CONSTRUCTION PLANS
FOR
STORMWATER MANAGEMENT IMPROVEMENTS
REAR OF BOAT HOUSE RESTAURANT
KEY WEST HISTORIC SEAPORT

LOCATION MAP:

PROJECT LOCATION:
220 MARGARET ST,
KEY WEST, FL 33040

SITE MAP:

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SERGE MASHTAKOV LICENSE No. 71480 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Serge Mashtakov, PE 71480 State of Florida
Date: 2021.11.11 14:57:35 -05'00'

SIGNATURE:

SERGE MASHTAKOV
PROFESSIONAL ENGINEER
STATE OF FLORIDA
LICENSE NO 71480

REV	DESCRIPTION:	BY:	DATE:
STATUS:	FINAL		

ARTIBUS DESIGN
ENGINEERING AND PLANNING

ARTIBUS DESIGN
3710 N. ROOSEVELT BLVD
KEY WEST, FL 33040
(305) 304-3512
WWW.ARTIBUSDESIGN.COM
CA # 30835

CLIENT: CITY OF KEY WEST

PROJECT: STORMWATER MANAGEMENT

SITE: 220 MARGARET ST,
KEY WEST, FL 33040

TITLE: COVER

SCALE AT 24x36:	DATE:	DRAWN:	CHECKED:
AS SHOWN	11/11/21	SAM	SAM
PROJECT NO:	DRAWING NO:		REVISION:
2102-12	G-100		1

Sunshine811

General Requirements:

1. Prior to starting any work the Contractor shall review these plans and site conditions and notify the Engineer if any discrepancies are discovered.
2. The Engineer is not responsible for the supervision of the Contractor nor his employees during the construction. It is the Contractor's responsibility to provide means and establish methods of the construction to meet requirements of all applicable codes, industry standards and requirements of these plans.
3. Quality of the work shall meet or exceed industry standard practices.
4. Any deviations from these plans shall be reviewed and approved by the Engineer.

Design Data:

1. Applicable Building Code: FBC Existing Building 7th Edition (2020)
2. Applicable Design Loads: per ASCI/SEI 7-16
   - Floor Live Load: 100 psf
   - Roof Live Load: 20 psf (300 lb conc.)
   - Basic Wind Speed: 180 MPH
   - Exposure: D
   - Structural Category: II

Flood Zone: VE10

All pressures shown are based on ASD Design,
with a Load Factor of 0.6

3.ASCE 24-14 FLOOD RESISTANT DESIGN AND CONSTRUCTION

Concrete:

1. Applicable Code ACI 318 latest edition and ACI 301.
2. All concrete elements shall have a min. compressive strength of 4000 psi unless otherwise is shown on the plans. Water/Cement ratio shall not exceed W/C=0.40.
3. All cast-in-place concrete shall be cured and protected from overdrying per ACI 305R-10 "Hot Weather Concreting".
4. All exposed edges shall have 1/2" chamfers.
5. No cold joints are allowed unless otherwise approved by the Engineer.
6. TESTING: All Field and Laboratory Testing shall be performed by an independent specialized company. The contractor is responsible for all scheduling, coordination and cost of the testing company.
7. Cast-in-place and precast member erection tolerances shall be as specified in the table 8.2.2 or in section 8.3 of "PCI design handbook/Sixth edition".

Reinforcement:

1. All rebar shall be ASTM 615 grade 60 unless otherwise specified on the plans.
2. All requirements for placement, cover, tolerances, etc. Shall be per ACI 318-11.
3. All hooks and bends shall be factory made unless field bends are approved by the Engineer.
4. Only PLASTIC CHAIRS and CENTRALIZERS shall be used for rebar support.

REFERENCED SPECIFICATIONS (LATEST EDITIONS):

1. Florida Department of Transportation Standard Specification and Index.
2. City of Key West Land Development Regulations.
3. F.D.E.P. requirements and standards for water and wastewater construction and testing.

WATER & SEWER CROSSINGS & PARALLEL INSTALLATION NOTES:

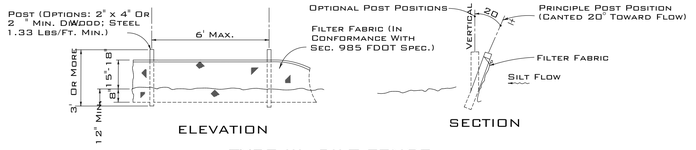
New or relocated, underground water mains shall be laid to provide a horizontal distance of at least six feet, and preferably ten feet, between the outside of the water main and the outside of any existing or proposed gravity- or pressure-type sanitary sewer, wastewater force main, or pipeline conveying reclaimed water not regulated under Part III of Chapter 62-610, F.A.C. The minimum horizontal separation distance between water mains and gravity-type sanitary sewers shall be reduced to three feet where the bottom of the water main is laid at least six inches above the top of the sewer. New or relocated, underground water mains crossing any existing or proposed gravity- or vacuum-type sanitary sewer shall be laid so the outside of the water main is at least six inches, and preferably 12 inches, above or at least 12 inches below the outside of the other pipeline. However, it is preferable to lay the water main above the other pipeline.

At the utility crossings described above, one full length of water main pipe shall be centered above or below the other pipeline so the water main joints will be as far as possible from the other pipeline. Alternatively, at such crossings, the pipes shall be arranged so that all water main joints are at least three feet from all joints in vacuum-type sanitary sewers, or pipelines conveying reclaimed water regulated under Part III of Chapter 62-610, F.A.C., and at least six feet from all joints in gravity- or pressure-type sanitary sewers, wastewater force mains, or pipelines conveying reclaimed water not regulated under Part III of Chapter 62-610, F.A.C.

LOCATION OF PUBLIC WATER SYSTEM MAINS IN ACCORDANCE WITH F.A.C. RULE 62-555.314

Other Pipe	Horizontal Separation	Crossings (1)	Joint Spacing @ Crossings (Full Joint Centered)
Storm Sewer, Stormwater Force Main, Reclaimed Water (2)	Water Main 3 ft. minimum	Water Main 12 inches is the minimum, except for storm sewer, then 6 inches is the minimum and 12 inches is preferred	Alternate 3 ft. minimum Water Main
Vacuum Sanitary Sewer	Water Main 10 ft. preferred 3 ft. minimum	Water Main 12 inches preferred 6 inches minimum	Alternate 3 ft. minimum Water Main
Gravity or Pressure, Sanitary Sewer, Sanitary Sewer Force Main, Reclaimed Water (4)	Water Main 10 ft. preferred 6 ft. minimum (3)	Water Main 12 inches is the minimum, except for gravity sewer, then 6 inches is the minimum and 12 inches is preferred	Alternate 6 ft. minimum Water Main
On-Site Sewage Treatment & Disposal System	10 ft. minimum	---	---

(1) Water main should cross above other pipe. When water main must be below other pipe, the minimum separation is 12 inches.
(2) Reclaimed water regulated under Part III of Chapter 62-610, F.A.C.
(3) 3 ft. for gravity sanitary sewer where the bottom of the water main is laid at least 6 inches above the top of the gravity sanitary sewer.
(4) Reclaimed water not regulated under Part III of Chapter 62-610, F.A.C.
Disclaimer-This document is provided for your convenience only. Please refer to F.A.C. Rule 62-555.314 for additional construction requirements.



TYPE III SILT FENCE

Type III Silt Fence Protection Around Ditch Bottom Inlets.

Do not deploy in a manner that silt fences will act as a dam across permanent flowing watercourses. Silt fences are to be used at upland locations and turbidity barriers used at permanent bodies of water.

SILT FENCE APPLICATIONS

Rev	Description:	By:	Date:
Status:	Final		

Artibus Design
Engineering and Planning

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www.ArtibusDesign.com
CA # 30835

Client: City of Key West

Project: Stormwater Management

Site: 220 Margaret St, Key West, FL 33040

Title: Notes

Scale at 24x36:	Date:	Drawn:	Checked:
As shown	11/11/21	SAM	SAM
Project No:	Drawing No:		Revision:
2102-12	G-101		1

PROPOSED ±4" 3000 PSI CONCRETE SLAB
W/ GALVANIZED W.W.F. 6X6-2.1X2.1,
PITCH AWAY FROM BUILDING WALLS
8"x12" (DEEP) THICKENED SLAB EDGE ON EXPOSED
SIDES, W/ (2) #4 REBAR CONTINUOUSLY, TOOLED
CONTROLLED JOINTS @ ± 5FT O.C., ¼" EXPANSION
JOINT FILLER ON ALL SIDES AGAINST RIGID
WALLS, LIGHT BROOM CLEAN FINISHED SURFACE
(REMOVE ANY EXISTING CONCRETE UNLESS IT
FALLS UNDER THE PROPOSED SLAB THICKNESS)

EXISTING PROPANE TANKS TO REMAIN

ELIMINATE ANY FLOOR DRAIN AND
ASSOCIATED PIPING CONNECTED TO
SANITARY SEWER

PROPOSED FLOOR MAT WASHING STATION
TIE DRAIN INTO EXISTING LINE LEADING TO GREASE TRAP

SAW CUT CONCRETE SLAB IN CLEAN STRAIGHT LINE
GRADE FINISHED GRAVEL FLASH WITH CONCRETE EDGE

±459 SQ.FT. OPEN SPACE
DEMOLISH EXISTING CONCRETE PAVEMENT
"TURFSTONE™" PERMEABLE PAVERS
1-1/2" PERMEABLE SETTING BED AGGREGATE, CRUSHED,
ANGULAR STONE
ASTM No.8
6" MIN. PERMEABLE BASE AGGREGATE:
OPEN-GRADED, CRUSHED ANGULAR
ASTM No.57
PERMEABLE NEEDLEPUNCHED NONWOVEN GEOTEXTILE ,
"MIRAFI 135N" OR ENGINEER APPROVED EQUAL

NEW CONCRETE SLAB STRAIGHT ROUNDED EDGE
GRADE FINISHED GRAVEL FLASH WITH CONCRETE EDGE

PLANT A MATURE CANOPY TREE AS APPROVED BY CITY
BIOLOGIST (TO BE PROVIDED BY "BOAT HOUSE" RESTAURANT)
(NO PAVEMENT 3FTx3FT AROUND TREE TRUNK)

SAW CUT 16" WIDE SECTION OF FENCE STEM WALL
TO ALLOW DRAINAGE TOWARD GRAVEL SWALE

PROPOSED 7" DEEP SWALE,
1:4 MAXIMUM SLOPE OF SIDES

±220 SQ.FT. AREA REMOVE MISC.
CONCRETE SLABS AND
12" OF TOP SOIL, AND GRADE WITH
6" MIN. PERMEABLE BASE AGGREGATE:
OPEN-GRADED, CRUSHED ANGULAR
ASTM No.57
OVER PERMEABLE NEEDLEPUNCHED
NONWOVEN GEOTEXTILE , "MIRAFI 135N"
OR ENGINEER APPROVED EQUAL

CLEAN AND GRADE TO PROMOTE DRAINAGE TOWARD THE
STORMWATER DRAINAGE INLET

PROTECT STORM WATER DRAINAGE INLET FOR THE
DURATION OF CONSTRUCTION ACTIVITIES, AFTER ALL
GRADING WORK IS COMPLETE AND APPROVED, THE SUMP
OF THE INLET SHALL BE CLEANED AND ALL DEBRIS
REMOVED TO THE SOUND CONCRETE

BENCHMARK
SET MAG NAIL
EL 1.77, NAVD88

MAIN BUILDING
OFFICE & STORAGE
CONCRETE
DRAIN
PAVEMENT
GRAVEL
DIESEL TANK
FUEL LINES ABOVE GROUND
APPROX. U.G. FUEL LINES
RECYCLE BUILDING
3.8' CBW W/ 4' WDF
6' WDF, TYP.
±24.1'
±16.1'
±10.7'
±5.1'
±30.0'
±5.4'

LEGEND

SYMBOL	DESCRIPTION
+ 4.2	EXISTING GRADE ELEVATIONS (NAVD)
1.80	PROPOSED FINISHED GRADE ELEVATIONS (NAVD)
	PROPOSED FLOW ARROW (MINIMUM 2% SLOPE AWAY FROM THE BUILDING UNLESS SHOWN OTHERWISE)
	PROPOSED CONCRETE PAVEMENT

CONCRETE PAVEMENT NOTES:
1. FOLLOW FDOT SPECIFICATIONS 522 FOR ALL DETAILS
2. SAWED JOINTS: IF ELECTING TO SAW THE CONTRACTION JOINTS, CUT A SLOT APPROXIMATELY 3/16 INCH WIDE AND NOT LESS THAN 1 1/2 INCHES DEEP WITH A CONCRETE SAW AFTER THE CONCRETE HAS SET, AND WITHIN THE FOLLOWING PERIODS OF TIME: JOINTS AT NOT MORE THAN 30 FEET INTERVALS . ...WITHIN 12 HOURS AFTER FINISHING. REMAINING JOINTS ..... WITHIN 96 HOURS AFTER FINISHING.

SITE PLAN
STORMWATER MANAGEMENT IMPROVEMENTS
SCALE: 1" = 5'-0"

SERGE MASHTAKOV LICENSE No. 71480 STATE OF FLORIDA PROFESSIONAL ENGINEER

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Date: 2021.11.11 14:58:07 -05'00'

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Signature:
Date:
Serge Mashtakov
Professional Engineer
State of Florida
License No 71480

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CLIENT: CITY OF KEY WEST
PROJECT: STORMWATER MANAGEMENT
SITE: 220 MARGARET ST, KEY WEST, FL 33040
TITLE: SITE PLAN

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AS SHOWN	11/11/21	SAM	SAM
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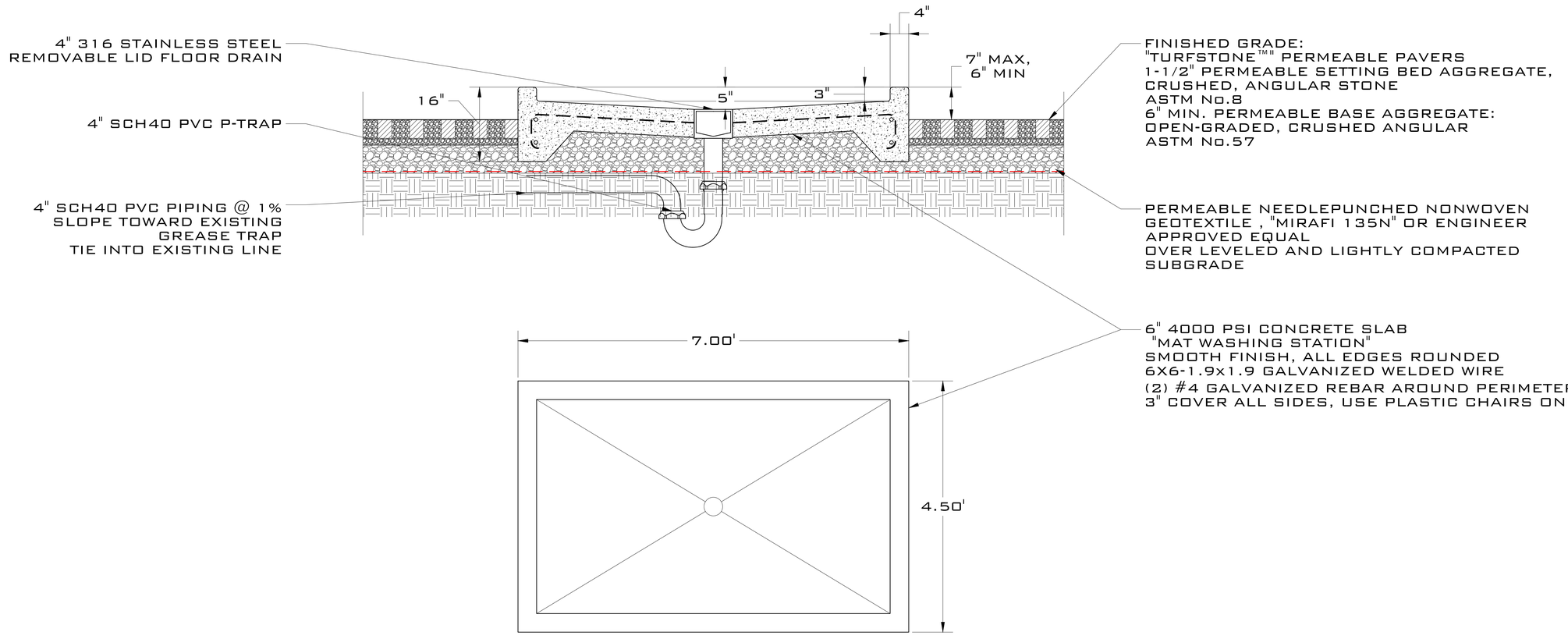

FLOOR MAT WASHING PAD

SCALE: NTS

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PROJECT: STORMWATER MANAGEMENT

SITE: 220 MARGARET ST, KEY WEST, FL 33040

TITLE: DETAILS

SCALE AT 24X36:	DATE:	DRAWN:	CHECKED:
AS SHOWN	11/11/21	SAM	SAM
PROJECT NO:	DRAWING NO:		REVISION:
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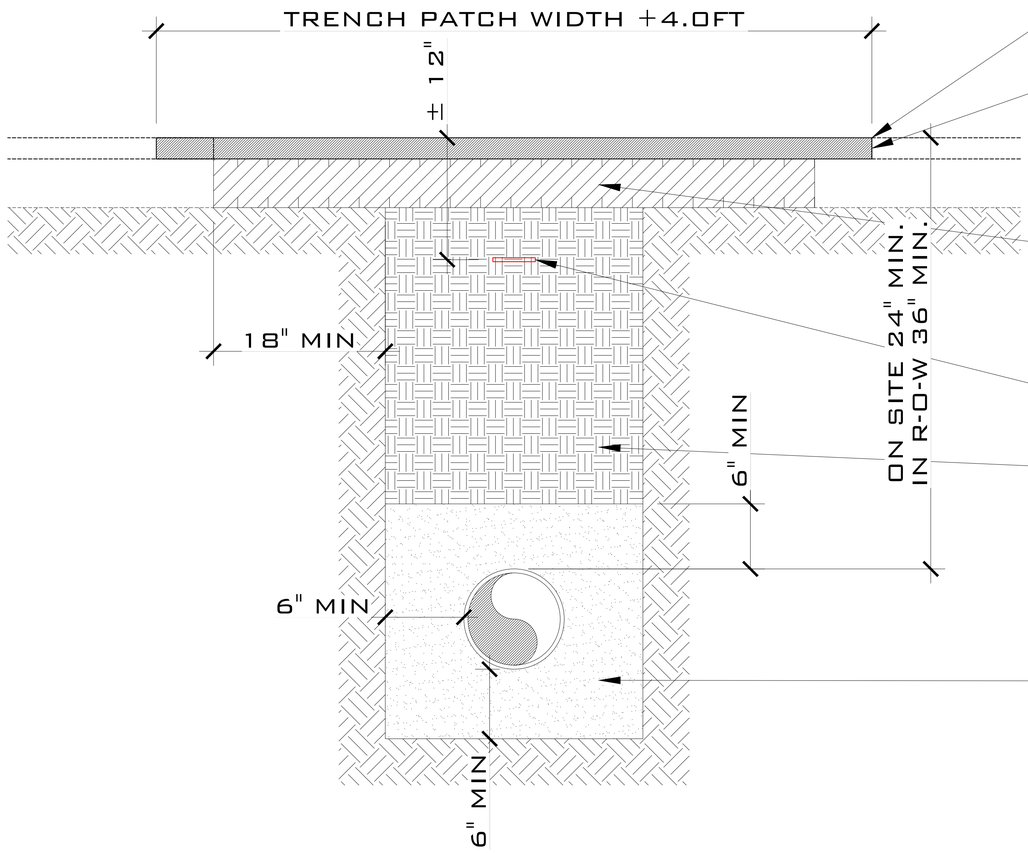

TYPICAL TRENCH RESTORATION DETAIL (IF REQUIRED)

SCALE: NTS

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SIGNATURE
DATE
LICENSE NO. 71480

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STATUS:	FINAL		

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PROJECT: STORMWATER MANAGEMENT
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