

ENVIRONMENTAL ASSESSMENT REPORT
FOR
HAMPTON INN & SUITES HOTEL
PARCEL NO. 2 & 4 ESTATE THOMAS
ST. THOMAS, U.S. VIRGIN ISLANDS



SUBMITTED BY:

HAVEN DEVELOPMENT, LLC

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BASE4

AND

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SEPTEMBER 2022

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APPENDICES

APPENDIX A Qualification of Preparers

Bioimpact, Inc.
 Jeffrey T. Boschulte, AIA, NCARB, LEED AP

APPENDIX B Project Drawings

1.00 NAME AND ADDRESS OF APPLICANT

Developer:

Haven Development LLC
8264 Sub Base #3
St. Thomas VI 00802

Property Owner:

Government Employees Retirement System (GERS)
3438 Kronprindsens Gade
GERS Complex, 3rd Floor Ste. 1
St. Thomas, V.I. 00802

2.0 LOCATION OF PROJECT

Hotel will be in the eastern portion of Charlotte Amalie, adjacent to the West Indian Company, Ltd.'s (WICO) Dock. The hotel will be built on of Parcels No. 2 and 4 Estate Thomas, 6F and 6B New Quarter, St. Thomas, U.S. Virgin Islands. The parcels are located adjacent to the Havensight Mall **near** what is commonly referred to as the West Indian Company Dock. The cruise ship port is one of the busiest in the world. The parcels are located just inland from the cruise ship bulkhead and are located on filled submerged lands.

The project will be located at Latitude 18.333657°N Longitude -64.920326°W (Parcel 2) and Latitude 18.333164° Longitude -64.921209°.

The entire project is within the first tier of Coastal Zone Management.

Figure 1: Project Vicinity and Location Map.

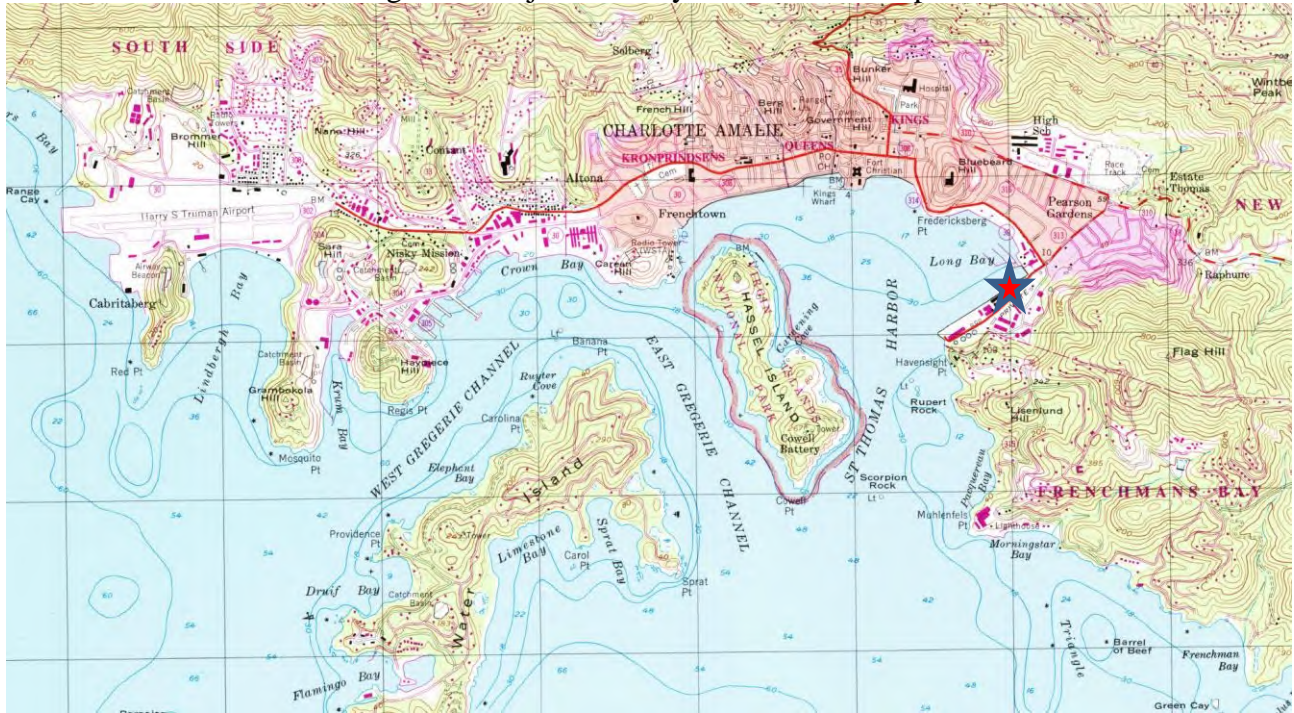


Figure 2: Aerial photograph of Haven Development's development site.



3.00 ABSTRACT

Haven Development, LLC (“Applicant”) proposes to construct a five (5) story, 126 room 71,040 sf hotel on Parcel 2 with 131 parking spaces and 3 loading spaces divided between Parcels 2 and 4. The intent is to create a hotel which will service both business travelers and tourists alike.

4.00 STATEMENT OF OBJECTIVES SOUGHT BY THE PROPOSED PROJECT

The objective of this project is to construct a 126-room full-service hotel in Charlotte Amalie, the hotel is intended to serve business and vacation travelers.

5.00 DESCRIPTION OF PROJECT

5.01 Summary of Proposed Activity

The proposed project is a 5-story, 126 room hotel. The 71,040 sf hotel will be branded as a Hampton Inn & Suites, an international upper midscale limited service brand, and the hotel is expected to serve both business and leisure travelers. The hotel will have food and beverage services, flexible meeting spaces, a fitness center, convenience shop, business center, and outdoor pool.

The project will include back-of house areas for all operations and will provide adequate parking facilities (131 spaces and 3 loading spaces) for the rooms and public spaces.

The hotel will be constructed on a deep pile foundation system supporting a first floor consisting of traditionally constructed cast-in-place concrete slab and site-constructed walls forming the base for the structure. Pile foundation system was selected based on the existing soil conditions and for minimal impact to surrounding structures, to include the existing WICO dock construction elements. Vertical circulation elements to include elevator shaft and egress stair towers at building ends will also be constructed of concrete using traditional methods.

The additional four floors will be constructed with modular prefabricated hotel guest rooms constructed off-site and brought to the site and then erected in place. Modular units will be prefabricated in a factory-controlled environment, transported via ship and off loaded directly to the construction site minimizing trucking over land and impacts to roadways during construction. Once at the site, the modular units will be assembled on the prepared level one base.

This building method will cut down on construction time and potential impact to the project site as well as the surrounding facilities when compared to traditional construction methods. Utilizing a prefabricated modular built system will also result in less building waste, thereby reducing impact on the local landfill.

The project will also include recreational areas in support of the hotel, to include an outdoor pool and pool seating area on the first floor. VI Code parking requirements will be met and provided on-site.

The new Visitor Center will be constructed on a cast-in-place slab supported by a pile foundation with site built exterior walls of site-built reinforced concrete masonry units.

5.01a. Purpose of Project

The purpose of project is to create a hotel located within the Havensight Mall area of St. Thomas with easy access to businesses and shopping alike, while improving the Virgin Islands tourism product offering.

5.01b. Presence and Location of Any Critical Area(s) and Possible Trouble Spot(s)

The parcels are located adjacent to the Havensight Mall and adjacent to what is commonly referred to as the West Indian Company Dock. The cruise ship port is one of the busiest in the world. The parcels are located just inland from the cruise ship bulkhead and are partially located on filled submerged lands. The parcels are to the southwest of the West Indian Company Limited Administrative Offices and the parcels contain existing warehouses, parking, and offices. Several of the warehouses have not been repaired after being damaged by hurricanes Irma and Maria in 2017.

The existing dock utilizes a dead-man system of bulkhead anchors constructed circa 1951 when improvements were made to the dock. As these lie in close proximity to the project site, care will be taken during the development not to impact the dead-man tie-backs. Based upon existing drawings provided by WICO the dead-man tiebacks appear to extend about 14 meters (+/- 46 feet) from the edge of the dock landward. The new Hotel building will be supported by deep foundations/deep piles (as opposed to shallow foundations). With this support system the structural load of the Hotel is not anticipated to surcharge the existing bulkhead structure. Staging of any cranes or other heavy construction equipment will also be coordinated/staged to avoid impacting of nearby bulkhead wall/system foundations.

The site has a history of marine use and on a historic wharf. The subject parcels have been used for bauxite storage and loading and significant fuel storage has occurred within the area. The warehouses on the site have been used to store a variety of materials including fuels, oils, and batteries. The property comprising the dock is subject to an Environmental Covenant, recorded against the bulkheaded site as Doc No. 2013003950, stating that the Property is impacted with weathered petroleum hydrocarbons and non-aqueous phase liquids (NAPL) which is low risk and will be managed by restricting the Property for commercial purposes; keeping affected soils, groundwater and NAPL isolated from direct exposure at the ground surface; and ensuring that shallow groundwater is not used for any purpose. The developer is aware of this condition and conducted a Phase II investigation to determine the depth of contamination layers. The development is being designed to minimize any potential of impact to the contaminated soils which might result in the release of hazardous substances.

There are six (6) large Mahogany trees (*Swietenia macrophylla*) in the planter adjacent to the parking lot on Parcel 2. These trees are outside of the site's property line and will be preserved.

5.01c. Proposed Method of Construction

The hotel will be constructed on a deep pile foundation system supporting a first floor consisting of traditionally constructed cast-in-place concrete slab and site-constructed walls forming the base for the structure. The first floor will be raised four feet above adjacent grade with a finish floor elevation of 13.00' NGVD. The intent is to limit subgrade disturbance to the greatest extent

possible in the construction of the building's foundation systems.

The new Visitor Center will have a FFE of 9.50' NGVD allowing for easy pedestrian access by visitors entering the Havensight Mall area via the cruise ship dock gates.

5.01d. Provisions to Limit Site Disturbance

This is a completed developed site and has been since historic times. The properties are filled land and except for the planters have no vegetation. The mahogany trees in the planter along the roadside are outside of the site's property line and will be preserved. Construction will have limited excavation below the level of the existing paved surfaces to minimize the potential of affecting the contaminated soil level.

5.01e. Sediment Control Methods to be Implemented

Sediment control methods to be implemented include installation of following best management practices (BMPs) for the protection of the existing storm sewer and drainage systems, installed at the start of construction activities:

1. Sediment control silt fence
2. Fence with dust screen
3. Drop inlet sediment barrier
4. Filtrexx sediment control (O.A.E.)
5. Filtrexx inlet protection (O.A.E.)
6. Stabilized construction entrances

Sediment Control Methods are described in more detail on the following drawings:

1. Erosion Control Notes sheet C-300
2. Erosion Control Plan sheet C-301
3. Erosion Control Details Sheet C-302

5.01f. Schedule for Construction Activities & Implementation of Sediment Control Measures

At the commencement of construction activities and prior to any earthmoving, sediment protection of the storm sewer or receiving water ways will be installed per the SWPPP.

Stormwater inlets shall be protected during construction and employed as soon as practical during the various stages of inlet construction. Silt barriers shall remain in place until construction is complete or if in grassed areas, until sodding around inlets is complete.

Stabilized construction entrances shall be installed at the start of construction to reduce sediment tracking off site.

All wash water from concrete trucks, vehicle cleaning, equipment cleaning, etc. shall be detained on site and shall be properly treated or disposed.

Sequence of Construction Activities:

PHASE 1:

1. Construct stabilized construction entrance and install silt fence and inlet protection.
2. Perform any clearing and grubbing and demolition.

Phase 2:

1. Perform mass grading. Rough grade to establish proposed drainage patterns.
2. Construct proposed drainage infrastructure.
3. Temporarily seed with pure live seed, throughout construction, disturbed areas that will be inactive for 7 days or more or as required by Generic Permit.
4. Construct proposed improvements, including building pad.
5. Complete final grading, landscaping/seeding, and final stabilization.
6. Remove temporary erosion control measures.

5.01g. Maintenance of Sediment and Siltation Control Measures

All measures stated on the erosion control and sediment control plan, and in the SWPPP shall be maintained in fully functional condition until no longer required for a completed phase of work or final stabilization of the site. All erosion and sedimentation control measures shall be checked by a qualified person at least once every seven calendar days and within 24 hours of the end of a 0.5" rainfall event, and cleaned and repaired in accordance with the following:

1. Inlet protection devices and barriers shall be repaired or replaced if they show signs of undermining or deterioration.
2. All seeded areas shall be checked regularly to see that a good stand is maintained. Areas should be fertilized, watered, and reseeded as needed.
3. The compost sock filtration device shall be inspected periodically for height of sediment and condition of device. Compost sock shall be repaired to its original conditions if damaged. Sediment shall be removed from the compost sock when it reaches one-third the height of the compost sock.
4. The construction entrances shall be maintained in a condition which will prevent tracking or flow of mud onto public rights-of-way. This may require periodic top dressing of the construction entrances as conditions demand.
5. The temporary parking and storage area shall be kept in good condition (suitable for parking and storage). This may require periodic top dressing of the temporary parking as conditions demand.
6. Outlet structures in the sedimentation basins shall be maintained in operational conditions at all times. The sediment basins/ditches shall be checked monthly for depth of sediment. Sediment shall be removed from sediment basins or traps when the design capacity has been reduced by 10% and after construction is complete.
7. All maintenance operations shall be done in a timely manner but in no case later than seven calendar days following the inspection. Diversion dikes shall be inspected monthly. Any breaches shall be promptly repaired.
8. A maintenance report shall be completed daily after each inspection of the sediment and erosion control methods. The reports shall be filed in an organized manner and retained on-site during construction. After construction is completed, the reports shall be saved for at least three years. The reports shall be available for any agency that has jurisdiction over erosion control.
9. All repairs must be made within 24 hours of report.
10. The superintendent shall organize the training for inspection procedures and proper erosion control methods for employees that complete inspections and reports.
11. Silt fences shall be repaired to their original conditions if damaged. Sediment shall be removed from the silt fences when it reaches one-half the height of the silt fence.

5.02 DRAWINGS AND MAPS – APPENDIX B

- C-100 Cover Sheet
- C-101 General Notes
- C-200 Demolition Notes
- C-201 Demolition Plan
- C-300 Erosion Control Notes
- C-301 Erosion Control Plan
- C-302 Erosion Control Details
- C-400 Site Plan
- C-500 Paving Grading and Drainage Plan
- C-501 Paving Grading and Drainage Details
- C-600 Water and Sewer Notes
- A-1.1 Site Plan
- A-2.1 First Floor Plan
- A-2.2 Second Floor Plan
- A-2.3 Third Floor Plan
- A-2.4 Fourth Floor Plan
- A-2.4 Fifth Floor Plan
- A-2.6 First Floor Module Plan
- A-2.7 Second Floor Module Plan
- A-2.8 Third-Fifth Floor Module Plan
- A-3.1 Enlarged Plan
- A-3.2 Enlarged Plan
- A-3.3 Enlarged Plan
- A-3.4 Enlarged Plan
- A-3.5 Enlarged Plan
- A-4.1 Sections
- A-4.2 Sections
- A-5.1 Elevations
- A-5.2 Elevations
- A-6.1 3D Views
- A-6.2 3D Views
- A-6.3 3D Views
- A-6.4 3D Views
- AV-2.1 Visitor Center Floor Plan
- AV-4.1 Visitor Center Sections
- AV-5.1 Visitor Center Elevations
- AV-5.2 Visitor Center Elevations

5.03 PROJECT WORKPLAN

Projected project schedule:

Start Construction: January 1, 2023

Earthwork activities: 1 months

Foundation / First Floor Construction: 4 months

Installation of modular units: 3 months

Roof construction: 1 months
Interior finishing/ Final site work: 3 months
Substantial Completion: December 31, 2023

6.00 ENVIRONMENTAL SETTING AND PROBABLE PROJECT IMPACT ON THE ENVIRONMENT

6.01 CLIMATE AND WEATHER

Prevailing Winds

The Virgin Islands lie in the path of the "Easterlies" or "Trade Winds" which traverse the southern part of the "Bermuda High" pressure area, and thus the predominant winds are usually from the east, northeast and east (IRF, 1977). The Trade Winds vary seasonally and are broadly divided into four seasonal modes: 1) December to February; 2) March to May; 3) June to August; and 4) September to November. Below are the characteristics of each of these modes as taken from Marine Environments of the Virgin Islands Technical Supplement No. 1 (IRF, 1977).

December - February

During the winter the trade winds reach maximum speeds and blow with great regularity from the east-northeast. Wind speeds range from eleven to twenty-one knots about sixty percent of the time in January. This is a period when the Bermuda High is intensified with only nominal compensation pressure changes in the Equatorial Trough. The Trade Winds during this period are interrupted by "Northerners" or "Christmas Winds" which blow more than twenty knots from a northerly direction in gusts for one to three days. Such outbreaks average about thirty each year. They are created by strengthening of high-pressure cells over the North American continent which, in turn, allows weak cold fronts to move southeastward over the entire Caribbean region. These storms are accompanied by intermittent rains and by clouds resulting in low visibility for mariners.

March - May

During the spring, the Trade Winds are reduced in speed and blow mainly from the east. Winds exceed twenty knots only thirteen percent of the time in April. The change in speed and direction are the result of a decrease of the Equatorial Trough.

June - August

Trade Winds reach a secondary maximum during this period and blow predominantly from the east to east-southeast. Speeds exceed twenty knots twenty-three percent of the time during July. The trend for increasing winds results from the strengthening of the Bermuda High and a concurrent lowering of the pressure in the Equatorial Trough. Trade Winds during this period are interrupted by occasional hurricanes.

September - November

During the fall, winds blow mainly from the east or southeast and speeds reach an annual minimum. Only seven percent of the winds exceed twenty knots in October. The low speeds result from a

decrease in the Equatorial Trough. During this period, especially during late August through mid-October, the normal Trade Wind regime is often broken down by easterly waves, tropical storms and hurricanes.

The most representative long-term wind records were found to be those from the Cyril E. King Airport station (located approximately 3.3 miles west of the Project Area). The station contains approximately 68 years of wind data records beginning in 1953.

NOAA Station 9751639 is located closer to the project site on the West Indian Company (WICO) Dock but only has wind records dating back to the year 2000. The data indicate that the predominant winds are from the east, with 90% of the winds occurring from the southeast to northeast. Winds from the south (the Harbor's most exposed fetch) occupy approximately 5% of the data record. A wind rose of the hourly wind speeds for the 1953 – 2020 time period is provided in Figure 6.01.1.

Figure 6.06.1 below, provides hourly wind speeds by both return period and direction from the Cyril E. King Airport from 1953 to 2020.

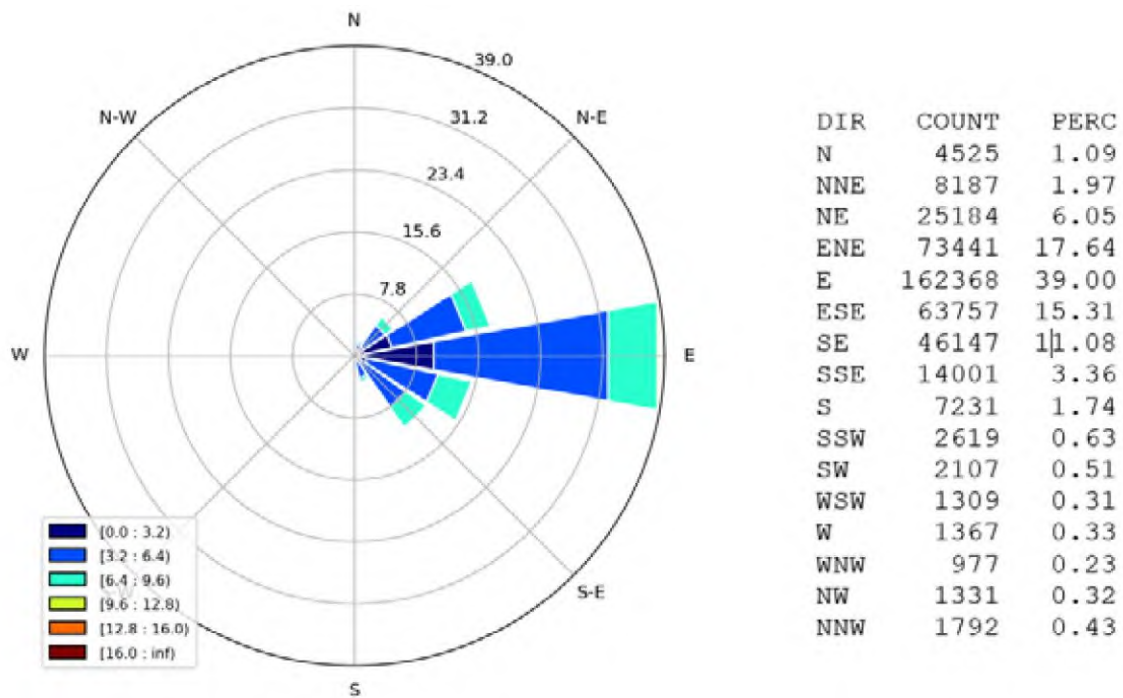


Figure 6.01.1 Hourly Wind Rose for Cyril E. King Airport, 1953-2020
(<https://weather.gov/data/obhistory/TIST.html>)

DIR	RETURN PERIODS					
	2.0	5.0	10.0	25.0	50.0	100.0
N	9.6	13.2	15.5	18.5	20.6	22.8
NNE	10.1	11.8	12.9	14.3	15.3	16.3
NE	10.9	12.7	14.0	15.5	16.7	17.8
ENE	11.2	12.9	14.0	15.4	16.4	17.4
E	12.2	15.1	17.0	19.4	21.2	23.0
ESE	13.1	16.9	19.5	22.7	25.0	27.4
SE	11.6	15.6	18.3	21.7	24.3	26.8
SSE	10.8	15.5	18.6	22.5	25.4	28.3
S	9.7	13.2	15.5	18.4	20.6	22.8
SSW	8.0	11.8	14.4	17.6	20.0	22.3
SW	7.6	11.5	14.1	17.4	19.8	22.2
WSW	7.5	11.5	14.2	17.6	20.0	22.5
W	7.8	11.6	14.2	17.4	19.7	22.1
WNW	7.4	11.9	14.8	18.6	21.3	24.1
NW	7.3	11.0	13.5	16.6	18.9	21.2
NNW	6.9	9.3	10.9	12.8	14.3	15.8

Figure 6.06.2 Extreme Value Analysis for Winds at the Cyril E. King Airport, 1953-2020. The table indicates the frequency of occurrence. (<https://weather.gov/data/obhistory/TIST.html>)

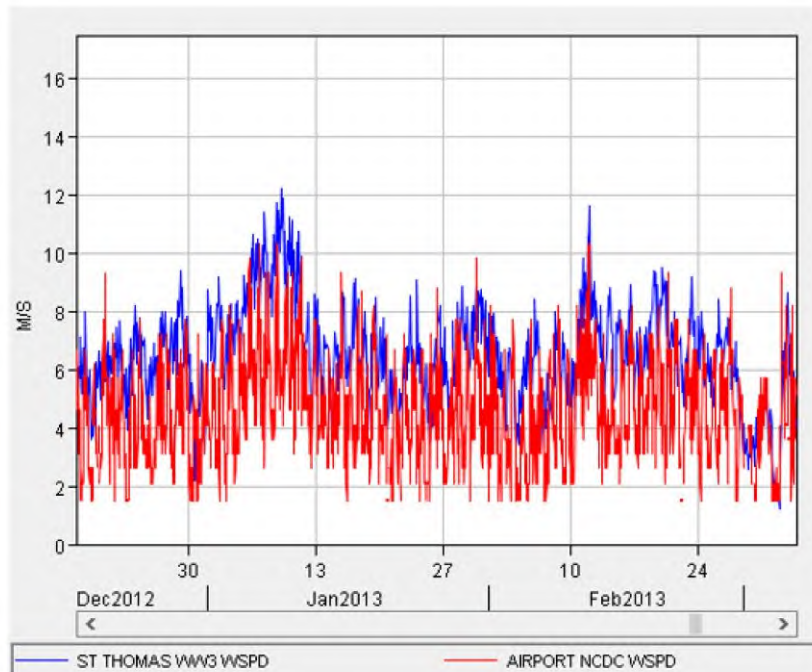


Figure 6.01.3 Comparison between recordings from Cyril E. King Airport and NOAA Wave Watch III (WW3) model under normal conditions.

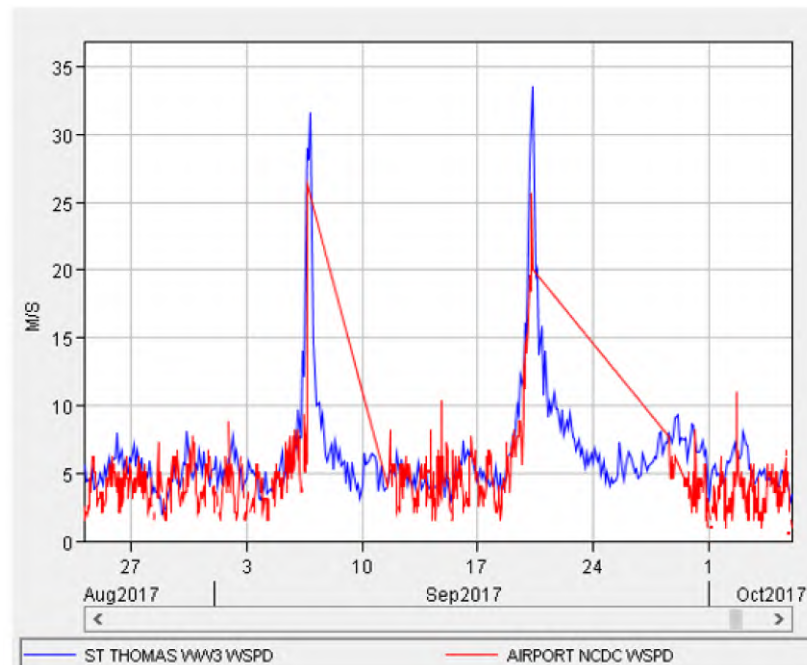


Figure 6.01.4 Comparison between recordings from Cyril E. King Airport and NOAA Wave Watch III (WW3) model under storm conditions.

The United States Army Corps of Engineers (USACE) provides high quality wave hindcast data along the United States coastlines via the Wave Information Studies (WIS) project (USACE, 2020). Station #61022 is located approximately 64 miles offshore of Havensight Point and provides wind observations over a 34-year period from 1980 to 2014. A wind rose and percent occurrence by

direction is provided in Figure 6.01.5 and Figure 6.01.6, respectively. This offshore station shows the same pattern as the Cyril E. King Airport Station (Figure 6.01.1), with winds predominantly from the East sector. Wind speed shows approximately 90% of measurements being less than 20 knots (10 m/s) with a mean hourly wind speed of 13.4 knots (6.9 m/s).

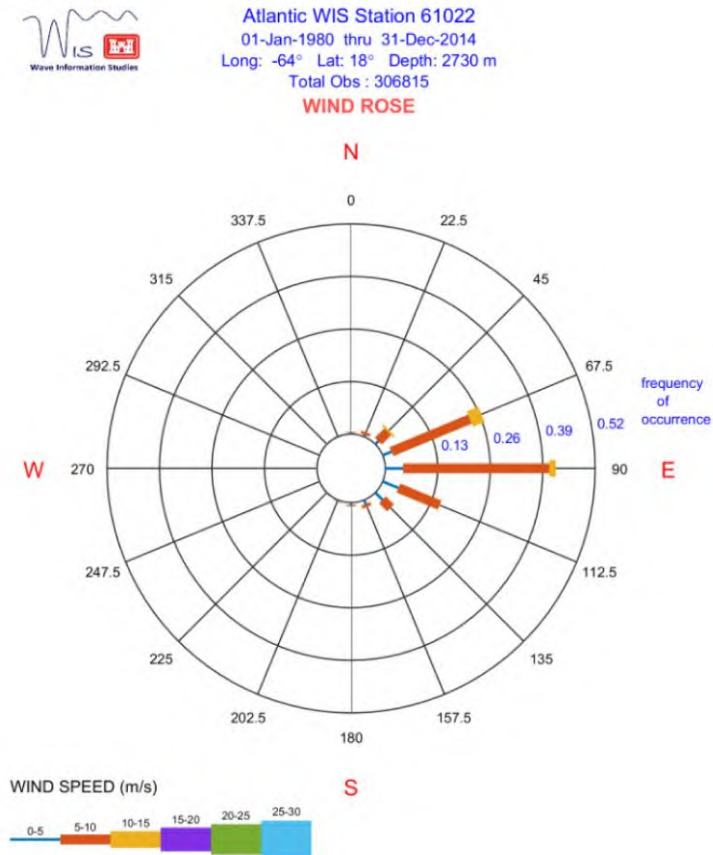


Figure 6.06.5 Wave Information Study Station #61022 Wind Rose (USACE 2020)

ATLANTIC HINDCAST WAM4.5.1C : ST61022_v03
 ALL MONTHS FOR YEARS PROCESSED : 1980 - 2014
 STATION LOCATION : (-64.00 W / 18.00 N)
 DEPTH : 2730.0 m

PERCENT OCCURRENCE (X1000) OF WIND SPEED AND DIRECTION
 CENTRAL LOCAL ANGLE BANDS OF (+/- 11.25 DEG)

WIND DIR DEG	WIND SPEED (M/S)										TOTAL
	<2.5 4.9	2.5- 4.9	5.0- 7.4	7.5- 9.9	10.0- 12.4	12.5- 14.9	15.0- 17.4	17.5- 19.9	20.0- 24.9	25.0- GREATER	
0.0	52	247	192	52	12	5	2	1	1	0	564
22.5	77	392	448	236	50	13	4	1	3	0	1224
45.0	116	906	1753	1522	484	47	1	1	2	1	4833
67.5	146	2029	8734	12029	3150	214	1	0	1	2	26306
90.0	181	3839	18724	17355	1815	32	1	0	1	2	41950
112.5	196	3713	8406	2726	130	12	2	0	1	2	15188
135.0	177	2232	2482	409	28	6	4	1	3	0	5342
157.5	111	899	687	101	20	6	6	1	0	0	1831
180.0	83	490	262	64	34	5	1	0	0	0	939
202.5	58	249	100	34	19	3	2	0	0	0	465
225.0	48	129	61	28	3	1	0	0	0	0	270
247.5	28	105	38	19	1	0	0	0	0	0	191
270.0	22	99	38	17	4	5	0	0	0	0	185
292.5	24	89	26	13	8	4	0	0	0	0	164
315.0	29	91	40	31	4	2	1	2	0	1	201
337.5	29	117	80	22	5	6	2	0	3	0	264
TOTAL	1377	15626	42071	34658	5767	361	27	7	15	8	

MEAN WS(M/S) = 6.9 MAX WS(M/S) = 28.9 MEAN WIND DIR(DEG) = 269.0 FINITE

Figure 6.01.6 Directional Wind Speed Probability (USACE, 2020)

Storm and Hurricanes

There are numerous disturbances during the year, especially squalls and thunderstorms. These occur most frequently during the summer, lasting only a few hours and causing no pronounced change in the Trade Winds.

A tropical cyclone who's sustained (1 minute average) winds exceed 74 miles per hour is termed a hurricane in the northern hemisphere, and significantly affects the area. Hurricanes occur most frequently between August and mid-October with their peak activity occurring in September. The annual probability of a hurricane is one in sixteen years (Bowden, 1974).

St. Thomas and the harbor area were hit by two Category V hurricanes in September of 2017, Irma on September 6th and Maria on September 19-20th. The seas and winds associated with these storms sunk numerous vessels, the marina, and damaged the benthic environment. Damage has been noted at over 30 ft of water depth due to waves and swells. The areas immediately adjacent to the proposed hotel area were impacted and the warehouses on the site were damaged by the wind associated with the storms.

Rainfall

The average annual rainfall on St. Thomas is approximately 40 inches, ranging from 35 inches toward the eastern end of the island to more than 55 inches at the higher elevations.

The Havensight area receives between 40 and 45 inches of rainfall per year, on average. The rainfall

usually occurs in brief, intense showers of less than a few tenths of an inch (Jordan, 1975). February and March are the driest months, and September is the wettest, with nearly half the annual rainfall occurring between August and November (Jordan, 1975).

Temperature

Annual temperatures average 79 degrees Fahrenheit (F), with the winter low averaging 76 degrees F. and the summer high reaching an average of 84 degrees F. Occasionally, maximum daily temperatures will exceed 90 degrees F. and minimum temperatures will drop below 70 degrees F. (Jordan, 1975). Average rainfall and temperature are summarized in Table 6.01.2, below.

Table 6.01.2 Monthly Climate Summary Southeast Regional Climate Center,
sercc@climate.ncsu.edu

CHARLOTTE AMALIE HARBOR, VIRGIN ISLANDS (678905)

Period of Record Monthly Climate Summary

Period of Record: 1/12/1972 to 4/30/2012

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	84.7	85.0	85.5	86.4	87.4	89.1	89.9	90.1	89.5	88.6	87.0	85.5	87.4
Average Min. Temperature (F)	72.3	72.2	72.7	74.2	76.3	77.7	78.0	78.1	77.6	76.6	75.1	73.3	75.3
Average Total Precipitation (in.)	2.03	1.45	1.46	2.74	3.35	2.75	2.66	3.83	5.42	5.94	5.54	2.84	40.01
Average Total Snowfall (in.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0

Percent of possible observations for period of record.

Max. Temp.: 84% Min. Temp.: 83.6% Precipitation: 80.9% Snowfall: 80.1% Snow Depth: 76%

Check [Station Metadata](#) or [Metadata graphics](#) for more detail about data completeness.

Impact on the Proposed Hotel

Due to the location within the harbor, the hotel site **adjacent to the** WICO Dock is protected from most sea events. The hotel will be designed to meet the most recent hurricane codes.

6.02 LANDFORMS, GEOLOGY AND SOILS

Geology of St. Thomas

The Virgin Islands are near the northeastern corner of the present Caribbean Plate, a relatively small trapezoidal-shaped plate which is moving eastward relative to the North and South American continents carried on the American plate. The arc of the lesser Antilles is an active volcanic arc above a subduction zone in which the Atlantic oceanic crust of the American plate is carried downward under the Caribbean Plate. The closest volcano to the Virgin Islands which is still active is Saba, about 160 km to the east. St. Thomas and St. John are composed of stratified volcanic and volcanoclastic rocks with minor limestone of the Early Cretaceous (Albain) to possibly the late Cretaceous age (Donnelly, 1966). These rocks are of granitic composition, some of which may be as young as Tertiary (Kesler and Sutter, 1979). The oldest rocks on St. John are submarine lavas

(keratophyre and spilite), beds of volcanic debris and chert and associated intrusive rocks of the Water Island Formation. Fossils in cherts of the Water Island Formation indicate that the unit is of Early Cretaceous (Albain) age. The Water Island Formation is overlain by andesitic volcanic and volcanoclastic rocks of the Louisenhoj Formation which underlies the island of St. Thomas to the east and much of the northwestern portion of St. John. Donnelly (1966) suggested that the Louisenhoj Formation was deposited unconformably on the Water Island Formation after a period of emergence, tilting and erosion, on the slopes and environs of a subaerial volcanic island located roughly between St. Thomas and St. Johns, an area now occupied by Pillsbury Sound. The youngest layered deposits on St. Thomas are volcanoclastic rocks of the Tutu Formation. Fossils contained in the Tutu Formation suggest that those deposits are of the Early Cretaceous (Albain) age (Donnelly et al., 1971). It appears that all the volcanoclastic rocks of St. Thomas were deposited in a relatively short period of time spanning 10 to 15 million years approximately 100 million years ago (D. Rankin, 1988). An irregular coastline, numerous bays, steep slopes, and small drainage areas characterize St. Thomas. For the most part, the topography is very mountainous, and coastal plains are almost completely absent.

Charlotte Amalie harbor is a natural deep-water port and has been heavily altered by man over time. The Charlotte Amalie harbor entrance channel, WICO berth area and turning basin, have all been dredged in the past. The project site is filled land and much of it has been filled for more than 80 years.



Looking toward the WICO dock, circa 1940s.



1954 Aerial Service Map of the Dock

s shown above photographs, even by 1940's the project area was filled, and the shoreline bulkheaded. The WICO dock is in operation, primarily for cargo and there are two large cargo cranes visible to the south of the project site and warehouses within the project site.



The U.S. Department of Agriculture (USDA) Custom Soil Survey identifies one soil types within the project site: Urban land (UbD). Urban Land is land which has been highly altered by man's activities.

Impact of Hotel Development

The site is already completely altered therefore the development of the area will have no impact on the geology of St. Thomas.

6.03 DRAINAGE, FLOODING AND EROSION CONTROL

6.03A IMPACT ON TERRESTRIAL AND SHORELINE EROSION

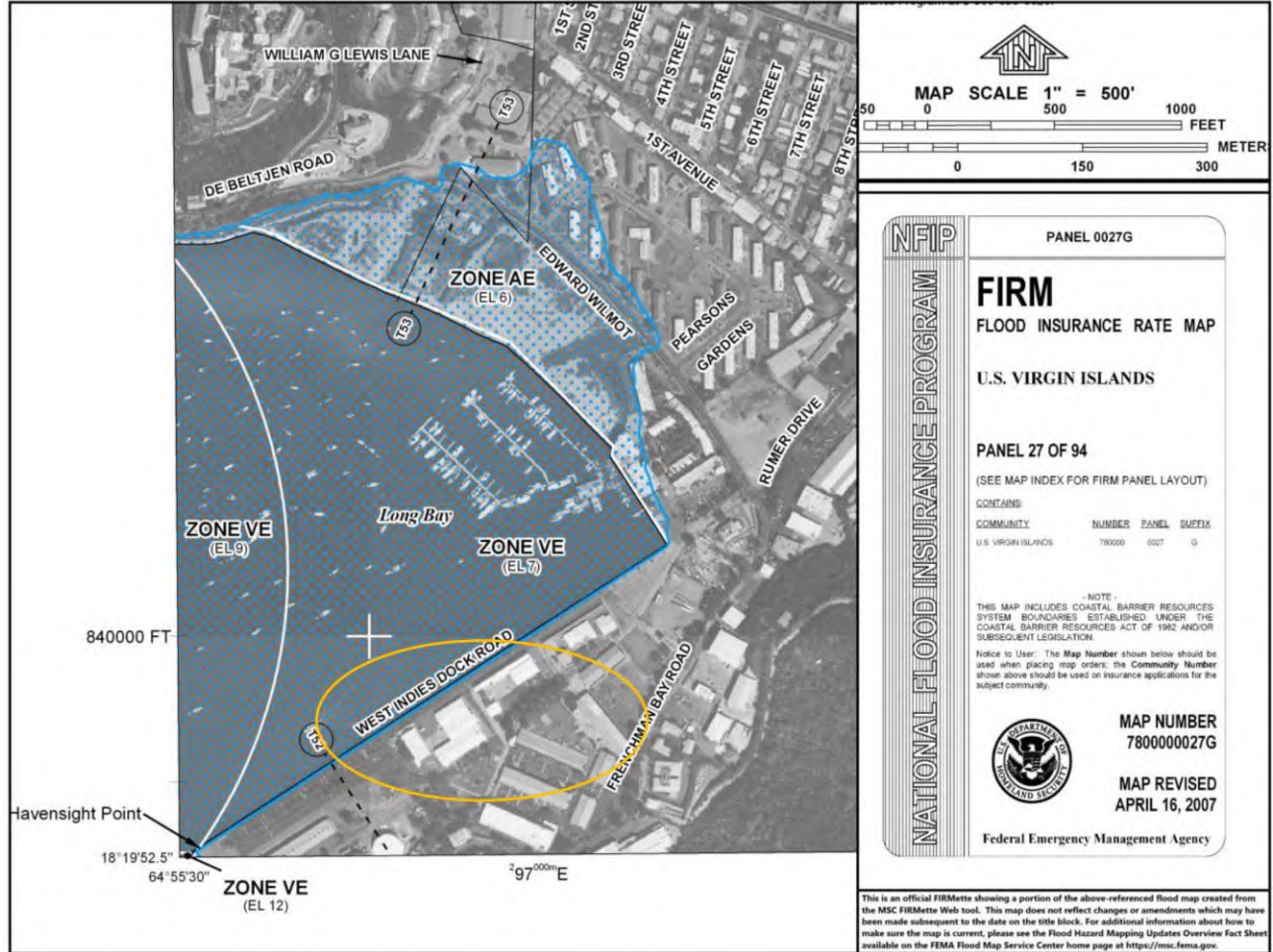
The project will be built on a previously developed site completely covered impervious areas. New impervious grassed areas will be created. Water runoff volume will not be increased from the development. Water on the site is collected in storm drains and directed offshore.

The project will have no impact on the shoreline and will not be altering the previously bulkheaded shoreline.

6.03B RELATIONSHIP TO THE COASTAL FLOOD PLAIN

According to the effective (2017) FEMA FIRM Maps, the proposed hotel lies in Flood Zone X where 100-yr coastal flooding is not expected during the 100-year return period flood event.

FEMA FIRM Map Panel 27 is shown below.

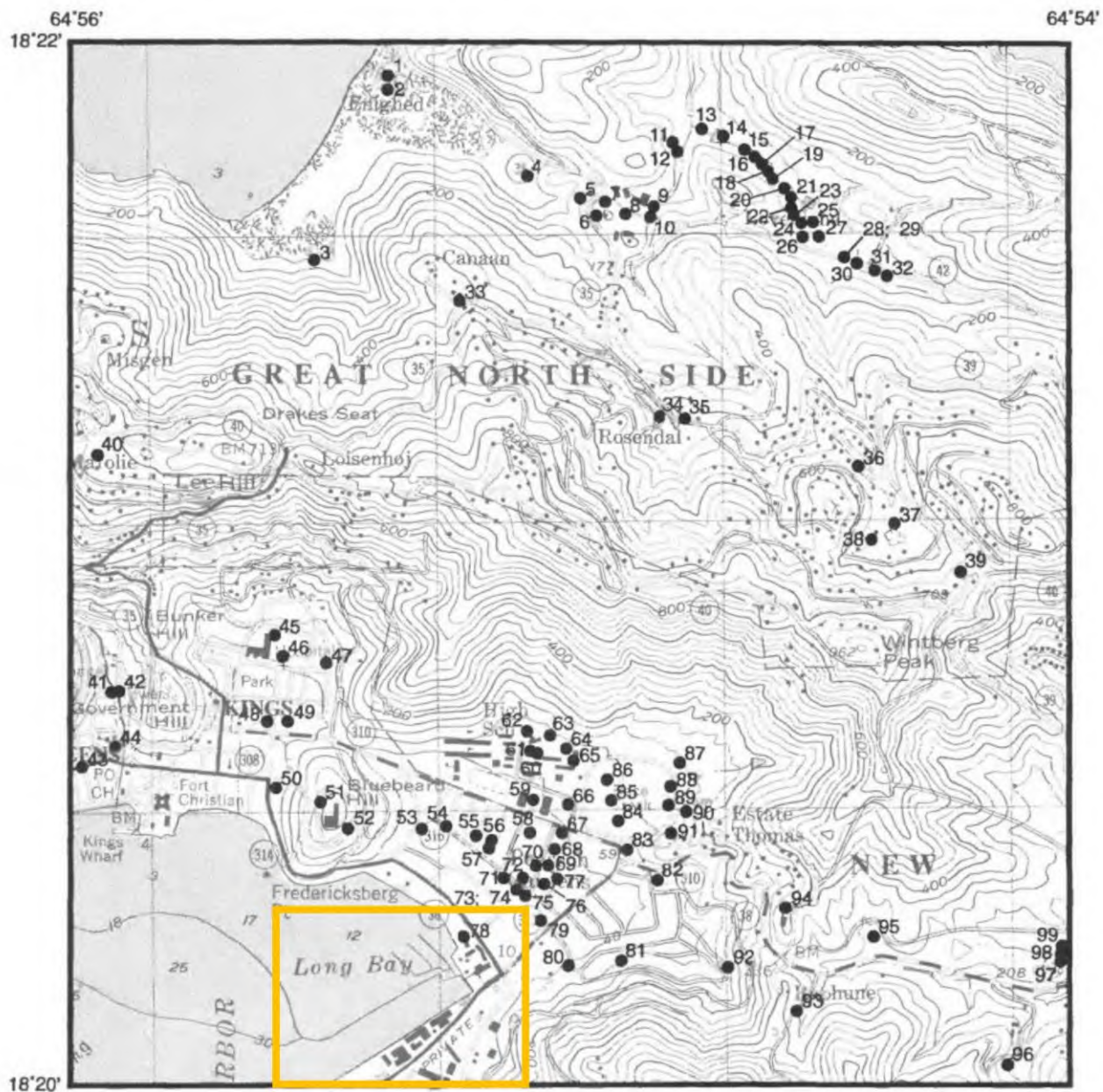


Coastal Flooding should have a negligible impact on the property.

Finish floor elevation for the first floor of the Hotel will be 13.00' NGVD and finish floor elevation for the Visitor Center will be 9.50 NGVD.

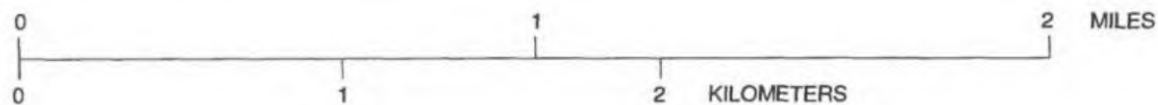
6.04 FRESHWATER RESOURCES

No freshwater resources will be impacted by the proposed hotel. The hotel is on filled land which is adjacent to an active port facility. There are no wells within the immediate area.



Base from U.S. Geological Survey
Central St. Thomas, V.I. 1:24,000, 1982

SCALE



6.05 OCEANOGRAPHY

6.05A SEABED ALTERATION

The hotel will require no seabed alteration.

6.05B TIDES

The Virgin Islands coastal areas are not subject to significant tidal ranges or tidal currents. Due to the small size of the islands, the sea flows around the islands, causing an average tidal range of only a few inches and maximum change of only a little over a foot. Only very narrow intertidal zones are found because of this lack of tidal amplitude and the steepness of the island rising out of the sea. The tides on the south coast of St. Thomas are primarily diurnal in nature. There is a slight secondary cycle (semi-diurnal), but this is almost indistinguishable and is reduced to very small ebbs and floods. The mean tides range from 0.8 ft to 1.0 ft and the spring tidal ranges reach up to 1.3 ft.

The surface currents throughout the Caribbean are driven by the North Equatorial Current which runs west-northwest through the islands and then joins the Gulf Stream. These currents change very little from season to season, with the currents coming more from the south during the summer months. Because of the shallowness of the Caribbean basin, less than 1,000 meters, mainly surface water from the Atlantic flows through the islands. Currents off the south side of St. Thomas average 0.7 knots 23 percent of the time.

NOAA tide station Charlotte Amalie, VI - Station ID: 9751639 was established in 1975. It shows a mean tidal range of 0.7 feet and a diurnal range of 0.79 feet. The maximum high water was measured at +3.72 ft on September 16, 1995 (Hurricane Marilyn) and a minimum of -1.47 feet on February 6, 1985 (Datum MLLW for both extreme values).

Figure 6.05.1 below and Table 6.05.1 show the extreme water levels at the Charlotte Amalie, VI station that were evaluated using the US Army Corps of Engineers' (USACE) calculator (version 5/17/2017) based on local tide gauge data – 32 years of record.

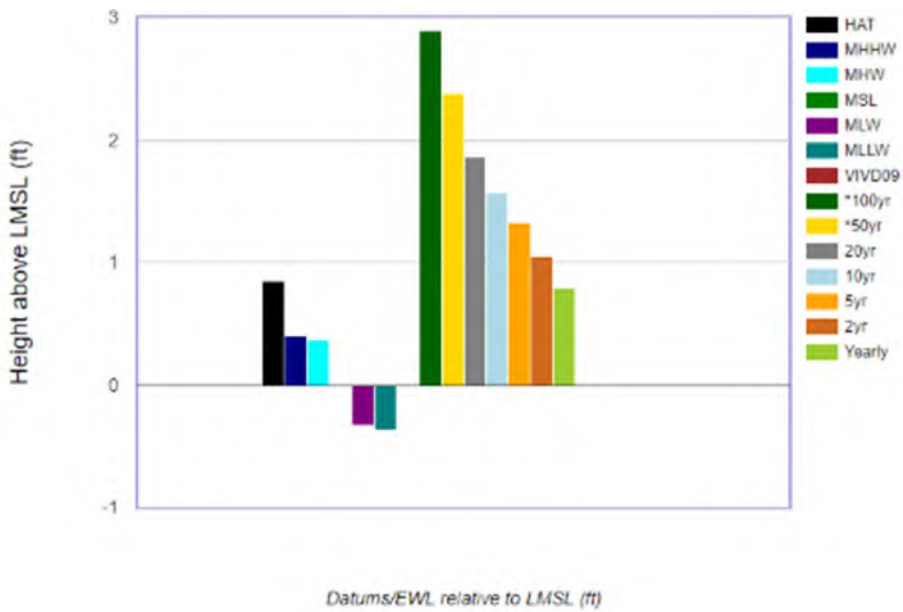


Figure 6.05.1 Tidal Datums and extreme water levels Station relative to VIVD09/MSL - Station 9751639

Table 6.05.1 Extreme water levels Station relative to VIVD09/MSL - Station 9751639

Extreme Water Level	MSL, ft
Yearly	0.79
2 years	1.05
5 years	1.32
10 years	1.57
20 years	1.87
50 years*	2.38
100 years*	2.89

*Period of record is less than return period

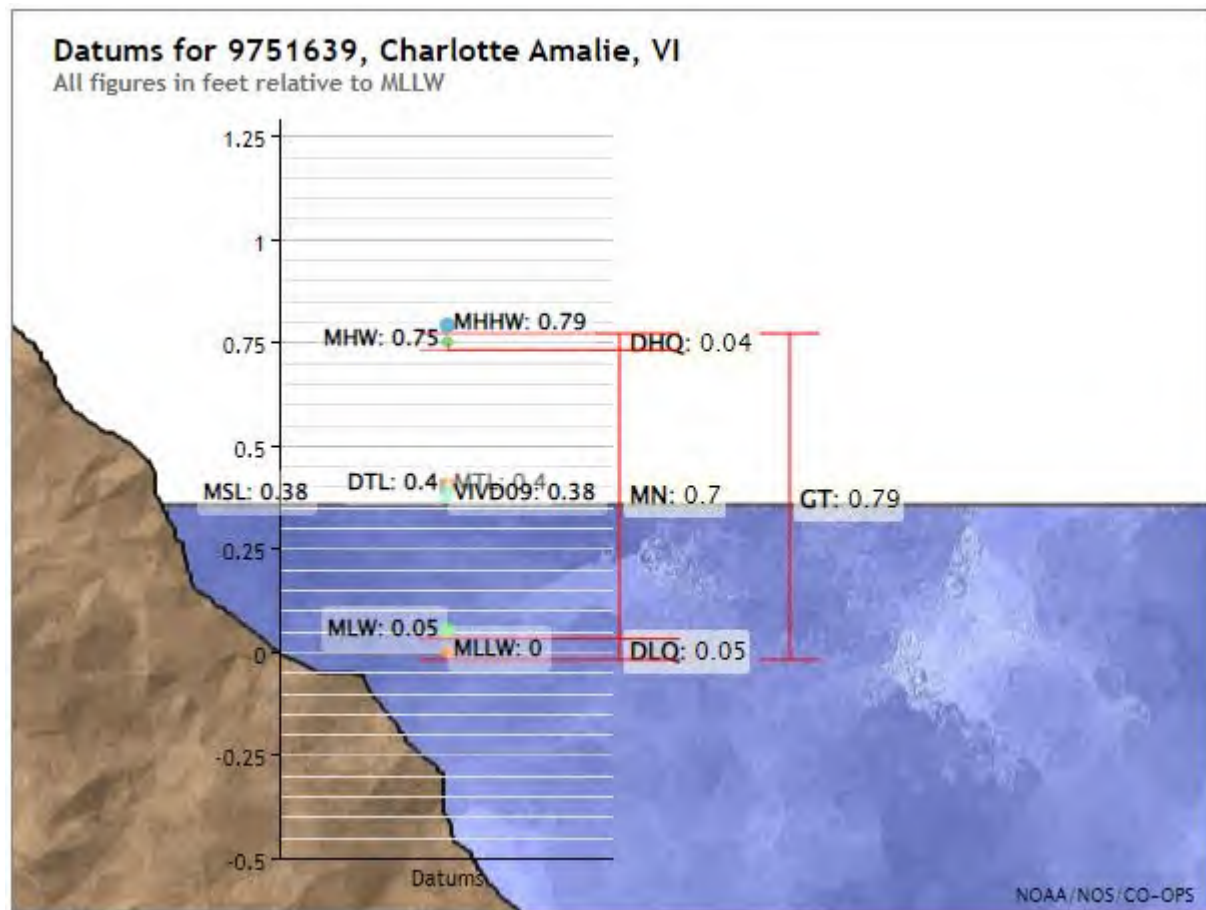


Figure 6.05.2 Station 9751639 Tidal Datums Relative to MLLW.

Seasonal water levels vary according to fluctuations in coastal temperatures, winds, pressures, and other factors (NOAA CO-OPS, 2020). Peak water levels at the Charlotte Amalie station typically occur during the month of October and are approximately 0.25 ft (0.076 m) higher than the mean (Figure 6.05.3). The lowest water levels occur during the spring and are approximately 0.17 ft (0.052 m) lower.

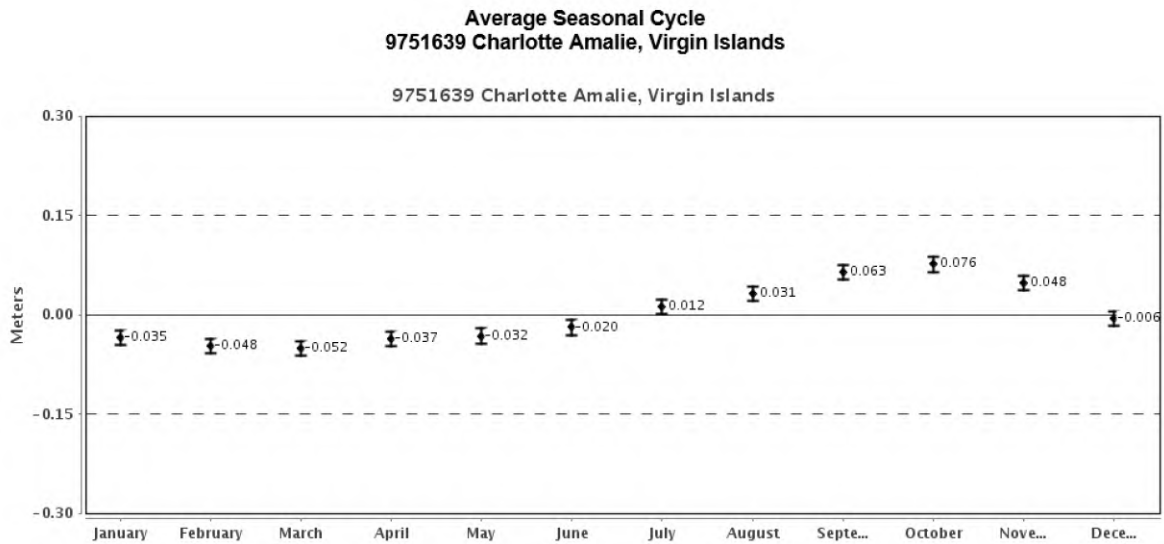


Figure 6.05.3 Seasonal Water Level Variations Relative to Mean Sea Level.

The United States Coast Pilot, published by NOAA, provides important guidance to navigators of coastal waters and is intended to supplement nautical charts (NOAA NOS, 2020). Among the various topics included in the Coast Pilot is information on local current conditions. U.S. Coast Pilot 5, Chapter 14 describes the USVI, which contains information on the ports and harbors of Charlotte Amalie, St. Thomas. In the general vicinity of the USVI there is an oceanic current velocity of approximately 0.2 knots (0.34 ft/sec) that varies in direction from the northwest to west. Currents within the St. Thomas Harbor are not well established by observation nor measured.

Figure 6.05.4 depicts the modeled current velocity in the harbor. The simulated current velocities were highest during peak flood tides and lowest during ebb. The area off shore of the hotel site is modeled to have the lowest currents and is depicted in blues and purples.

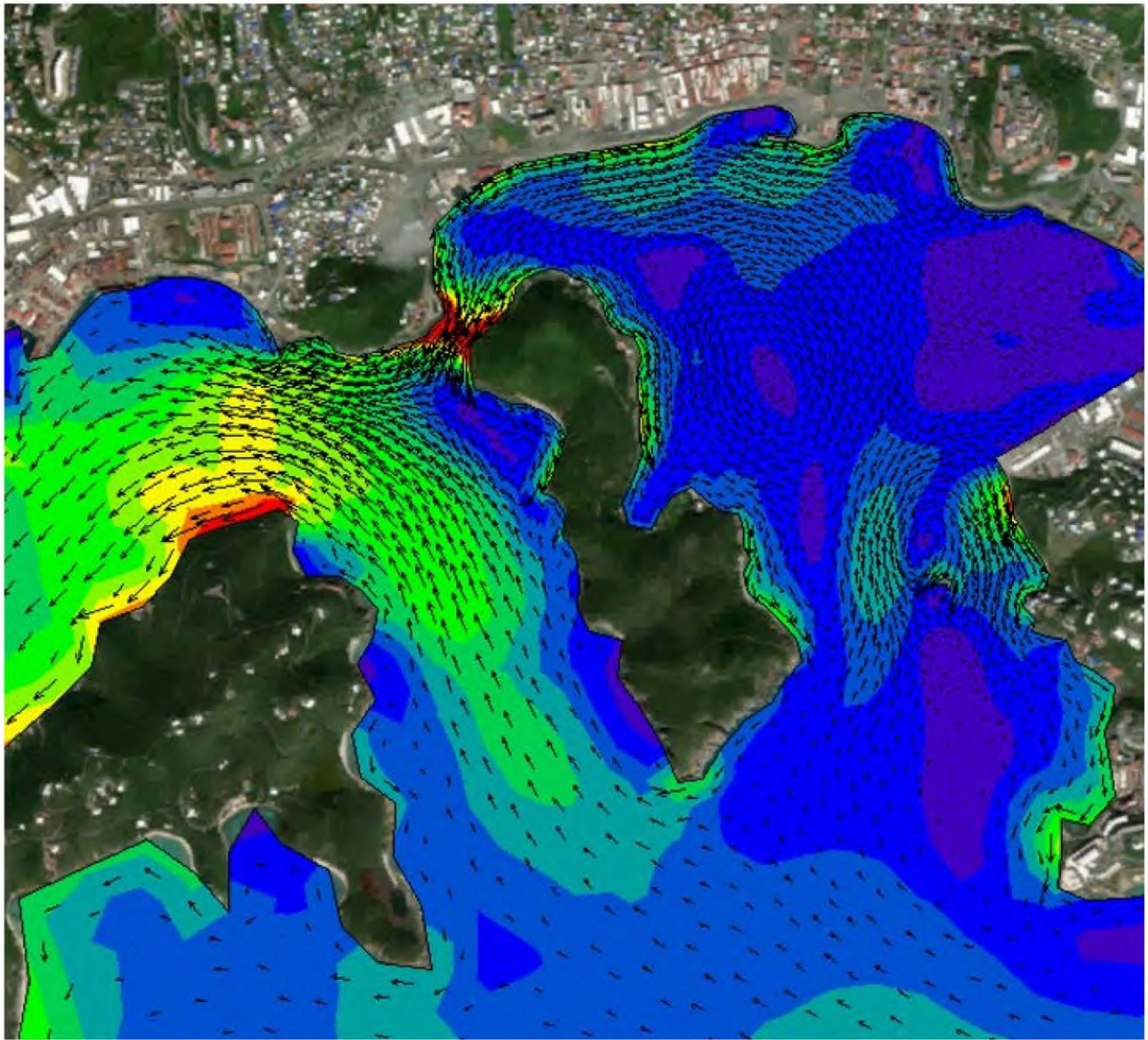


Figure 6.05.4 Modeled Currents in St. Thomas's Harbors (St. Thomas Flushing Model, GDH (2020))

6.05C WAVES

The deep-water waves offshore of St. Thomas are primarily driven by the northeast Trade Winds which blow most of the year. Waves average from 1 to 3 ft in height from the east, 42% of the time throughout the year (IRF, 1977). For 0.6% of the time, waves from the east reach 12 ft in height. The southeasterly swell with waves from one to twelve feet high become significant in late summer and fall when the Trade Winds blow from the east or when tropical storms and hurricanes pass the islands at a distance to the south. During the winter months, long-length, long-period northern swells develop to a height of 1 to 5 ft or larger, but these north swells will not have any impact on the proposed hotel.

The USACE Wave Hindcast Models for Stations 61022 and 61025, the two stations which have direct line of sight to Charlotte Amalie Harbor, show that most waves are from easterly directions and are 1-2 ft in height.

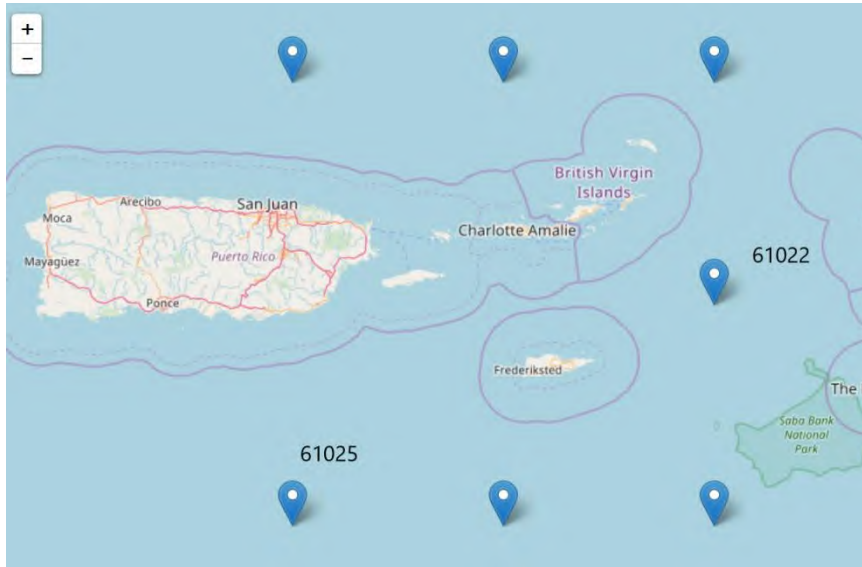
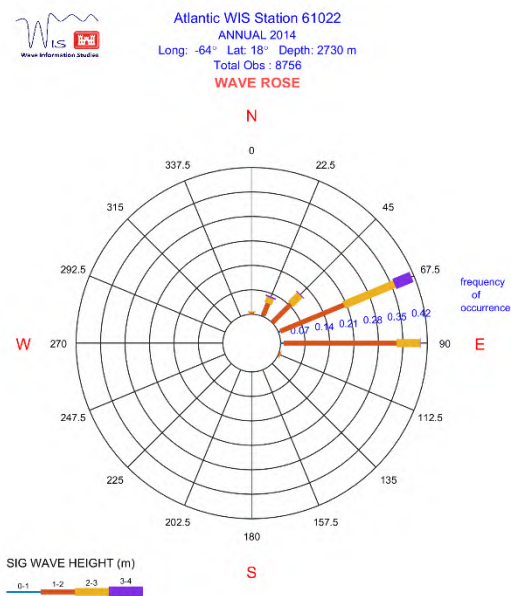
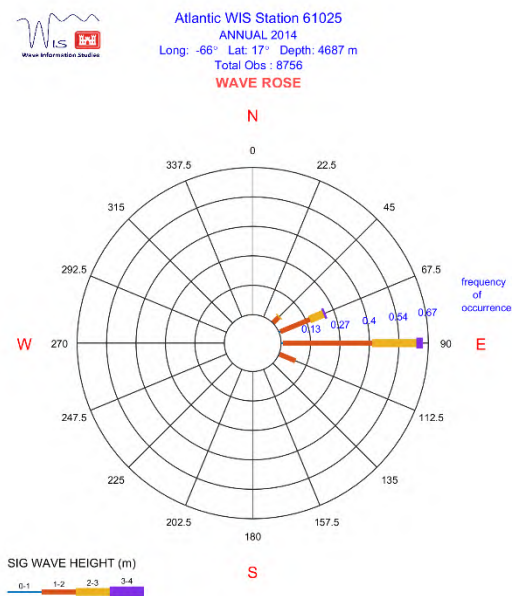


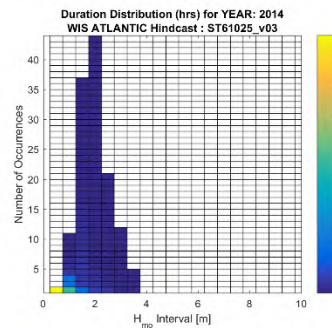
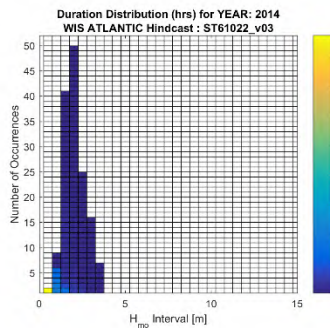
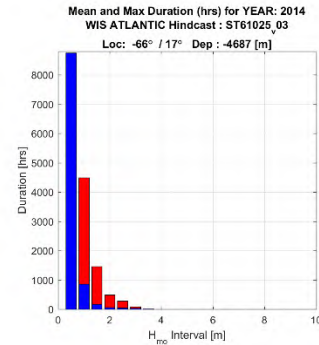
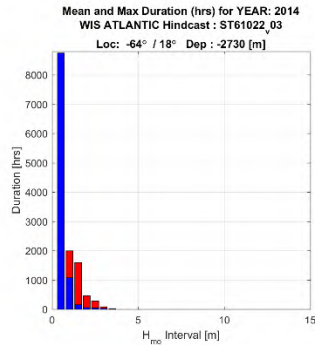
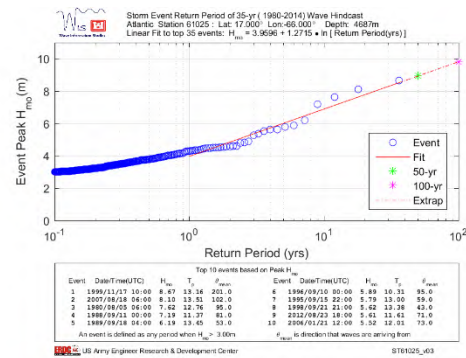
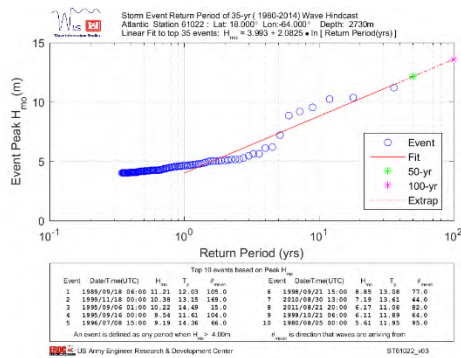
Figure 6.05.5 Wave Hindcast Stations USACE Wave Hindcast site, locations of 61022 and 61025 (<http://wis.usace.army.mil/hindcasts.html?dmn=atlantic>).



ERDC US Army Engineer Research & Development Center ST61022_v03

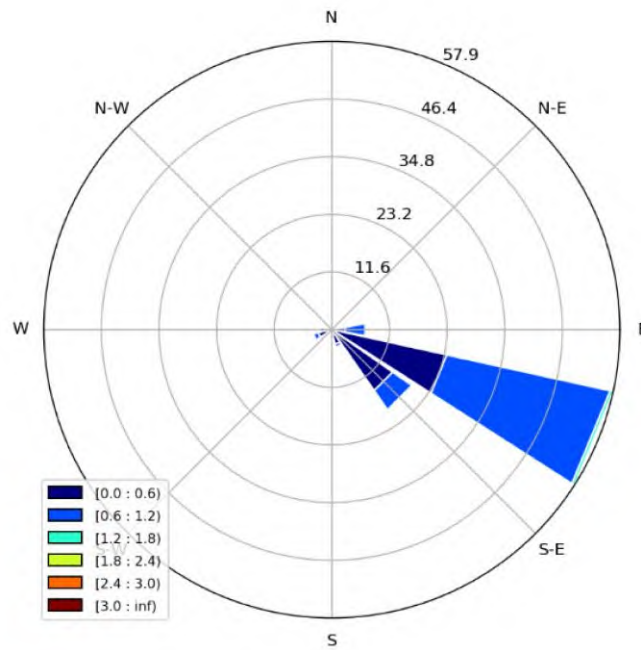


ERDC US Army Engineer Research & Development Center ST61025_v03



6.05.6 Wave Information for Station 61022 and 61025 (<http://wis.usace.army.mil/hindcasts.html?dmn=atlantic>)

NOAA Wave Watch III (WW3) Station 246223 is located approximately 5 miles south of St. Thomas Harbor and provides wave hindcast data over a 15-year period from February 2004 to May 2019. A wave rose is provided in Figure 6.05.9 and shows that the highest frequency of large waves occurs from the SSE, with southerly waves occurring approximately 5% of the time. The two largest wave events during this time (2004 – 2019) occurred in September of 2017 and were generated by Hurricane Irma and Hurricane Maria. Figure 6.05.10 provides a time series of the wave height, period, and direction during this time. Note that the wave heights associated with these two passing hurricane events are smaller than those generated by Hurricane Hugo and Hurricane Lenny – which, as indicated previously, both impacted the region prior to the more recent period of record.



DIR	COUNT	PERC
N	21	0.05
NNE	42	0.10
NE	110	0.26
ENE	143	0.34
E	2857	6.83
ESE	24260	57.97
SE	8283	19.79
SSE	1550	3.70
S	678	1.62
SSW	494	1.18
SW	585	1.40
WSW	1579	3.77
W	1003	2.40
WNW	246	0.59
NW	5	0.01
NNW	8	0.02

Figure 6.05.7 NOAA WW3 #246223 Wave Rose, Feb 2004-May 2019

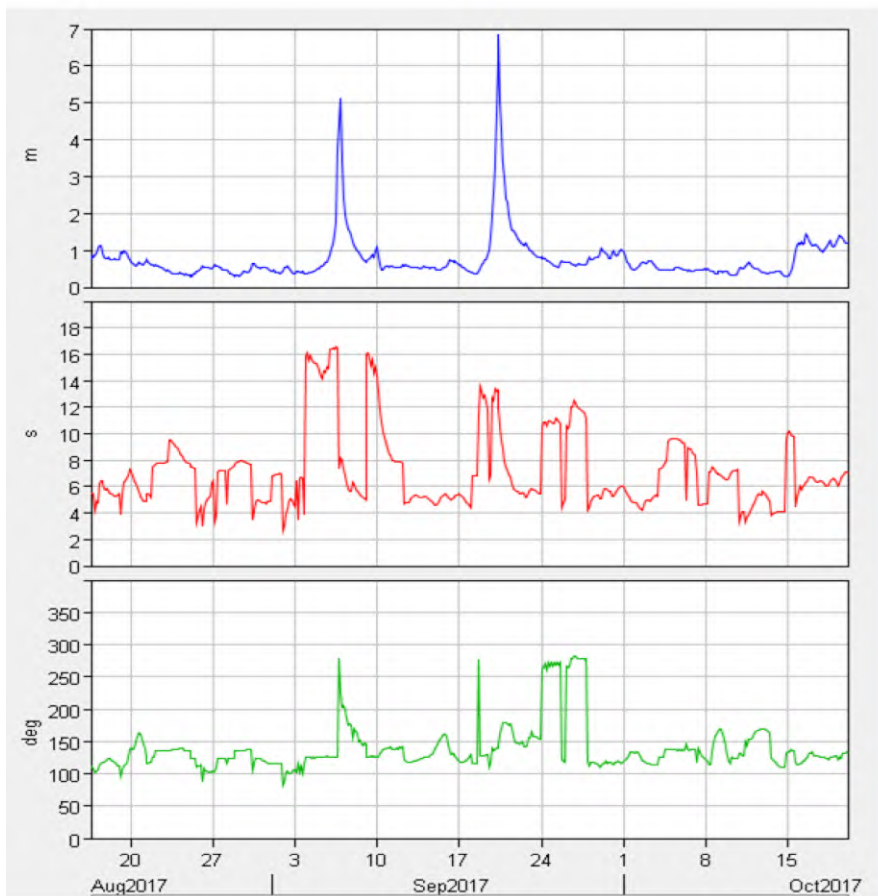


Figure 6.05.8 NOAA WW3 Station #246223 during Hurricanes Irma and Maria

Local Wind Generated Waves

The Charlotte Amalie harbor is large and therefore wind generated waves and chop can occur within the harbor. The area off shore of the hotel could be subject to wind generated waves when winds occur from the west or southwest (236°-288°). The greatest fetch which is due west is almost a mile.

6.05 D MARINE WATER QUALITY

The Charlotte Amalie harbor is a highly developed, active harbor with a cruise ship facility, where water quality is impacted by the movement of vessels and by untreated stormwater runoff that enters the bay from the surrounding watershed. The ship basin has been dredged several times over the years and the seabed in the dredged areas is covered by fine silty material that is easily resuspended. As established in the 2008 Integrated Water Quality Monitoring and Assessment Report for the United States Virgin Islands, waters in the harbor are designated as Class C. A large amount of water quality data has been collected over the years in Charlotte Amalie Harbor in relationship to numerous dredging and development projects, including the replacement of the adjacent bulkhead.

A large amount of data was collected in 2009 as part of the baseline data for proposed channel dredging which did not occur. This data is shown below.

Figure 6.05. 9 Turbidity shown as NTU.

Baseline Data Charlotte Amalie Harbor					
Sample Number	1	2	3	4	5
Location	N18 20.299 W64 55.855	N18 20.044 W64 55.423	N18 20.011 W64 55.497	N18 19.945 W64 55.595	N18 19.823 W64 55.815
Date					
6/10/2009*	2.85	3.35	1.43	1.43	1.12
6/24/2009*	1.59	1.81	1.8	1.58	0.52
7/1/2009	1.31	0.80	0.71	0.88	0.73
7/8/2009*	1.27	0.92	1.08	0.90	0.61
7/16/2009	1.30	0.58	0.65	0.71	0.48
7/22/2009	1.5	1.06	0.83	0.98	0.78
8/1/2009*	1.2	0.94	1.07	1.01	0.99
8/5/2009	1.12	0.95	1.04	1.07	1.23
Average	1.5175	1.30125	1.07625	1.07	0.8075
Std. Dev.	0.559534245	0.901196625	0.382993379	0.29179249	0.279067324
*=Cruiseship in					

Sample Locations



Water quality within the harbor averaged between 1.5 and 0.81 NTU, with turbidity diminishing offshore.

Samples were taken in the same locations during May of 2018 and in March and April of 2020 in anticipation of the new channel dredging project. And the water samples again showed the highest readings in the harbor with improving water quality offshore.

Table 6.05.2. Turbidity shown as NTU May 2018 and March and April of 2020.

	Charlotte Amalie Harbor									Average	Std. Dev.
	Location	5/23/2018	5/30/2018	3/16/2020	3/22/2020	3/27/2020	4/1/2020	4/4/2020			
1	N18 20.299 W64 55.855	0.98	0.92	1.12	0.95	0.66	0.68	0.58	0.841429	0.200867	
2	N18 20.044 W64 55.423	0.87	0.78	0.78	0.79	0.54	0.48	0.47	0.672857	0.169087	
3	N18 20.011 W64 55.497	0.67	0.74	0.78	0.74	0.61	0.54	0.49	0.652857	0.110108	
4	N18 19.945 W64 55.595	0.69	0.78	0.72	0.79	0.79	0.55	0.36	0.668571	0.160357	
5	N18 19.823 W64 55.815	0.56	0.89	0.78	0.61	0.54	0.41	0.48	0.61	0.169115	

6.05 E Sea Level Rise

NOAA Technical Report NOS CO-OPS 083 provides the most recent Relative Sea Level Rise (RSLR) projections that incorporate regional climatic factors, vertical land movement, and recent research predicting an acceleration in ice melt within Antarctica and Greenland (NOAA, 2017). RSLR projections specific to St. Thomas Harbor were obtained using the US Army Corps of Engineers (USACE) sea level calculator. These values are provided in Table 6.05.8 and are relative to the year 2020.

RSLR (feet, relative to year 2020)					
Year	Low	Intermediate-Low	Intermediate	Intermediate-High	High
2040	0.3	0.3	0.5	0.7	1.1
2060	0.5	0.7	1.3	1.9	2.7
2080	0.8	1.1	2.1	3.5	5.0
2100	1.0	1.4	3.2	5.5	7.7

Table 6.05.3 Relative Sea Level Rise for Charlotte Amalie, USVI based on NOAA 2017.

Project Impacts

The hotel will have no impact on nor will be impacted by currents, tides and waves. The hotel will be elevated so that the finished first floor elevation is 4 ft. above adjacent existing grade so that even if the highest elevation is reached in 2100 it should have no impact on the hotel.

6.06 MARINE RESOURCES

INTRODUCTION

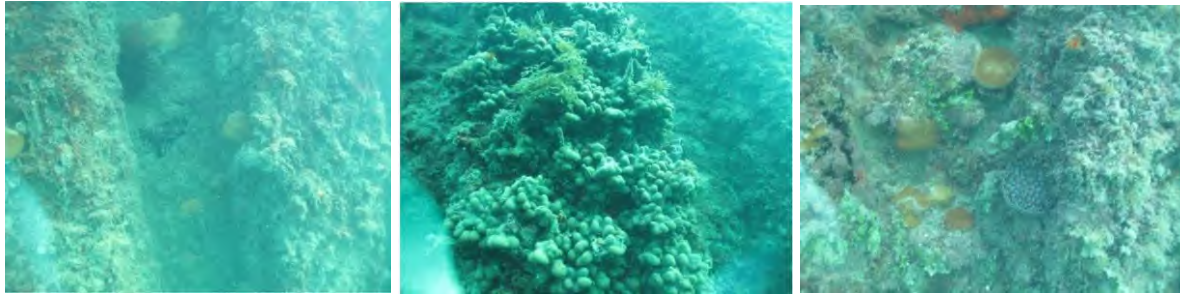
The Applicant proposes to construct a hotel on land adjacent to the WICO Dock. The structure will have no direct impact on the marine environment and will have a negligible impact on drainage and runoff on the site as the site is already developed and no pervious areas will be impacted.

The cruise ship dock is 3,025ft in length with a 275ft catwalk and three mooring buoys and has a depth of 30-40ft. The dock can accommodate up to three large cruise ships at the same time.

The bulkhead has been surveyed numerous times in the past, most recently in 2019 as a part of the surveys or the maintenance dredging of the berth.

MARINE ENVIRONMENT

The shoreline is bulkheaded with metal sheet piles with a concrete pile cap and the berth has been previously dredged. Like most marine structures the sheet pile wall has become colonized over time. Colonization is sparse below 25 ft. due to sediments suspended by the cruise ships during maneuvering to the dock. Colonization increases to between 5 and 10% between 25 and 15 ft of water depth. Corals are densest between 15 ft. and 8 ft. The pile cap has scattered sparse coral colonization. *Siderastrea* represents 70% of the corals present. *Agaricia fragilis* represents about 20 % of the corals present, and the remaining 5% of the corals are primarily a mix of *Porites astreoides*, *Solenastrea bournoni*, *Esumilia fastigiata*, *Montastrea cavernosa*, *Madracis decactis*, *Mycetophyllia ferox*, *Meandrina meandrites* and *Cladocora arbuscula*. Many of these coral species were only represented by 3 to 4 individuals. *Solenastrea bournoni* are the largest colonies.



The basin seafloor is a mix of gravelly sand, silt and rocks ranging from a few inches to boulders. Areas within the basin vary from small riprap to gravel and large accumulations of shell. *Halophia stipulacea*, an invasive sea vines is sparse at the edge of the basin but become dense within 20' of the edge.



Impact of the Hotel Development

The hotel is being constructed in a previously developed area and will have very limited earthwork. In order to minimize sediment laden runoff reaching the sea all drainage inlets will be protected during construction. Once construction is complete the project will have no impact on the marine environment.

6.07 TERRESTRIAL RESOURCES

The hotel is being constructed on sites which are filled land and are completely developed. There are six (6) large Mahogany trees (*Swietenia macrophylla*) in the planter adjacent to the parking lot on Parcel 2. These trees are outside of the site's property line will be preserved.

6.08 WETLANDS

The U.S. Army Corps of Engineers defines wetlands as "those areas that are periodically inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, bogs, marshes and similar areas." (U.S. Army Corps of Engineers, 1986). There are no wetlands withing the previously developed property.

6.09 RARE AND ENDANGERED SPECIES

Threatened or endangered sea turtle species occurring in the area include the hawksbill (*Eretmochelys imbricata*) and green (*Chelonia mydas*) sea turtles. The loggerhead (*Caretta caretta*) and leatherback (*Dermochelys coriacea*) sea turtles occur within the project area but are less likely to be observed. The project is entirely inshore and will have no impact on these species.

West Indian Manatee (*Trichechus manatus*) could also occur offshore while not usually present in the USVI, two were seen in St. Croix in 2018. Both the Nassau grouper (*Epinephelus striatus*) and the giant manta (*Manta birostris*) have been observed in the project site vicinity. The project is inshore and will have no impact these species.

Orbicella faveolata, and *O. franksi*, coral species classified as threatened under the Endangered Species Act, are found on the sheet pile wall but will not be impacted by this project.

Coastal waters and waters within the Virgin Islands are frequented by whales (Megaptera novaeangliae, Balaenoptera physalus) during winter for mating and birthing and dolphins (Tursiops truncatus) are year-round residents.

The hotel will have no impact on any of these marine species and as the site is completely developed it will have no impact on the ESA listed Virgin Islands Tree Boa (*Epicrates monensis granti*) or any of St. Thomas' endangered plant species (*Calyptanthus thomasi*, and *Solanum concarpum*).

6.10 AIR QUALITY

The contractor will utilize diesel-powered equipment during the construction of the hotel and its infrastructure. It is anticipated that machinery will be running up to **10 hours** a day (during daylight hours only) through the duration of the construction and the construction is expected to last **9-12 months**.

Equipment will be properly maintained to the extent that a minimum amount of emissions into the air is anticipated. Emissions which will result from the work are not anticipated to exceed federal or local standards air quality standards.

Once complete, the project will result in additional vehicles transiting to and from the site, this should not result in a significant release of emissions.

7.00 IMPACT OF THE PROPOSED PROJECT ON THE HUMAN ENVIRONMENT

7.01 LAND AND WATER USE PLANS

The development of a hotel on the proposed site is an allowable use of the site. The zoning was changed from (W-2) Waterfront Industrial to R-3 Residential Medium density for Parcel Nos. 2 and 4 Estate Thomas, Nos. 6B and 6F New Quarter, St. Thomas. Hotels and Guesthouses at a right of use in R-3 zones.

7.02 VISUAL IMPACTS

The area is already heavily developed and has been since historic times. The hotel will alter the current viewshed of the existing Havensight Mall by replacing several dilapidated warehouses and constructing a new 5-story hotel. The property is zoned to allow for a maximum building height of six (6) stories, however the proposed structure is five (5) stories. The architectural design is intended to emphasize the horizontality to limit the visual impact due to the height of the structure.

The main color scheme for the hotel was selected to complement the traditional paint colors common to historic buildings of the town of Charlotte Amalie, to include exterior walls colors of linen and gray. Window shutter accents are brown with the intent of emulating wood. Blue accent walls keep in line with the branding of the hotel.

The base of the building, entry columns, and site walls are clad in the local material blue-bit stone which add character to the building consistent with the project location. The blue-bit stone cladding along with the alternating color patterns also help to break up the verticality of the buildings exterior and lessen the visual impact of the building's height.

The entry portico and various roofing elements are roofed with colonial red metal roofing which is another local architectural feature that helps the building blend in with the project's surroundings.

The new proposed visitor center will be a one-story structure of the same design as the existing visitor center which will be removed to allow for the construction of the hotel. Visual impact due to construction of the visitor center is seen as an aesthetic improvement as existing dilapidated warehouses will be removed, and the new visitor center constructed in their place.

Unpaved open space will be grassed, and ornamental landscaping to be installed in the parking islands and planter areas.

7.03 IMPACT ON PUBLIC SERVICE

7.03A POTABLE WATER

The hotel will tie into the existing public potable water service which is already available at the project site. The 126-room hotel will require approximately 15,540 gpd. Sufficient potable water service is available at the project site.

7.03B SEWAGE TREATMENT AND DISPOSAL

The hotel will tie into the existing public wastewater collection system. The hotel will get a permit from VIWMA for the disposal of the sanitary waste. The hotel will generate approximately 15,540 gpd. The hotel will get a permit from VIWMA for the disposal of the sanitary waste.

7.03C SOLID WASTE DISPOSAL

The hotel will have collection bins for the solid waste created in the hotel and the facilities therein. Waste will be collected carried by private hauler to the Bovoni Landfill. The main collection bins will be located on Parel No. 4. The hotel is expected to generate approximately 1,260 lb/day (0.56 tons/day).

During construction all construction waste will be placed in bins and carried to the Bovoni Landfill. A permit will be obtained from VIWMA for the disposal of the waste.

7.03D ROADS, TRAFFIC AND PARKING

A total of 131 parking spaces will be provided for the hotel and its public amenities. The hotel will have 5 ADA spaces and 3 loading spaces.

7.03E ELECTRICITY

The hotel will be off-grid and generate 100% of its electrical power service on-site utilizing a propane-fueled micro turbine system. The hotel will utilize an on-site diesel generator for emergency backup power.

WAPA's existing power service is also available at the project site, however there are no plans to utilize WAPA electrical service.

7.03F SCHOOLS

During construction it is assumed that most of the construction workers will be local residents and if skilled labor is brought from off island they will come short-term and will not be bringing school age children to matriculate in to the school system.

The hotel is expected to hire 25 employees. Ideally the hotel would be able to source the employees from the local labor pool. If persons come from off island it is possible that they will bring school age children. The children would be matriculated into either the public or private school system. There is capacity in the local school systems to handle the extra children.

7.03G FIRE AND POLICE PROTECTION

The hotel will rely on the local fire and police protection. The hotel will have in-house security but will rely on the Virgin Islands Police force for support. There are fire hydrants located nearby and the hotel will be equipped with fire suppression systems. In the event of a fire the nearest fire station is located in Estate Taarneberg approximately 0.5 miles to the north.

7.03H PUBLIC HEALTH

During construction it is assumed that most of the construction workers will be local residents and are already serviced by the local health services. If skilled labor is brought from off island they will come short-term would rely on the local emergency services but would return to their homes for long-term care.

The hotel is expected to hire 25 employees. Ideally the hotel would be able to source the employees from the local labor pool who would be already serviced by the local health service. If persons come from off island they will need to be serviced by local emergency and long-term health services. There is capacity in the local private and public health services to handle the additional 25 workers.

7.04 SOCIAL IMPACTS

The hotel will offer an alternative to Virgin Islander travelling back and forth between the islands. The hotel will also provide additional jobs for local Virgin Islands. The development of a previously developed area provides economic benefit to the Virgin Islands while minimizing environmental and resource impacts.

7.05 ECONOMIC IMPACTS

Tourism, trade, and other services are the primary economic activities, accounting for nearly 60% of the Virgin Islands' GDP and about half of total civilian employment. In September 2017, Hurricanes Irma and Maria, both Category 5 storms, hit St. Thomas within two weeks of each other. Sustained winds, storm surge and heavy rainfall caused extensive damage. The Ritz-Carlton St. Thomas, Bluebeards Castle, Elysian Beach, and Windward Passage all sustained serious damage and closed for varying periods. Sugar Bay in St. Thomas and Caneel Bay on St. John were damaged and remain closed. Caneel Bay, which had only a short-term remaining on its National Park Service lease, is unlikely to reopen prior to its lease expiration. Sugar Bay has recently sold and is still in the demolition stages. Frenchman's Reef, the largest hotel in the territory, was damaged and is under construction, halted during the pandemic, and the hotel is expected to reopen in November 2022. Havensight Mall, adjacent to the cruise port and the proposed hotel site, is one of the principal shopping destinations in Charlotte Amalie. Other tourist attractions include Blackbeard's Castle, Bluebeard's Castle, 17th-century Fort Christian, the 99 Steps Stairway, Emancipation Garden, Market Square, Seven Arches Museum, St. Thomas Synagogue, Frederick Lutheran Church, and the Weibel Museum. The Danish colonial architecture throughout the town attracts a significant number of Danish tourists annually. St. Thomas also hosts an annual month-long post-Easter Carnival ending in May that attracts numerous visitors and returning diaspora.

The hotel will be located adjacent to the cruise ship dock in Long Bay; the Havensight Mall is noted for its shopping and restaurants. The surrounding neighborhood can be described as mostly commercial with a mixture of retail, industrial, and maritime uses. The area surrounding the cruise port is also a leading regional draw for leisure activities. Two large malls – Havensight Mall and Yacht Haven – draw cruise passengers, stayover tourists and duty-free shoppers from a wide radius as they offer upscale retailers and specialty shops including some not available elsewhere in the region. Several upscale restaurants are available in each of these malls. A skyride to an observation area on Paradise Point is located across Frenchman's Bay Road from the Port and provides views of the port and surrounding islands.

Charlotte Amalie's central business district is located about 2.5 km (1.55 miles) northwest of the hotel and Hotel. Cyril E. King Airport is located about 6.3 km west (3.9 miles) east from the proposed hotel along Long Bay Road and Veterans Drive. St. John can be reached via ferry from Crown Bay in Charlotte Amalie approximately 2 km from the proposed hotel or from Red Hook Ferry about 10 km to the east. The access from the proposed hotel site to downtown Charlotte Amalie and the airport terminals is excellent via car.

The area's central location, and proximity to the Airport, shopping, and other regional attractions, makes the Havensight area appropriate for hotel development. The 5-story, 126-room hotel, is proposed to be affiliated with international upper mid-scale brand Hampton Inn & Suites.

7.06 IMPACTS ON HISTORICAL AND ARCHAEOLOGICAL RESOURCES

The property is a completely developed site on filled land. The site has been filled for more than 80 years. No historical or archaeological resources should be impacted. A SHPO Clearance Letter has been requested.

7.07 RECREATIONAL USE

The hotel will be located adjacent to an existing cruise ship pier. The site is not currently used for recreational activities. The hotel will provide recreational amenities for hotel guests to include a recreational swimming pool on-site as well as an indoor exercise gym.

7.08 WASTE DISPOSAL

The hotel will have collection bins for the solid waste created in the hotel and the facilities therein. Waste will be collected carried by private hauler to the Bovoni Landfill. The main collection bins will be located on Parel No. 4. The hotel is expected to generate 1,260 lb/day (0.56 tons/day).

During construction all construction waste will be placed in bins and carried to the Bovoni Landfill. A permit will be obtained from VIWMA for the disposal of the waste.

7.09 ACCIDENTAL SPILLS

The intent is to minimize the storage of hazardous substances on site. A spill response kit will be kept on site which includes absorbent clothes and mats. Any contaminated soil will be collected and disposed of in accordance with U.S. Virgin Islands regulations.

If significant leaks or releases occur of a hazardous substance the Division of Environmental Protection (340 774-332-) will be notified and records and manifest of proper cleanup and disposal will be provided.

No vehicle maintenance or fueling will occur on site. And all equipment will be kept in good repair to minimize leaks and releases of lubricants or oils.

7.10 POTENTIAL ADVERSE EFFECTS WHICH CANNOT BE AVOIDED

The hotel site is completely developed and no natural resources will be impacted through its development.

The site has a history of marine use and its historic use is as warehousing supporting the adjacent dock and nearby retail operations. The subject parcels have been used for bauxite storage and loading and significant fuel storage has occurred within the area. The warehouses on the site have been used to store a variety of materials including fuels, oils, and batteries. The property comprising the dock is subject to an Environmental Covenant, recorded against the bulkheaded site as Doc No. 2013003950, stating that the Property is impacted with weathered petroleum hydrocarbons and non-aqueous phase liquids (NAPL) which is low risk and will be managed by

restricting the Property for commercial purposes; keeping affected soils, groundwater and NAPL isolated from direct exposure at the ground surface; and ensuring that shallow groundwater is not used for any purpose. The developer is aware of this condition and conducted a Phase II investigation to determine the depth of contamination layers. The development is being designed to minimize any potential of impact to the contaminated soils which might result in the release of hazardous substances.

8.00 MITIGATION

The project will have no impact on environmental resources therefore no mitigation is proposed.

9.00 ALTERNATIVES TO PROPOSED ACTION

The application is for the construction of a hotel within the WICO cruise ship complex. The hotel will provide much need hotel rooms for business travelers and tourist alike. The hotel is being built in an area without environmental resources as that it is already completely developed and its development and operation will have limited impacts.

The hotel could not be built and St. Thomas would still have a shortage of hotel rooms, especially those designed for business travelers.

The hotel could be built on an undeveloped parcel in the Charlotte Amalie area and would have impacts on terrestrial flora and fauna.

10.00 RELATIONSHIP BETWEEN SHORT & LONG TERM USES OF MAN'S ENVIRONMENT

The redevelopment of previously developed properties is an excellent way to minimize impact to the natural environment. This is especially beneficial when properties which are in disrepair and are no longer functional are redeveloped into properties which will create employment and contribute to the local economy.

11.00 REFERENCES

Bowden, M.J. et. al., 1969. Climate, water balance and climatic change in the north-west Virgin Islands. Caribbean Research Institute, CVI., St. Thomas, Virgin Islands.

Bucher, K.E. D.S. Littler, M.M. Littler, J.N. Norris, 1989. Marine Plants of the Caribbean, A Field Guide from Florida to Brazil. Smithsonian Institution Press, Washington, D.C.

Donnelly, T. 1966. Geology of St. Thomas and St. John, U.S. Virgin Islands. In: Hess, H. (ed.) Caribbean geological investigations. Geol Soc. Amer. Mem. 98:85-176.

Donnelly, T., et al. 1971. Chemical evolution of the igneous rocks of the Eastern West Indies. In: Donnelly, t. (ed.) Caribbean geophysical, tectonic and petrologic studies. Geol. Soc. Amer. Mem. 130:181-224.

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Islands. Paper present at the earthquake hazards in the Virgin Islands Region Workshop, St. Thomas, April 9-10, 1984.

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Meyerhoff, Howard A. "Physiography of the Virgin Islands, Culebra and Vieques." Scientific Survey of Puerto Rico and Virgin Islands, (New York Academy of Sciences), Vol. IV, Pt. I, pp. 71-141.

Rogers, Caroline, S., et. al. "Coral Reef Monitoring Manual for the Caribbean and Western Atlantic, National Park Service, Virgin Islands National Park, June 1994.

Websites:

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http://www.surf-forecast.com/weather_maps/US-Virgin-Islands?over=none&type=htsgw

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APPENDIX A

BIOIMPACT, INC.

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KINGSHILL, ST. CROIX

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QUALIFICATION STATEMENT

Bioimpact, Inc. is a Virgin Islands corporation that has been licensed to do business in the USVI since 1986.

Bioimpact, Inc. is qualified to conduct and prepare both terrestrial and marine Environmental Assessment Reports required by the U.S. Virgin Islands Department of Planning and Natural Resources (DPNR), Division of Coastal Zone Management (CZM), and the U.S. Army Corps of Engineers (USACE).

Bioimpact, Inc. has wetland delineators certified by the National Wetland Science Training Cooperative to establish wetland jurisdictional limits for the USACE.

Bioimpact, Inc. is experienced in the creation and implementation of wetland mitigation programs.

Bioimpact, Inc. is experienced in developing and implementing marine water quality monitoring programs and long-term monitoring of the benthic environment.

Bioimpact, Inc. has water samplers and analysts certified by the DPNR Division of Environmental Protection (DEP).

Bioimpact, Inc. has successfully designed and implemented large scale coral and seagrass transplant programs.

Bioimpact, Inc. is experienced in cable landfall studies and the establishment of routes for undersea cables and monitoring of cable installations to minimize impact.

Bioimpact, Inc. is experienced in conducting endangered species surveys including corals listed under the Endangered Species Act (ESA) and terrestrial flora and fauna species surveys.

Bioimpact, Inc. is experienced in preparing Biological Assessments for the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (FWS).

Bioimpact, Inc. is experienced in the transplant and monitoring of ESA-listed corals, as authorized under “Take Permits” from NMFS.

Bioimpact, Inc. is experienced in preparing Environmental Assessments for federal permitting and for federal issuance of a Finding of No Significant Impact (FONSI).

Bioimpact, Inc. is experienced in conducting Phase I Environmental Site Assessments as set forth in the ASTM International Standard Practice Designation E1527-21 and All Appropriate Inquires and Phase II Environmental Site Assessments as set for in ASTM E1903-11.

Bioimpact, Inc. is experienced in the development and implementation of sampling plans to detect and delineation hazardous materials and petroleum products.

Bioimpact, Inc. is experienced in conducting deep water remotely operated vehicle (ROV) surveys up to 1,250 feet and has all the necessary equipment to undertake these studies.

Bioimpact, Inc. has conducted environmental studies in the U.S. Virgin Islands, Puerto Rico, British Virgin Islands, as well as other parts of the Caribbean and in the Florida Keys.

PARTIAL JOB LIST
Updated March 31, 2022

MONITORING LARGE SCALE PROGRAMS

- 2021 – Present** Watershed and Stormwater Sampling on St. Croix and St. Thomas as a Subcontractor to Watershed Consulting Associates LLC.
- 2021 – Present** Development and Implementation of a Water Quality and Environmental Monitoring Plan for Construction of a Private Dock in Chocolate Hole, St. John.
- 2021 – Present** Development and Implementation of a Water Quality Monitoring Plan for the Reconstruction of the Marriott Frenchman’s Reef Dock and Minor Dredging.
- 2020 – Present** Monitoring for the Virgin Islands Tree Boa at the Donoe Housing Redevelopment Site.
- 2019 – Present** Development and Implementation of the Water Quality and Environmental Monitoring Plan for the Installation of a Single Point Mooring at Limetree Marine Terminals, St. Croix.
- 2013 – Present** U.S. Virgin Islands Ambient Water Quality Monitoring Program, Sampling for St. Croix.
- 2018 – 2021** Development and Implementation of the Water Quality and Environmental Monitoring Plan for the Construction of the Veterans Drive Project on St. Thomas for the U.S. Virgin Islands Department of Public Works (VIDPW).
- 2016** Development and Implementation of the Water Quality Monitoring Plan for the West Indian Company Limited (WICO) Emergency Bulkhead Replacement on St. Thomas.
- 2014 – 2018** Development and Implementation of the Environmental Monitoring Plans for the Conversion of U.S. Virgin Islands Water and Power Authority (VIWAPA) to Liquid Petroleum Gas (LPG) for Vitol on St. Croix and St. Thomas.
- 2014 – 2018** Development and Implementation of the Environmental Monitoring Plans for the Creation of a Dolphin Exhibit at Coral World (VI), Inc. on St. Thomas.
- 2013 – 2018** Development and Implementation of the Water Quality and Environmental Monitoring Related to the Dredging of the Crown Bay Marine Terminal and Turning Basin on St. Thomas.
- 2013 – Present** Development and Implementation of the Monitoring Plans for the VIDPW’s Improvements to Veterans Drive on St. Thomas.

- 2013 – 2018** Development and Implementation of the Monitoring Plans for the U.S. Virgin Islands Port Authority’s (VIPA) Maintenance Dredging of Crown Bay Marina on St. Thomas.
- 2013 – 2018** Development and Implementation of Monitoring Plans for the Westin Resort’s Dock Permit and Improvements of Stormwater Drainage on St. John.
- 2013 – 2015** Implementation and Monitoring of a Wetland Created as Mitigation for the Development of the U.S. Virgin Islands Waste Management Authority’s (VIWMA) Transfer Station on St. Croix.
- 2012 – 2018** Development and Implementation of the Monitoring Plans for the Virgin Islands Next Generation Network’s (viNGN) Fiber Optic Cable System in the USVI.
- 2011 – 2019** Development and Implementation of a Water Quality and Environmental Monitoring Plan to Assess Impacts of an Increase in Discharge from the Marriott Frenchman’s Reef Hotel on St. Thomas.
- 2010 – 2012** Development of the Water Quality and Environmental Monitoring Program for the Development of Thatch Cay with a Special Emphasis on ESA-listed Corals.
- 2009 – 2015** Environmental Monitoring for the Development of Oil Nut Bay and the Yacht Club Costa Smeralda (YCCS) for Victor International on Virgin Gorda, British Virgin Islands (BVI).
- 2009 – 2010** Development and Implementation of a Water Quality Monitoring Plan for the Construction of the Dock at Frenchman’s Cove for Marriott Vacation Club, Inc on St. Thomas.
- 2009** Establishment of the Baseline for the Dredging of Charlotte Amalie Harbor and Entrance Channel, and the and the Disposal of Dredged Materials in the Historic Dredging Hole in Lindbergh Bay, St. Thomas for WICO.
- 2008 – 2009** Environmental Monitoring of the Development of Scrub Island in the BVI for Mainsail Lodging and Development.
- 2007 – 2010** Water Quality Monitoring for the Development of the Calabash Boom Affordable Housing Complex for Reliance Housing in Estate Calabash Boom on St. John.
- 2007 – 2009** Water Quality and Environmental Monitoring for Flamboyant Real Estate of a Subdivision of Seventy-seven Acres in Hansen Bay, St. John.
- 2006 – 2008** Water Quality Monitoring for the Dredging of a Sand Channel in St. Croix for VIWAPA.

- 2006 – 2007** Water Quality Monitoring for the Renovations of the Ritz-Carlton Hotel on St. Thomas for the Ritz-Carlton.
- 2006 – 2010** Environmental Monitoring for the Placement of Undersea Cables at the Global Crossing Cable Station in St. Croix for Global Crossing Network, Alcatel, and Tyco Electronics Subsea Communications (now SubCom).
- 2005 – 2007** Water Quality Monitoring for the Dredging of Crown Bay, St. Thomas for VIPA.
- 2005 – 2006** Water Quality and Environmental Monitoring for Improvements to the Redhook Marine Terminal for VIPA.
- 2004 – 2011** Water Quality and Environmental Monitoring for the Construction of the Pond Bay Resort for First American Development Group on St. John.
- 2004** Benthic Habitat Survey of Crown Bay and Gregerie Channel to Supplement the USACE Feasibility Report for VIPA.
- 2003 – 2006** Water Quality Monitoring for the Construction of the Enighed Pond Marine Terminal on St. John for VIPA.
- 2003 – 2004** Water Quality Monitoring for the Development of the Crown Bay Marine Terminal on St. Thomas for VIPA.
- 2002 – 2008** Water Quality and Environmental Monitoring for the Development of Marine Amenities on the Island of Lovango for the Joseph Markus Trust.
- 2002 – 2005** Water Quality Monitoring for the Improvements to the Gallows Bay Marine Terminal on St. Croix for VIPA.
- 2001 – 2008** Coral Transplant Monitoring for the Enighed Pond Marine Terminal on St. John for VIPA.
- 2001 – 2006** Coral Transplant Monitoring for the Mangrove Lagoon Sewage Treatment Plant Outfall on St. Thomas for VIDPW.
- 2001 – 2002** Water Quality Monitoring for Improvements to the Tropical Shipping Dock in Crown Bay, St. Thomas for Meisner Marine.
- 2000 – 2006** Seagrass Transplant Monitoring of the Seagrass Transplanted for the Dredging of Charlotte Amalie Harbor on St. Thomas for VIPA.
- 2000 – 2003** Water Quality Monitoring for the Dredging of Charlotte Amalie Harbor on St. Thomas for VIPA.

- 1999 – 2006** Water Quality Monitoring for Repairs to the Frederiksted Pier on St. Croix for VIPA.
- 1999 – 2002** Water Quality Monitoring for the Construction of Cable Stations at Estate Northside on St. Croix for Global Crossings.
- 1997 – 2005** Development of a Water Quality Monitoring Program for the Construction of the Christiansted Boardwalk on St. Croix Prepared for the Government of the U.S. Virgin Islands.
- 1997 – 2005** Wetland Monitoring of the Tren Urbano, Puerto Rico (PR) 5 and PR 22 Mitigation Sites under Subcontract to Nutter & Associates, Inc. for the Puerto Rico Highway Authority.
- 1997 – 2002** Wetland Monitoring of the Airport Mitigation Site at the Henry E. Rohlsen Airport on St. Croix for VIPA.
- 1997 – 2002** Wetland Monitoring for the Fairplains Mitigation Site at the Henry E. Rohlsen Airport on St. Croix for VIPA.
- 1996 – 1998** Water Quality Monitoring for the Expansion of the Molasses Pier at the Third Port on St. Croix for the VIPA.
- 1996** Development and Implementation of a Water Quality Monitoring Program for the Expansion of, and Improvements to, the Redhook Marine Terminal on St. Thomas for VIPA.
- 1996** Development and Implementation of a Water Quality Monitoring Program for the Creation of the Enighed Pond Marine Terminal on St. John Prepared for the Maguire Group, Inc. and VIPA.
- 1995** Water Quality Monitoring for the Construction of the AT&T Cable Landing Facility in Estate Northside, St. Croix for AT&T Submarine Systems.
- 1992 – 1994** Development and Implementation of a Water Quality Monitoring Program for the Reconstruction of the Frederiksted Pier on St. Croix for VIPA.
- 1992 – 1993** Conducted a Baseline Assessment and Developed a Long-term Monitoring Plan for VIWAPA of the Benthic Community Potentially Impacted the Outfall from the Richmond Power Plant on St. Croix
- 1992 – 1993** Development and Implementation of a Monitoring Plan to Study Algal Blooms within the Alumina Cooling Pond Discharge and Strategies to Alleviate Runoff for V.I. Alumina Corporation LLC (VIALCO) on St. Croix.

1990 – 1992 Water Quality Monitoring for Dredging Christiansted Harbor on St. Croix for VIPA.

1989 Development and Implementation of a Turtle Monitoring Program for Manchineel Beach on St. Croix.

LARGE SCALE MITIGATION PROGRAMS

- 2021 – Present** Removal and Relocation of 209 Corals for the U.S. Coast Guard Aids to Navigation (ATON) Replacement Project on St. Croix and Routine Monitoring of a Subset of Corals.
- 2020 – Present** Development and Implementation of the Compensatory Mitigation Plan for the Transplant of 1,700 corals, the Repair of 500 Corals of Opportunity, and the Outplanting of 3,000 ESA-listed corals for Limetree Bay Terminal’s Single Point Mooring on St. Croix.
- 2018 – Present** Development and Implementation of a Compensatory Mitigation Plan for the Relocation of 1.25 Acres of Seagrass and 631 Corals from the Impact Footprint of the Veterans Drive Project on St. Thomas, and the Repair of Damaged Corals on Triangle Reef for VIDPW.
- 2016 – 2020** Development and Implementation of a 190-Coral Transplant for the Stabilization of the Seawater Intake Line for the Marriott Frenchman’s Reef Hotel on St. Thomas.
- 2016 – 2020** Development and Implementation of a Coral Transplant to Minimize the Impacts of Construction for LPG Improvements at VIWAPA Facilities on St. Croix and St. Thomas.
- 2015 – 2021** Development and Implementation of the Mitigation Plan for the Relocation of 10,000 Corals Off the WICO Bulkhead in Havensight for WICO on St. Thomas.
- 2014 – Present** Development and Implementation of a Coral and Seagrass Transplant for Coral World (VI), Inc. in Association with the Development of the Dolphin Exhibit on St. Thomas; 250 Corals were Transplanted and More Than 500 Corals were Repaired after the 2017 North Atlantic Hurricane Season.
- 2014 – 2019** Development and Implementation of the Mitigation Plans for VIPA’s Maintenance Dredging of Crown Bay Marina on St. Thomas.
- 2013 – 2018** Development and Implementation of the Mitigation Plans for the Westin Resort’s Dock Permit and Improvements of Stormwater Drainage on St. John.
- 2013 – 2015** Creation of a Herbaceous Wetland for VIWMA as Mitigation for the Construction of the Transfer Station at the Anguilla Landfill on St. Croix.
- 2009** Transplantation of 300 Corals for Victor International Coral for Impacts Associated with the Development of an Access Ramp and Dock at Oil Nut Bay in the BVI.

- 2008 – 2009** Transplantation of 3,000 Corals for Mainsail Lodging and Development for Impacts Associated with the Development of the Scrub Island Resort in the BVI.
- 2006 – 2011** Planting of 1 Acre of Mangrove Wetland for VIDPW as Mitigation for the Construction of the Mangrove Lagoon Sewage Treatment Plant on St. Thomas.
- 2003 – 2008** Planting of 2.8 Acres of Mangrove Wetland for VIPA as Compensatory Mitigation for the construction of the Enighed Pond Terminal on St. John.
- 2003 – 2008** Removal and Relocation of 3,000 Corals Outside the Area of Impact for the Development of the Crown Bay Marine Terminal on St. Thomas for VIPA.
- 2002 – 2007** Development and Implementation of the Mitigation Plans for VIPA's Dredging of Crown Bay Marine Terminal and Turning Basin on St. Thomas.
- 2002 – 2007** Transplantation of 50,000 Corals for VIPA Outside the Area of Impact for the Enighed Pond Marine Terminal Project on St. John.
- 2002** Creation of Artificial Coral Reefs and *Acropora spp.* Thickets for Joseph Markus Trust as Mitigation for the Construction of a Barge Landing Facility on the Island of Lovango.
- 2000 – 2005** Transplantation of 2 Acres of Seagrass for VIPA to an Area Outside the Dredging Footprint of the Charlotte Amalie Harbor on St. Thomas.
- 2000 – 2001** Transplantation of 7,000 Corals for VIDPW Outside of the Area of Impact for the Placement of the Mangrove Lagoon Sewage Treatment Plant Outfall on St. Thomas.
- 1999 – 2004** Transplantation of 300 Corals for VIPA Outside the Area of Impact for the Mooring Improvements to the Frederiksted Pier on St. Croix.
- 1997 – 2003** Planting of ½ Acres of Mangroves for VIPA/VIDPW as a Mitigation Project for the Construction of the Molasses Dock Road on St. Croix.
- 1997 – 2002** Creation of a 1-Acre Herbaceous Wetland for VIPA as Mitigation for Henry E. Rohlsen Airport Construction on St. Croix.
- 1997 – 2002** Development of a Mitigation Plan for VIPA for the Creation of a 16,000-square Foot Wetland at Manning Bay to Address the Impact Incurred in Fairplains Gut on St. Croix.
- 1996** Development of a Mitigation Plan for VIPA for the Creation of 4.1 Acres of Wetland as Mitigation of the South Shore Power Plant, Third Port on St. Croix.

1994 Development of a Mitigation Plan for Green Cay Resort for the 12 Acres of Wetland Impacted by the Construction of the Resort on St. Croix.

ENVIRONMENTAL ASSESSMENT REPORTS
2020– PRESENT

Water quality, monitoring and/or compensatory mitigation plans were developed to supplement most of the environmental assessment reports listed.

Water Island Development, Water Island Development Corporation, Environmental Assessment Report for the Development of a Resort and Marina, Water Island

Villa Olga Shoreline Revetment, Olga’s Fancy, Environmental Assessment Report for the Restoration and Revetment of the Shoreline, St. Thomas

Expansion of Yacht Haven Grande Marina, IGY, Environmental Assessment Report for the Expansion of the Existing Yacht Haven Grande Marina, St. Thomas

Sapphire Bay Marina Dredging and Installation of Sargassum Barriers and Shoreline Revetment, SBMCOA, LLC, Environmental Assessment Report for Dredging of the Marina, Revetment of the Shoreline, and Installation of Sargassum Barriers, St. Thomas

Ritz-Carlton Shoreline Preservation Plan, Ritz-Carlton Club, Assessment Report for the Installation of Sargassum Barriers and Geotubes, St. Thomas

St. Croix Yacht Club, St. Croix Yacht Club, Environmental Assessment Report to Permit the Existing Facility and to Allow for Repair and Maintenance, St. Croix

Container Port, Golden Grove and Midland Road Underground Projects, V.I. Water and Power Authority, Environmental Assessment Report for the Installation of Underground Power Systems to Improve Resiliency, St. Croix.

Flamingo Bay Eco-Resort, BBK Development, Environmental Assessment Report for the Development of the Small Eco-Resort, Water Island.

Pearl Landfill and Recycling Facility, V.I. Waste Management Authority, Environmental Assessment Report for the Development of a Solid Waste Facility in Estate Pearl, St. Croix.

Charlotte Amalie Harbor Dredging, V.I. Port Authority, Environmental Assessment Report and HUD Environmental Assessment for the Dredging of the Charlotte Amalie Harbor Channel, Turning Basin, and WICO Inner Berth, St. Thomas.

Crown Bay and East Gregory Channel Dredging, V.I. Port Authority, Environmental Assessment Report and HUD Environmental Assessment for the Dredging of Portions of Crown Bay and East Gregory Channel, St. Thomas.

Frenchman's Reef and Morningstar, Beach Enhancement and Shoreline Stabilization, CREF3 (Formerly Diamond Rock), Environmental Assessment Report for the Revetement of the Shoreline, the Installation of Offshore Breakwaters and Sand Renourishment, St. Thomas.

Emergency Response Dock and Shoreline Revetment at the Harley Plant, V.I. Water and Power Authority, Environmental Assessment Report for the Construction of an Emergency Fuel Spill Response Dock and the Revetment of the Eroded Shoreline, St. Thomas.

Consolidated Permit for Randolph E. Harley Power Plant, V.I. Water and Power Authority, Environmental Assessment Report to Bring All Components into Compliance including those Pre-dating CZM, St. Thomas.

Underwater Memorial Park, Virgin Islands Underwater Memorial Park, Environmental Assessment Report for the Creation of an Underwater Park to Intern Ashes into Reef Building Structures, St. Thomas.

Mooring and Operation of a Bar and Restaurant in the Pillsbury Sound, Cowgirl Bebop, LLP, Environmental Assessment Report for the Installation of Moorings for Vessels and Patrons in the Pillsbury Sound, St. John.

Cruz Bay Underground, V.I. Water and Power Authority, Environmental Assessment Report for the Installation of an Underground Power Cable System in Cruz Bay Feeder 7E, St. John.

Tropical Marine Expansion, Tropical Marine, Environmental Assessment Report to Combine Docks at Mangrove Marine and Off Plot 28 and the Expansion of the Existing Dock, St. Thomas.

Limetree Resort, Wyndham Bluebeard's Beach Club, Environmental Assessment Report for the Renovation and Expansion of the Existing Limetree Resort, St. Thomas.

Repair to Cruz Bay Visitor Center, Docks, and Surrounding Grounds Impacted by Hurricanes Irma and Maria, Croft Engineering/National Park Service, Environmental Assessment Report for Dredging the Basin and Repairs to the Bulkhead and Renovation and Upgrades to the Existing Visitor Center, St. John.

Latitude 18 Marina, Jack Rock EA-C LLC, Environmental Assessment Report for the Development of a Marina and Management of a Mooring Field and Dry Storage for Vessels, St. Thomas.

Green Cay Marina, St. Croix Financial Center, Environmental Assessment Report for the Expansion of the Existing Marina, Maintenance Dredging, and Beach and Shoreline Improvements, St. Croix.

King Christian Dock, USVI Opportunity Fund LLC, Environmental Assessment Report for the Reconstruction and Expansion of a Hurricane-Damaged Dock, St. Croix.

Renovations and Expansion of an Existing Dock, Inter-Island Ferry Service, Environmental Assessment Report for the Expansion and Extension of an Existing Dock to Better Accommodate Vessel Dockage, St. Thomas.

Repair of a Hurricane Damaged Dock, Margaritaville, Environmental Assessment Report for the Reconstruction of the Damaged Dock (modified to include a reverse osmosis line extension), St. Thomas.

Boat Building Facility and Dock, Gold Coast Yacht, Inc., Environmental Assessment Report for a Boat Building Warehouse and a Launch and Outfitting Dock, St. Croix.

Turquoise Bay Resort, VIPM LLC, Environmental Assessment Report for a Glamping Resort and Restaurant, St. Croix.

Christiansted National Historic Site Existing Wharf Replacement, HDR, Inc. and National Park Service, Environmental Assessment Report for the Replacement of the Failing Sheet Pile Wall and Bulkhead (and Acoustic Monitoring Plans), St. Croix.

Lovango Cay Beach Club and Resort, Lovango Island Holdings LLP, Environmental Assessment Report to Permit the Development of a Beach Club and Resort and Mooring Installation, Lovango Island.

Wave Attenuation System, LSJ LLC, Environmental Assessment Report for the Installation of Wave Attenuation Systems, Little St. James.

Installation of Access Docks, and Barge Landing Facility, Great St. James, Great St. Jim LLC. Environmental Assessment Report for the Development of a New Dock, the Renovation of an Existing Dock, and the Construction of a Barge Landing, Great St. James.

Installation of a Single Point Mooring at the Limetree Bay Terminal on St. Croix, Limetree Bay Terminals LLC, Environmental Assessment Report for the Installation of an Undersea Pipeline, Pipeline End Manifold (PLEM), and Buoy System at a Depth of 650 Feet, St. Croix.

St. Croix Sports Complex, Coastal Systems, Environmental Assessment Report for the Construction of the Paul. E. Joseph Stadium, Wetland Delineations, and Endangered Terrestrial and Marine Species Assessments (and Development of a Sea Turtle Lighting Mitigation Plan), St. Croix.

Installation of a Submarine Cable System, V.I. Water and Power Authority, Environmental Assessment Report for Submarine Cable Routing and Beach Landfall, St. Thomas.

Maintenance Dredging of Krause Lagoon Channel, V.I. Port Authority, Environmental Assessment Report for the Dredging of the Cross-Channel into the Container Port and Molasses Dock, St. Croix.

Installation of New Reverse Osmosis Discharge and Intake Line, Westin Resort, Environmental Assessment Report for the Installation of a Saltwater Intake Line Over 2000 Feet Offshore, St. John.

Shoreline Stabilization Project for Buccaneer Hotel, The Buccaneer, Environmental Assessment Report for the Placement of a Shoreline Stabilization Structure to Protect the Eroding Shoreline, St. Croix.

VIWAPA's Conversion to LPG, VITOL and V.I. Water and Power Authority, Environmental Assessment Report for the Installation of LPG conversion Equipment and Fuel Dock Expansion (and Offshore Deep-Water Buoy Permit for LPG Ships), St. Croix and St. Thomas.

ENVIRONMENTAL ASSESSMENT REPORTS 2014 – 2019

Water quality, monitoring and/or compensatory mitigation plans were developed to supplement many of the environmental assessment reports listed.

viNGN Submarine Cable Network, Alcatel-Lucent for viNGN, Environmental Assessment Report for the Installation of an Inter-Island Cable System (including a Cable Beach Routing and Landfall Study), U.S. Virgin Islands.

Improvements to the Frederiksted Pier, V.I. Port Authority, Environmental Assessment Report for the Installation of a New Tender Landing, St. Croix.

Improvements to the Red Hook Marine Terminal, V.I. Port Authority, Environmental Assessment Report for the Construction of a New Customs Building and Shoreline Improvements, St. Thomas.

Offshore Windmills, Ocean Energy, Inc., Environmental Assessment Report for the Installation of Offshore Turbines, a Submarine Cable, and Cable Landing (including a Bird Study), St. Thomas.

St. John Marina, Summers End Group, Environmental Assessment Report for the Development of a Marina and Associated Upland Facilities, St. John.

Maintenance Dredging of the Schooner Channel, V.I. Port Authority and HUD/V.I. Housing and Finance Authority (VIHFA), Environmental Assessment Report for the Dredging of the Schooner Channel (including an Evaluation of Alternative Alignments), St. Croix.

Remediation of Hydrocarbon Contamination at the V.I. Seaplane Ramp, V.I. Port Authority, Environmental Assessment Report for the Installation of Restorative Sheet Piles to Restore (and

the Containment of Hydrocarbon-contaminated Soil from a Leaking Underground Storage Tank [LUST]), St. Croix.

Maintenance of the Existing Bulkhead and Maintenance Dredging of Charlotte Amalie Harbor, CH2M Hill and WICO, Environmental Assessment Report for the Replacement of the Sheet Pile in the Inner Berth (including the Development of a Coral Transplant Mitigation Plan), St. Thomas.

ENVIRONMENTAL ASSESSMENT REPORTS

2009 – 2013

Water quality, monitoring and/or compensatory mitigation plans were developed to supplement each of the environmental assessment reports listed.

Dredging of Crown Bay Marine Terminal and Turning Basin, V.I. Port Authority, Environmental Assessment Report for the Dredging of the Crown Bay Marine Terminal and Basin, St. Thomas.

Maintenance Dredging of Crown Bay Marina, V.I. Port Authority, Environmental Assessment Report for the Dredging of Crown Bay Marina (including a Seagrass and Coral Mitigation Plan), St. Thomas.

Improvements to Bordeaux Road, V.I. Department of Public Works and Federal Highway Administration in Collaboration with Parsons Brinkerhoff, Environmental Assessment Report for a Finding of No Significant Impact, St. Thomas.

Improvement to Spring Gut Road, V.I. Department of Public Works and Federal Highways Administration in Collaboration with Stanley Engineer, Environmental Assessment Report for Improvements to Spring Gut Road for a Finding of No Significant Impact, St. Croix.

Coral World's Dolphin Exhibit, Coral World (VI), Inc., Environmental Assessment Report for the Construction of an Offshore Dolphin Pen and Viewing Dock (and ESA Corals Monitoring and Mitigation Plan), St. Thomas.

Expansion of the Spratt Bay Homeowners Dock (SBHOA), Spratt Bay Homeowner's Association, Environment Assessment Report for the Expansion of the SBHOA Dock, Water Island.

Expansion of Veterans Drive, V.I. Department of Public Works and Federal Highway Administration in Collaboration with Parsons Brinckerhoff, Environmental Assessment Report for a Finding of No Significant Impact and Drafting the USACE Statement of Findings, St. Thomas.

Chiller Cooling System, BaHaMar and HDR, Inc., Environmental Assessment Report for the Placement of a Saltwater Intake Line at the BaHaMar Resort, Grand Bahama.

Reverse Osmosis Facility, V.I. Water and Power Authority, Environmental Assessment Report for the Installation a New Reverse Osmosis Facility at the St. Thomas Power Plant, St. Thomas.

Submarine Power Cable, V.I. Water and Power Authority, Environmental Assessment Report for the Installation of a Submarine Power Cable between the Islands of St. Thomas and St. John, Pillsbury Sound, St. Thomas and St. John.

Chiller System and Dock Repairs at the Marriott Frenchman's Reef, Diamond Rock, Environmental Assessment Report for the Installation of Saltwater Intake Line and Dock Repairs (and Larval Study for Intake), St. Thomas.

Expansion of Heavy Materials Krum Bay Facility, Heavy Materials St. Thomas, Environmental Assessment Report for the Expansion of Heavy Materials Concrete Facility in Krum Bay, St. Thomas.

Thirty-three-Megawatt Waste-to-Energy Plant, Alpine Energy Group, Inc., Environmental Assessment Report for the Construction of a 33-Megawatt Waste-to-Energy Plant (including Conducting a Survey of Endangered V.I. Tree Boas in the Area), St. Thomas.

Eighteen-Megawatt Waste-to-Energy Plant, Alpine Energy Group, Inc., Environmental Assessment Report for the Construction of an 18-Megawatt Waste-to-Energy Plans (including a Wetland Delineation), St. Croix.

Reverse Osmosis Facility on St. John, V.I. Water and Power Authority, Environmental Assessment Report for the Construction of a Reverse Osmosis Facility, St. John.

Seven Hills Development, Robin Bay Partners, Environmental Assessment Report for the Development of Seven Hills Residential Community (including a Wetland Delineation), St. Croix.

Improvements to the Molasses Dock, V.I. Port Authority, Environmental Assessment Report for Dredging and Improvements to the Molasses Dock Roll-on Roll-off Facility (and Mitigation Plan for the Mangrove Shoreline), St. Croix.

Dredging of the Charlotte Amalie Harbor Channel and the Filling of Lindbergh Bay, The West Indian Company Limited, Environmental Assessment Report for the Dredging and Widening of the Charlotte Amalie Harbor to Accommodate Oasis Class Ships at WICO Docks and the Disposal of Dredged Materials in the Historic Dredging Hole in Lindbergh Bay, St. Thomas.

Fueling Station, V.I. Water and Power Authority, Environmental Assessment Report for the Installation of a Vehicle Fueling Station in the Richmond Plant Terminal Facility License, St. Croix.

ENVIRONMENTAL ASSESSMENT REPORTS
2005 – 2008

Water quality, monitoring and/or compensatory mitigation plans were developed to supplement each of the environmental assessment reports listed.

Port of Mandahl, MSJ Realty, Environmental Assessment Report for the Development of the Marina and Resort in Estate Mandahl, St. Thomas.

North Sound Yacht Club, Victor International, Environmental Assessment Report for the Development of a Marina and Yacht Club in North South, Virgin Gorda, BVI.

Reconstruction of the Frenchman's Cove Dock, Marriott Vacation Club, Environmental Assessment Report for the Reconstruction and Expansion of a Damaged Dock in Charlotte Amalie Harbor, St. Thomas.

Thatch Cay Development, Thatch Cay LLC, Environmental Assessment Report for the Development of a Resort Community and Marine Infrastructure on Thatch Cay, St. Thomas.

Smith Bay Development, Smith Bay Developers, Inc., Environmental Assessment Report for a Condominium Complex, St. Thomas.

Subdivision of Great St. James, Christian Kejer, Environmental Assessment Report for The Development of a Residential Community on Great St. James including Marine Access Infrastructure, Great St. James Island, St. Thomas.

Subdivision of Inner Brass, Green Island Developers, Environmental Assessment Report for the Development of a Residential Community on Inner Brass including Marine Access Infrastructure, Inner Brass Island, St. Thomas.

Subdivision of Inner Brass, Bryan Family, Environmental Assessment Report for the Subdivision of Lots for a Residential Community on Inner Brass and the Development of a Dock for Access. Inner Brass Island, St. Thomas.

Cabrita Point, Cabrita Point Partners and Lionstone LLC, Environmental Assessment Report for the Development of a Resort Community, a Mitigation and Monitoring Plan for the Endangered V.I. Tree Boa and a Monitoring Plan for a Reverse Osmosis Intake Line, Dock and Swimming Platform, St. Thomas.

Subdivision of 77 Acres in Hansen Bay, St. John Flamboyant Realty, Environmental Assessment Report for the Development of Roads and a Subdivision in Hansen Bay, St. John.

Subdivision of 14 Acres in Hansen Bay, St. John Hansen Bay Development Group, Environmental Assessment Report for the Development of Roads, and a Subdivision in Hansen Bay (including a Wetland Delineation), St. John.

Expansions and Improvements to the Ritz-Carlton Hotel, William Karr and Associates, Environmental Assessment Report for the Expansion and Renovation of the Ritz-Carlton Hotel, St. Thomas.

Modification to Carden Beach Condominiums, TK Properties, Inc., Environmental Assessment Report for the Development of Zero Lot Line Homes at the Carden Beach Property, St. Croix.

Development of Betty's Hope, V.I. Port Authority, Environmental Assessment Report and Wetland Delineations for the Development of the South Shore Property for Commercial and/or Residential Use, St. Croix.

Expansion of the Compass Point Marina, Margate Management, Environmental Assessment Report for the Addition of Docks at the Compass Point Marina in Benner Bay, St. Thomas.

Improvements, Expansions and Maintenance of HOVENSA Petroleum Refinery, HOVENSA LLC, Environmental Assessment Reports for the 1) Construction of Maintenance Buildings and Replacement of Existing Stacks, 2) Construction of a Low Sulfur Fuels (LSF) Facility, 3) Construction of Modular Buildings, and 4) Construction of Housing in Estate Blessing (including Permitting of an Existing Borrow Pit), St. Croix.

Installation of a Permanent Barge Landing Facility on Lovango Cay, Joseph Markus Trust, Environmental Assessment Report for the Development of a Permanent Barge Landing Facility (including a Compensatory Mitigation Plan for Endangered Coral Species), Lovango Cay.

Barge Landing, Swim Dock and Beach Enhancement on Little St. James, LSJ LLC, Environmental Assessment Report for the Relocation of the Existing Barge Landing and the Construction of a Swim Dock and Beach Enhancing Devices, Little St. James.

Development of Affordable Housing in Calabash Boom, Reliance Housing, Environmental Assessment Report for the Development of Affordable Housing in Calabash Boom (and Territorial Pollutant Discharge Elimination System [TPDES] Permits), St. John.

Demineralized Water System and Storage Tank Upgrades, V.I. Water and Power Authority, Environmental Assessment Report for the Installation of a New Storage Tank and Demineralizer, St. Croix.

Development of a Pizza Bar and Miniature Golf Course, Divi Carina Bay Resort, Environmental Assessment Report for the Development of Amenities at the Divi Carina Bay Resort and Casino, St. Croix.

Placement of Fuel Pipelines on the Ann E. Abramson Pier, Royal Caribbean Cruise Lines, V.I. Port Authority, Environmental Assessment Report for the Installation of Fuel Lines on the Frederiksted Pier, St. Croix.

Development of a Marina and Related Infrastructure, Coral Bay Marina LLC, Environmental Assessment Report for the Dredging and Development of a Marina in Coral Bay (including an Alternative Analysis to Reduce Impacts for the USACE), St. John

Development of a Marine Mammal Encountered Facility, Coral World (VI), Inc., Environmental Assessment Report for the Development of a Sealion Encounter Facility, St. Thomas.

Improvements to The Randall “Doc” James Racetrack, TRAXCO, Environmental Assessment Report for Improvements to the “Doc” James Racetrack Facility (including Wetland Delineations), St. Croix.

Maintenance Dredging and the Permitting of Permanent Moorings, Westin Resort, Environmental Assessment Report for Maintenance Dredging of the Existing Channel and around the Dock, and Mooring Installations, St. John.

ENVIRONMENTAL ASSESSMENT REPORTS

2000 – 2004

Water quality, monitoring and/or compensatory mitigation plans were developed to supplement each of the environmental assessment reports listed.

Compass Point Marina Expansion, Compass Point Marina in Collaboration with Springline Architects, Environmental Assessment Report for the Expansion of the Existing Compass Point Marina, St. Thomas.

Emergency Electrical Cable St. Thomas-St. John, V.I. Water and Power Authority, Environmental Assessment Report for the Placement of a New Submarine Power Cable between St. Thomas and St. John, St. Thomas.

Richmond Sand Channel Dredging, V.I. Water and Power Authority, Environmental Assessment Report for Maintenance Dredging of the Richmond Sand Channel, St. Croix.

Hassel Island Electrical Cable Replacement, V.I. Water and Power Authority Environmental Assessment Report for the Installation of a New Submarine Cable between St. Thomas and Hassel Island, St. Thomas.

Golden Resorts Golf Resort, Casino & Conference Center, Golden Resort, Environmental Assessment Report for the Development of Golden Resorts Golf Resort, Casino, and Conference Center (including a Wetland Delineation), St. Croix.

Crown Bay Marine Terminal Improvements, V.I. Port Authority in Collaboration with Adams, Inc., Environmental Assessment Report for Improvements to the Crown Bay Marine Terminal, St. Thomas.

Global Crossings Point of Presence, Global Crossings, Environmental Assessment Report for the Placement of a Point of Presence Communications Tower in Frederiksted, St. Croix.

Burial of Fiber Optic Cables, Innovative Telephone, Environmental Assessment Report for the Burial of Fiber Optic Cables on the North Shore, St. Croix.

Burial of Fiber Optic Cables on the West End of St. Croix, Innovative Telephone, Environmental Assessment Report for the Burial of Fiber Optic Cables on the West End, St. Croix.

Callaloo Club Blowing Point, Callaloo Club Peninsula, Environmental Assessment for the Development of a Marina on the Island of Anguilla, British West Indies.

Installation of a Waterline between St. Thomas and St. John, V.I. Water and Power Authority, Environmental Assessment Report for the Installation of a Waterline between St. Thomas and St. John, St. Thomas.

Installation of a Submarine Cable to Little St. James, V.I. Water and Power Authority, Environmental Assessment Report for the Installation of a Utility Line between St. Thomas and Little St. James, Little St. James.

South American Crossing Cable Station, Global Crossing, Environmental Assessment Report for the Construction of the South American Crossing Cable Station at Estate Northside, St. Croix.

Water Island Ferry Dock, V.I. Department of Public Works, Environmental Assessment Report for the Construction of a Ferry Dock on Water Island, Water Island.

CuisinArt Golf Resort & Spa Beach Enhancements, CuisinArt, Environmental Impact Assessment Report for Beach Renourishment, Anguilla, British West Indies.

Cinnamon Reef Resort, Cinnamon Reef, Environmental Impact Assessment Report for the Development of a Marine Facility, Anguilla, British West Indies.

Frederiksted Pier Improvements, V.I. Port Authority, Environmental Assessment Report for Improvements to the Existing Frederiksted Pier, St. Croix.

Construction of a Private Dock on Little St. James, LSJ LLC, Environmental Assessment Report for the Construction of a Private Dock on the Island of Little St. James, Little St. James.

Phase II of the Christiansted Boardwalk, Government of the Virgin Islands Environmental Assessment Report for Phase II of the Christiansted Boardwalk, St. Croix.

Construction of a Headquarters, Beal Aerospace, Environmental Assessment Report for the Construction of Beal Aerospace's World Headquarters in Estate Great Pond, St. Croix.

ENVIRONMENTAL ASSESSMENT REPORTS 1988 – 2000

Hurricane Damaged Dock Reconstruction, Divi Carina Bay Resort, Environmental Assessment Report for the Reconstruction of a Dock after Damage Associated with Hurricane Hugo at the Divi Carina Bay Resort and Casino, St. Croix.

Global Crossing Cable Terminal, Global Crossing, Environmental Assessment Report for the Construction of a Cable Terminal Building and Corridor for Eight Submarine Fiber Optic Cables (including a Landfall Study) in Frederiksted, St. Croix.

Construction of a Coker and Coker Dock at the HOVENSA Petroleum Refinery, HOVENSA LLC, Environmental Assessment Report for the Construction of a Coker and Coker Dock, St. Croix.

Frederiksted Pier Mooring Dolphin, V.I. Port Authority, Environmental Assessment Report for the Construction of a Mooring Dolphin at the Frederiksted Pier, St. Croix.

Seaplane Terminal, V.I. Port Authority, Environmental Assessment Report for the Development of a Seaplane Terminal at the Old Seaplane Ramp, St. Croix.

Forest Bay Marina, Forest Bay Group, Environmental Assessment Report for the Development of a Marina and Related Facilities in Forest Bay, Anguilla, British West Indies.

Dolphin Lagoon, META Resorts, Environmental Assessment Report for the Development of a Dolphin Lagoon at Meads Bay, Anguilla, British West Indies.

Construction of the Christiansted Boardwalk, Government of the Virgin Islands, Environmental Assessment Report for the Construction of a Boardwalk in Christiansted, St. Croix.

Runway Extension of the Henry E. Rohlsen Airport, V.I. Port Authority in Collaboration with LPA Group, Environmental Assessment Report for the Runway Extension at the Henry E. Rohlsen Airport, St. Croix.

Red Hook Marine Terminal Expansion, V.I. Port Authority, Environmental Assessment Report for the Expansion of the Red Hook Marine Terminal (including the Development and Implementation of Mitigation and Monitoring Plans), St. Thomas.

Enighed Pond Marine Terminal, V.I. Port Authority, Environmental Assessment Report for the Creation of the Enighed Pond Marine Facility (including the Development and Implementation of Mitigation and Monitoring Plans), St. John.

Submerged Land Renewal, Coral World (VI), Inc., Environmental Assessment Report for the Renewal of the Submerged Land Lease for the Coral World Facility, St. Thomas.

Construction of a Seawall, Cowpet Bay, Environmental Assessment Report for the Modification of an Existing Permit to Construct a Seawall, St. Thomas.

Riprap Revetment Installation, Watergate East Villas, Environmental Assessment Report for the Construction of a Rip-Rap Revetment, St. Thomas.

Improvements to the Fuel Dock, V.I. Water and Power Authority, Environmental Assessment Report for Improvements to the Fuel Dock at the Power Generating Facility, St. Thomas.

Subdivision of Estate Misgunst, La Domaine, Environmental Assessment Report for the Subdivision of 40 Acres of Land in Estate Misgunst, St. Thomas.

Expansion of the Alexander Hamilton Airport and Highway 64 Relocation, V.I. Port Authority, Environmental Assessment Report for the Expansion of the Alexander Hamilton Airport Terminal and Highway 64 Relocation (including a Wetland Delineation, and Development and Implementation of a Wetland Mitigation Plan), St. Croix.

AT&T Cable Landing Facility, AT&T, Environmental Assessment Report for the Cable Landing Facility at Estate Northside (including a Beach Landfall Study, a Cable Routing Study, and the Development of a Water Quality and Environmental Monitoring and Mitigation Plan), St. Croix.

Dredging of the Sand Channel, DEVCON, Environmental Assessment Report for the Dredging of the Christiansted Sand Channel, St. Croix.

Expansion of the Red Mud Storage Ponds, VIALCO, Environmental Assessment Report for the Expansion of the Red Mud Storage Ponds at the VIALCO Alumina Facility, St. Croix.

Stormwater Drainage System, VIALCO, Environmental Assessment Report for the Creation of a Stormwater Drainage System at the VIALCO Alumina Facility, St. Croix.

Permitting of a Caliche Mine, VIALCO, Environmental Assessment Report for the Mining of Caliche at the VIALCO Alumina Facility, St. Croix.

Molasses Dock Expansion, V.I. Port Authority Subcontracted by Frank Torrez, Environmental Assessment Report for the Molasses Dock Terminal at the Third Port Facility, St. Croix.

ENVIRONMENTAL ASSESSMENT REPORTS (SELECTED)
1988 – 1993

Beach Renourishment, St. Croix by the Sea, Environmental Assessment Report for a Beach Renourishment and Jetty Construction at St. Croix by the Sea, St. Croix.

Vieques Shrimp Farm, Vieques Shrimp Mariculture Project, Environmental Assessment Report for the Creation of a Shrimp Farm in Puerto Ferro, Vieques, Puerto Rico.

Marine Spill Response Corporation (MSRC) Dock, Hess Oil Virgin Islands (HOVIC) Petroleum Refinery, Environmental Assessment Report for the Construction of a Pier in the HOVIC West Turning Basin, St. Croix.

Construction of Eden Beach Hotel and Condominiums, Eden Beach, Environmental Assessment Report for the Proposed Construction of Eden Beach Hotel and Condominiums, St. Croix.

Expansion of the Tamarind Reef Hotel, Tamarind Reef, Environmental Assessment Report for the Proposed Reconstruction and Expansion of the Tamarind Reef Hotel, St. Croix.

Construction of Gas Turbines at the Third Port, V.I. Water and Power Authority, Environmental Assessment Report and USACE Application for the Construction of Two Gas Turbines at the Third Port Site, St. Croix.

Subdivision of Lovango Cay, Joseph Markus Trust, Environmental Assessment Report for the Creation of a Subdivision on Lovango Cay and Placement of a Private Dock, Lovango Cay.

Well Water Collection System, VIALCO, Environmental Assessment Report for the Construction of a Well Water Gathering System for Wells at the VIALCO Alumina Facility, St. Croix.

Crawl Cay, Monroe County, Environmental Assessment Report, Wetlands Delineation and Hammock Studies of Crawl Cay, Florida.

Jack's Bay Subdivision, Jack's Bay Development Company, Environmental Assessment Report for the Subdivision of Approximately 300 Acres into 64 Lots at Estate Jack Bay and Estate Isaac Bay, St. Croix.

Bauxite Building, VIALCO, Environmental Assessment Report for the Expansion of the Bauxite Building at the VIALCO Alumina Facility, St. Croix.

Carambola Beach Club Improvements, Danested, Environmental Assessment Report for the Repair and Improvement of the Carambola Beach Club Facilities, St. Croix.

Salt River National Park, National Park Service, Environmental Impact Statement for the Proposed National Park at Salt River, St. Croix.

Desalination Unit, V.I. Water and Power Authority, Environmental Assessment Report for the Construction of a Desalination Unit on St. John, St. John.

Construction of Estate Turner Hole Condominiums, Carmel by the Sea, Environmental Assessment Report for the Construction of a 95-unit Condominium at Estate Turner Hole, St. Croix.

Very Long Baseline Array (VLBA) Observation Station, NASA, Environmental Assessment Report and Landscaping Plan for the Construction of a VLBA, St. Croix.

Buccaneer Hotel Room Expansion, Buccaneer Hotel, Environmental Assessment Report for a 20-room Addition to the Buccaneer Hotel, St. Croix.

Construction of a Ritz-Carlton Hotel, Environmental Assessment Report and Zoning Application for a 350-room Ritz-Carlton Hotel in Estate Davis Bay, St. Croix.

Frederiksted Pier Expansion, V.I. Port Authority, Environmental Assessment Report for the Construction of a Second Pier in Frederiksted, St. Croix.

Construction of the Kingston Hotel, Kingston Hotel, Environmental Assessment Report for the Construction of a Hotel and Condominium in Kingston, Tortola, BVI.

Construction of an Airport Warehouse, V.I. Port Authority, Environmental Assessment Report for Construction of a Warehouse Facility at the Alexander Hamilton Airport, St. Croix.

Development of the Great Pond Resort, St. Croix, Environmental Assessment Report, for Golden Gaming, Zoning Application, and USACE Permit Application for a Hotel and Condominium Project at Estate Great Pond, St. Croix.

ENVIRONMENTAL ASSESSMENT REPORTS
1986 – 1988

St. Croix

St. Thomas

St. John

Columbus Landing, St. Croix	Blue Beards Beach, St. Thomas	Concordia, St. John
Grapetree Beach, St. Croix		
St. Croix by the Sea, St. Croix		
Ensenada, St. Croix		
Virgin Grand, St. Croix		
Sugar Bay, St. Croix		
Turtle Run, St. Croix		
Palm Shores, St. Croix		
Baobab, St. Croix		
Reflection Bay, St. Croix		
Coakley Bay, St. Croix		
Green Cay, St. Croix		
Turquoise Bay St. Croix		
Eagle Bay, St. Croix		
Granard, St. Croix		
Concordia, St. John		

Wider Caribbean

Southeast Peninsula, St. Kitts
Divi Dive Canal, Nassau, Bahamas

ENVIRONMENTAL CONTAMINATION ASSESSMENTS

1990 – PRESENT

2022 – Present Sampling for Heavy Metals Contamination of the Soil in Estate Donoe, St. Thomas.

2000 – Present Sampling for Chemical Contamination in Cisterns as a Result of a Hydrocarbon Release in the Air, St. Croix.

1994 – Present Periodic Sampling of the Leaking Underground Storage Tanks (LUSTs) at the V.I. Port Authority Seaplane Ramp, St. Croix.

2019 Sampling for Mold at the Renaissance Hotel, St. Thomas.

2016 – 2022 Sampling of Underground Storage Tanks (USTs) for Gasoline Service Stations on St. Thomas and St. Croix.

2012 – 2016 Sampling for Recognized Environmental Conditions in Estate Anna's Hope, St. Croix.

2006 – 2016 Sampling for Petroleum Product Contamination at Gasoline Stations and Industrial Sites, St. Croix.

1990 – 2002 Sampling of Residential and Commercial Properties on St. Croix, St. Thomas, St. John and Puerto Rico for Recognized Environmental Conditions.

Jeffrey T. Boschulte, AIA, NCARB, LEED AP BD+C

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ST. THOMAS, VI 00803

REGISTERED ARCHITECT

PROFESSIONAL PROFILE

Inspiring design team leader with thirty years of participation the field of architecture, including twenty years as a registered architect. Extensive architectural design and project management experience in all phases including pre-design through construction documents production and contract administration.

AREAS OF EXPERTISE

- Architectural Design
- Site Planning
- Code Compliance
- Historic Preservation
- Space Programming
- Construction Documents

EDUCATION

- GEORGIA INSTITUTE OF TECHNOLOGY (*GEORGIA TECH*) • Atlanta, GA • 1999 - **Master of Architecture**
- UNIVERSITY OF VIRGINIA (*UVA*) • Charlottesville, VA • 1996 - **Bachelor of Science in Architecture**

LICENSES AND CREDENTIALS

- NCARB certified architect
- LEED AP BD+C accredited professional
- Registered Architect in the U.S. Virgin Islands, Pennsylvania, and Maryland

PROFESSIONAL MEMBERSHIPS / BOARDS

- American Institute of Architects, V.I. Chapter (Board Member; Treasurer 2019-present)
- AIA V.I. Chapter State Disaster Coordinator Network Virgin Islands Representative
- National Trust for Historic Preservation, Member
- Virgin Islands Board of Land Use Appeals, Board Member 2021-present
- Virgin Islands Board of Architects, Engineers, & Land Surveyors, Board Member 2021-present

PROFESSIONAL EXPERIENCE

- BOSCHULTE ARCHITECTURE, LLC • August 2002 to present - **CEO / Principal Architect**
(Formerly Boschulte Design Studio)

RELATED EXPERIENCE

- WAREHAUS (formerly LSC Design, Inc.) • January 2013 to May 2014 - **Architectural Project Manager**
- JAREDIAN DESIGN GROUP • May 2000 to July 2002 - **Staff Architect**
- JAREDIAN DESIGN GROUP • June 1999 to April 2000 - **Intern Architect**
- GEORGIA TECH • 1998 - **Study Abroad Program - Italy**
- JAREDIAN DESIGN GROUP • May 1996 to August 1997 - **Intern Architect**
- JAREDIAN DESIGN GROUP • 1995 - **Student Summer Intern**
- ALTON A. ADAMS JR., INC • 1991 thru 1994 - **Student Summer Intern**
- P.F. LOPEZ ASSOCIATES • 1989 thru 1990 - **Student Summer Intern**

APPENDIX B

HAMPTON INN AND SUITES, ST. THOMAS, US-VI

HAVEN DEVELOPMENT LLC

CZM CIVIL SET

MUNICIPALITY		C-100		SHEET NUMBER	
HAVEN DEV USVI		PREPARED FOR		CLIENT	
COVER SHEET		KHA PROJECT		143113002	
DATE		9/06/2022		SCALE AS SHOWN	
DESIGNED BY		DRAWN BY		CHECKED BY	
LISCENSED PROFESSIONAL					
Kimley»Horn		© 2022 KIMLEY-HORN AND ASSOCIATES, INC.		355 ALHAMBRA CIRCLE, SUITE 1400, CORAL GABLES, FL 33134	
WWW.KIMLEY-HORN.COM		PHONE: 305-673-2025		REGISTRY NO. 696	
NO.		REVISIONS		DATE	

HAVEN DEV USV1
PREPARED FOR
CLIENT

DEMOLITION NOTES

KHA PROJECT 143113002	DATE 8/17/22	SCALE AS SHOWN	DESIGNED BY ---	DRAWN BY ---	CHECKED BY ---
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LICENSED PROFESSIONAL

Kimley»Horn
© 2022 KIMLEY-HORN AND ASSOCIATES, INC.
355 ALHAMBRA CIRCLE, SUITE 1400, CORAL GABLES, FL 33134
PHONE: 305-673-2025
WWW.KIMLEY-HORN.COM
REGISTRY NO. 696

[illegible]

CIVIL RELATED DEMOLITION NOTES AND SPECIFICATIONS:

SHOULD ANY SECTION OF THESE DEMOLITION NOTES BE IN DIRECT CONFLICT WITH THE PROVISIONS OR TECHNICAL SPECIFICATIONS CONTAINED IN THE CONTRACT DOCUMENT FOR THIS PROJECT, THE INTENT OF THE CONTRACT DOCUMENT SHALL GOVERN.

I. GENERAL

- EXISTING CONDITIONS, UTILITIES, STRUCTURES AND OTHER IMPROVEMENTS, AS SHOWN ON THE DEMOLITION DRAWINGS, WERE TAKEN FROM THE SURVEY, AND FROM INFORMATION PROVIDED BY UTILITY COMPANIES. AN ATTEMPT HAS BEEN MADE TO SHOW ALL EXISTING STRUCTURES, UTILITIES, ETC., AND MAY BE FOUND UPON VISITING THE SITE OR LOCATE ALL THE EXISTING AND MAY BE FOUND UPON VISITING THE SITE OR LOCATE ALL THE RESPONSIBILITY OF THE CONTRACTOR TO ACCURATELY LOCATE ALL FACILITIES AND TO DETERMINE THEIR EXTENT, IF SUCH FACILITIES OBSTRUCT THE PROGRESS OF THE WORK AND ARE NOT INDICATED TO BE REMOVED OR RELOCATED, THEY SHALL BE REMOVED OR RELOCATED ONLY AS DIRECTED BY THE OWNER, ARCHITECT, OR ENGINEER OF RECORD, AT NO ADDITIONAL COST TO THE OWNER.
- SOME ITEMS TO BE REMOVED MAY NOT BE DEPicted ON THE BOUNDARY AND TOPOGRAPHIC SURVEY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND DETERMINE THE FULL EXTENT OF ITEMS TO BE REMOVED. IF ANY ITEMS ARE IN QUESTION, THE CONTRACTOR SHALL CONTACT THE OWNER PRIOR TO REMOVAL OF SAID ITEMS.

3. ORGANIZE AND PERFORM DEMOLITION WORK TO AVOID DAMAGE TO EXISTING ITEMS INTENDED TO REMAIN, INCLUDING TREES.
4. DEMOLITION AND REMOVAL OPERATIONS SHALL BE CONDUCTED IN AN EXPEDIENT MANNER, WITH PRECAUTIONS TAKEN TO PREVENT THE DEMOLITION SITE FROM BEING A NUISANCE.
5. PERFORM REMOVAL (REFER TO SECTION IV) AND TAKE NECESSARY PRECAUTIONS SCHEDULE (REFER TO SECTION IV) AND TAKE NECESSARY PRECAUTIONS TO PROTECT EXISTING ADJACENT BUILDINGS, FURNISHINGS, AND EQUIPMENT. NOTIFY THE ENGINEER OF ANY CONDITIONS THAT MAY AFFECT THE SAFETY OF OCCUPANTS OF ADJACENT BUILDINGS, THE NORMAL USE OF THESE FACILITIES, OR THE PHYSICAL CONDITION OF THE STRUCTURES.

6. ALL EXISTING UTILITIES OUTSIDE THE PROPERTY BOUNDARIES ARE TO REMAIN, UNLESS OTHERWISE NOTED.
7. PRIOR TO DEMOLITION ACTIVITIES, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL AFFECTED UTILITY COMPANIES IN ORDER TO COORDINATE THE DEACTIVATION OF ALL EXISTING UTILITY LINES WITHIN THE PROPERTY. ONCE ALL ONSITE UTILITIES HAVE BEEN DEACTIVATED, ALL LINES SHALL BE CUT AND CAPPED INSIDE THE PROPERTY LINE, AND REMOVED (UNLESS OTHERWISE INDICATED).

- g. THE CONTRACTOR SHALL USE EXTREME CAUTION IN REMOVING ANY STRUCTURES AND UTILITIES ABOVE AND BELOW GRADE TO PREVENT DAMAGE TO EXISTING UTILITIES AND TO REMAIN IN SERVICE. ANY DAMAGE TO EXISTING UTILITIES, UTILITIES TO BE REMOVED, OR THE CONTRACTOR'S EXISTING EQUIPMENT, SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL CORRECT ANY DAMAGE TO EXISTING UTILITIES IN A MANNER ACCEPTABLE TO THE PARTY IN OWNERSHIP OF THE DAMAGED PROPERTY. THE CONTRACTOR SHALL REPORT ANY EXISTING DAMAGE PRIOR TO BEGINNING WORK. IN THE EVENT OF ACCIDENTAL DISRUPTION OF UTILITIES OR THE DISCOVERY OF PREVIOUSLY UNKNOWN UTILITIES, STOP WORK IMMEDIATELY AND NOTIFY THE PARTY IN OWNERSHIP OF THE UTILITIES. THE CONTRACTOR SHALL, UNTIL THE UTILITY COMPANY ENGINEER AND CONTRACTOR AGREE ON A PLAN TO CORRECT THE SITUATION OR IDENTIFY THE UTILITY SERVICE LINE,

9. EXISTING WORK NOT SPECIFIED FOR REMOVAL WHICH IS TEMPORARILY REMOVED, DAMAGED, EXPOSED, OR IN ANY WAY DISTURBED OR ALTERED BY THE CONTRACTOR'S ACTIVITIES SHALL BE REPAIRED, PATCHED OR REPLACED, SOLELY AT THE CONTRACTOR'S EXPENSE, TO THE ENGINEER'S AND OWNER'S SATISFACTION.
10. TITLE AND RESPONSIBILITY TO MATERIALS AND EQUIPMENT TO BE REMOVED, EXCEPT FOR SALVAGEABLE EQUIPMENT TO BE RETAINED BY THE OWNER, IS VESTED TO THE CONTRACTOR UPON RECEIPT OF NOTICE TO PROCEED. THE OWNER WILL NOT BE RESPONSIBLE FOR THE CONDITION, LOSS OR DAMAGE TO SUCH MATERIALS AND EQUIPMENT AFTER THE ISSUANCE OF THE NOTICE TO PROCEED.

11. IT IS THE CONTRACTOR'S RESPONSIBILITY TO:

- A. PROTECT ALL EXISTING STRUCTURAL AND VEGETATIVE ELEMENTS TO REMAIN DURING DEMOLITION UNLESS OTHERWISE SPECIFIED. CONTRACTOR TO OBTAIN APPROVAL FROM THE CITY OF DEERFIELD BEACH PLANNING DEVELOPMENT SERVICES AND ENVIRONMENTAL SERVICES/ENGINEERING FOR ANY EXCAVATION WITHIN FIFTEEN (15) FEET OF A CITY-OWNED TREE.
- B. IF APPLICABLE, PATCH AND REPAIR ALL SURFACES WITHIN THE PUBLIC R/W AFFECTED BY DEMOLITION.
- C. SAW-CUT IN NEAT, STRAIGHT LINES, EXISTING CONCRETE OR ASPHALT PAVED.
- D. ALL EXISTING CHAIN LINK FENCES AND CBS WALLS ALONG THE PERIMETER OF THE PROPERTY SHALL REMAIN, UNLESS OTHERWISE SPECIFIED.
- E. NO ELECTRIC POLES, STREET LIGHTS, WATER METERS/VALVES, FIRE HYDRANTS ETC. WILL BE REMOVED WITHIN THE ROADWAY RIGHT-OF-WAY, UNLESS OTHERWISE NOTED ON THE PLANS.
- F. MAINTAIN ALL EXISTING SURVEY, REFERENCES AND MARKERS IN PLACE. ADDITIONAL THOSE SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

II. DESCRIPTION

1. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, SERVICES, ETC., NECESSARY AND INCIDENTAL TO THE COMPLETION OF ALL SITE DEMOLITION AND CLEARING WORK AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN, INCLUDING THE LEGAL TRANSPORT AND OFF-SITE DISPOSAL OF DEMOLITION DEBRIS.
2. ALL SITE WORK INCLUDES , BUT IS NOT LIMITED TO THE FOLLOWING:
 - A. FULL-DEPTH REMOVAL OF EXISTING SIDEWALKS, DRIVES, CURBS, AND PAVEMENT.
 - B. FULL DEPTH REMOVAL OF EXISTING BUILDING FOUNDATIONS, UNDERGROUND UTILITIES AND RELATED STRUCTURES.
 - C. CLEARING SITE OF DEMOLITION DEBRIS.
 - D. REMOVAL FROM SITE AND DISPOSAL OF ALL EXCESS AND UNUSABLE MATERIAL.
 - E. COORDINATION WITH ALL UTILITY COMPANIES/OWNERS PRIOR TO DEACTIVATION OF EXISTING UTILITIES.
 - F. COORDINATION WITH GOVERNING AGENCIES FOR PROPOSED DEMOLITION AND CONSTRUCTION WORK.

III. APPLICABLE CODES

1. DEMOLITION AND TRANSPORTATION OF DEBRIS SHALL COMPLY WITH APPLICABLE LOCAL, STATE AND FEDERAL CODES AND REGULATIONS GOVERNING THESE OPERATIONS. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ANY PERMITS, BONDS, LICENSES, ETC., REQUIRED FOR DEMOLITION AND CLEARING WORK.
2. ANY WORK WITHIN PUBLIC RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE GOVERNMENTAL AGENCIES WHO MAY HAVE JURISDICTION OF THE PUBLIC RIGHT-OF-WAY. SAID WORK SHALL NOT BE UNTIL THE GOVERNING CONTRACTOR HAS OBTAINED ALL PERMITS AND NOTIFIED ALL THE GOVERNING AUTHORITIES.

IV. SEQUENCING AND SCHEDULING

1. AREAS ADJACENT TO DEMOLITION AND REMOVAL WORK MAY BE OCCUPIED AND THEIR ACTIVITIES CANNOT BE INTERRUPTED OR DISTURBED DURING NORMAL WORKING HOURS. DEMOLITION SCHEDULE SHALL BE COORDINATED WITH ALL ADJACENT PROPERTY OWNERS AND ANY OTHER PARTIES WHOSE DAILY ACTIVITIES WOULD BE AFFECTED BY THE DEMOLITION WORK.
2. COORDINATE WITH APPLICABLE UTILITY COMPANIES FOR UTILITY LINE REMOVAL, CAPPING AND UTILITY SHUTDOWNS NECESSITATED BY REMOVAL WORK.

V. ENVIRONMENTAL PROTECTION

1. CONTROL AMOUNT OF DUST RESULTING FROM CONSTRUCTION OR DEMOLITION TO PREVENT SPREAD OF DUST TO OTHER BUILDINGS AND TO AVOID CREATION OF A NUISANCE IN SURROUNDING AREAS. USE OF WATER TO CONTROL DUST WILL NOT BE PERMITTED WHEN IT WILL RESULT IN, OR CREATE, HAZARDOUS OR OBJECTIONABLE CONDITIONS SUCH AS FLOODING.

2. NOISE PRODUCING ACTIVITIES SHALL BE HELD TO A MINIMUM. INTERNAL COMBUSTION ENGINES AND COMPRESSORS, ETC., SHALL BE EQUIPPED WITH MUFFLERS TO REDUCE NOISE TO A MINIMUM. CONTRACTOR SHALL COMPLY WITH ALL NOISE ABATEMENT ORDINANCES.

3. THE USE OF EXPLOSIVES WILL NOT BE PERMITTED.

4. DISPOSITION OF DEMOLISHED MATERIALS BY BURNING IS NOT PERMITTED.

5. ALL CLEARING SHALL BE PERFORMED IN A MANNER SUCH AS TO PREVENT ANY WASH-OFF OF SOILS AND DEBRIS FROM THE SITE INTO PUBLIC RIGHT-OF-WAY. WATER BODIES, AND/OR STORM DRAINAGE SYSTEMS. APPROPRIATE SEDIMENTATION PONDS, DIKES, COLLARS, AND FILTER MEDIA SHALL BE EMPLOYED TO INSURE COMPLIANCE WITH THESE REQUIREMENTS. WHERE A SPECIFIC STATUTE GOVERNS THESE PROCEDURES, SUCH STATUTE SHALL BE COMPLIED WITH IN ITS ENTIRETY.

6. AT ALL TIMES DURING THE CLEARING OPERATION, THE EXPOSED AREAS OF SUBGRADE SHALL BE MAINTAINED IN A CONDITION COMPATIBLE WITH POSITIVE DRAINAGE OF THE WORK AREA. NO WATER WILL BE PERMITTED TO STAND IN OPEN EXCAVATIONS. ALL STORMWATER RUNOFF SHALL BE CONTAINED WITHIN THE SITE. FAILURE TO MAINTAIN SUCH DRAINAGE SHALL BE CONSIDERED ADEQUATE CAUSE TO ORDER TEMPORARY SUSPENSION OF THE WORK.

7. IF IT SHOULD BECOME NECESSARY TO STOP WORK FOR INDEFINITE PERIODS, THE CONTRACTOR SHALL TAKE EVERY PRECAUTION TO PREVENT DAMAGE OR DETERIORATION OF THE WORK ALREADY PERFORMED, PROVIDE SUITABLE AND FUNCTIONAL DRAINAGE BY OPENING DITCHES, FILTER DRAINS, TEMPORARY OUT-OFF LINES, ETC., AND ERECT TEMPORARY PROTECTIVE STRUCTURES WHERE NECESSARY. ALL EMBANKMENTS SHALL BE BACK-BLADED AND SUITABLY SEALED TO PROTECT AGAINST ADVERSE WEATHER CONDITIONS.

8. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS WHEN REMOVING ABANDONED AND DE-ENERGIZED MATERIALS. IF ASBESTOS PIPES ARE ENCOUNTERED, THE CONTRACTOR WILL TAKE ALL NECESSARY ABATEMENT STEPS AS REQUIRED BY GOVERNING REGULATIONS TO SAFELY REMOVE AND DISPOSE OF SAID FACILITIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY UPON DISCOVERY OF SAID MATERIALS.

9. THE CONTRACTOR SHALL SECURE THE WORK AREA WITH FENCING OR OTHER MEANS AS APPROVED BY THE OWNER.

VI. TRAFFIC MAINTENANCE

1. THE CONTRACTOR SHALL FOLLOW MAINTENANCE OF TRAFFIC PROCEDURES DURING DEMOLITION IN PUBLIC RIGHTS-OF-WAY AND PRIVATE DRIVEWAYS, PEDESTRIAN PATHS, AND ROADWAYS, AND PREPARE AND OBTAIN APPROVAL OF SUCH MAINTENANCE OF TRAFFIC PLAN FROM THE APPROPRIATE REGULATORY AGENCY.
2. THE CONTRACTOR SHALL PROVIDE ADEQUATE BRACING, SHORING, TEMPORARY CROSSOVER FOR PEDESTRIAN AND VEHICULAR TRAFFIC INCLUDING GUARDRAILS, LAMPS, WARNING SIGNS AND FLAGS AS REQUIRED BY AGENCIES HAving JURISDICTION, AND SHALL NOT REMOVE THESE UNTIL THE NEED FOR PROTECTION CEASES.

3. THE CONTRACTOR MAY NOT CLOSE ANY SIDEWALKS WITHOUT PROVIDING ALTERNATE ROUTES AND OBTAINING APPROVAL FROM THE GOVERNING JURISDICTIONAL AGENCY.

4. THE CONTRACTOR SHALL CONDUCT REMOVAL OPERATIONS SO THAT TRAFFIC IS MAINTAINED ALONG EXISTING STREETS AND WALKS. ALL PUBLIC PAVED STREETS AND WALKWAYS MUST BE KEPT FREE OF DEBRIS. THE CONTRACTOR MUST REMOVE MATERIAL AND OTHER MATTER TRACKED OR FALLEN ONTO TRAFFIC SURFACES.

VI. CLEAN UP

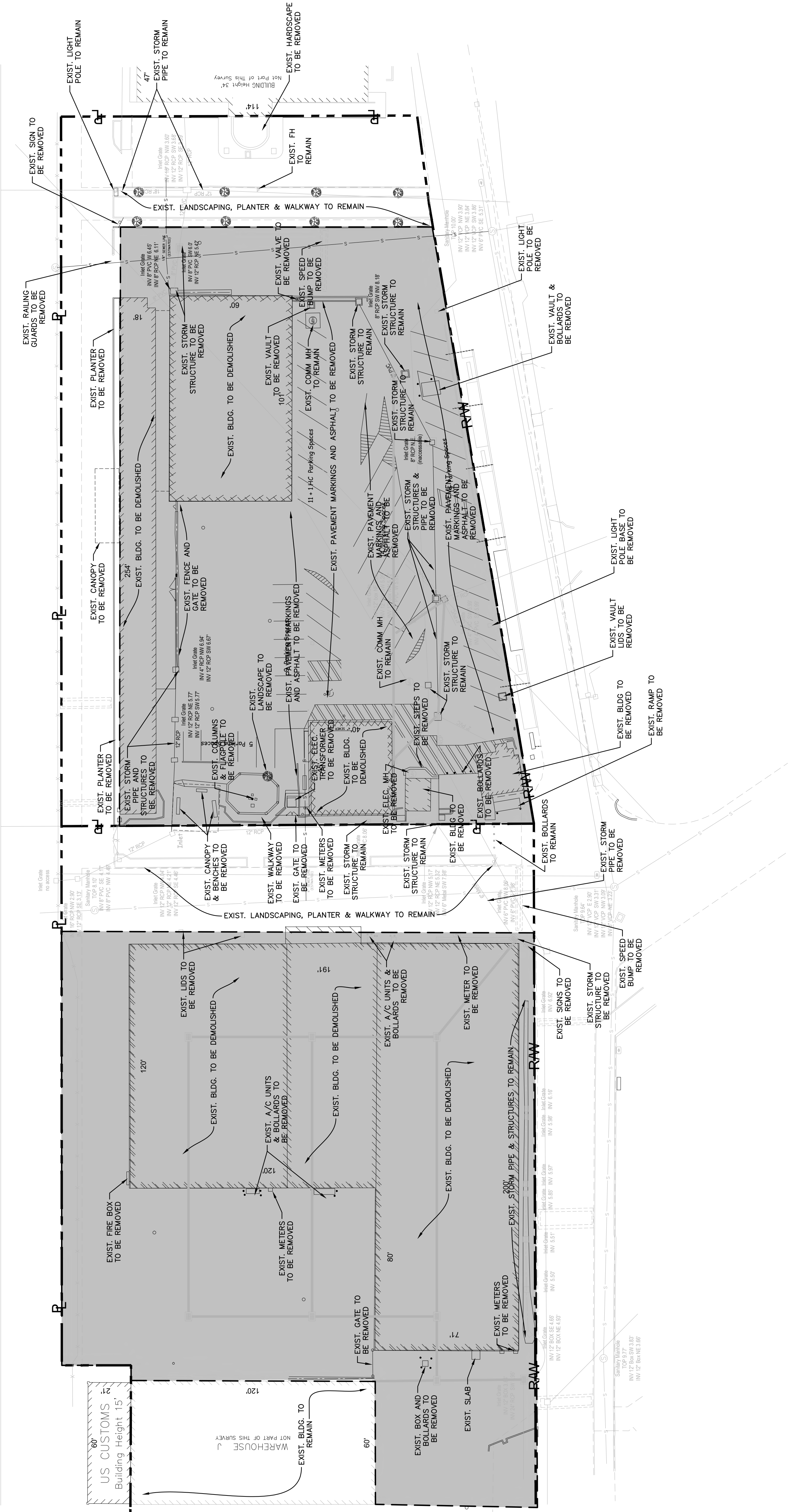
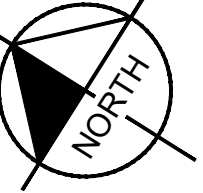
1. REMOVE DEMOLISHED CONSTRUCTION MATERIALS AND RELATED DEBRIS FROM THE SITE ON A REGULAR BASIS. ACCUMULATION OF DEBRIS ON THE SITE WILL NOT BE PERMITTED. SELLING OF SALVAGEABLE MATERIALS IS NOT PERMITTED AT THE SITE.
2. REMOVE MATERIALS, INCLUDING DEBRIS AND DUST, AND DISPOSE OF LEGALLY OFF SITE. NO DEBRIS SHALL BE BURNED OR POSED ON THE SITE AS A MEANS OF DISPOSAL. USE METHODS APPROVED BY THE REGULATORY AGENCIES PRIOR TO BEGINNING CLEANUP OPERATIONS. USE OF BLOWERS TO DISPERSE DUST WILL NOT BE PERMITTED.
3. MATERIAL DESIGNATED FOR REMOVAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR, AND ANY SALVAGE VALUE THERE FROM WILL ACCRUE TO THE CONTRACTOR.

No.	REVISIONS	DATE	BY

LEGEND:

PROPERTY LINE / RIGHT-OF-WAY LINE

LIMITS OF DEMOLITION



BEST MANAGEMENT PRACTICES (BMPs):

THE PLAN ADDRESSES THE FOLLOWING:

1. PREVENT LOSS OF SOIL DURING CONSTRUCTION BY STORMWATER RUNOFF AND/OR WIND EROSION, INCLUDING PROTECTING TOPSOIL BY STOCKPILING FOR REUSE.
2. SEDIMENTATION PROTECTION OF STORM SEWER OR RECEIVING STREAM.
3. PREVENT POLLUTING THE AIR WITH DUST AND PARTICULATE MATTER. THE VARIOUS TECHNIQUES OR ACTIONS IDENTIFIED UNDER EACH SECTION INDICATE THE APPROPRIATE SITUATION WHEN THE TECHNIQUES SHOULD BE EMPLOYED. ALSO IDENTIFIED IS A CROSS-REFERENCE TO A DIAGRAM OR FIGURE REPRESENTING THE TECHNIQUE. IT SHOULD BE NOTED THAT THE MEASURES IDENTIFIED ON THIS PLAN ARE ONLY SUGGESTED BMP(S). THE CONTRACTOR SHALL PROVIDE POLLUTION PREVENTION AND EROSION CONTROL MEASURES AS SPECIFIED IN ACCORDANCE WITH THE DEPARTMENT OF PLANNING AND NATURAL RESOURCES.

GENERAL EROSION CONTROL NOTES:

1. THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS COMPRISED OF THESE EROSION CONTROL DRAWINGS, THE STANDARD DETAILS, THE NPDES PERMIT (TO BE OBTAINED BY CONTRACTOR) AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.
2. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THIS DRAWING AND THE STATE OF FLORIDA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.
3. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES (BMP) IN ALL CONSTRUCTION ACTIVITIES INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
 - A. FUEL SPILLS AND LEAKS PREVENTION
 - B. PREVENT/REDUCE VEHICLE AND EQUIPMENT WASHING AND STEAM CLEANING
 - C. VEHICLE AND EQUIPMENT MAINTENANCE AND REPAIR
 - D. PROPER OUTDOOR LOADING/UNLOADING OF MATERIALS
 - E. PREVENT/REDUCE OUTDOOR STORAGE OF RAW MATERIALS, PRODUCTS, AND BY-PRODUCTS
 - F. SOLID WASTE MANAGEMENT
 - G. HAZARDOUS WASTE MANAGEMENT
 - H. OIL AND GREASE MANAGEMENT
 - I. SANDBLASTING WASTE MANAGEMENT
 - J. STRUCTURE CONSTRUCTION AND PAINTING
 - K. SPILL PREVENTION AND CONTROL
 - L. CONTAMINATED SOIL MANAGEMENT
 - M. SANITARY/SEPTIC WASTE MANAGEMENT
 - N. SOIL EROSION CONTROL
 - O. STORM WATER TURBIDITY MANAGEMENT
4. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO THE OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.

- A. BEST MANAGEMENT PRACTICES (BMPs) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS, OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
- B. SITE MAP MUST CLEARLY DELINEATE ALL STATE WATERPASSES. CONTRACTOR MUST MAINTAIN ALL PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS ON SITE AT ALL TIMES.
- C. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
- D. CONTRACTOR SHALL BEGIN CLEARING AND GRUBBING THOSE PORTIONS OF THE SITE NECESSARY TO IMPLEMENT PERMITTER CONTROL MEASURES. CLEARING AND GRUBBING OF THE REMAINING PORTIONS OF THE PROPOSED SITE SHALL COMMENCE ONCE PERMITTER CONTROLS ARE IN PLACE. PERMITTER CONTROLS SHALL BE ACTIVELY MAINTAINED UNTIL SAID AREAS HAVE BEEN STABILIZED AND SHALL BE REMOVED ONCE FINAL STABILIZATION IS COMPLETE.
- E. GENERAL EROSION CONTROL BMPs SHALL BE EMPLOYED TO MINIMIZE SOIL EROSION AND POTENTIAL LAKE SLOPE CAVE-INS. WHILE THE VARIOUS TECHNIQUES REQUIRED WILL BE SITE AND PLAN SPECIFIC, THEY SHOULD BE EMPLOYED AS SOON AS POSSIBLE DURING CONSTRUCTION.
- F. ON-SITE & OFF-SITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
- G. SURFACE WATER QUALITY SHALL BE MAINTAINED BY EMPLOYING THE FOLLOWING BMPs IN THE CONSTRUCTION PLANNING AND CONSTRUCTION OF ALL IMPROVEMENTS.

STORMWATER EROSION CONTROL NOTES:

1. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT FROM DETENTION PONDS AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
2. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
3. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (COMPOST SOCK DEVICES, ETC.) TO PREVENT EROSION.
4. WHERE PRACTICAL, STORMWATER SHALL BE CONVEYED BY SWALES.
5. EROSION CONTROL MEASURES SHALL BE EMPLOYED TO MINIMIZE TURBIDITY OF SURFACE WATERS LOCATED DOWNSTREAM OF ANY CONSTRUCTION ACTIVITY, WHILE THE VARIOUS MEASURES REQUIRED WILL BE SITE SPECIFIC, THEY SHALL BE EMPLOYED AS NEEDED IN ACCORDANCE WITH THE FOLLOWING:
 - A. IN GENERAL, EROSION SHALL BE CONTROLLED AT THE FURTHEST PRACTICAL UPSTREAM LOCATION.
 - B. STORMWATER INLETS SHALL BE PROTECTED DURING CONSTRUCTION. PROTECTION MEASURES SHALL BE EMPLOYED AS SOON AS PRACTICAL DURING THE VARIOUS STAGES OF INLET CONSTRUCTION. SILT BARRIERS SHALL REMAIN IN PLACE UNTIL SODDING AROUND INLETS IS COMPLETE.
 - C. WHEN NEEDED A TEMPORARY SEDIMENT TRAP SHOULD BE CONSTRUCTION TO DETAIN SEDIMENT--LAIDEN RUNOFF FROM DISTURBED AREAS.
6. SILT BARRIERS, ANY SILT WHICH ACCUMULATES BEHIND THE BARRIERS, AND ANY FILL USED TO ANCHOR THE BARRIERS SHALL BE REMOVED PROMPTLY AFTER THE END OF THE MAINTENANCE PERIOD SPECIFIED FOR THE BARRIERS.
7. SOD SHALL BE PLACED FOR A 2-FOOT WIDE STRIP ADJOINING ALL CURBING AND AROUND ALL INLETS. SOD SHALL BE PLACED BEFORE SILT BARRIERS ARE REMOVED.
8. WHERE REQUIRED, TO PREVENT EROSION FROM SHEET FLOW ACROSS BARE GROUND FROM ENTERING A LAKE OR SWALE, A TEMPORARY SEDIMENT SUMP SHALL BE CONSTRUCTED.
9. FILTER FABRIC SHOULD BE USED FOR STORM DRAIN INLET PROTECTION BEFORE FINAL STABILIZATION.

STABILIZATION NOTES:

SHALL BE IN ACCORDANCE WITH DPNR'S TPDES GENERAL PERMIT FOR STORMWATER

STRUCTURAL NOTES:

SHALL BE IN ACCORDANCE WITH DPNR'S TPDES GENERAL PERMIT FOR STORMWATER

WASTE DISPOSAL NOTES:

1. WASTE MATERIALS – ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN A METAL DUMPSTER WITH A SECURE LID IN ACCORDANCE WITH ALL LOCAL AND STATE LAWS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN THE DUMPSTER. THE SUPERINTENDENT SHALL COORDINATE WITH THE LOCAL UTILITIES TO HAVE THE DUMPSTER EMPTIED AT LEAST TWICE A WEEK AND THE WASTE TAKEN TO AN APPROPRIATE LANDFILL. NO CONSTRUCTION WASTE MATERIALS SHALL BE BURIED ON SITE. THE SUPERINTENDENT SHALL ORGANIZE TRAINING FOR THE EMPLOYEES IN THE PROPER PRACTICES WHEN DEALING WITH WASTE MATERIALS. THE SUPERINTENDENT SHALL BE RESPONSIBLE FOR POSTING AND ENFORCING WASTE MATERIAL PROCEDURES.
2. HAZARDOUS WASTE – HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL AND STATE LAWS OR AS DIRECTED BY THE MANUFACTURER. THE SUPERINTENDENT SHALL ORGANIZE THE PROPER TRAINING FOR EMPLOYEES IN THE PROPER PRACTICES WHEN DEALING WITH HAZARDOUS WASTE MATERIALS. THE SUPERINTENDENT SHALL POST THE WASTE OF THE PERSON WHO MANAGES THE SITE SHALL BE RESPONSIBLE FOR ENFORCING THE PROCEDURES.
3. SANITARY WASTE – SANITARY WASTE SHALL BE COLLECTED AND DISPOSED OF IN ACCORDANCE WITH ALL LOCAL AND STATE LAWS. THE SUPERINTENDENT SHALL COORDINATE WITH THE LOCAL UTILITY FOR COLLECTION OF THE SANITARY WASTE AT LEAST THREE TIMES A WEEK TO PREVENT SPILLAGE ONTO THE SITE.
4. RUBBISH, TRASH, CARBACE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.

MAINTENANCE NOTES:

ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON AT LEAST EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A 0.5" RAINFALL EVENT, AND CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.
2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
3. THE COMPOST SOCK FILTRATION DEVICE SHALL BE INSPECTED PERIODICALLY FOR HEIGHT OF SEDIMENT AND CONDITION OF DEVICE. COMPOST SOCK SHALL BE REPAIRED TO ITS ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE COMPOST SOCK WHEN IT REACHES ONE-THIRD THE HEIGHT OF THE COMPOST SOCK.
4. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS WAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.
5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS WAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.
6. OUTLET STRUCTURES IN THE SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. THE SEDIMENT BASINS/DITCHES SHALL BE CHECKED MONTHLY FOR DEPTH OF SEDIMENT. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 10% AND AFTER CONSTRUCTION IS COMPLETE.
7. ALL MAINTENANCE OPERATIONS SHALL BE DONE IN A TIMELY MANNER BUT IN NO CASE LATER THAN SEVEN CALENDAR DAYS FOLLOWING THE INSPECTION. DIVERSION DIKES SHALL BE INSPECTED MONTHLY. ANY BREACHES SHALL BE PROMPTLY REPAIRED.
8. A MAINTENANCE REPORT SHALL BE COMPLETED DAILY AFTER EACH INSPECTION OF THE SEDIMENT AND EROSION CONTROL METHODS. THE REPORTS SHALL BE FILED IN AN APPROPRIATE MANNER AND RETAINED FOR TWO YEARS. AFTER THE COMPLETION OF CONSTRUCTION, THE MAINTENANCE REPORTS SHALL BE KEPT FOR AT LEAST ONE YEAR. THE REPORTS SHALL BE AVAILABLE FOR ANY AGENCY THAT HAS JURISDICTION OVER EROSION CONTROL.
9. ALL REPAIRS MUST BE MADE WITHIN 24 HOURS OF REPORT.
10. THE SUPERINTENDENT SHALL ORGANIZE THE TRAINING FOR INSPECTION PROCEDURES AND PROPER EROSION CONTROL METHODS FOR EMPLOYEES THAT COMPLETE INSPECTIONS AND REPORTS.
11. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.

OFFSITE TRACKING:

1. STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROVIDED TO REDUCE SEDIMENT TRACKING OFFSITE. THE MAJOR ROAD CONNECTED TO THE PROJECT SHALL BE CLEANED ONCE A DAY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK RESULTING FROM CONSTRUCTION TRAFFIC. ALL TRUCKS HAULING MATERIALS OFF SITE SHALL BE COVERED WITH A TARP/AULIN.
2. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA, WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA. EMPLOYEE PARKING AREA, AND AREA FOR LOCATION PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES. HEAVY CONSTRUCTION EQUIPMENT PARKING AND MAINTENANCE AREAS SHALL BE DESIGNED TO PREVENT OIL, GREASE, AND LUBRICANTS FROM ENTERING SITE DRAINAGE FEATURES INCLUDING STORMWATER COLLECTION AND TREATMENT SYSTEMS. CONTRACTORS SHALL PROVIDE BROAD DIKES, HAY BALES OR SILT SCREENS AROUND, AND SEDIMENT TRAPS WITHIN, NEAR AND BEYOND THE MAINTENANCE AREAS. CONTRACTORS SHALL HAVE AVAILABLE, AND SHALL USE, A ABSORBENT FILTER PADS TO CLEAN UP SPILLS AS SOON AS POSSIBLE AFTER OCCURRENCE.
3. ALL WASH WATER FROM CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC. SHALL BE DETAINED ON SITE AND SHALL BE PROPERLY TREATED OR DISPOSED.
4. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER THE PUBLIC ROAD. IF WASHING IS INSUFFICIENT, SPILLS MUST BE IMMEDIATELY TREATED. THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.
5. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

SPILL PREVENTION AND CONTROL:

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

1. GOOD HOUSEKEEPING
 - A. SUPERINTENDENT SHALL INSPECT PROJECT AREA DAILY FOR PROPER STORAGE, USE, AND DISPOSAL OF CONSTRUCTION MATERIALS.
 - B. STORE ONLY ENOUGH MATERIAL ON SITE FOR PROJECT COMPLETION.
 - C. ALL SUBSTANCES SHOULD BE USED BEFORE DISPOSAL OF CONTAINER.
 - D. ALL CONSTRUCTION MATERIALS STORED SHALL BE ORGANIZED AND IN THE PROPER CONTAINER AND IF POSSIBLE, STORED UNDER A ROOF OR PROTECTIVE COVER.
 - E. PRODUCTS SHALL NOT BE MIXED UNLESS DIRECTED BY THE MANUFACTURER.
 - F. ALL PRODUCTS SHALL BE USED AND DISPOSED OF ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
2. HAZARDOUS PRODUCTS
 - A. MATERIALS SHOULD BE KEPT IN ORIGINAL CONTAINER WITH LABELS UNLESS THE ORIGINAL CONTAINERS CANNOT BE RESEALED. IF ORIGINAL CONTAINERS CANNOT BE USED, LABELS AND PRODUCT INFORMATION SHALL BE SAVED.
 - B. PROPER DISPOSAL PRACTICES SHALL ALWAYS BE FOLLOWED IN ACCORDANCE WITH MANUFACTURER AND LOCAL/STATE REGULATIONS.
3. PRODUCT SPECIFIC PRACTICES

SPILL CLEANUP:

IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED ABOVE, THE FOLLOWING PRACTICES SHALL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

1. SPILL CLEANUP INFORMATION SHALL BE POSTED ON SITE TO INFORM EMPLOYEES ABOUT CLEANUP PROCEDURES AND RESOURCES.
2. THE FOLLOWING CLEAN-UP EQUIPMENT MUST BE KEPT ON-SITE NEAR THE MATERIAL STORAGE AREA: GLOVES, MOPS, RAGS, BROOMS, DUST PANS, SAND, SAMUDIST, LIQUID ABSORBER, GOGGLES, AND TRASH CONTAINERS.
3. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON-SITE AND READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
4. ALL SPILLS SHALL BE CLEANED UP AS SOON AS POSSIBLE.
5. WHEN CLEANING A SPILL, THE AREA SHOULD BE WELL VENTILATED AND THE EMPLOYEE SHALL WEAR PROPER PROTECTIVE COVERING TO PREVENT INJURY.
6. TOXIC SPILLS MUST BE REPORTED TO THE PROPER AUTHORITY REGARDLESS OF THE SIZE OF THE SPILL.
7. AFTER A SPILL, THE PREVENTION PLAN SHALL BE REVIEWED AND CHANGED TO PREVENT FURTHER SIMILAR SPILLS FROM OCCURRING. THE CAUSE OF THE SPILL MEASURES TO PREVENT IT, AND HOW TO CLEAN THE SPILL UP SHALL BE RECORDED.
8. THE SUPERINTENDENT SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR AND IS RESPONSIBLE FOR THE DAY TO DAY SITE OPERATIONS. THE SUPERINTENDENT ALSO OVERSEES THE SPILL PREVENTION PLAN AND SHALL BE RESPONSIBLE FOR EDUCATING THE EMPLOYEES ABOUT SPILL PREVENTION AND CLEANUP PROCEDURES.

WIND EROSION CONTROL NOTES:

1. WIND EROSION SHALL BE CONTROLLED BY EMPLOYING THE FOLLOWING METHODS AS NECESSARY AND APPROPRIATE:
 - A. BARE EARTH AREAS SHALL BE WATERED DURING CONSTRUCTION AS NECESSARY TO MINIMIZE THE TRANSPORT OF FUGITIVE DUST. IF IT MAY BE NECESSARY TO LIMIT CONSTRUCTION VEHICLE SPEED, IT SHALL BE LIMITED TO 15 MPH. WHEN CONSTRUCTION IS COMPLETED, CASE SHALL FUGITIVE DUST BE ALLOWED TO LEAVE THE SITE UNDER CONSTRUCTION.
 - B. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY SEEDED (SEE PERMANENT STABILIZATION PRACTICES FOR DETAILS). THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN. CLEARED SITE DEVELOPMENT AREAS NOT BOUNDARIED, SCHEDULED FOR CONSTRUCTION ACTIVITIES SHALL BE COVERED WITH MULCH OR PERMANENTLY PERMANENTLY WATERED SUFFICIENTLY TO STABILIZE THE TEMPORARY GROUND COVER (SEE TEMPORARY STABILIZATION PRACTICES FOR DETAILS).
 - C. AT ANY TIME BOTH DURING AND AFTER SITE CONSTRUCTION THAT WATERING AND/OR VEGETATION ARE NOT EFFECTIVE IN CONTROLLING WIND EROSION AND/OR TRANSPORT OF FUGITIVE DUST, OTHER METHODS AS ARE NECESSARY FOR SUCH CONTROL SHALL BE EMPLOYED. THESE METHODS SHOULD INCLUDE ERECTION OF DUST CONTROL FENCES, A 6-FT GEOTEXTILE FILTER FABRIC SHOULD BE HANGING AGAINST THE EXISTING CHAIN LINK FENCE AND GATE.
2. ALL DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.

SEQUENCE OF CONSTRUCTION:

UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILER, PARKING, LAYDOWN, PORTA-POTTY, WHEEL WASH, CONCRETE WASHOUT, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC., IMMEDIATELY DENOTE THEM ON THE SITE MAP'S AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS.

1. PHASE 1:
 1. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AND INSTALL SILT FENCE AND INLET PROTECTION.
 2. PERFORM CLEARING AND GRUBBING AND DEMOLITION.
2. PHASE 2:
 1. PERFORM MASS GRADING, ROUGH GRADE TO ESTABLISH PROPOSED DRAINAGE PATTERNS.
 2. CONSTRUCT PROPOSED DRAINAGE INFRASTRUCTURE.
 3. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE THROUGHOUT CONSTRUCTION. SEED TURBULENCE AREAS THAT WILL BE ACTIVE FOR 7 DAYS OR MORE OR AS REQUIRED BY GENERIC PERMIT.
 4. CONSTRUCT PROPOSED IMPROVEMENTS, INCLUDING BUILDING PAD.
 5. COMPLETE FINAL GRADING AND FINAL STABILIZATION.
 6. REMOVE TEMPORARY EROSION CONTROL MEASURES.

MUNICIPALITY HAVEN DEV USVI PREPARED FOR CLIENT		SHEET NUMBER C-300	
EROSION CONTROL NOTES		NO. _____ DATE: _____	
KHA PROJECT 143113002	DATE 8/17/22	SCALE AS SHOWN	
DESIGNED BY _____	DRAWN BY _____	CHECKED BY _____	
LICENSED PROFESSIONAL _____		NO. _____ DATE: _____	
© 2022 KIMLEY-HORN AND ASSOCIATES, INC. 355 ALHAMBRA CIRCLE, SUITE 1400, CORAL GABLES, FL 33134 WWW.KIMLEY-HORN.COM REGISTRY NO. 696		REVISIONS NO. _____ DATE _____	
Kimley»Horn		B1 _____ DATE _____	

HAVEN DEV USVI
PREPARED FOR
CLIENT

EROSION CONTROL
PLAN

KHA PROJECT 143113002	DATE 8/17/22	SCALE AS SHOWN	DESIGNED BY	DRAWN BY	CHECKED BY
LICENSED PROFESSIONAL					
DATE:					

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No.	REVISIONS	DATE	BY

LEGEND:

PROPERTY LINE / RIGHT-OF-WAY LINE

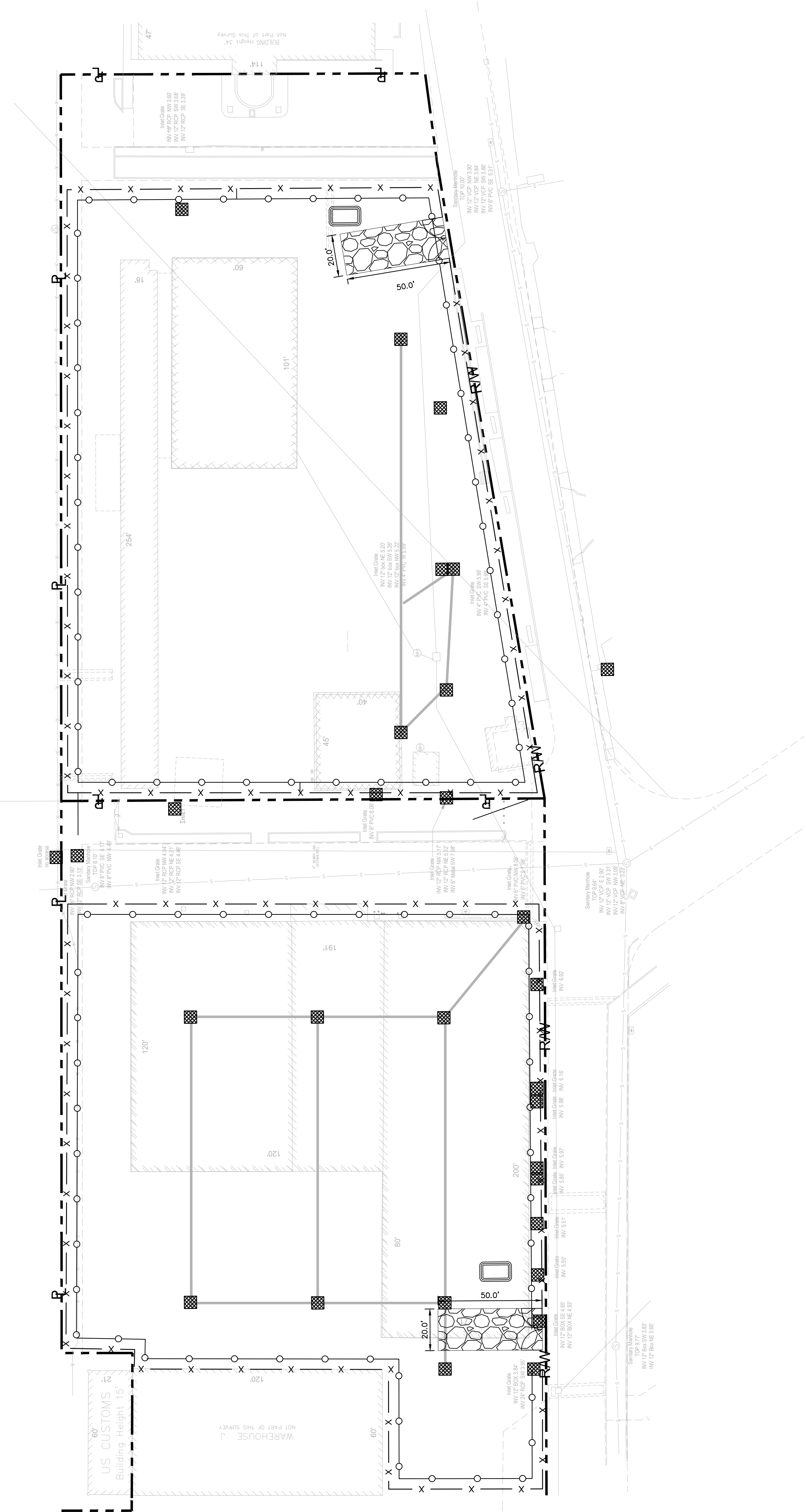
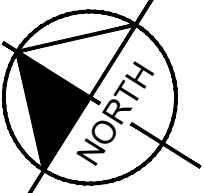
CENTER LINE OF ROADWAY

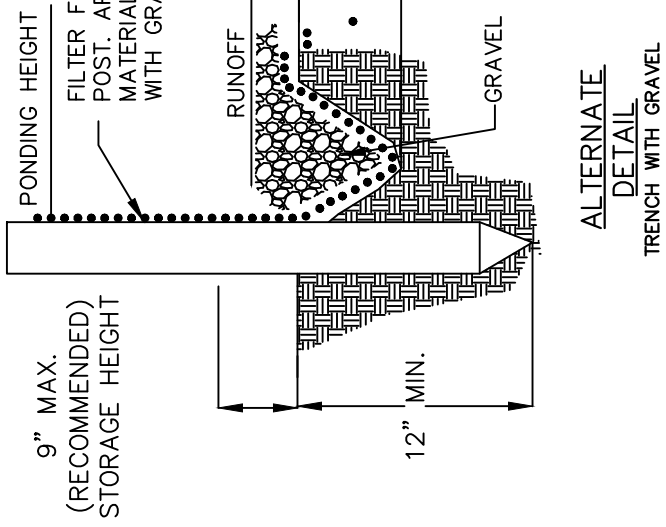
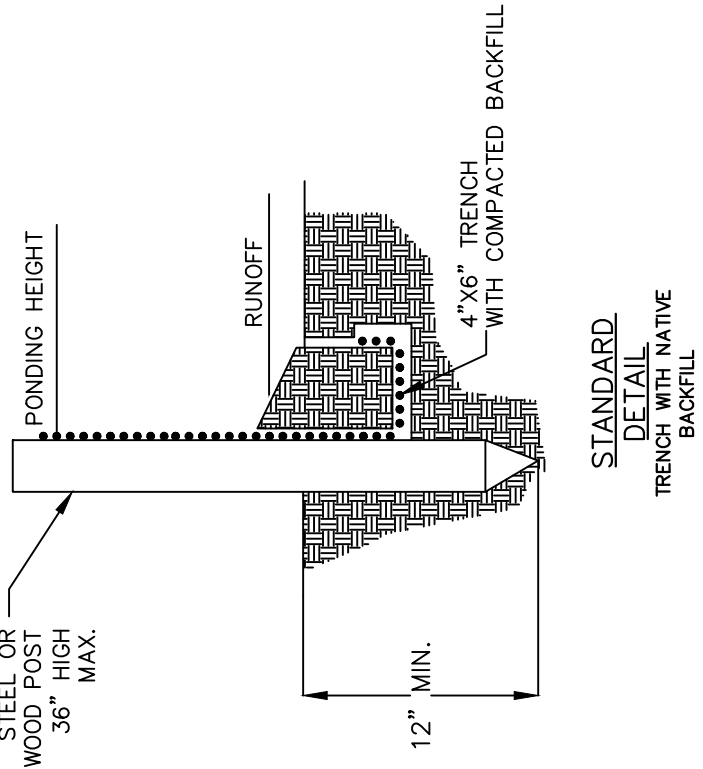
PROP. SILT FENCE OR FILTEREXX SEDIMENT CONTROL

PROP. CHAIN LINK CONSTRUCTION FENCE

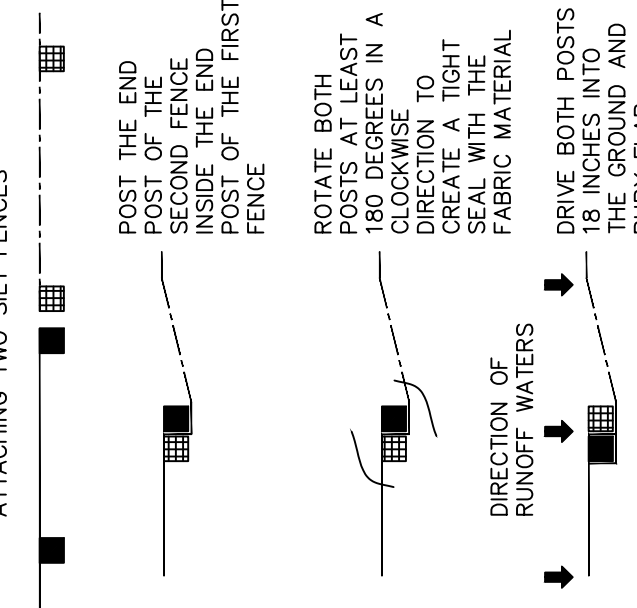
PROP. PROTECTIVE FILTER FABRIC

PROP. STABILIZED CONSTRUCTION ENTRANCE





- NOTES:
1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
 2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
 3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.



1 SILT FENCE SEDIMENT CONTROL DETAIL

NOT TO SCALE

C104

2 FENCE W/DUST SCREEN

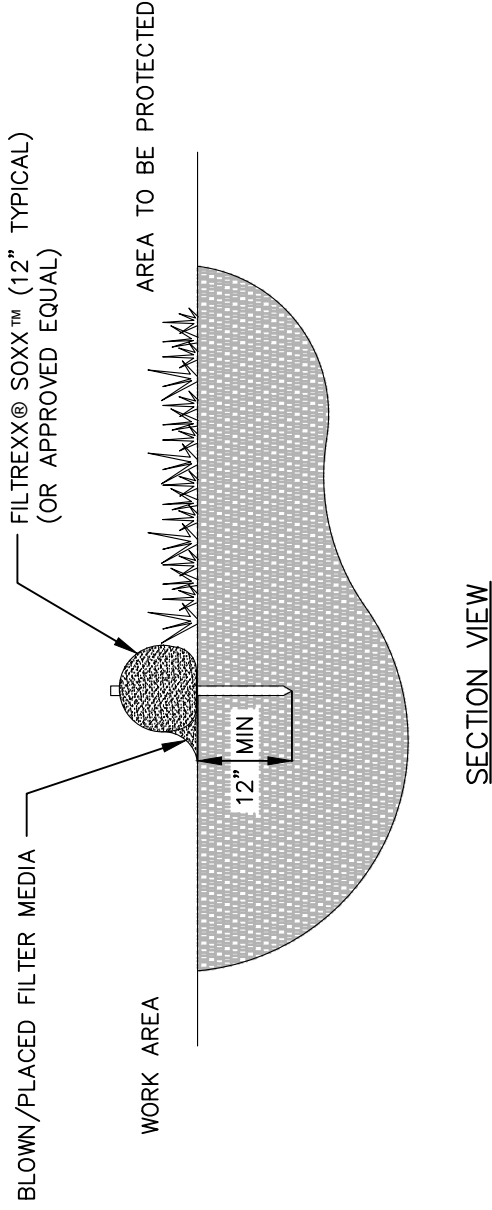
NOT TO SCALE

C104

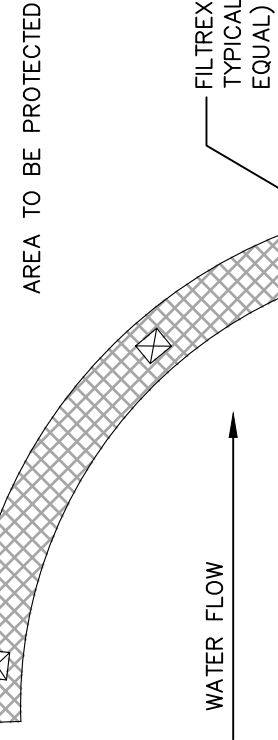
3 DROP INLET SEDIMENT BARRIER

NOT TO SCALE

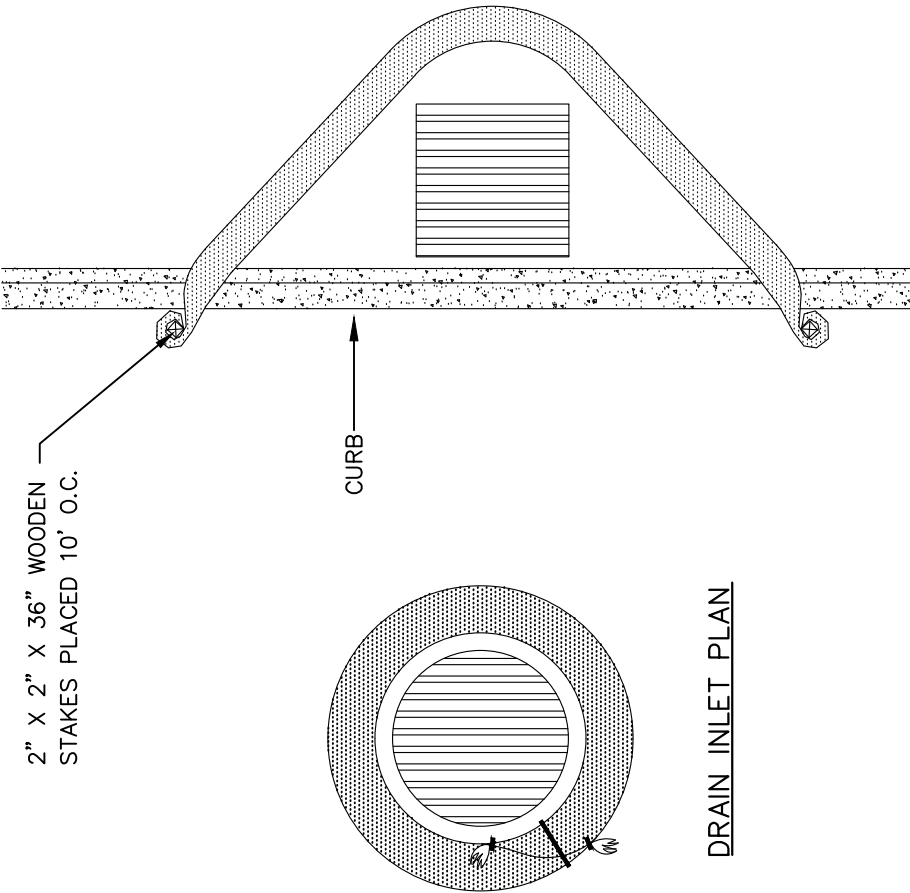
LICENSED PROFESSIONAL
DATE: 8/17/22
SCALE: AS SHOWN
DESIGNED BY: KHA PROJECT
CHECKED BY: 143113002



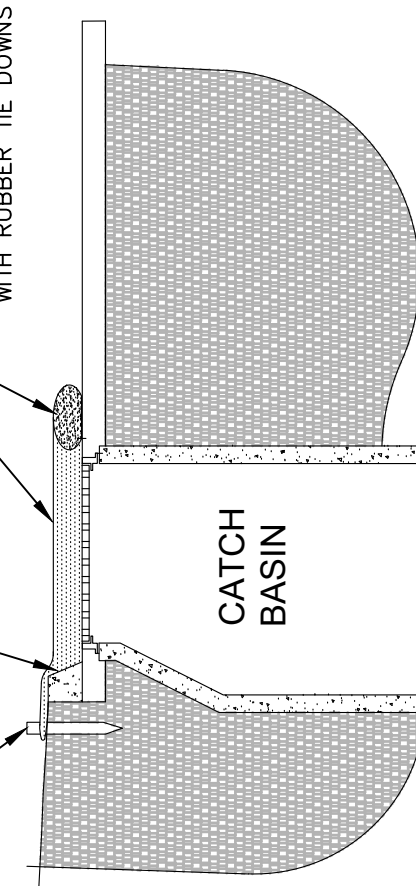
2' X 2' X 36" WOODEN STAKES PLACED 10' O.C.



- NOTES:
1. ALL MATERIAL TO MEET FILTERREX® SPECIFICATIONS (OR APPROVED EQUAL).
 2. FILTER MEDIA FILL TO MEET APPLICATION REQUIREMENTS.
 3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.



EXCESS SOXX™ MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.



- NOTES:
1. ALL MATERIAL TO MEET FILTERREX® SPECIFICATIONS.
 2. FILTER MEDIA™ FILL TO MEET APPLICATION REQUIREMENTS.
 3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

4 FILTERREX SEDIMENT CONTROL (O.A.E.)

NOT TO SCALE

C104

5 FILTERREX INLET PROTECTION (O.A.E.)

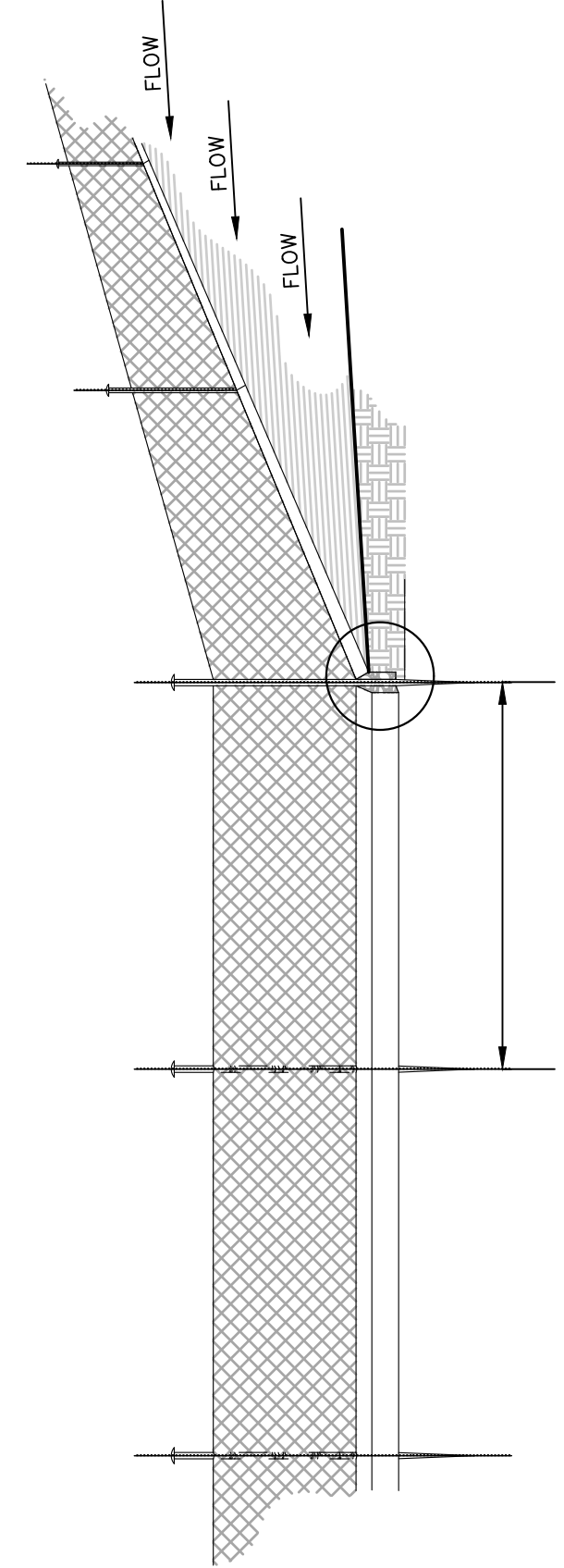
NOT TO SCALE

C104

6 STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

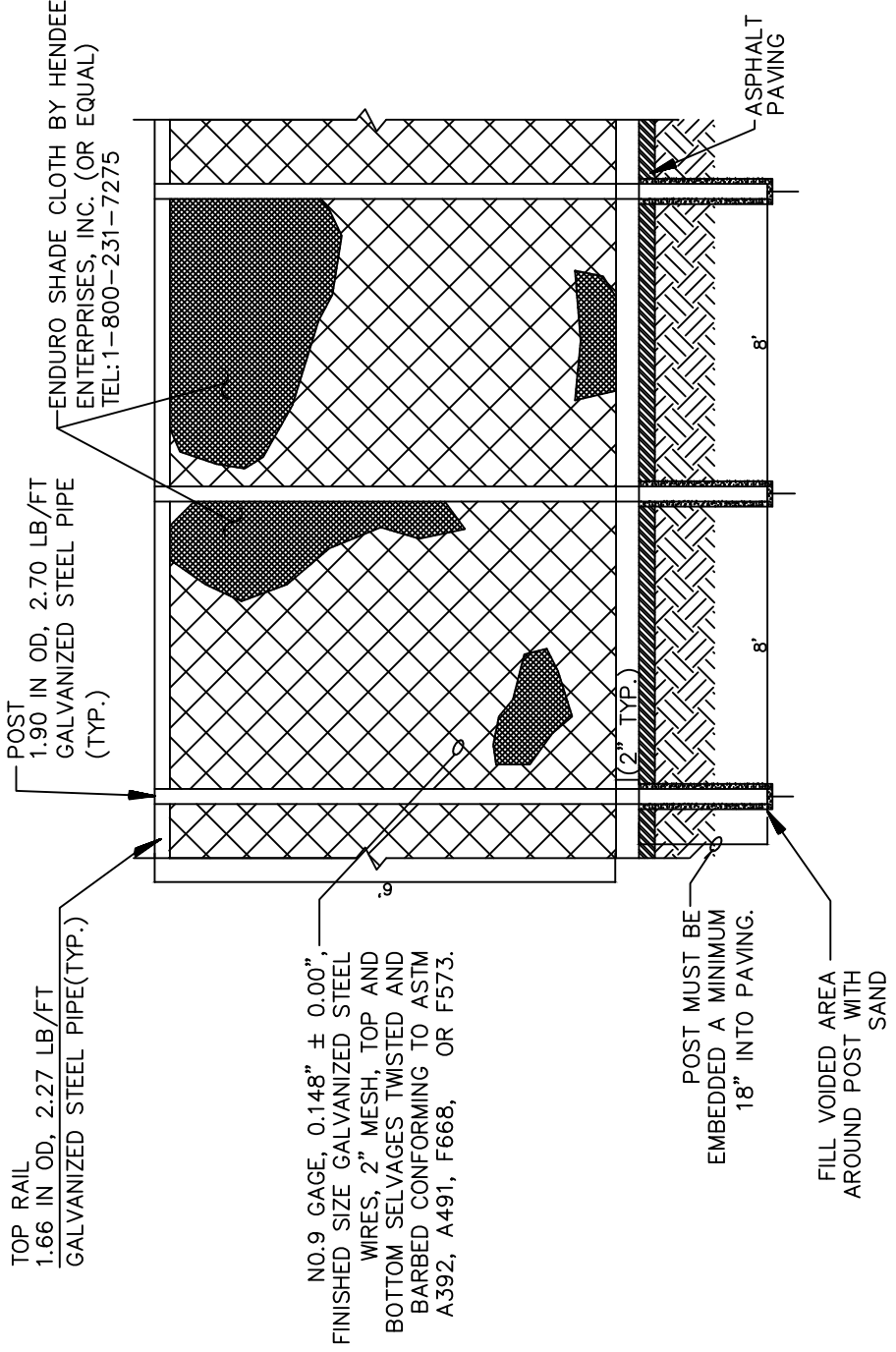
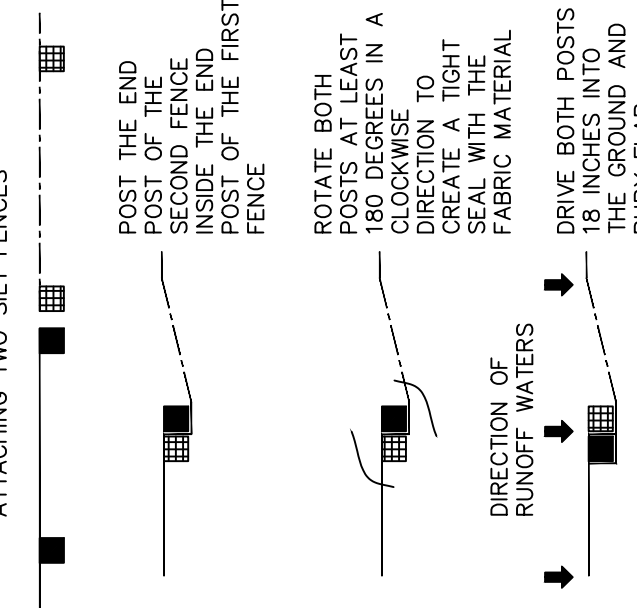
C104



9" MAX. (RECOMMENDED) STORAGE HEIGHT

NOTES:

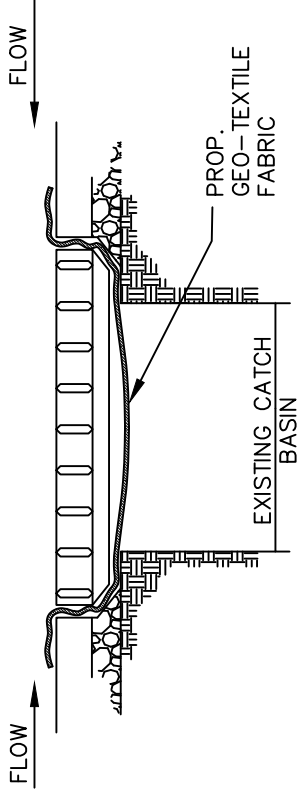
1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.



TOP RAIL 1 1/2" IN OD, 0.27 LB/FT GALVANIZED STEEL PIPE (TYP.)

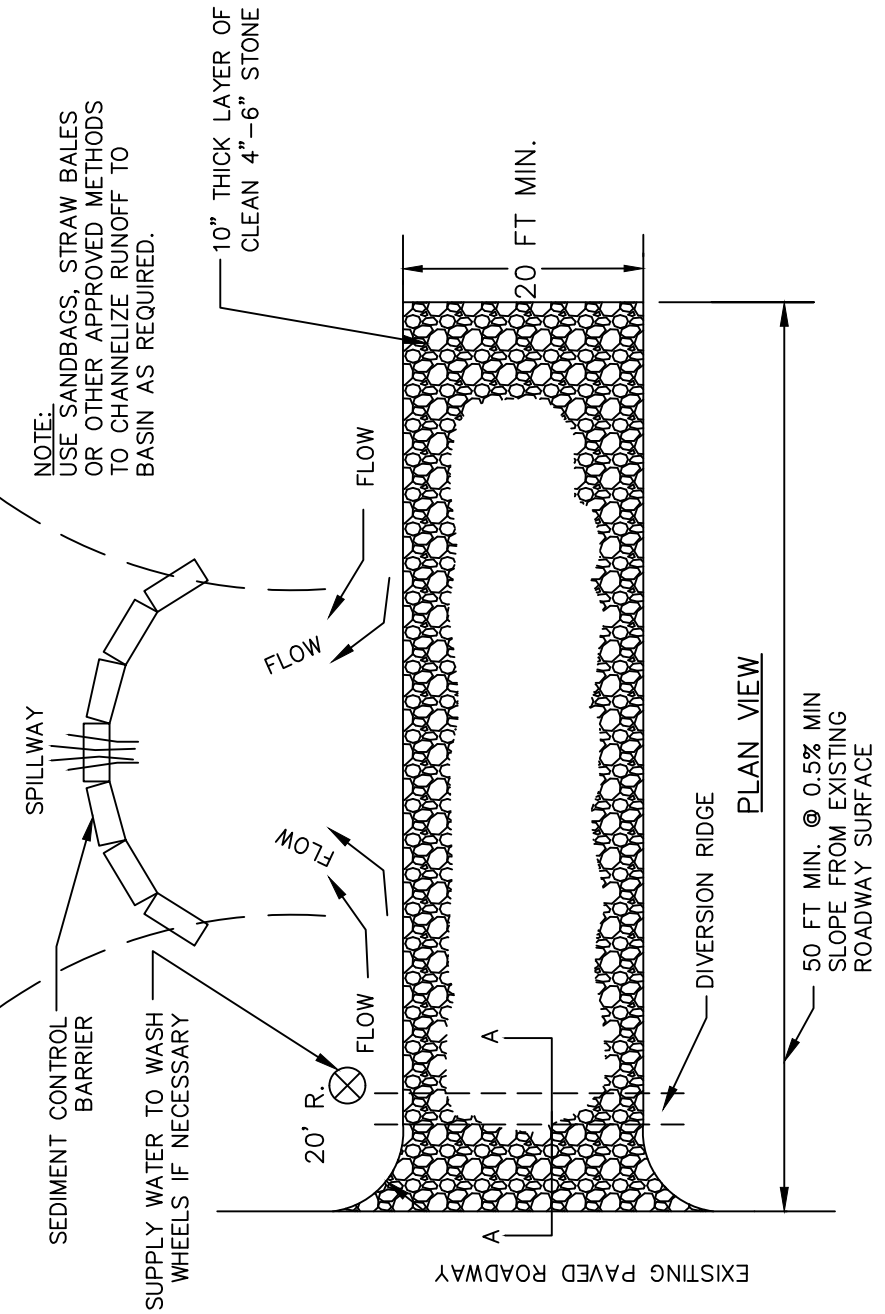
NO.9 GAGE, 0.148" ± 0.007", FINISHED SIZE GALVANIZED STEEL WIRE, GALVANIZED TOP AND BOTTOM, GALVANIZED WIRE BARBED CONFORMING TO ASTM A392, A491, F668, OR F573.

POST MUST BE EMBEDDED 18" INTO PAVING. FILL LOOSED AREA AROUND POST WITH SAND



NOTES:

1. CONTRACTOR SHALL PERFORM DAILY INSPECTIONS OF GEO-TEXTILE FABRIC BARRIER AND AS NECESSARY REPAIR OR REPLACE AS REQUIRED SPECIFICALLY AFTER STORM EVENTS AND LARGE RAINFALL EVENTS.
2. SEDIMENTATION AND DEBRIS THAT ARE REMOVED FROM BARRIER SHALL BE DISPOSED OF AT AN AUTHORIZED OFF-SITE DISPOSAL FACILITY.



NOTE: USE SANDBAGS, STRAW BALES OR OTHER APPROVED METHODS TO CHANNELIZE RUNOFF TO BASIN AS REQUIRED.

SUPPLY WATER TO WASH WHEELS IF NECESSARY

18" THICK LAYER OF CLEAN 4"-6" STONE

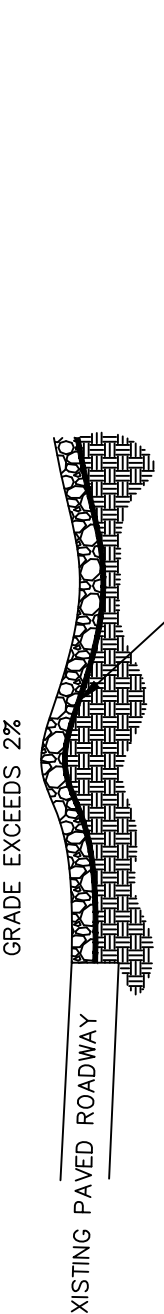
20' R

50 FT MIN. @ 0.5% MIN SLOPE FROM EXISTING ROUGHLY SURFACE

220 FT MIN.

PLAN VIEW

DIVERSION RIDGE REQUIRED WHERE GRADE EXCEEDS 2%



SECTION A-A

EXISTING PAVED ROADWAY

EXISTING PAVED ROADWAY

NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO ADJACENT PAVED SURFACES. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

No.	REVISIONS	DATE	BY

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PHONE: 305-673-2025
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REGISTRY NO. 696

LICENSED PROFESSIONAL
DATE: 8/17/22
SCALE: AS SHOWN
DESIGNED BY: KHA PROJECT
CHECKED BY: 143113002

EROSION CONTROL DETAILS

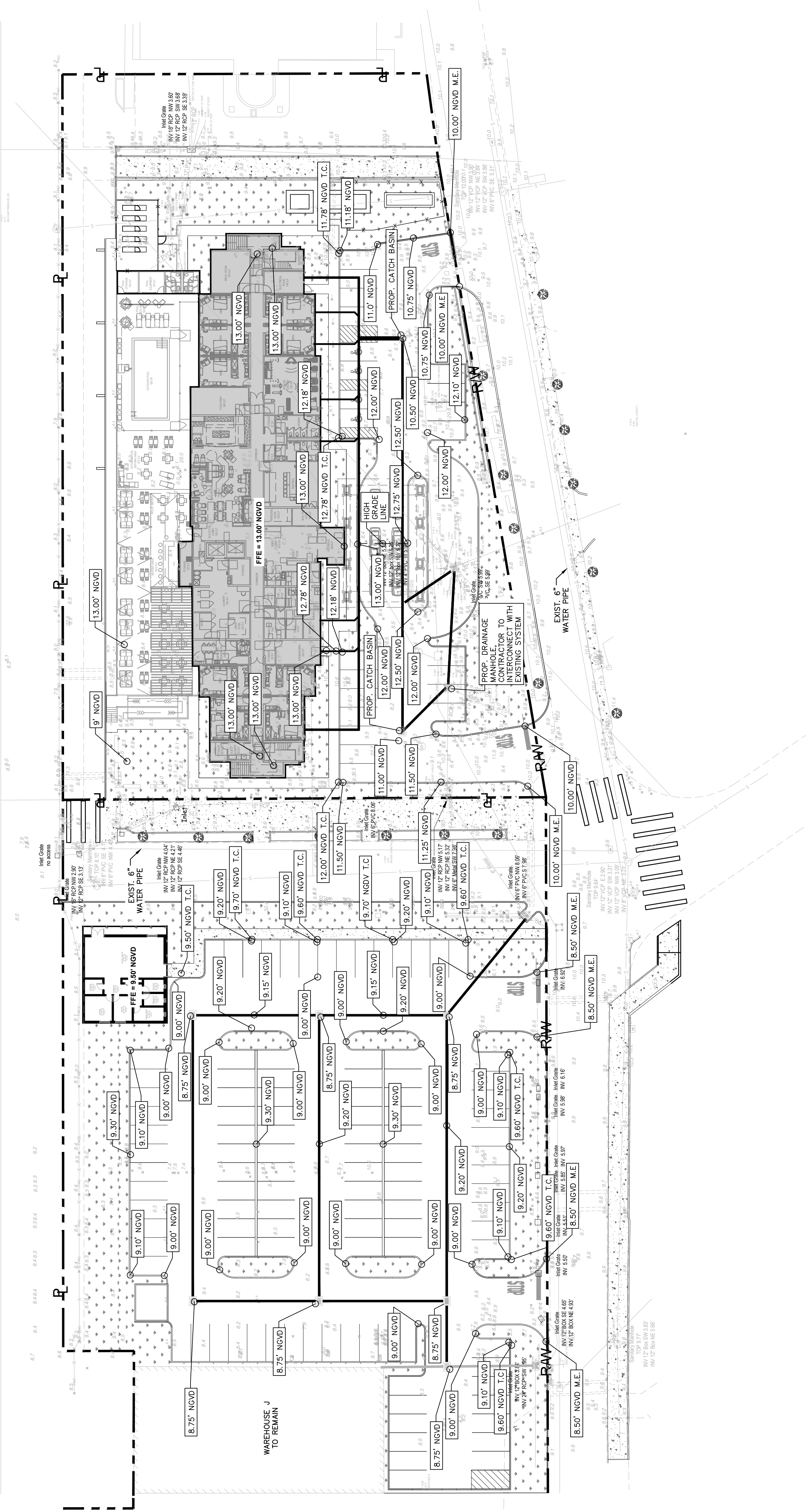
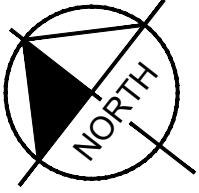
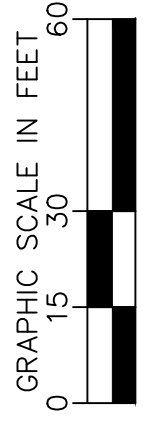
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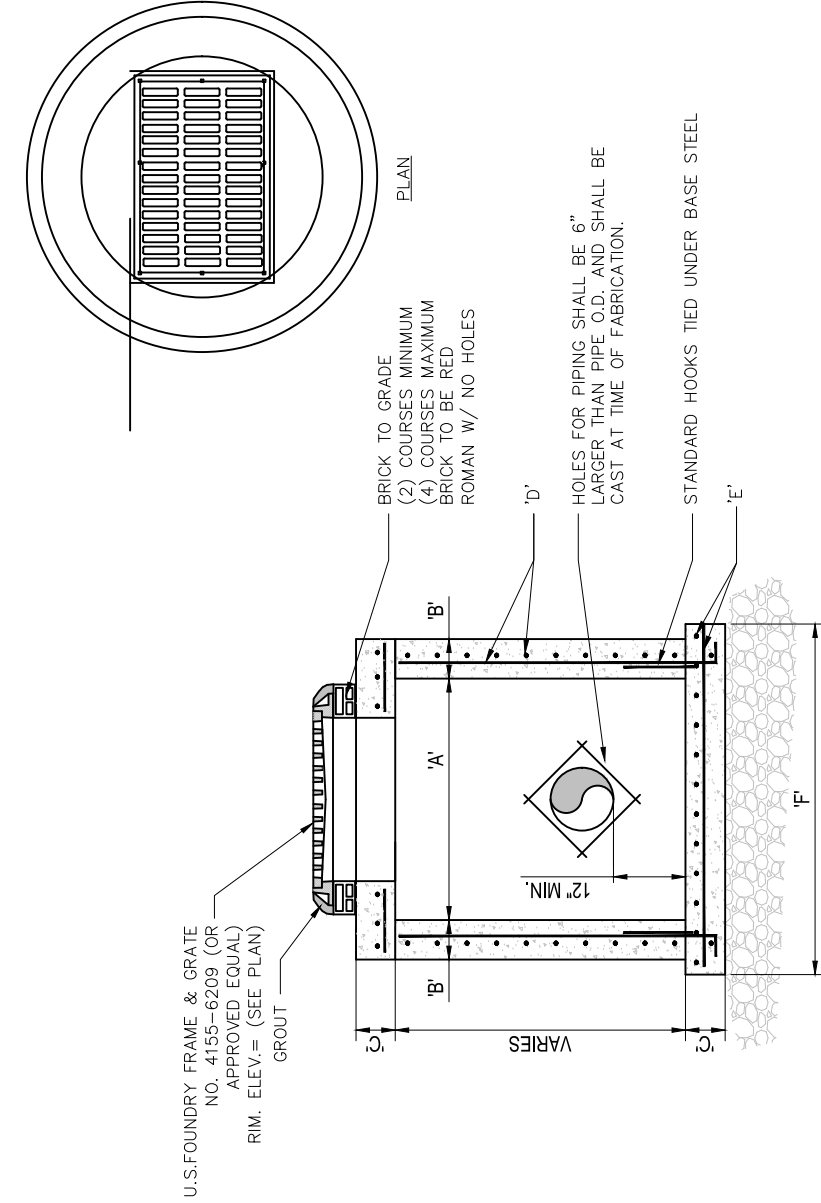
SHEET NUMBER
C-302

No.	REVISIONS	DATE	BY

LEGEND:

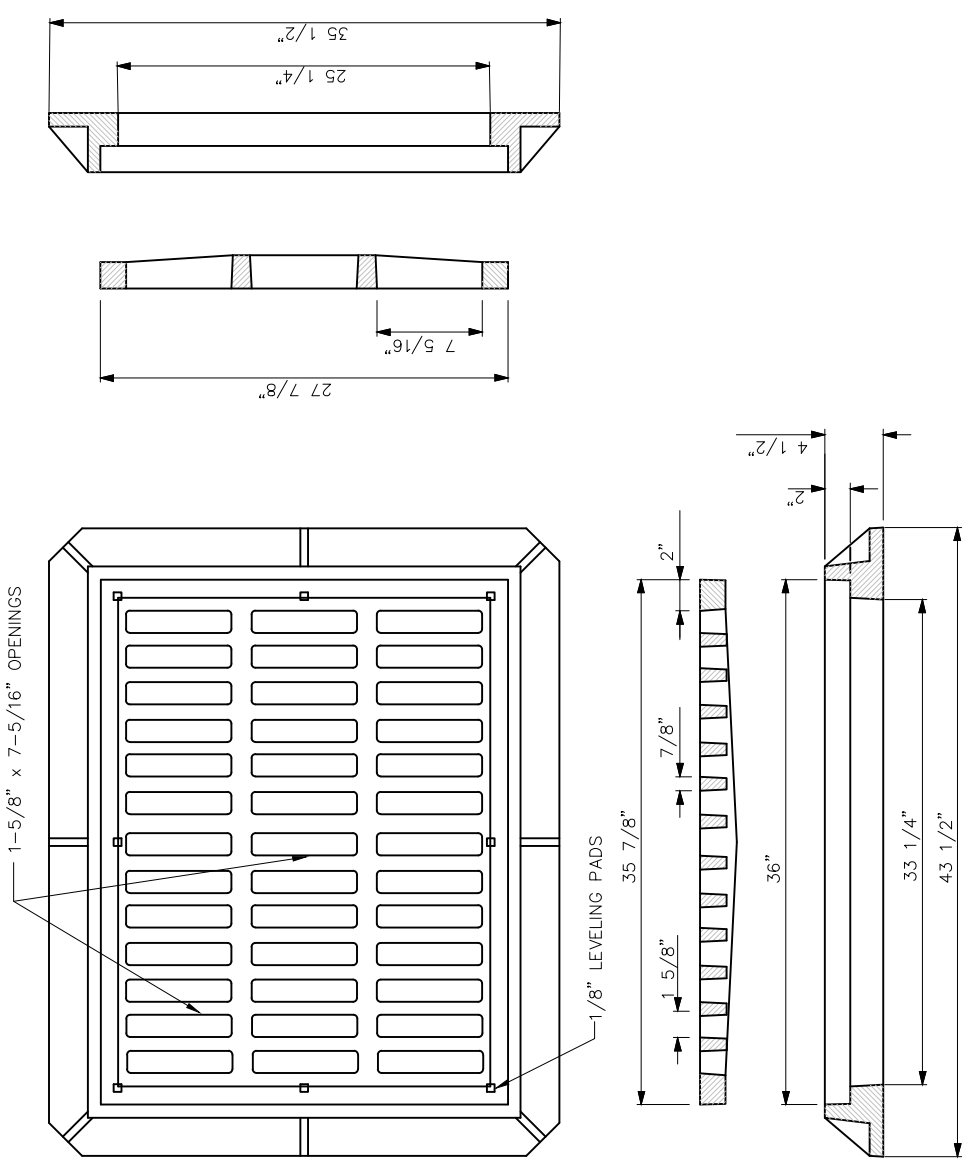
- PROPERTY LINE / RIGHT-OF-WAY LINE
- CENTER LINE OF ROADWAY
- CONCRETE WALKWAY
- GRASSY AREA





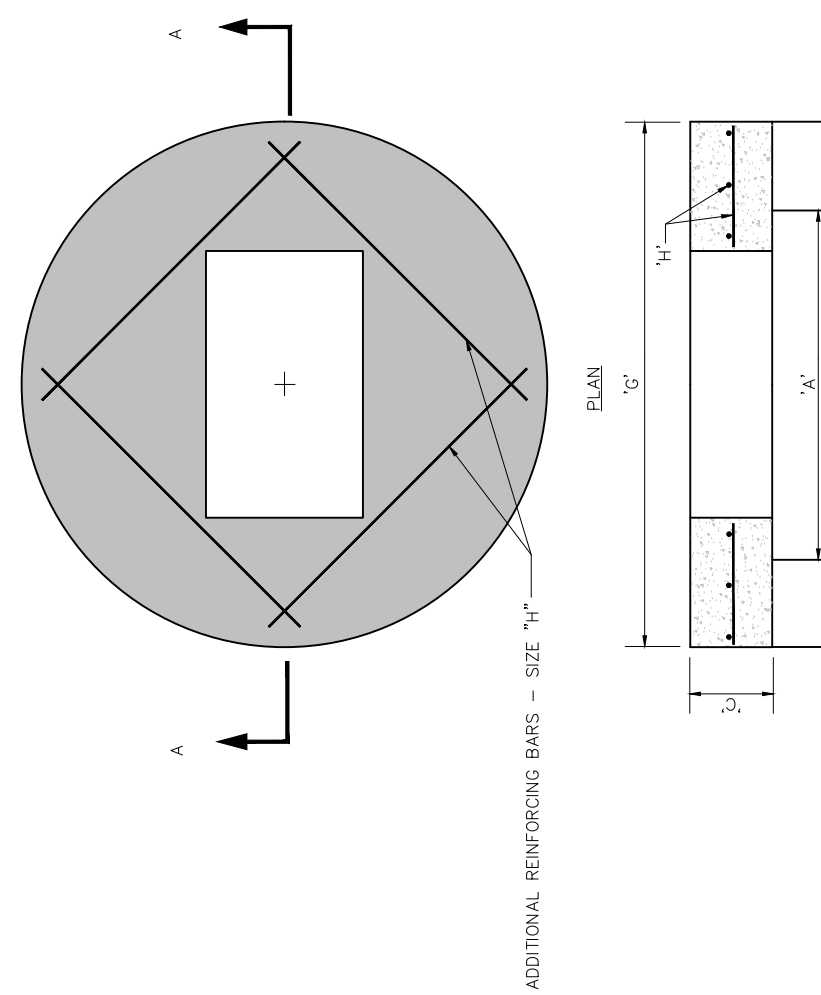
TYPE	"A"	"B"	"C"	"D"	"E"	"F"
C-4	4'-0" ø	8"	# 4 @ 12" C.C.E.W.	# 4 @ 12" C.C.E.W.	# 4 @ 6" C.C.E.W.	6'-4" ø
C-5	5'-0" ø	8"	# 5 @ 12" C.C.E.W.	# 5 @ 12" C.C.E.W.	# 5 @ 6" C.C.E.W.	7'-4" ø
C-6	6'-0" ø	8"	# 6 @ 12" C.C.E.W.	# 6 @ 12" C.C.E.W.	# 6 @ 6" C.C.E.W.	8'-4" ø
C-7	7'-0" ø	8"	# 7 @ 12" C.C.E.W.	# 7 @ 12" C.C.E.W.	# 7 @ 6" C.C.E.W.	9'-4" ø
C-8	8'-0" ø	10"	2- W.W.M. W/ # 4 @ 12" C.C. BEST	# 5 @ 6" C.C.E.W.	# 5 @ 6" C.C.E.W.	10'-8" ø

1 PRECAST CATCH BASIN
C210 NOT TO SCALE



1. GRATE TO BE TYPE U.S.F. No. 4155-8209

5 FRAME AND GRATE DETAIL
C210 NOT TO SCALE



TYPE	"A"	"C"	"D"	"E"	"F"
C-4	4'-0" ø	8"	5'-4" ø	# 4 @ 6" C.C.E.W.	# 4 @ 6" C.C.E.W.
C-5	5'-0" ø	8"	6'-4" ø	# 5 @ 6" C.C.E.W.	# 5 @ 6" C.C.E.W.
C-6	6'-0" ø	8"	7'-4" ø	# 6 @ 6" C.C.E.W.	# 6 @ 6" C.C.E.W.
C-7	7'-0" ø	8"	8'-4" ø	# 7 @ 6" C.C.E.W.	# 7 @ 6" C.C.E.W.
C-8	8'-0" ø	10"	9'-8" ø	# 8 @ 6" C.C.E.W.	# 8 @ 6" C.C.E.W.

2 PRECAST CONCRETE TOP SLAB
C210 NOT TO SCALE

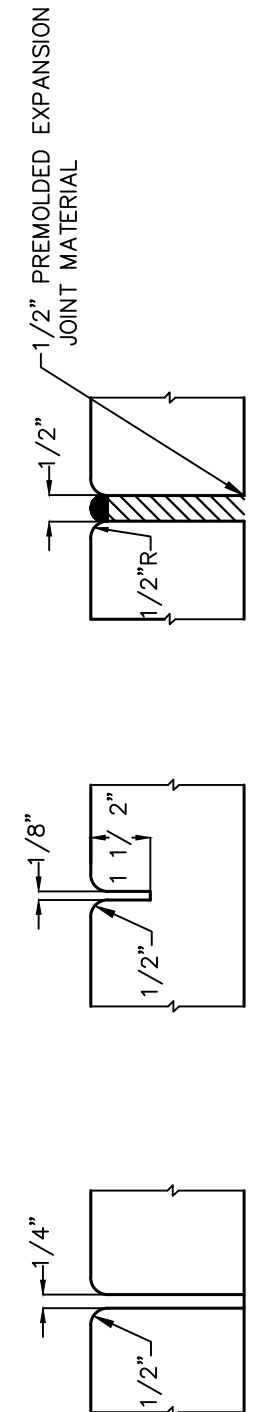
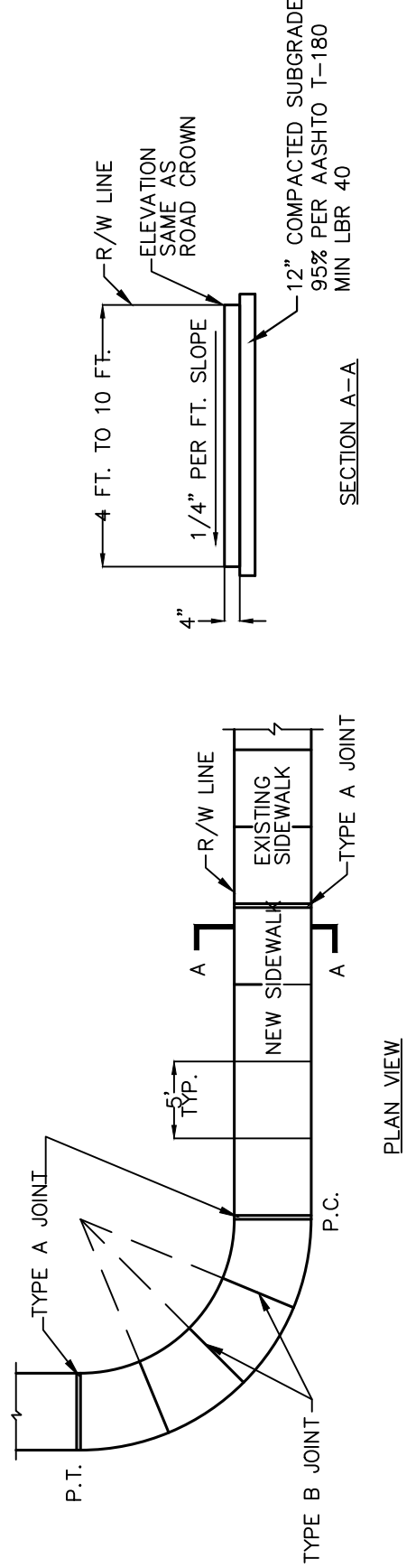


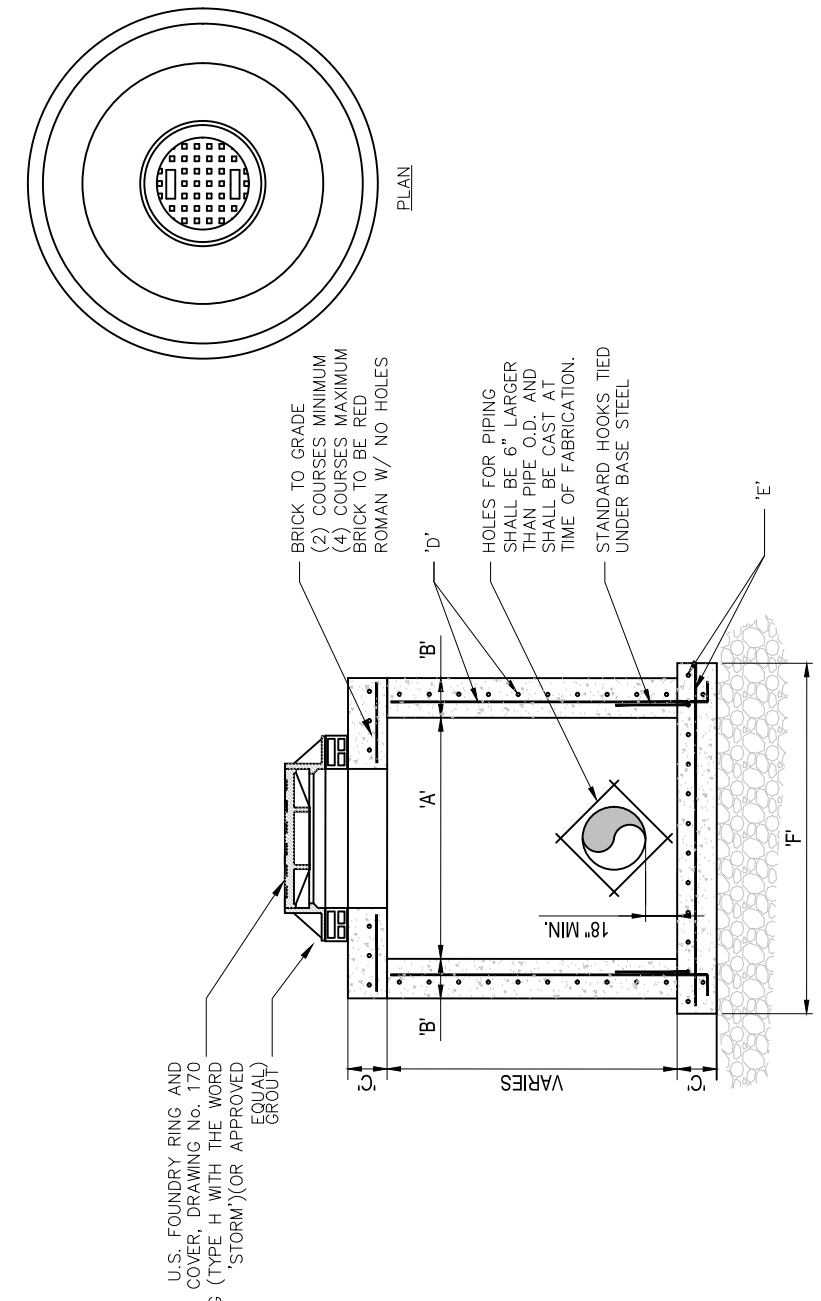
TABLE OF SIDEWALK THICKNESS - T	
LOCATION	T
STANDARD SIDEWALK	5"
AT DRIVEWAYS AND OTHER AREAS	5"

TABLE OF SIDEWALK JOINTS	
LOCATION	
A	P.C. AND P.T. OF CURVES, NEW SIDEWALK EXISTING AND
B	5'-0" CENTER TO CENTER ON SIDEWALK.
C	WHERE SIDEWALK ABUTS, AND SIMILAR STRUCTURES.

NOTES:

1. PLACE #10/10 6x6 WIRE MESH IN THE PORTION OF THE SIDEWALK THAT CROSSES THE DRIVEWAY ONLY.
2. STANDARD SIDEWALK TO BE 3000 PSI @ 28 DAYS
3. CONCRETE FOR SIDEWALK AT DRIVEWAYS AND LOADING ZONES SHALL BE 4000 PSI @ 28 DAYS (HEAVY DUTY).

7 CONCRETE SIDEWALK DETAIL
C210 NOT TO SCALE



TYPE	"A"	"B"	"C"	"D"	"E"	"F"
M-4	4'-0" ø	8"	# 4 @ 12" C.C.E.W.	# 4 @ 12" C.C.E.W.	# 4 @ 6" C.C.E.W.	6'-4" ø
M-5	5'-0" ø	8"	# 5 @ 12" C.C.E.W.	# 5 @ 12" C.C.E.W.	# 5 @ 6" C.C.E.W.	7'-4" ø
M-6	6'-0" ø	8"	# 6 @ 12" C.C.E.W.	# 6 @ 12" C.C.E.W.	# 6 @ 6" C.C.E.W.	8'-4" ø
M-7	7'-0" ø	8"	# 7 @ 12" C.C.E.W.	# 7 @ 12" C.C.E.W.	# 7 @ 6" C.C.E.W.	9'-4" ø
M-8	8'-0" ø	10"	2- W.W.M. W/ # 4 @ 12" C.C. BEST	# 8 @ 6" C.C.E.W.	# 8 @ 6" C.C.E.W.	10'-8" ø

3 PRECAST STORM DRAINAGE MANHOLE
C210 NOT TO SCALE

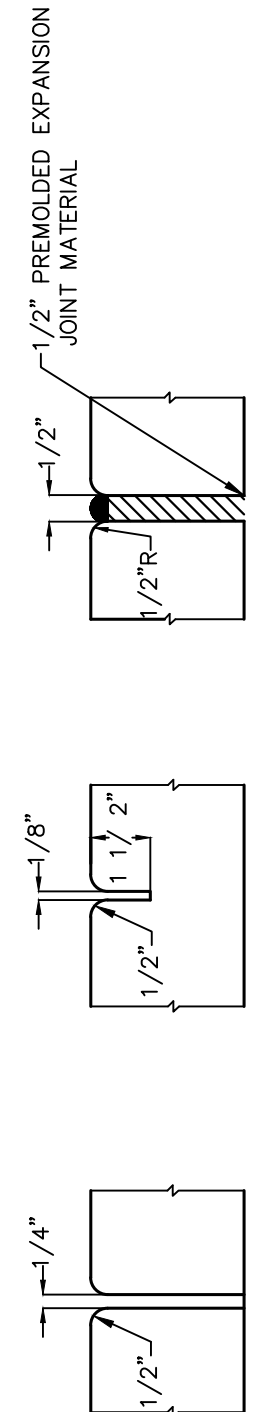
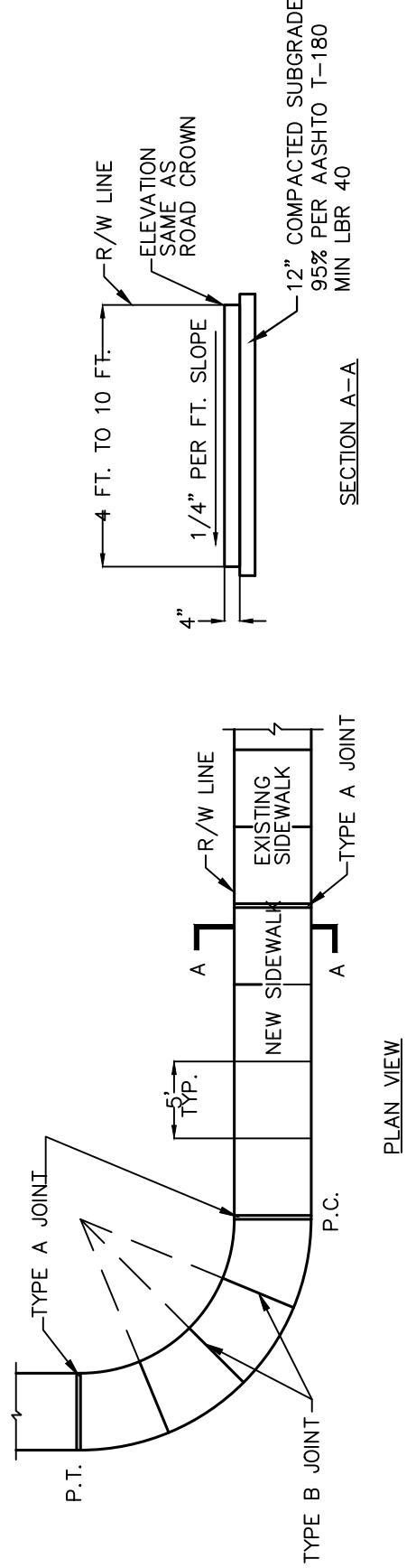


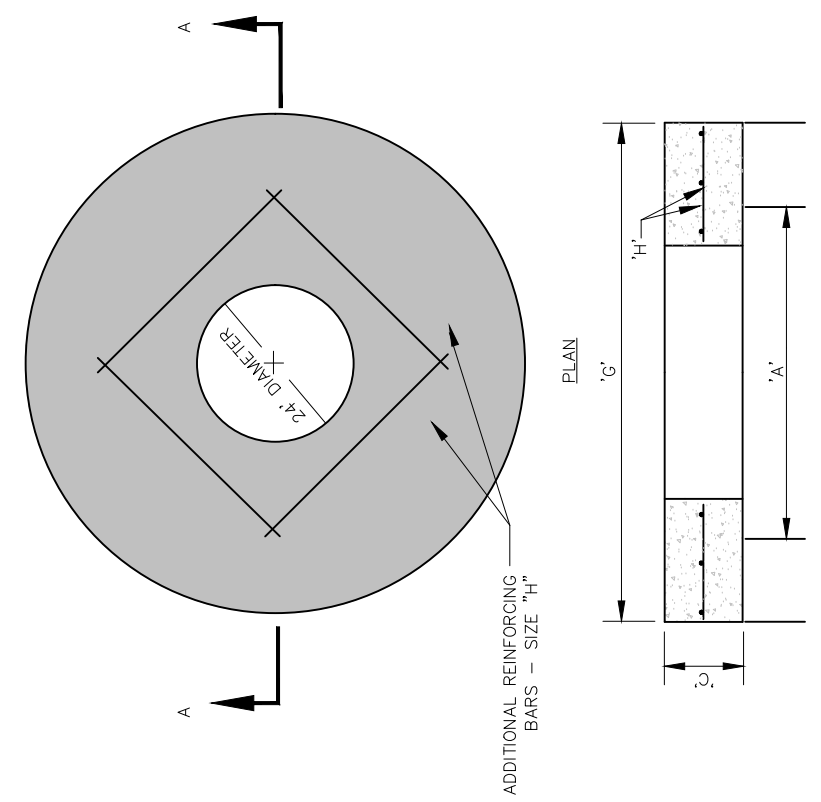
TABLE OF SIDEWALK THICKNESS - T	
LOCATION	T
STANDARD SIDEWALK	5"
AT DRIVEWAYS AND OTHER AREAS	5"

TABLE OF SIDEWALK JOINTS	
LOCATION	
A	P.C. AND P.T. OF CURVES, NEW SIDEWALK EXISTING AND
B	5'-0" CENTER TO CENTER ON SIDEWALK.
C	WHERE SIDEWALK ABUTS, AND SIMILAR STRUCTURES.

NOTES:

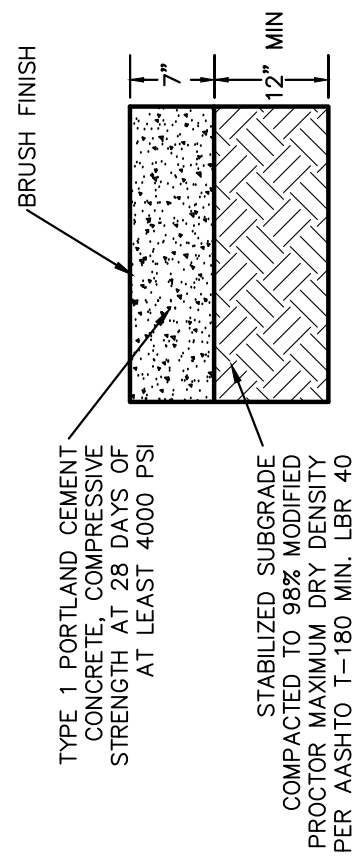
1. PLACE #10/10 6x6 WIRE MESH IN THE PORTION OF THE SIDEWALK THAT CROSSES THE DRIVEWAY ONLY.
2. STANDARD SIDEWALK TO BE 3000 PSI @ 28 DAYS
3. CONCRETE FOR SIDEWALK AT DRIVEWAYS AND LOADING ZONES SHALL BE 4000 PSI @ 28 DAYS (HEAVY DUTY).

7 CONCRETE SIDEWALK DETAIL
C210 NOT TO SCALE



TYPE	"A"	"C"	"D"	"E"	"F"
M-4	4'-0" ø	8"	5'-4" ø	# 4 @ 6" C.C.E.W.	# 4 @ 6" C.C.E.W.
M-5	5'-0" ø	8"	6'-4" ø	# 5 @ 6" C.C.E.W.	# 5 @ 6" C.C.E.W.
M-6	6'-0" ø	8"	7'-4" ø	# 6 @ 6" C.C.E.W.	# 6 @ 6" C.C.E.W.
M-7	7'-0" ø	8"	8'-4" ø	# 7 @ 6" C.C.E.W.	# 7 @ 6" C.C.E.W.
M-8	8'-0" ø	10"	9'-8" ø	# 8 @ 6" C.C.E.W.	# 8 @ 6" C.C.E.W.

4 PRECAST CONCRETE TOP SLAB
C210 NOT TO SCALE



8 HEAVY DUTY CONCRETE PAVEMENT SECTION
C210 NOT TO SCALE

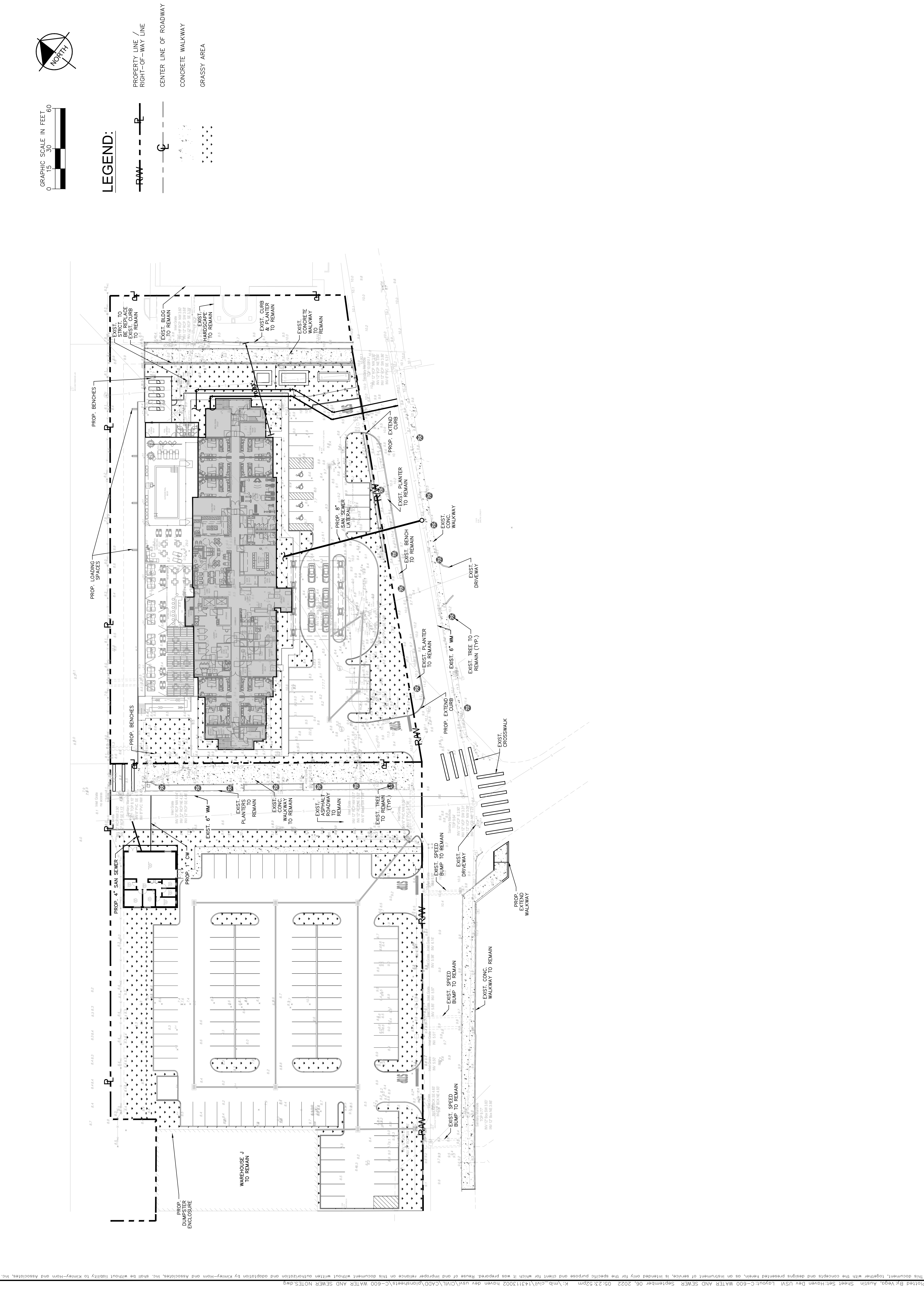
KHA PROJECT	DATE	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
143113002	8/17/22	AS SHOWN			

LICENSED PROFESSIONAL	DATE:

Kimley»Horn

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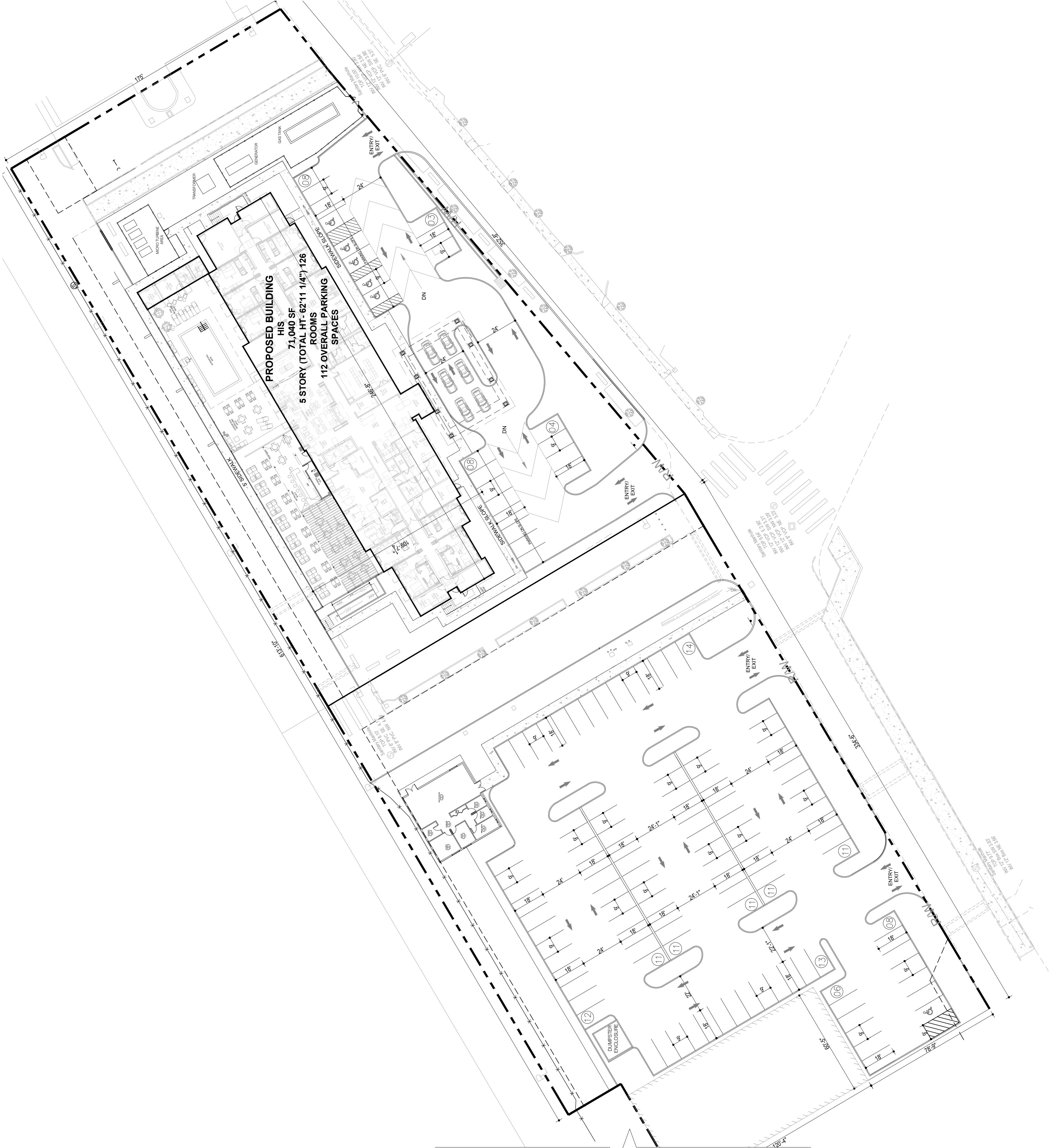
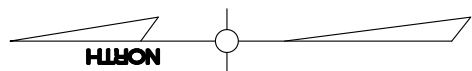
No.	REVISIONS	DATE	BY





VICINITY MAP
N.T.S.

PROJECT MATRIX													
ROOM TYPE	ROOM MATRIX						%	NO. OF BEDS					
	1ST	2ND	3RD	4TH	5TH	TOTAL		2ND	3RD	4TH	5TH		
	7	9	9	9	1	43		34%	37%	43			
	0	1	1	1	1	4		3%		4			
	2	3	3	3	3	14		11%	11%	14			
	0	0	0	0	0	0		0%		0			
	0	13	13	13	13	52		41%		104			
	0	0	3	3	3	9		7%	52%	18			
	0	1	1	1	1	4		3%		8			
	GRAND TOTAL	9	27	30	30	30		126	100%	100%	191		
FLOOR AREA (SF)													
1ST LEVEL FLOOR PLAN	14,755												
2ND LEVEL FLOOR PLAN	14,071												
3RD LEVEL FLOOR PLAN	14,071												
4TH LEVEL FLOOR PLAN	14,071												
5TH LEVEL FLOOR PLAN	14,071												
TOTAL	71,040												
PARKING TYPE	PARKING MATRIX						PROVIDED	REQUIRED					
	4							3					
	1							1					
	121							108					
	5							0					
	131							112					
	NOTE: NUMBER OF ADA STALLS PROVIDED FOR DEDICATED HOTEL PARKING ONLY. FINAL COUNT AND DESIGN BY CIVIL ENGINEER*												





Seal:



PROJECT INFORMATION:



CURRENT ISSUE:

CZM PERMIT SET

CURRENT ISSUE DATE:

DRAWN BY:

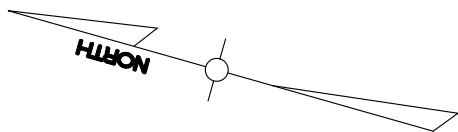
CHECKED BY:

PROJECT #:

FLOOR
PLAN

SHEET NUMBER:

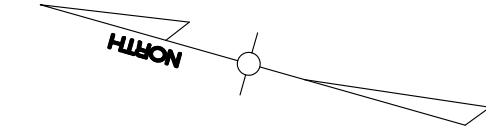
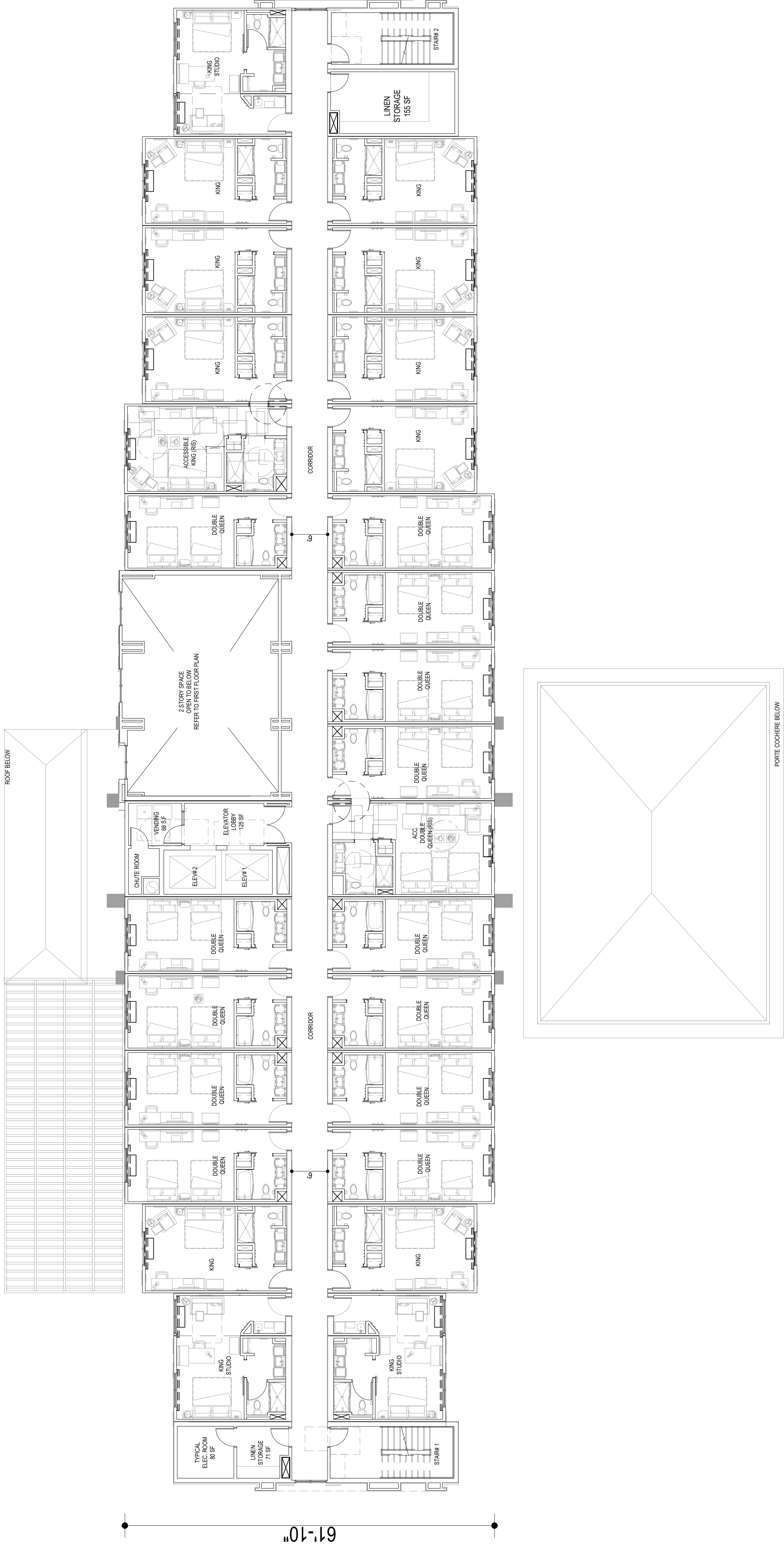
A-2.1



246'-8"


PROJECT MATRIX										
ROOM TYPE	ROOM MATRIX						%		NO. OF BEDS	
	1ST	2ND	3RD	4TH	5TH	TOTAL				
KING	7	9	9	9	9	43	34%	37%	43	
KING ACCESSIBLE	0	1	1	1	1	4	3%		4	
KING STUDIO	2	3	3	3	3	14	11%	11%	14	
KING STUDIO ACCESSIBLE	0	0	0	0	0	0	0%		0	
DOUBLE QUEEN	0	13	13	13	13	52	41%		104	
DOUBLE QUEEN EXTENDED	0	0	3	3	3	9	7%	52%	18	
DOUBLE QUEEN ACCESSIBLE	0	1	1	1	1	4	3%		8	
GRAND TOTAL	9	27	30	30	30	126	100%	100%	191	

FLOOR AREA (SF)	
1ST LEVEL FLOOR PLAN	14,755
2ND LEVEL FLOOR PLAN	14,071
3RD LEVEL FLOOR PLAN	14,071
4TH LEVEL FLOOR PLAN	14,071
5TH LEVEL FLOOR PLAN	14,071
TOTAL	71,040





real:

A dashed circle with a plus sign inside.

HAVEN DEVELOPMENT LLC

Hampton Inn & Suites
by HILTON

ST THOMAS, VI

CZM PERMIT SET

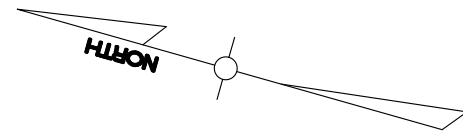
09/06/2022

AZ/HA

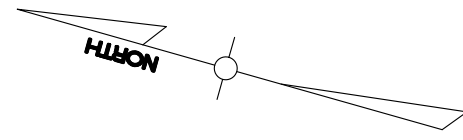
SD

FLOOR
PLAN

A-2.3

FLOOR AREA (SF)

PROJECT MATRIX											
ROOM TYPE	ROOM MATRIX										
	1ST	2ND	3RD	4TH	5TH	TOTAL	%		NO. OF BEDS		
KING	7	9	9	9	9	43	34%		37%		43
KING ACCESSIBLE	0	1	1	1	1	4	3%				4
KING STUDIO	2	3	3	3	3	14	11%				14
KING STUDIO ACCESSIBLE	0	0	0	0	0	0	0%		11%		0
DOUBLE QUEEN	0	13	13	13	13	52	41%				104
DOUBLE QUEEN EXTENDED	0	0	3	3	3	9	7%		52%		18
DOUBLE QUEEN ACCESSIBLE	0	1	1	1	1	4	3%				8
GRAND TOTAL	9	27	30	30	126	100%	100%				191
FLOOR AREA (Sf)											
1ST LEVEL FLOOR PLAN	14,755										
2ND LEVEL FLOOR PLAN	14,071										
3RD LEVEL FLOOR PLAN	14,071										
4TH LEVEL FLOOR PLAN	14,071										
5TH LEVEL FLOOR PLAN	14,071										
TOTAL	71,040										





HAVEN DEVELOPMENT LLC

**Hampton
Inn & Suites**
by HILTON

ST THOMAS, VI

CZM PERMIT SET

09/06/2022

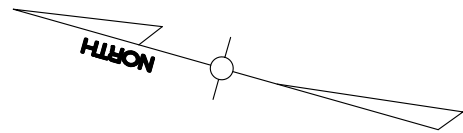
AZ/HA

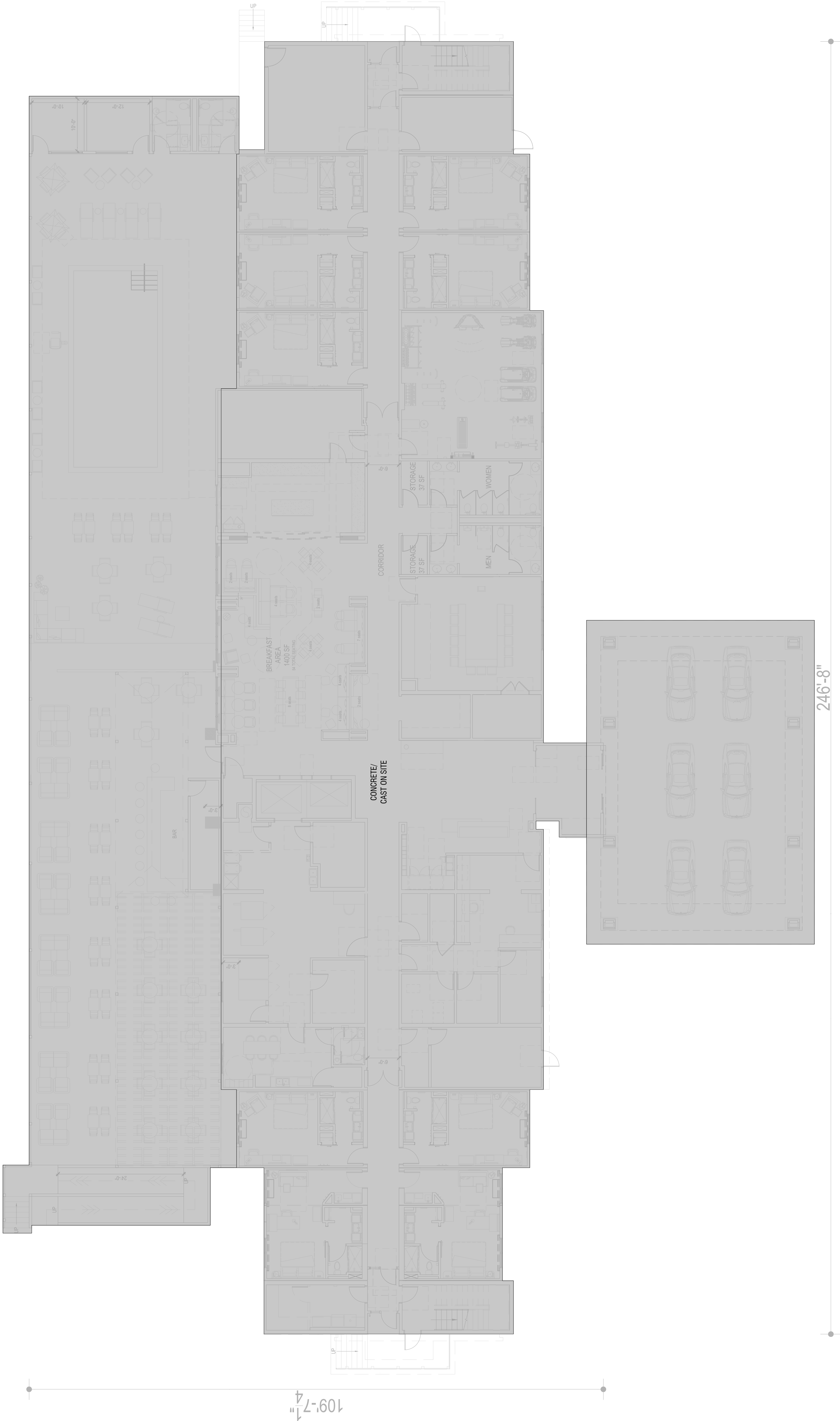
SD

B4-260-2201

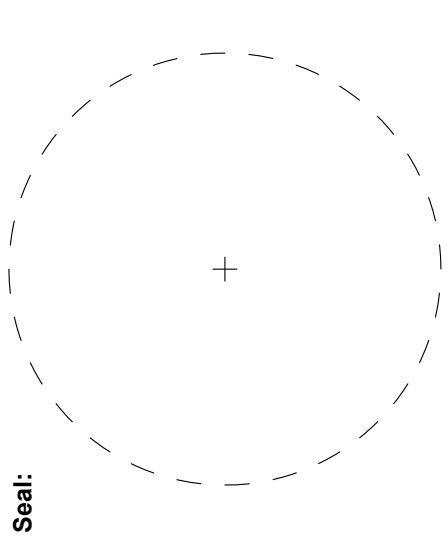
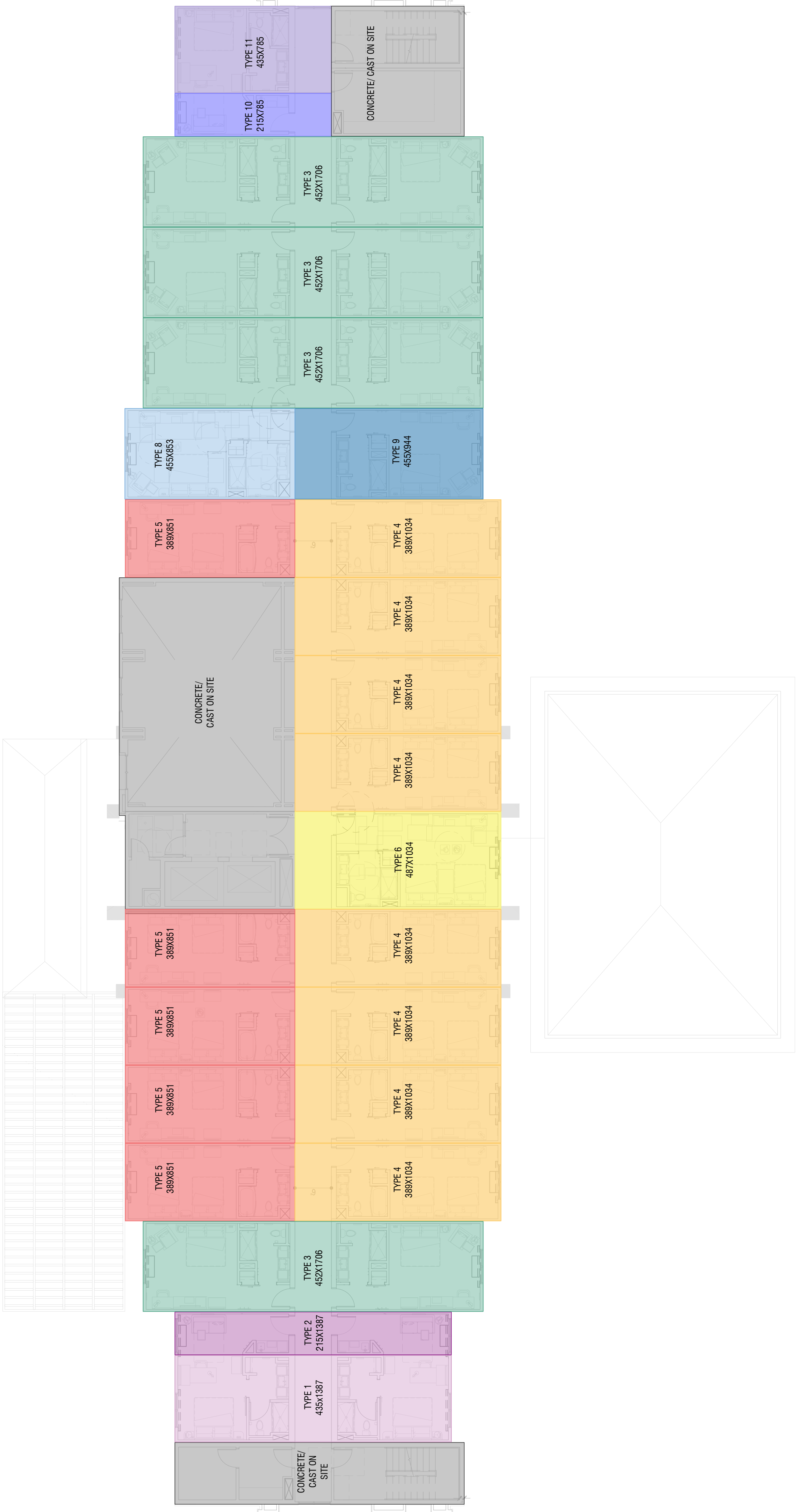
FLOOR
PLAN

A-2.5

FLOOR AREA (SF)



Module types				
Colour	Module type	Module dim	Height	Count
	Type.01	435 x 1387	300	4
	Type.02	215 x 1387	300	4
	Type.03	452 x 1706	300	16
	Type.04	389 x 1034	300	32
	Type.05	389 x 851	300	20
	Type.06	487 x 1034	300	4
	Type.07	389 x 881	300	9
	Type.08	455 x 853	300	4
	Type.09	455 x 944	300	4
	Type.10	215 x 785	300	4
	Type.11	435 x 785	300	4



Owner:

HAVEN DEVELOPMENT LLC



ST THOMAS, VI

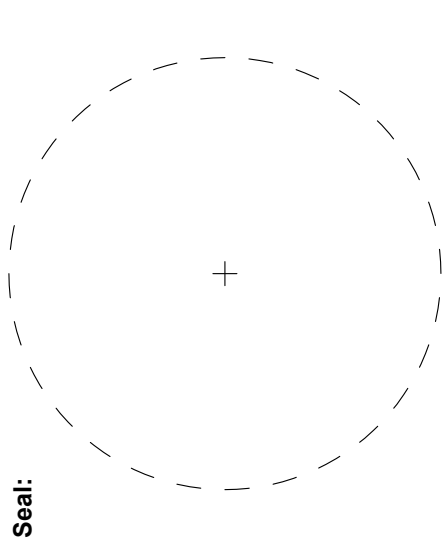
ISSUE NO.	DELTA	ISSUE DATE	DESCRIPTION

CURRENT ISSUE:

CZM PERMIT SET

CURRENT ISSUE DATE:	09/06/2022
DRAWN BY:	MB/HA
CHECKED BY:	SD
PROJECT #:	B4-260-2201
SHEET NAME:	

MODULE PLAN



Owner:

HAVEN DEVELOPMENT LLC



ST THOMAS, VI

ISSUE NO.	DELTA	ISSUE DATE	DESCRIPTION

CURRENT ISSUE:

CZM PERMIT SET

CURRENT ISSUE DATE:	09/06/2022
DRAWN BY:	MB/HA
CHECKED BY:	SD
PROJECT #:	B4-260-2201
SHEET NAME:	

MODULE PLAN

SHEET NUMBER:

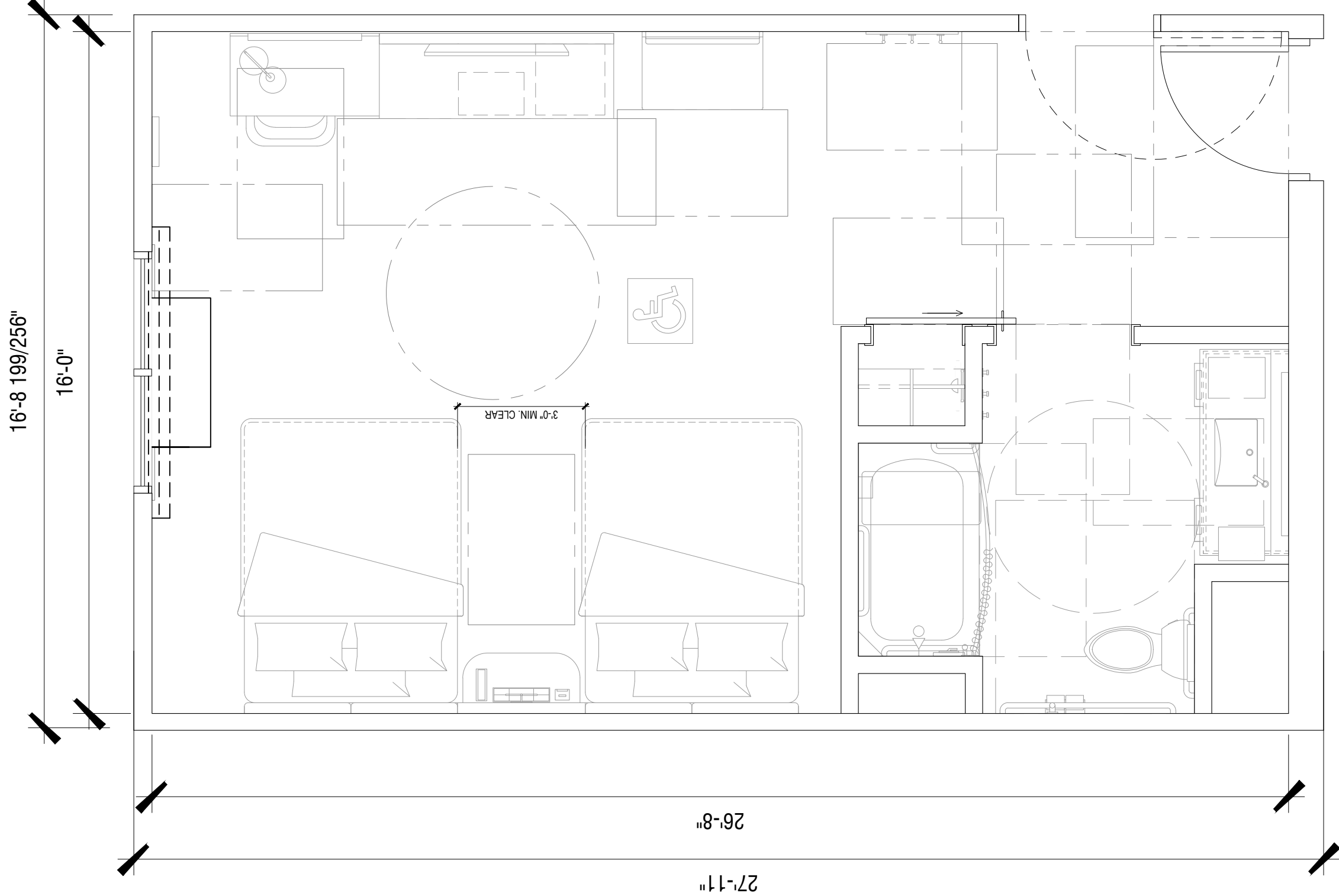
A-2.8

Module types					
Colour	Module type	Module dim	Height	Count	Area
	Type.01	435 x 1387	300	4	241.2
	Type.02	215 x 1387	300	4	119.2
	Type.03	452 x 1706	300	16	1 233.6
	Type.04	389 x 1034	300	32	1 286.4
	Type.05	389 x 851	300	20	682.0
	Type.06	487 x 1034	300	4	201.6
	Type.07	389 x 881	300	9	308.7
	Type.08	455 x 853	300	4	154.4
	Type.09	455 x 944	300	4	170.8
	Type.10	215 x 785	300	4	67.6
	Type.11	435 x 785	300	4	136.4



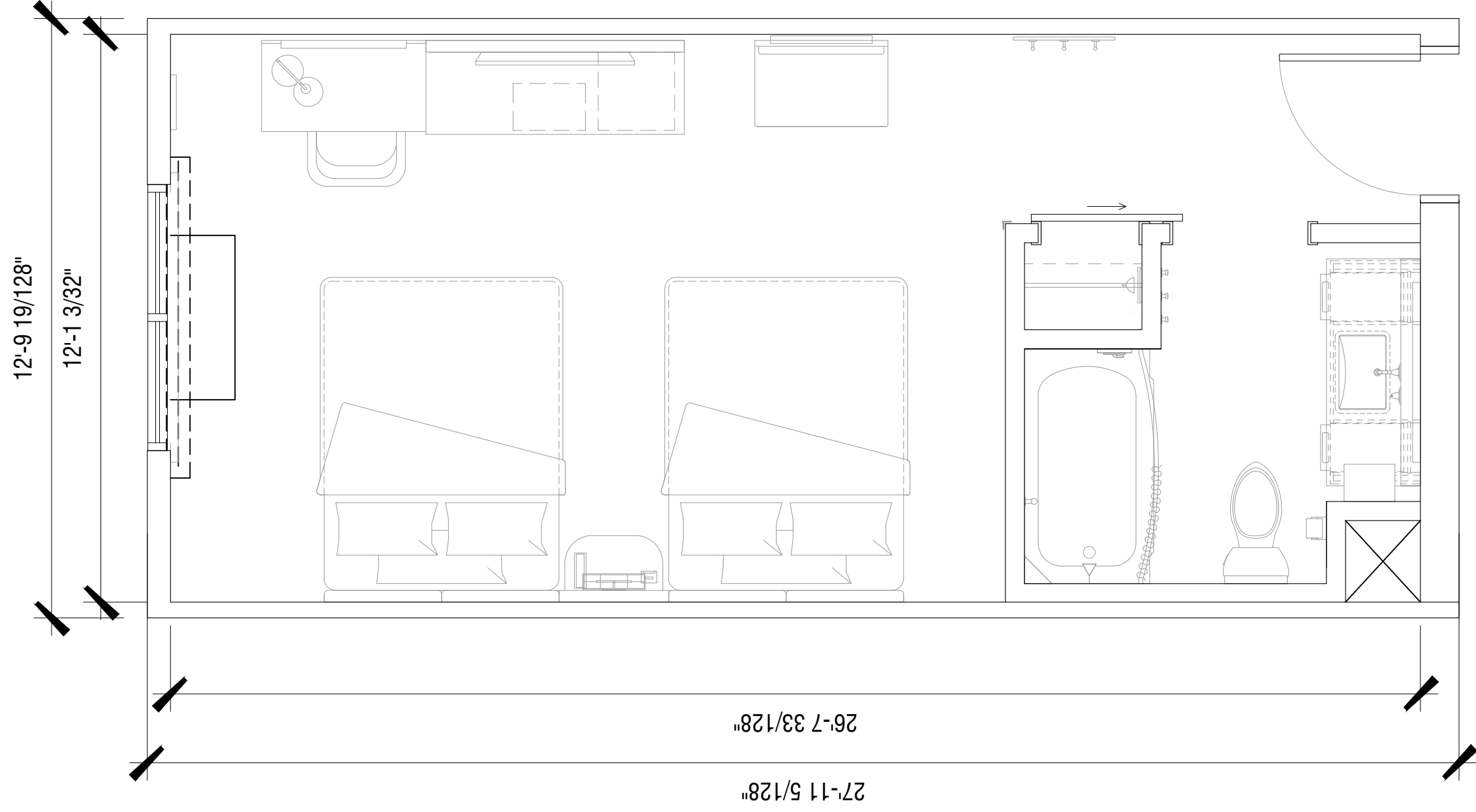
ISSUE NO.	DELTA	ISSUE DATE	DESCRIPTION

CURRENT ISSUE:	
CZM PERMIT SET	
CURRENT ISSUE DATE:	
09/06/2022	
DRAWN BY:	MB/HA
CHECKED BY:	SD
PROJECT #:	B4-260-2201
SHEET NAME:	



1 ACCESSIBLE QUEEN QUEEN (TUB)

3/8" = 1'-0"



2 QUEEN QUEEN

3/8" = 1'-0"

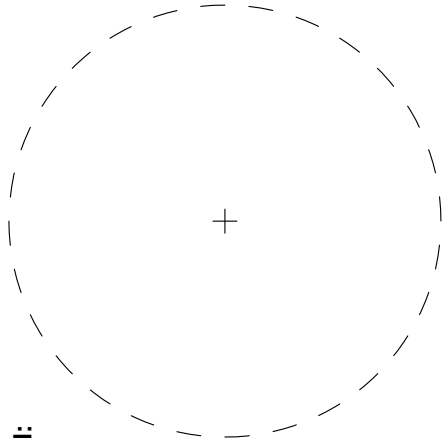


BASE⁴

Architects | Engineers | Designers

Base 4 2901 Clint Moore Rd, #114
BOCA RATON, FL 33496
888.901.8008 www.base-4.com

Seal:



Owner:

HAVEN DEVELOPMENT LLC

PROJECT INFORMATION:



ST THOMAS, VI

ISSUE NO.	DELTA	ISSUE DATE	DESCRIPTION
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CURRENT ISSUE:

CZM PERMIT SET

CURRENT ISSUE DATE:

09/06/2022

DRAWN BY:

MB/HA

CHECKED BY:

SD

PROJECT #:

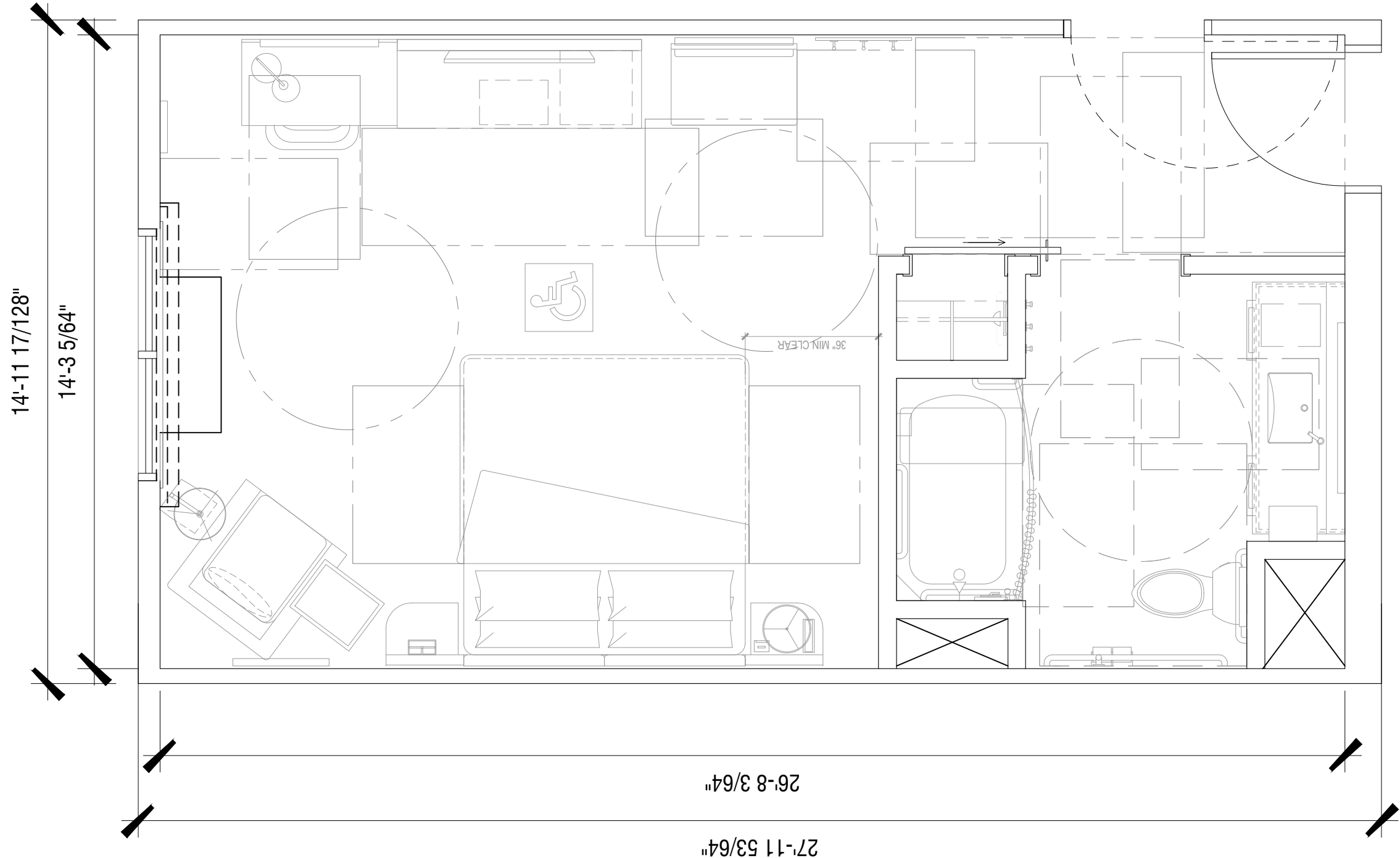
4-260-2201

SHEET NAME:

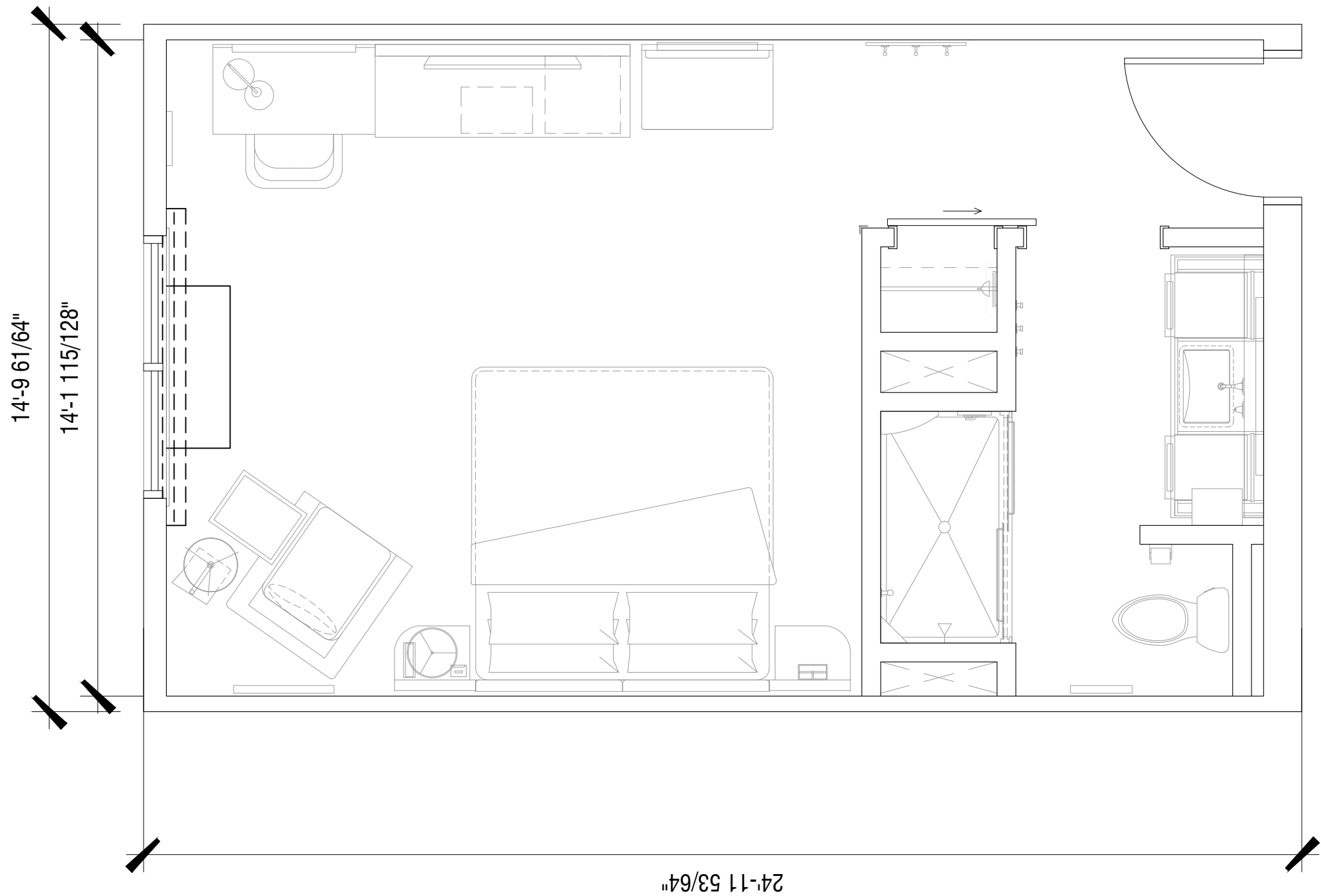
ENLARGED
PLAN

SHEET NUMBER:

A-3.2



1 ACCESSIBLE KING (TUB)
3/8" = 1"-0"



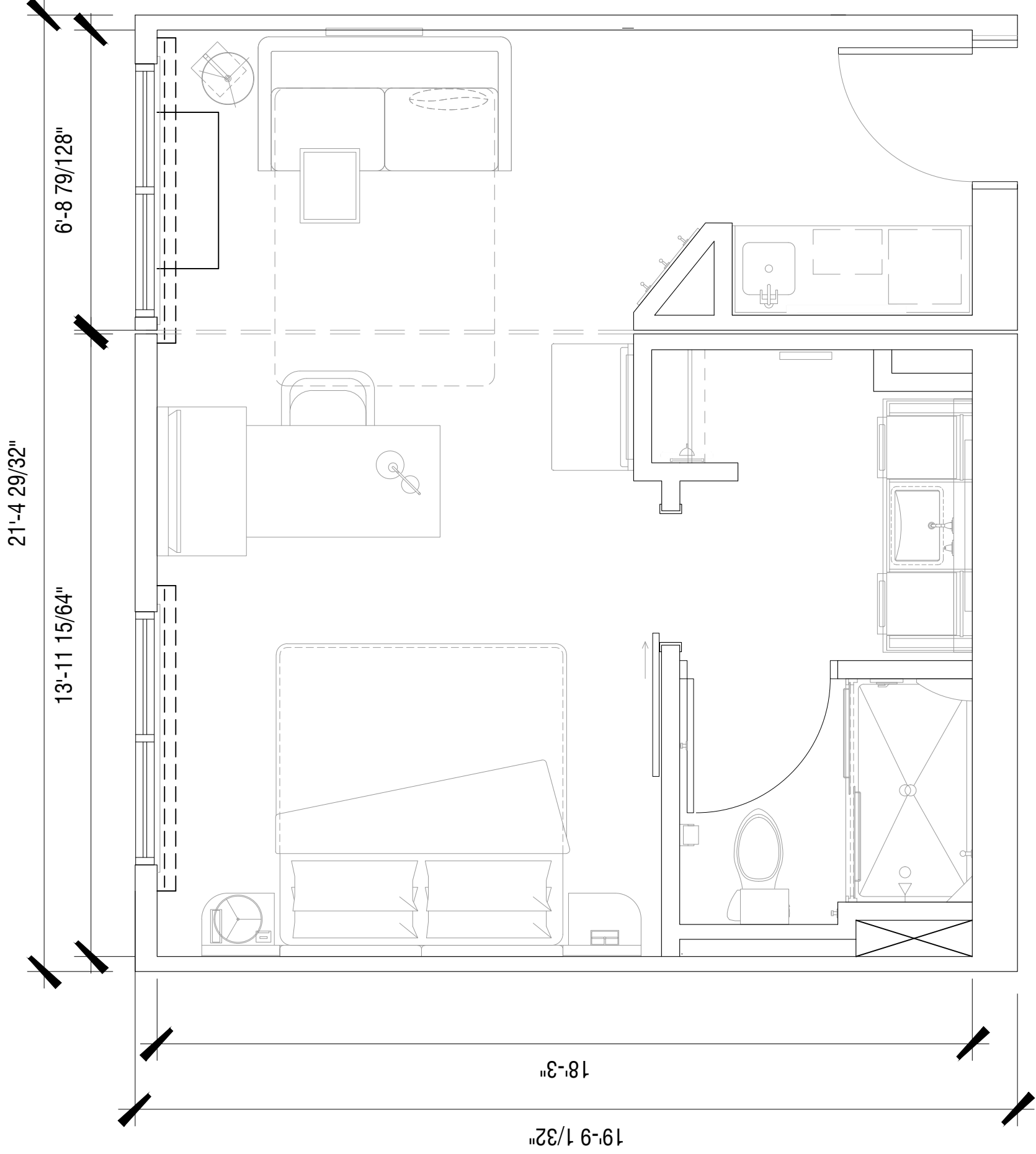
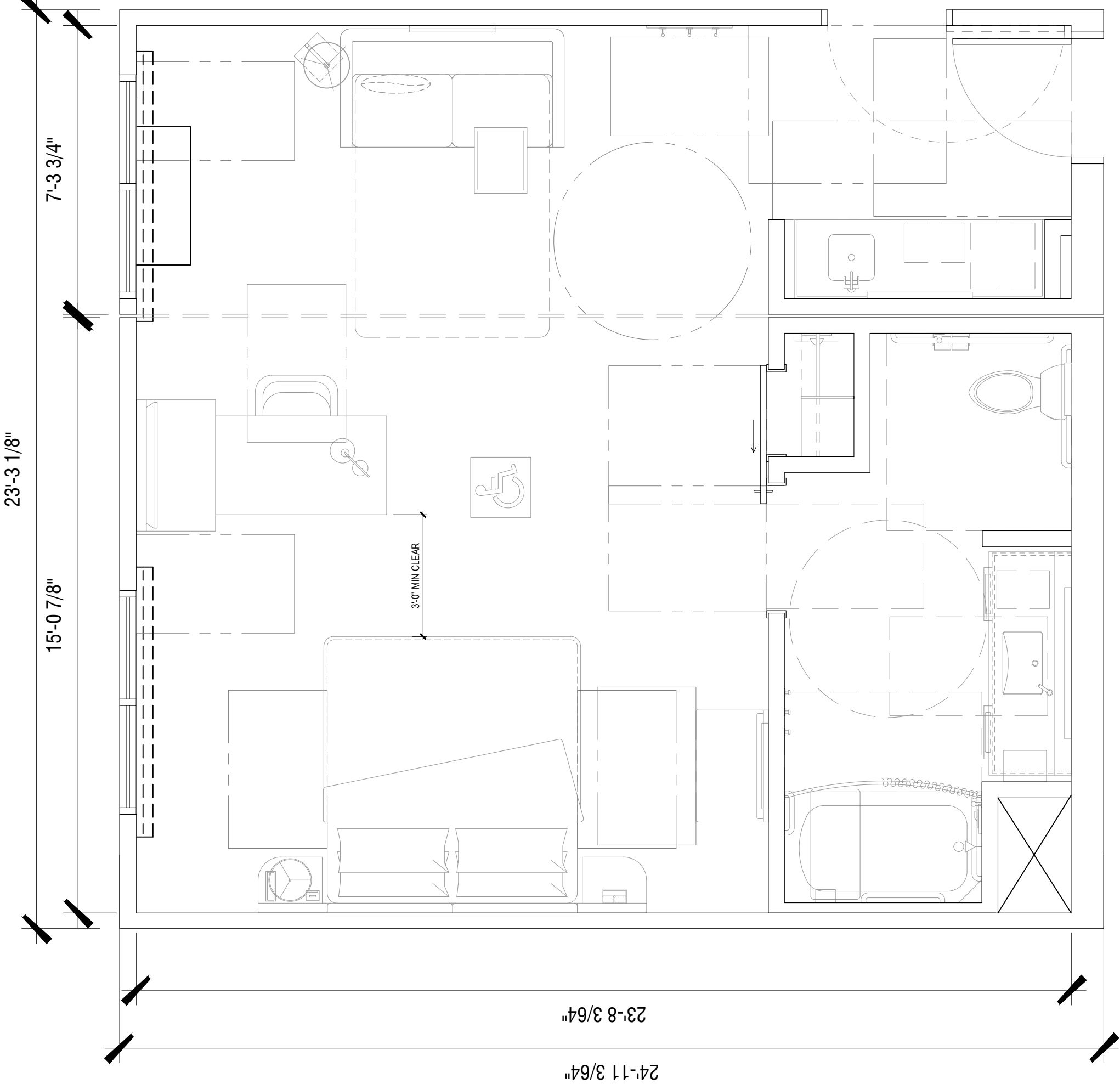
2 KING
3/8" = 1"-0"

ISSUE NO.	DELTA	ISSUE DATE	DESCRIPTION

CZM PERMIT SET

CURRENT ISSUE DATE:	09/06/2022
DRAWN BY:	MB/HA
CHECKED BY:	SD
PROJECT #:	B4-260-2201
SHEET NAME:	

ENLARGED
PLAN



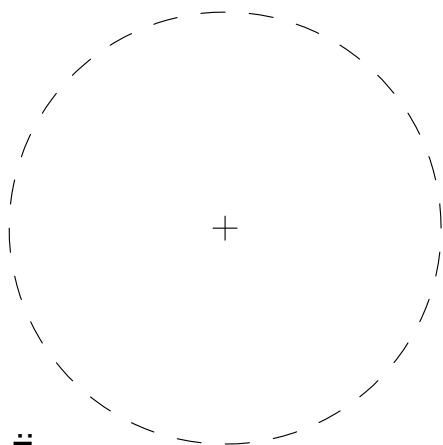


BASE⁴

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Owner:

HAVEN DEVELOPMENT LLC

PROJECT INFORMATION:



ST THOMAS, VI

ISSUE NO.	DELTA	ISSUE DATE	DESCRIPTION
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CURRENT ISSUE:

CZM PERMIT SET

CURRENT ISSUE DATE:

09/06/2022

DRAWN BY:

MB/HA

CHECKED BY:

SD

PROJECT #:

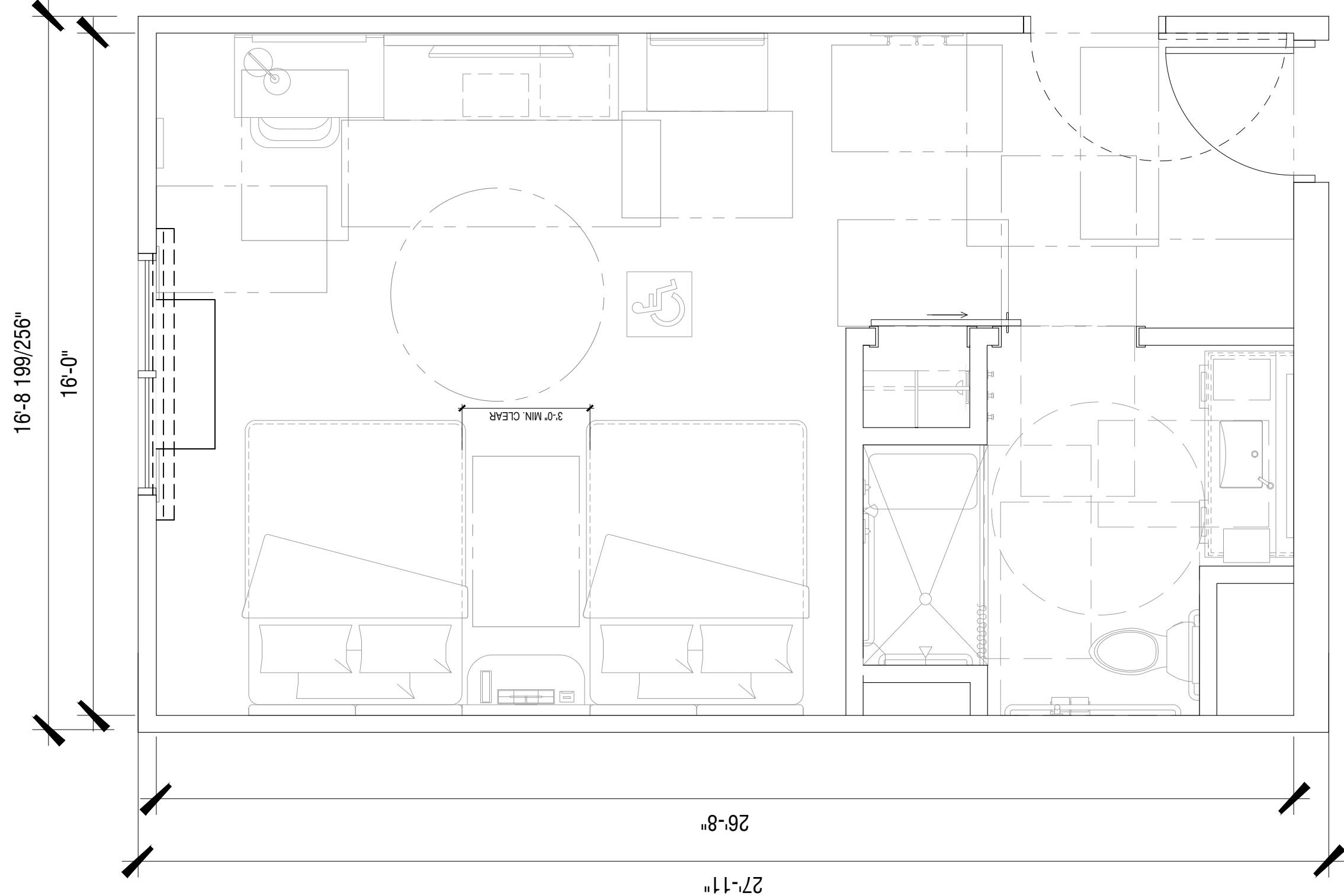
4-260-2201

SHEET NAME:

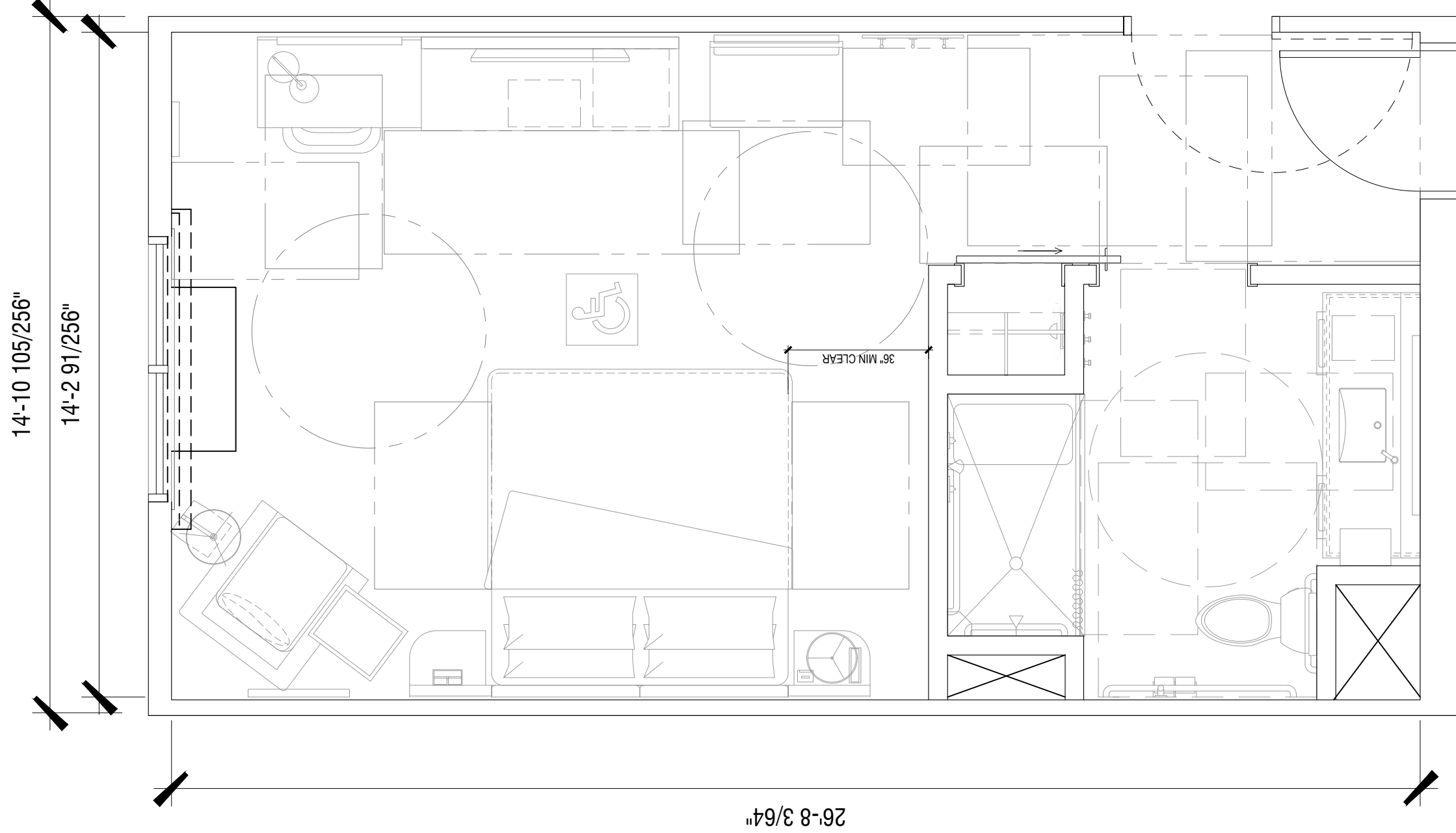
ENLARGED
PLAN

SHEET NUMBER:

A-3.4



2 ACCESSIBLE QUEEN QUEEN (RIS)
3/8" = 1" -0"



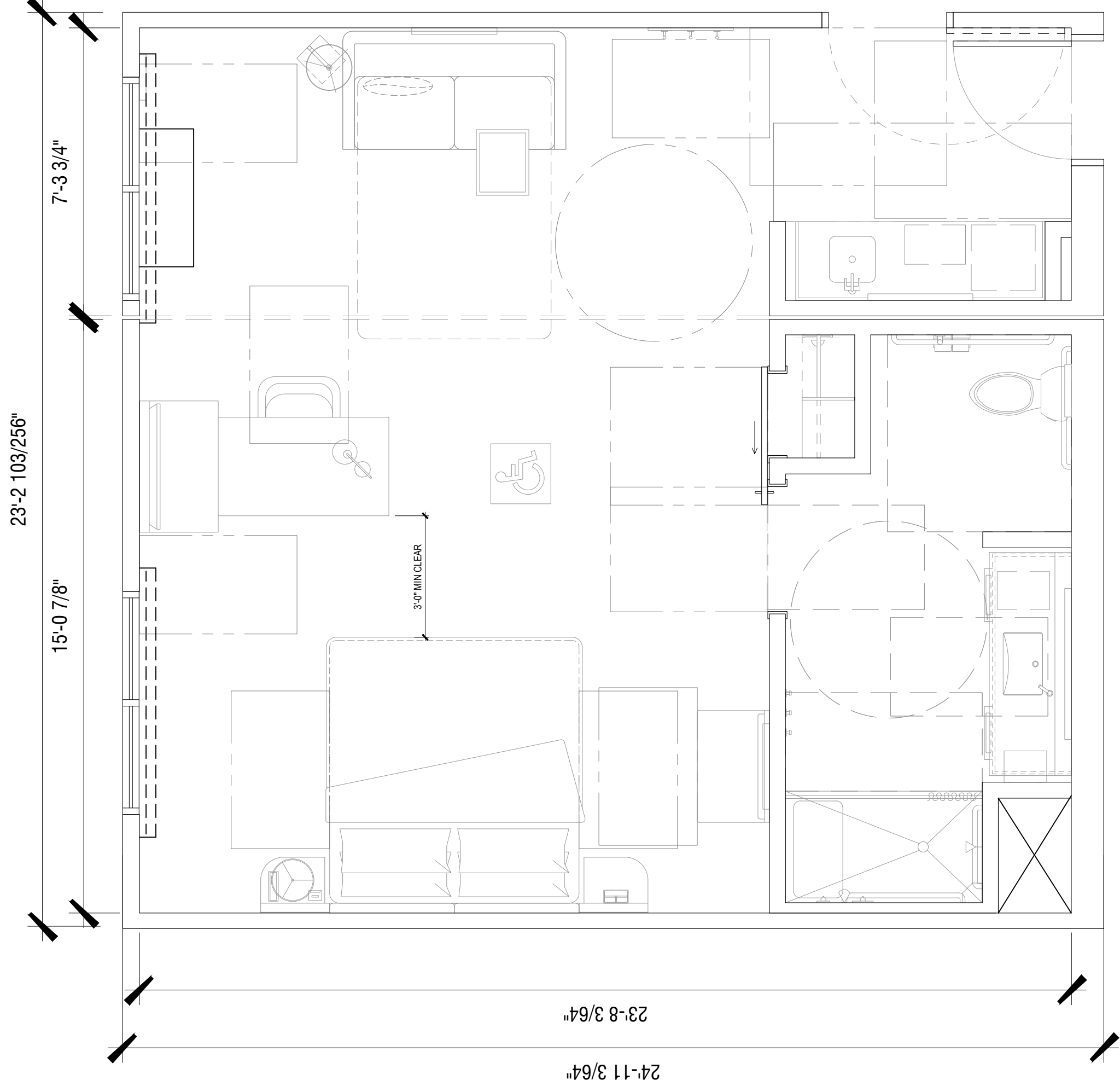
1 ACCESSIBLE KING (RIS)
3/8" = 1"-0"

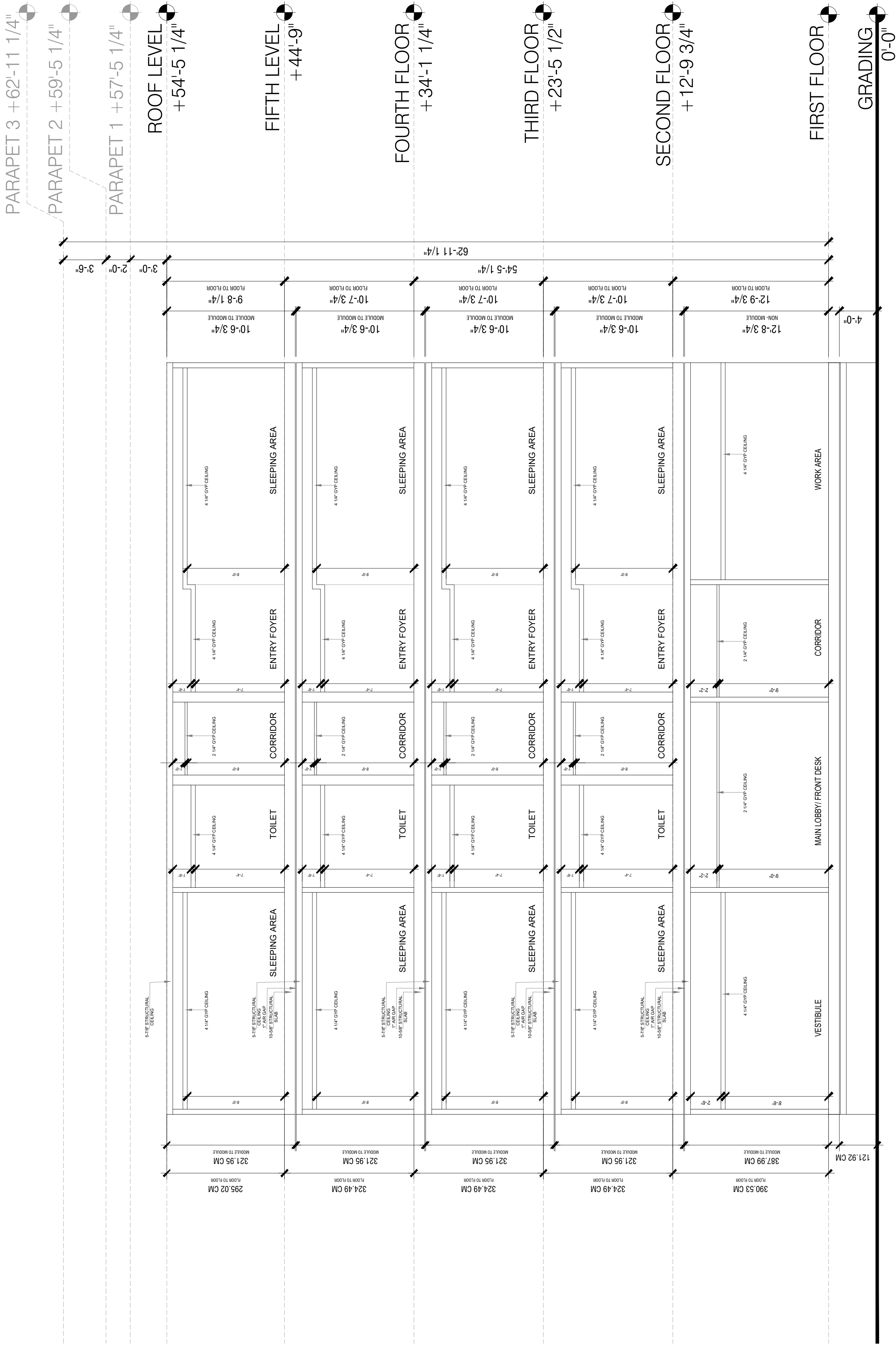
ISSUE NO.	DELTA	ISSUE DATE	DESCRIPTION

CZM PERMIT SET

CURRENT ISSUE DATE:	09/06/2022
DRAWN BY:	MB/HA
CHECKED BY:	SD
PROJECT #:	B4-260-2201
SHEET NAME:	


ENLARGED
PLAN







Goal:

A dashed circle with a plus sign inside, representing a goal or target.

HAVEN DEVELOPMENT LLC

*Hampton
Inn & Suites*
by HILTON

ST THOMAS, VI

ISSUE NO.	DELTA	ISSUE DATE	DESCRIPTION

CZM PERMIT SET

09/06/2022

AZ/HA

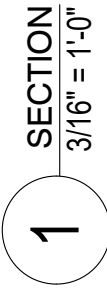
SD

4-260-2201

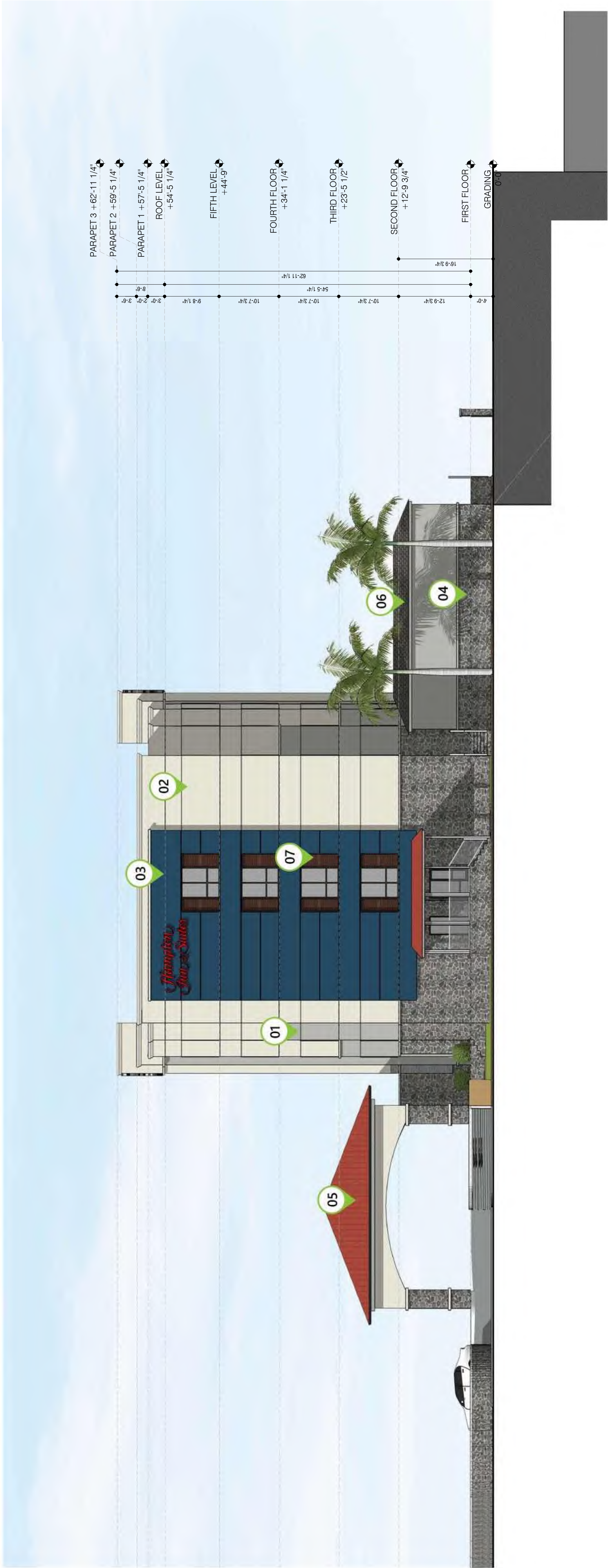
SECTIONS

HEET NUMBER:

A-4.2



LEGEND-EXTERIOR FINISHES			
MARK	MTL BRAND	FINISH COLOR	IMAGE
01	EFFS	BM COVENTRY GREY 200120	
02	EFFS	BM CHINE WHITE 02111	
03	EFFS	BM CHAMPION COBALT 200120	
04	STONE		
05	METAL ROOF	RED	
06	SLATED ROOF	GREY	
07	ACCENT CLADDING	BROWN	
08	PAINT	BM SALVESTON GREY 213780	
09	PAINT	BM GREY OWL 213780	



2 RIGHT SIDE ELEVATION
3/32" = 1'-0"

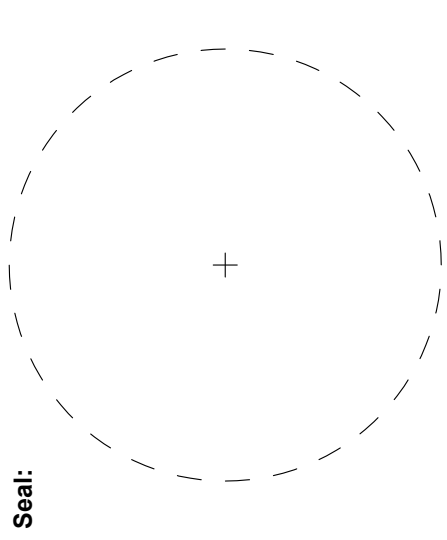


1 FRONT ELEVATION
3/32" = 1'-0"



BASE⁴

Architects Engineers Designers
Base 4 2901 Clint Moore Rd #114
BOCA RATON, FL 33496
888.901.8008 www.base-4.com



Owner:

HAVEN DEVELOPMENT LLC

PROJECT INFORMATION:



ST THOMAS, VI

ISSUE NO.	DELTA	ISSUE DATE	DESCRIPTION

CURRENT ISSUE:

CZM PERMIT SET

CURRENT ISSUE DATE:

09/06/2022

DRAWN BY:

AZ/HA

CHECKED BY:

SD

PROJECT #:

B4-260-2201

SHEET NAME:

ELEVATIONS

SHEET NUMBER:

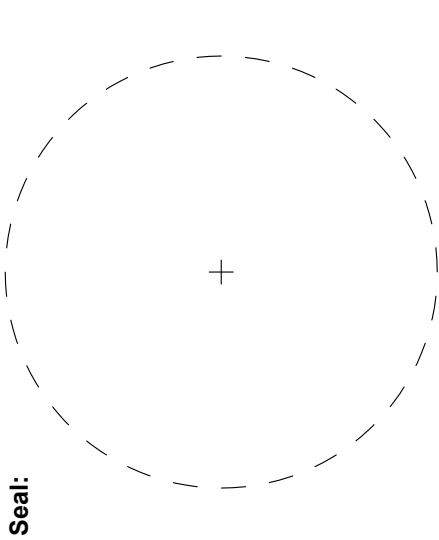
A-5.1



BASE⁴

Architects Engineers Designers
Base 4 2901 Clint Moore Rd #114
BOCA RATON, FL 33496
888.901.8008 www.base-4.com

Seal:



Owner:

HAVEN DEVELOPMENT LLC

PROJECT INFORMATION:



ST THOMAS, VI

ISSUE NO.	DELTA	ISSUE DATE	DESCRIPTION
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CURRENT ISSUE:

CZM PERMIT SET

CURRENT ISSUE DATE: 09/06/2022

DRAWN BY: AZ/HA

CHECKED BY: SD

PROJECT #: B4-260-2201

SHEET NAME:

ELEVATIONS

SHEET NUMBER:

A-5.2

LEGEND-EXTERIOR FINISHES			
MARK	MTL BRAND	FINISH COLOR	IMAGE
01	EFFS	BM COVENTRY GREY 200120	
02	EFFS	BM CHINE WHITE 02C111	
03	EFFS	BM CHAMPION COBALT 200120	
04	STONE		
05	METAL ROOF	RED	
06	SLATED ROOF	GREY	
07	ACCENT CLADDING	BROWN	
08	PAINT	BM SALVESTON GREY 213780	
09	PAINT	BM GREY OWL 213780	



2 LEFT SIDE ELEVATION
3/32" = 1'-0"



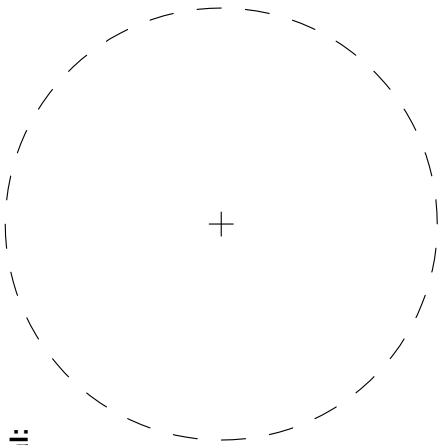
1 REAR ELEVATION
3/32" = 1'-0"



BASE4

Architects | Engineers | Designers
Base 4 2901 Clint Moore Rd, #114
BOCA RATON, FL 33496
888.901.8008 www.base-4.com

Seal:



Owner:

HAVEN DEVELOPMENT LLC

PROJECT INFORMATION:



ST THOMAS, VI

ISSUE NO.	DELTA	ISSUE DATE	DESCRIPTION

CURRENT ISSUE:

CZM PERMIT SET

CURRENT ISSUE DATE:

09/06/2022

DRAWN BY:

AZ/HA

CHECKED BY:

SD

PROJECT #:

B4-260-2201

SHEET NAME:

3D
VIEWS

SHEET NUMBER:

A-6.1

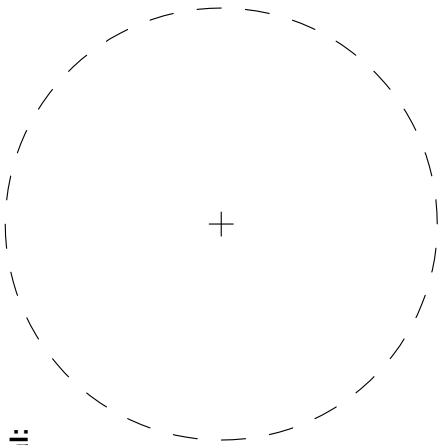




BASE⁴

Architects Engineers | Designers
Base 4 2901 Clint Moore Rd, #114
BOCA RATON, FL 33496
888.901.8008 www.base-4.com

Seal:



Owner:

HAVEN DEVELOPMENT LLC

PROJECT INFORMATION:



ST THOMAS, VI

ISSUE NO.	DELTA	ISSUE DATE	DESCRIPTION
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CURRENT ISSUE:

CZM PERMIT SET

CURRENT ISSUE DATE:

09/06/2022

DRAWN BY:

AZ/HA

CHECKED BY:

SD

PROJECT #:

B4-260-2201

SHEET NAME:

3D
VIEWS

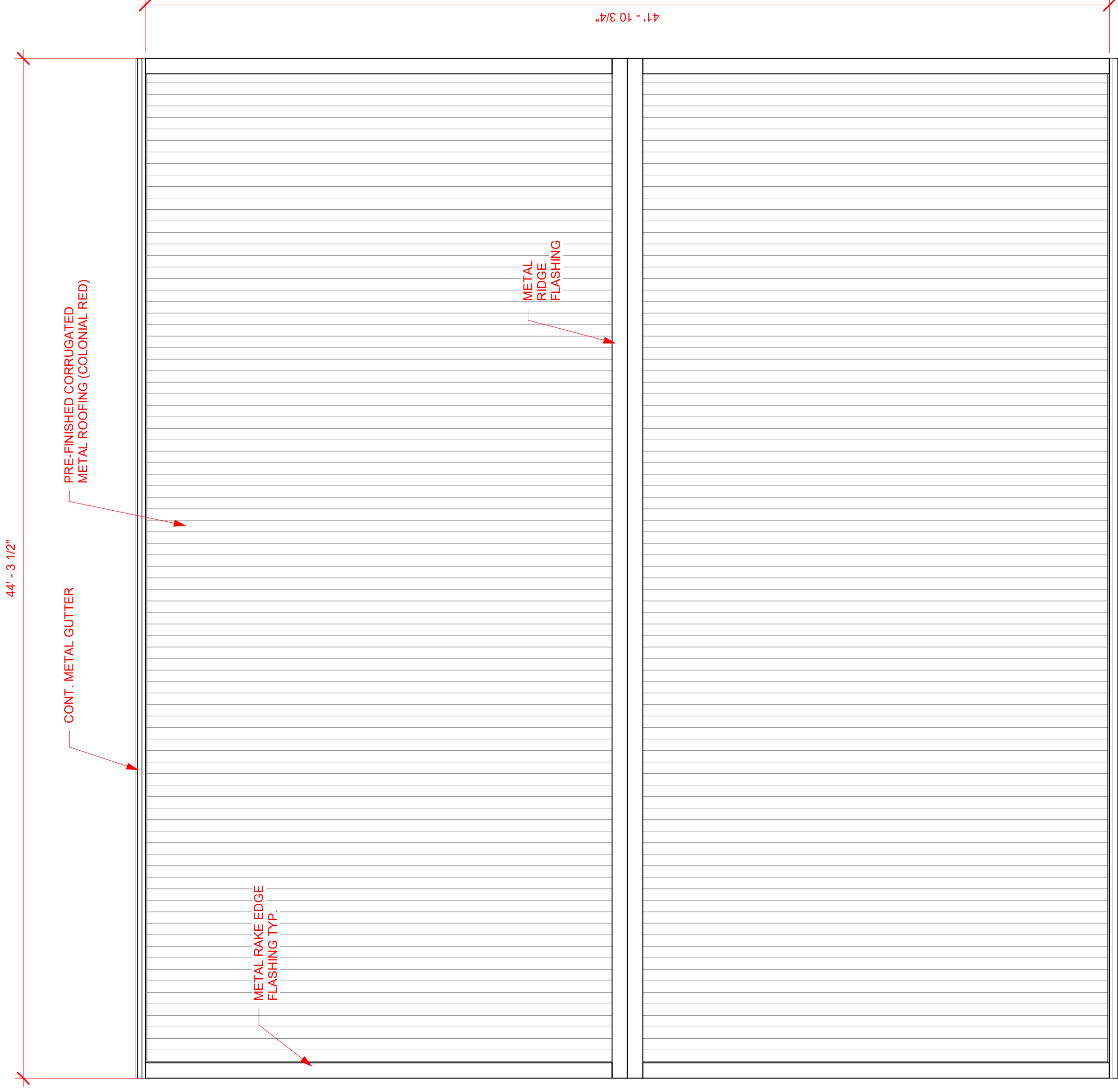
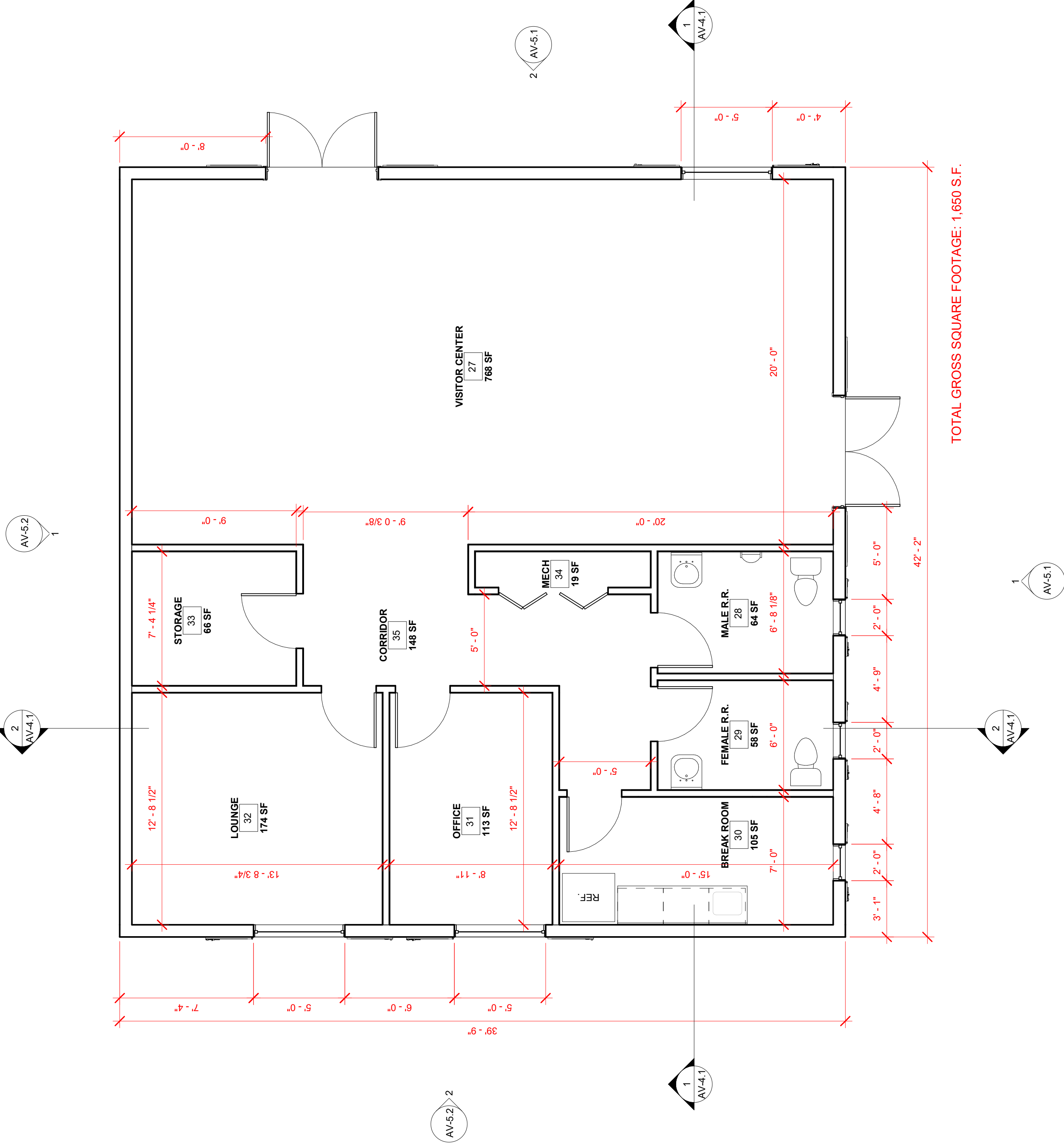
SHEET NUMBER:

A-6.2









PROGRESS SET		
No.	Description	Date
1	C2M PERMIT SET	08/06/2022

REVISIONS	
No.	Description

Project number	
Date	09/06/2022
Drawn by	JTB
Checked by	JTB

VISITOR CENTER FLOOR
PLANS

AV-2.1

Scale:	AS SHOWN
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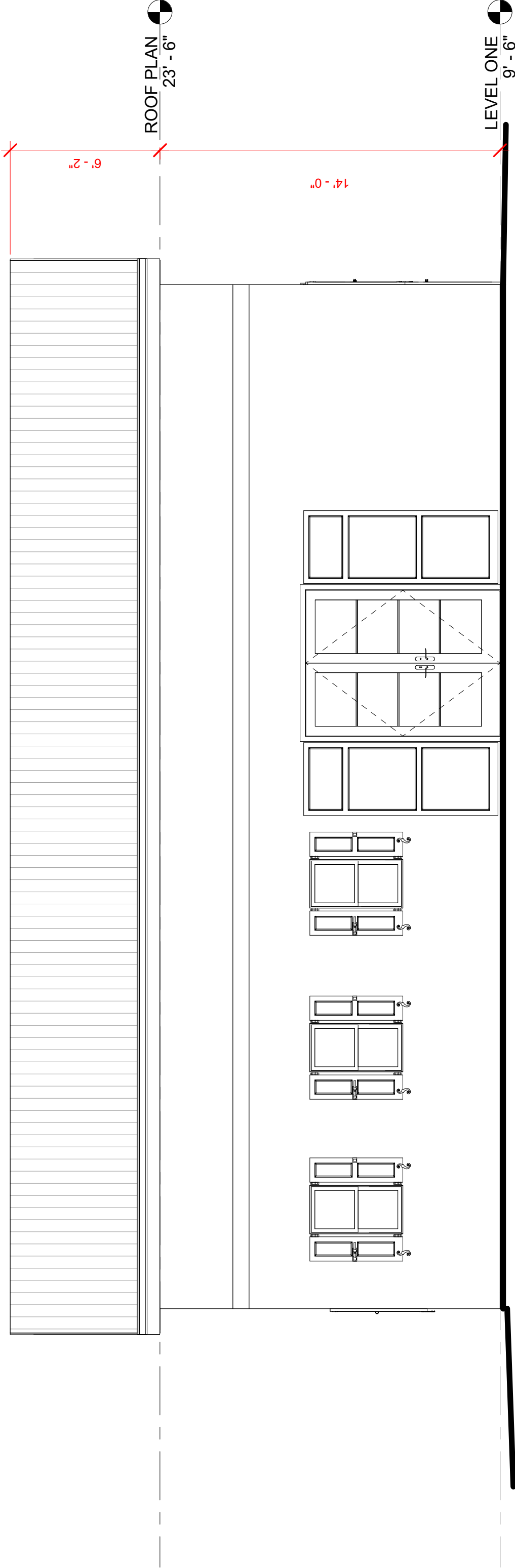
HAVEN DEVELOPMENT, LLC
VISITOR CENTER
PARCEL NO. 4
ESTATE THOMAS
ST. THOMAS, VI 00802



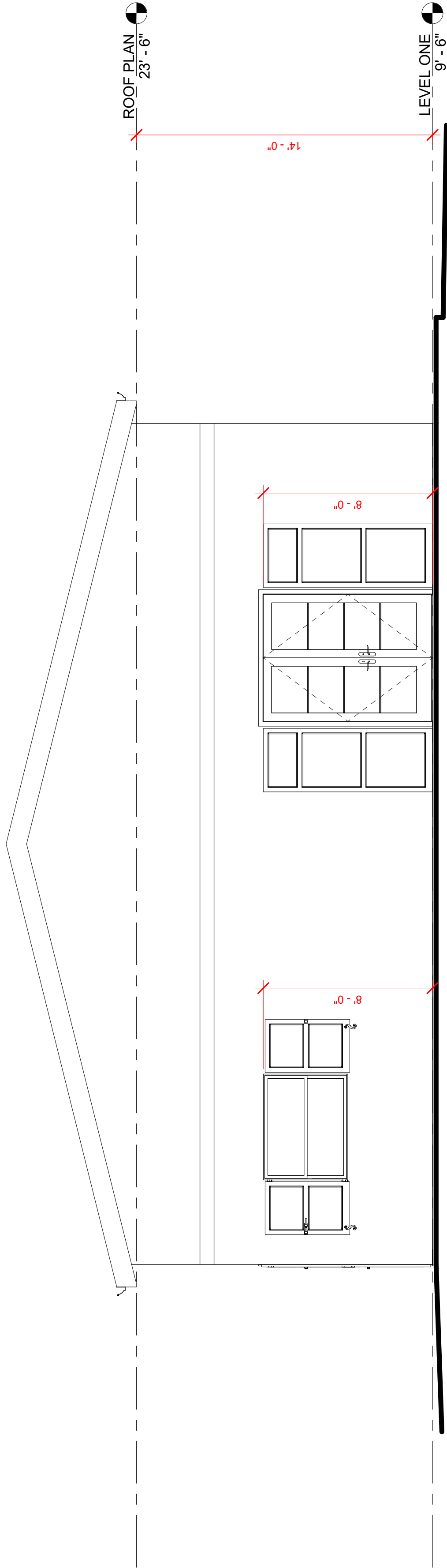
ARCHITECT
BOSCHULTE ARCHITECTURE, LLC
PO Box 303190
St. Thomas, VI 00803
4142 Kongens Gade
St. Thomas, VI 00802
phone: (340) 777-2375
e-mail: info@boschulte.com
website: www.boschulte.com



PROJECT SET	
No.	Description
1	CDM PERMIT SET
Date	
08/07/2022	
REVISIONS	
No.	Description
Date	
Project number	
Date	
09/06/2022	
Drawn by	
JTB	
Checked by	
JTB	
VISITOR CENTER ELEVATIONS	
AV-5.1	
Scale:	AS SHOWN



1 EAST ELEVATION
1/4" = 1'-0"



2 NORTH ELEVATION
1/4" = 1'-0"

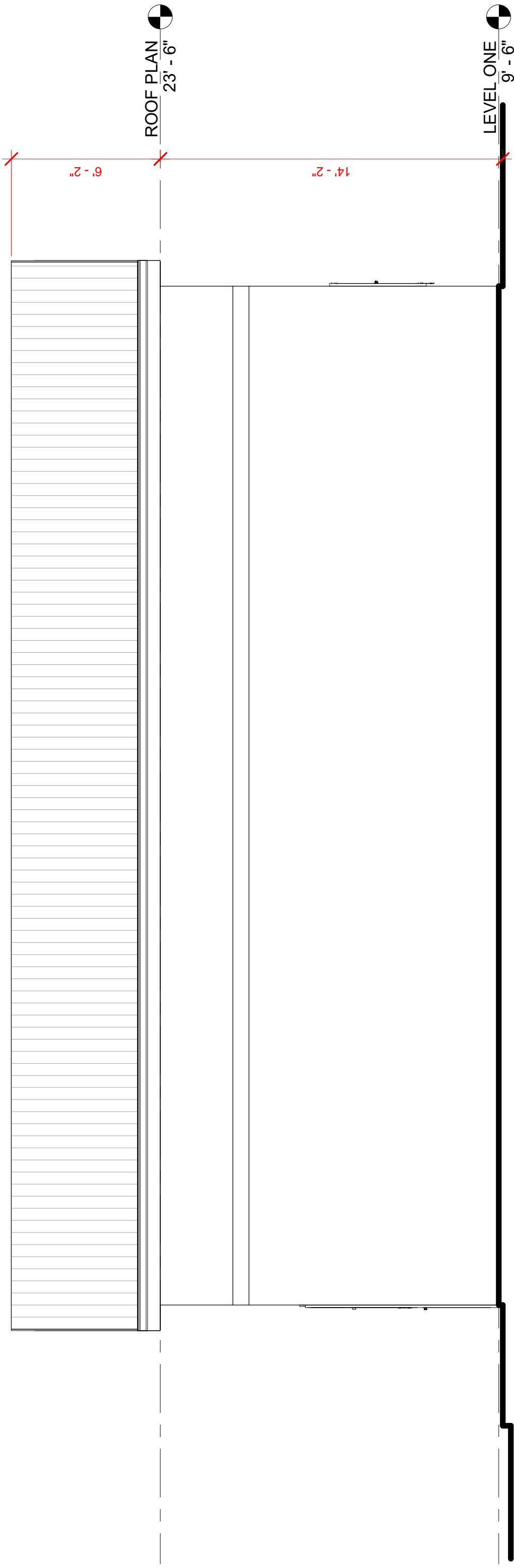
HAVEN DEVELOPMENT, LLC
VISITOR CENTER
PARCEL NO. 4
ESTATE THOMAS
ST. THOMAS, VI 00802



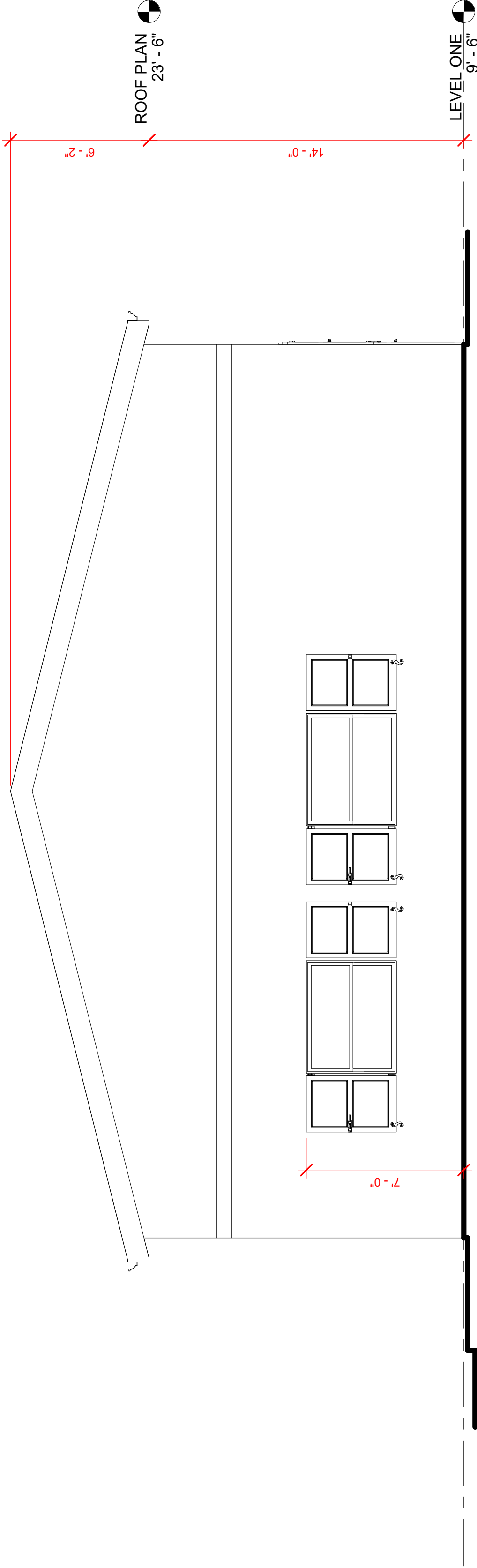
ARCHITECT
BOSCHULTE ARCHITECTURE, LLC
PO Box 303190
St. Thomas, VI 00803
4142 Kongens Gade
St. Thomas, VI 00802
phone: (340) 777-2375
e-mail: info@boschulte.com
website: www.boschulte.com



PROGRESS SET	
No.	Description
1	CDM PERMIT SET
REVISIONS	
No.	Description
Project number	
09/06/2022	
Date	JTB
Drawn by	JTB
Checked by	JTB
VISITOR CENTER ELEVATIONS	
AV-5.2	
Scale: AS SHOWN	



1 WEST ELEVATION
1/4" = 1'-0"



2 SOUTH ELEVATION
1/4" = 1'-0"