

# STAFF REPORT

DATE: March 1, 2022

RE: **111 Olivia Street #TP2022-0005**  
**(Final Landscape Plan Review)**

FROM: Karen DeMaria, City of Key West Urban Forestry Manager

An application was processed for Final Landscape Plan Approval for the above referenced property, Frederick Douglass Gym. The Tree Commission reviewed and approved the Conceptual Landscape Plan with tree removal at their December 14, 2021 meeting. The Tree Commission also approved the review of the Final Landscape Plan to be approved by the Urban Forestry Manager.

The Tree Commission approved the removal of (2) trees, 1-Wild Cinnamon (tree #3) and 1-Gumbo Limbo (tree #11) to be replaced with 11.6 caliper inches of approved trees to be planted on the property and incorporated into the landscape plan and the approval of the transplantation of 1-Bahama Tabebuia (tree #1), 1-Pitch Apple (tree #1A), 1-Stopper (tree #8), 1-Lignum vitae (tree #21), 1-Fiddlewood (tree #22), 1-Blackbead (tree #23), 1-Cinnamon Bark (tree #24), 4-Thatch Palms (tree #5, #10, #12A, & #13), 2-Sabal Palms (tree #9 & #12B), and 2-young Christmas Palms (tree #20A & B) to be planted in the Fort Street parking lot area. Eight existing trees and palms will remain in place including 1-Wild Tamarind (tree #2), 1-Gumbo Limbo (tree #4), 2-Royal Poinciana trees (tree #14 and #16), 1-Gumbo Limbo (tree #4), 1-Pongam tree (tree #19), and 2-Thatch Palms (tree #15 and #18).

A staff report regarding Sec 108 landscaping and buffer requirements was created on January 5, 2022 and submitted to the Planning Board which approved the development plan on January 20, 2022. The project received HARC approval on January 25, 2022.

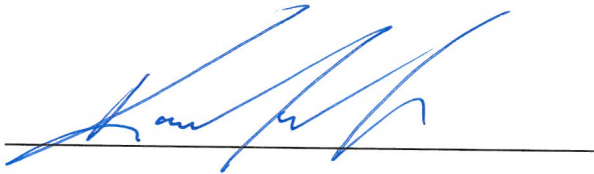
Planning Board Resolution 2022-002 included several conditions related to landscaping and trees including the following:

1. Condition #6 requires the placement of flexipave in the sidewalk and parking area near tree #2, #4, and #14 and the canopy trees at the northwest corner of site due to the proximity of the proposed construction and the roots of the protected trees. Updated plans received on February 23, 2022 and attached show this condition written on the plans.
2. Condition #8 stated that all underground piping shall be located to avoid the dripline of existing trees. Of concern was the location of a new water line under an existing, protected tree (tree #2). Updated plans indicate this pipe will be moved to avoid tree impacts.
3. Condition #12 requested semi pervious turf material or pervious pavers be installed in the courtyard-seating area and to create planting beds to improve the meeting/seating area. Updated plans do make notations regarding the installation

of the turf/pavers and the landscape plan shows the planting of a tree and some ornamental plantings along the gym wall in the seating area.

Therefore, the Final Landscape Plan is approved (staff approval) with the following conditions:

1. Prior to the submittal of building permits, details regarding the layout of plantings, species names, and sizes of the plant/tree species for the seating area shall be finalized with the Urban Forestry Manager.
2. The transplanting of trees to the Fort Street parking area must be done prior to demolition permits being issued. Trees/palms must be properly root pruned and the receiver area prepped for planting. The Urban Forestry Manager shall be contacted for supervision of the work.
3. An application to remove and transplant trees shall be submitted to the Tree Commission at the same time or just prior to applications being submitted to the building department for work on the property.
4. Tree protection must be installed prior to work commencing on the property and maintained throughout the duration of the construction.



Karen DeMaria  
Urban Forestry Manager  
City of Key West  
[kdemaria@cityofkeywest-fl.gov](mailto:kdemaria@cityofkeywest-fl.gov)  
305-809-3768



DIMENSIONAL REQUIREMENTS			
BUILDING COVERAGE IMPERVIOUS SURFACE	MAX	EXISTING	PROPOSED
	40% OR 13,600 SF	82% OR 20,924 SF	71% OR 24,193 SF
OPEN SPACE	MIN	EXISTING	PROPOSED
	20% OR 6,800 SF	11% OR 3,639 SF	15% OR 5,189 SF

**LEGEND**

- ST. AUGUSTINE GRASS
- TURFSTONE PAVERS
- ASPHALT

**CODED NOTES**

- 1 COMMERCIAL DUMPSTE AND RECYCLE ON CONCRETE SLAB - PROVIDED BY OTHERS
- 2 STAINLESS STEEL 20 CAPACITY BIKE RACK
- 3 NEW 1-STORY BUILDING

**ARCHITECT**

**K2M DESIGN**

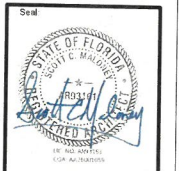
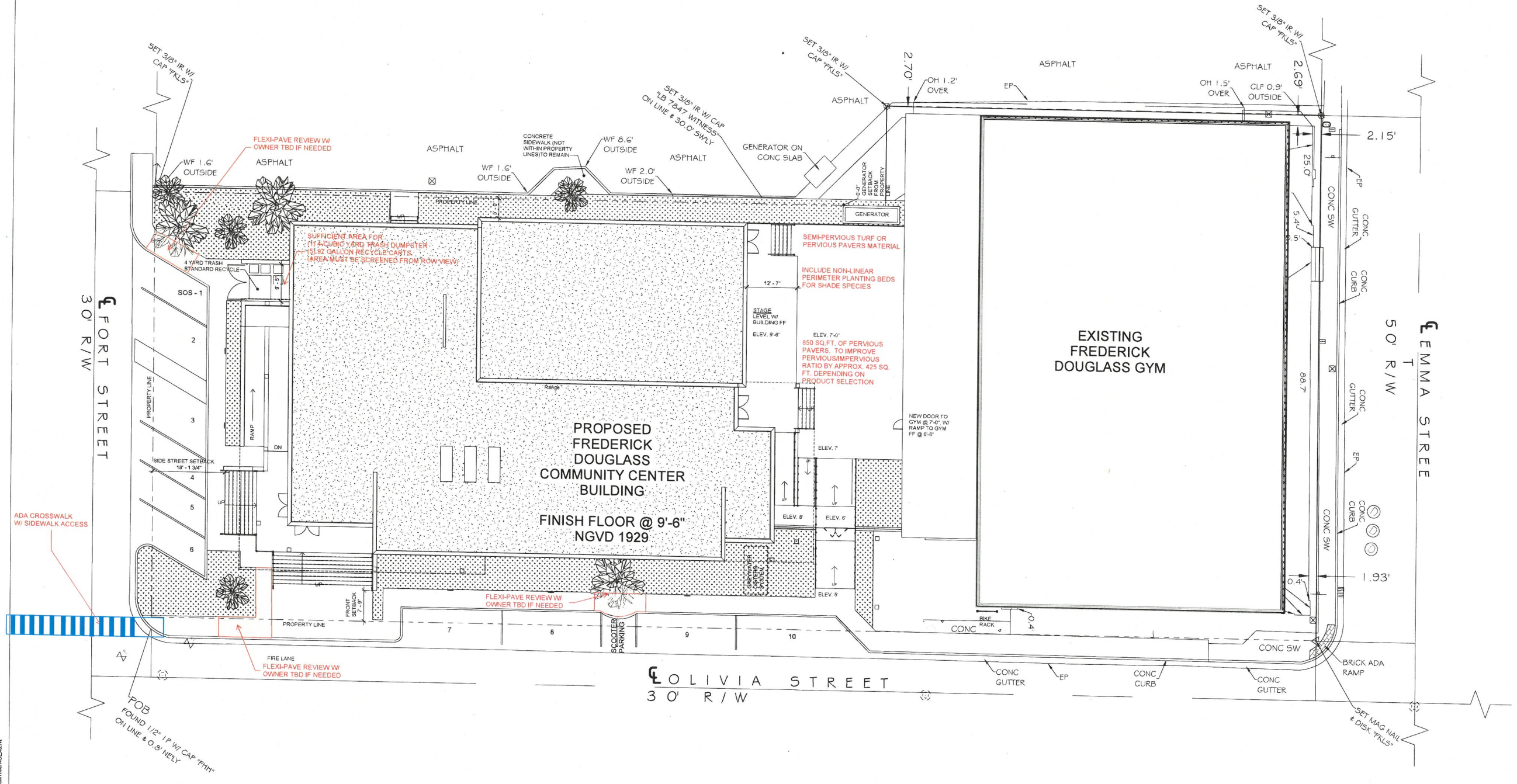
Architecture, Engineering  
Interior Design,  
Asset Management,  
Specialty Consulting

Key Largo, Florida  
Key West, Florida  
Marathon, Florida

URL: www.k2mdesign.com  
PROJ. REC. #A2601059

Building Relationships  
Based on Trust and Results

Checked (Date) [ ] Drawn (Date) [ ]  
Title [ ] Scale [ ]



Consultants


Submissions


Submissions


**FREDERICK DOUGLASS GYM**  
111 OLIVIA STREET, KEY WEST, FL, 33040

**CITY OF KEY WEST**  
1300 WHITE STREET, KEY WEST, FL, 33040

PLOTTED  
12/29/2021 10:35:16 AM

Drawing Size	Project #
30x42	19095
Drawn By	Checked By
LBB/EHP	EG

Title  
**ARCHITECTURAL SITE PLAN**

Sheet Number  
**A1.1.1**

Date: 08/04/2021  
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**1 ARCHITECTURAL SITE PLAN**  
SCALE: 1" = 10'-0"

SIDEWALKS & WALKWAYS MIN 36" WIDTH & CLEARANCE OR FLEXI-PAVE REQUIRED

NEW UNDERGROUND PIPING SHALL BE LOCATED TO AVOID ROOT DRIP LINES

12/29/2021 10:35:16 AM  
C:\Users\lbb\OneDrive\Documents\19095 - FDO\_A1 - Architectural\A03.dwg



Project Name:

**FREDERICK DOUGLASS GYM EXPANSION**

Project Address:

830 EMMA STREET  
KEY WEST, FL 33040

Client/Owner:

CITY OF KEY WEST  
1300 WHITE STREET  
KEY WEST, FL 33040

Engineer Contact:

CLAIR WRIGHT, III, P.E.  
PROJECT MANAGER  
PHONE: 239-205-6473  
EMAIL: CWRIGHT@CW-3.COM

Project Engineer:

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY

ON THE DATE ADJACENT TO THE SEAL.  
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

CW3 ENGINEERING, INC.  
5783 BAYSHORE RD., SUITE 113  
NORTH FT. MYERS, FL 33917  
CLAIR WRIGHT, III, P.E. NO. 64089

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Revisions:

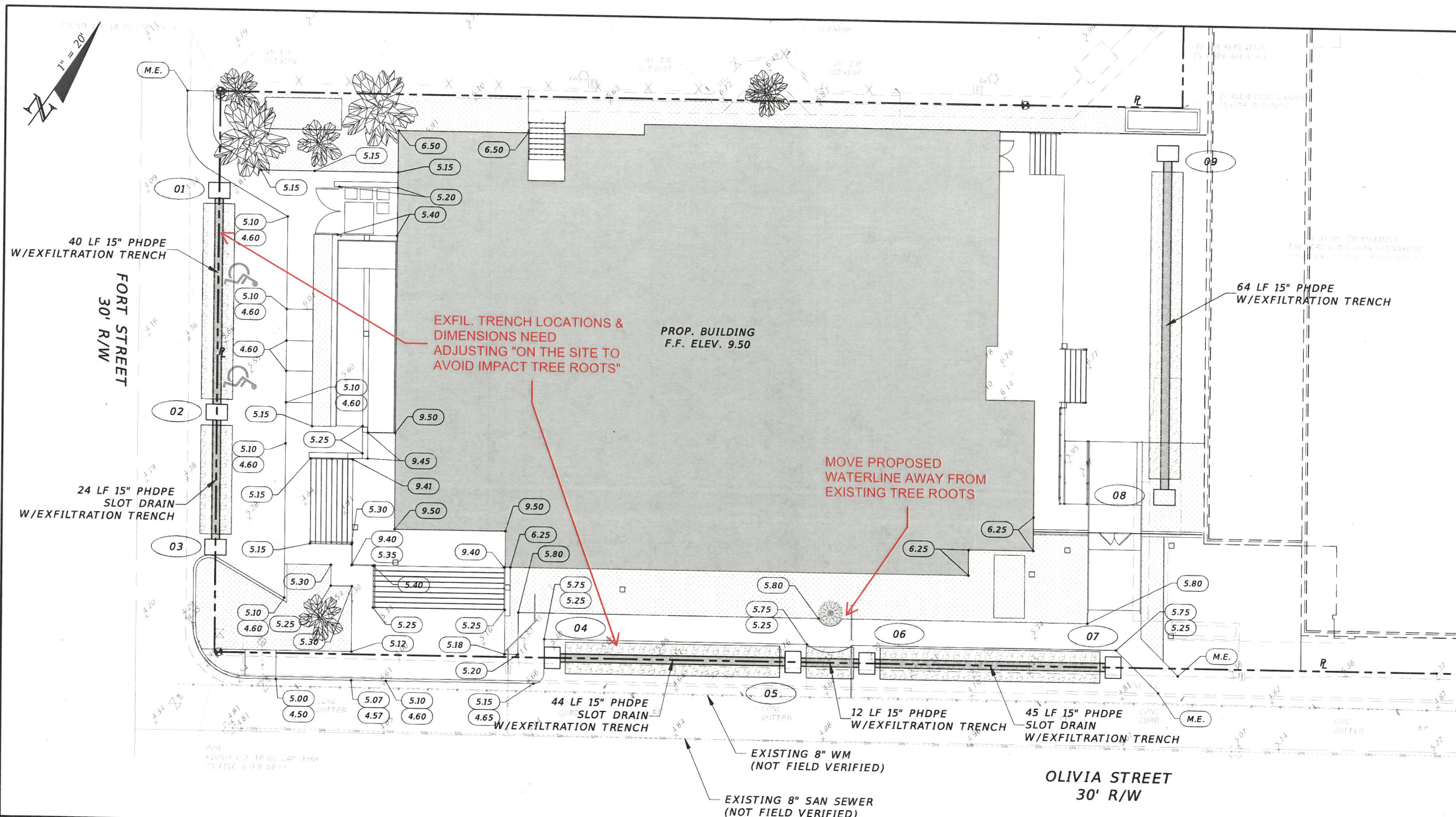
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SECTION: 06-68-25  
PROJECT MGR: CEW  
PROJECT # 19-0031  
FILE NAME 03-19-0031-MPGD.DWG  
ORIGIN DATE 10-22-19  
DESIGNER JWP  
CADD JWP  
CHECKED BY CEW  
PLOT DATE THU 12-9-2021 3:40 PM  
PLOTTED BY JPANICARO  
SHEET TITLE:

CONCEPT DRAINAGE PLAN

SHEET NO. 03

2021.12.09 -  
PLANNING SUBMITTAL



**WATER QUANTITY CALCULATIONS (25YR/72HR DESIGN STORM)**

**WATER QUANTITY PRE-DEVELOPMENT**

TOTAL PROJECT AREA:	19,611 SF	0.45 AC
PERVIOUS AREA:	3,048 SF	0.07 AC
IMPERVIOUS AREA:	16,563 SF	0.38 AC
% IMPERVIOUS:	84.45%	

**WATER QUANTITY POST-DEVELOPMENT**

TOTAL PROJECT AREA:	19,611 SF	0.45 AC
PERVIOUS AREA:	3,186 SF	0.07 AC
IMPERVIOUS AREA:	16,425 SF	0.38 AC
% IMPERVIOUS:	83.75%	

NOTE: POST-DEVELOPMENT HAS LESS IMPERVIOUS SURFACE THAN PRE-DEVELOPMENT. THEREFORE THERE WILL BE LESS RUNOFF IN THE POST-DEVELOPMENT. ADDITIONAL ATTENUATION IS NOT NECESSARY.

**WATER QUALITY CALCULATIONS - 25YR/72HR DESIGN STORM**

**WATER QUALITY**

PROJECT AREA:	19,611 SF	0.45 AC
ROOF AREA:	12,046 SF	0.28 AC
IMPERVIOUS AREA:	4,379 SF	0.10 AC
PERVIOUS AREA:	3,186 SF	0.07 AC

SITE AREA FOR WATER QUALITY: (PROJECT AREA - ROOF = SURFACE WATER)	7,565 SF	0.17 AC
IMPERVIOUS AREA FOR WATER QUALITY: (SITE AREA FOR WATER QUALITY - PERVIOUS)	4,379 SF	0.10 AC

% IMPERVIOUS: 61.10%  
(FOR WATER QUALITY: IMPERVIOUS AREA/SITE AREA)

A) ONE INCH OF RUNOFF FROM PROJECT AREA: 0.04 AC-FT  
B) 2.5 INCHES TIMES PERCENT IMPERVIOUS: 0.06 AC-FT  
(2.5 X PERCENT IMPERVIOUS X (SITE AREA - SURFACE WATER))

0.06 AC-FT > 0.04 AC-FT (GOVERNING VOLUME) = 2,614 CF

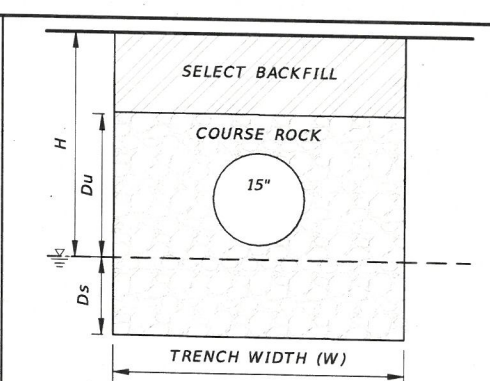
**EXFILTRATION TRENCH DESIGN**

REQUIRED TRENCH LENGTH (L) =

$$K \frac{(HW + 2HDu - Du^2 + 2HDS)}{V} + (1.39 \times 10^{-4})WDu$$

ASSUMED HYDRAULIC CONDUCTIVITY, K = 0.0000716  
H = 3.0 FT  
W = 6 FT  
Du = 1.5 FT  
Ds = 0 FT  
V = .664 AC-IN

TRENCH LENGTH REQUIRED: 314 FT  
TRENCH LENGTH PROVIDED: 229 FT



\*NOTE: FILTER FABRIC TO BE WRAPPED AROUND ENTIRE TRENCH AND OVERLAPPED AT TOP (MIN. 1')

EXFILTRATION TRENCH DETAIL  
N.T.S.



**Required Landscape Calculations for Frederick Douglas Gym, City of Key West, Florida:**  
 111 Olivia Street, Key West, Florida:  
 Subject property zoning (MNC-3) (Sept. 21, 2021) rev. Jan. 7, 2021

**Notes:**  
 This plan is only intended to represent the minimally required landscape per codes for planning approval. The installed landscape may exceed all landscape requirements to enhance the communities character.  
 Plants will be installed as shown and the overall effect is meant to replicate a naturally occurring arrangement of native trees mixed with native and other non native plantings. 100% of proposed plants are native.  
 3" of shredded cypress bark mulch will be installed in the required landscape areas & all required plants will be sized in accordance with Sec. 109-161/2 Key West Florida Code of Ordinances. 12' for canopy trees and 24" for Shrubs.  
 All landscape areas shall be covered by living plant material per 109-144B and any area not indicated with plant material shall receive Zoysia Empire sod.

Protect existing tree and other vegetation indicated to remain in place against unnecessary cutting, breaking or skimming of roots, skimming and bruising of bark, swathing of trees by stockpiling construction materials or excavating materials within drip line, excess foot or vehicular traffic or parking of vehicles within drip line. No activity of any sort is to take place in an area fenced off as a protected area. Water, fertilizer, wash off and spray trees and other vegetation to remain within limits of contract work as required to maintain their health during the course of the landscape installation. Repair or replace trees and vegetation indicated to remain which are damaged by landscape operations with a tree listed on the community status only upon approval of the Landscape Architect. Landscape Contractor may be required to employ a licensed Arborist approved by the Landscape Architect to repair damage to trees.

**Relocating Trees:**  
 If at all possible root pruning should commence at the earliest date possible. The crown may be reduced by 1/3 or as directed by the Landscape Architect. As large a rootball as is practical shall be taken and at all times the entire root pruned area shall be taken. The tree is to be pried off of caprock if possible but in some cases caprock will have to be taken with the rootball. The tree is to be immediately placed into its new location. Daily water the tree daily for two months and every other day for another 2 months at the root system. It is recommended and may be required by the Landscape Architect to supply a mist head in the crown of the tree or to mist the tree with "sporgam" or equal to insure successful relocation. Relocated trees are not guaranteed by the landscape contractor.

**Relocating Palms:**  
 Transplantation will be similar to that for trees except trim all but 3-4 fronds off of the palm, all fruit and flowers and in some cases the fronds will have to tied up. The palm shall be treated with "Lindane" and an approved fungicide. The Landscape Architect also may require the palm to be bud potted. Relocated palms are not guaranteed by the landscape contractor.

**Street Frontage:**  
 Required: 25'-0" area, 252 linear feet provided. 200 plant units required.  
 Provided: 297 plant units provided  
 4 existing trees, including palms = 53 Landscape Units exist  
 156 new landscape units required = 244 Units provided  
 6 - 12' tall min. Krugiodendron fernum, Black Ironwood #80 units  
 2 - 12' tall min. Eugenia rhombica, Redberry Stopper 20 units  
 30 - 24" 3 g. (gallon) Locustberry #20 units  
 35 - 24" 3 g. (gallon) Key Lily #35 units  
 72 - 12" 1 g. (gallon) Golden Creeper #72 units  
 5 - 15-20" 3 g. (gallon) Sea Lavender #5 units  
 Total: 232 Units.

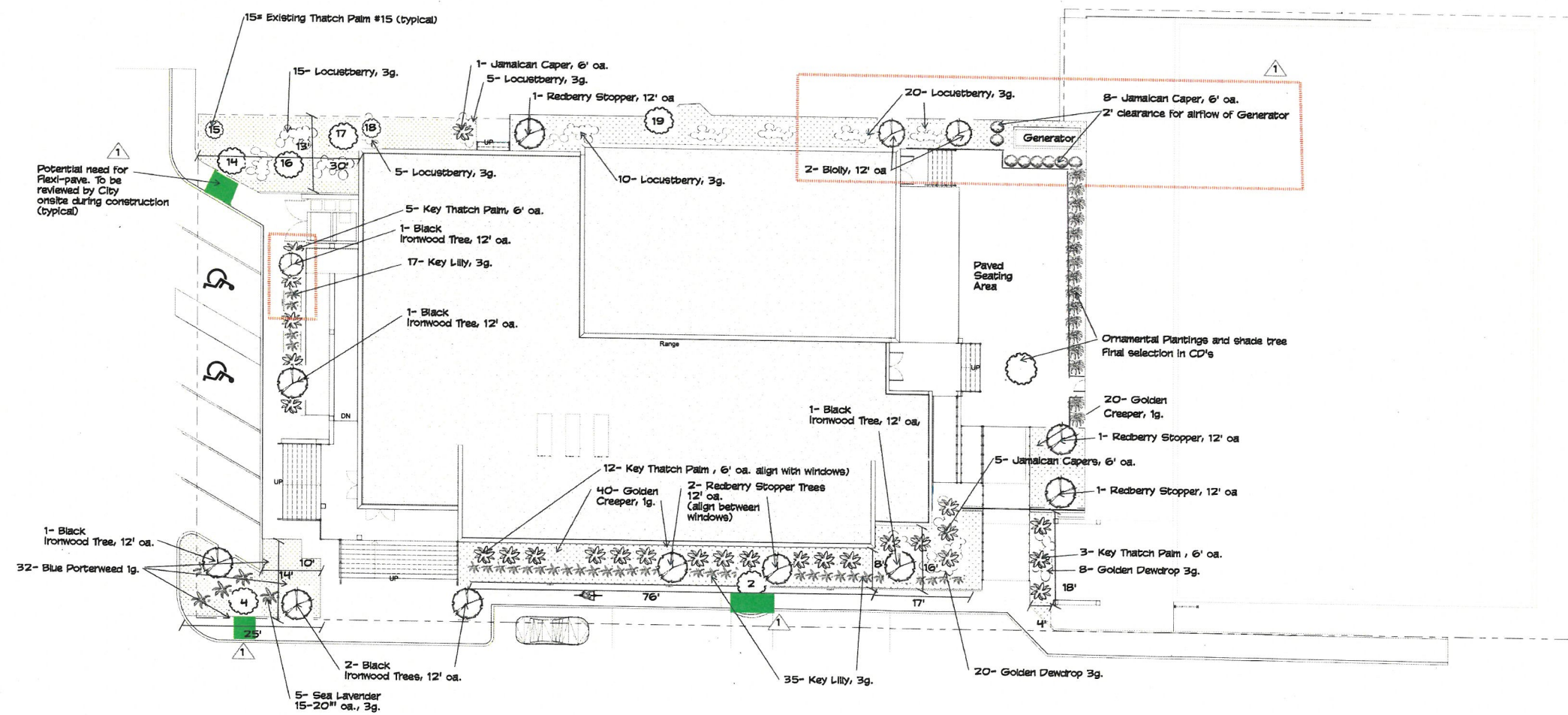
**Perimeter Landscaping:**  
 76 LF provided  
 Canopy Trees  
 Required: 2.17 x 1 = 2 required  
 Provided: 2 existing or relocated mature trees  
 2 - Guajira discolor, 6' ea.  
 Shrubs  
 Required: 2.17 x 10 = 22  
 Provided: 30 - 24" native Shrubs will be planted 1- 6' native Palm  
 35  
 Locustberry - Byronnia lucida

**Non Vehicular use areas:**  
 Canopy Trees  
 Required: Less than 30% and less than 2,000 s.f. NOS. = 4 trees  
 Provided: 1 Existing tree and 3 - 12' tall min. Redberry Stopper  
 Screening:  
 10  
 Locustberry - Byronnia lucida  
 1  
 Caparis corymbosiflora, 6' ea.

**Required Landscape Plant List for Frederick Douglas Gym, City of Key West, Florida:**

- 6 - Krugiodendron fernum , Black Ironwood, 12-13' ea., 45 gallon.
- 20 - Thrinax morifolia, Key Thatch Palm, 6' ea., 45 gallon
- 6 - Eugenia rhombica, Redberry Stopper, 12-13' ea., 45 gallon
- 30 - 24" 3 g. (gallon) Locustberry, 24-30" 7 gallon
- 35 - 24" 3 g. (gallon) Key Lily, 24-30" 7 gallon
- 28 - Duranta repens, Golden Dewdrop, 20-24", 3gallon
- 42 - Hymenocallis latifolia 'keyensis', Key Lily, 20-24", 3gallon
- 60 - Smodes linearis, Golden Creeper, 10- 12", 1 gallon
- 32 - Stachytarpheta jamaicensis, Native Blue Porterweed, 1g.
- 5- 15-20", 3 g. (gallon) Sea Lavender

Existing Trees and Palms to be relocated/Transplanted to Fort Street Parking lot:  
 As shown on sheet L-1.1, final location per LA or Urban Forestry Manager  
 1- Bahama Tabebuia (messy)  
 1A- Pich Apple (space to large and messy)  
 5- Thatch Palm (phasing)  
 8- Redberry stopper  
 9- Sabal palmetto (out of character for design)  
 10- Thatch Palm (phasing)  
 12A- Thatch Palm (phasing)  
 13- Thatch Palm (phasing)  
 20 A&B- Christmas Palm (messy seeds, Lethal yellow carrier)  
 21- Lignum-Vitae (Quality of plant is poor)  
 22- Fiddlewood (out of character for design)  
 23- Stacidosax (out of character for design)  
 24- Wild Citronnion (out of character for design)



**1 SITE PLAN - LANDSCAPE PLAN**  
 SCALE: 3/32" = 1'-0"

**K2M DESIGN**  
 Architecture, Engineering,  
 Interior Design,  
 Asset Management,  
 Specialty Consulting

Key Largo, Florida  
 Key West, Florida  
 Marathon, Florida

URL: www.k2mdesign.com  
 PROF. REG. AA2601069

Building Relationships  
 Based on Trust and Results

Client: Columbia | Interstate | Key Largo | Key West | Marathon | Okaloosa | Panama | Panama

Submissions:

1	Issued to City	approved
2	Issued to City	approved
	11/5/21	
	11/16/21	
	1/3/22	
	1/7/22	
	2/7/22	
	2/10/22	

Consultants:

**BROWN & CREBBIN**  
 DESIGN STUDIO  
 LANDSCAPE ARCHITECTURE  
 1305 852 PALM

**FREDERICK DOUGLASS GYM**  
 111 OLIVIA STREET, KEY WEST, FL, 33040  
**CITY OF KEY WEST**  
 1300 WHITE STREET, KEY WEST, FL, 33040

PLOTTED:  
 12/15/2021 2:36:25 PM

Drawing Size: 30x42  
 Plot: 11"

Drawn By:  
 Designer

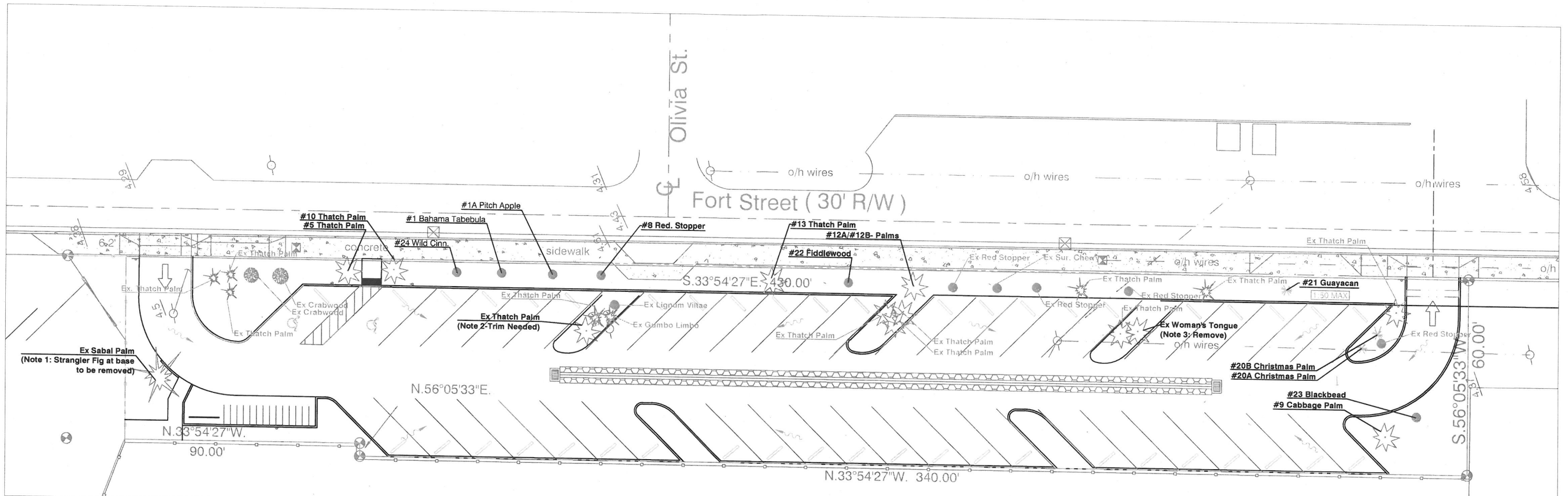
Title:  
 REQUIRED P

Sheet Number:  
**L1.1**

Date: 12/15/21

DESIGNED BY K2M DESIGN





PLAN #	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	RATING	DISPOSITION	PROPOSED REPLACEMENT (AS REQUIRED)	REGULATED
1	TABEBUIA BAHAMENSIS	BAHAMA TABEBUIA		GOOD	3	RELOCATE	SEE PLAN	YES
1A	CLUSIA MAJOR	PITCH APPLE		GOOD	3	RELOCATE	SEE PLAN	YES
5	THRINAX RADIATA	THATCH PALM		GOOD	3	RELOCATE	SEE PLAN	YES
8	EUGENIA SP	REDBERRY STOPPER		FAIR	3	RELOCATE	SEE PLAN	YES
9	SABAL PALMETTO	CABBAGE PALM PUP		GOOD	3	RELOCATE		YES
10	THRINAX RADIATA	THATCH PALM	10"	GOOD	3	RELOCATE		YES
12A	THRINAX RADIATA	THATCH PALM		GOOD	3	RELOCATE	SEE PLAN	YES
12B	SABAL PALMETTO	SABAL PALM		GOOD	3	RELOCATE		YES
13	THRINAX RADIATA	THATCH PALM		GOOD	3	RELOCATE		YES
20A	ADONIDIA MERRILLI	CHRISTMAS PALM		GOOD	1	RELOCATE	SEE PLAN	NO
20A	ADONIDIA MERRILLI	CHRISTMAS PALM		GOOD	1	RELOCATE		NO
21	LIGNUM VITAE	GUAYACAN		POOR	1	RELOCATE		YES
22	CITHAREXYLUM SPINOSUM	FIDDLEWOOD		GOOD	3	RELOCATE		YES
23	PITHECELLOBIUM KEYENSE	BLACKBEAD		GOOD	3	RELOCATE		YES
24	CANELLA WINTERANA	WILD CINNAMON		FAIR	2	RELOCATE		YES



DATE: 11/16/2021

SHEET NAME:  
**FORT ST. TREE  
 RELOCATION**

SHEET NUMBER:  
**L1.1.1  
 (Fort St.)**

Scale  
 1" = 30'-0"