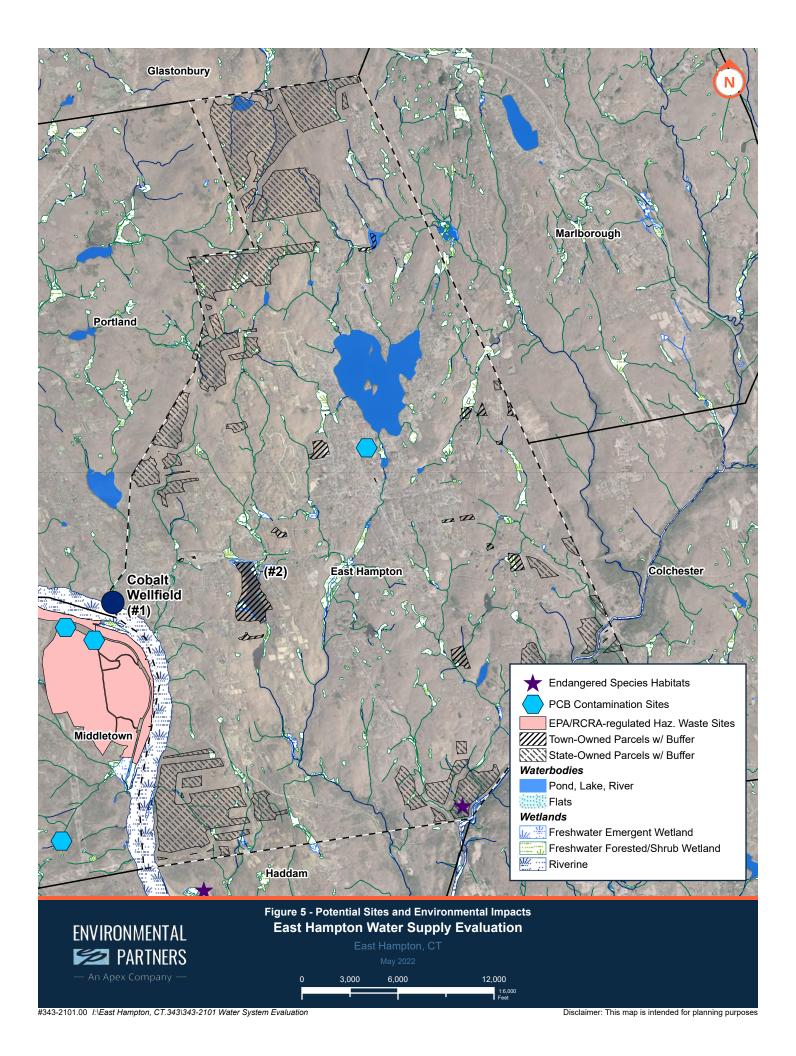


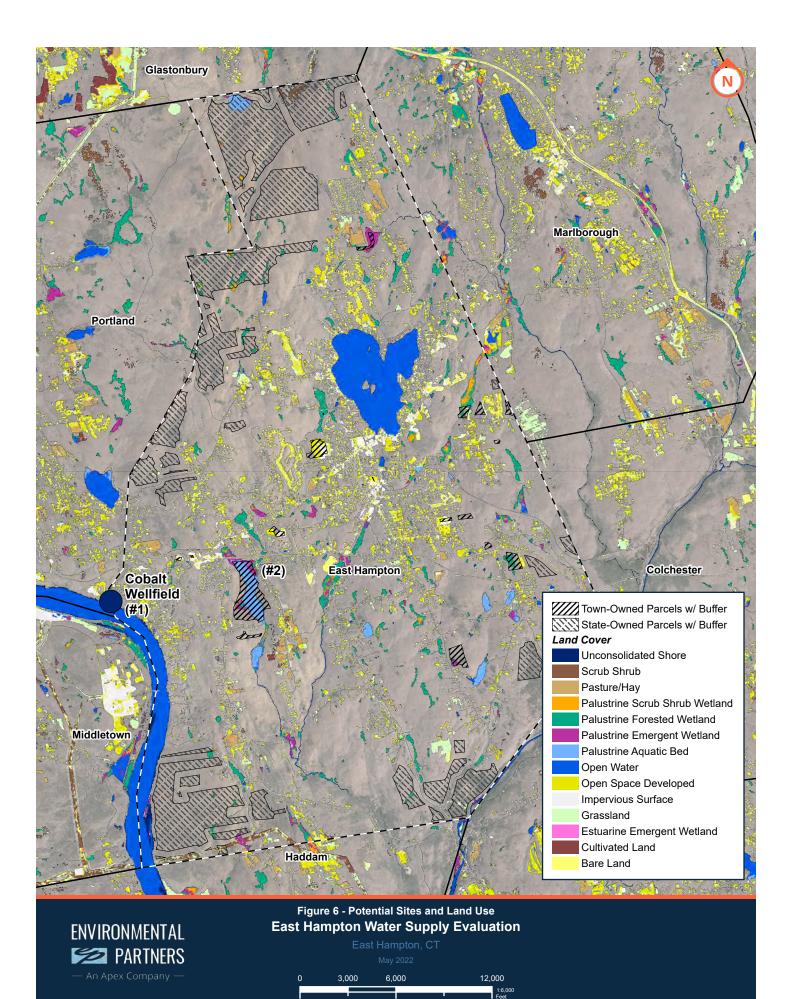


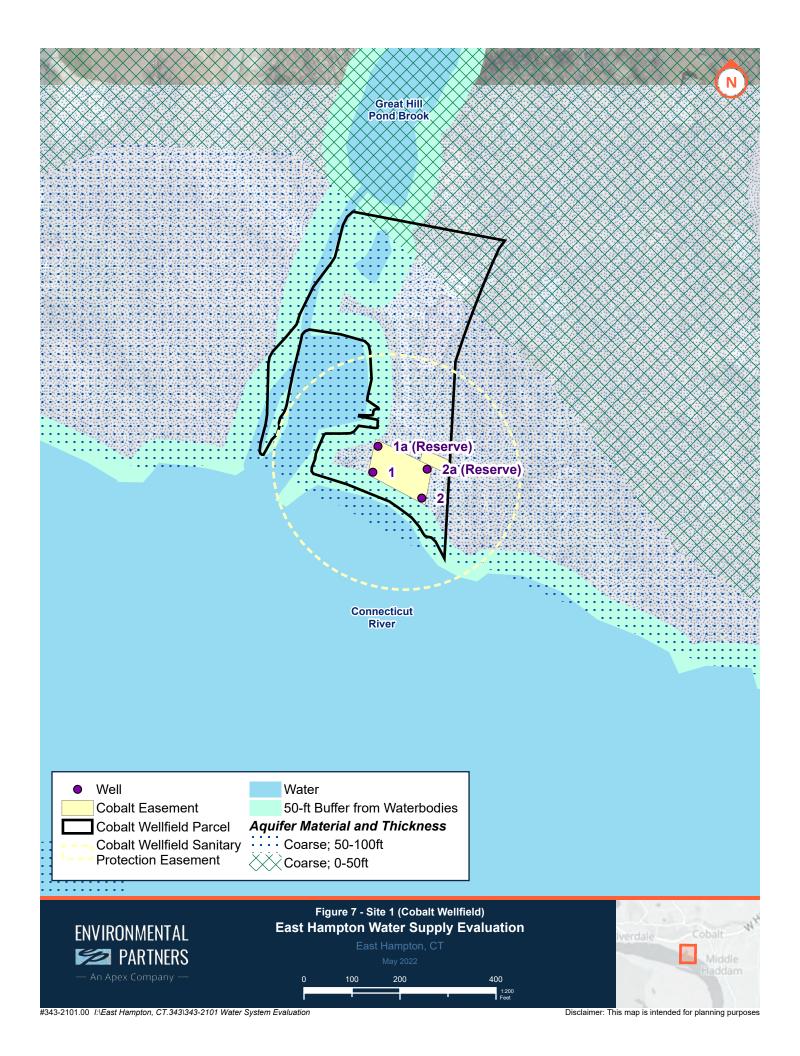


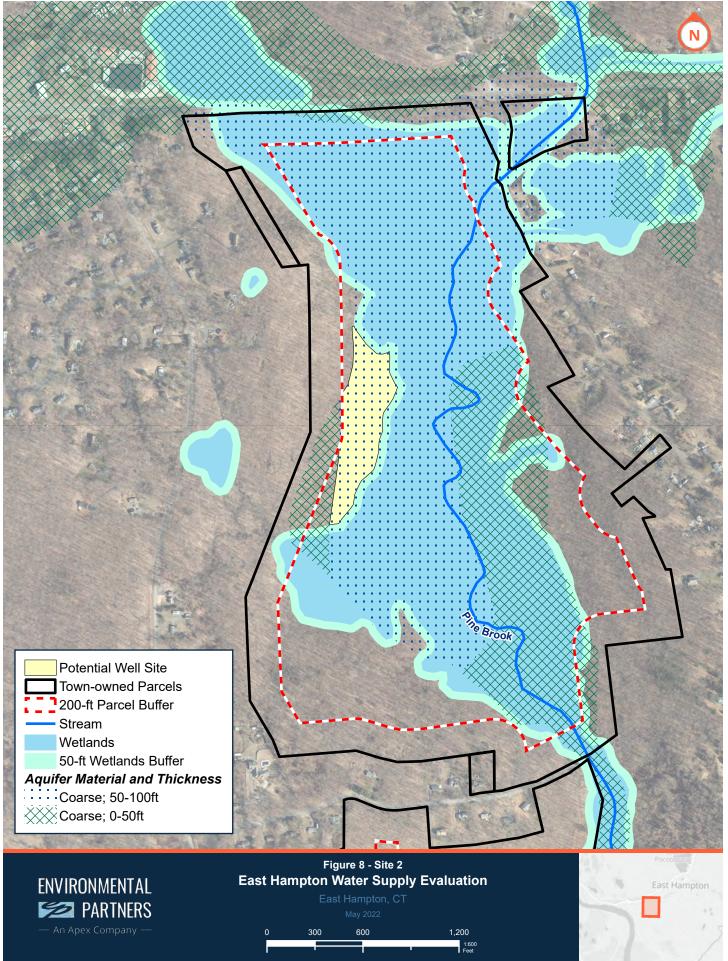
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1900 Crown Colony Drive, Suite 402 Quincy, MA 02169 P: 617.657.0200 F: 617.657.0201

envpartners.com

Town of East Hampton

RESOLUTION

Authorization - State Library Historic Document Preservation Grant

BE IT RESOLVED THAT, David E. Cox, Town Manager of the Town of East Hampton, is empowered to execute and deliver in the name of and on behalf of this municipality a contract with the Connecticut State Library for a Historic Documents Preservation Grant.

Approved this 12th day of July 2022.

TOWN COUNCIL

Mark Philhower, Chairperson

ATTEST

Kelly Bilodeau, Town Clerk

GRANT CONTRACT

Targeted Grant FY 2023, Cycle 1 — Grant #042-PC-23

This contract made between the State of Connecticut, Connecticut State Library (hereinafter "State Library") and the **Town of East Hampton** (hereinafter "Contractor") pursuant to C.G.S. §§ 11-8i through 11-8n, inclusive.

WHEREAS, the State Library's Office of the Public Records Administrator administers the Historic Documents Preservation Grant Program ("Program") for the purpose of preserving and managing historic documents;

WHEREAS, all Connecticut municipalities are eligible to apply for a Targeted Grant ("Grant") from this Program; and

WHEREAS, the Contractor is a municipality;

NOW THEREFORE, in consideration of the aforesaid and the mutual promises hereinafter contained the parties do hereby agree as follows:

1. The State Library hereby authorizes a Grant for an amount not to exceed \$5,500.00 (hereinafter "Grant Funds"), for the following (hereinafter referred to as the "Project") as approved in the municipality's Targeted Grant Application on **June 30**, 2022, on file at the State Library:

A. Conservation project for public records.

2. The approved Project Budget is as follows:

	Expense Type	Funds Approved
1.	Consultants/Vendors	\$ 5,500.00
2.	Equipment	\$
3.	Supplies	\$
4.	Town Personnel Costs	\$
5.	Other (specify)	\$
6.	TOTAL	\$ 5,500.00

The Contractor is responsible for any Project expenses greater than the Grant Funds.

- 3. Contract Period. The Contractor shall complete the Project and expend the Grant Funds as described in the Project Budget within the contract period. The contract period is from July 1, 2022, or the date of approval of this contract by the State Librarian or, if applicable, the Connecticut Attorney General, whichever is later, through June 30, 2023. Any Grant Funds remaining unexpended on June 30, 2023, must be returned to the State Library with the *Project Evaluation/Expenditure Report*.
- 4. **Payment.** The State of Connecticut shall assume no liability for payment of services under the terms of this contract until the Contractor is notified that this contract has been approved. Payment to the Contractor shall be processed within 45 days of approval of this contact, or within 45 days of the first day of this contract period, whichever is later.

- 5. **Contract Amendment.** To request approval for a change to the Grant's purpose, methodology, budget and/or completion deadline, the Contractor shall submit an *Amendment Request Form*, available on request from the State Library, to the State Library at least two (2) months prior to the then-current end of the contract period. (a) The State Library must approve any changes to the Grant's purpose and/or methodology which are deemed significant by the State Library. (b) The State Library must approve any budget reallocation that exceeds ten percent (10%) of the total Grant Funds. The Contractor may reallocate up to ten percent (10%) of the total Grant Funds among line items contained in the approved Project Budget as detailed in Paragraph 2 of this contract without prior approval. (c) The State Library must approve any extension to the completion deadline. The Contractor must notify the State Library immediately if difficulties arise that could affect the timely completion of all grant work and expenditures. Extensions are at the sole discretion of the State Library and will not be considered except in the most extenuating situations beyond the municipality's control.
- 6. **Final Report.** The Contractor shall submit a *Project Evaluation/Expenditure Report*, available on the State Library website at <u>ctstatelibrary.org</u>, for receipt at the State Library by **September 1, 2023**. Failure to submit a completed *Project Evaluation/Expenditure Report* for receipt by the due date may result in termination of the Grant and the requirement that the Contractor return the full Grant Funds, as well as loss of eligibility for the next grant cycle. This filing deadline shall not be extended. Financial and other supporting documentation for the grant must be maintained by the municipality as part of the grant file in accordance with the municipal records retention schedules.
- 7. **Insurance.** The Contractor agrees that while performing services specified in this contract that it shall carry sufficient insurance (liability and/or other) as applicable according to the nature of the service to be performed so as to "save harmless" the State of Connecticut from any insurable claim whatsoever. If requested, certificates of such insurance shall be filed with the State Library prior to the performance of services.
- 8. **Indemnification.** The Contractor agrees to indemnify and hold the State, its officials, agents, and employees harmless from and against any and all claims, suits, actions, costs, and damages resulting from the negligent performance or non-performance by the Contractor or any of its officials, agents, or employees of the Contractor's obligations under this agreement. It is further understood that such indemnity shall not be limited by any insurance coverage which is required herein Paragraph 7.
- 9. Audit Requirements for State Grants. For purposes of this clause, the word "Contractor" shall be read to mean "nonstate entity," as that term is defined in C.G.S. § 4-230. The Contractor shall provide for an annual financial audit acceptable to the State Library for any expenditure of State-awarded funds made by the Contractor. Such audit shall include management letters and audit recommendations. The State Auditors of Public Accounts shall have access to all records and accounts for the fiscal year(s) in which the award was made. The Contractor will comply with federal and State single audit standards as applicable.
- 10. Inspection of Work Performed. (a) The State Library or its authorized representative shall at all times have the right to enter into the Contractor's or subcontractor's premises, or such other places where duties under this Contract are being performed, to inspect, to monitor or to evaluate the work being performed in accordance with C.G.S. § 4e-29 to ensure compliance with this contract. The Contractor and all subcontractors must provide all reasonable facilities and assistance to State Library representatives. All inspections and evaluations shall be performed in such a manner as will not unduly delay work. Written evaluations pursuant to this paragraph shall be made available to the Contractor. (b) The Contractor must incorporate this section verbatim into any contract it enters into with any subcontractor providing services under this contract.
- 11. **Refund.** The Contractor shall refund any amounts found to be owing to the State as a result of an error or the discovery of any fraud, collusion, or illegal actions and shall make such refund within thirty (30) days from the notice in writing by the State. In the event that the Contractor fails to make such refund, the State shall deduct such amount from any current or future sums owing to the Contractor on the part of the State from any source or for any purpose whatsoever.

- 12. **Governing Law.** This contract and the rights and obligations of the parties hereunder shall be governed by, and construed in accordance with, the laws of the State of Connecticut.
- 13. Assignment. The Contractor shall not assign any of its rights or obligations or sublet under this contract, voluntarily or otherwise, in any manner without the prior written consent of the State Library. The State Library may void any purported assignment in violation of this paragraph and declare the Contractor in breach of contract. Any cancellation by the State Library for a breach is without prejudice to the State Library or the State's rights or possible claims.
- 14. **Claims Against the State.** The sole and exclusive means for the presentation of any claim against the State arising from this contract shall be in accordance with Chapter 53 of the Connecticut General Statutes (Claims Against the State) and the Contractor further agrees not to initiate legal proceedings in any State or Federal Court in addition to, or in lieu of, said Chapter 53 proceedings.

15. Executive Orders and Other Enactments.

(a) All references in this Contract to any Federal, State, or local law, statute, public or special act, executive order, ordinance, regulation or code (collectively, "Enactments") shall mean Enactments that apply to the Contract at any time during its term, or that may be made applicable to the Contract during its term. This Contract shall always be read and interpreted in accordance with the latest applicable wording and requirements of the Enactments. At the Contractor's request, the State Library shall provide a copy of these Enactments to the Contractor. Unless otherwise provided by Enactments, the Contractor is not relieved of its obligation to perform under this Contract if it chooses to contest the applicability of the Enactments or the State Library's authority to require compliance with the Enactments.

(b) This Contract is subject to the provisions of Executive Order No. Three of Governor Thomas J. Meskill, promulgated June 16, 1971, concerning labor employment practices, Executive Order No. Seventeen of Governor Thomas J. Meskill, promulgated February 15, 1973, concerning the listing of employment openings and Executive Order No. Sixteen of Governor John G. Rowland promulgated August 4, 1999, concerning violence in the workplace, all of which are incorporated into and are made a part of this Contract as if they had been fully set forth in it.

(c) This Contract may be subject to (1) Executive Order No. 14 of Governor M. Jodi Rell, promulgated April 17, 2006, concerning procurement of cleaning products and services; (2) Executive Order No. 61 of Governor Dannel P. Malloy promulgated December 13, 2017 concerning the Policy for the Management of State Information Technology Projects, as issued by the Office of Policy and Management, Policy ID IT-SDLC-17-04; and (3) Executive Order Nos. 13F and 13G of Governor Ned Lamont, promulgated September 3, 2021 and September 10, 2021, respectively, concerning protection of public health and safety during COVID-19 pandemic, as extended by Executive Order No. 14A of Governor Ned Lamont, promulgated September 30, 2021. If any of the Executive Orders referenced in this subsection is applicable, it is deemed to be incorporated into and made a part of this Contract as if fully set forth in it.

- 16. **Termination.** The State may terminate this contract upon thirty (30) days written notice to the Contractor if the Contractor fails to comply with this contract or time schedules to the satisfaction of the State. In the event of such a termination, the State shall not be responsible for any future payments to the Contractor, and the State may recover any payments already made to the Contractor by any available means, including the withholding of grants of funds otherwise due the Contractor from the State.
- 17. **Sovereign Immunity.** The parties acknowledge and agree that nothing in this contract shall be construed as a modification, compromise or waiver by the State of any rights or defenses of any immunities provided by Federal law or the laws of the State of Connecticut to the State or any of its officers and employees, which they may have had, now have or will have with respect to all matters arising out of this contract. To the extent that this section conflicts with any other section, this section shall govern.

18. Entire Agreement. This written contract shall constitute the entire agreement between the parties and no other terms and conditions in any document, acceptance or acknowledgment shall be effective or binding unless expressly agreed to in writing by the State Library. This contract may not be changed other than by a formal written contract amendment signed by the parties hereto and approved by the Connecticut Attorney General, if applicable. This contract shall be binding upon and shall inure to the benefit of the Contractor and its successors.

IN WITNESS WHEREOF, the parties have executed this Contract by their duly authorized representatives with full knowledge of and agreement with its terms and conditions.

Municipality:

Signature of Municipal CEO, duly authorized	Date		
Name (Print Clearly)	Title (Print Clearly)		
Municipality (Use "City of" or "Town of" Format)	Email		
Municipality Mailing Address (Print Clearly)			

Connecticut State Library:

Deborah E. Schander, State Librarian

Date

For STATE LIBRARY Use Only:

Fund	Department	SID	Program	Account	Project	Budget Ref.
12060	CSL66094	35150	73001	55070	CSL_Non. Proj.	2023

Rev. 06/2022



Office of Public Works

Matthew Walsh, P.E., Director

MEMO

TO:	David Cox, Town Manager
FROM:	Matthew Walsh, Director of Public Works
DATE:	6/20/2022
SUBJECT:	11 Lake View Street stone wall repair proposals.

Please find attached to this memo three proposals from stone masonry contractors for the repair of the stone wall at 11 Lake View Street. I conducted a site visit with all of the contractors represented to ensure an understanding of the project. The quoted prices for the work are listed below from lowest to highest.

- 1. \$33,500 Mark F. DeFrancecso Inc.
- 2. \$38,390 JLS Premier Masonry and Construction LLC
- 3. \$80,000 Sebastian J. Damiata Mason Contractor LLC

Formal written specifications and engineered drawings were not created for this project nor was a formal sealed bidding process used. As noted above, site visits with each contractor were used to describe the desired project, which involves removal and reuse of existing wall material, re-establishment of a proper base, excavation and installation of drainage stone behind the wall with proper water relief and construction of the new/replaced wall. Each of the three contractors were provided the same information and instruction. In accordance with the Town Code, the Council is authorized to waive the full competitive bidding process if doing so is "in the best interest of the Town." Staff suggests that the interests of the Town are not well served by expending the resources and time to develop full drawings and specifications for a project of this size and scope where multiple quotations have been received based on the same project description.

Based on the above quoted prices and the foregoing regarding bidding, I would ask that the Town Council consider waiving the competitive bidding process and accept the proposal from Mark F. DeFrancecso Inc.

Thank you for your consideration on this matter.

Mark F. DeFrancesco, Inc.

118 Jobs Pond Road Portland, CT 06480

Bill To:

Estimate

Number: E2414.1

Date: June 09, 2022

Shin To:

	omp ro.
Matt Walsh	
Town of East Hampton	
Department of Public Works	
mwalsh@easthamptonct.gov	

1				

PO Number	Terms	Sales Rep

Description	Quantity	Price	Tax	Amount
Proposal to rebuild 250' stone wall at Lakeview Street property as discussed				
MASONARY LABOR AND MATERIALS	1.00	20,000.00		20,000.00
EXCAVATION/DRAINAGE LABOR AND MATERIALS	1.00	13,500.00		13,500.00
		Sub-T	otal	\$33,500.00
	State Ta	x 6.35% on (0.00	0.00
		т	otal	\$33,500.00

Materials and equipment rental charges are subject to change by suppliers.

Estimate

JLS Premier Masonry & Construction LLC 442 Windham Ave Colchester, CT 06415 860-931-4487 jlspremier.mc@gmail.com



	ADDRESS Matt Wal 11 Lake East Han	sh View St		
ESTIMATE #		DATE		

05/23/2022

DATE	ACTIVITY	QTY	RATE	AMOUNT
	Stone wall preparation Tear down 215 linear ft of retaining wall. Saving just the stone.	1	38,390.00	38,390.00
	Remove all masonry debris from property			
	Recess grass so to have room to build new stone retaining wall.(repair of grass is the town's responsibility)			
	Install weep holes every ten feet in stone wall.			
	Repoint stone steps and portion of wall that is not being replaced as needed			
	Build retaining wall to previous height and with, using previous stones.			
	Install gravel behind wall for drainage for proper drainage.			
	Install 2 inch cement retaining wall stone caps			
	SUBTOTAL			38,390.00
	ТАХ			0.00
	TOTAL		\$	38,390.00

2003

Accepted Date

mwalsh Deasthamptonct.gov Page Page No. d Proposal SEBASTIAN J. DAMIATA Mason Contractor, LLC 43 North Road CROMWELL, CT 06416 PHONE (860) 635-1179 FAX (860) 635-0053 PROPOSAL SUBMITTED TO PHONE Town of East Hampton DATE 22 STREET JOB NAME II Lakeview Stone Wall Repair CITY, STATE and ZIP CODE JOB LOCATION East Hampton, Ct. ARCHITECT JOB PHONE DATE OF PLANS We hereby submit specifications and estimates for: - Masonry Restoration of Stone Wall - (Budget Number Per Conversation With Matt Walsh - Demo + Rebuild Approx. 165-0" x 2-0 High of Stone Wall = Furnish & Install New Precast Cap at Rebuilt Areas - Excavate Behind Wall at Rebuilt Areas to Accept Drainage Trap Kock. - Dispose of Excavated Dirt as Needed - Repoint Mortar Joints at Misc. Areas of Wall not Getting Demoed. * Priced Based on Utilizing the Resident's Front Yard. Behing stone Well. Police (Traffic Patrol not included in this quote. * No Prevailing Wage The propose, hereby to furnish material and labor -- complete in accordance with above specifications, for the sum of: Eighty Thousand Dollars 000,00 Payment to be made as follows All material is guaranteed to be as specified. All work to be completed in a workmanlike Authorized manner according to standard practices. Any alteration or deviation from above specifications Signature involving extra costs will be exocuted only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents Note: This proposal may be or delays beyond our control. Owner to carry fire, tornado and other necessary insurance. withdrawn by us if not accepted within days Our workers are fully covered by Workman's Compansation Insurance. Acceptance of Proposal - The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized Signature to do the work as specified. Payment will be made as outlined above. Signature Date of Acceptance:

RESOLUTION

East Hampton Town Council

<u>A Resolution Allocating American Rescue Plan Funds</u> <u>Number 5</u>

DRAFT – July 7, 2022

WHEREAS, the American Rescue Plan was approved in March 2021 and includes State and Local Fiscal Recovery Funds (SLFRF) to be distributed to state, local and Tribal governments across the country, including the Town of East Hampton, and

WHEREAS, the Town of East Hampton will receive \$3,788,167.51 under the program to be used as authorized in the guidance issued by the US Department of the Treasury, and

WHEREAS, the Town of East Hampton has designated its entire allocation as lost public sector revenue under US Department of the Treasury regulations that authorize municipalities to utilize up to \$10 million of the individual municipality's SLFRF distribution as a replacement to lost public sector revenue, and

WHEREAS, funds used to replace lost public sector revenue may be used for the provision of government services at the discretion of the municipality with some limitations as indicated in the guidance, and

WHEREAS, the Town of East Hampton will determine specific expenditures via the Town Council pursuant to Resolution, and

WHEREAS, the Town of East Hampton anticipates the unplanned replacement of an aging stone wall supporting soils within a public Right of Way adjacent to the sidewalk on Lakeview Street in the amount of \$33,500; and

WHEREAS, the Town of East Hampton desires to use SLFRF to fund this unexpected capital improvement.

NOW, THEREFORE, BE IT RESOLVED by the Town of East Hampton Town Council, to hereby allocate funds for the aforementioned stone wall replacement ofn Lakeview Street in an amount up to \$33,500 of the Town's SLFRF lost revenue distribution.

BE IT FURTHER RESOLVED, that the Town Manager and the Finance Director take appropriate steps to identify and earmark these funds for this purpose including moving the funds to an appropriate holding or expenditure account or fund.

Approved this 12th day of July, 2022.

TOWN COUNCIL

ATTEST

Mark Philhower, Chairperson

Kelly Bilodeau, Town Clerk



East Hampton Parks and Recreation Department 1 Community Drive, East Hampton CT 06424 Phone: 860-267-7300 Email: jhall@easthamptonct.gov

Job Description Program Leader

Position Purpose:

The Purpose of this position is to develop, promote, initiate, supervise and otherwise conduct a wide variety of age appropriate passive, active and developmental recreation programs and other programs offered by or under the direction of the East Hampton Parks and Recreation Department. A program supervisor is responsible for maintaining and improving the efficiency and effectiveness of all areas under his/her direction and control.

Supervision:

Supervision Scope: Performs responsible duties requiring a high level of initiative and judgment in developing, planning, supervising and implementing the department's programs, activities and services, and supervising program volunteers; formulates, recommends and implements decisions regarding policies, procedures and operations.

Supervision Received: Works under the general direction of the Parks and Recreation Director and according to professionally accepted and department policies, procedures and practices. The position is subject to review and evaluation according to the Town's personnel policies and procedures.

Supervision Given: A Program Leader is responsible for the supervision of all programs and volunteers within his/her assigned areas of responsibility and other programs and staff in the absence of Program Coordinator or the Parks and Recreation Director.

Job Environment:

Work is performed indoors and outside under all prevailing weather conditions and according to assigned work schedules including week days, weekends and holidays. The work involves

supervising and being physically able to participate in a broad range of passive and active recreation programs. It involves the operation of manually controlled, electronic, motorized and/or other powered equipment incidental to recreation programming requiring physical dexterity and communication skills. The nature of the work performed, or the work environment may be hazardous requiring a working knowledge of relevant job safety practices, the use of safety equipment and enforcing compliance with industry standard safety procedures and precautions.

Essential Functions:

(The essential functions or duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to the position.)

- Develops, plans, promotes, administers, enlists participation in and supervises community active and passive recreation programs including relevant program operational policies and procedures; assists in the development of program marketing materials.
- Assists in retaining and training seasonal and other recreation department employees and contractors; establishes employee/contractor program and other job-related objectives and expectations; provides effective and otherwise appropriate employee/contractor and program supervision; evaluations employee and program performance and effectiveness in relation to program objectives.
- Provides for a safe conduct of Town of East Hampton active and passive recreation programs; provides for the adequate protection and appropriate use of property, materials, equipment and supplies used in recreation programs.
- Plans for and timely purchases program materials and supplies according to the Town's purchasing policies and procedures.
- Assists the Program Coordinator and Director in appropriately managing the Department's financial resources, both revenues and expenditures, to achieve financial objectives.
- Promotes positive public relations with the public and with public, private, voluntary and commercial agencies sponsoring and/or co-sponsoring activities and programs with the Department.
- Prepares, presents and discusses periodic reports to the Program Coordinator and Director and otherwise as directed.

Other Functions:

- Publicizes programs and activities utilizing appropriate methods and media.
- Performs similar or related work as required or as the situation dictates.

Physical and Mental Effort:

While performing the functions of this job, the employee is required to sit, stand, stoop, walk and run for varied durations; is frequently required to talk and listen; uses hands to finger, handle or feel objects, tools, or controls; reaches with hands and arms; kneels and bends to work on projects or with equipment and tools; specific vision abilities required include close, color and distance vision, peripheral and depth perception and the ability to adjust focus; ability to operate motor vehicles, tools and office and recreation equipment efficiently in a skilled manner; ability to lift up to 50 lbs. and over 50 lbs. with assistance; must be able to hear normal sounds, distinguish sound as voice patterns and communicate through human speech using commonly understood American English.

Minimum Required Qualifications:

Education Training and Experience:

Four years' experience in recreation, athletics or a closely related field. College training in recreation management or similar major may be substituted for general experience on the basis of fifteen semester hours equaling one half year of experience to a maximum of four years for a bachelor's degree. Must have some experience conducting and supervising recreation programs or work of a like or similar nature; prior public recreation experience is preferred; a working knowledge of recreation program software is preferred; or any equivalent combination of education and experience. Within First (6) Months of employment required to get first aid, CPR, blood borne pathogens training.

Special Requirements:

A person in this position must have and maintain a current valid motor vehicle operator's license; A person in this position must be able to pass a background check and maintain a history free of any criminal convictions; is required to take and successfully complete additional training in recreation programs, tools and equipment, and safety policies and procedures; must be able to work evenings, weekends and some holidays as assigned.

Knowledge, Ability and Skill:

Knowledge: A strong working knowledge of the theories, principals and practices of current recreation program planning, administration, supervision, promotion and control; a working knowledge of the principles and practices of business and public administration as this knowledge relates to active and passive recreation; knowledge of current first-aid skills, CPR, medical administration, and blood borne pathogens.

Ability: An ability to communicate orally and in writing clearly and concisely; ability to develop, administer, coordinate, supervise and analyze the effectiveness and appropriateness of recreation programs, participants, officials and other facilitators; an ability to evaluate the appropriate use and acquisition of materials, tools, equipment and facilities relative to the conduct of related recreation programs; an ability to develop and maintain effective and appropriate working relationships with the public, employees, contractors, suppliers and program participants; an ability to effectively and appropriately evaluate and make operational judgements regarding recreation programs, facilities, materials, equipment, supplies and the involvement of participants, parents, other public officials or employees and spectators; must develop and maintain an ability to work effectively with the Recreation Department's computer applications and business procedures.

Skill: Has highly developed skills in the development, initiation, promotion, supervision and conduct of a wide variety of age appropriate active, passive and developmental recreation programs; is proficient in the use of standard office equipment and in the use of Microsoft Office office automation applications and in particular Word and Excel.

(This job description does not constitute and employment agreement between the employer and the employee. It is used as a guide for personnel actions and is subject to change by the employer as the needs and requirements of the job change.)

Agenda Item 9a

CONTRACT BID DOCUMENTS

FOR THE

LAKE POCOTOPAUG WATERSHED IMPROVEMENTS PROJECT AREAS #1 - #6 EAST HAMPTON, CONNECTICUT

JULY, 2022

PREPARED FOR

TOWN OF EAST HAMPTON 1 COMMUNITY DRIVE EAST HAMPTON, CT 06424



41 Sequin Drive Glastonbury, CT 06033 T: 860.633.8770 F: 860.633.5971

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TAB A

Invitation to Bid

INVITATION TO BID LAKE POCOTOPAUG - WATERSHED IMPROVEMENTS PROJECT AREA #1 - #6

The Town of East Hampton, Connecticut is soliciting sealed bids for completing Low Impact Sustainable Development Stormwater Retrofits within the Lake Pocotopaug Watershed.

This project generally consists of installing upgrades to existing stormwater conveyance and collection systems at six (6) locations to control nonpoint sources of water pollution within the Lake Pocotopaug watershed.

Funding for this project is provided by the Connecticut Department of Energy and Environmental Protection under Section 319 of the Federal Clean Water Act and the Town of East Hampton. Work for the project described above includes furnishing, installing and incorporating all materials and equipment into the project as well as performing or providing all labor, supervision, equipment and services unless otherwise noted within the bid documents.

The Town intends to award all the projects to one general contractor and anticipates that the awarded contractor will utilize subcontractors to provide the unique technical experience required at each location. Contractors shall provide a minimum of three project references to verify they're qualified to perform the work

Sealed bids will be received by David Cox, Town Manager, East Hampton Town Hall, 1 Community Drive, East Hampton, Connecticut, 06424, until **11:00 AM on Friday August 19**, **2022** at which time they will be publicly opened and read aloud.

The Contract Documents, including bid specifications and drawings are available for review at the East Hampton Town Hall, Town Manager's Office, 1 Community Drive, East Hampton, CT. The East Hampton Town Hall is open Monday, Wednesday and Thursday 8:00 AM - 4:00 PM, Tuesday 8:00 AM - 6:30 PM and Friday 8:00 AM - 12:30 PM, and may obtain copies of the Bidding Documents as described below.

Contract documents, pdf format, can be obtained from the Town's website under <u>https://www.easthamptonct.gov/town-manager</u> and the Department of Administrative Services (DAS) Construction Services website.

A satisfactory Bid Bond or Certified Check, in an amount equal to five percent (5%) of the base bid, shall be submitted with each bid. The Bid Bond shall be made payable to Town of East Hampton and shall be properly executed by the Bidder and acceptable sureties. All bonds must be from sureties registered in the State of Connecticut.

No Bidder may withdraw his Bid for a period of sixty (60) days after the date of Bid opening.

The Town of East Hampton reserves the right to accept or reject any or all options, bids or proposals; to waive any technicality in any bid or part thereof, and to accept any bid deemed to be in the best interest of the Town of East Hampton.

The Town of East Hampton is an Affirmative Action/Equal Opportunity Employer. Minority/Women's Business Enterprises are encouraged to apply Barton and Loguidice, LLC.

David Cox, Town Manager

TAB B

Instructions to Bidders

INSTRUCTION TO BIDDERS

1. PROJECT DESCRIPTION:

This project generally consists of installing Low Impact Sustainable Development Stormwater Retrofits within the Lake Pocotopaug Watershed to control nonpoint sources of water pollution.

Funding for this project is provided by the Connecticut Department of Energy and Environmental Protection under Section 319 of the Federal Clean Water Act and the Town of East Hampton.

The work described above includes furnishing, installing and incorporating all materials and equipment into the project as well as performing or providing all labor, supervision, equipment and services unless otherwise noted within the bid documents.

See technical specification 01 11 00 for detailed descriptions.

2. GENERAL:

Sealed Bids will be received at the office of the Town Manager of the Town of East Hampton located at the East Hampton Town Hall, 1 Community Drive, East Hampton, CT 06424, until **11:00 AM prevailing time on Friday August 19, 2022**, at which time the bids will be opened publicly and read aloud. Bids received after the Bid Opening date and/or time will be returned unopened.

3. CONTRACT DOCUMENTS:

These Contract Documents include a complete set of Bidding Forms which are not to be detached from the Contract Documents. Division II Construction Details and Division III Materials Section in the State of Connecticut Department of Transportation (CTDOT) Standard Specifications for Roads, Bridges and Incidental Construction, Form 818, dated 2020 through Supplemental Specifications dated January 2022, which may be purchased from the CTDOT Manager of Contracts, P.O. Box 317546, 2800 Berlin Turnpike in Newington, CT 06131-7546 shall be utilized where materials and specifications are not otherwise noted within the Contract Documents.

4. BIDS:

Bid Documents shall be enclosed in a sealed envelope addressed to the Office of the Town Manager, 1 Community Drive, East Hampton, CT 06424 and clearly marked **"SEALED BID – LAKE POCOTOPAUG - WATERSHED IMPROVEMENTS PROJECT AREAS #1 - #6"** along with the name of Bidder, date and time of Bid Opening in order to guard against premature opening of the Bid.

All Bids must be submitted on forms supplied by the Owner and shall be subject to all requirements of the Contract Documents, including "Instructions to Bidders." All Bids must

be regular in every respect; no interlineations, ditto marks, excisions or special conditions shall be made or included in the Bid Form by the Bidders.

The Owner may consider as irregular any Bid on which there are any omissions, alterations of form, additions not called for, conditional or alternate Bids, or irregularities of any kind and, at its option, may reject same. The blank spaces in the proposal must be filled in correctly where indicated for each and every item for which a quantity is given typed or printed in ink. If any price is omitted, the Bid may be rejected. The Bidder shall sign his proposal correctly. If the proposal is made by an individual, his name and post office address must be shown. If made by a firm, partnership, or by a corporation, the proposal must be signed by an official of the firm, partnership, or corporation authorized to sign contracts, and also must show the post office address of the firm, partnership or corporation.

A Non-Collusion Affidavit shall be completed and returned with the submitted Bid. More than one proposal from an individual, a firm or partnership, a corporation or association under the same or different names will not be considered. Reasonable ground for believing that any Bidder is interested in more than one proposal for the work contemplated will cause the rejection of all proposals in which such Bidder is interested. Proposals in which the prices are obviously unbalanced may be rejected.

5. ADDENDA & INTERPRETATIONS:

Any request from a prospective Bidder for interpretation of meaning of Contract Drawings, Specifications or other Contract Documents shall be made in writing to the office of Barton and Loguidice, LLC. 41 Sequin Dr. Glastonbury, CT 06033 and to be given consideration must be received at least seven (7) days prior to date fixed for opening of proposals. Interpretations will be made in the form of written Addenda to Contract Documents, which Addenda shall become a part of the Contract. Such requests may be sent to Barton and Loguidice, LLC via e-mail to kgrindle@bartonandloguidice.com. Not later than four (4) days prior to date fixed for opening of proposals, Addenda will be mailed or delivered to all parties recorded as having obtained Contract Documents. It is the responsibility of the bidder to verify that all Addenda have been received and incorporated into the submitted bid. Failure of any Bidder to receive any such Addenda shall not relieve Bidder from any obligations under his proposal as submitted. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

6. SITE CONDITIONS:

All information on the Drawings or in the contract Documents relating to subsurface conditions, utilities, and other structures is from best sources available at present to the Owner. All such information and drawings of existing construction are furnished only for the information and convenience of Bidders.

At the date fixed for opening of Bids, it will be presumed that each Bidder has made an examination of location and site of work to be done under Contract; has satisfied himself

as to actual conditions, requirements and quantities of work; has considered federal, state and local laws and regulations that may affect cost, progress, performance or furnishing the Work; and has read and become thoroughly familiar with Contract Documents including Contract Drawings, Specifications, Addenda, and documents referenced therein.

The Owner and the Engineer assume no responsibility whatsoever with respect to ascertaining for the Contractor any facts concerning physical characteristics at the site of the project.

7. BIDDER'S QUALIFICATIONS:

The Owner shall make such investigation as deemed necessary to determine the ability of the Bidder to discharge the Contract. After Bid opening, Bidder shall be prepared to furnish the Owner with all written evidence as may be required for this purpose (e.g., financial data, previous experience, and present commitments) within five (5) days after Owner requests such evidence. Each Bid must contain evidence of Bidder's qualification to do business in the State of Connecticut or covenant to obtain such qualification prior to award of the contract.

Bids received from Bidders who have previously failed to complete contracts within the time required, or who have previously performed similar work in an unsatisfactory manner, may be rejected. A Bid may be rejected if the Bidder cannot show that they have the necessary capital and experience, and owns, controls, or can procure the necessary plan to commence and complete the work at the rate or time specified, and that they are not already obligated for the performance of other work which would delay the commencement, prosecution, or completion of the work.

8. MODIFICATION:

Any Bidder may modify their Bid at any time prior to the scheduled closing time for receipt of Bids, by submitting an appropriate document duly executed in a manner that Bid must be executed and delivered to the place where Bids are to be submitted. After opening of Bids, no Bidder may withdraw their proposal for a period of sixty (60) days. Owner may, in its sole discretion, release any Bid prior to that date.

9. **REJECTION OF BIDS**:

The Owner also reserves the right to reject any or all Bids, for any reason it deems advisable, and to award Contract or Contracts to any of the Bidders, regardless of amount of Bid. If the Contract is awarded, it will be awarded to the lowest responsible and eligible Bidder (or Bidders) possessing skill, ability and integrity necessary for faithful performance of work.

10. TIME OF COMPLETION & LIQUIDATED DAMAGES:

The Bidder must agree to fully complete all work within the number of consecutive calendar days of the issuance of the Notice to Proceed set forth in the Agreement. The

Bidder must agree also to pay as liquidated damages the sum set forth in the Agreement for each consecutive calendar day thereafter.

11. AWARD OF CONTRACTS:

If the Contract is awarded, Owner will give successful Bidder a Notice of Award within forty five (45) days after the day of Bid opening. The successful Bidder shall then execute and deliver to the Owner, within ten (10) days after notification of the award, three (3) executed Agreements, Final Certificate of Insurance, Performance Bond, Payment Bond, Contractors Minority Business Enterprise Utilization Form and Schedule of Values on forms provided by the Owner. If the successful Bidder fails to comply with the requirements of these documents within ten (10) days of receiving said Notice, that Bidder shall forfeit Bid Security and, at the option of the Owner, the Award may become null and void. The Owner may then proceed to Award the Contract to another of the Bidders.

12. BID SECURITY:

Each Bid must be accompanied by a surety bond, certified or bank check, or a letter of credit, in the amount of 5% of the total of the Bid with the forms supplied by the Owner. Bid security of the successful Bidder will be retained until such Bidder has executed the Agreement, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. The Bid security of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of the seventh day after the Effective Date of the Agreement or the sixty-first day after Bid opening, whereupon the Bid security furnished by such Bidders will be returned. Bid security with Bids which are not competitive will be returned within seven (7) days of Bid opening.

13. SCHEDULE OF VALUES:

The apparent successful Bidder must submit, prior to the execution of an Agreement, a preliminary schedule of values for all of the Work. The preliminary schedule of values must be submitted after Bidding by the apparent low Bidder, and the schedule of values must be deemed acceptable by the Engineer, before the Agreement is executed.

14. SECURITY FOR FAITHFUL PERFORMANCE:

In addition to the Agreement, the successful Bidder shall also provide, within the time stipulated, a Construction Performance Bond by a company satisfactory to the Owner in an amount equal to One Hundred Percent (100%) of Estimated Total Contract Price recorded in the Proposal section of the Contract as executed, and a Construction Payment Bond in like amount will be required from the successful Bidder for faithful performance of the Contract.

TAB C

Forms

Bid Proposal Form Non-Collusion Affidavit of Bidder Bid Bond Agreement Construction Performance Bond Construction Payment Bond

BID PROPOSAL FORM

BID PROPOSAL

PROJECT IDENTIFICATION:

Lake Pocotopaug - Watershed Improvements Areas #1 - #6

THIS BID IS SUBMITTED TO:

Office of the Town Manager East Hampton Town Hall 20 East High Street East Hampton, Connecticut 06424 Attention: David Cox, Town Manager

The Undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an agreement with Owner in the form included in the Contract Documents to perform and furnish all Work as specified or indicated in the Contract Documents for the Bid Price and within the Bid Times indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.

Bidder accepts all terms and conditions of the Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for sixty (60) days after the day of Bid opening. Bidder will sign and deliver the required number of counterparts of the Agreement with the Bonds and other documents required by the Bidding Requirements within ten (10) days after the date of Owner's Notice of Award.

In submitting this Bid, Bidder represents, as more fully set forth in the Agreement, that:

1. Bidder has examined and carefully studied the Bidding Documents and the following Addenda receipt all of which is hereby acknowledged (List Addenda by Addendum Number and Date):

- 2. Bidder has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance and furnishing of the Work.
- 3. Bidder is familiar with and is satisfied as to all federal, state and local Laws and regulations that may affect cost, progress, performance and furnishing of the Work.
- 4. Bidder has carefully studied all reports and explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except

Underground Facilities) which have been identified in the Supplementary Conditions. Bidder acknowledges that Owner and Engineer do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Bidding Documents with respect to Underground Utilities at or contiguous to the site. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all such additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface, Underground Facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences and procedures of construction to be employed by Bidder and safety precautions and programs related thereto. Bidder does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the determination of the Bid for performance and furnishing of the Work in accordance with the times, price and other terms and conditions of the Contract Documents.

- 5. Bidder is aware of the general nature of Work to be performed by Owner and others at the site that relates to Work for which this Bid is submitted as indicated in the Contract Documents.
- 6. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents.
- 7. Bidder has given Engineer written notice of all conflicts, errors, ambiguities or discrepancies that Bidder has discovered in the Contract Documents and the written resolution thereof by Engineer is acceptable to Bidder, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work for which this Bid is submitted.
- 8. This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any person, firm or corporation to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.
- 9. The Bidder has provided a minimum of three project references to verify they are qualified to perform the work.
- 10. Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

PROJECT AREA #1 – PAUL AND SANDY'S

BASE BID

Project No. 1 consists of installation of waddles, clearing of wooded areas, and seeding of cleared areas as depicted on plans prepared by Trinkaus Engineering, LLC. Bidder will complete the Work in accordance with the Contract Documents for the following lump sum price.

Dollars

(in words)

\$___

(in numbers)

PROJECT AREA #2 – TOWN HALL POND

BASE BID

Project No. 4 consists of removal of existing debris within 5' of existing outlet pipe, removal of existing flared end section and installation of new pipe section as depicted on plans prepared by Trinkaus Engineering, LLC. Bidder will complete the Work in accordance with the Contract Documents for the following lump sum price.

	_Dollars
(in words)	
\$	
(in numbers)	

PROJECT AREA #3 – SPELLMAN POINT ROAD

BASE BID

Project No. 5 Removal of trees and brush within project limits, removal of catch basin and RCP pipe, installing temporary bypass pipe, installing new HDPE pipe, seal end of existing RCP pipe after portion is removed, installing field stone check dams, construct wet swale, seed swale area and remove bypass pipe as depicted on plans prepared by Trinkaus Engineering, LLC. Bidder will complete the Work in accordance with the Contract Documents for the following lump sum price.

	Dollars
(in words)	
\$	
(in numbers)	

\$_____

PROJECT AREA #4 – BAY ROAD CULVERT

BASE BID

Project No. 6 consists of installation of plantings as depicted on plans prepared by Trinkaus Engineering, LLC. Bidder will complete the Work in accordance with the Contract Documents for the following lump sum price.

Dollars

(in words)

(in numbers)

PROJECT AREA #5 – BROOKHAVEN PARK BEACH RESTORATION

BASE BID

Project No. 7 consists of installation of a Riprap Swale, plantings and chain link fence as depicted on plans prepared by Barton and Loguidice, LLC. Bidder will complete the Work in accordance with the Contract Documents for the following lump sum price.

Dollars

(in words)

\$

(in numbers)

PROJECT AREA #6 – SEARS PARK BEACH RESTORATION

BASE BID

Project No. 8 consists of installation of trench drains, stone swale, berm and bituminous walk as depicted on plans prepared by Barton and Loguidice, LLC. Bidder will complete the Work in accordance with the Contract Documents for the following lump sum price.

Dollars

\$_____

(in words)

(in numbers)

ADD ALTERNATE

Add Alternate for Project No. 8 consists of installation of pervious pavement for the 10' wide section of walkway as depicted on plans prepared by Barton and Loguidice, LLC. Bidder will complete the Work in accordance with the Contract Documents for the following lump sum price.

Dollars

(in words)
\$
 (in numbers)

- 11. Bidder agrees that the Work will be substantially completed and completed and ready for final payment in accordance with Article 14 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
- 12. Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the times specified in the Agreement.
- 13. The following documents are attached to and made a part of this Bid:

Required Bid Security in the form of _____

- 14. Communications concerning this Bid shall be addressed to the address of Bidder below.
- 15. Terms used in this Bid which are defined in the General Conditions or Instructions to Bidders will have the same meanings indicated in the General Conditions or Instructions to Bidders.

SUBMITTED on:	,	2022.

Ву:	 Title:
Bidder:	
Address:	

SEAL – if Bid is by a Corporation

NON-COLLUSION AFFIDAVIT OF BIDDER

that:

NON-COLLUSION AFFIDAVIT OF BIDDER

State of:)	
) SS:	
County of:)	
		_; being first duly sworn, deposes and says

- 1.) He is the owner, partner, officer, representative or agent of the Bidder that has submitted the attached Bid:
- 2.) He is fully informed regarding the preparation and contents of the attached Bid and of all pertinent circumstances regarding such Bid:
- 3.) Such Bid is genuine and is not a collusive or sham Bid:
- 4.) Neither the said Bidder nor any of its officers, partners, owner, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived, or agreed, directly or indirectly with any other Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm or person to fix the price or prices in the attached Bid or of any Bidder, or to fix any overhead, profit or cost element of the bid price or the bid price of any other Bidder or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage with the Town of East Hampton or any person interested in the proposed Contract.
- 5.) The price quoted in the attached Bid is fair and proper and is not tainted by collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest.

Signed:		
Title:		
Subscribed and sworn before me this, 2022.	day of	
Notary Public:		

My Commission expires_____,

BID BOND

BID BOND

Any singular reference to Bidder, Surety, Owner, or other party shall be considered plural where applicable.

BIDDER (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER (Name and Address):

BID Bid Due Date: Project (Brief Description Including Location):

BOND Bond Number: Date (Not later than Bid due date): Penal sum

(Words)

(Figures)

(Seal)

Surety and Bidder, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Bid Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

(Seal

BIDDER

SURETY

Bidder's Name and Corporate Seal

By: _________Signature and Title

Attest: Signature and Title Surety's Name and Corporate Seal

By:

Signature and Title (Attach Power of Attorney)

Attest: Signature and Title

Note: Above addresses are to be used for giving required notice.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Surety's liability.

2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.

- 3. This obligation shall be null and void if:
 - 3.1. Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2. All Bids are rejected by Owner, or
 - 3.3. Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).

4. Payment under this Bond will be due and payable upon default by Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.

5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.

6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date. 7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.

9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.

10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.

11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

AGREEMENT

AGREEMENT

BETWEEN OWNER AND CONTRACTOR ON THE BASIS OF A STIPULATED PRICE

THIS AGREEMENT is dated	as of the	day of
	in the year	by and between the Town of East
Hampton (hereinafter called	OWNER)	
		(hereinafter called CONTRACTOR).

OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

Article 1. WORK

CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

Installation of Low Impact Sustainable Development Stormwater Retrofits within the Lake Pocotopaug Watershed to control nonpoint sources of water pollution.

Article 2. ENGINEER

The Projects have been designed by:

Trinkaus Engineering, LLC 114 Hunters Ridge Road Southbury, Connecticut 06488 Phone: (203) 264-4558 Barton and Loguidice, LLC. 41 Sequin Drive Glastonbury, Connecticut 06033 Phone: (860) 633-8770

The Project are being administered by:

Barton and Loguidice, LLC. 41 Sequin Drive Glastonbury, Connecticut 06033 Phone: (860) 633-8770

who are hereinafter called ENGINEERS and who are to act as OWNER's representatives from time to time, assume some duties and responsibilities and have the rights and authority assigned to ENGINEER in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents. OWNER will perform most of the duties associated with processing applications for payments in lieu of ENGINEER.

Article 3. CONTRACT TIMES

3.1 The Work to complete the overall project will be substantially completed within sixty (60) calendar days of issuance of Notice to Proceed as provided in paragraph 2.03 of the General Conditions and as modified by the Supplementary Conditions.

3.2 Liquidated Damages. OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that OWNER may suffer financial loss if the Work is not completed within the times specified in paragraph 3.1 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. They also recognize the delays, expense and difficulties involved in proving the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER three hundred dollars (\$300.00) for each calendar day that expires after the time specified in paragraph 3.1 for Substantial Completion until the Work is substantially complete. After Substantial Completion, if CONTRACTOR shall neglect, refuse or fail to complete the remaining Work within the time specified in paragraph 3.1 for completion and readiness for final payment or any proper extension thereof granted by OWNER, CONTRACTOR shall pay OWNER three hundred dollars (\$300.00) for each calendar day that expires after the time specified in paragraph 3.1 for completion and readiness for final payment.

Article 4. CONTRACT PRICE

OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to paragraph 4.1 below:

4.1 In accordance with the Bid Proposal Form (BP-1 thru BP-5), the Bidder will complete the Project in accordance with the Contract Documents for the Lump Sum price of

Project Area #1 Base Bid	\$
Project Area #2 Base Bid	\$
Project Area #3 Base Bid	\$
Project Area #4 Base Bid	\$
Project Area #5 Base Bid	\$
Project Area #6 Base Bid	\$

Article 5. PAYMENT PROCEDURES

CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by OWNER or ENGINEER as provided in the General Conditions and Supplementary Conditions.

- 5.1 Progress Payments; Retainage. OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment as recommended by the ENGINEER, each month during construction as provided in paragraphs 5.1.1 and 5.1.2. below. All such payments will be measured by the schedule of values established in paragraph 2.07 of the General Conditions (and in the case of Unit Price Work based on the number of units completed), or, in the event there is no schedule of values, as provided in the General Requirements. Beginning with the second Application for Payment, each Application shall include affidavit of Release of Liens from all subcontractors and suppliers of material and equipment.
- 5.1.1 Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below, but, in each case, less the aggregate of payments previously made and less such amounts as ENGINEER shall determine, or OWNER may withhold, in accordance with paragraph 14.02 of the General Conditions.

95% of Work completed (with the balance being retainage).

90% (with the balance being retainage) of materials and equipment not incorporated in the Work (but delivered, suitably stored and accompanied by documentation satisfactory to OWNER as provided in paragraph 14.02 of the General Conditions).

- 5.1.2 Upon Substantial Completion, in an amount sufficient to increase total payments to CONTRACTOR to 98% of the Contract Price (with the balance being retainage), less such amounts as ENGINEER shall determine, or OWNER may withhold, in accordance with paragraph 14.02 of the General Conditions.
- 5.2 *Final Payment.* At the end of the One Year Correction Period, the CONTRACTOR shall submit to ENGINEER an Application for Payment of the retainage in accordance with paragraph 14.07 of the General Conditions.

Article 6. INTEREST

All moneys not paid when due as provided in Article 14 of the General Conditions shall bear interest at the maximum rate allowed by law at the place of the project.

Article 7. CONTRACTOR'S REPRESENTATIONS

In order to induce OWNER to enter into this Agreement, CONTRACTOR makes the following representations:

- 7.1 CONTRACTOR has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents including "technical data".
- 7.2 CONTRACTOR has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance or furnishing of the Work.
- 7.3 CONTRACTOR is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress, performance and furnishing of the Work.
- 7.4 CONTRACTOR has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.0.2 of the General Conditions. CONTRACTOR accepts the determination set forth in paragraph 4.0.2 of the Supplementary Conditions of the extent of the "technical data" contained in such reports and drawings upon which CONTRACTOR is entitled to rely as provided in paragraph 4.0.2 of the General Conditions. CONTRACTOR acknowledges that such reports and drawings are not Contract Documents and may not be complete for CONTRACTOR's purposes. CONTRACTOR acknowledges that OWNER and ENGINEER do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Contract Documents with respect to Underground Facilities at or contiguous to the site. CONTRACTOR has obtained and carefully studied (or assumes responsibility for having done so) all such additional supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences and procedures of construction to be employed by CONTRACTOR and safety precautions and programs incident thereto. CONTRACTOR does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the performance and furnishing of the Work at the Contract Price, within the Contract Times and in accordance with the other terms and conditions of the Contract Documents.
- 7.5 CONTRACTOR is aware of the general nature of work to be performed by OWNER and others at the site that relates to the Work as indicated in the Contract Documents.
- 7.6 CONTRACTOR has correlated the information known to CONTRACTOR, information and observations obtained from visits to the site, reports and drawings identified

in the Contract Documents and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents.

7.7 CONTRACTOR has given ENGINEER written notice of all conflicts, errors, ambiguities or discrepancies that CONTRACTOR has discovered in the Contract Documents and the written solution thereof by ENGINEER is acceptable to CONTRACTOR, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

Article 8. CONTRACT DOCUMENTS

The Contract Documents which comprise the entire agreement between OWNER and CONTRACTOR concerning the Work consist of the following:

- 8.1 This Agreement (pages A-1 to A-5, inclusive).
- 8.2 Exhibits to this Agreement (Exhibits A, B, C, D, E,).
- 8.3 Exhibit A Contractor's Certificate of Insurance
- 8.4 Exhibit B Contractor's Performance Bond & Payment Bond.
- 8.5 Exhibit C Contractor's Bid Proposal
- 8.6 Exhibit D Bid Addenda (if any....)
- 8.7 Exhibit E Original Bid Documents
- 8.8 The following which may be delivered or issued after the Effective Date of the Agreement and are not attached hereto: All Written Amendments and other documents amending, modifying or supplementing the Contract Documents pursuant to paragraph 3.0.4 of the General Conditions.

The documents listed in paragraphs 8.2 et seq. above are attached to this Agreement (except as expressly noted otherwise above).

There are no Contract Documents other than those listed in this Article 8. The Contract Documents may only be amended, modified, or supplemented as provided in paragraph 3.0.4 of the General Conditions.

Article 9. MISCELLANEOUS

- 9.1 Terms used in this Agreement which are defined in Article 1 of the General Conditions will have the meanings indicated in the General Conditions.
- 9.2 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.
- 9.3 OWNER and CONTRACTOR each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns

and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.

9.4 Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and CONTRACTOR, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement, in triplicate. One counterpart each has been delivered to OWNER, CONTRACTOR and ENGINEER. All portions of the Contract Documents have been signed, initialed or identified by OWNER and CONTRACTOR or identified by OWNER and CONTRACTOR or identified by ENGINEER on their behalf.

	, 2022, (which
is the Effective Date of the Agreement).	
OWNER: Town of East Hampton	CONTRACTOR:
By: David Cox, Town Manager	Ву:
[CORPORATE SEAL]	[CORPORATE SEAL]
Attest	Attest
Address for giving notices:	Address for giving notices:
1 Community Drive	
East Hampton, CT 06424	
(If OWNER is a public body, attach	License No.
evidence of authority to sign and resolution or other documents authorizing execution of Agreement.)	Agent for service of process:
	(If CONTRACTOR is a corporation, attach

evidence of authority to sign.)

CONSTRUCTION PERFORMANCE BOND

PERFORMANCE BOND

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER (Name and Address):

CONTRACT Date: Amount: Description (Name and Location):

BOND Bond Number: Date (Not earlier than Contract Date): Amount: Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Performance Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL Company:	SURETY	
Signature: (Seal)		(Seal)
Name and Title: (Space is provided below for signatures of additional parties, if required.)	Surety's Name and Corporate Seal By: Signature and Title (Attach Power of Attorney) Attest: Signature and Title	
CONTRACTOR AS PRINCIPAL Company:	SURETY	
Signature: (Seal) Name and Title:	Surety's Name and Corporate Seal By: Signature and Title (Attach Power of Attorney) Attest: Signature and Title:	(Seal)

EJCDC No. C-610 (2002 Edition)

Originally prepared through the joint efforts of the Surety Association of America, Engineers Joint Contract Documents Committee, the Associated General Contractors of America, and the American Institute of Architects.

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner for the performance of the Contract, which is incorporated herein by reference.

2. If Contractor performs the Contract, Surety and Contractor have no obligation under this Bond, except to participate in conferences as provided in Paragraph 3.1.

3. If there is no Owner Default, Surety's obligation under this Bond shall arise after:

- 3.1. Owner has notified Contractor and Surety, at the addresses described in Paragraph 10 below, that Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with Contractor and Surety to be held not later than 15 days after receipt of such notice to discuss methods of performing the Contract. If Owner, Contractor and Surety agree, Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive Owner's right, if any, subsequently to declare a Contractor Default; and
- 3.2. Owner has declared a Contractor Default and formally terminated Contractor's right to complete the Contract. Such Contractor Default shall not be declared earlier than 20 days after Contractor and Surety have received notice as provided in Paragraph 3.1; and
- 3.3. Owner has agreed to pay the Balance of the Contract Price to:
 - 1. Surety in accordance with the terms of the Contract;
 - 2. Another contractor selected pursuant to Paragraph 4.3 to perform the Contract.

4. When Owner has satisfied the conditions of Paragraph 3, Surety shall promptly and at Surety's expense take one of the following actions:

- 4.1. Arrange for Contractor, with consent of Owner, to perform and complete the Contract; or
- 4.2. Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
- 4.3. Obtain bids or negotiated proposals from qualified contractors acceptable to Owner for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by Owner and Contractor selected with Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Contract, and pay to Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Contract Price incurred by Owner resulting from Contractor Default; or
- 4.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:
 - After investigation, determine the amount for which it may be liable to Owner and, as soon as practicable after the amount is determined, tender payment therefor to Owner; or
 - 2. Deny liability in whole or in part and notify Owner citing reasons therefor.

5. If Surety does not proceed as provided in Paragraph 4 with reasonable promptness, Surety shall be deemed to be in default on this Bond 15 days after receipt of an additional written notice from Owner to Surety demanding that Surety perform its obligations under this Bond, and Owner shall be entitled to enforce any remedy available to Owner. If Surety proceeds as provided in Paragraph 4.4, and Owner refuses the payment tendered or Surety has denied liability, in whole or in part, without further notice Owner shall be entitled to enforce any remedy available to Owner.

FOR INFORMATION ONLY – Name, Address and Telephone Surety Agency or Broker Owner's Respresentative (engineer or other party) 6. After Owner has terminated Contractor's right to complete the Contract, and if Surety elects to act under Paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of Surety to Owner shall not be greater than those of Contractor under the Contract, and the responsibilities of Owner to Surety shall not be greater than those of Owner under the Contract. To a limit of the amount of this Bond, but subject to commitment by Owner of the Balance of the Contract Price to mitigation of costs and damages on the Contract, Surety is obligated without duplication for:

- 6.1. The responsibilities of Contractor for correction of defective Work and completion of the Contract;
- 6.2. Additional legal, design professional, and delay costs resulting from Contractor's Default, and resulting from the actions or failure to act of Surety under Paragraph 4; and
- 6.3. Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or nonperformance of Contractor.

7. Surety shall not be liable to Owner or others for obligations of Contractor that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than Owner or its heirs, executors, administrators, or successors.

8. Surety hereby waives notice of any change, including changes of time, to Contract or to related subcontracts, purchase orders, and other obligations.

9. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and shall be instituted within two years after Contractor Default or within two years after Contractor cased working or within two years after Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

10. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the address shown on the signature page.

11. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

- 12. Definitions.
 - 12.1 Balance of the Contract Price: The total amount payable by Owner to Contractor under the Contract after all proper adjustments have been made, including allowance to Contractor of any amounts received or to be received by Owner in settlement of insurance or other Claims for damages to which Contractor is entitled, reduced by all valid and proper payments made to or on behalf of Contractor under the Contract.
 - 12.2. Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.
 - 12.3. Contractor Default: Failure of Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.
 - 12.4. Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or comply with the other terms thereof.

CONSTRUCTION PAYMENT BOND

PAYMENT BOND

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER (Name and Address):

CONTRACT Date: Amount: Description (Name and Location):

BOND Bond Number: Date (Not earlier than Contract Date): Amount: Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Payment Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL Company:		SURETY	
Signature:	(Seal)		(Seal)
Name and Title:		Surety's Name and Corporate Seal	
		Ву:	
		Signature and Title	
		(Attach Power of Attorney)	
(Space is provided below for signatures of ad parties, if required.)	dditional		
		Attest:	
		Signature and Title	
CONTRACTOR AS PRINCIPAL Company:		SURETY	
Signature:	(Seal)		(Seal)
Name and Title:		Surety's Name and Corporate Seal	
		By:	
		Signature and Title	
		(Attach Power of Attorney)	
		Attest:	
		Signature and Title:	

EJCDC No. C-615 (2002 Edition)

Originally prepared through the joint efforts of the Surety Association of America, Engineers Joint Contract Documents Committee, the Associated General Contractors of America, the American Institute of Architects, the American Subcontractors Association, and the Associated Specialty Contractors.

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner to pay for labor, materials, and equipment furnished by Claimants for use in the performance of the Contract, which is incorporated herein by reference.

- With respect to Owner, this obligation shall be null and void if Contractor:
 Promptly makes payment, directly or indirectly, for all sums due Claimants, and
 - 2.2. Defends, indemnifies, and holds harmless Owner from all claims, demands, liens, or suits alleging non-payment by Contractor by any person or entity who furnished labor, materials, or equipment for use in the performance of the Contract, provided Owner has promptly notified Contractor and Surety (at the addresses described in Paragraph 12) of any claims, demands, liens, or suits and tendered defense of such claims, demands, liens, or suits to Contractor and Surety, and provided there is no Owner Default.

3. With respect to Claimants, this obligation shall be null and void if Contractor promptly makes payment, directly or indirectly, for all sums due.

- 4. Surety shall have no obligation to Claimants under this Bond until:
 - 4.1. Claimants who are employed by or have a direct contract with Contractor have given notice to Surety (at the addresses described in Paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.
 - 4.2. Claimants who do not have a direct contract with Contractor:
 - Have furnished written notice to Contractor and sent a copy, or notice thereof, to Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials or equipment were furnished or supplied, or for whom the labor was done or performed; and
 - 2. Have either received a rejection in whole or in part from Contractor, or not received within 30 days of furnishing the above notice any communication from Contractor by which Contractor had indicated the claim will be paid directly or indirectly; and
 - 3. Not having been paid within the above 30 days, have sent a written notice to Surety and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to Contractor.

5. If a notice by a Claimant required by Paragraph 4 is provided by Owner to Contractor or to Surety, that is sufficient compliance.

6. When a Claimant has satisfied the conditions of Paragraph 4, the Surety shall promptly and at Surety's expense take the following actions:

- 6.1. Send an answer to that Claimant, with a copy to Owner, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.
- 6.2. Pay or arrange for payment of any undisputed amounts.

7. Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by Surety.

FOR INFORMATION ONLY – Name, Address and Telephone Surety Agency or Broker: Owner's Representative (engineer or other party): 8. Amounts owed by Owner to Contractor under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any performance bond. By Contractor furnishing and Owner accepting this Bond, they agree that all funds earned by Contractor in the performance of the Contract are dedicated to satisfy obligations of Contractor and Surety under this Bond, subject to Owner's priority to use the funds for the completion of the Work.

9. Surety shall not be liable to Owner, Claimants, or others for obligations of Contractor that are unrelated to the Contract. Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.

10. Surety hereby waives notice of any change, including changes of time, to the Contract or to related Subcontracts, purchase orders and other obligations.

11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Paragraph 4.1 or Paragraph 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, Owner, or Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.

13. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory Bond and not as a common law bond.

14. Upon request of any person or entity appearing to be a potential beneficiary of this Bond, Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.

- 15. DEFINITIONS
 - 15.1. Claimant: An individual or entity having a direct contract with Contractor, or with a first-tier subcontractor of Contractor, to furnish labor, materials, or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of Contractor and Contractor's Subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
 - 15.2. Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.
 - 15.3. Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or comply with the other terms thereof.

TAB D

General Conditions

Instructions

Before you use any EJCDC document:

- 1. Read the License Agreement. You agree to it and are bound by its terms when you use the EJCDC document.
- 2. Make sure that you have the correct version for your word processing software.

How to Use:

- 1. While EJCDC has expended considerable effort to make the software translations exact, it can be that a few document controls (e.g., bold, underline) did not carry over.
- 2. Similarly, your software may change the font specification if the font is not available in your system. It will choose a font that is close in appearance. In this event, the pagination may not match the control set.
- 3. If you modify the document, you must follow the instructions in the License Agreement about notification.
- 4. Also note the instruction in the License Agreement about the EJCDC copyright.

License Agreement

You should carefully read the following terms and conditions before using this document. Commencement of use of this document indicates your acceptance of these terms and conditions. If you do not agree to them, you should promptly return the materials to the vendor, and your money will be refunded.

The Engineers Joint Contract Documents Committee ("EJCDC") provides **EJCDC Design and Construction Related Documents** and licenses their use worldwide. You assume sole responsibility for the selection of specific documents or portions thereof to achieve your intended results, and for the installation, use, and results obtained from **EJCDC Design and Construction Related Documents**.

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- 2. Use EJCDC Design and Construction Related Documents in printed form for bona fide contract documents.
- 3. Copy EJCDC Design and Construction Related Documents into any machine readable or printed form for backup or modification purposes in support of your use of EJCDC Design and Construction Related Documents.

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- Reproduce and include EJCDC's copyright notice on any printed or machine-readable copy, modification, or portion merged into another document or program. All proprietary rights in EJCDC Design and Construction Related Documents are and shall remain the property of EJCDC.
- Not represent that any of the contract documents you generate from EJCDC Design and Construction Related Documents are EJCDC documents unless (i) the document text is used without alteration or (ii) all additions and changes to, and deletions from, the text are clearly shown.

You may not use, copy, modify, or transfer EJCDC Design and Construction Related Documents, or any copy, modification or merged portion, in whole or in part, except as expressly provided for in this license. Reproduction of EJCDC Design and Construction Related Documents in printed or machine-readable format for resale or educational purposes is expressly prohibited.

If you transfer possession of any copy, modification or merged portion of EJCDC Design and Construction Related Documents to another party, your license is automatically terminated.

Term:

The license is effective until terminated. You may terminate it at any time by destroying **EJCDC Design and Construction Related Documents** altogether with all copies, modifications and merged portions in any form. It will also terminate upon conditions set forth elsewhere in this Agreement or if you fail to comply with any term or condition of this Agreement. You agree upon such termination to destroy **EJCDC Design and Construction Related Documents** along with all copies, modifications and merged portions in any form.

Limited Warranty:

EJCDC warrants the CDs and diskettes on which EJCDC Design and Construction Related Documents is furnished to be free from defects in materials and workmanship under normal use for a period of ninety (90) days from the date of delivery to you as evidenced by a copy of your receipt.

There is no other warranty of any kind, either expressed or implied, including, but not limited to the implied warranties of merchantability and fitness for a particular purpose. Some states do not allow the exclusion of implied warranties, so the above exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

EJCDC does not warrant that the functions contained in EJCDC Design and Construction Related Documents will meet your requirements or that the operation of EJCDC Design and Construction Related Documents will be uninterrupted or error free.

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EJCDC's entire liability and your exclusive remedy shall be:

- 1. the replacement of any document not meeting EJCDC's "Limited Warranty" which is returned to EJCDC's selling agent with a copy of your receipt, or
- 2. if EJCDC's selling agent is unable to deliver a replacement CD or diskette which is free of defects in materials and workmanship, you may terminate this Agreement by returning EJCDC Document and your money will be refunded.

In no event will EJCDC be liable to you for any damages, including any lost profits, lost savings or other incidental or consequential damages arising out of the use or inability to use **EJCDC Design and Construction** **Related Documents** even if EJCDC has been advised of the possibility of such damages, or for any claim by any other party.

Some states do not allow the limitation or exclusion of liability for incidental or consequential damages, so the above limitation or exclusion may not apply to you.

General:

You may not sublicense, assign, or transfer this license except as expressly provided in this Agreement. Any attempt otherwise to sublicense, assign, or transfer any of the rights, duties, or obligations hereunder is void.

This Agreement shall be governed by the laws of the State of Virginia. Should you have any questions concerning this Agreement, you may contact EJCDC by writing to:

> Arthur Schwartz, Esq. General Counsel National Society of Professional Engineers 1420 King Street Alexandria, VA 22314

Phone: (703) 684-2845 Fax: (703) 836-4875 e-mail: aschwartz@nspe.org

You acknowledge that you have read this agreement, understand it and agree to be bound by its terms and conditions. You further agree that it is the complete and exclusive statement of the agreement between us which supersedes any proposal or prior agreement, oral or written, and any other communications between us relating to the subject matter of this agreement. This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the Controlling Law.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly By







PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE *a practice division of the* NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

AMERICAN COUNCIL OF ENGINEERING COMPANIES

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American Council of Engineering Companies 1015 15th Street, N.W., Washington, DC 20005

American Society of Civil Engineers 1801 Alexander Bell Drive, Reston, VA 20191-4400

These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor Nos. C-520 or C-525 (2002 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the EJCDC Construction Documents, General and Instructions (No. C-001) (2002 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (No. C-800) (2002 Edition).

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GENERAL CONDITIONS

ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

1.01 Defined Terms

A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

1. *Addenda*--Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.

2. *Agreement*--The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.

3. *Application for Payment*--The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. *Asbestos*--Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

5. *Bid--*The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

6. *Bidder*--The individual or entity who submits a Bid directly to Owner.

7. *Bidding Documents--*The Bidding Requirements and the proposed Contract Documents (including all Addenda).

8. *Bidding Requirements--*The Advertisement or Invitation to Bid, Instructions to Bidders, bid security of acceptable form, if any, and the Bid Form with any supplements.

9. *Change Order*--A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

10. *Claim*--A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

11. *Contract*--The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. Contract Documents-- Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor's submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.

13. *Contract Price*--The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).

14. *Contract Times*--The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any, (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.

15. *Contractor*--The individual or entity with whom Owner has entered into the Agreement.

16. *Cost of the Work*--See Paragraph 11.01.A for definition.

17. *Drawings*--That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.

18. *Effective Date of the Agreement--*The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

19. *Engineer*--The individual or entity named as such in the Agreement.

20. *Field Order--*A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.

21. *General Requirements*--Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications.

22. *Hazardous Environmental Condition--*The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Work.

23. *Hazardous Waste--*The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

24. Laws and Regulations; Laws or Regulations--Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

25. *Liens*--Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

26. *Milestone--*A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

27. *Notice of Award*--The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.

28. *Notice to Proceed--*A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.

29. *Owner*--The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.

30. *PCBs*--Polychlorinated biphenyls.

31. *Petroleum*--Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.

32. *Progress Schedule*--A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.

33. *Project*--The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.

34. *Project Manual*--The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.

35. *Radioactive Material--*Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

36. *Related Entity* -- An officer, director, partner, employee, agent, consultant, or subcontractor.

37. *Resident Project Representative--*The authorized representative of Engineer who may be assigned to the Site or any part thereof.

38. *Samples*--Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

39. *Schedule of Submittals*--A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.

40. Schedule of Values--A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

41. *Shop Drawings--*All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.

42. *Site--*Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.

43. *Specifications--*That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.

44. *Subcontractor*--An individual or entity having a direct contract with Contractor or with any other

Subcontractor for the performance of a part of the Work at the Site.

45. Substantial Completion--The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

46. *Successful Bidder*--The Bidder submitting a responsive Bid to whom Owner makes an award.

47. *Supplementary Conditions*--That part of the Contract Documents which amends or supplements these General Conditions.

48. *Supplier*--A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or any Subcontractor.

49. Underground Facilities--All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

50. *Unit Price Work--*Work to be paid for on the basis of unit prices.

51. *Work*--The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

52. Work Change Directive--A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 Terminology

A. The following words or terms are not defined but, when used in the Bidding Requirements or Contract Documents, have the following meaning.

B. Intent of Certain Terms or Adjectives

1. The Contract Documents include the terms "as allowed," "as approved," "as ordered", "as directed" or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the "suitable," adjectives "reasonable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action or determination will be solely to evaluate, in general, the Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. Day

1. The word "day" means a calendar day of 24 hours measured from midnight to the next midnight.

D. Defective

1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it:

a. does not conform to the Contract Documents, or

b. does not meet the requirements of any applicable inspection, reference standard, test, or

approval referred to in the Contract Documents, or

c. has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. Furnish, Install, Perform, Provide

1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.

4. When "furnish," "install," "perform," or "provide" is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, "provide" is implied.

F. Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 - PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.

B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

2.02 *Copies of Documents*

A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

2.03 Commencement of Contract Times; Notice to Proceed

A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

2.04 *Starting the Work*

A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

2.05 Before Starting Construction

A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:

1. a preliminary Progress Schedule; indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;

2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 Preconstruction Conference

A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 Intent

A. The Contract Documents are complementary; what is required by one is as binding as if required by all.

B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided whether or not specifically called for at no additional cost to Owner.

C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

3.02 Reference Standards

A. Standards, Specifications, Codes, Laws, and Regulations

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard, specification, manual or code, or any instruction of a Supplier shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, or Engineer, or any of, their Related Entities, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 Reporting and Resolving Discrepancies

A. Reporting Discrepancies

1. Contractor's Review of Contract Documents Before Starting Work: Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor may discover and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.

2. Contractor's Review of Contract Documents During Performance of Work: If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any Law or Regulation applicable to the performance of the Work or of any standard, specification, manual or code, or of any instruction of any Supplier, Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.

3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor knew or reasonably should have known thereof.

B. Resolving Discrepancies

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:

> a. the provisions of any standard, specification, manual, code, or instruction (whether or not specifically incorporated by reference in the Contract Documents); or

> b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.

B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:

1. A Field Order;

2. Engineer's approval of a Shop Drawing or Sample; (Subject to the provisions of Paragraph 6.17.D.3); or

3. Engineer's written interpretation or clarification.

3.05 *Reuse of Documents*

A. Contractor and any Subcontractor or Supplier or other individual or entity performing or furnishing all of the Work under a direct or indirect contract with Contractor, shall not:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or Engineer's consultants, including electronic media editions; or

2. reuse any of such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaption by Engineer.

B. The prohibition of this Paragraph 3.05 will survive final payment, or termination of the Contract.

Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

3.06 *Electronic Data*

A. Copies of data furnished by Owner or Engineer to Contractor or Contractor to Owner or Engineer that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60day acceptance period will be corrected by the transferring party..

C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

ARTICLE 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

4.01 Availability of Lands

A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as

necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 Subsurface and Physical Conditions

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports of explorations and tests of subsurface conditions at or contiguous to the Site that Engineer has used in preparing the Contract Documents; and

2. those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) that Engineer has used in preparing the Contract Documents.

B. Limited Reliance by Contractor on Technical Data Authorized: Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 Differing Subsurface or Physical Conditions

A. *Notice:* If Contractor believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed either:

1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or

2. is of such a nature as to require a change in the Contract Documents; or

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *Engineer's Review*: After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.

C. Possible Price and Times Adjustments

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

> a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and

> b. with respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:

a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or

b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous

areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or

c. Contractor failed to give the written notice as required by Paragraph 4.03.A.

3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, Owner and Engineer, and any of their Related Entities shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 Underground Facilities

A. Shown or Indicated: The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data; and

2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:

a. reviewing and checking all such information and data,

b. locating all Underground Facilities shown or indicated in the Contract Documents,

c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction, and

d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. Not Shown or Indicated

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

4.05 *Reference Points*

A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 *Hazardous Environmental Condition at Site*

A. *Reports and Drawings:* Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the Engineer in the preparation of the Contract Documents.

B. Limited Reliance by Contractor on Technical Data Authorized: Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.

C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.

D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any.

E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered to Contractor written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05. a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.

G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06. G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, employees, agents, consultants, partners, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 - BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

F. If after receipt of such written notice Contractor does not agree to resume such Work based on

A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the

Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.

B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent must be accompanied by a certified copy of the agent's authority to act.

C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 Licensed Sureties and Insurers

A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.03 Certificates of Insurance

A. Contractor shall deliver to Owner, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.

B. Owner shall deliver to Contractor, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.

5.04 *Contractor's Liability Insurance*

A. Contractor shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;

2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;

3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;

4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:

a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or

b. by any other person for any other reason;

5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and

6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

B. The policies of insurance required by this Paragraph 5.04 shall:

1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, include as additional insured (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers. directors, partners, employees, agents, consultants and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

3. include completed operations insurance;

4. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;

5. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);

6. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and

7. with respect to completed operations insurance, and any insurance coverage written on a claimsmade basis, remain in effect for at least two years after final payment.

> a. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

5.05 Owner's Liability Insurance

A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

5.06 Property Insurance

A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;

2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, false work, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, (other than caused by flood) and such other perils or causes of loss as may be specifically required by the Supplementary Conditions;

3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;

5. allow for partial utilization of the Work by Owner;

6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.

B. Owner shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.

C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07. D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.

5.07 Waiver of Rights

A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, employees, consultants partners, agents, and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insured or additional insured (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.

B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them for: 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.

C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order .

B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

5.09 Acceptance of Bonds and Insurance; Option to Replace

A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract

Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 Partial Utilization, Acknowledgment of Property Insurer

A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.01 Supervision and Superintendence

A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.

B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances. The superintendent will be Contractor's representative at the Site and shall have authority to act on behalf of Contractor. All communications given to or received from the superintendent shall be binding on Contractor.

6.02 Labor; Working Hours

A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.

B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 Services, Materials, and Equipment

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.

B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 *Progress Schedule*

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below. 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 Substitutes and "Or-Equals"

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.

1. "Or-Equal" Items: If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment Engineer determines that:

1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole,

3) it has a proven record of performance and availability of responsive service; and

b. Contractor certifies that, if approved and incorporated into the Work:

1) there will be no increase in cost to the Owner or increase in Contract Times, and

2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. Substitute Items

a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.

b. Contractor shall submit sufficient information as provided below to allow Engineer to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.

c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented in the General Requirements and as Engineer may decide is appropriate under the circumstances.

d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:

1) shall certify that the proposed substitute item will:

a) perform adequately the functions and achieve the results called for by the general design,

b) be similar in substance to that specified, and

c) be suited to the same use as that specified;

2) will state:

a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time;

b) whether or not use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and

c) whether or not incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;

3) will identify:

a) all variations of the proposed substitute item from that specified , and

b) available engineering, sales, maintenance, repair, and replacement services;

4) and shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change,

B. Substitute Construction Methods or Procedures: If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.

C. Engineer's Evaluation: Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by either a Change Order for a substitute or an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.

D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

E. Engineer's Cost Reimbursement: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B Whether or not Engineer approves a substitute item so proposed or submitted by Contractor, Contractor shall reimburse Owner for the charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

F. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

6.06 Concerning Subcontractors, Suppliers, and Others

A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.

B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued . No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.

C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:

1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity, nor

2. shall anything in the Contract Documents create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.

E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.

F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an approagreement between Contractor and priate the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, and Engineer,, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 *Patent Fees and Royalties*

A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of Owner or Engineer its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

B. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, employees, agents, consultants partners, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

6.08 Permits

A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

6.09 *Laws and Regulations*

A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.

B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.

C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

6.10 Taxes

A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

6.11 Use of Site and Other Areas

A. Limitation on Use of Site and Other Areas

1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.

2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.

3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, employees, agents, consultants partners, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents. D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 *Record Documents*

A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Engineer for Owner.

6.13 Safety and Protection

A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.

C. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or , or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

D. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 Hazard Communication Programs

A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 *Emergencies*

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 Shop Drawings and Samples

A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the acceptable Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

1. Shop Drawings

a. Submit number of copies specified in the General Requirements.

b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

2. *Samples:* Contractor shall also submit Samples to Engineer for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals.

a. Submit number of Samples specified in the Specifications.

b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.

B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals , any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. Submittal Procedures

1. Before submitting each Shop Drawing or Sample, Contractor shall have determined and verified:

a. all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

b. the suitability of all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;

c. all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto; and

d. shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.

2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents

with respect to Contractor's review and approval of that submittal.

3. With each submittal, Contractor shall give Engineer specific written notice of any variations, that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawing's or Sample Submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. Engineer's Review

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. Resubmittal Procedures

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

6.18 *Continuing the Work*

A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or

disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 *Contractor's General Warranty and Guarantee*

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its Related Entities shall be entitled to rely on representation of Contractor's warranty and guarantee.

B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or

2. normal wear and tear under normal usage.

C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:

1. observations by Engineer;

2. recommendation by Engineer or payment by Owner of any progress or final payment;

3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;

4. use or occupancy of the Work or any part thereof by Owner;

5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;

6. any inspection, test, or approval by others; or

7. any correction of defective Work by Owner.

6.20 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or

arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable .

B. In any and all claims against Owner or Engineer or any of their respective consultants, agents, officers, directors, partners, or employees by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, partners, employees, agents, consultants and subcontractors arising out of:

1. the preparation or approval of, or the failure to prepare or approve, maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or

2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

6.21 Delegation of Professional Design Services

A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.

B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.

D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.

E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 - OTHER WORK AT THE SITE

7.01 Related Work at Site

A. Owner may perform other work related to the Project at the Site with Owner's employees, or via other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:

1. written notice thereof will be given to Contractor prior to starting any such other work; and

2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.

B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and shall properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.

C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*

A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:

1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;

2. the specific matters to be covered by such authority and responsibility will be itemized; and

3. the extent of such authority and responsibilities will be provided.

B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

7.03 Legal Relationships

A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.

B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's actions or inactions.

C. Contractor shall be liable to Owner and any other contractor for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's action or inactions.

8.01 *Communications to Contractor*

A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

8.02 Replacement of Engineer

A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

8.03 Furnish Data

A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

8.04 Pay When Due

A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

8.05 Lands and Easements; Reports and Tests

A. Owner's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that have been utilized by Engineer in preparing the Contract Documents.

8.06 Insurance

A. Owner's responsibilities, if any, in respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 Change Orders

A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 Inspections, Tests, and Approvals

A. Owner's responsibility in respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 Undisclosed Hazardous Environmental Condition

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 Evidence of Financial Arrangements

A. If and to the extent Owner has agreed to furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents, Owner's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents and will not be changed without written consent of Owner and Engineer.

9.02 Visits to Site

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 Project Representative

A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 *Authorized Variations in Work*

A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment , a Claim may be made therefor as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.06 Shop Drawings, Change Orders and Payments

A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.

B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.

C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.

D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 Determinations for Unit Price Work

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

9.08 Decisions on Requirements of Contract Documents and Acceptability of Work

A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question

B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believe that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.

C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.

D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show

partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 Limitations on Engineer's Authority and Responsibilities

A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to, the Resident Project Representative, if any, and assistants, if any.

ARTICLE 10 - CHANGES IN THE WORK; CLAIMS

10.01 Authorized Changes in the Work

A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall

promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 Unauthorized Changes in the Work

A.Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.B.

10.03 Execution of Change Orders

A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:

1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;

2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and

3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

10.04 Notification to Surety

A. If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times) is required by the provisions of any bond to be given to a surety, the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.05 Claims

A. Engineer's Decision Required: All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.

B. Notice: Written notice stating the general nature of each Claim, shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Time shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).

C. *Engineer's Action*: Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:

1. deny the Claim in whole or in part,

2. approve the Claim, or

3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.

D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.

E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.

F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

ARTICLE 11 - COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items, and shall not include any of the costs itemized in Paragraph 11.01.B.

1. Pavroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time at the Site. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and pavroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.

4. Costs of special consultants (including but not limited to Engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.

b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, imposed by Laws and Regulations.

e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

g. The cost of utilities, fuel, and sanitary facilities at the Site.

h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, expresses, and similar petty cash items in connection with the Work.

i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.

2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.

3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A and 11.01.B.

C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall

be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.

D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

11.02 Allowances

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. Cash Allowances

1. Contractor agrees that:

a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. Contingency Allowance

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 Unit Price Work

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:

1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

2. there is no corresponding adjustment with respect any other item of Work; and

3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 - CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 Change of Contract Price

A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or

2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).

C. *Contractor's Fee:* The Contractor's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;

b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;

c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraph 12.01.C.2.a is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;

d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;

e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and

f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 Change of Contract Times

A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 Delays

A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.

B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times , or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

C If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.

D. Owner, Engineer and the Related Entities of each of them shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of Engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 Notice of Defects

A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. All defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 Access to Work

A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspecting, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's Site safety procedures and programs so that they may comply therewith as applicable.

13.03 *Tests and Inspections*

A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:

1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;

2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in said Paragraph 13.04.C; and

3. as otherwise specifically provided in the Contract Documents.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.

E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, it must, if requested by Engineer, be uncovered for observation.

F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

13.04 Uncovering Work

A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.

B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.

C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.

D. If, the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 Owner May Stop the Work

A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 Correction or Removal of Defective Work

A. Promptly after receipt of notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 *Correction Period*

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

- 1. repair such defective land or areas; or
- 2. correct such defective Work; or

3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and

4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.

B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.

C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.

D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose.

13.08 Acceptance of Defective Work

A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

13.09 Owner May Correct Defective Work

A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.

B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.

C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 Schedule of Values

A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress

payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 Progress Payments

A. Applications for Payments

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. Review of Applications

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations on the Site of the executed Work as an experienced and qualified design professional and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

a. the Work has progressed to the point indicated;

b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and to any other qualifications stated in the recommendation); and

c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.

3. By recommending any such payment Engineer will not thereby be deemed to have represented that:

a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or

b. that there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:

a. to supervise, direct, or control the Work, or

b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or

c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or

d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or

e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent

inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:

> a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;

> b. the Contract Price has been reduced by Change Orders;

c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or

d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. Payment Becomes Due

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

D. Reduction in Payment

1. Owner may refuse to make payment of the full amount recommended by Engineer because:

a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;

b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;

c. there are other items entitling Owner to a set-off against the amount recommended; or

d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.

2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor corrects to Owner's satisfaction the reasons for such action. 3. If it is subsequently determined that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1.

14.03 Contractor's Warranty of Title

A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

14.04 Substantial Completion

A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.

B. Promptly after Contractor's notification, , Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will within 14 days after submission of the tentative certificate to Owner notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will within said 14 days execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.

D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.

E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to complete or correct items on the tentative list.

14.05 Partial Utilization

A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions.

1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor will certify to Owner and Engineer that such part of the Work is substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 Final Inspection

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 Final Payment

A. Application for Payment

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:

a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.7;

b. consent of the surety, if any, to final payment;

c. a list of all Claims against Owner that Contractor believes are unsettled; and

d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner or Owner's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

B. Engineer's Review of Application and Acceptance

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations

under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and , will be paid by Owner to Contractor.

14.08 Final Completion Delayed

A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 Waiver of Claims

A. The making and acceptance of final payment will constitute:

1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and

2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.01 Owner May Suspend Work

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

15.02 Owner May Terminate for Cause

A. The occurrence of any one or more of the following events will justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);

2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;

3. Contractor's disregard of the authority of Engineer; or

4. Contractor's violation in any substantial way of any provisions of the Contract Documents.

B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:

1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion),

2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and 3. complete the Work as Owner may deem expedient.

C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph Owner shall not be required to obtain the lowest price for the Work performed.

D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.

E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.

F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B, and 15.02.C.

15.03 Owner May Terminate For Convenience

A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work; 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;

3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and

4. reasonable expenses directly attributable to termination.

B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 Contractor May Stop Work or Terminate

A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

ARTICLE 16 - DISPUTE RESOLUTION

16.01 *Methods and Procedures*

A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be

governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.

B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.

C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:

1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions, or

2. agrees with the other party to submit the Claim to another dispute resolution process, or

3. gives written notice to the other party of their intent to submit the Claim to a court of competent jurisdiction.

ARTICLE 17 - MISCELLANEOUS

17.01 *Giving Notice*

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or

2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 Computation of Times

A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 Cumulative Remedies

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 Survival of Obligations

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 Controlling Law

A. This Contract is to be governed by the law of the state in which the Project is located.

17.06 Headings

A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

TAB E

Supplementary Conditions

SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the General Conditions and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

ARTICLE 1 REVISIONS:

1.01.19 Engineer

After the word "Agreement" add the words "OWNER may perform some or all of the duties and assume responsibilities of ENGINEER discussed in these General Conditions including, but not limited to, processing of applications of payments and reviewing submittals."

1.01.37 Resident Project Representative

After the word "Engineer" add "or Owner"

After the word "thereof" add the words "for part-time or full-time observation of work as it proceeds in the field. These efforts include interpretation of drawings and specifications, review of field change orders, and review of payment applications."

ARTICLE 2 REVISIONS:

2.05 Before Starting Construction

Delete Article 2.05.B.3 and add the following new Article 2.05.D:

Documentation submitted by CONTRACTOR prior to execution of Agreement shall include a preliminary schedule of values for all of the Work that includes quantities and prices of items which, when added together, equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work. The approved schedule of values shall follow the format provided in the Bidding Documents.

ARTICLE 3 REVISIONS:

3.06 The Contract Documents are complementary; what is called for by one is as binding as if called for by all. In resolving conflicts, errors, and discrepancies, the documents shall be given precedence in the following order: Agreement, Specifications, Drawings. Within the specifications the order of precedence shall be as follows: Special Provisions, Instructions to Bidders, General Conditions, Technical Provisions. Figure dimensions on Drawings shall govern over scale/dimensions, and detailed Drawings shall govern over general Drawings. The Contractor assumes full responsibility for having familiarized itself with the nature and extent of the Contract Documents, work, locality, and local conditions that may in any manner affect the work to be done.

ARTICLE 4 REVISIONS:

4.01 Availability of Lands

Add the following:

- D. If the Contractor, by direct negotiation and bargaining with any land owner, lessee or tenant, has secured for himself any right to use more space or greater privileges in the space provided for purposes incidental to the performance of the Contract, he shall, upon request of the Owner's Representative, furnish to the Owner's Representative proper evidence that such additional right have been properly secured and assurance that no damage to or claim upon the Owner will arrive there from. The Owner shall not be liable in any way for any expense incurred by the Contractor in securing any such right to use additional property.
- E.If access is provided by means of any road or driveway or through private lands, the Contractor shall permit the regular Owners or users thereof to use the same so far as it is consistent with the construction of the work. If any existing driveway or road is damaged by his use thereof, the Contractor shall at once restore it to as good condition as it would have been had he not used it. The Contractor and those under him using any private road or driveway must assume to use that road or driveway on an "as is" basis and use it at their own risk. Neither the Owner nor the land owner shall be liable for damage to persons or property of the Contractor's forces arising from any defect in such road or driveway, except as such defect may be the consequence of negligence of the Owner or the land owner after the award of the Contract.

ARTICLE 5 REVISIONS:

5.04 Contractor's Liability Insurance

Add the following:

- C. The Contractor shall post a Certificate of Insurance, with the Town of East Hampton named as additional insured, in an amount to be determined by the Owner. The Certificate of Insurance shall name the Town of East Hampton as additional insured in the amount of \$1,000,000 which covers the following:
 - Public Liability, Bodily Injury and Property Damage
 - · Automobile
 - Umbrella
 - Worker's Compensation

D. Insurance requirements shall also apply to all Subcontractors, and the Contractor shall not allow any Subcontractor to commence work until the Subcontractor's insurance has been obtained.

ARTICLE 6 REVISIONS:

Add the following:

6.10.A Taxes

A. "To the extent that the Town of East Hampton is exempt from Connecticut sales tax, the Contractor may purchase materials or supplies to be consumed in the performance of this contract without payment of such tax."

6.11.A.1 Use of Site and Other Areas

A.1 "The exact limit of Work and equipment storage shall be verified and agreed to by Owner and Contractor in the field."

ARTICLE 11 REVISIONS:

Add the following:

11.04 Equipment Rental Rates Not Otherwise Covered

With regard to rental rates applicable to work not covered by either Lump Sum pay items or Unit Adjustments, for any power-operated machinery, trucks or equipment, necessary to use, the Engineer will allow the Contractor the rental rate set forth in the most current edition of the "Rental Rate Blue Book," including all Rate Adjustment Tables and amendments, as published by Dataquest, Inc. of San Jose, California in effect at the time the work is performed for Contractor-owned equipment or at a lower rate, if submitted by the Contractor.

- A. Should the proper completion of the work require equipment of a type not covered by the above-mentioned schedule, the Engineer will allow Contractor a reasonable rental rate which shall be based on that prevailing in the area of the work and shall be agreed upon in writing before the work is begun. However, the Contractor shall show the sources for the rates he has proposed.
- B. For power-operated machinery, truck or equipment, which the Contractor must obtain by rental, he shall inform the Engineer of his need to rent the equipment prior to using it on the work. He shall be paid the actual rental for the equipment, provided that rate does not exceed the rental rate set forth in the "Rental Rate Blue Book", including all Rate Adjustment Tables and amendments as published by Dataquest, Inc. The Contractor shall provide a copy of the paid receipt for the rental expense incurred.
- C. The estimated operating cost per hour will apply only to the actual time the equipment is operating. Operators will be paid as stated hereinbefore for labor

except for certain trucks listed in the "Rental Rate Blue Book" as published by Dataquest, Inc. which show the operators to be included.

- D. For rented equipment not owned by the Contractor or a subsidiary of the Contractor, the following rates shall apply:
 - 1. The daily rate per hour shall apply when the equipment is specifically assigned to the work by the Engineer for a period of 7 consecutive calendar days or less.
 - 2. The weekly rate per hour shall apply when the assigned time exceeds 7 consecutive calendar days but does not exceed 21 calendar days.
 - 3. The monthly rate per hour shall apply when the assigned time exceeds 21 consecutive calendar days.
- E. For Contractor-owned equipment or equipment rented or obtained from a subsidiary of the Contractor, the maximum hourly rate to be used shall be the monthly rate as set forth in the current edition of the "Rental Rate Blue Book", including Rate Adjustment Tables and amendments as published by Dataquest, Inc., divided by 176 (176 working hours per month).

ARTICLE 15 REVISIONS:

Delete the word "persistent" from Article 15.0.2.A.1

ARTICLE 17 REVISIONS:

Add the following:

17.07 Time for Completion and Liquidated Damages:

- A. It is hereby understood and mutually agreed, by and between Contractor and Owner, that the date of beginning and the time for completion as specified in the Agreement of the work to be done hereunder are essential conditions of this Contract; and it is further mutually understood and agreed that the Work embraced in this Agreement shall be commenced on a date to be specified in the Notice to Proceed.
- B. Contractor agrees that said Work shall be prosecuted regularly, diligently and uninterruptedly at such rate of progress as will insure full completion thereof within the time specified. It is expressly understood and agreed, by and between Contractor and Owner, that the time for the completion of the Work described herein is a reasonable time for the completion of the same, taking into consideration the average climatic range and conditions in this locality.
- C. If said Contractor shall neglect, fail or refuse to complete the Work within the time herein specified, or any proper extension thereof granted by Owner, then the Contractor does hereby agree to pay to Owner the amount specified in the Agreement, not as a penalty but as Liquidated Damages for such breach of

Agreement, for each and every calendar day that Contractor shall be in default after the time stipulated in the Agreement for completing the Work.

D. The said amount is fixed and agreed upon by and between Contractor and Owner because of the impracticality and extreme difficulty of fixing and ascertaining the actual damages Owner would in event sustain, and said amount shall be retained from time to time by the Owner from current periodical estimates.

TAB F

Special Provisions

SPECIAL PROVISIONS

DESCRIPTION:

These Special Provisions amend or supplement the Division II Construction Details (Technical Provisions) and Division III Materials Section in the State of Connecticut Department of Transportation (CTDOT) Standard Specifications for Roads, Bridges and Incidental Construction, Form 818, dated 2020 through Supplemental Specifications dated January 2022, which are incorporated herein and are referred to herein after at "Form 818." Only the Form 818 Division II Construction Details and Division III Materials Section are incorporated herein.

Copies of Form 818 may be purchased from:

CTDOT Manager of Contracts P.O. Box 317546 2800 Berlin Turnpike Newington, CT 06131-7546

GENERAL:

Special Provision amendments or supplements that apply throughout Form 818 Division Details (Technical Provisions) are outlined below:

- 1. Replace the word "State" and the word "Department, wherever they appear, with the word "Town" throughout Form 818.
- 2. <u>Method of Measurement</u>: Work items for this lump sum project will not be measured separately for payment unless additions, deletions or modifications to the Work are ordered by the Owner issued Change Order.
- 3. <u>Basis for Payment</u>: Work items for this lump sum project will not be paid for separately unless additions, deletions or modifications to the Work are ordered by the Owner issued Change Order. Progress payments will be made against the Contract Lump Sum for the entire project using an approved Schedule of Values.

RELEVANT SECTIONS:

The following is a list of relevant sections of Form 818 that apply to this project. Note: This list is provided as reference only, meaning that it does not exclusively limit the scope of work for this project.

<u>Section</u>	Description
2.01	Clearing & Grubbing
2.02	Earth Excavation
2.07	Borrow
2.08	Free-Draining Material
2.09	Subgrade

2.12	Subbase
<u></u>	3488436

- 2.13 Granular Fill
- 2.19 Sedimentation Control System
- 3.04 Processed Aggregate Base
- 7.03 Riprap
- 9.13 Chain Link Fence
- 9.22 Bituminous Concrete Sidewalk
- 9.44 Topsoil
- 9.49 Furnishing, Planting and Mulching Trees, Shrubs, Vines and Ground Cover Plants
- 9.50 Turf Establishment
- 9.52 Selective Clearing and Thinning
- 9.71 Maintenance & Protection of Traffic
- 9.75 Mobilization
- 12.20 Construction Signs

SUBMITTALS:

The Contractor shall submit (3) copies of each shop drawing/product data to the Town or it's agent for approval, prior to construction. The Town or its agent will endeavor to respond with their approval and/or review comments within a (2) week period of their receipt of said submittals. The Contractor shall make submittals to include but not limited to the sections of the Form 818 above and per the special provisions hereon.

COORDINATION OF WORK:

The Contractor shall coordinate with the Town and its agents accordingly.

SCHEDULE:

The contract time for this project is sixty (60) calendar days, starting on the Notice to Proceed date, and does not allow for a winter shutdown period. The intended project schedule is as follows:

Bids Due:	August 19, 2022
Notice of Award:	August 23, 2022
Contract Signing:	August 26, 2022
Notice to Proceed:	September 2, 2022
Substantial Completion:	October 31, 2022

The Contractor and Town of East Hampton shall coordinate and agree upon a Sequence of Construction prior to issuance of Notice to Proceed.

LIQUIDATED DAMAGES:

The Contractor is hereby notified that liquidated damages in the amount of three hundred dollars (\$300.00) per consecutive calendar day apply to this project in order to help ensure a timely completion.

PREVAILING WAGE RATES:

The Contractor is hereby notified that the bid shall be submitted without consideration of prevailing wage rates if all work is less than \$100,000.

UTILITY COORDINATION:

The Contractor is hereby notified that if existing overhead utilities are planned for temporary and/or permanent relocation to support this project, including Eversource Energy (CL&P), Frontier Communications (SNET), Comcast (Cable) or any other overhead utility, the Contractor is responsible for coordinating the necessary utility relocations or modifications to complete the work.

MAINTENANCE & PROTECTION OF TRAFFIC:

The Contractor shall be responsible for furnishing, installing and maintaining all temporary pedestrian & traffic barriers and construction signage as required for the duration of the contract period. The Contractor shall coordinate the location of these barriers with the Town of East Hampton or their agent. There shall be no separate measurement and payment for maintenance & protection of traffic.

PORTABLE CHEMICAL TOILET FACILITY:

The Contractor shall furnish one (1) portable chemical toilet for the entire duration of the contract time period to support this construction project. There shall be no separate measurement and payment for portable chemical toilet facilities.

CONSTRUCTION STAKING:

The Contractor is hereby notified that these projects are designed based upon existing mapping such as Town-wide GIS level mapping. The contractor will be responsible for laying out these projects based upon existing site features while working closely with Trinkaus Engineering, LLC. and/or Barton and Loguidice, LLC. to assure compliance with the plan. There shall be no separate measurement and payment for additional construction staking.

INSPECTION:

The Contractor is hereby notified that the Town's agents, Trinkaus Engineering, LLC. and/or Barton and Loguidice, LLC., will perform construction inspection to support this project.

TESTING:

The Contractor is hereby notified that the Town's agents, Trinkaus Engineering, LLC. and/or Barton and Loguidice, LLC., shall coordinate and perform all tests as deemed necessary to ensure proper construction/installation of the stormwater retrofits.

PERMITS:

The Contractor is hereby notified that the Town of East Hampton will waive all local municipal permit fees for this project. It is the responsibility of the contractor to obtain all local and other permits required for this project.

CALL-BEFORE- YOU- DIG (CBYD):

The Contractor is hereby notified that they shall contact Call-Before-You-Dig (CBYD) 1-800-922-4455 www.cbyd.com and obtain authorization prior to start of work as required by law.

CONSTRUCTION SEQUENCE:

The anticipated sequence of construction is listed on the project plan sheets for each location.

TAB G

Prevailing Wage Rate Information

TAB H

Commission on Human Rights and Opportunities (CHRO) Contract Compliance

Commission On Human Rights And Opportunities (CHRO) Contract Compliance

The contractor who is selected to perform this project must comply with 4a-60, 4a-60a, 4a-60g, and 46a-68b through 46a-68f, inclusive, as amended by June 2015 Special Session Public Act 15-5 of the Connecticut General Statutes (C.G.S.).

For municipal construction contracts valued over \$50,000, state law requires the contractor, general contractor, or construction manager at risk to set a goal of twenty-five per cent (25%) for award to eligible subcontractors holding current small business enterprise (SBE) certification from the DAS under the provisions of C.G.S. 4a-60g. Of the portion of contracts set aside for SBEs, a goal of twenty-five percent (25%) (or 6.25% of the value of the entire contract funded by the state) must be set aside for awards to eligible contractors holding current minority business enterprise certification (i.e.: DAS certified Minority ("MBE"), Women ("WBE") and/or Disabled ("DisBE") owned businesses). The contractor, general contractor, construction manager at risk must make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such projects.

For Contracts Equal to or Greater than \$500,000.00

The contract cannot be awarded until:

The Contractor has submitted an approved Affirmative Action Plan to CHRO OR

Authorization has been obtained from CHRO to execute contract and retain 2% per month of the total contract value until CHRO approves the Contractor's Affirmative Action Plan.

Non-Discrimination and Affirmative Action Provisions

- (A)(1) The Contractor agrees and warrants that in the performance of the Contract such Contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, sexual orientation, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such Contractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the state of Connecticut. The Contractor further agrees to take to insure that applicants with job-related qualifications are affirmative action employed and that employees are treated when employed without regard to of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such Contractor that such disability prevents performance of the work involved; (2) the Contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, to state that it is an ."affirmative action equal opportunity employer" in accordance with regulations adopted by the commission; (3) the Contractor agrees to provide each labor union or representative of workers with which such Contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such Contractor has a contract or understanding, a notice to be provided by the commission advising the labor union or workers' representative of the Contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment; (4) the Contractor agrees to comply with each provision of this section and sections 46a-68e and 46a-68f and with each regulation or relevant order issued by said commission pursuant to sections 46a-56, 46a-68e, 46a-68f and 46a-86; (5) the Contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the Contractor as relate to the provisions of this section and section 46a-56.
- (B) Any Contractor who is a party to a municipal public works contract or quasi-public agency project, where any such contract is valued at less than \$50,000 for each year of the contract, shall provide the Commission on Human Rights and Opportunities with a written or electronic representation that complies with the nondiscrimination agreement and warranty under subsection (A)(1) above, provided if there is any change in such representation, the Contractor shall provide the updated representation to the Commission not later than 30 days after such change. Any Contractor who is a party to a municipal public works contract or a quasi-public agency project, where any such contract is valued at \$50,000 or more for any year of the contract, shall provide the Commission with any one of the following: (1) Documentation in the form of a company or corporate police adopted by resolution of the board of directors, shareholder, managers, members or other governing body of such Contractor that

complies with the nondiscrimination agreement and warranty under subsection (A)(1) of this section; (2) Documentation in the form of a company or corporate policy adopted by a prior resolution of the board of directors, shareholders, managers, members or other governing body of such contractor if (a) the prior resolution is certified by a duly authorized corporate officer of such contractor to be in effect on the date the documentation is submitted, and the executive director of the Commission on Human Rights and Opportunities or designee certifies that the prior resolution (A)(1) of this section; or (3) Documentation in the form of an affidavit signed under penalty of false statement by a chief executive officer, president, chairperson or other corporate officer duly authorized to adopt company or corporate policy that certifies that the company or corporate policy of the contractor complies with the nondiscrimination agreement and warranty under subdivision (A)(1) of this section; or corporate policy of the contractor complies with the nondiscrimination agreement and warranty inder company or corporate policy that certifies that the company or corporate policy of the contractor complies with the nondiscrimination agreement and warranty under subdivision (A)(1) of this section and is in effect on the date the affidavit is signed.

- (C) If the Contract is a municipal public works contract or a quasi-public agency project, the Contractor agrees and warrants that s/he will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works project. The Contractor shall include the provisions of subdivision (A)(1) of this section in every subcontract or purchase order entered into to fulfill any obligation of a municipal public works contract or contract for a quasi-public agency project, and such provisions shall be binding on a subcontractor, vendor or manufacturer, unless exempted by regulations or orders of the Commission on Human Rights and Opportunities. The Contractor shall take such action with respect to any such subcontract or purchase order as the Commission may direct as a means of enforcing such provisions, including sanctions for noncompliance in accordance with section 46a-56; provided, if such Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Commission regarding a state contract, the contractor may request the state of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the state and the state may so enter.
- (D) "Minority business enterprise" means any small contractor or supplier of materials fifty-one per cent or more of the capital stock, if any, or assets of which is owned by a person or persons: (1) Who are active in the daily affairs of the enterprise, (2) who have the power to direct the management and policies of the enterprise and (3) who are members of a minority, as such term is defined in subsection (a) of section 32-9n; and "good faith" means that degree of diligence which a reasonable person would exercise in the performance of legal duties and obligations. "Good faith efforts" shall include, but not be limited to, those reasonable initial efforts necessary to comply with statutory or regulatory requirements and additional or substituted efforts when it is determined that such initial efforts will not be sufficient to comply with such requirements. Determination of the Contractor's good faith efforts shall include, but shall not be eliminated to, the following factors: The contractor's employment and subcontracting policies, patterns and practices; affirmative advertising recruitment and training; technical assistance activities and such other reasonable activities or efforts as

the Commission on Human Rights and Opportunities may prescribe that are designed to ensure the participation of minority business enterprises in municipal public works contracts or quasi-public agency projects. "Municipal public works project" means that portion of an agreement entered into on or after October 1, 2015, between any individual, form or corporation and a municipality for the construction, rehabilitation, conversion, extension, demolition or repair of a public building, highway or other changes or improvements in real property, which is financed in whole or in part by the state, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees but excluding any project of an alliance district, as defined in section 10-262u, finance by the state funding in an amount equal to fifty thousand dollars or less. "Quasi-public agency project" means the construction, rehabilitation, conversion, extension, demolition or repair of a building or other changes or improvements in real property pursuant to a contract entered into on or after October 1, 2015, which is financed in whole or in part by a quasi-public agency using state funds, including, but not limited to, matching expenditures, grants, loans, including, but not limited to, matching expenditures, grants, loans, including, but

Commission On Human Rights And Opportunities (CHRO) Contract Compliance

The contractor who is selected to perform this project must comply with 4a-60, 4a-60a, 4a-60g, and 46a-68b through 46a-68f, inclusive, as amended by June 2015 Special Session Public Act 15-5 of the Connecticut General Statutes (C.G.S.).

For municipal construction contracts valued over \$50,000, state law requires the contractor, general contractor, or construction manager at risk to set a goal of twenty-five per cent (25%) for award to eligible subcontractors holding current small business enterprise (SBE) certification from the DAS under the provisions of C.G.S. 4a-60g. Of the portion of contracts set aside for SBEs, a goal of twenty-five percent (25%) (or 6.25% of the value of the entire contract funded by the state) must be set aside for awards to eligible contractors holding current minority business enterprise certification (i.e.: DAS certified Minority ("MBE"), Women ("WBE") and/or Disabled ("DisBE") owned businesses). The contractor, general contractor, construction manager at risk must make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such projects.

For Contracts Equal to or Greater than \$500,000.00

The contract cannot be awarded until:

The Contractor has submitted an approved Affirmative Action Plan to CHRO OR

Authorization has been obtained from CHRO to execute contract and retain 2% per month of the total contract value until CHRO approves the Contractor's Affirmative Action Plan.

Non-Discrimination and Affirmative Action Provisions

- (A)(1) The Contractor agrees and warrants that in the performance of the Contract such Contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, sexual orientation, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such Contractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the state of Connecticut. The Contractor further agrees to take to insure that applicants with job-related qualifications are affirmative action employed and that employees are treated when employed without regard to of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such Contractor that such disability prevents performance of the work involved; (2) the Contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, to state that it is an ."affirmative action equal opportunity employer" in accordance with regulations adopted by the commission; (3) the Contractor agrees to provide each labor union or representative of workers with which such Contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such Contractor has a contract or understanding, a notice to be provided by the commission advising the labor union or workers' representative of the Contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment; (4) the Contractor agrees to comply with each provision of this section and sections 46a-68e and 46a-68f and with each regulation or relevant order issued by said commission pursuant to sections 46a-56, 46a-68e, 46a-68f and 46a-86; (5) the Contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the Contractor as relate to the provisions of this section and section 46a-56.
- (B) Any Contractor who is a party to a municipal public works contract or quasi-public agency project, where any such contract is valued at less than \$50,000 for each year of the contract, shall provide the Commission on Human Rights and Opportunities with a written or electronic representation that complies with the nondiscrimination agreement and warranty under subsection (A)(1) above, provided if there is any change in such representation, the Contractor shall provide the updated representation to the Commission not later than 30 days after such change. Any Contractor who is a party to a municipal public works contract or a quasi-public agency project, where any such contract is valued at \$50,000 or more for any year of the contract, shall provide the Commission with any one of the following: (1) Documentation in the form of a company or corporate police adopted by resolution of the board of directors, shareholder, managers, members or other governing body of such Contractor that

complies with the nondiscrimination agreement and warranty under subsection (A)(1) of this section; (2) Documentation in the form of a company or corporate policy adopted by a prior resolution of the board of directors, shareholders, managers, members or other governing body of such contractor if (a) the prior resolution is certified by a duly authorized corporate officer of such contractor to be in effect on the date the documentation is submitted, and the executive director of the Commission on Human Rights and Opportunities or designee certifies that the prior resolution (A)(1) of this section; or (3) Documentation in the form of an affidavit signed under penalty of false statement by a chief executive officer, president, chairperson or other corporate officer duly authorized to adopt company or corporate policy that certifies that the company or corporate policy of the contractor complies with the nondiscrimination agreement and warranty under subdivision (A)(1) of this section and warranty under subdivision (A)(1) of this section and warranty under subdivision (A)(1) of the contractor complies with the nondiscrimination agreement and warranty under subdivision (A)(1) of this section and is in effect on the date the affidavit is signed.

- (C) If the Contract is a municipal public works contract or a quasi-public agency project, the Contractor agrees and warrants that s/he will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works project. The Contractor shall include the provisions of subdivision (A)(1) of this section in every subcontract or purchase order entered into to fulfill any obligation of a municipal public works contract or contract for a quasi-public agency project, and such provisions shall be binding on a subcontractor, vendor or manufacturer, unless exempted by regulations or orders of the Commission on Human Rights and Opportunities. The Contractor shall take such action with respect to any such subcontract or purchase order as the Commission may direct as a means of enforcing such provisions, including sanctions for noncompliance in accordance with section 46a-56; provided, if such Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Commission regarding a state contract, the contractor may request the state of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the state and the state may so enter.
- (D) "Minority business enterprise" means any small contractor or supplier of materials fifty-one per cent or more of the capital stock, if any, or assets of which is owned by a person or persons: (1) Who are active in the daily affairs of the enterprise, (2) who have the power to direct the management and policies of the enterprise and (3) who are members of a minority, as such term is defined in subsection (a) of section 32-9n; and "good faith" means that degree of diligence which a reasonable person would exercise in the performance of legal duties and obligations. "Good faith efforts" shall include, but not be limited to, those reasonable initial efforts necessary to comply with statutory or regulatory requirements and additional or substituted efforts when it is determined that such initial efforts will not be sufficient to comply with such requirements. Determination of the Contractor's good faith efforts shall include, but shall not be eliminated to, the following factors: The contractor's employment and subcontracting policies, patterns and practices; affirmative advertising recruitment and training; technical assistance activities and such other reasonable activities or efforts as

the Commission on Human Rights and Opportunities may prescribe that are designed to ensure the participation of minority business enterprises in municipal public works contracts or quasi-public agency projects. "Municipal public works project" means that portion of an agreement entered into on or after October 1, 2015, between any individual, form or corporation and a municipality for the construction, rehabilitation, conversion, extension, demolition or repair of a public building, highway or other changes or improvements in real property, which is financed in whole or in part by the state, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees but excluding any project of an alliance district, as defined in section 10-262u, finance by the state funding in an amount equal to fifty thousand dollars or less. "Quasi-public agency project" means the construction, rehabilitation, conversion, extension, demolition or repair of a building or other changes or improvements in real property pursuant to a contract entered into on or after October 1, 2015, which is financed in whole or in part by a quasi-public agency using state funds, including, but not limited to, matching expenditures, grants, loans, including, but not limited to, matching expenditures, grants, loans, including, but

COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES CONTRACT COMPLIANCE REGULATIONS NOTIFICATION TO BIDDERS

(Revised 09/3/15)

The contract to be awarded is subject to contract compliance requirements mandated by Sections 4a-60 and 4a-60a of the Connecticut General Statutes; and, when the awarding agency is the State, Sections 46a-71(d) and 46a-81i(d) of the Connecticut General Statutes. There are Contract Compliance Regulations codified at Section 46a-68j-21 through 43 of the Regulations of Connecticut State Agencies, which establish a procedure for awarding all contracts covered by Sections 4a-60 and 46a-71(d) of the Connecticut General Statutes.

According to Section 46a-68j-30(9) of the Contract Compliance Regulations, every agency awarding a contract subject to the contract compliance requirements has an obligation to "aggressively solicit the participation of legitimate minority business enterprises as bidders, contractors, subcontractors and suppliers of materials." "Minority business enterprise" is defined in Section 4a-60 of the Connecticut General Statutes as a business wherein fifty-one percent or more of the capital stock, or assets belong to a person or persons: "(1) Who are active in daily affairs of the enterprise; (2) who have the power to direct the management and policies of the enterprise; and (3) who are members of a minority, as such term is defined in subsection (a) of Section 32-9n." "Minority" groups are defined in Section 32-9n of the Connecticut General Statutes as "(1) Black Americans . . . (2) Hispanic Americans . . . (3) persons who have origins in the Iberian Peninsula . . . (4)Women . . . (5) Asian Pacific Americans and Pacific Islanders; (6) American Indians . . ." An individual with a disability is also a minority business enterprise as provided by Section 4a-60g of the Connecticut General Statutes. The above definitions apply to the contract compliance requirements by virtue of Section 46a-68j-21(11) of the Contract Compliance Regulations.

The awarding agency will consider the following factors when reviewing the bidder's qualifications under the contract compliance requirements:

- (a) the bidder's success in implementing an affirmative action plan;
- (b) the bidder's success in developing an apprenticeship program complying with Sections 46a-68-1 to 46a-68-17 of the Administrative Regulations of Connecticut State Agencies, inclusive;
- (c) the bidder's promise to develop and implement a successful affirmative action plan;
- (d) the bidder's submission of employment statistics contained in the "Employment Information Form", indicating that the composition of its workforce is at or near parity when compared to the racial and sexual composition of the workforce in the relevant labor market area; and
- (e) the bidder's promise to set aside a portion of the contract for legitimate minority business enterprises. <u>See</u> Section 46a-68j-30(10)(E) of the Contract Compliance Regulations.

INSTRUCTIONS AND OTHER INFORMATION

The following <u>BIDDER CONTRACT COMPLIANCE MONITORING REPORT</u> must be completed in full, signed, and submitted with the bid for this contract. The contract awarding agency and the Commission on Human Rights and Opportunities will use the information contained thereon to determine the bidders compliance to Sections 4a-60 and 4a-60a CONN. GEN. STAT., and Sections 46a-68j-23 of the Regulations of Connecticut State Agencies regarding equal employment opportunity, and the bidder's good faith efforts to include minority business enterprises as subcontractors and suppliers for the work of the contract.

1) Definition of Small Contractor

Section 4a-60g CONN. GEN. STAT. defines a small contractor as a company that has been doing business under the same management and control and has maintained its principal place of business in Connecticut for a one year period immediately prior to its application for certification under this section, had gross revenues not exceeding fifteen million dollars in the most recently completed fiscal year, and at least fifty-one percent of the ownership of which is held by a person or persons who are active in the daily affairs of the company, and have the power to direct the management and policies of the company, except that a nonprofit corporation shall be construed to be a small contractor if such nonprofit corporation meets the requirements of subparagraphs (A) and (B) of subdivision 4a-60g CONN. GEN. STAT.

MANAGEMENT: Managers plan, organize, direct, and control the major functions of an organization through subordinates who are at the managerial or supervisory level. They make policy decisions and set objectives for the company or departments. They are not usually directly involved in production or providing services. Examples include top executives, public relations managers, managers of operations specialties (such as financial, human resources, or purchasing managers), and construction and engineering managers.

BUSINESS AND FINANCIAL OPERATIONS: These occupations include managers and professionals who work with the financial aspects of the business. These occupations include accountants and auditors, purchasing agents, management analysts, labor relations specialists, and budget, credit, and financial analysts.

MARKETING AND SALES: Occupations related to the act or process of buying and selling products and/or services such as sales engineer, retail sales workers and sales representatives including wholesale.

LEGAL OCCUPATIONS: In-House Counsel who is charged with providing legal advice and services in regards to legal issues that may arise during the course of standard business practices. This category also includes assistive legal occupations such as paralegals, legal assistants.

COMPUTER SPECIALISTS: Professionals responsible for the computer operations within a company are grouped in this category. Examples of job titles in this category include computer programmers, software engineers, database administrators, computer scientists, systems analysts, and computer support specialists

ARCHITECTURE AND ENGINEERING: Occupations related to architecture, surveying, engineering, and drafting are included in this category. Some of the job titles in this category include electrical and electronic engineers, surveyors, architects, drafters, mechanical engineers, materials engineers, mapping technicians, and civil engineers.

OFFICE AND ADMINISTRATIVE SUPPORT: All clerical-type work is included in this category. These jobs involve the preparing, transcribing, and preserving of written communications and records; collecting accounts; gathering and distributing information; operating office machines and electronic data processing equipment; and distributing mail. Job titles listed in this category include telephone operators, bill and account collectors, customer service representatives, dispatchers, secretaries and administrative assistants, computer operators and clerks (such as payroll, shipping, stock, mail and file).

BUILDING AND GROUNDS CLEANING AND MAINTENANCE: This category includes occupations involving landscaping, housekeeping, and janitorial services. Job titles found in this category include supervisors of landscaping or housekeeping, janitors, maids, grounds maintenance workers, and pest control workers.

CONSTRUCTION AND EXTRACTION: This category includes construction trades and related occupations. Job titles found in this category include boilermakers, masons (all types), carpenters, construction laborers, electricians, plumbers (and related trades), roofers, sheet metal workers, elevator installers, hazardous materials removal workers, paperhangers, and painters. Paving, surfacing, and tamping equipment operators; drywall and ceiling tile installers; and carpet, floor and tile installers and finishers are also included in this category. First line supervisors, foremen, and helpers in these trades are also grouped in this category.

INSTALLATION, MAINTENANCE AND REPAIR: Occupations involving the installation, maintenance, and repair of equipment are included in this group. Examples of job titles found here are heating, ac, and refrigeration mechanics and installers; telecommunication line installers and repairers; heavy vehicle and mobile equipment service technicians and mechanics; small engine mechanics; security and fire alarm systems installers; electric/electronic repair, industrial, utility and transportation equipment; millwrights; riggers; and manufactured building and mobile home installers. First line supervisors, foremen, and helpers for these jobs are also included in the category.

MATERIAL MOVING WORKERS: The job titles included in this group are Crane and tower operators; dredge, excavating, and lading machine operators; hoist and winch operators; industrial truck and tractor operators; cleaners of vehicles and equipment; laborers and freight, stock, and material movers, hand; machine feeders and offbearers; packers and packagers, hand; pumping station operators; refuse and recyclable material collectors; and miscellaneous material moving workers.

PRODUCTION WORKERS: The job titles included in this category are chemical production machine setters, operators and tenders; crushing/grinding workers; cutting workers; inspectors, testers sorters, samplers, weighers; precious stone/metal workers; painting workers; cementing/gluing machine operators and tenders; etchers/engravers; molders, shapers and casters except for metal and plastic; and production workers.

3) Definition of Racial and Ethnic Terms (as used in Part IV Bidder Employment Information) (Page 3)

	Asian or Pacific Islander- All persons having origins in any of the original peoples of the Far East, Southeast Asia, the
Africa, or the Middle East.	Indian subcontinent, or the Pacific Islands. This area includes
Black(not of Hispanic Origin)- All persons having	China, India, Japan, Korea, the Philippine Islands, and
origins in any of the Black racial groups of Africa.	Samoa.
Hispanic- All persons of Mexican, Puerto Rican, Cuban,	American Indian or Alaskan Native- All persons having
Central or South American, or other Spanish culture or	origins in any of the original peoples of North America, and
origin, regardless of race.	who maintain cultural identification through tribal affiliation
	or community recognition.

BIDDER CONTRACT COMPLIANCE MONITORING REPORT

PART I - Bidder Information

Company Name Street Address City & State Chief Executive	Bidder Federal Employer Identification Number Or Social Security Number
Major Business Activity (brief description)	Bidder Identification (response optional/definitions on page 1) -Bidder is a small contractor. YesNo -Bidder is a minority business enterprise YesNo (If yes, check ownership category) BlackHispanicAsian AmericanAmerican Indian/Alaskan NativeIberian PeninsulaIndividual(s) with a Physical Disability Female
Bidder Parent Company (If any)	- Bidder is certified as above by State of CT Yes_ No
Other Locations in Ct. (If any)	

PART II - Bidder Nondiscrimination Policies and Procedures

1. Does your company have a written Affirmative Action/Equal Employment Opportunity statement posted on company bulletin boards? Yes_No_	7. Do all of your company contracts and purchase orders contain non-discrimination statements as required by Sections 4a-60 & 4a-60a Conn. Gen. Stat.? YesNo
2. Does your company have the state-mandated sexual harassment prevention in the workplace policy posted on company bulletin boards? YesNo	8. Do you, upon request, provide reasonable accommodation to employees, or applicants for employment, who have physical or mental disability? YesNo
3. Do you notify all recruitment sources in writing of your company's Affirmative Action/Equal Employment Opportunity employment policy? YesNo	9. Does your company have a mandatory retirement age for all employees? YesNo
4. Do your company advertisements contain a written statement that you are an Affirmative Action/Equal Opportunity Employer? YesNo	10. If your company has 50 or more employees, have you provided at least two (2) hours of sexual harassment training to all of your supervisors? YesNoNA
5. Do you notify the Ct. State Employment Service of all employment openings with your company? Yes No	11. If your company has apprenticeship programs, do they meet the Affirmative Action/Equal Employment Opportunity requirements of the apprenticeship standards of the Ct. Dept. of Labor? Yes <u>No NA</u>
 6. Does your company have a collective bargaining agreement with workers? Yes_No_ 6a. If yes, do the collective bargaining agreements contain non-discrim ination clauses covering all workers? Yes_No_ 	12. Does your company have a written affirmative action Plan? YesNo If no, please explain.
6b. Have you notified each union in writing of your commitments under the nondiscrimination requirements of contracts with the state of Ct? YesNo	13. Is there a person in your company who is responsible for equal employment opportunity? YesNo If yes, give name and phone number.

1a. If yes, please list all subcontractors and suppliers and report if they are a small contractor and/or a minority business enterprise. (defined on page 1 / use additional sheet if necessary)

1b. Will the work of this contract require additional subcontractors or suppliers other than those identified in 1a. above?

PART IV - Bidder Employment Information

PART IV - Bidder Employment Information Date:											
JOB CATEGORY *	OVERALL TOTALS		IITE Hispanic	BLACK (not of Hispanic origin)		HISPANIC		ASIAN or PACIFIC ISLANDER		AMERICAN INDIAN or ALASKAN NATIVE	
		Male	Female	Male	Female	Male	Female	Male	Female	male	female
Management											
Business & Financial Ops											
Marketing & Sales											
Legal Occupations											
Computer Specialists											
Architecture/Engineering											
Office & Admin Support											
Bldg/ Grounds Cleaning/Maintenance											
Construction & Extraction											
Installation , Maintenance & Repair											
Material Moving Workers											
Production Occupations											
TOTALS ABOVE											
Total One Year Ago											
FORMAL ON THE JOB TRAINEES (ENTER FIGURES FOR THE SAME CATEGORIES AS ARE SHOWN ABOVE)											
Apprentices											
Trainees											

*NOTE: JOB CATEGORIES CAN BE CHANGED OR ADDED TO (EX. SALES CAN BE ADDED OR REPLACE A CATEGORY NOT USED IN YOUR COMPANY)

Yes__No__

PART V - Bidder Hiring and Recruitment Practices

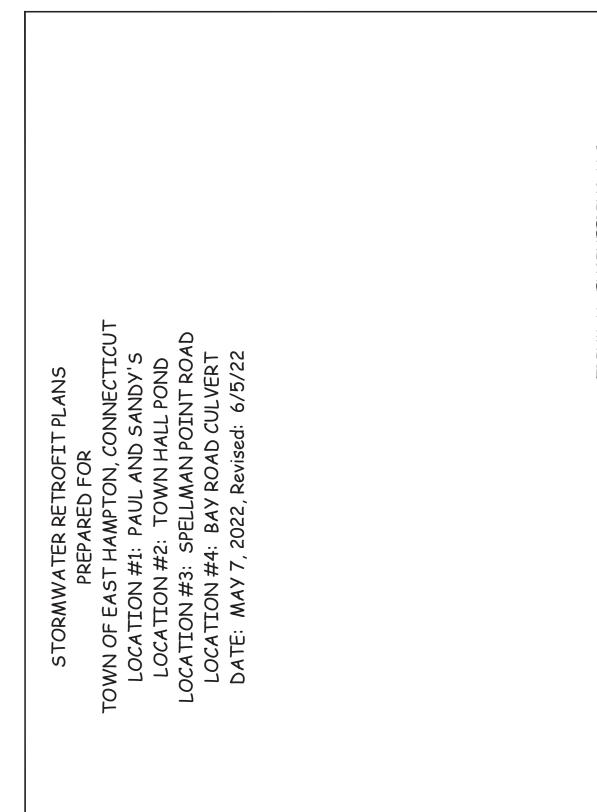
	0					
 Which of the following recruitment sources are used by you? (Check yes or no, and report percent used) 		any of the below listed tts that you use as alification	3. Describe below any other practices or actions that you take which show that you hire, train, and promote employees without discrimination			
SOURCE	YES	NO	% of applicants provided by source			
State Employment Service				Work Experience		
Private Employment Agencies				Ability to Speak or Write English		
Schools and Colleges				Written Tests		
Newspaper Advertisement				High School Diploma		
Walk Ins				College Degree		
Present Employees				Union Membership		
Labor Organizations				Personal Recommendation		
Minority/Community Organizations				Height or Weight		
Others (please identify)				Car Ownership		
				Arrest Record		
				Wage Garnishments		

Certification (Read this form and check your statements on it CAREFULLY before signing). I certify that the statements made by me on this BIDDER CONTRACT COMPLIANCE MONITORING REPORT are complete and true to the best of my knowledge and belief, and are made in good faith. I understand that if I knowingly make any misstatements of facts, I am subject to be declared in non-compliance with Section 4a-60, aad related sections of the CONN. GEN. STAT.

(Signature)	(Title)	(Date Signed)	(Telephone)

TAB I

Plans







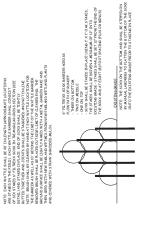


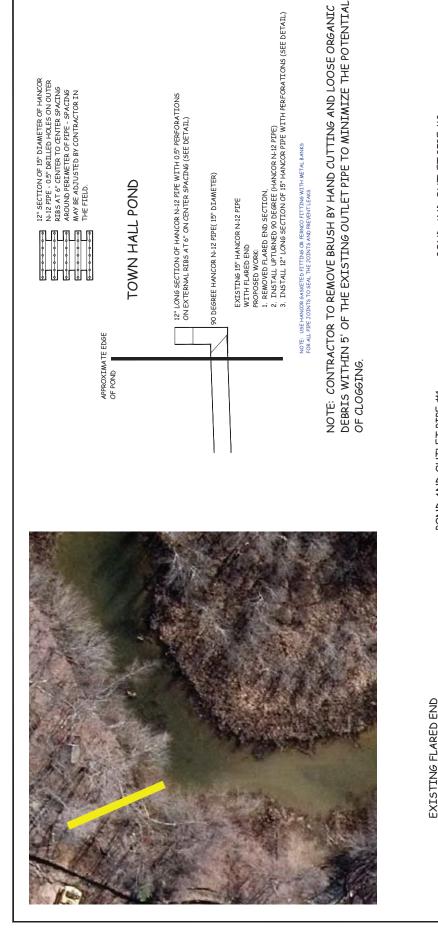
PREPARED FOR TOWN OF EAST HAMPTON PAUL AND SANDY'S NURSERY PAUL AND SANDY'S NURSERY TUST HAMPTON - CONNECTICUT

5TORMWATER MANAGEMENT PLAN SHEET 2 OF 5 PROJECT #017-2022 SGALE 1⁴ = 20' 5GALE 1⁴ = 20' DATE: 5/7/22, Rev. 6/5/52



TRINKAUS ENGINECING.com CIVILENGUSECON CIVILENGUSECOND 2007-RUNY, CONNECTICUT 06488 2007-RUNY, CONNECTICUT 06488 2015-264-4356 (h) 2015-264-2656 (h) 2015-264-26566 (h) 2015-2





POND AND OUTLET PIPE #2

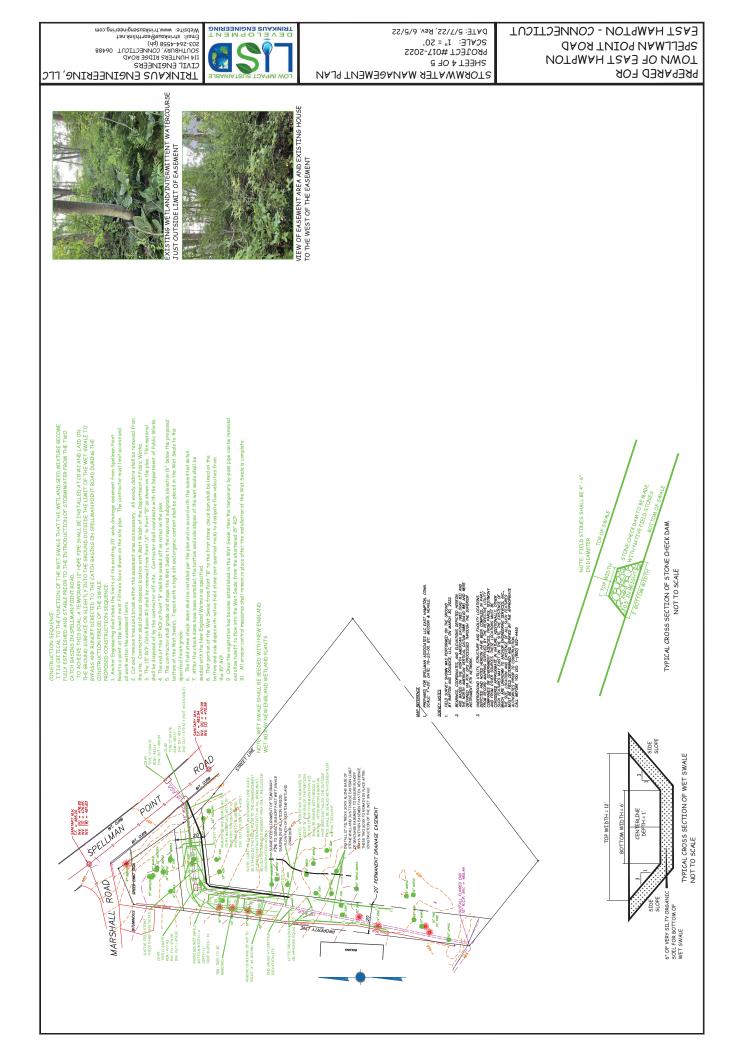
POND AND OUTLET PIPE #1

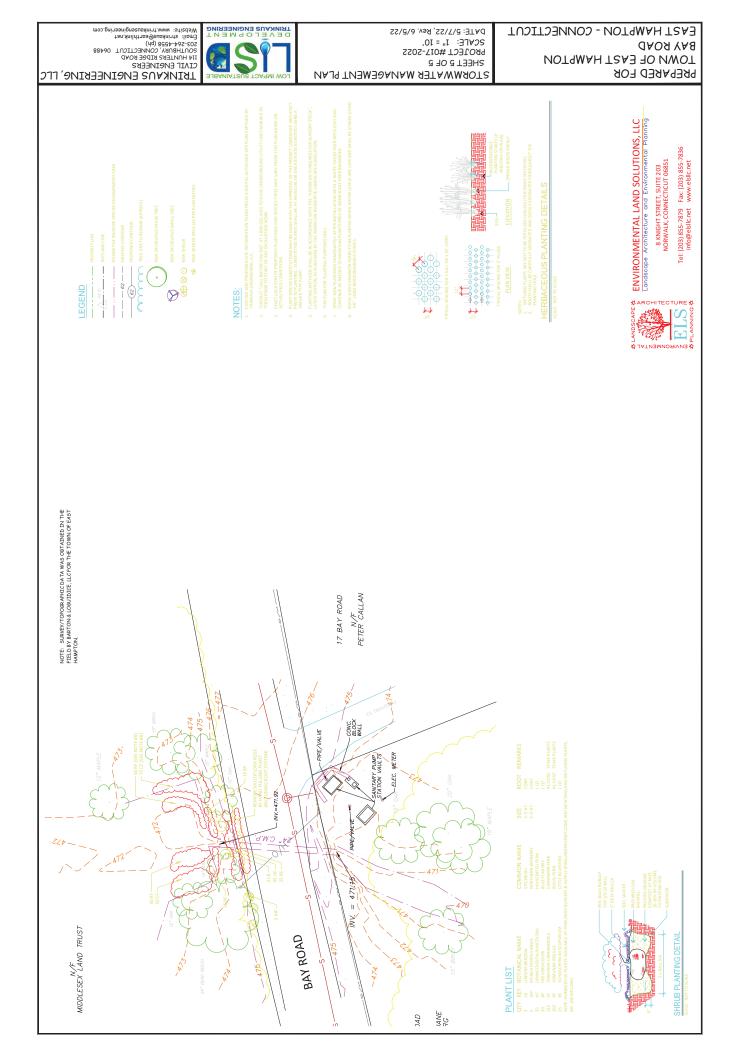
PATE: 5/7/22, Rev. 6/5/22 SCALE: 1" = 20' DATE: 5/7/22, Rev. 6/5/22 SHEET 3 OF 5 NAJ9 TUBMBBANAM ABTAWMAOTS

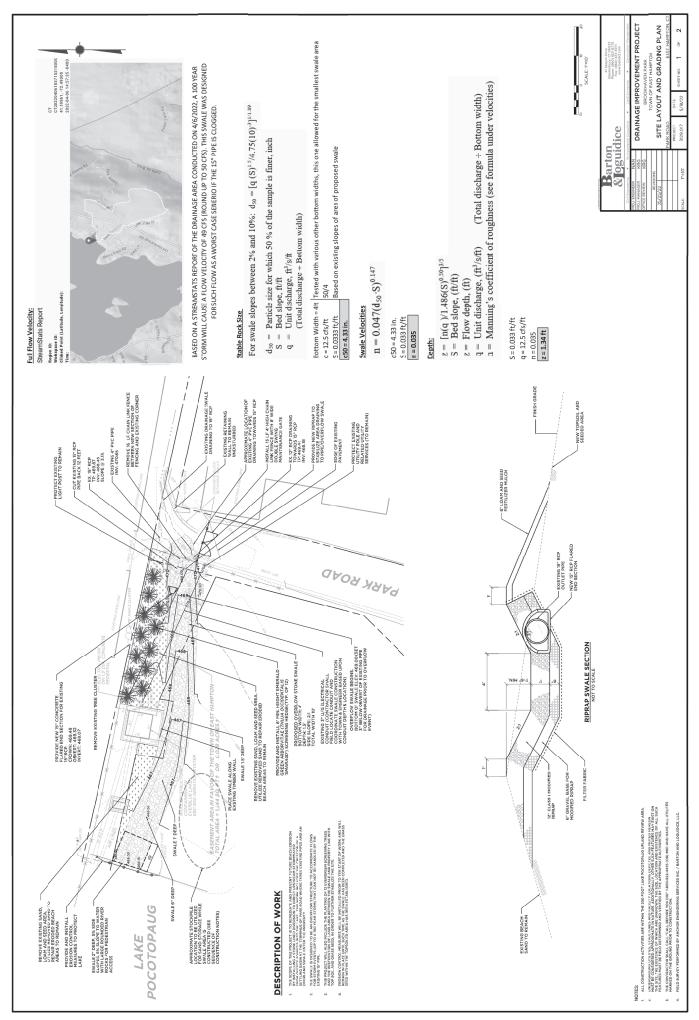


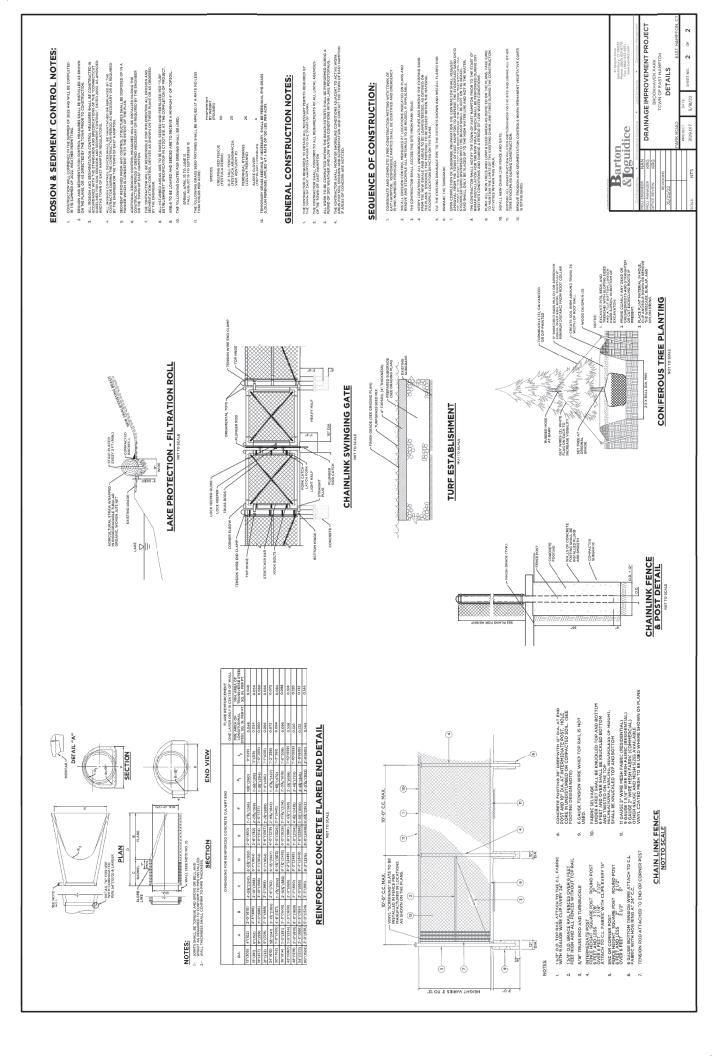
TRINKAUS ENGINEERING. CIVIL ENGINEERS CUTIL ENGINEERS SOUTHBURY, CONNECTIUT 06488 Famil: STINKAUSECHINT 06488 (b) SO2:264-455 (b) SO2:265 (b) SO2:264-455 (b)

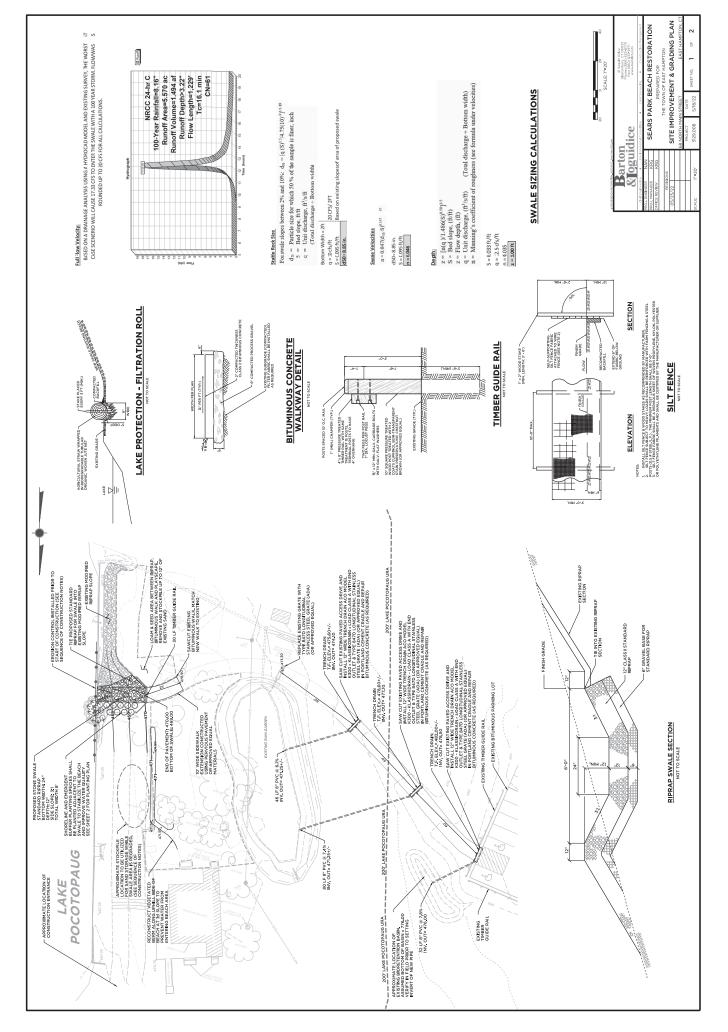
TUDITDENNOD - NOT9MAH TEAE PREPARED FOR TOWN OF EAST HAMPTON TOWN HALL POND



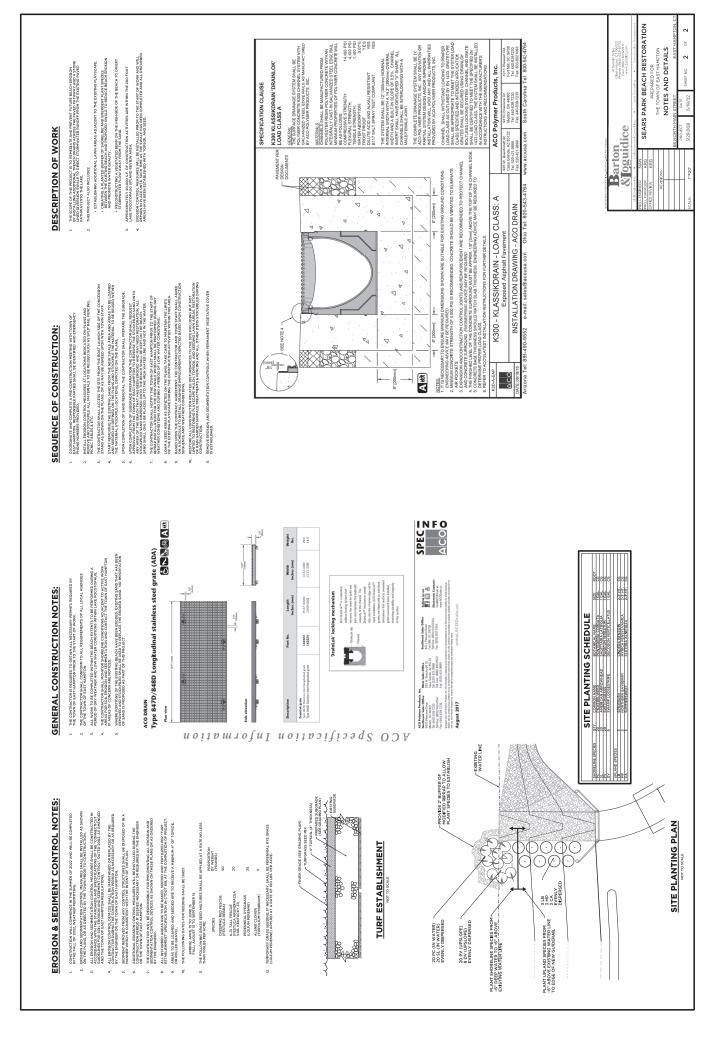








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SECTION 01 11 00 SUMMARY OF WORK

PART 1 - GENERAL

1.01 DESCRIPTION

A. The entire scope of work covered under these Contract documents includes installing upgrades to existing stormwater conveyance and collection systems within Town owned land and right of ways to control nonpoint sources of water pollution within the Lake Pocotopaug watershed.

Projects for this bid will include:

- 1) Paul and Sandy's: Project consists of installation of waddles, clearing of wooded areas, and seeding of cleared areas as depicted on plans prepared by Trinkaus Engineering, LLC.
- 2) Town Hall Pond: Project consists of removal of existing debris within 5' of existing outlet pipe, removal of existing flared end section and installation of new pipe section as depicted on plans prepared by Trinkaus Engineering, LLC.
- 3) Spellman Point Road: Project consists of removal of trees and brush within project limits, removal of catch basin and RCP pipe, installing temporary bypass pipe, installing new HDPE pipe, seal end of existing RCP pipe after portion is removed, installing field stone check dams, construct wet swale, seed swale area and remove bypass pipe as depicted on plans prepared by Trinkaus Engineering, LLC.
- 4) Bay Road Culvert: Project consists of installation of plantings as depicted on plans prepared by Trinkaus Engineering, LLC.
- 5) Brookhaven Park Beach Restoration: Project consists of installation of a Riprap Swale, plantings and chain link fence as depicted on plans prepared by Barton and Loguidice, LLC.
- 6) Sears Park Beach Restoration: Project consists of installation of trench drains, stone swale, berm and bituminous walk as depicted on plans prepared by Barton and Loguidice, LLC.

The work described above includes furnishing, installing and incorporating all materials and equipment into the project as well as performing or providing all labor, supervision, equipment and services unless otherwise specifically noted within the Contract Documents.

The work described above includes the Contractor obtaining all required State and local permits.

1.02 CONTRACT

A. Complete the entire scope of work under lump sum contract pricing as noted on the bid proposal form and in accordance with the Contract Documents.

PART 2 - PRODUCTS

Not Applicable

PART 3 - EXECUTION

See Detailed Plans

Agenda Item 9a

CONTRACT BID DOCUMENTS

FOR THE

LAKE POCOTOPAUG WATERSHED IMPROVEMENTS PROJECT AREAS #7 - #8 EAST HAMPTON, CONNECTICUT

JULY, 2022

PREPARED FOR

TOWN OF EAST HAMPTON 1 COMMUNITY DRIVE EAST HAMPTON, CT 06424



41 Sequin Drive Glastonbury, CT 06033 T: 860.633.8770 F: 860.633.5971

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TAB A

Invitation to Bid

INVITATION TO BID LAKE POCOTOPAUG - WATERSHED IMPROVEMENTS PROJECT AREA #7- #8

The Town of East Hampton, Connecticut is soliciting sealed bids for completing Low Impact Sustainable Development Stormwater Retrofits within the Lake Pocotopaug Watershed.

This project generally consists of installing upgrades to existing stormwater conveyance and collection systems within Town owned/controlled land and right of ways to control nonpoint sources of water pollution within the Lake Pocotopaug watershed.

Projects for this bid will include:

- 1) Christopher Pond (Trinkaus Engineering, Sheets 1 of 4 and 2 of 4)
- 2) Water Supply Facility for Edgemere Condominiums (Trinkaus Engineering, Sheet 3 of 4 and 4 of 4)

Funding for this project is provided by the Connecticut Department of Energy and Environmental Protection under Section 319 of the Federal Clean Water Act. Work for the project described above includes furnishing, installing and incorporating all materials and equipment into the project as well as performing or providing all labor, supervision, equipment and services unless otherwise noted within the bid documents.

The Town intends to award all the projects to one general contractor and anticipates that the awarded contractor will utilize subcontractors to provide the unique technical experience required at each location. Contractors shall provide a minimum of three project references to verify they're qualified to perform the work

Sealed bids will be received by David Cox, Town Manager, East Hampton Town Hall, 1 Community Drive, East Hampton, Connecticut, 06424, until **11:00 AM on Friday August 19**, **2022** at which time they will be publicly opened and read aloud.

The Contract Documents, including bid specifications and drawings are available for review at the East Hampton Town Hall, Town Manager's Office, 1 Community Drive, East Hampton, CT. The East Hampton Town Hall is open Monday, Wednesday and Thursday 8:00 AM - 4:00 PM, Tuesday 8:00 AM - 6:30 PM and Friday 8:00 AM - 12:30 PM, and may obtain copies of the Bidding Documents as described below.

Contract documents, pdf format, can be obtained from the Town's website under <u>https://www.easthamptonct.gov/town-manager</u> and the Department of Administrative Services (DAS) Construction Services website.

A satisfactory Bid Bond or Certified Check, in an amount equal to five percent (5%) of the base bid, shall be submitted with each bid. The Bid Bond shall be made payable to Town of East Hampton and shall be properly executed by the Bidder and acceptable sureties. All bonds must be from sureties registered in the State of Connecticut.

No Bidder may withdraw his Bid for a period of thirty (30) days after the date of Bid opening.

The Town of East Hampton reserves the right to accept or reject any or all options, bids or proposals; to waive any technicality in any bid or part thereof, and to accept any bid deemed to be in the best interest of the Town of East Hampton.

The Town of East Hampton is an Affirmative Action/Equal Opportunity Employer. Minority/Women's Business Enterprises are encouraged to apply

David Cox, Town Manager

TAB B

Instructions to Bidders

INSTRUCTION TO BIDDERS

1. PROJECT DESCRIPTION:

This project generally consists of installing Low Impact Sustainable Development Stormwater Retrofits within the Lake Pocotopaug Watershed to control nonpoint sources of water pollution. Funding for this project is provided by the Connecticut Department of Energy and Environmental Protection under Section 319 of the Federal Clean Water Act.

The work described above includes furnishing, installing and incorporating all materials and equipment into the project as well as performing or providing all labor, supervision, equipment and services unless otherwise noted within the bid documents.

See technical specification 01 11 00 for detailed work descriptions.

2. GENERAL:

Sealed Bids will be received at the office of the Town Manager of the Town of East Hampton located at the East Hampton Town Hall, 1 Community Drive, East Hampton, CT 06424, until **11:00 AM prevailing time on Friday August 19, 2022**, at which time the bids will be opened publicly and read aloud. Bids received after the Bid Opening date and/or time will be returned unopened.

3. CONTRACT DOCUMENTS:

These Contract Documents include a complete set of Bidding Forms which are not to be detached from the Contract Documents. Division II Construction Details and Division III Materials Section in the State of Connecticut Department of Transportation (CTDOT) Standard Specifications for Roads, Bridges and Incidental Construction, Form 818, dated 2020 through Supplemental Specifications dated January 2022, which may be purchased from the CTDOT Manager of Contracts, P.O. Box 317546, 2800 Berlin Turnpike in Newington, CT 06131-7546 shall be utilized where materials and specifications are not otherwise noted within the Contract Documents.

4. BIDS:

Bid Documents shall be enclosed in a sealed envelope addressed to the Office of the Town Manager, 1 Community Drive, East Hampton, CT 06424 and clearly marked **"SEALED BID – LAKE POCOTOPAUG - WATERSHED IMPROVEMENTS PROJECT AREAS #7 - #8"** along with the name of Bidder, date and time of Bid Opening in order to guard against premature opening of the Bid.

All Bids must be submitted on forms supplied by the Owner and shall be subject to all requirements of the Contract Documents, including "Instructions to Bidders." All Bids must be regular in every respect; no interlineations, ditto marks, excisions or special conditions shall be made or included in the Bid Form by the Bidders.

The Owner may consider as irregular any Bid on which there are any omissions, alterations of form, additions not called for, conditional or alternate Bids, or irregularities of any kind and, at its option, may reject same. The blank spaces in the proposal must be filled in correctly where indicated for each and every item for which a quantity is given typed or printed in ink. If any price is omitted, the Bid may be rejected. The Bidder shall sign his proposal correctly. If the proposal is made by an individual, his name and post office address must be shown. If made by a firm, partnership, or by a corporation, the proposal must be signed by an official of the firm, partnership, or corporation authorized to sign contracts, and also must show the post office address of the firm, partnership or corporation.

A Non-Collusion Affidavit shall be completed and returned with the submitted Bid. More than one proposal from an individual, a firm or partnership, a corporation or association under the same or different names will not be considered. Reasonable ground for believing that any Bidder is interested in more than one proposal for the work contemplated will cause the rejection of all proposals in which such Bidder is interested. Proposals in which the prices are obviously unbalanced may be rejected.

5. ADDENDA & INTERPRETATIONS:

Any request from a prospective Bidder for interpretation of meaning of Contract Drawings, Specifications or other Contract Documents shall be made in writing to the office of Barton and Loguidice, LLC. 41 Sequin Dr. Glastonbury, CT 06033 and to be given consideration must be received at least seven (7) days prior to date fixed for opening of proposals. Interpretations will be made in the form of written Addenda to Contract Documents, which Addenda shall become a part of the Contract. Such requests may be sent to Barton and Loguidice, LLC via e-mail to kgrindle@bartonandloguidice.com. Not later than four (4) days prior to date fixed for opening of proposals, Addenda will be mailed or delivered to all parties recorded as having obtained Contract Documents. It is the responsibility of the bidder to verify that all Addenda have been received and incorporated into the submitted bid. Failure of any Bidder to receive any such Addenda shall not relieve Bidder from any obligations under his proposal as submitted. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

6. SITE CONDITIONS:

All information on the Drawings or in the contract Documents relating to subsurface conditions, utilities, and other structures is from best sources available at present to the Owner. All such information and drawings of existing construction are furnished only for the information and convenience of Bidders.

At the date fixed for opening of Bids, it will be presumed that each Bidder has made an examination of location and site of work to be done under Contract; has satisfied himself as to actual conditions, requirements and quantities of work; has considered federal, state and local laws and regulations that may affect cost, progress, performance or furnishing

the Work; and has read and become thoroughly familiar with Contract Documents including Contract Drawings, Specifications, Addenda, and documents referenced therein.

The Owner and the Engineer assume no responsibility whatsoever with respect to ascertaining for the Contractor any facts concerning physical characteristics at the site of the project.

7. BIDDER'S QUALIFICATIONS:

The Owner shall make such investigation as deemed necessary to determine the ability of the Bidder to discharge the Contract. After Bid opening, Bidder shall be prepared to furnish the Owner with all written evidence as may be required for this purpose (e.g., financial data, previous experience, and present commitments) within five (5) days after Owner requests such evidence. Each Bid must contain evidence of Bidder's qualification to do business in the State of Connecticut or covenant to obtain such qualification prior to award of the contract.

Bids received from Bidders who have previously failed to complete contracts within the time required, or who have previously performed similar work in an unsatisfactory manner, may be rejected. A Bid may be rejected if the Bidder cannot show that they have the necessary capital and experience, and owns, controls, or can procure the necessary plan to commence and complete the work at the rate or time specified, and that they are not already obligated for the performance of other work which would delay the commencement, prosecution, or completion of the work.

8. MODIFICATION:

Any Bidder may modify their Bid at any time prior to the scheduled closing time for receipt of Bids, by submitting an appropriate document duly executed in a manner that Bid must be executed and delivered to the place where Bids are to be submitted. After opening of Bids, no Bidder may withdraw their proposal for a period of sixty (60) days. Owner may, in its sole discretion, release any Bid prior to that date.

9. **REJECTION OF BIDS**:

The Owner also reserves the right to reject any or all Bids, for any reason it deems advisable, and to award Contract or Contracts to any of the Bidders, regardless of amount of Bid. If the Contract is awarded, it will be awarded to the lowest responsible and eligible Bidder (or Bidders) possessing skill, ability and integrity necessary for faithful performance of work.

10. TIME OF COMPLETION & LIQUIDATED DAMAGES:

The Bidder must agree to fully complete all work within the number of consecutive calendar days of the issuance of the Notice to Proceed set forth in the Agreement. The Bidder must agree also to pay as liquidated damages the sum set forth in the Agreement for each consecutive calendar day thereafter.

11. AWARD OF CONTRACTS:

If the Contract is awarded, Owner will give successful Bidder a Notice of Award within forty five (45) days after the day of Bid opening. The successful Bidder shall then execute and deliver to the Owner, within ten (10) days after notification of the award, three (3) executed Agreements, Final Certificate of Insurance, Performance Bond, Payment Bond, Contractors Minority Business Enterprise Utilization Form and Schedule of Values on forms provided by the Owner. If the successful Bidder fails to comply with the requirements of these documents within ten (10) days of receiving said Notice, that Bidder shall forfeit Bid Security and, at the option of the Owner, the Award may become null and void. The Owner may then proceed to Award the Contract to another of the Bidders.

12. BID SECURITY:

Each Bid must be accompanied by a surety bond, certified or bank check, or a letter of credit, in the amount of 5% of the total of the Bid with the forms supplied by the Owner. Bid security of the successful Bidder will be retained until such Bidder has executed the Agreement, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. The Bid security of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of the seventh day after the Effective Date of the Agreement or the sixty-first day after Bid opening, whereupon the Bid security furnished by such Bidders will be returned. Bid security with Bids which are not competitive will be returned within seven (7) days of Bid opening.

13. SCHEDULE OF VALUES:

The apparent successful Bidder must submit, prior to the execution of an Agreement, a preliminary schedule of values for all of the Work. The preliminary schedule of values must be submitted after Bidding by the apparent low Bidder, and the schedule of values must be deemed acceptable by the Engineer, before the Agreement is executed.

14. SECURITY FOR FAITHFUL PERFORMANCE:

In addition to the Agreement, the successful Bidder shall also provide, within the time stipulated, a Construction Performance Bond by a company satisfactory to the Owner in an amount equal to One Hundred Percent (100%) of Estimated Total Contract Price recorded in the Proposal section of the Contract as executed, and a Construction Payment Bond in like amount will be required from the successful Bidder for faithful performance of the Contract.

TAB C

Forms

Bid Proposal Form Non-Collusion Affidavit of Bidder Bid Bond Agreement Construction Performance Bond Construction Payment Bond

BID PROPOSAL FORM

BID PROPOSAL

PROJECT IDENTIFICATION:

Lake Pocotopaug - Watershed Improvements Project Areas #7 - #8

THIS BID IS SUBMITTED TO:

Office of the Town Manager East Hampton Town Hall 20 East High Street East Hampton, Connecticut 06424 Attention: David Cox, Town Manager

The Undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an agreement with Owner in the form included in the Contract Documents to perform and furnish all Work as specified or indicated in the Contract Documents for the Bid Price and within the Bid Times indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.

Bidder accepts all terms and conditions of the Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for thirty (30) days after the day of Bid opening. Bidder will sign and deliver the required number of counterparts of the Agreement with the Bonds and other documents required by the Bidding Requirements within ten (10) days after the date of Owner's Notice of Award.

In submitting this Bid, Bidder represents, as more fully set forth in the Agreement, that:

1. Bidder has examined and carefully studied the Bidding Documents and the following Addenda receipt all of which is hereby acknowledged (List Addenda by Addendum Number and Date):

- 2. Bidder has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance and furnishing of the Work.
- 3. Bidder is familiar with and is satisfied as to all federal, state and local Laws and regulations that may affect cost, progress, performance and furnishing of the Work.
- 4. Bidder has carefully studied all reports and explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except

Underground Facilities) which have been identified in the Supplementary Conditions. Bidder acknowledges that Owner and Engineer do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Bidding Documents with respect to Underground Utilities at or contiguous to the site. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all such additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface, Underground Facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences and procedures of construction to be employed by Bidder and safety precautions and programs related thereto. Bidder does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the determination of the Bid for performance and furnishing of the Work in accordance with the times, price and other terms and conditions of the Contract Documents.

- 5. Bidder is aware of the general nature of Work to be performed by Owner and others at the site that relates to Work for which this Bid is submitted as indicated in the Contract Documents.
- 6. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents.
- 7. Bidder has given Engineer written notice of all conflicts, errors, ambiguities or discrepancies that Bidder has discovered in the Contract Documents and the written resolution thereof by Engineer is acceptable to Bidder, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work for which this Bid is submitted.
- 8. This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any person, firm or corporation to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.
- 9. The Bidder has provided a minimum of three project references to verify they are qualified to perform the work.
- 10. Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

PROJECT AREA #7 – CHRISTOPHER POND

BASE BID

Project No. 7 consists of installation of sand bag barrier, riprap and removal of soil and installation of floating wetlands as depicted on plans prepared by Trinkaus Engineering, LLC. Bidder will complete the Work in accordance with the Contract Documents for the following lump sum price.

	Dollars
(in words)	
\$	
(in numbers)	

PROJECT AREA #8 – FACILITY FOR EDGEMERE CONDOMINIUMS

BASE BID

Project No. 8 consists of installation of waddles and live-staking as depicted on plans prepared by Trinkaus Engineering, LLC. Bidder will complete the Work in accordance with the Contract Documents for the following lump sum price.

Dollars

(in words)

\$_____(in numbers)

- 11. Bidder agrees that the Work will be substantially completed and completed and ready for final payment in accordance with Article 14 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
- 12. Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the times specified in the Agreement.
- 13. The following documents are attached to and made a part of this Bid:

Required Bid Security in the form of ______

14. Communications concerning this Bid shall be addressed to the address of Bidder below.

15. Terms used in this Bid which are defined in the General Conditions or Instructions to Bidders will have the same meanings indicated in the General Conditions or Instructions to Bidders.

SUBMITTE	ED on:	, 2022.	
Ву:		Title:	
Bidder:			
Address:			
	SEAL – if Bid is by a Corporatio	n	

NON-COLLUSION AFFIDAVIT OF BIDDER

that:

NON-COLLUSION AFFIDAVIT OF BIDDER

State of:)	
) SS:	
County of:)	
		_; being first duly sworn, deposes and says

- 1.) He is the owner, partner, officer, representative or agent of the Bidder that has submitted the attached Bid:
- 2.) He is fully informed regarding the preparation and contents of the attached Bid and of all pertinent circumstances regarding such Bid:
- 3.) Such Bid is genuine and is not a collusive or sham Bid:
- 4.) Neither the said Bidder nor any of its officers, partners, owner, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived, or agreed, directly or indirectly with any other Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm or person to fix the price or prices in the attached Bid or of any Bidder, or to fix any overhead, profit or cost element of the bid price or the bid price of any other Bidder or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage with the Town of East Hampton or any person interested in the proposed Contract.
- 5.) The price quoted in the attached Bid is fair and proper and is not tainted by collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest.

Signed:		
Title:		
Subscribed and sworn before me this, 2022.	day of	
Notary Public:		

My Commission expires_____, _____,

BID BOND

BID BOND

Any singular reference to Bidder, Surety, Owner, or other party shall be considered plural where applicable.

BIDDER (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER (Name and Address):

BID Bid Due Date: Project (Brief Description Including Location):

BOND Bond Number: Date (Not later than Bid due date): Penal sum

(Words)

(Figures)

(Seal)

Surety and Bidder, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Bid Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

(Seal

)

BIDDER

SURETY

Bidder's Name and Corporate Seal

By: _______Signature and Title

Attest: Signature and Title Surety's Name and Corporate Seal

By:

Signature and Title (Attach Power of Attorney)

Attest: Signature and Title

Note: Above addresses are to be used for giving required notice.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Surety's liability.

2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.

- 3. This obligation shall be null and void if:
 - 3.1. Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2. All Bids are rejected by Owner, or
 - 3.3. Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).

4. Payment under this Bond will be due and payable upon default by Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.

5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.

6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.

7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.

9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.

10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.

11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

AGREEMENT

AGREEMENT

BETWEEN OWNER AND CONTRACTOR ON THE BASIS OF A STIPULATED PRICE

THIS AGREEMENT is dated	as of the	day of
	in the year	by and between the Town of East
Hampton (hereinafter called	d OWNER)	
		(hereinafter called CONTRACTOR).

OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

Article 1. WORK

CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

Installation of Low Impact Sustainable Development Stormwater Retrofits within the Lake Pocotopaug Watershed to control nonpoint sources of water pollution.

Article 2. ENGINEER

The Project has been designed by:

The Project is being administered by:

Trinkaus Engineering, LLC	Barton and Loguidice, LLC.
114 Hunters Ridge Road	41 Sequin Drive
Southbury, Connecticut 06488	Glastonbury, Connecticut 06033
Phone: (203) 264-4558	Phone: (860) 633-8770

who are hereinafter called ENGINEERS and who are to act as OWNER's representatives from time to time, assume some duties and responsibilities and have the rights and authority assigned to ENGINEER in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents. OWNER will perform most of the duties associated with processing applications for payments in lieu of ENGINEER.

Article 3. CONTRACT TIMES

- 3.1 The Work to complete the overall project will be substantially completed within sixty (60) calendar days of issuance of Notice to Proceed as provided in paragraph 2.03 of the General Conditions and as modified by the Supplementary Conditions.
- 3.2 Liquidated Damages. OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that OWNER may suffer financial loss if the Work is not completed within the times specified in paragraph 3.1 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. They also recognize the delays, expense and difficulties involved in proving the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree

that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER three hundred dollars (\$300.00) for each calendar day that expires after the time specified in paragraph 3.1 for Substantial Completion until the Work is substantially complete. After Substantial Completion, if CONTRACTOR shall neglect, refuse or fail to complete the remaining Work within the time specified in paragraph 3.1 for completion and readiness for final payment or any proper extension thereof granted by OWNER, CONTRACTOR shall pay OWNER three hundred dollars (\$300.00) for each calendar day that expires after the time specified in paragraph 3.1 for completion and readiness for final payment.

Article 4. CONTRACT PRICE

OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to paragraph 4.1 below:

4.1 In accordance with the Bid Proposal Form (BP-1 thru BP-4), the Bidder will complete the Project in accordance with the Contract Documents for the Lump Sum price of

Project Area #7 Base Bid	\$
Project Area #8 Base Bid	\$

Article 5. PAYMENT PROCEDURES

CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by OWNER or ENGINEER as provided in the General Conditions and Supplementary Conditions.

- 5.1 Progress Payments; Retainage. OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment as recommended by the ENGINEER, each month during construction as provided in paragraphs 5.1.1 and 5.1.2. below. All such payments will be measured by the schedule of values established in paragraph 2.07 of the General Conditions (and in the case of Unit Price Work based on the number of units completed), or, in the event there is no schedule of values, as provided in the General Requirements. Beginning with the second Application for Payment, each Application shall include affidavit of Release of Liens from all subcontractors and suppliers of material and equipment.
- 5.1.1 Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below, but, in each case, less the aggregate of payments previously made and less such amounts as ENGINEER shall determine, or OWNER may withhold, in accordance with paragraph 14.02 of the General Conditions.

95% of Work completed (with the balance being retainage).

90% (with the balance being retainage) of materials and equipment not incorporated in the Work (but delivered, suitably stored and accompanied by documentation satisfactory to OWNER as provided in paragraph 14.02 of the General Conditions).

- 5.1.2 Upon Substantial Completion, in an amount sufficient to increase total payments to CONTRACTOR to 98% of the Contract Price (with the balance being retainage), less such amounts as ENGINEER shall determine, or OWNER may withhold, in accordance with paragraph 14.02 of the General Conditions.
- 5.2 *Final Payment.* At the end of the One Year Correction Period, the CONTRACTOR shall submit to ENGINEER an Application for Payment of the retainage in accordance with paragraph 14.07 of the General Conditions.

Article 6. INTEREST

All moneys not paid when due as provided in Article 14 of the General Conditions shall bear interest at the maximum rate allowed by law at the place of the project.

Article 7. CONTRACTOR'S REPRESENTATIONS

In order to induce OWNER to enter into this Agreement, CONTRACTOR makes the following representations:

- 7.1 CONTRACTOR has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents including "technical data".
- 7.2 CONTRACTOR has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance or furnishing of the Work.
- 7.3 CONTRACTOR is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress, performance and furnishing of the Work.
- 7.4 CONTRACTOR has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.0.2 of the General Conditions. CONTRACTOR accepts the determination set forth in paragraph 4.0.2 of the Supplementary Conditions of the extent of the "technical data" contained in such reports and drawings upon which CONTRACTOR is entitled to rely as provided in paragraph 4.0.2 of the General Conditions. CONTRACTOR accepts the determination set forth in paragraph 4.0.2 of the General Conditions. CONTRACTOR acknowledges that such reports and drawings are not Contract Documents and may not be complete for CONTRACTOR's purposes. CONTRACTOR acknowledges that OWNER and ENGINEER do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Contract Documents with respect to Underground Facilities at or contiguous to the site. CONTRACTOR has obtained

and carefully studied (or assumes responsibility for having done so) all such additional supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences and procedures of construction to be employed by CONTRACTOR and safety precautions and programs incident thereto. CONTRACTOR does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the performance and furnishing of the Work at the Contract Price, within the Contract Times and in accordance with the other terms and conditions of the Contract Documents.

- 7.5 CONTRACTOR is aware of the general nature of work to be performed by OWNER and others at the site that relates to the Work as indicated in the Contract Documents.
- 7.6 CONTRACTOR has correlated the information known to CONTRACTOR, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents.
- 7.7 CONTRACTOR has given ENGINEER written notice of all conflicts, errors, ambiguities or discrepancies that CONTRACTOR has discovered in the Contract Documents and the written solution thereof by ENGINEER is acceptable to CONTRACTOR, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

Article 8. CONTRACT DOCUMENTS

The Contract Documents which comprise the entire agreement between OWNER and CONTRACTOR concerning the Work consist of the following:

- 8.1 This Agreement (pages A-1 to A-5, inclusive).
- 8.2 Exhibits to this Agreement (Exhibits A, B, C, D, E,).
- 8.3 Exhibit A Contractor's Certificate of Insurance
- 8.4 Exhibit B Contractor's Performance Bond & Payment Bond.
- 8.5 Exhibit C Contractor's Bid Proposal
- 8.6 Exhibit D Bid Addenda (if any....)
- 8.7 Exhibit E Original Bid Documents
- 8.8 The following which may be delivered or issued after the Effective Date of the Agreement and are not attached hereto: All Written Amendments and other documents amending, modifying or supplementing the Contract Documents pursuant to paragraph 3.0.4 of the General Conditions.

The documents listed in paragraphs 8.2 et seq. above are attached to this Agreement (except as expressly noted otherwise above).

There are no Contract Documents other than those listed in this Article 8. The Contract Documents may only be amended, modified, or supplemented as provided in paragraph 3.0.4 of the General Conditions.

Article 9. MISCELLANEOUS

- 9.1 Terms used in this Agreement which are defined in Article 1 of the General Conditions will have the meanings indicated in the General Conditions.
- 9.2 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.
- 9.3 OWNER and CONTRACTOR each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.
- 9.4 Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and CONTRACTOR, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement, in triplicate. One counterpart each has been delivered to OWNER, CONTRACTOR and ENGINEER. All portions of the Contract Documents have been signed, initialed or identified by OWNER and CONTRACTOR or identified by OWNER and CONTRACTOR or identified by ENGINEER on their behalf.

This Agreement will be effective on is the Effective Date of the Agreement).	, 2022, (which
OWNER: <u>Town of East Hampton</u>	CONTRACTOR:
By: David Cox, Town Manager	Ву:
[CORPORATE SEAL]	[CORPORATE SEAL]

Barton and Loguidice, LLC.	Lake Pocotopaug - Watershed Improvements East Hampton, CT
Attest	Attest
Address for giving notices:	Address for giving notices:
1 Community Drive	
East Hampton, CT 06424	
(If OWNER is a public body, attach	License No.
evidence of authority to sign and resolution or other documents authorizing execution of Agreement.)	Agent for service of process:
	(If CONTRACTOR is a corporation, attach

evidence of authority to sign.)

CONSTRUCTION PERFORMANCE BOND

PERFORMANCE BOND

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER (Name and Address):

CONTRACT Date: Amount: Description (Name and Location):

BOND Bond Number: Date (Not earlier than Contract Date): Amount: Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Performance Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL Company:	SURETY	
Signature: (Seal)		(Seal)
Name and Title:	Surety's Name and Corporate Seal	
	Ву:	
	Signature and Title	
	(Attach Power of Attorney)	
(Space is provided below for signatures of additional parties, if required.)	l	
	Attest:	
	Signature and Title	
CONTRACTOR AS PRINCIPAL Company:	SURETY	
Signature: (Seal)		(Seal)
Name and Title:	Surety's Name and Corporate Seal	
	By:	
	Signature and Title	
	(Attach Power of Attorney)	
	Attest:	
	Signature and Title:	

EJCDC No. C-610 (2002 Edition)

Originally prepared through the joint efforts of the Surety Association of America, Engineers Joint Contract Documents Committee, the Associated General Contractors of America, and the American Institute of Architects.

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner for the performance of the Contract, which is incorporated herein by reference.

2. If Contractor performs the Contract, Surety and Contractor have no obligation under this Bond, except to participate in conferences as provided in Paragraph 3.1.

3. If there is no Owner Default, Surety's obligation under this Bond shall arise after:

- 3.1. Owner has notified Contractor and Surety, at the addresses described in Paragraph 10 below, that Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with Contractor and Surety to be held not later than 15 days after receipt of such notice to discuss methods of performing the Contract. If Owner, Contractor and Surety agree, Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive Owner's right, if any, subsequently to declare a Contractor Default; and
- 3.2. Owner has declared a Contractor Default and formally terminated Contractor's right to complete the Contract. Such Contractor Default shall not be declared earlier than 20 days after Contractor and Surety have received notice as provided in Paragraph 3.1; and
- 3.3. Owner has agreed to pay the Balance of the Contract Price to:
 - 1. Surety in accordance with the terms of the Contract;
 - 2. Another contractor selected pursuant to Paragraph 4.3 to perform the Contract.

4. When Owner has satisfied the conditions of Paragraph 3, Surety shall promptly and at Surety's expense take one of the following actions:

- 4.1. Arrange for Contractor, with consent of Owner, to perform and complete the Contract; or
- 4.2. Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
- 4.3. Obtain bids or negotiated proposals from qualified contractors acceptable to Owner for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by Owner and Contractor selected with Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Contract, and pay to Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Contract Price incurred by Owner resulting from Contractor Default; or
- 4.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:
 - After investigation, determine the amount for which it may be liable to Owner and, as soon as practicable after the amount is determined, tender payment therefor to Owner; or
 - 2. Deny liability in whole or in part and notify Owner citing reasons therefor.

5. If Surety does not proceed as provided in Paragraph 4 with reasonable promptness, Surety shall be deemed to be in default on this Bond 15 days after receipt of an additional written notice from Owner to Surety demanding that Surety perform its obligations under this Bond, and Owner shall be entitled to enforce any remedy available to Owner. If Surety proceeds as provided in Paragraph 4.4, and Owner refuses the payment tendered or Surety has denied liability, in whole or in part, without further notice Owner shall be entitled to enforce any remedy available to Owner.

FOR INFORMATION ONLY – Name, Address and Telephone Surety Agency or Broker Owner's Respresentative (engineer or other party) 6. After Owner has terminated Contractor's right to complete the Contract, and if Surety elects to act under Paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of Surety to Owner shall not be greater than those of Contractor under the Contract, and the responsibilities of Owner to Surety shall not be greater than those of Owner under the Contract. To a limit of the amount of this Bond, but subject to commitment by Owner of the Balance of the Contract Price to mitigation of costs and damages on the Contract, Surety is obligated without duplication for:

- 6.1. The responsibilities of Contractor for correction of defective Work and completion of the Contract;
- 6.2. Additional legal, design professional, and delay costs resulting from Contractor's Default, and resulting from the actions or failure to act of Surety under Paragraph 4; and
- 6.3. Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or nonperformance of Contractor.

7. Surety shall not be liable to Owner or others for obligations of Contractor that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than Owner or its heirs, executors, administrators, or successors.

8. Surety hereby waives notice of any change, including changes of time, to Contract or to related subcontracts, purchase orders, and other obligations.

9. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and shall be instituted within two years after Contractor Default or within two years after Contractor cased working or within two years after Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

10. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the address shown on the signature page.

11. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

- 12. Definitions.
 - 12.1 Balance of the Contract Price: The total amount payable by Owner to Contractor under the Contract after all proper adjustments have been made, including allowance to Contractor of any amounts received or to be received by Owner in settlement of insurance or other Claims for damages to which Contractor is entitled, reduced by all valid and proper payments made to or on behalf of Contractor under the Contract.
 - 12.2. Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.
 - 12.3. Contractor Default: Failure of Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.
 - 12.4. Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or comply with the other terms thereof.

CONSTRUCTION PAYMENT BOND

PAYMENT BOND

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER (Name and Address):

CONTRACT Date: Amount: Description (Name and Location):

BOND Bond Number: Date (Not earlier than Contract Date): Amount: Modifications to this Bond Form:

CONTRACTOR AS PRINCIPAL

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Payment Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

SURETY

Company:			
Signature:	(Seal)		(Seal)
Name and Title:		Surety's Name and Corporate Seal	
		By:	
		Signature and Title	
		(Attach Power of Attorney)	
(Space is provided below for signatur parties, if required.)	es of additional		
······		Attest:	
		Signature and Title	
CONTRACTOR AS PRINCIPAL Company:		SURETY	
Signature:	(Seal)		(Seal)
Name and Title:	、 ,	Surety's Name and Corporate Seal	、 、
		By:	
		Signature and Title	
		(Attach Power of Attorney)	
		Attest:	
		Signature and Title:	

EJCDC No. C-615 (2002 Edition)

Originally prepared through the joint efforts of the Surety Association of America, Engineers Joint Contract Documents Committee, the Associated General Contractors of America, the American Institute of Architects, the American Subcontractors Association, and the Associated Specialty Contractors.

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner to pay for labor, materials, and equipment furnished by Claimants for use in the performance of the Contract, which is incorporated herein by reference.

- With respect to Owner, this obligation shall be null and void if Contractor:
 Promptly makes payment, directly or indirectly, for all sums due Claimants, and
 - 2.2. Defends, indemnifies, and holds harmless Owner from all claims, demands, liens, or suits alleging non-payment by Contractor by any person or entity who furnished labor, materials, or equipment for use in the performance of the Contract, provided Owner has promptly notified Contractor and Surety (at the addresses described in Paragraph 12) of any claims, demands, liens, or suits and tendered defense of such claims, demands, liens, or suits to Contractor and Surety, and provided there is no Owner Default.

3. With respect to Claimants, this obligation shall be null and void if Contractor promptly makes payment, directly or indirectly, for all sums due.

- 4. Surety shall have no obligation to Claimants under this Bond until:
 - 4.1. Claimants who are employed by or have a direct contract with Contractor have given notice to Surety (at the addresses described in Paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.
 - 4.2. Claimants who do not have a direct contract with Contractor:
 - Have furnished written notice to Contractor and sent a copy, or notice thereof, to Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials or equipment were furnished or supplied, or for whom the labor was done or performed; and
 - 2. Have either received a rejection in whole or in part from Contractor, or not received within 30 days of furnishing the above notice any communication from Contractor by which Contractor had indicated the claim will be paid directly or indirectly; and
 - 3. Not having been paid within the above 30 days, have sent a written notice to Surety and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to Contractor.

5. If a notice by a Claimant required by Paragraph 4 is provided by Owner to Contractor or to Surety, that is sufficient compliance.

6. When a Claimant has satisfied the conditions of Paragraph 4, the Surety shall promptly and at Surety's expense take the following actions:

- 6.1. Send an answer to that Claimant, with a copy to Owner, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.
- 6.2. Pay or arrange for payment of any undisputed amounts.

7. Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by Surety.

FOR INFORMATION ONLY – Name, Address and Telephone Surety Agency or Broker: Owner's Representative (engineer or other party): 8. Amounts owed by Owner to Contractor under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any performance bond. By Contractor furnishing and Owner accepting this Bond, they agree that all funds earned by Contractor in the performance of the Contract are dedicated to satisfy obligations of Contractor and Surety under this Bond, subject to Owner's priority to use the funds for the completion of the Work.

9. Surety shall not be liable to Owner, Claimants, or others for obligations of Contractor that are unrelated to the Contract. Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.

10. Surety hereby waives notice of any change, including changes of time, to the Contract or to related Subcontracts, purchase orders and other obligations.

11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Paragraph 4.1 or Paragraph 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, Owner, or Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.

13. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory Bond and not as a common law bond.

14. Upon request of any person or entity appearing to be a potential beneficiary of this Bond, Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.

- 15. DEFINITIONS
 - 15.1. Claimant: An individual or entity having a direct contract with Contractor, or with a first-tier subcontractor of Contractor, to furnish labor, materials, or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of Contractor and Contractor's Subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
 - 15.2. Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.
 - 15.3. Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or comply with the other terms thereof.

TAB D

General Conditions

Instructions

Before you use any EJCDC document:

- 1. Read the License Agreement. You agree to it and are bound by its terms when you use the EJCDC document.
- 2. Make sure that you have the correct version for your word processing software.

How to Use:

- 1. While EJCDC has expended considerable effort to make the software translations exact, it can be that a few document controls (e.g., bold, underline) did not carry over.
- 2. Similarly, your software may change the font specification if the font is not available in your system. It will choose a font that is close in appearance. In this event, the pagination may not match the control set.
- 3. If you modify the document, you must follow the instructions in the License Agreement about notification.
- 4. Also note the instruction in the License Agreement about the EJCDC copyright.

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- 3. Copy EJCDC Design and Construction Related Documents into any machine readable or printed form for backup or modification purposes in support of your use of EJCDC Design and Construction Related Documents.

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Term:

The license is effective until terminated. You may terminate it at any time by destroying **EJCDC Design and Construction Related Documents** altogether with all copies, modifications and merged portions in any form. It will also terminate upon conditions set forth elsewhere in this Agreement or if you fail to comply with any term or condition of this Agreement. You agree upon such termination to destroy **EJCDC Design and Construction Related Documents** along with all copies, modifications and merged portions in any form.

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EJCDC warrants the CDs and diskettes on which EJCDC Design and Construction Related Documents is furnished to be free from defects in materials and workmanship under normal use for a period of ninety (90) days from the date of delivery to you as evidenced by a copy of your receipt.

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- 1. the replacement of any document not meeting EJCDC's "Limited Warranty" which is returned to EJCDC's selling agent with a copy of your receipt, or
- 2. if EJCDC's selling agent is unable to deliver a replacement CD or diskette which is free of defects in materials and workmanship, you may terminate this Agreement by returning EJCDC Document and your money will be refunded.

In no event will EJCDC be liable to you for any damages, including any lost profits, lost savings or other incidental or consequential damages arising out of the use or inability to use **EJCDC Design and Construction** **Related Documents** even if EJCDC has been advised of the possibility of such damages, or for any claim by any other party.

Some states do not allow the limitation or exclusion of liability for incidental or consequential damages, so the above limitation or exclusion may not apply to you.

General:

You may not sublicense, assign, or transfer this license except as expressly provided in this Agreement. Any attempt otherwise to sublicense, assign, or transfer any of the rights, duties, or obligations hereunder is void.

This Agreement shall be governed by the laws of the State of Virginia. Should you have any questions concerning this Agreement, you may contact EJCDC by writing to:

> Arthur Schwartz, Esq. General Counsel National Society of Professional Engineers 1420 King Street Alexandria, VA 22314

Phone: (703) 684-2845 Fax: (703) 836-4875 e-mail: aschwartz@nspe.org

You acknowledge that you have read this agreement, understand it and agree to be bound by its terms and conditions. You further agree that it is the complete and exclusive statement of the agreement between us which supersedes any proposal or prior agreement, oral or written, and any other communications between us relating to the subject matter of this agreement. This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the Controlling Law.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly By







PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE *a practice division of the* NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

AMERICAN COUNCIL OF ENGINEERING COMPANIES

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the Built Environment

Construction Specifications Institute

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American Council of Engineering Companies 1015 15th Street, N.W., Washington, DC 20005

American Society of Civil Engineers 1801 Alexander Bell Drive, Reston, VA 20191-4400

These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor Nos. C-520 or C-525 (2002 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the EJCDC Construction Documents, General and Instructions (No. C-001) (2002 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (No. C-800) (2002 Edition).

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GENERAL CONDITIONS

ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

1.01 **Defined** Terms

A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

1. Addenda--Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.

2. Agreement--The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.

3. Application for Payment--The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. Asbestos--Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

5. Bid--The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

6. Bidder -- The individual or entity who submits a Bid directly to Owner.

7. Bidding *Documents*--The Bidding Requirements and the proposed Contract Documents (including all Addenda).

8. Bidding Requirements--The Advertisement or Invitation to Bid, Instructions to Bidders, bid security of acceptable form, if any, and the Bid Form with any supplements.

9. Change Order -- A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

10. Claim -- A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

11. Contract--The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. Contract Documents-- Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor's submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.

13. Contract Price--The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).

14. Contract Times--The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any, (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.

15. Contractor--The individual or entity with whom Owner has entered into the Agreement.

16. Cost of the Work--See Paragraph 11.01.A for definition.

17. Drawings--That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.

18. Effective Date of the Agreement--The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

19. Engineer--The individual or entity named as such in the Agreement.

20. Field Order--A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.

21. *General Requirements*--Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications.

22. *Hazardous Environmental Condition--*The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Work.

23. *Hazardous Waste--*The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

24. Laws and Regulations; Laws or Regulations-Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

25. *Liens*--Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

26. *Milestone--*A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

27. *Notice of Award*--The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.

28. *Notice to Proceed--*A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.

29. *Owner*--The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.

30. PCBs--Polychlorinated biphenyls.

31. *Petroleum*--Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.

32. *Progress Schedule--*A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.

33. *Project*--The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.

34. *Project Manual*--The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.

35. *Radioactive Material--*Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

36. *Related Entity* -- An officer, director, partner, employee, agent, consultant, or subcontractor.

37. *Resident Project Representative--*The authorized representative of Engineer who may be assigned to the Site or any part thereof.

38. *Samples*--Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

39. *Schedule of Submittals--*A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.

40. Schedule of Values--A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

41. Shop Drawings--All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.

42. *Site--*Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.

43. *Specifications--*That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.

44. *Subcontractor*--An individual or entity having a direct contract with Contractor or with any other

Subcontractor for the performance of a part of the Work at the Site.

45. Substantial Completion--The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

46. *Successful Bidder*--The Bidder submitting a responsive Bid to whom Owner makes an award.

47. *Supplementary Conditions--*That part of the Contract Documents which amends or supplements these General Conditions.

48. *Supplier*--A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or any Subcontractor.

49. Underground Facilities--All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

50. *Unit Price Work--*Work to be paid for on the basis of unit prices.

51. *Work*--The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

52. Work Change Directive--A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 Terminology

A. The following words or terms are not defined but, when used in the Bidding Requirements or Contract Documents, have the following meaning.

B. Intent of Certain Terms or Adjectives

1. The Contract Documents include the terms "as allowed," "as approved," "as ordered", "as directed" or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action or determination will be solely to evaluate, in general, the Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. Day

1. The word "day" means a calendar day of 24 hours measured from midnight to the next midnight.

D. Defective

1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it:

a. does not conform to the Contract Documents, or

b. does not meet the requirements of any applicable inspection, reference standard, test, or

approval referred to in the Contract Documents, or

c. has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. Furnish, Install, Perform, Provide

1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.

4. When "furnish," "install," "perform," or "provide" is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, "provide" is implied.

F. Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 - PRELIMINARY MATTERS

2.01 Delivery of Bonds and Evidence of Insurance

A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.

B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

2.02 *Copies of Documents*

A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

2.03 Commencement of Contract Times; Notice to Proceed

A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

2.04 *Starting the Work*

A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

2.05 Before Starting Construction

A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:

1. a preliminary Progress Schedule; indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;

2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 Preconstruction Conference

A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 Intent

A. The Contract Documents are complementary; what is required by one is as binding as if required by all.

B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided whether or not specifically called for at no additional cost to Owner.

C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

3.02 Reference Standards

A. Standards, Specifications, Codes, Laws, and Regulations

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard, specification, manual or code, or any instruction of a Supplier shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, or Engineer, or any of, their Related Entities, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

A. Reporting Discrepancies

1. Contractor's Review of Contract Documents Before Starting Work: Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor may discover and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.

2. Contractor's Review of Contract Documents During Performance of Work: If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any Law or Regulation applicable to the performance of the Work or of any standard, specification, manual or code, or of any instruction of any Supplier, Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.

3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor knew or reasonably should have known thereof.

B. Resolving Discrepancies

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:

> a. the provisions of any standard, specification, manual, code, or instruction (whether or not specifically incorporated by reference in the Contract Documents); or

> b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 Amending and Supplementing Contract Documents

A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.

B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:

1. A Field Order;

2. Engineer's approval of a Shop Drawing or Sample; (Subject to the provisions of Paragraph 6.17.D.3); or

3. Engineer's written interpretation or clarification.

3.05 *Reuse of Documents*

A. Contractor and any Subcontractor or Supplier or other individual or entity performing or furnishing all of the Work under a direct or indirect contract with Contractor, shall not:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or Engineer's consultants, including electronic media editions; or

2. reuse any of such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaption by Engineer.

B. The prohibition of this Paragraph 3.05 will survive final payment, or termination of the Contract.

Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

3.06 *Electronic Data*

A. Copies of data furnished by Owner or Engineer to Contractor or Contractor to Owner or Engineer that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60day acceptance period will be corrected by the transferring party..

C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

ARTICLE 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

4.01 Availability of Lands

A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as

necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 Subsurface and Physical Conditions

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports of explorations and tests of subsurface conditions at or contiguous to the Site that Engineer has used in preparing the Contract Documents; and

2. those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) that Engineer has used in preparing the Contract Documents.

B. Limited Reliance by Contractor on Technical Data Authorized: Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 Differing Subsurface or Physical Conditions

A. *Notice:* If Contractor believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed either:

1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or

2. is of such a nature as to require a change in the Contract Documents; or

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *Engineer's Review*: After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.

C. Possible Price and Times Adjustments

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

> a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and

> b. with respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:

a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or

b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous

areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or

c. Contractor failed to give the written notice as required by Paragraph 4.03.A.

3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, Owner and Engineer, and any of their Related Entities shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 Underground Facilities

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data; and

2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:

a. reviewing and checking all such information and data,

b. locating all Underground Facilities shown or indicated in the Contract Documents,

c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction, and

d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. Not Shown or Indicated

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

4.05 *Reference Points*

A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 *Hazardous Environmental Condition at Site*

A. *Reports and Drawings:* Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the Engineer in the preparation of the Contract Documents.

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified

in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.

C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.

D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any.

E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered to Contractor written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.

F. If after receipt of such written notice Contractor does not agree to resume such Work based on

a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.

G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06. G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, employees, agents, consultants, partners, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 - BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the

Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.

B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent must be accompanied by a certified copy of the agent's authority to act.

C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 Licensed Sureties and Insurers

A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.03 Certificates of Insurance

A. Contractor shall deliver to Owner, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.

B. Owner shall deliver to Contractor, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.

5.04 *Contractor's Liability Insurance*

A. Contractor shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;

2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;

3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;

4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:

a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or

b. by any other person for any other reason;

5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and

6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

B. The policies of insurance required by this Paragraph 5.04 shall:

1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, include as additional insured (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers. directors, partners, employees, agents. consultants and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

3. include completed operations insurance;

4. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;

5. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);

6. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and

7. with respect to completed operations insurance, and any insurance coverage written on a claimsmade basis, remain in effect for at least two years after final payment.

> a. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

5.05 Owner's Liability Insurance

A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

5.06 Property Insurance

A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;

2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, false work, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, (other than caused by flood) and such other perils or causes of loss as may be specifically required by the Supplementary Conditions;

3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;

5. allow for partial utilization of the Work by Owner;

6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.

B. Owner shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.

C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07. D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.

5.07 Waiver of Rights

A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insured or additional insured (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.

B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them for: 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.

C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order .

B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

5.09 Acceptance of Bonds and Insurance; Option to Replace

A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract

Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 Partial Utilization, Acknowledgment of Property Insurer

A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.01 Supervision and Superintendence

A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.

B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances. The superintendent will be Contractor's representative at the Site and shall have authority to act on behalf of Contractor. All communications given to or received from the superintendent shall be binding on Contractor.

6.02 Labor; Working Hours

A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.

B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 Services, Materials, and Equipment

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.

B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 *Progress Schedule*

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below. 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 Substitutes and "Or-Equals"

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.

1. "Or-Equal" Items: If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment Engineer determines that:

1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole,

3) it has a proven record of performance and availability of responsive service; and

b. Contractor certifies that, if approved and incorporated into the Work:

1) there will be no increase in cost to the Owner or increase in Contract Times, and

2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. Substitute Items

a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.

b. Contractor shall submit sufficient information as provided below to allow Engineer to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.

c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented in the General Requirements and as Engineer may decide is appropriate under the circumstances.

d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:

1) shall certify that the proposed substitute item will:

a) perform adequately the functions and achieve the results called for by the general design,

b) be similar in substance to that specified, and

c) be suited to the same use as that specified;

2) will state:

a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time;

b) whether or not use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and

c) whether or not incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;

3) will identify:

a) all variations of the proposed substitute item from that specified , and

b) available engineering, sales, maintenance, repair, and replacement services;

4) and shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change,

B. Substitute Construction Methods or Procedures: If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.

C. Engineer's Evaluation: Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by either a Change Order for a substitute or an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.

D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

E. Engineer's Cost Reimbursement: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B Whether or not Engineer approves a substitute item so proposed or submitted by Contractor, Contractor shall reimburse Owner for the charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

F. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

6.06 Concerning Subcontractors, Suppliers, and Others

A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.

B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor. Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued . No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.

C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:

1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity, nor

2. shall anything in the Contract Documents create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.

E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.

F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an approagreement between Contractor and priate the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, and Engineer,, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 *Patent Fees and Royalties*

A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of Owner or Engineer its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

B. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, employees, agents, partners, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

6.08 Permits

A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

6.09 *Laws and Regulations*

A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.

B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.

C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05. 6.10 *Taxes*

A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

6.11 Use of Site and Other Areas

A. Limitation on Use of Site and Other Areas

1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.

2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.

3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, employees, agents, partners, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents. D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 *Record Documents*

A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Engineer for Owner.

6.13 Safety and Protection

A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.

C. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or , or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

D. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 Hazard Communication Programs

A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 *Emergencies*

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 Shop Drawings and Samples

A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the acceptable Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

1. Shop Drawings

a. Submit number of copies specified in the General Requirements.

b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

2. *Samples:* Contractor shall also submit Samples to Engineer for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals.

a. Submit number of Samples specified in the Specifications.

b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.

B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals , any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. Submittal Procedures

1. Before submitting each Shop Drawing or Sample, Contractor shall have determined and verified:

a. all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

b. the suitability of all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;

c. all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto; and

d. shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.

2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents

with respect to Contractor's review and approval of that submittal.

3. With each submittal, Contractor shall give Engineer specific written notice of any variations, that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawing's or Sample Submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. Engineer's Review

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. Resubmittal Procedures

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

6.18 Continuing the Work

A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 Contractor's General Warranty and Guarantee

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its Related Entities shall be entitled to rely on representation of Contractor's warranty and guarantee.

B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or

2. normal wear and tear under normal usage.

C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:

1. observations by Engineer;

2. recommendation by Engineer or payment by Owner of any progress or final payment;

3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;

4. use or occupancy of the Work or any part thereof by Owner;

5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;

6. any inspection, test, or approval by others; or

7. any correction of defective Work by Owner.

6.20 Indemnification

A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or

arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable .

B. In any and all claims against Owner or Engineer or any of their respective consultants, agents, officers, directors, partners, or employees by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, partners, employees, agents, consultants and subcontractors arising out of:

1. the preparation or approval of, or the failure to prepare or approve, maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or

2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

6.21 Delegation of Professional Design Services

A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.

B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.

D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.

E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 - OTHER WORK AT THE SITE

7.01 *Related Work at Site*

A. Owner may perform other work related to the Project at the Site with Owner's employees, or via other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:

1. written notice thereof will be given to Contractor prior to starting any such other work; and

2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.

B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and shall properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.

C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*

A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:

1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;

2. the specific matters to be covered by such authority and responsibility will be itemized; and

3. the extent of such authority and responsibilities will be provided.

B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

7.03 Legal Relationships

A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.

B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's actions or inactions.

C. Contractor shall be liable to Owner and any other contractor for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's action or inactions.

8.01 *Communications to Contractor*

A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

8.02 Replacement of Engineer

A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

8.03 Furnish Data

A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

8.04 Pay When Due

A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

8.05 Lands and Easements; Reports and Tests

A. Owner's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that have been utilized by Engineer in preparing the Contract Documents.

8.06 Insurance

A. Owner's responsibilities, if any, in respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 Change Orders

A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 Inspections, Tests, and Approvals

A. Owner's responsibility in respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 Undisclosed Hazardous Environmental Condition

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 Evidence of Financial Arrangements

A. If and to the extent Owner has agreed to furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents, Owner's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents and will not be changed without written consent of Owner and Engineer.

9.02 Visits to Site

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 Project Representative

A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 Authorized Variations in Work

A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment , a Claim may be made therefor as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.06 Shop Drawings, Change Orders and Payments

A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.

B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.

C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.

D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 Determinations for Unit Price Work

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

9.08 Decisions on Requirements of Contract Documents and Acceptability of Work

A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question

B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believe that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.

C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.

D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show

partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 Limitations on Engineer's Authority and Responsibilities

A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to, the Resident Project Representative, if any, and assistants, if any.

ARTICLE 10 - CHANGES IN THE WORK; CLAIMS

10.01 Authorized Changes in the Work

A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall

promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 Unauthorized Changes in the Work

A.Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.B.

10.03 Execution of Change Orders

A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:

1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;

2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and

3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

10.04 Notification to Surety

A. If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times) is required by the provisions of any bond to be given to a surety, the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.05 Claims

A. *Engineer's Decision Required*: All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.

B. Notice: Written notice stating the general nature of each Claim, shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Time shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).

C. *Engineer's Action*: Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:

1. deny the Claim in whole or in part,

2. approve the Claim, or

3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.

D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.

E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.

F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

ARTICLE 11 - COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items, and shall not include any of the costs itemized in Paragraph 11.01.B.

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time at the Site. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.

4. Costs of special consultants (including but not limited to Engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.

b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, imposed by Laws and Regulations.

e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

g. The cost of utilities, fuel, and sanitary facilities at the Site.

h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, expresses, and similar petty cash items in connection with the Work.

i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.

2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.

3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A and 11.01.B.

C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall

be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.

D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

11.02 Allowances

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. Cash Allowances

1. Contractor agrees that:

a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. Contingency Allowance

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 Unit Price Work

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

EJCDC C-700 Standard General Conditions of the Construction Contract. Copyright © 2002 National Society of Professional Engineers for EJCDC. All rights reserved. 00700 - 31 B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:

1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

2. there is no corresponding adjustment with respect any other item of Work; and

3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 - CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 Change of Contract Price

A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or

2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).

C. *Contractor's Fee:* The Contractor's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;

b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;

c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraph 12.01.C.2.a is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;

d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;

e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and

f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 Change of Contract Times

A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 Delays

A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.

B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times , or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

C If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.

D. Owner, Engineer and the Related Entities of each of them shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of Engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 Notice of Defects

A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. All defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 Access to Work

A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspecting, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's Site safety procedures and programs so that they may comply therewith as applicable.

13.03 Tests and Inspections

A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:

1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;

2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in said Paragraph 13.04.C; and

3. as otherwise specifically provided in the Contract Documents.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.

E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, it must, if requested by Engineer, be uncovered for observation.

F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

13.04 Uncovering Work

A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.

B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.

C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.

D. If, the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 Owner May Stop the Work

A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 Correction or Removal of Defective Work

A. Promptly after receipt of notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 Correction Period

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

- 1. repair such defective land or areas; or
- 2. correct such defective Work; or

3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and

4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom. B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.

C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.

D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose.

13.08 Acceptance of Defective Work

A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

13.09 *Owner May Correct Defective Work*

A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.

B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.

C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 Schedule of Values

A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress

payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 Progress Payments

A. Applications for Payments

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. Review of Applications

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations on the Site of the executed Work as an experienced and qualified design professional and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

a. the Work has progressed to the point indicated;

b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and to any other qualifications stated in the recommendation); and

c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.

3. By recommending any such payment Engineer will not thereby be deemed to have represented that:

a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or

b. that there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:

a. to supervise, direct, or control the Work, or

b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or

c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or

d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or

e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:

> a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;

> b. the Contract Price has been reduced by Change Orders;

c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or

d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. Payment Becomes Due

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

D. Reduction in Payment

1. Owner may refuse to make payment of the full amount recommended by Engineer because:

a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;

b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;

c. there are other items entitling Owner to a set-off against the amount recommended; or

d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.

2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor corrects to Owner's satisfaction the reasons for such action. 3. If it is subsequently determined that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1.

14.03 Contractor's Warranty of Title

A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

14.04 Substantial Completion

A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.

B. Promptly after Contractor's notification, , Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will within 14 days after submission of the tentative certificate to Owner notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will within said 14 days execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.

D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.

E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to complete or correct items on the tentative list.

14.05 Partial Utilization

A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions.

1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor will certify to Owner and Engineer that such part of the Work is substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 Final Inspection

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 Final Payment

A. Application for Payment

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:

> a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.7;

b. consent of the surety, if any, to final payment;

c. a list of all Claims against Owner that Contractor believes are unsettled; and

d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner or Owner's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

B. Engineer's Review of Application and Acceptance

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations

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under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and , will be paid by Owner to Contractor.

14.08 Final Completion Delayed

A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 Waiver of Claims

A. The making and acceptance of final payment will constitute:

1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and

2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.01 Owner May Suspend Work

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

15.02 Owner May Terminate for Cause

A. The occurrence of any one or more of the following events will justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);

2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;

3. Contractor's disregard of the authority of Engineer; or

4. Contractor's violation in any substantial way of any provisions of the Contract Documents.

B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:

1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion),

2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and 3. complete the Work as Owner may deem expedient.

C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph Owner shall not be required to obtain the lowest price for the Work performed.

D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.

E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.

F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B, and 15.02.C.

15.03 Owner May Terminate For Convenience

A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work; 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;

3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and

4. reasonable expenses directly attributable to termination.

B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 Contractor May Stop Work or Terminate

A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

ARTICLE 16 - DISPUTE RESOLUTION

16.01 *Methods and Procedures*

A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be

EJCDC C-700 Standard General Conditions of the Construction Contract. Copyright © 2002 National Society of Professional Engineers for EJCDC. All rights reserved. 00700 - 40 governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.

B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.

C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:

1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions, or

2. agrees with the other party to submit the Claim to another dispute resolution process, or

3. gives written notice to the other party of their intent to submit the Claim to a court of competent jurisdiction.

ARTICLE 17 - MISCELLANEOUS

17.01 *Giving Notice*

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or

2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 Computation of Times

A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 Cumulative Remedies

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 Survival of Obligations

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 Controlling Law

A. This Contract is to be governed by the law of the state in which the Project is located.

17.06 Headings

A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

TAB E

Supplementary Conditions

SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the General Conditions and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

ARTICLE 1 REVISIONS:

1.01.19 Engineer

After the word "Agreement" add the words "OWNER may perform some or all of the duties and assume responsibilities of ENGINEER discussed in these General Conditions including, but not limited to, processing of applications of payments and reviewing submittals."

1.01.37 Resident Project Representative

After the word "Engineer" add "or Owner"

After the word "thereof" add the words "for part-time or full-time observation of work as it proceeds in the field. These efforts include interpretation of drawings and specifications, review of field change orders, and review of payment applications."

ARTICLE 2 REVISIONS:

2.05 Before Starting Construction

Delete Article 2.05.B.3 and add the following new Article 2.05.D:

Documentation submitted by CONTRACTOR prior to execution of Agreement shall include a preliminary schedule of values for all of the Work that includes quantities and prices of items which, when added together, equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work. The approved schedule of values shall follow the format provided in the Bidding Documents.

ARTICLE 3 REVISIONS:

3.06 The Contract Documents are complementary; what is called for by one is as binding as if called for by all. In resolving conflicts, errors, and discrepancies, the documents shall be given precedence in the following order: Agreement, Specifications, Drawings. Within the specifications the order of precedence shall be as follows: Special Provisions, Instructions to Bidders, General Conditions, Technical Provisions. Figure dimensions on Drawings shall govern over scale/dimensions, and detailed Drawings shall govern over general Drawings. The Contractor assumes full responsibility for having familiarized itself with the nature and extent of the Contract Documents, work, locality, and local conditions that may in any manner affect the work to be done.

ARTICLE 4 REVISIONS:

4.01 Availability of Lands

Add the following:

- D. If the Contractor, by direct negotiation and bargaining with any land owner, lessee or tenant, has secured for himself any right to use more space or greater privileges in the space provided for purposes incidental to the performance of the Contract, he shall, upon request of the Owner's Representative, furnish to the Owner's Representative proper evidence that such additional right have been properly secured and assurance that no damage to or claim upon the Owner will arrive there from. The Owner shall not be liable in any way for any expense incurred by the Contractor in securing any such right to use additional property.
- E.If access is provided by means of any road or driveway or through private lands, the Contractor shall permit the regular Owners or users thereof to use the same so far as it is consistent with the construction of the work. If any existing driveway or road is damaged by his use thereof, the Contractor shall at once restore it to as good condition as it would have been had he not used it. The Contractor and those under him using any private road or driveway must assume to use that road or driveway on an "as is" basis and use it at their own risk. Neither the Owner nor the land owner shall be liable for damage to persons or property of the Contractor's forces arising from any defect in such road or driveway, except as such defect may be the consequence of negligence of the Owner or the land owner after the award of the Contract.

ARTICLE 5 REVISIONS:

5.04 Contractor's Liability Insurance

Add the following:

- C. The Contractor shall post a Certificate of Insurance, with the Town of East Hampton named as additional insured, in an amount to be determined by the Owner. The Certificate of Insurance shall name the Town of East Hampton as additional insured in the amount of \$1,000,000 which covers the following:
 - Public Liability, Bodily Injury and Property Damage
 - · Automobile
 - Umbrella
 - Worker's Compensation

D. Insurance requirements shall also apply to all Subcontractors, and the Contractor shall not allow any Subcontractor to commence work until the Subcontractor's insurance has been obtained.

ARTICLE 6 REVISIONS:

Add the following:

6.10.A Taxes

A. "To the extent that the Town of East Hampton is exempt from Connecticut sales tax, the Contractor may purchase materials or supplies to be consumed in the performance of this contract without payment of such tax."

6.11.A.1 Use of Site and Other Areas

A.1 "The exact limit of Work and equipment storage shall be verified and agreed to by Owner and Contractor in the field."

ARTICLE 11 REVISIONS:

Add the following:

11.04 Equipment Rental Rates Not Otherwise Covered

With regard to rental rates applicable to work not covered by either Lump Sum pay items or Unit Adjustments, for any power-operated machinery, trucks or equipment, necessary to use, the Engineer will allow the Contractor the rental rate set forth in the most current edition of the "Rental Rate Blue Book," including all Rate Adjustment Tables and amendments, as published by Dataquest, Inc. of San Jose, California in effect at the time the work is performed for Contractor-owned equipment or at a lower rate, if submitted by the Contractor.

- A. Should the proper completion of the work require equipment of a type not covered by the above-mentioned schedule, the Engineer will allow Contractor a reasonable rental rate which shall be based on that prevailing in the area of the work and shall be agreed upon in writing before the work is begun. However, the Contractor shall show the sources for the rates he has proposed.
- B. For power-operated machinery, truck or equipment, which the Contractor must obtain by rental, he shall inform the Engineer of his need to rent the equipment prior to using it on the work. He shall be paid the actual rental for the equipment, provided that rate does not exceed the rental rate set forth in the "Rental Rate Blue Book", including all Rate Adjustment Tables and amendments as published by Dataquest, Inc. The Contractor shall provide a copy of the paid receipt for the rental expense incurred.
- C. The estimated operating cost per hour will apply only to the actual time the equipment is operating. Operators will be paid as stated hereinbefore for labor

except for certain trucks listed in the "Rental Rate Blue Book" as published by Dataquest, Inc. which show the operators to be included.

- D. For rented equipment not owned by the Contractor or a subsidiary of the Contractor, the following rates shall apply:
 - 1. The daily rate per hour shall apply when the equipment is specifically assigned to the work by the Engineer for a period of 7 consecutive calendar days or less.
 - 2. The weekly rate per hour shall apply when the assigned time exceeds 7 consecutive calendar days but does not exceed 21 calendar days.
 - 3. The monthly rate per hour shall apply when the assigned time exceeds 21 consecutive calendar days.
- E. For Contractor-owned equipment or equipment rented or obtained from a subsidiary of the Contractor, the maximum hourly rate to be used shall be the monthly rate as set forth in the current edition of the "Rental Rate Blue Book", including Rate Adjustment Tables and amendments as published by Dataquest, Inc., divided by 176 (176 working hours per month).

ARTICLE 15 REVISIONS:

Delete the word "persistent" from Article 15.0.2.A.1

ARTICLE 17 REVISIONS:

Add the following:

17.07 Time for Completion and Liquidated Damages:

- A. It is hereby understood and mutually agreed, by and between Contractor and Owner, that the date of beginning and the time for completion as specified in the Agreement of the work to be done hereunder are essential conditions of this Contract; and it is further mutually understood and agreed that the Work embraced in this Agreement shall be commenced on a date to be specified in the Notice to Proceed.
- B. Contractor agrees that said Work shall be prosecuted regularly, diligently and uninterruptedly at such rate of progress as will insure full completion thereof within the time specified. It is expressly understood and agreed, by and between Contractor and Owner, that the time for the completion of the Work described herein is a reasonable time for the completion of the same, taking into consideration the average climatic range and conditions in this locality.
- C. If said Contractor shall neglect, fail or refuse to complete the Work within the time herein specified, or any proper extension thereof granted by Owner, then the Contractor does hereby agree to pay to Owner the amount specified in the Agreement, not as a penalty but as Liquidated Damages for such breach of

Agreement, for each and every calendar day that Contractor shall be in default after the time stipulated in the Agreement for completing the Work.

D. The said amount is fixed and agreed upon by and between Contractor and Owner because of the impracticality and extreme difficulty of fixing and ascertaining the actual damages Owner would in event sustain, and said amount shall be retained from time to time by the Owner from current periodical estimates.

TAB F

Special Provisions

SPECIAL PROVISIONS

DESCRIPTION:

These Special Provisions amend or supplement the Division II Construction Details (Technical Provisions) and Division III Materials Section in the State of Connecticut Department of Transportation (CTDOT) Standard Specifications for Roads, Bridges and Incidental Construction, Form 818, dated 2020 through Supplemental Specifications dated January 2022, which are incorporated herein and are referred to herein after at "Form 818." Only the Form 818 Division II Construction Details and Division III Materials Section are incorporated herein.

Copies of Form 818 may be purchased from:

CTDOT Manager of Contracts P.O. Box 317546 2800 Berlin Turnpike Newington, CT 06131-7546

GENERAL:

Special Provision amendments or supplements that apply throughout Form 818 Division Details (Technical Provisions) are outlined below:

- 1. Replace the word "State" and the word "Department, wherever they appear, with the word "Town" throughout Form 818.
- 2. <u>Method of Measurement</u>: Work items for this lump sum project will not be measured separately for payment unless additions, deletions or modifications to the Work are ordered by the Owner issued Change Order.
- 3. <u>Basis for Payment</u>: Work items for this lump sum project will not be paid for separately unless additions, deletions or modifications to the Work are ordered by the Owner issued Change Order. Progress payments will be made against the Contract Lump Sum for the entire project using an approved Schedule of Values.

RELEVANT SECTIONS:

The following is a list of relevant sections of Form 818 that apply to this project. Note: This list is provided as reference only, meaning that it does not exclusively limit the scope of work for this project.

<u>Section</u>	Description
2.01	Clearing & Grubbing
2.02	Earth Excavation
2.07	Borrow
2.08	Free-Draining Material

2.09 Subgrade

2.12	Subbase
2.13	Granular Fill
2.19	Sedimentation Control System
3.04	Processed Aggregate Base
7.03	Riprap
9.13	Chain Link Fence
9.22	Bituminous Concrete Sidewalk
9.44	Topsoil
9.49	Furnishing, Planting and Mulching Trees, Shrubs, Vines and Ground Cover Plants
9.50	Turf Establishment
9.52	Selective Clearing and Thinning
9.71	Maintenance & Protection of Traffic
9.75	Mobilization
12.20	Construction Signs

See attached document for floating wetland and live-staking procedures for Christopher Brook portion of project.

SUBMITTALS:

The Contractor shall submit (3) copies of each shop drawing/product data to the Town or it's agent for approval, prior to construction. The Town or its agent will endeavor to respond with their approval and/or review comments within a (2) week period of their receipt of said submittals. The Contractor shall make submittals to include but not limited to the sections of the Form 818 above and per the special provisions hereon.

COORDINATION OF WORK:

The Contractor shall coordinate with the Town and its agents accordingly.

SCHEDULE:

The contract time for this project is sixty (60) calendar days, starting on the Notice to Proceed date, and does not allow for a winter shutdown period. The intended project schedule is as follows:

Bids Due:	August 19, 2022
Notice of Award:	August 23, 2022
Contract Signing:	August 26, 2022
Notice to Proceed:	September 2, 2022
Substantial Completion:	October 31, 2022

The Contractor and Town of East Hampton shall coordinate and agree upon a Sequence of Construction prior to issuance of Notice to Proceed.

LIQUIDATED DAMAGES:

The Contractor is hereby notified that liquidated damages in the amount of three hundred dollars (\$300.00) per consecutive calendar day apply to this project in order to help ensure a timely completion.

PREVAILING WAGE RATES:

The Contractor is hereby notified that the bid shall be submitted without consideration of prevailing wage rates if all work is less than \$100,000.

UTILITY COORDINATION:

The Contractor is hereby notified that if existing overhead utilities are planned for temporary and/or permanent relocation to support this project, including Eversource Energy (CL&P), Frontier Communications (SNET), Comcast (Cable) or any other overhead utility, the Contractor is responsible for coordinating the necessary utility relocations or modifications to complete the work.

MAINTENANCE & PROTECTION OF TRAFFIC:

The Contractor is hereby notified that all Town Roads and Town property including shall remain open to the public for the duration of the contract time period. The Contractor shall be responsible for furnishing, installing and maintaining all temporary pedestrian & traffic barriers and construction signage as required for the duration of the contract period. The Contractor shall coordinate the location of these barriers with the Town of East Hampton or their agent. There shall be no separate measurement and payment for maintenance & protection of traffic.

PORTABLE CHEMICAL TOILET FACILITY:

The Contractor shall furnish one (1) portable chemical toilet for the entire duration of the contract time period to support this construction project. There shall be no separate measurement and payment for portable chemical toilet facilities.

CONSTRUCTION STAKING:

The Contractor is hereby notified that these projects are designed based upon existing mapping such as Town-wide GIS level mapping. The contractor will be responsible for laying out these projects based upon existing site features while working closely with Trinkaus Engineering, LLC. and/or Barton and Loguidice, LLC. to assure compliance with the plan. There shall be no separate measurement and payment for additional construction staking.

INSPECTION:

The Contractor is hereby notified that the Town's agents, Trinkaus Engineering, LLC. and/or Barton and Loguidice, LLC., will perform construction inspection to support this project.

TESTING:

The Contractor is hereby notified that the Town's agents, Trinkaus Engineering, LLC. and/or Barton and Loguidice, LLC., shall coordinate and perform all tests as deemed necessary to ensure proper construction/installation of the stormwater retrofits.

PERMITS:

The Contractor is hereby notified that the Town of East Hampton will waive all local municipal permit fees for this project. It is the responsibility of the contractor to obtain all local and other permits required for this project.

CALL-BEFORE- YOU- DIG (CBYD):

The Contractor is hereby notified that they shall contact Call-Before-You-Dig (CBYD) 1-800-922-4455 <u>www.cbyd.com</u> and obtain authorization prior to start of work as required by law.

CONSTRUCTION SEQUENCE:

The anticipated sequence of construction is listed on the project plan sheets for each location.

TAB G

Prevailing Wage Rate Information

TAB H

Commission on Human Rights and Opportunities (CHRO) Contract Compliance

Commission On Human Rights And Opportunities (CHRO) Contract Compliance

The contractor who is selected to perform this project must comply with 4a-60, 4a-60a, 4a-60g, and 46a-68b through 46a-68f, inclusive, as amended by June 2015 Special Session Public Act 15-5 of the Connecticut General Statutes (C.G.S.).

For municipal construction contracts valued over \$50,000, state law requires the contractor, general contractor, or construction manager at risk to set a goal of twenty-five per cent (25%) for award to eligible subcontractors holding current small business enterprise (SBE) certification from the DAS under the provisions of C.G.S. 4a-60g. Of the portion of contracts set aside for SBEs, a goal of twenty-five percent (25%) (or 6.25% of the value of the entire contract funded by the state) must be set aside for awards to eligible contractors holding current minority business enterprise certification (i.e.: DAS certified Minority ("MBE"), Women ("WBE") and/or Disabled ("DisBE") owned businesses). The contractor, general contractor, construction manager at risk must make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such projects.

For Contracts Equal to or Greater than \$500,000.00

The contract cannot be awarded until:

The Contractor has submitted an approved Affirmative Action Plan to CHRO OR

Authorization has been obtained from CHRO to execute contract and retain 2% per month of the total contract value until CHRO approves the Contractor's Affirmative Action Plan.

Non-Discrimination and Affirmative Action Provisions

- (A)(1) The Contractor agrees and warrants that in the performance of the Contract such Contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, sexual orientation, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such Contractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the state of Connecticut. The Contractor further agrees to take affirmative action to insure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such Contractor that such disability prevents performance of the work involved; (2) the Contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, to state that it is an ."affirmative action-equal opportunity employer" in accordance with regulations adopted by the commission; (3) the Contractor agrees to provide each labor union or representative of workers with which such Contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such Contractor has a contract or understanding, a notice to be provided by the commission advising the labor union or workers' representative of the Contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment; (4) the Contractor agrees to comply with each provision of this section and sections 46a-68e and 46a-68f and with each regulation or relevant order issued by said commission pursuant to sections 46a-56, 46a-68e, 46a-68f and 46a-86; (5) the Contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the Contractor as relate to the provisions of this section and section 46a-56.
- (B) Any Contractor who is a party to a municipal public works contract or quasi-public agency project, where any such contract is valued at less than \$50,000 for each year of the contract, shall provide the Commission on Human Rights and Opportunities with a written or electronic representation that complies with the nondiscrimination agreement and warranty under subsection (A)(1) above, provided if there is any change in such representation, the Contractor shall provide the updated representation to the Commission not later than 30 days after such change. Any Contractor who is a party to a municipal public works contract or a quasi-public agency project, where any such contract is valued at \$50,000 or more for any year of the contract, shall provide the Commission with any one of the following: (1) Documentation in the form of a company or corporate police adopted by resolution of the board of directors, shareholder, managers, members or other governing body of such Contractor that

complies with the nondiscrimination agreement and warranty under subsection (A)(1) of this section; (2) Documentation in the form of a company or corporate policy adopted by a prior resolution of the board of directors, shareholders, managers, members or other governing body of such contractor if (a) the prior resolution is certified by a duly authorized corporate officer of such contractor to be in effect on the date the documentation is submitted, and the executive director of the Commission on Human Rights and Opportunities or designee certifies that the prior resolution (A)(1) of this section; or (3) Documentation in the form of an affidavit signed under penalty of false statement by a chief executive officer, president, chairperson or other corporate officer duly authorized to adopt company or corporate policy that certifies that the company or corporate policy of the contractor complies with the nondiscrimination agreement and warranty under subdivision (A)(1) of this section and warranty under subdivision (A)(1) of this section and warranty under subdivision (A)(1) of the contractor complies with the nondiscrimination agreement and warranty under subdivision (A)(1) of this section and is in effect on the date the affidavit is signed.

- (C) If the Contract is a municipal public works contract or a quasi-public agency project, the Contractor agrees and warrants that s/he will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works project. The Contractor shall include the provisions of subdivision (A)(1) of this section in every subcontract or purchase order entered into to fulfill any obligation of a municipal public works contract or contract for a quasi-public agency project, and such provisions shall be binding on a subcontractor, vendor or manufacturer, unless exempted by regulations or orders of the Commission on Human Rights and Opportunities. The Contractor shall take such action with respect to any such subcontract or purchase order as the Commission may direct as a means of enforcing such provisions, including sanctions for noncompliance in accordance with section 46a-56; provided, if such Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Commission regarding a state contract, the contractor may request the state of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the state and the state may so enter.
- (D) "Minority business enterprise" means any small contractor or supplier of materials fifty-one per cent or more of the capital stock, if any, or assets of which is owned by a person or persons: (1) Who are active in the daily affairs of the enterprise, (2) who have the power to direct the management and policies of the enterprise and (3) who are members of a minority, as such term is defined in subsection (a) of section 32-9n; and "good faith" means that degree of diligence which a reasonable person would exercise in the performance of legal duties and obligations. "Good faith efforts" shall include, but not be limited to, those reasonable initial efforts necessary to comply with statutory or regulatory requirements and additional or substituted efforts when it is determined that such initial efforts will not be sufficient to comply with such requirements. Determination of the Contractor's good faith efforts shall include, but shall not be eliminated to, the following factors: The contractor's employment and subcontracting policies, patterns and practices; affirmative advertising recruitment and training; technical assistance activities and such other reasonable activities or efforts as

the Commission on Human Rights and Opportunities may prescribe that are designed to ensure the participation of minority business enterprises in municipal public works contracts or quasi-public agency projects. "Municipal public works project" means that portion of an agreement entered into on or after October 1, 2015, between any individual, form or corporation and a municipality for the construction, rehabilitation, conversion, extension, demolition or repair of a public building, highway or other changes or improvements in real property, which is financed in whole or in part by the state, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees but excluding any project of an alliance district, as defined in section 10-262u, finance by the state funding in an amount equal to fifty thousand dollars or less. "Quasi-public agency project" means the construction, rehabilitation, conversion, extension, demolition or repair of a building or other changes or improvements in real property pursuant to a contract entered into on or after October 1, 2015, which is financed in whole or in part by a quasi-public agency using state funds, including, but not limited to, matching expenditures, grants, loans, including, but not limited to, matching expenditures, grants, loans, including, but

Commission On Human Rights And Opportunities (CHRO) Contract Compliance

The contractor who is selected to perform this project must comply with 4a-60, 4a-60a, 4a-60g, and 46a-68b through 46a-68f, inclusive, as amended by June 2015 Special Session Public Act 15-5 of the Connecticut General Statutes (C.G.S.).

For municipal construction contracts valued over \$50,000, state law requires the contractor, general contractor, or construction manager at risk to set a goal of twenty-five per cent (25%) for award to eligible subcontractors holding current small business enterprise (SBE) certification from the DAS under the provisions of C.G.S. 4a-60g. Of the portion of contracts set aside for SBEs, a goal of twenty-five percent (25%) (or 6.25% of the value of the entire contract funded by the state) must be set aside for awards to eligible contractors holding current minority business enterprise certification (i.e.: DAS certified Minority ("MBE"), Women ("WBE") and/or Disabled ("DisBE") owned businesses). The contractor, general contractor, construction manager at risk must make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such projects.

For Contracts Equal to or Greater than \$500,000.00

The contract cannot be awarded until:

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Authorization has been obtained from CHRO to execute contract and retain 2% per month of the total contract value until CHRO approves the Contractor's Affirmative Action Plan.

Non-Discrimination and Affirmative Action Provisions

- (A)(1) The Contractor agrees and warrants that in the performance of the Contract such Contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, sexual orientation, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such Contractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the state of Connecticut. The Contractor further agrees to take to insure that applicants with job-related qualifications are affirmative action employed and that employees are treated when employed without regard to of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such Contractor that such disability prevents performance of the work involved; (2) the Contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, to state that it is an ."affirmative action-equal opportunity employer" in accordance with regulations adopted by the commission; (3) the Contractor agrees to provide each labor union or representative of workers with which such Contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such Contractor has a contract or understanding, a notice to be provided by the commission advising the labor union or workers' representative of the Contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment; (4) the Contractor agrees to comply with each provision of this section and sections 46a-68e and 46a-68f and with each regulation or relevant order issued by said commission pursuant to sections 46a-56, 46a-68e, 46a-68f and 46a-86; (5) the Contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the Contractor as relate to the provisions of this section and section 46a-56.
- (B) Any Contractor who is a party to a municipal public works contract or quasi-public agency project, where any such contract is valued at less than \$50,000 for each year of the contract, shall provide the Commission on Human Rights and Opportunities with a written or electronic representation that complies with the nondiscrimination agreement and warranty under subsection (A)(1) above, provided if there is any change in such representation, the Contractor shall provide the updated representation to the Commission not later than 30 days after such change. Any Contractor who is a party to a municipal public works contract or a quasi-public agency project, where any such contract is valued at \$50,000 or more for any year of the contract, shall provide the Commission with any one of the following: (1) Documentation in the form of a company or corporate police adopted by resolution of the board of directors, shareholder, managers, members or other governing body of such Contractor that

complies with the nondiscrimination agreement and warranty under subsection (A)(1) of this section; (2) Documentation in the form of a company or corporate policy adopted by a prior resolution of the board of directors, shareholders, managers, members or other governing body of such contractor if (a) the prior resolution is certified by a duly authorized corporate officer of such contractor to be in effect on the date the documentation is submitted, and the executive director of the Commission on Human Rights and Opportunities or designee certifies that the prior resolution (A)(1) of this section; or (3) Documentation in the form of an affidavit signed under penalty of false statement by a chief executive officer, president, chairperson or other corporate officer duly authorized to adopt company or corporate policy that certifies that the company or corporate policy of the contractor complies with the nondiscrimination agreement and warranty under subdivision agreement and warranty under subdivision (A)(1) of this section and warranty under subdivision (A)(1) of the section and warranty under subdivision (A)(1) of the section and warranty under subdivision (A)(1) of the section and is in effect on the date the affidavit is signed.

- (C) If the Contract is a municipal public works contract or a quasi-public agency project, the Contractor agrees and warrants that s/he will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works project. The Contractor shall include the provisions of subdivision (A)(1) of this section in every subcontract or purchase order entered into to fulfill any obligation of a municipal public works contract or contract for a quasi-public agency project, and such provisions shall be binding on a subcontractor, vendor or manufacturer, unless exempted by regulations or orders of the Commission on Human Rights and Opportunities. The Contractor shall take such action with respect to any such subcontract or purchase order as the Commission may direct as a means of enforcing such provisions, including sanctions for noncompliance in accordance with section 46a-56; provided, if such Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Commission regarding a state contract, the contractor may request the state of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the state and the state may so enter.
- (D) "Minority business enterprise" means any small contractor or supplier of materials fifty-one per cent or more of the capital stock, if any, or assets of which is owned by a person or persons: (1) Who are active in the daily affairs of the enterprise, (2) who have the power to direct the management and policies of the enterprise and (3) who are members of a minority, as such term is defined in subsection (a) of section 32-9n; and "good faith" means that degree of diligence which a reasonable person would exercise in the performance of legal duties and obligations. "Good faith efforts" shall include, but not be limited to, those reasonable initial efforts necessary to comply with statutory or regulatory requirements and additional or substituted efforts when it is determined that such initial efforts will not be sufficient to comply with such requirements. Determination of the Contractor's good faith efforts shall include, but shall not be eliminated to, the following factors: The contractor's employment and subcontracting policies, patterns and practices; affirmative advertising recruitment and training; technical assistance activities and such other reasonable activities or efforts as

the Commission on Human Rights and Opportunities may prescribe that are designed to ensure the participation of minority business enterprises in municipal public works contracts or quasi-public agency projects. "Municipal public works project" means that portion of an agreement entered into on or after October 1, 2015, between any individual, form or corporation and a municipality for the construction, rehabilitation, conversion, extension, demolition or repair of a public building, highway or other changes or improvements in real property, which is financed in whole or in part by the state, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees but excluding any project of an alliance district, as defined in section 10-262u, finance by the state funding in an amount equal to fifty thousand dollars or less. "Quasi-public agency project" means the construction, rehabilitation, conversion, extension, demolition or repair of a building or other changes or improvements in real property pursuant to a contract entered into on or after October 1, 2015, which is financed in whole or in part by a quasi-public agency using state funds, including, but not limited to, matching expenditures, grants, loans, including, but not limited to, matching expenditures, grants, loans, including, but

COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES CONTRACT COMPLIANCE REGULATIONS NOTIFICATION TO BIDDERS

(Revised 09/3/15)

The contract to be awarded is subject to contract compliance requirements mandated by Sections 4a-60 and 4a-60a of the Connecticut General Statutes; and, when the awarding agency is the State, Sections 46a-71(d) and 46a-81i(d) of the Connecticut General Statutes. There are Contract Compliance Regulations codified at Section 46a-68j-21 through 43 of the Regulations of Connecticut State Agencies, which establish a procedure for awarding all contracts covered by Sections 4a-60 and 46a-71(d) of the Connecticut General Statutes.

According to Section 46a-68j-30(9) of the Contract Compliance Regulations, every agency awarding a contract subject to the contract compliance requirements has an obligation to "aggressively solicit the participation of legitimate minority business enterprises as bidders, contractors, subcontractors and suppliers of materials." "Minority business enterprise" is defined in Section 4a-60 of the Connecticut General Statutes as a business wherein fifty-one percent or more of the capital stock, or assets belong to a person or persons: "(1) Who are active in daily affairs of the enterprise; (2) who have the power to direct the management and policies of the enterprise; and (3) who are members of a minority, as such term is defined in subsection (a) of Section 32-9n." "Minority" groups are defined in Section 32-9n of the Connecticut General Statutes as "(1) Black Americans . . . (2) Hispanic Americans . . . (3) persons who have origins in the Iberian Peninsula . . . (4)Women . . . (5) Asian Pacific Americans and Pacific Islanders; (6) American Indians . . ." An individual with a disability is also a minority business enterprise as provided by Section 4a-60g of the Connecticut General Statutes. The above definitions apply to the contract compliance requirements by virtue of Section 46a-68j-21(11) of the Contract Compliance Regulations.

The awarding agency will consider the following factors when reviewing the bidder's qualifications under the contract compliance requirements:

- (a) the bidder's success in implementing an affirmative action plan;
- (b) the bidder's success in developing an apprenticeship program complying with Sections 46a-68-1 to 46a-68-17 of the Administrative Regulations of Connecticut State Agencies, inclusive;
- (c) the bidder's promise to develop and implement a successful affirmative action plan;
- (d) the bidder's submission of employment statistics contained in the "Employment Information Form", indicating that the composition of its workforce is at or near parity when compared to the racial and sexual composition of the workforce in the relevant labor market area; and
- (e) the bidder's promise to set aside a portion of the contract for legitimate minority business enterprises. <u>See</u> Section 46a-68j-30(10)(E) of the Contract Compliance Regulations.

INSTRUCTIONS AND OTHER INFORMATION

The following <u>BIDDER CONTRACT COMPLIANCE MONITORING REPORT</u> must be completed in full, signed, and submitted with the bid for this contract. The contract awarding agency and the Commission on Human Rights and Opportunities will use the information contained thereon to determine the bidders compliance to Sections 4a-60 and 4a-60a CONN. GEN. STAT., and Sections 46a-68j-23 of the Regulations of Connecticut State Agencies regarding equal employment opportunity, and the bidder's good faith efforts to include minority business enterprises as subcontractors and suppliers for the work of the contract.

1) Definition of Small Contractor

Section 4a-60g CONN. GEN. STAT. defines a small contractor as a company that has been doing business under the same management and control and has maintained its principal place of business in Connecticut for a one year period immediately prior to its application for certification under this section, had gross revenues not exceeding fifteen million dollars in the most recently completed fiscal year, and at least fifty-one percent of the ownership of which is held by a person or persons who are active in the daily affairs of the company, and have the power to direct the management and policies of the company, except that a nonprofit corporation shall be construed to be a small contractor if such nonprofit corporation meets the requirements of subparagraphs (A) and (B) of subdivision 4a-60g CONN. GEN. STAT.

MANAGEMENT: Managers plan, organize, direct, and control the major functions of an organization through subordinates who are at the managerial or supervisory level. They make policy decisions and set objectives for the company or departments. They are not usually directly involved in production or providing services. Examples include top executives, public relations managers, managers of operations specialties (such as financial, human resources, or purchasing managers), and construction and engineering managers.

BUSINESS AND FINANCIAL OPERATIONS: These occupations include managers and professionals who work with the financial aspects of the business. These occupations include accountants and auditors, purchasing agents, management analysts, labor relations specialists, and budget, credit, and financial analysts.

MARKETING AND SALES: Occupations related to the act or process of buying and selling products and/or services such as sales engineer, retail sales workers and sales representatives including wholesale.

LEGAL OCCUPATIONS: In-House Counsel who is charged with providing legal advice and services in regards to legal issues that may arise during the course of standard business practices. This category also includes assistive legal occupations such as paralegals, legal assistants.

COMPUTER SPECIALISTS: Professionals responsible for the computer operations within a company are grouped in this category. Examples of job titles in this category include computer programmers, software engineers, database administrators, computer scientists, systems analysts, and computer support specialists

ARCHITECTURE AND ENGINEERING: Occupations related to architecture, surveying, engineering, and drafting are included in this category. Some of the job titles in this category include electrical and electronic engineers, surveyors, architects, drafters, mechanical engineers, materials engineers, mapping technicians, and civil engineers.

OFFICE AND ADMINISTRATIVE SUPPORT: All clerical-type work is included in this category. These jobs involve the preparing, transcribing, and preserving of written communications and records; collecting accounts; gathering and distributing information; operating office machines and electronic data processing equipment; and distributing mail. Job titles listed in this category include telephone operators, bill and account collectors, customer service representatives, dispatchers, secretaries and administrative assistants, computer operators and clerks (such as payroll, shipping, stock, mail and file).

BUILDING AND GROUNDS CLEANING AND MAINTENANCE: This category includes occupations involving landscaping, housekeeping, and janitorial services. Job titles found in this category include supervisors of landscaping or housekeeping, janitors, maids, grounds maintenance workers, and pest control workers.

CONSTRUCTION AND EXTRACTION: This category includes construction trades and related occupations. Job titles found in this category include boilermakers, masons (all types), carpenters, construction laborers, electricians, plumbers (and related trades), roofers, sheet metal workers, elevator installers, hazardous materials removal workers, paperhangers, and painters. Paving, surfacing, and tamping equipment operators; drywall and ceiling tile installers; and carpet, floor and tile installers and finishers are also included in this category. First line supervisors, foremen, and helpers in these trades are also grouped in this category.

INSTALLATION, MAINTENANCE AND REPAIR: Occupations involving the installation, maintenance, and repair of equipment are included in this group. Examples of job titles found here are heating, ac, and refrigeration mechanics and installers; telecommunication line installers and repairers; heavy vehicle and mobile equipment service technicians and mechanics; small engine mechanics; security and fire alarm systems installers; electric/electronic repair, industrial, utility and transportation equipment; millwrights; riggers; and manufactured building and mobile home installers. First line supervisors, foremen, and helpers for these jobs are also included in the category.

MATERIAL MOVING WORKERS: The job titles included in this group are Crane and tower operators; dredge, excavating, and lading machine operators; hoist and winch operators; industrial truck and tractor operators; cleaners of vehicles and equipment; laborers and freight, stock, and material movers, hand; machine feeders and offbearers; packers and packagers, hand; pumping station operators; refuse and recyclable material collectors; and miscellaneous material moving workers.

PRODUCTION WORKERS: The job titles included in this category are chemical production machine setters, operators and tenders; crushing/grinding workers; cutting workers; inspectors, testers sorters, samplers, weighers; precious stone/metal workers; painting workers; cementing/gluing machine operators and tenders; etchers/engravers; molders, shapers and casters except for metal and plastic; and production workers.

3) Definition of Racial and Ethnic Terms (as used in Part IV Bidder Employment Information) (Page 3)

	Asian or Pacific Islander- All persons having origins in any of the original peoples of the Far East, Southeast Asia, the
Africa, or the Middle East.	Indian subcontinent, or the Pacific Islands. This area includes
Black(not of Hispanic Origin)- All persons having	China, India, Japan, Korea, the Philippine Islands, and
origins in any of the Black racial groups of Africa.	Samoa.
Hispanic- All persons of Mexican, Puerto Rican, Cuban,	American Indian or Alaskan Native- All persons having
Central or South American, or other Spanish culture or	origins in any of the original peoples of North America, and
origin, regardless of race.	who maintain cultural identification through tribal affiliation
	or community recognition.

BIDDER CONTRACT COMPLIANCE MONITORING REPORT

PART I - Bidder Information

Company Name Street Address City & State Chief Executive	Bidder Federal Employer Identification Number Or Social Security Number
Major Business Activity (brief description)	Bidder Identification (response optional/definitions on page 1) -Bidder is a small contractor. YesNo -Bidder is a minority business enterprise YesNo (If yes, check ownership category) BlackHispanicAsian AmericanAmerican Indian/Alaskan NativeIberian PeninsulaIndividual(s) with a Physical Disability Female
Bidder Parent Company (If any)	- Bidder is certified as above by State of CT Yes_ No
Other Locations in Ct. (If any)	

PART II - Bidder Nondiscrimination Policies and Procedures

1. Does your company have a written Affirmative Action/Equal Employment Opportunity statement posted on company bulletin boards? Yes_No_	7. Do all of your company contracts and purchase orders contain non-discrimination statements as required by Sections 4a-60 & 4a-60a Conn. Gen. Stat.? Yes_ No_
2. Does your company have the state-mandated sexual harassment prevention in the workplace policy posted on company bulletin boards? YesNo	8. Do you, upon request, provide reasonable accommodation to employees, or applicants for employment, who have physical or mental disability? YesNo
3. Do you notify all recruitment sources in writing of your company's Affirmative Action/Equal Employment Opportunity employment policy? YesNo	9. Does your company have a mandatory retirement age for all employees? YesNo
4. Do your company advertisements contain a written statement that you are an Affirmative Action/Equal Opportunity Employer? YesNo	10. If your company has 50 or more employees, have you provided at least two (2) hours of sexual harassment training to all of your supervisors? Yes_No_NA_
5. Do you notify the Ct. State Employment Service of all employment openings with your company? Yes No	11. If your company has apprenticeship programs, do they meet the Affirmative Action/Equal Employment Opportunity requirements of the apprenticeship standards of the Ct. Dept. of Labor? Yes <u>No NA</u>
 6. Does your company have a collective bargaining agreement with workers? Yes_No 6a. If yes, do the collective bargaining agreements contain non-discrim ination clauses covering all workers? Yes_No 	12. Does your company have a written affirmative action Plan? YesNo If no, please explain.
6b. Have you notified each union in writing of your commitments under the nondiscrimination requirements of contracts with the state of Ct? YesNo	13. Is there a person in your company who is responsible for equal employment opportunity? YesNo If yes, give name and phone number.

1a. If yes, please list all subcontractors and suppliers and report if they are a small contractor and/or a minority business enterprise. (defined on page 1 / use additional sheet if necessary)

1b. Will the work of this contract require additional subcontractors or suppliers other than those identified in 1a. above?

PART IV - Bidder Employment Information

PART IV - Bidder En	nployment	Informati	on		Date	:					
JOB CATEGORY *	OVERALL TOTALS		IITE Hispanic	BLA (not of H origin)	ispanic	HISPA	NIC	ASIAN of ISLANDI	T PACIFIC ER	AMERICAN ALASKAN N	
		Male	Female	Male	Female	Male	Female	Male	Female	male	female
Management											
Business & Financial Ops											
Marketing & Sales											
Legal Occupations											
Computer Specialists											
Architecture/Engineering											
Office & Admin Support											
Bldg/ Grounds Cleaning/Maintenance											
Construction & Extraction											
Installation , Maintenance & Repair											
Material Moving Workers											
Production Occupations											
TOTALS ABOVE											
Total One Year Ago											
	FORM	AL ON THE JO	OB TRAINEES (I	ENTER FIGUR	ES FOR THE SA	ME CATE	GORIES AS	ARE SHOWN A	BOVE)		
Apprentices											
Trainees											

*NOTE: JOB CATEGORIES CAN BE CHANGED OR ADDED TO (EX. SALES CAN BE ADDED OR REPLACE A CATEGORY NOT USED IN YOUR COMPANY)

Yes_No_

PART V - Bidder Hiring and Recruitment Practices

	0					
1. Which of the following (Check yes or no, and re			s are used by you?	2. Check (X) requiremen a hiring qu (X)	any of the below listed tts that you use as alification	3. Describe below any other practices or actions that you take which show that you hire, train, and promote employees without discrimination
SOURCE	YES	NO	% of applicants provided by source			
State Employment Service					Work Experience	
Private Employment Agencies					Ability to Speak or Write English	
Schools and Colleges					Written Tests	
Newspaper Advertisement					High School Diploma	
Walk Ins					College Degree	
Present Employees					Union Membership	
Labor Organizations					Personal Recommendation	
Minority/Community Organizations					Height or Weight	
Others (please identify)					Car Ownership	
					Arrest Record	
					Wage Garnishments	

Certification (Read this form and check your statements on it CAREFULLY before signing). I certify that the statements made by me on this BIDDER CONTRACT COMPLIANCE MONITORING REPORT are complete and true to the best of my knowledge and belief, and are made in good faith. I understand that if I knowingly make any misstatements of facts, I am subject to be declared in non-compliance with Section 4a-60, 4a-60a, and related sections of the CONN. GEN. STAT.

(Signature)	(Title)	(Date Signed)	(Telephone)

TAB I

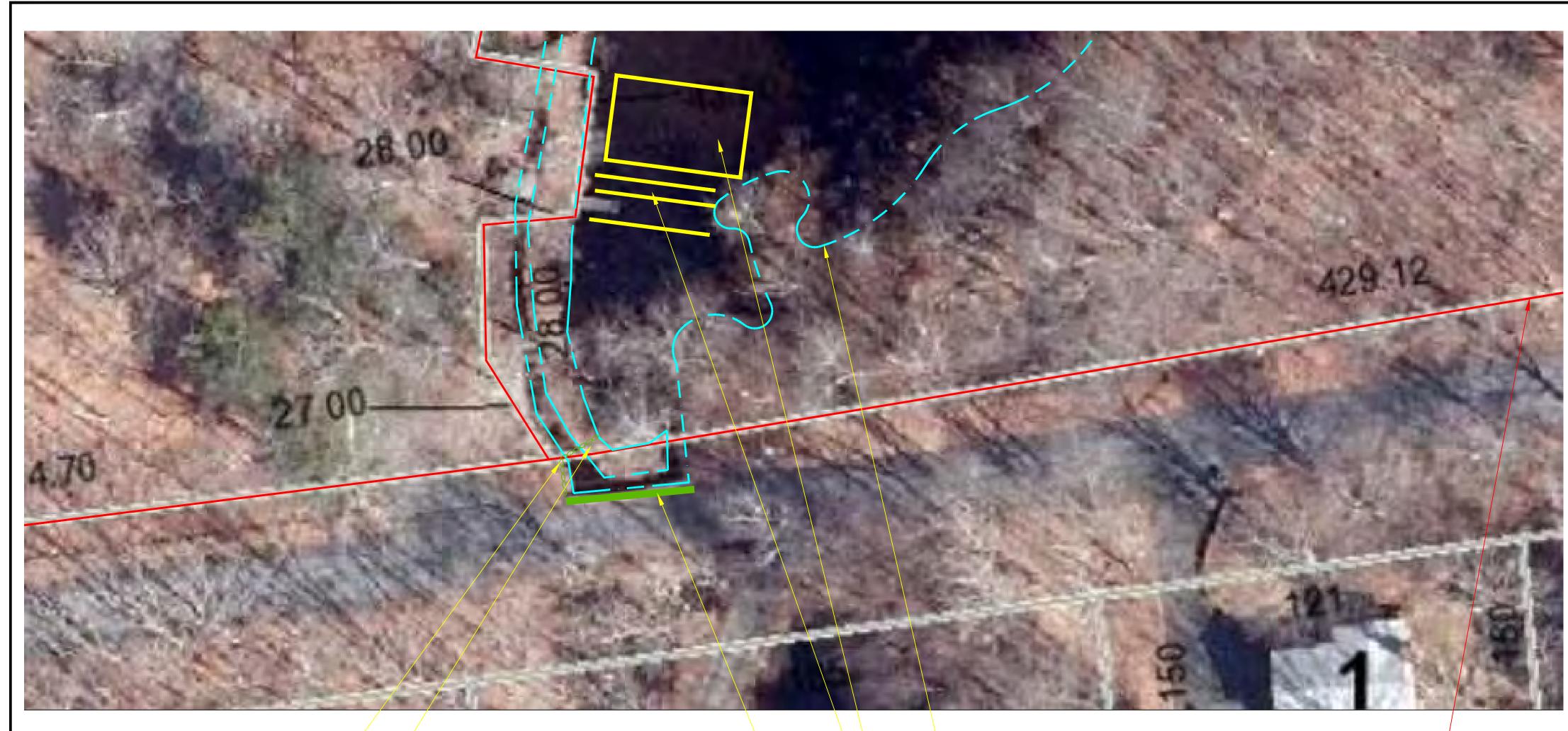
Plans

STORMWATER RETROFIT PLANS PREPARED FOR TOWN OF EAST HAMPTON, CONNECTICUT LOCATION #1: CHRISTOPHER POND LOCATION #2: WATER SUPPLY FACILITY FOR EDGEMERE CONDOMINIUMS DATE: MAY 7, 2022, Revised: 6/5/22



TRINKAUS ENGINEERING, LLC CIVIL ENGINEERS 114 HUNTERS RIDGE ROAD SOUTHBURY, CONNECTICUT 06488 203-264-4558 (office) 203-525-5153 (mobile) Email: strinkaus@earthlink.net Website: www.trinkausengineering.com





SAND BAG BARRIER FROM END OF HEADWALL TO NORTH, THEN ACROSS BYPASS CHANNEL (OPEN WATER) AND TO NORTH SIDE OF EARTH BERM - SEE DETAIL AND PHOTOGRAPHS AFTER SAND BAG BARRIER HAS BEEN PLACED, EARTH

SHALL BE REMOVED BY HAND ON SOUTH SIDE OF SAND

BAG BARRIER TO LOWER GRADE TO TOP OF

STONES (SEE PHOTOGRAPH) ACROSS BERM -

WIDTH OF SOIL TO BE REMOVED SHALL BE 36"

EXI STI NG HEADWALL

LOCATION OF SAND BAG BARRIER STAKED IN THE FIELD



NOTE: THIS PROJECT WILL REQUIRE THE PLACEMENT OF SAND BAGS AND MODIFIED RIPRAP OVER 31 SQUARE FEET OF A MAN-MADE FLOW CHANNEL. THIS CHANNEL WAS CREATED AT A BYPASS CHANNEL FOR THE WESTERNMOST CULVERT UNDER CHRISTOPHER ROAD. IN ADDITION TO THE BYPASS CHANNEL, THE SOUTHERN END OF THE BERM WAS EXTENDED TO THE EAST WHICH IS PERPENDICULAR TO THE FLOW OF THE CROSS CULVERTS WHICH FILLED IN A SMALL PORTION OF THE POND WHEN INSTALLED. THE JUSTIFICATION FOR THE FILLING OF 31 SQUARE FEET OF THE OVERFLOW CHANNEL IS TO DIRECT ALL FLOW FROM THE TWO CROSS CULVERTS DIRECTLY INTO CHRISTOPHER POND SO THAT THE FLOW CAN GO THROUGH THE THREE ROWS OF CATTAILS (TO BE PLANTED) AS WELL AS THE PROPOSED MODULAR WETLAND SYSTEMS. BOTH OF THESE PLANTED SYSTEMS WILL ALLOW FOR THE TRAPPING AND REMOVAL FROM THE WATER COLUMN, BOTH NI TROGEN AND PHOSPHOROUS WHICH WILL PREVENT THESE NUTRIENTS FROM REACHING THE LAKE.

NOTE: REFER TO WRITTEN NARRATIVE BY HILLARY KENYON REGARDING THE CATTAIL PLANTINGS AND MODULAR WETLAND SYSTEMS.

APPROXIMATE EDGE OF POND AND BYPASS CHANNEL TAKEN FROM GIS MAPPING

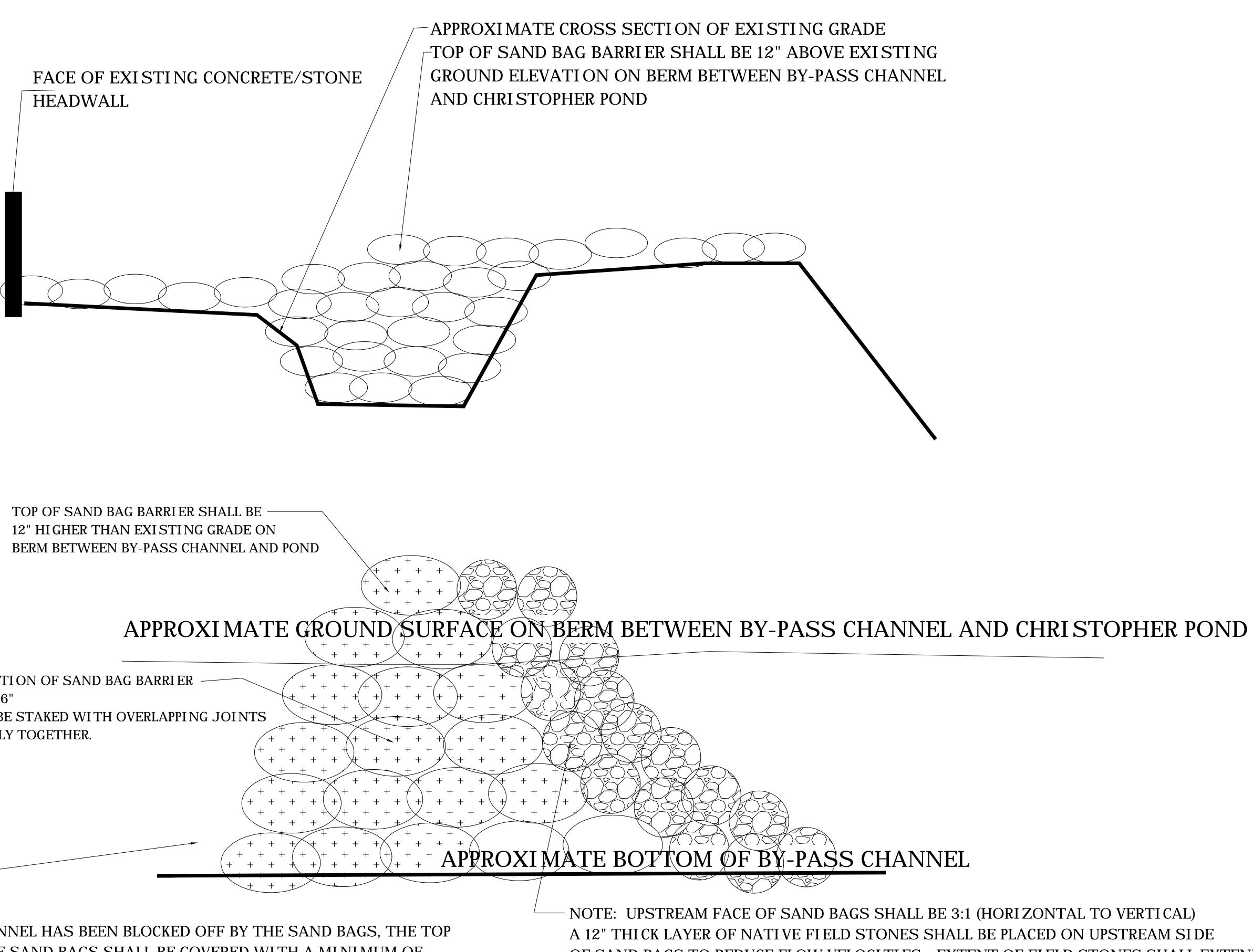
PROPERTY LINE PER TOWN OF EAST HAMPTON GIS MAPPING

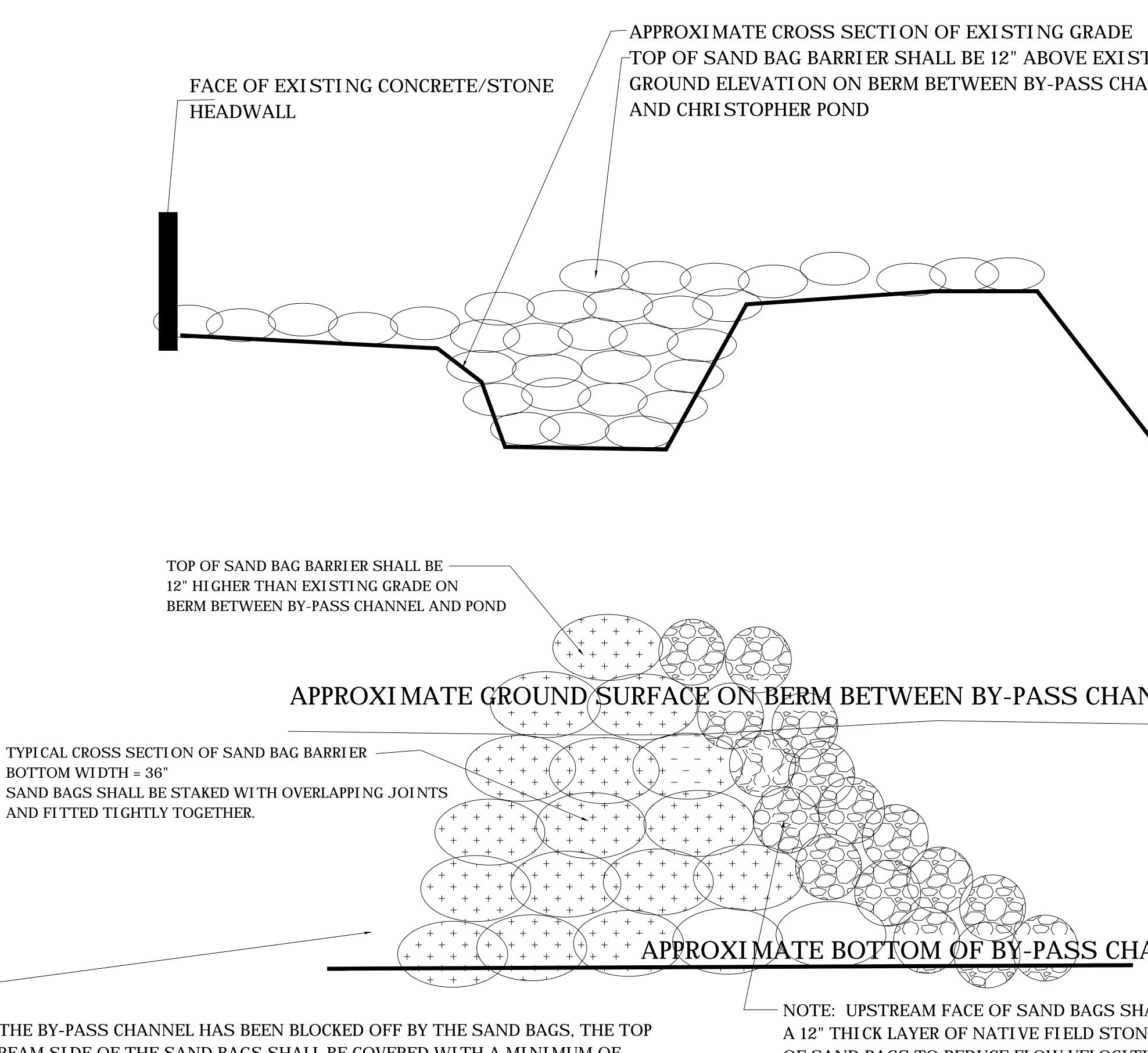
APPROXIMATE LOCATION OF FLOATING WETLAND TREATMENT SYSTEMS (1,000 SQUARE FEET) THREE ROWS OF CATTAILS TO BE PLANTED IN THIS GENERAL AREA

LOCATION WHERE SOIL TO BE REMOVED TO ELEVATION OF TOP OF STONES ON UPHILL SIDE OF SAND BAG BARRIER

LOCATION OF SAND BAG BARRIER FROM STAKE TO FACE OF HEADWALL

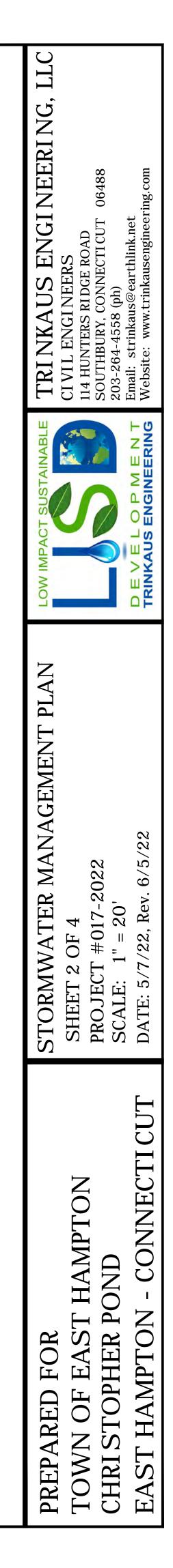
LOW IMPACT SUSTAINABLE	CI VIL ENGINEERS	SOUTHBURY, CONNECTI CUT 06488 203-264-4558 (ph)	DEVELOPMENT Email: strinkaus@earthlink.net TRINKAUS ENGINEERING Website: www.trinkausengineering.com
STORMWATER MANAGEMENT PLAN	SHEET 1 OF 4	PROJECT $#017-2022$ SCALF: 1" = 20'	DATE: 5/7/22, Rev. 6/5/22
PREPARED FOR	TOWN OF FAST HAMPTON	CHRISTOPHER POND	EAST HAMPTON - CONNECTI CUT





NOTE: AFTER THE BY-PASS CHANNEL HAS BEEN BLOCKED OFF BY THE SAND BAGS, THE TOP AND DOWNSTREAM SIDE OF THE SAND BAGS SHALL BE COVERED WITH A MINIMUM OF 6" OF TOPSOIL AND SEEDED WITH NEW ENGLAND CONSERVATION/WILDLIFE SEED MIX BY NEW ENGLAND WETLAND PLANTS (www.newp.com)

NOTE: UPSTREAM FACE OF SAND BAGS SHALL BE 3:1 (HORIZONTAL TO VERTICAL) A 12" THICK LAYER OF NATIVE FIELD STONES SHALL BE PLACED ON UPSTREAM SIDE OF SAND BAGS TO REDUCE FLOW VELOCITIES - EXTENT OF FIELD STONES SHALL EXTEND FROM FACE OF EXISTING HEADWALL TO CENTER OF BERM ACROSS THE BY-PASS CHANNEL.





WATTLE #1 LOCATION

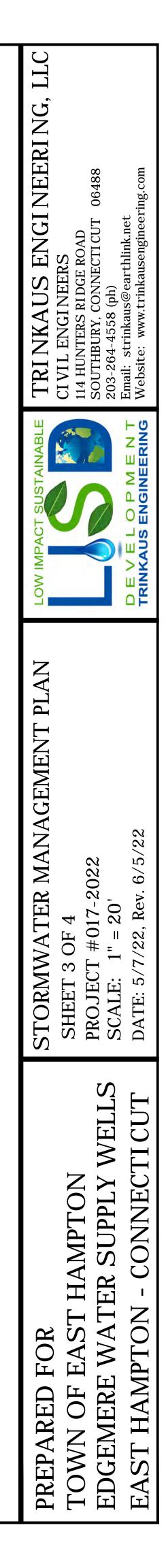


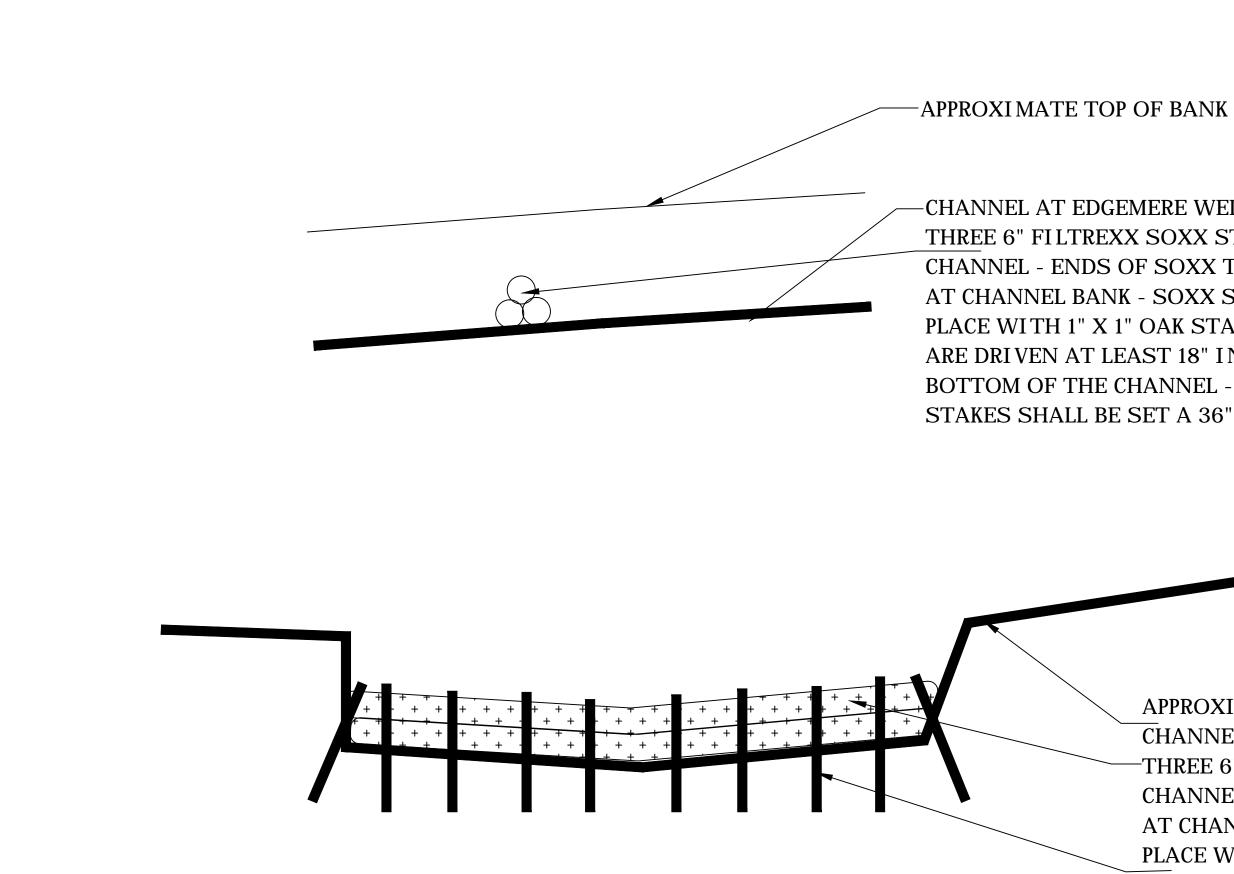
NOTE: REFER TO WRITTEN NARRATIVE BY HILLARY KENYON FOR MORE INFORMATION ON THE "LIVE STAKING" ALONG THE CHANNEL BANK AS SHOWN ON THIS PLAN.

WATTLE #2 LOCATION

WATTLE #3 LOCATION



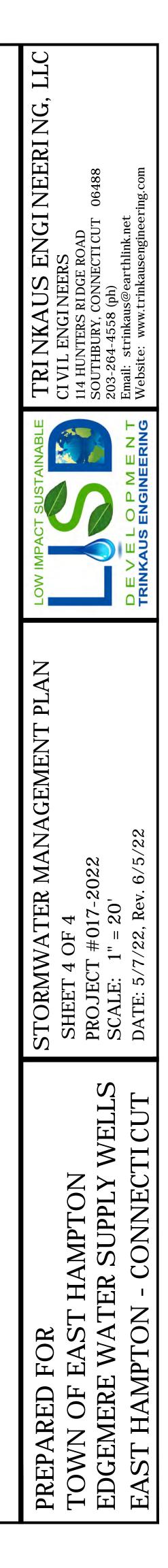




TYPICAL CROSS SECTION OF FILTREXX SOXX CROSSING NOT TO SCALE

-CHANNEL AT EDGEMERE WELL LOCATION THREE 6" FILTREXX SOXX STAKED IN BOTTOM OF CHANNEL - ENDS OF SOXX TO BE SET FLUSH AT CHANNEL BANK - SOXX SHALL BE STAKED IN PLACE WITH 1" X 1" OAK STAKES WHICH ARE DRIVEN AT LEAST 18" INTO THE BOTTOM OF THE CHANNEL - SEE DETAIL STAKES SHALL BE SET A 36" SPACING

APPROXIMATE CROSS SECTION OF STREAM CHANNEL AT EDGEMERE WELL LOCATION -THREE 6" FILTREXX SOXX STAKED IN BOTTOM OF CHANNEL - ENDS OF SOXX TO BE SET FLUSH AT CHANNEL BANK - SOXX SHALL BE STAKED IN PLACE WITH 1" X 1" OAK STAKES WHICH ARE DRIVEN AT LEAST 18" INTO THE BOTTOM OF THE CHANNEL - SEE DETAIL STAKES SHALL BE SET A 36" SPACING



SECTION 01 11 00 SUMMARY OF WORK

PART 1 - GENERAL

1.01 DESCRIPTION

A. The entire scope of work covered under these Contract documents includes installing upgrades to existing stormwater conveyance and collection systems within Town owned land and right of ways to control nonpoint sources of water pollution within the Lake Pocotopaug watershed.

Projects for this bid will include:

- 1) Christopher Pond: Project consists of installation of sand bag barrier, riprap and removal of soil and installation of floating wetlands as depicted on plans prepared by Trinkaus Engineering, LLC
- 2) Water Supply Facility for Edgemere Condominiums: Project consists of installation of wattles and live-staking as depicted on plans prepared by Trinkaus Engineering, LLC.

The work described above includes furnishing, installing and incorporating all materials and equipment into the project as well as performing or providing all labor, supervision, equipment and services unless otherwise specifically noted within the Contract Documents.

The work described above includes the Contractor obtaining all required State and local permits.

1.02 CONTRACT

A. Complete the entire scope of work under lump sum contract pricing as noted on the bid proposal form and in accordance with the Contract Documents.

PART 2 - PRODUCTS

Not Applicable

PART 3 – EXECUTION

Execution information provided by Hillary Kenyon Garovoy, M.S.

- 1) Christopher Pond:
 - a) Plant two rows of native broad-leaf Cattails (*Typha latifolia* species). The rows should each be approximately 50ft long with plants spaced two feet apart along the row. Rows should be spaced three feet apart from one another. We estimate approximately 50 *Typha latifolia* plants will be needed. Row plantings will begin near where the small wooden dock is present on the southwestern side of the pond. Bidders should plan for at least two follow-up visits to ensure that the plantings are beginning to root and become established.
 - b) Install constructed floating wetlands just north of the Cattails plantings across the width of the pond. Bidders should estimate that the installed floating wetlands cover approximately 100 linear ft of water, and should be roughly 10ft wide. The actual dimensions of the installed pre-fabricated wetlands will be 1,000 square feet, at the dimensions that make moving the wetland islands manageable by hand and row-boat. Native Cattails, Pickerelweed, and large sedges or rushes are the preferred species, as these species are all already present at Christopher Brook Pond. The floating wetland islands are meant to remain in place through the winter, with cuttings made every late summer. Bidder may choose to purchase and install pre-made floating wetlands similar to those from BioHaven® Floating Islands, or to design, build, and install similar products using components and materials listed in the Volume II Floating Wetlands Design Investigations. The floating islands should be able to be left in place over the winter and maintained annually. Floatation should be colored black, natural colors, and generally inconspicuous. Although the floating wetlands will be installed in less than 3ft of water, there will still need to be anchors attaching the islands to the shore and several anchors to pond sediment to ensure the islands remain in place.
- 2) Water Supply Facility for Edgemere Condominiums:
 - a) On low sloping areas of the stream bank, cut existing shrubs less than 3ft in height low to the ground by hand, in order to spread a jute, burlap, or coconut-husk biofiber roll of material over the top of the eroded soil area. The material will extend into the stream channel, itself, by at least 1ft. The total amount of biofiber required for this project is approximately 780 square feet (130ft length and roughly 6ft wide). Holes should be cut in the biofiber material at the locations of tree saplings and woody vegetation over 3ft in height. The material will be placed around

said existing larger vegetation, and secured in place. Steep under-cut banks may not require the biofiber, if it is impractical to lay without regrading. Use of heavy machinery for vegetation removal or regrading is not within the scope of this project. Biofiber should be lightly seeded with native sedges or grasses.

- b) On low slopes, secure the bottom of the slope and biofiber material with a row of wooden stakes. Wooden stakes should also be used to secure the top of the material and in other places if needed. Near-vertical stream banks greater than 1ft in height will not use biofiber material and will instead use coir logs staked in place along the stream bank . Vertical and under-cut banks will be stabilized with live plant stakes installed into and above the coir log.
- c) The following serves as a procedure for live-staking, including additional resource links. If the qualified bidder wishes to include additional details or to propose slightly modified planting methods, based on successes of past projects, the Town is open to discussing additional options, but the bidder should provide a costs quote based on the following procedure and materials.
 - 1. Plant cuttings should be taken and/or purchased in very early spring (March) and planted in late April to May. Spring is the ideal time for this project to be completed.
 - 2. Live-stake cuttings must be roughly 0.5 to 1.5-inches in diameter in 2-3ft lengths. The bottom of the live-stakes must be cut on an angle to form a point on the end that will be planted beneath the soil. Ensure that the cuttings are not cut or installed upside down. Small side branches will be trimmed off the live-stake cuttings.
 - Installation should occur less than 2 weeks after cuttings are made/purchased. Minimize the number of days between purchase and install. The bottom of the live-stakes should be soaked in water for 1-2 days prior to planting. A fresh angled bottom-cut will be made on the day of installation.
 - 4. Live-staking planting density must be 1ft apart in a zig-zag pattern along nearly-vertical banks and 2ft apart in a zig-zag pattern along lower sloped areas covered in biofiber matting. The additional planting density on steeper slopes will increase the likelihood that the live stakes root successfully.
 - 5. In order to plant the live-stakes, use a >2ft piece of steel rebar to insert into the soil to create a pilot hole at a 90-degree angle to the soil surface. Remove the rebar and insert the live-stakes, pointed end first on the same 90-degree angle, so that at least half of the length of the cutting is secured into the soil (at least 1ft deep).
 - 6. If stream banks are very steep or vertical, install the live-stakes angled slightly upwards instead of perpendicular to the slope.

- 7. A rubber mallet can help drive a live-stake into compacted soils. If a rubber mallet is necessary, make a final fresh cut on the top of the live stake to remove any mallet damage.
- 8. Ensure that live-stakes are planted either in or very near to (not more that 1ft above) the stream level and water table. Root development requires ample moisture. Steeper cut-banks greater than 2ft high are not present at this site.
- 9. Bidders should include at least two seasonal follow-up visits to ensure that the live-stakes have not become dislodged and to note if several have begun to root by the end of the season. Follow up visits should be made approximately 45 days after planting, and again in early September. Please take photos and record notes of any dislodged live-stakes or erosion controls, or if the project has successfully begun to establish vegetation. To determine if live-stakes have successfully rooted, a brief tug on the plantings will reveal if roots have formed, where the stakes are not loose or very easily removed.
- d) For the purposes of estimating planting density, we estimate the number of livestakes required for this project, planted in two to three rows of live-stakes along the stream bank, will require approximately 500 live-stake cuttings. Of the total 500, an even mix of the preferred species is appropriate: native Balsam Poplar, Eastern Cottonwood, Sandbar willow, Peachleaf willow, Purple osier Willow, and Common Elderberry. Plants species should be evenly distributed through the planting area in order to replicate a naturally established stream bank habitat. The Town understands that certain species may be more difficult to obtain from nurseries and if the bid is awarded, the contractor should specify and confirm the intended livestakes purchase/acquisition details with the Town in order to remain on budget.