Punta Gorda City Marketplace

CONCEPTUAL DEVELOPMENT PACKAGE

06-16-2022

GEIS COMPANIES

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Punta Gorda Region Map

Punta Gorda City Marketplace
Tamiami Trail & Harborside Ave, Punta Gorda, FL

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Context Images

Punta Gorda City Marketplace
Tamiami Trail & Harborside Ave, Punta Gorda, FL

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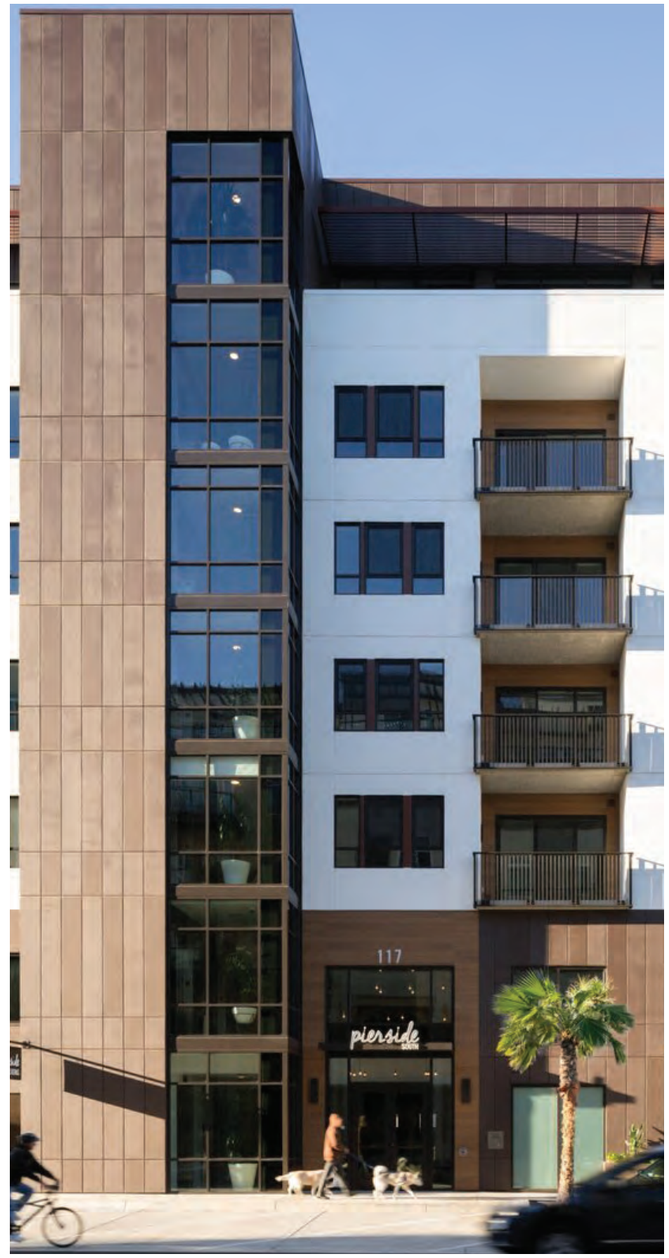
Development Mood Board

Punta Gorda City Marketplace
Tamiami Trail & Harborside Ave, Punta Gorda, FL



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Architectural Conceptual Inspiration

Punta Gorda City Marketplace
Tamiami Trail & Harborside Ave, Punta Gorda, FL

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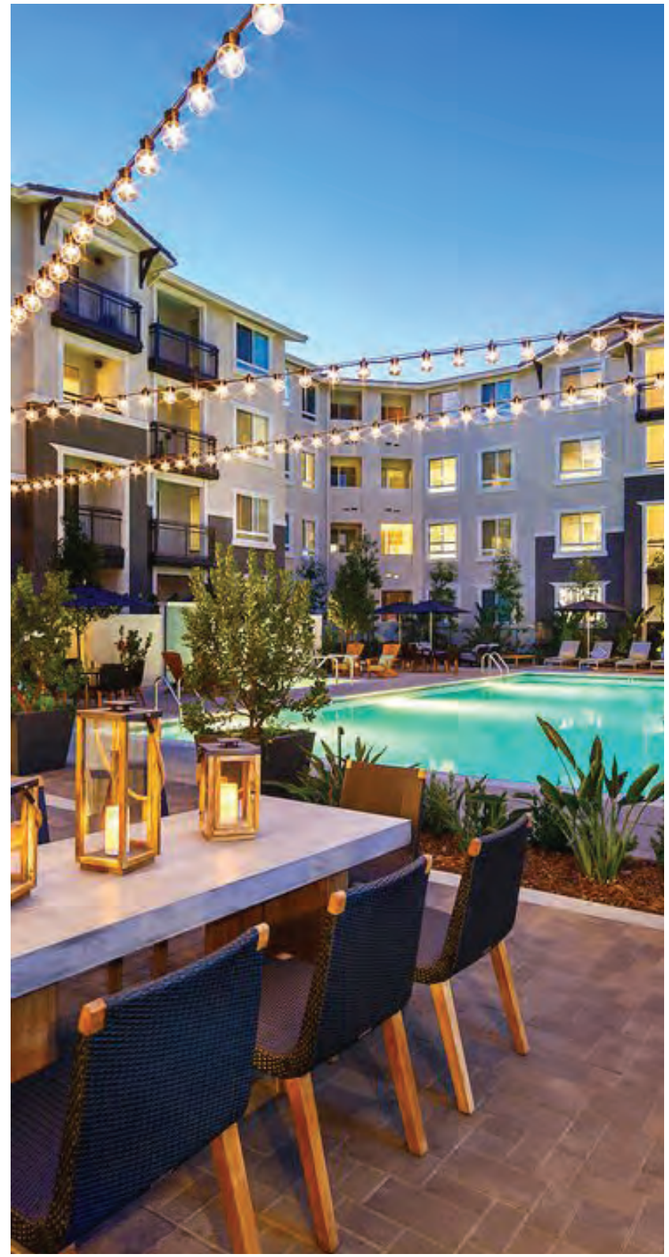
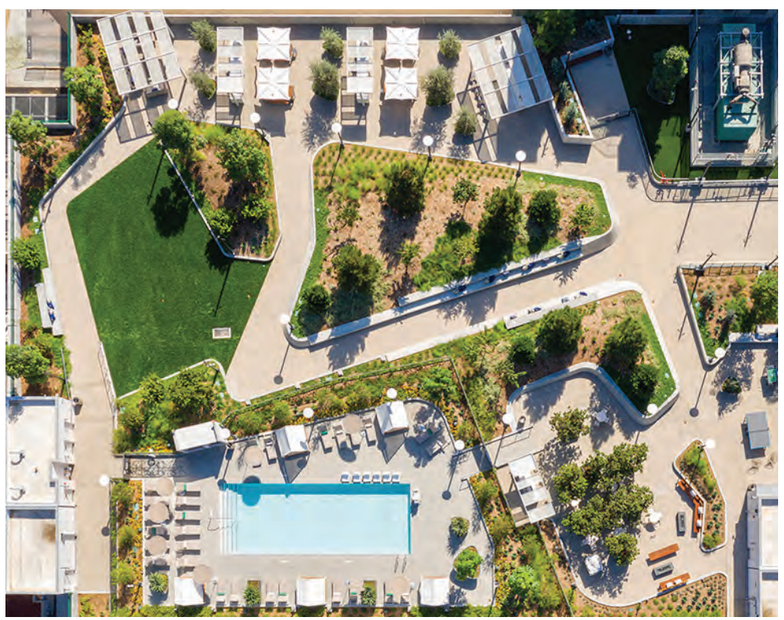
Marketplace Conceptual Inspiration

Punta Gorda City Marketplace
Tamiami Trail & Harborside Ave, Punta Gorda, FL





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Residential Exterior Amenity Conceptual Inspiration

Punta Gorda City Marketplace
Tamiami Trail & Harborside Ave, Punta Gorda, FL

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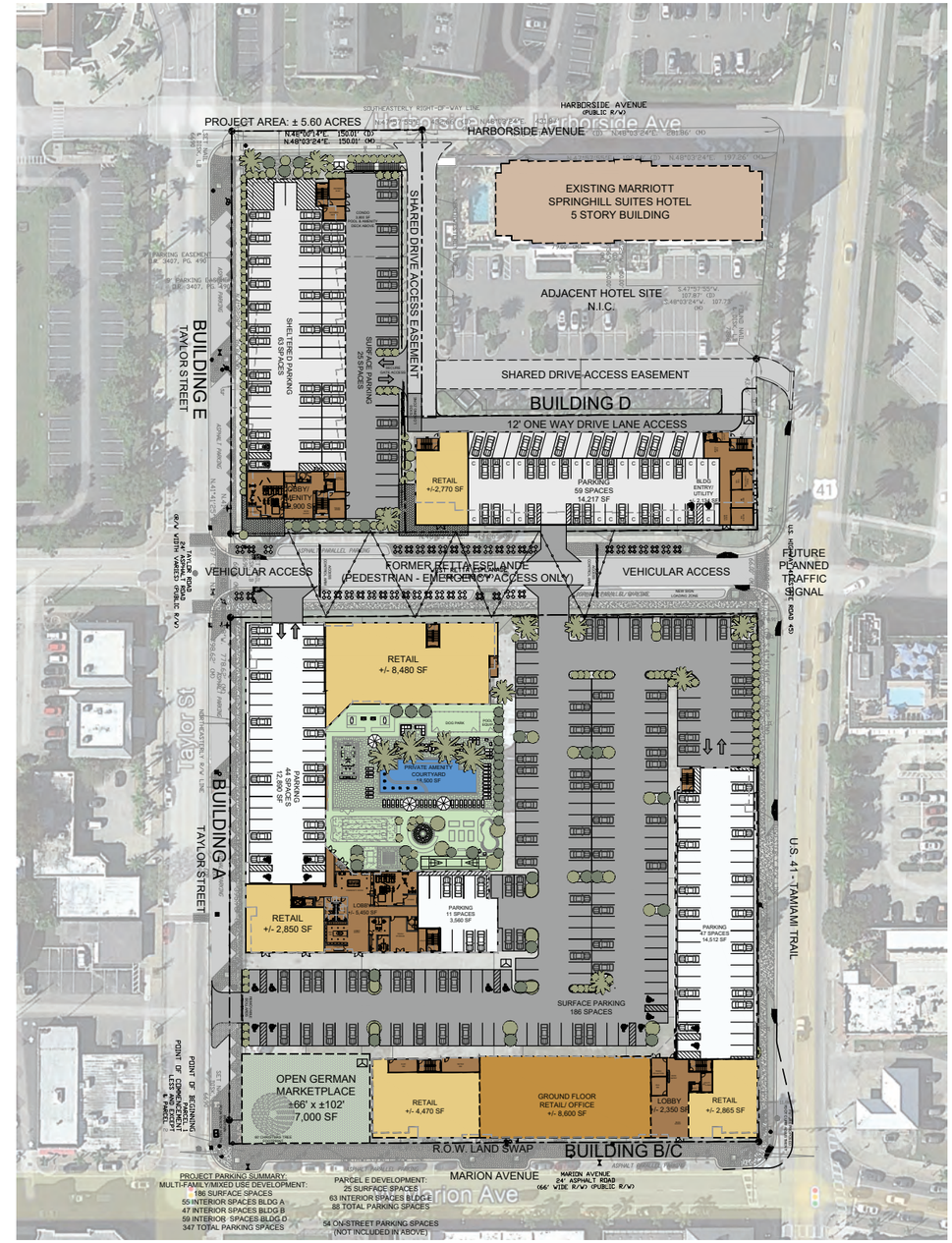
Conceptual Site Development Birdseye View

Punta Gorda City Marketplace
Tamiami Trail & Harborside Ave, Punta Gorda, FL

Conceptual Typical Floor Plan (Floors 2-6)



Conceptual Site & Ground Floor Plan

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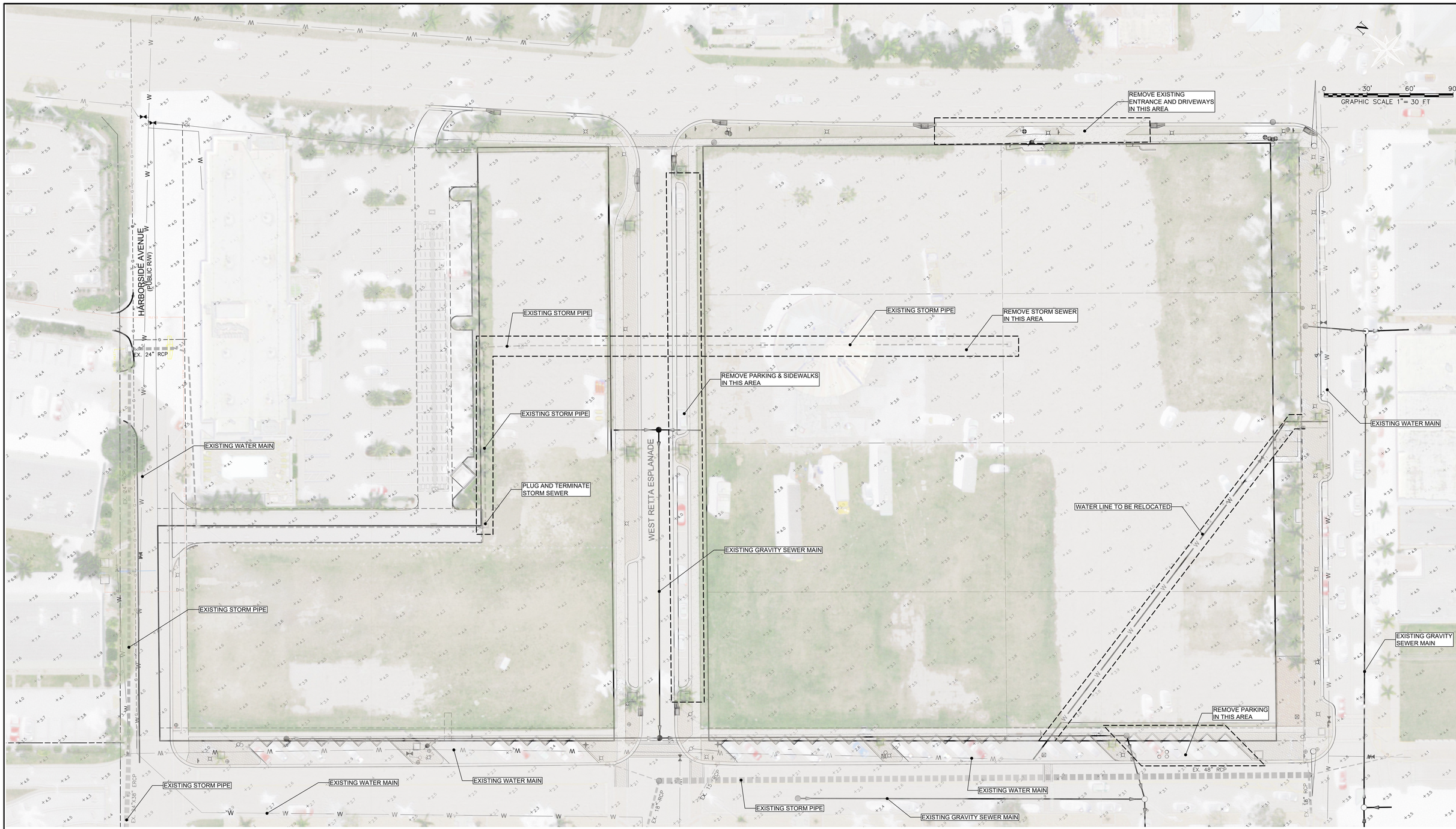
Development Conceptual Master Plan

Punta Gorda City Marketplace
Tamiami Trail & Harborside Ave, Punta Gorda, FL



PREPARED FOR:

ZAMAGIAS PROPERTIES
336 FOURTH AVEUNE – 8TH FLOOR
PITTSBURGH, PA 15222
(412)394-6825

ALL ELEVATIONS ON CIVIL ENGINEERING PLANS REFERENCE: ----

NO.	DATE	REVISION DESCRIPTION	BY

BANKS ENGINEERING
Professional Engineers, Planners, & Land Surveyors
Serving The State Of Florida

4161 TAMIAMI TRAIL – BLDG 5 UNIT 501
PORT CHARLOTTE, FLORIDA 33952
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SURVEY LICENSE # LB 6690

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TODD R. REBOL, P.E.
LICENSE NO. 64040

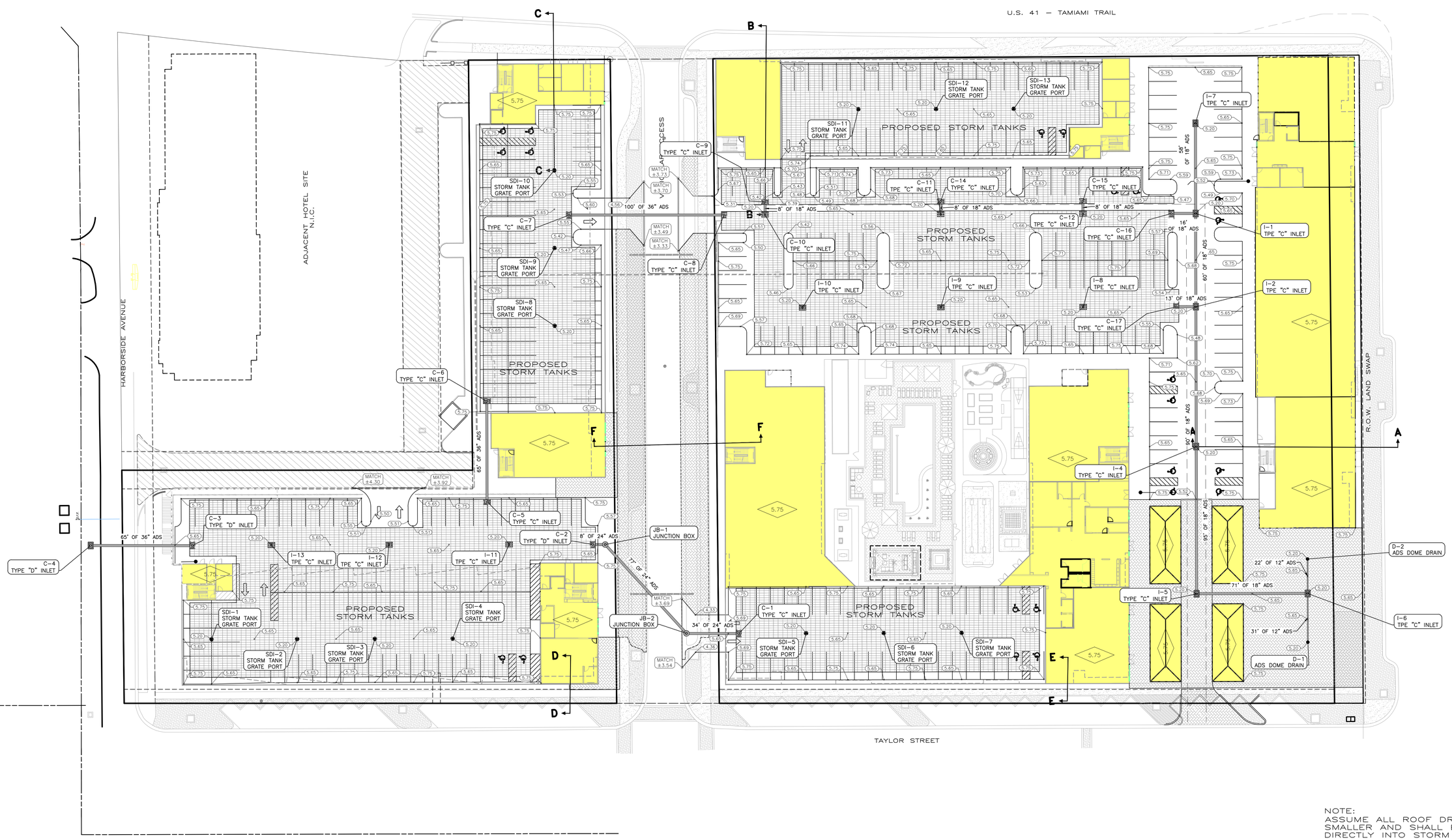
AERIAL - EXISTING CONDITIONS AND DEMOLITION PLAN

CITY MARKETPLACE

CHARLOTTE COUNTY, FLORIDA

DATE	PROJECT	DRAWING	DESIGN	DRAWN	CHECKED	SCALE	SHEET
----	4500G	_AER	TRR	TBV	TRR	1"=30'	2

S:\JOBS\4500X\4500G\DWGS\DWG\SITE PLANS\4500G 02 CDP AER.DWG 4/29/2022 10:51 AM BILL MAUSHAN



NOTE:
ASSUME ALL ROOF DRAINS ARE 6" OR SMALLER AND SHALL BE CONNECTED DIRECTLY INTO STORM TANKS

PREPARED FOR:

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CONCEPTUAL PAVING GRADING & DRAINAGE PLAN

CITY MARKETPLACE

CHARLOTTE COUNTY, FLORIDA

DATE	PROJECT	DRAWING	DESIGN	DRAWN	CHECKED	SCALE	SHEET
----	4500G	_PGD	TRR	TBV	TRR	1"=30'	4

CITY MARKETPLACE

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DEWATERING NOTES:

1. CONTRACTOR TO INSURE THAT DEWATERING ACTIVITIES DO NOT CAUSE EROSION AND THAT SUMP IS UTILIZED TO ALLOW FOR PARTICLE SEDIMENTATION.

2. SEDIMENT SUMPS AND DISCHARGE EROSION CONTROL ARE TO BE IMPLEMENTED BEFORE ANY DEWATERING ACTIVITIES OR EARTHWORK CONSTRUCTION.

3. SUMP SIZE BASED UPON AN ASSUMED DEWATERING DISCHARGE OF 900 GPM (2 CFS). CONTRACTOR IS TO NOTIFY ENGINEER IF GREATER DISCHARGE IS PROPOSED SO SUMP SIZE CAN BE RECALCULATED.

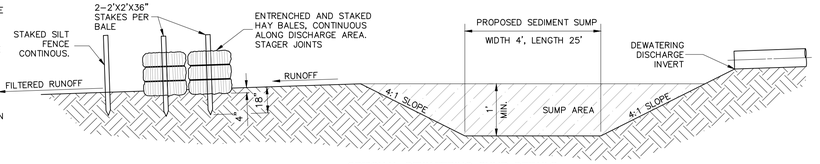
4. DEWATERING WITHDRAWALS ARE TO BE FROM THE TOP OF THE WATER AREAS TO ALLOW FOR THE ADEQUATE SETTLING OF PARTICLES AND INSURE WATER QUALITY.

5. CONTRACTOR TO NOTIFY S.W.F.W.M.D. OF ANY MODIFICATIONS PROPOSED BY THE CONTRACTOR TO THE DEWATERING PLAN. CONTRACTOR IS RESPONSIBLE FOR PREPARATION OF ANY REQUIRED PLANS AND PROCESSING OF THE SAME.

6. DISCHARGE FROM SUMPS SHOULD MAXIMIZE OVERLAND FLOW PRIOR TO ENTERING OUTFALL. STAKED HAY BALES WILL BE USED TO MINIMIZE SILTATION RUNOFF. CONTRACTOR IS RESPONSIBLE FOR UTILIZING ADEQUATE HAY BALES AT DISCHARGE LOCATIONS TO PREVENT SCOURING.

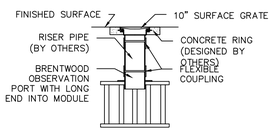
7. DEWATERING PERIOD MUST BE LESS THAN 120 DAYS.

8. LOCATION OF DEWATERING SUMPS AND DISCHARGE POINTS AS SHOWN ON BMP PLAN.



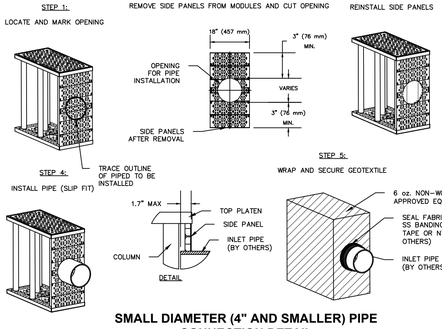
OPTIONAL DEWATERING SUMP DETAILS
N.T.S.

Sediment Sump Sizing				
Note: For a 0.01 cm particle size only.				
Vd = flow through velocity	=	0.53	ft./sec.	
V_s = settling velocity	=	0.023	ft./sec.	
Qp = peak discharge	=	2.0	cfs	
h = depth	=	1.0	feet	Equations and Values Taken from the Management and Storage of Surface Waters
l = length	=	23.0	feet	l = (h Vd)/V_s — Permit Information Manual - Volume 1 - October 1989
w = width	=	3.0	feet	w = Qp/(h Vd) — Part D - Surface Water Management Projects Design Examples

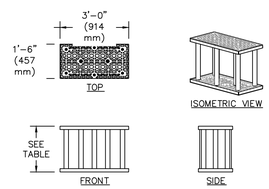


SINGLE STACK SURFACE GRATE PORT DETAIL

PROPEX GEOTEX 601 NON–WOVEN GEOTEXTILE (OR EQUAL) SUPROUNDING MODULES AND STONES/SOIL INTERFACE



SMALL DIAMETER (4" AND SMALLER) PIPE CONNECTION DETAIL



STORMTANK MODULES				
DESCRIPTION	HEIGHT in. (mm)	CAPACITY cf (cu. m.)	NOMINAL VOID RATIO	WEIGHT lbs. (kg)
ST–12	12 (305)	4.216 (0.12)	93.7%	17.6 (8)

NOTES:
1. FOLLOW MANUFACTURER'S ASSEMBLY & INSTALLATION INSTRUCTIONS FOR PROPER IMPLEMENTATION.

MODULE DETAIL

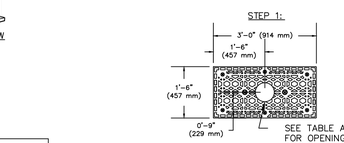
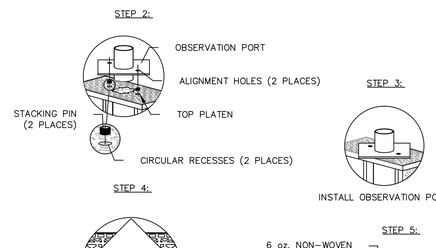


TABLE A: OBSERVATION PORT DIMENSION		
PORT SIZE	OPEN SIZE	RISER PIPE DIA.
10" (254 mm)	11" (279 mm)	10" (254 mm)

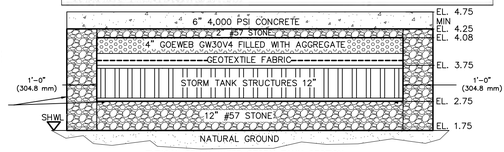


INSTALL GEOTEXTILE: WRAP SPECIFIED GEOTEXTILE FABRIC AROUND ENTIRE INSTALLATION OF STORMTANK MODULES. CUT "X" PATTERN INTO GEOTEXTILE FABRIC AT OBSERVATION PORT AND PEEL EDGES OUT.

OBSERVATION PORT INSTALLATION DETAIL

Appendix B - Acceptable Fill Materials

Material Location	Description	AASHTO M43 Designation	ASTM D2321 Class	Compaction/Density
Finished Surface	Topsoil, hardscape, stone, concrete or asphalt per engineer of record.	N/A	N/A	Prepare per engineered plans.
Suitable Compactable Fill	Granular well graded soil/aggregate, typically road base or earthen fill, maximum 4" particle size.	56, 57, 6, 67, 68 Earth	I & II III (Earth Only)	Place in max. 12" lifts to a min. 90% standard proctor density.
Top Backfill	Crushed angular stone placed between modules and road base or earthen fill.	56, 57, 6, 67, 68	I & II	Plate compacted to provide evenly distributed layers.
Side Backfill	Crushed angular stone placed between earthen wall and modules.	56, 57, 6, 67, 68	I & II	Place in uniform 12" lifts around the system
Leveling Bed	Crushed angular stone placed to provide level surface for installation of modules.	56, 57, 6, 67, 68	I & II	Plate vibrated to achieve level surface.
* See Appendix C - Material Placement for limitations				



TYPICAL STORMWATER STORM TANK SECTION
N.T.S.

Notes:
1. *All stone must be angular stone meeting ASTM D2321. Recycled concrete may be utilized when meeting acceptable gradation and ASTM standards.*
2. *The sub-grade is to be prepared to meet bearing and compaction requirements. Please see engineer of record's design.*
3. *Storage of materials such as construction materials, equipment, soils, etc. over the StormTank® system is strictly **prohibited**.*
4. *Please contact a Geotechnical Engineer and the Brentwood representative prior to utilization of any material not listed above.*

Appendix C - Material Placement Guidelines

Material Location	Placement Methods	Tired Equipment Limitations	Tracked Equipment Limitations	Roller Limitations
Finished Surface	Numerous methods may be utilized. Material dumping onto system should be limited unless otherwise noted.	Asphalt can be clumped into pavers.		Vibratory rollers may only be utilized if compacted cover exceeds 24" (610 mm) or for pavement installation.
Suitable Compactable Fill	Utilize an excavator, skid loader or dozer to place material. (Max. gross operating load of 6,000 lbs. [2,721 kg] or less).	No DUMPING by dump trucks. No wheel loads until approved by Engineer of Record.	SMALL DOZERS ONLY (Max. gross operating load of 6,000 lbs. [2,721 kg] or less).	Static rollers ONLY are permitted until compacted cover exceeds 24" (610 mm).
Top Backfill	Utilize excavator bucket or stone conveyor, positioned off of system, to uniformly backfill on top of the modules. No DUMPING directly onto modules by dump trucks.	No DUMPING by dump trucks. No wheel loads until approved by Engineer of Record.	Utilize an excavator or skid loader (Max. gross operating load of 6,000 lbs. [2,721 kg] once a min. 12" (305 mm) has been placed and compacted.	No rollers allowed at this time.
Side Backfill	Utilize excavator bucket or stone conveyor, positioned off of system, to uniformly backfill around modules. Stone to be placed in max. 12" (305 mm) lifts until stone reaches top of modules.	No equipment is permitted on the modules during the side backfilling process.		
Leveling Bed	No limitations			

Notes:
1. *Storage of materials such as construction materials, equipment, soils, etc. over the StormTank® system is strictly **prohibited**.*
2. *Please contact a Brentwood representative/distributor prior to utilization of any equipment not listed above.*
3. *During paving operations it may be necessary to utilize dump operations for paving equipment. Additional precautions should be utilized to limit the dump distance and prevent rutting of the road base.*
4. *It is recommended that all backfilling operations be completed with low ground pressure vehicles such as mini excavators, skid steers, etc. **All** equipment is to access system by a level approach to the system.*

GENERAL CONDITIONS

- REVIEW INSTALLATION PROCEDURES AND COORDINATE THE INSTALLATION WITH OTHER CONSTRUCTION ACTIVITIES, SUCH AS GRADING, EXCAVATION, UTILITIES, CONSTRUCTION ACCESS, EROSION CONTROL, ETC.
- ENGINEERED DRAWINGS SUPERSEDE ALL PROVIDED DOCUMENTATION, AS THE INFORMATION FURNISHED IN THIS DOCUMENT IS BASED ON A TYPICAL INSTALLATION.
- WHEN INSTALLED BASED ON BRENTWOOD'S SITE PREPARATION AND INSTALLATION INSTRUCTIONS OR SIMILAR, A STORMTANK® SYSTEM CAN SUPPORT AN HS–25 LOAD.
- COORDINATE THE INSTALLATION WITH MANUFACTURER'S REPRESENTATIVE/DISTRIBUTOR TO BE ON–SITE TO REVIEW START UP PROCEDURES AND INSTALLATION INSTRUCTIONS.
- COMPONENTS SHALL BE UNLOADED, HANDLED AND STORED IN AN AREA PROTECTED FROM TRAFFIC AND IN A MANNER TO PREVENT DAMAGE.
- ASSEMBLED MODULES MAY BE WALKED ON, BUT VEHICULAR TRAFFIC IS PROHIBITED UNTIL BACKFILLED PER MANUFACTURER'S REQUIREMENTS. PROTECT THE INSTALLATION AGAINST DAMAGE WITH HIGHLY VISIBLE CONSTRUCTION TAPE, FENCING, OR OTHER MEANS UNTIL CONSTRUCTION IS COMPLETE.
- ENSURE ALL CONSTRUCTION OCCURS IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL LAWS, ORDINANCES, AND SAFETY REQUIREMENTS.
- EXTRA CARE AND CAUTION SHOULD BE TAKEN WHEN TEMPERATURES ARE AT OR BELOW 40° F (4.4° C).

1.0 STORMTANK® ASSEMBLY

STORMTANK® MODULES:
STORMTANK® MODULES ARE DELIVERED TO THE SITE AS PALLETIZED COMPONENTS REQUIRING SIMPLE ASSEMBLY. NO SPECIAL EQUIPMENT, TOOLS OR BONDING AGENTS ARE REQUIRED; ONLY A RUBBER MALLET. A SINGLE WORKER CAN TYPICALLY ASSEMBLE A MODULE IN TWO MINUTES.

ASSEMBLY INSTRUCTIONS:
1. PLACE A PLATEN ON A FIRM, LEVEL SURFACE AND INSERT THE EIGHT (8) COLUMNS INTO THE PLATEN RECEIVER CUPS. FIRMLY TAP EACH COLUMN WITH A RUBBER MALLET TO ENSURE THE COLUMN IS SEATED.
2. PLACE A SECOND PLATEN ON A FIRM, LEVEL SURFACE. FLIP THE PREVIOUSLY ASSEMBLED COMPONENTS UPSIDE DOWN ONTO THE SECOND PLATEN, ALIGNING THE COLUMNS INTO THE PLATEN RECEIVER CUPS.
3. ONCE ALIGNED, SEAT THE TOP ASSEMBLY BY ALTERNATING TAPS, WITH A RUBBER MALLET AT EACH STRUCTURAL COLUMN UNTIL ALL COLUMNS ARE FIRMLY SEATED.

SIDE PANELS
4. IF SIDE PANELS ARE REQUIRED, FIRMLY TAP THE TOP PLATEN UPWARD TO RAISE THE TOP PLATEN. INSERT THE SIDE PANEL INTO THE BOTTOM PLATEN.
5. ALIGN THE TOP OF THE SIDE PANEL WITH THE TOP PLATEN AND FIRMLY SEAT THE TOP PLATEN UTILIZING A RUBBER MALLET.

GENERAL NOTES:
- REMOVE PACKAGING MATERIAL AND CHECK FOR ANY DAMAGE. REPORT ANY DAMAGED COMPONENTS TO A STORMTANK® DISTRIBUTOR OR BRENTWOOD PERSONNEL.
- STORMTANK® COMPONENTS ARE BACKED BY A ONE YEAR WARRANTY, WHEN INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

2.0 BASIN EXCAVATION

1. STAKE OUT AND EXCAVATE TO ELEVATIONS PER APPROVED PLANS. EXCAVATION REQUIREMENTS:
   a. SUB–GRADE EXCAVATION MUST BE A MINIMUM OF 6" (152 MM) BELOW DESIGNED STORMTANK® MODULE INVERT.
   b. THE EXCAVATION SHOULD EXTEND A MINIMUM OF 12" (305 MM) BEYOND THE STORMTANK® DIMENSIONS IN EACH LENGTH AND WIDTH (AN ADDITIONAL 24" [610 MM] IN TOTAL LENGTH AND TOTAL WIDTH) TO ALLOW FOR ADEQUATE PLACEMENT OF SIDE BACKFILL MATERIAL.
   c. REMOVE OBJECTIONABLE MATERIAL ENCOUNTERED WITHIN THE EXCAVATION, INCLUDING PROTRUDING MATERIAL FROM THE WALLS.
   d. FURNISH, INSTALL, MONITOR AND MAINTAIN EXCAVATION SUPPORT (E.G., SHORING, BRACING, TRENCH BOXES, ETC.) AS REQUIRED BY FEDERAL, STATE AND LOCAL LAWS, ORDINANCES, REGULATIONS AND SAFETY REQUIREMENTS.

3.0 SUB–GRADE REQUIREMENTS

1. SUB–GRADE SHALL BE UNFROZEN, LEVEL (PLUS OR MINUS 1%), AND FREE OF LUMPS OR DEBRIS WITH NO STANDING WATER, MUD OR MUCK. DO NOT USE MATERIALS NOR MIX WITH MATERIALS THAT ARE FROZEN AND/OR COATED WITH ICE OR FROST.
2. UNSTABLE, UNSUITABLE AND/OR COMPROMISED AREAS SHOULD BE BROUGHT TO THE ENGINEER'S ATTENTION AND MITIGATING EFFORTS DETERMINED PRIOR TO COMPACTING THE SUB–GRADE.
3. SUB–GRADE MUST BE COMPACTED TO 95% STANDARD PROCTOR DENSITY OR AS APPROVED BY THE ENGINEER OF RECORD. IF CODE REQUIREMENTS RESTRICT SUBGRADE COMPACTION, IT IS THE REQUIREMENT OF THE GEOTECHNICAL ENGINEER TO VERIFY THAT THE BEARING CAPACITY AND SETTLEMENT CRITERIA FOR SUPPORT OF THE SYSTEM ARE MET. *

* THE ENGINEER OF RECORD SHALL REFERENCE BRENTWOOD DOCUMENT APPENDIX A FOR MINIMUM SOIL BEARING CAPACITY REQUIRED BASED ON LOAD RATING AND TOP COVER DEPTH. MINIMUM SOIL BEARING CAPACITY IS REQUIRED SO THAT SETTLEMENTS ARE LESS THAN 1" THROUGH THE ENTIRE SUB–GRADE AND DO NOT EXCEED LONG–TERM 1/2" DIFFERENTIAL SETTLEMENT BETWEEN ANY TWO ADJACENT UNITS WITHIN THE SYSTEM. SUB–GRADE MUST BE DESIGNED TO ENSURE SOIL BEARING CAPACITY IS MAINTAINED THROUGHOUT ALL SOIL SATURATION LEVELS.

4.0 LEVELING BED INSTALLATION

1. INSTALL GEOTEXTILE FABRIC AND/OR LINER MATERIAL, AS SPECIFIED.
   a. GEOTEXTILE FABRIC SHALL BE PLACED PER MANUFACTURER'S RECOMMENDATIONS.
   b. ADDITIONAL MATERIAL TO BE UTILIZED FOR WRAPPING ABOVE THE SYSTEM MUST BE PROTECTED FROM DAMAGE UNTIL USE.
2. AFTER THE GEOTEXTILE IS SECURED, PLACE A MINIMUM 6" (152 MM) LEVELING BED.
   a. MATERIAL SHOULD BE A 3/4" (19 MM) ANGULAR STONE MEETING APPENDIX B – ACCEPTABLE FILL MATERIAL.
   b. MATERIAL SHOULD BE RAKED FREE OF VOIDS, LUMPS, DEBRIS, SHARP OBJECTS AND PLATE VIBRATED TO A LEVEL WITH A MAXIMUM 1% SLOPE.
3. CORRECT ANY UNSATISFACTORY CONDITIONS.

5.0 STORMTANK® MODULE PLACEMENT

1. INSTALL GEOTEXTILE FABRIC AND/OR LINER MATERIAL, AS SPECIFIED.
   a. GEOTEXTILE FABRIC SHALL BE PLACED PER MANUFACTURER'S RECOMMENDATIONS.
   b. ADDITIONAL MATERIAL TO BE UTILIZED FOR WRAPPING ABOVE THE SYSTEM MUST BE PROTECTED FROM DAMAGE UNTIL USE.
2. MARK THE FOOTPRINT OF THE MODULES FOR PLACEMENT.
   a. ENSURE MODULE PERIMETER OUTLINE IS SQUARE OR SIMILAR PRIOR TO MODULE PLACEMENT.
   b. CARE SHOULD BE TAKEN TO NOTE ANY CONNECTIONS, PORTS OR OTHER IRREGULAR UNITS TO BE PLACED.
3. INSTALL THE INDIVIDUAL MODULES BY HAND, AS DETAILED BELOW.
   a. THE MODULES SHOULD BE INSTALLED AS SHOWN IN THE STORMTANK® SUBMITTAL DRAWINGS WITH THE SHORT SIDE OF PERIMETER MODULES FACING OUTWARD, EXCEPT AS OTHERWISE REQUIRED.
   b. MAKE SURE THE TOP/BOTTOM PLATENS ARE IN ALIGNMENT IN ALL DIRECTIONS TO WITHIN A MAXIMUM 1/4" (6.4 MM).
   c. FOR DOUBLE STACK CONFIGURATIONS:
      i. INSTALL THE BOTTOM MODULE FIRST. DO NOT INTERMIX VARIOUS MODULE HEIGHTS ACROSS LAYERS. BACKFILLING PRIOR TO PROCEEDING TO SECOND LAYER IS OPTIONAL.
      ii. INSERT STACKING PINS (2 PER MODULE) INTO THE TOP PLATEN OF THE BOTTOM MODULE.
      iii. PLACE THE UPPER MODULE DIRECTLY ON TOP OF THE BOTTOM MODULE IN THE SAME DIRECTION, MAKING SURE TO ENGAGE THE PINS.
4. INSTALL THE MODULES TO COMPLETION, TAKING CARE TO AVOID DAMAGE TO THE GEOTEXTILE AND/OR LINER MATERIAL.
5. LOCATE ANY PORTS OR OTHER PENETRATION OF THE STORMTANK®.
   a. INSTALL PORTS/PENETRATIONS IN ACCORDANCE WITH THE APPROVED SUBMITTALS, CONTRACT DOCUMENTS AND MANUFACTURER'S RECOMMENDATIONS.
6. UPON COMPLETION OF MODULE INSTALLATION, WRAP THE MODULES IN GEOTEXTILE FABRIC AND/OR LINER.
   a. GEOTEXTILE FABRIC SHALL BE WRAPPED AND SECURED PER MANUFACTURER'S RECOMMENDATIONS.
   b. SEAL ANY PORTS/PENETRATIONS PER MANUFACTURER'S REQUIREMENTS

NOTES:
- IF DAMAGE OCCURS TO THE GEOTEXTILE FABRIC OR IMPERMEABLE LINER, REPAIR THE MATERIAL IN ACCORDANCE WITH THE GEOTEXTILE/LINER MANUFACTURER'S RECOMMENDATIONS.

6.0 SIDE BACKFILL

1. INSPECT ALL GEOTEXTILE, ENSURING THAT NO VOIDS OR DAMAGE EXISTS; WHICH WILL ALLOW SEDIMENT INTO THE STORMTANK® SYSTEM.
2. ADJUST THE STONE/SOIL INTERFACE GEOTEXTILE ALONG THE SIDE OF THE NATIVE SOIL TO ENSURE THE GEOTEXTILE IS TAUGHT TO THE NATIVE SOIL.
3. ONCE THE GEOTEXTILE IS SECURED, BEGIN TO PLACE THE SIDE BACKFILL.
   a. MATERIAL SHOULD BE A 3/4" (19 MM) ANGULAR STONE MEETING APPENDIX B – ACCEPTABLE FILL MATERIAL.
   b. BACKFILL SIDES "EVENLY" AROUND THE PERIMETER WITHOUT EXCEEDING SINGLE 12" (305 MM) LIFTS.
   c. PLACE MATERIAL UTILIZING AN EXCAVATOR, DOZER OR CONVEYOR BOOM.
   d. UTILIZE A PLATE VIBRATOR TO SETTLE THE STONE AND PROVIDE A UNIFORM DISTRIBUTION.

NOTES:
- DO NOT APPLY VEHICULAR LOAD TO THE MODULES DURING PLACEMENT OF SIDE BACKFILL. ALL MATERIAL PLACEMENT SHOULD OCCUR WITH EQUIPMENT LOCATED ON THE NATIVE SOIL SURROUNDING THE SYSTEM.
- IF DAMAGE OCCURS TO THE GEOTEXTILE FABRIC OR IMPERMEABLE LINER, REPAIR THE MATERIAL IN ACCORDANCE WITH THE GEOTEXTILE/LINER MANUFACTURER'S RECOMMENDATIONS.

7.0 TOP BACKFILL (STONE)

1. BEGIN TO PLACE THE TOP BACKFILL.
   a. MATERIAL SHOULD BE A 3/4" (19 MM) ANGULAR STONE MEETING APPENDIX B – ACCEPTABLE FILL MATERIAL.
   b. PLACE MATERIAL UTILIZING AN EXCAVATOR, DOZER OR CONVEYOR BOOM (APPENDIX C – MATERIAL PLACEMENT) AND USE A WALK–BEHIND PLATE VIBRATOR TO SETTLE THE STONE AND PROVIDE AN EVEN DISTRIBUTION.

   DO NOT DRIVE ON THE MODULES WITHOUT A MINIMUM 12" (305 MM) COVER.
2. UPON COMPLETION OF TOP BACKFILLING, WRAP THE SYSTEM IN GEOTEXTILE FABRIC AND/OR LINER PER MANUFACTURER'S RECOMMENDATIONS.
3. INSTALL METALLIC TAPE AROUND THE PERIMETER OF THE SYSTEM TO MARK THE AREA FOR FUTURE UTILITY DETECTION.

NOTES:
- IF DAMAGE OCCURS TO THE GEOTEXTILE FABRIC OR IMPERMEABLE LINER, REPAIR THE MATERIAL IN ACCORDANCE WITH THE GEOTEXTILE/LINER MANUFACTURER'S RECOMMENDATIONS.

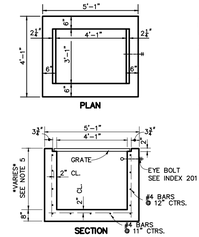
8.0 SUITABLE COMPACTABLE FILL

FOLLOWING TOP BACKFILL PLACEMENT AND GEOTEXTILE FABRIC WRAPPING; COMPLETE THE INSTALLATION AS NOTED BELOW.

VEGETATED AREA
1. PLACE FILL ONTO THE GEOTEXTILE.
   a. MAXIMUM 12" (305 MM) LIFTS, COMPACTED WITH A VIBRATORY PLATE OR WALK BEHIND ROLLER TO A MINIMUM OF 90% STANDARD PROCTOR DENSITY.
   b. THE MINIMUM TOP COVER TO FINISHED GRADE SHOULD NOT BE LESS THAN 24" (610 MM) AND THE MAXIMUM DEPTH FROM FINAL GRADE TO THE BOTTOM OF THE LOWEST MODULE SHOULD NOT EXCEED 11' (3.35 M).
2. FINISH TO THE SURFACE AND COMPLETE WITH VEGETATIVE COVER.

IMPERVIOUS AREA
1. PLACE FILL ONTO THE GEOTEXTILE.
   a. MAXIMUM 12" (305 MM) LIFTS COMPACTED WITH A VIBRATORY PLATE OR WALK BEHIND ROLLER TO A MINIMUM 90% STANDARD PROCTOR DENSITY OR TO MEET THE ENGINEER OF RECORD'S SPECIFICATION.
   b. SUB–BASE MATERIALS SHOULD BE REFERENCED BY THE APPROVED ENGINEERING DRAWINGS.
   c. THE MINIMUM TOP COVER TO FINISHED GRADE SHOULD NOT BE LESS THAN 24" (610 MM) AND THE MAXIMUM DEPTH FROM FINAL GRADE TO THE BOTTOM OF THE LOWEST MODULE SHOULD NOT EXCEED 11' (3.35 M).
2. FINISH TO THE SURFACE AND COMPLETE WITH ASPHALT, CONCRETE, ETC.

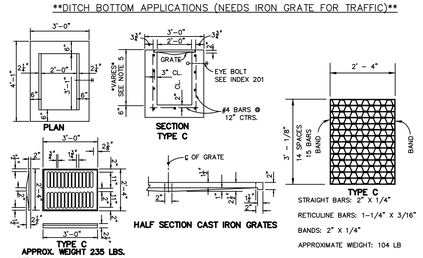
NOTES:
- A VIBRATORY ROLLER MAY ONLY BE UTILIZED AFTER A MINIMUM 24" (610 MM) OF COMPACTED MATERIAL HAS BEEN INSTALLED OR FOR THE INSTALLATION OF THE ASPHALT WEARING COURSE.
- IF DAMAGE OCCURS TO THE GEOTEXTILE FABRIC, REPAIR THE MATERIAL IN ACCORDANCE WITH THE GEOTEXTILE MANUFACTURER'S RECOMMENDATIONS.



NOTES:
1) 6" WALL THICKNESS MUST BE USED FOR PRECAST INLETS IN ACCORDANCE WITH F.D.O.T. INDEX #201.
2) CONCRETE TO BE F.D.O.T. CLASS I OR EQUAL (2,500 PSI MINIMUM STRENGTH).
3) CONSTRUCTION TO BE IN ACCORDANCE WITH F.D.O.T. SPECIFICATION SECTION 425.
4) RECOMMENDED MAXIMUM PIPE SIZE: 3'–1" WALL – 24" PIPE; 4'–1" WALL – 36" PIPE
5) 15' MAXIMUM DEPTH SEE F.D.O.T. INDEX #201, SH. 4 & 5 FOR REINF. MOD. FOR DEPTHS 13' TO 15'.

TYPE "D" INLET DETAIL
N.T.S.

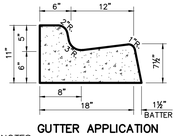
DITCH BOTTOM APPLICATIONS (NEEDS IRON GRATE FOR TRAFFIC)



TYPE C
APPROX. WEIGHT 235 LBS.

NOTES:
1) 6" WALL THICKNESS MUST BE USED FOR PRECAST INLETS IN ACCORDANCE WITH F.D.O.T. INDEX #201.
2) CONCRETE TO BE F.D.O.T. CLASS I OR EQUAL (2,500 PSI MINIMUM STRENGTH).
3) CONSTRUCTION TO BE IN ACCORDANCE WITH F.D.O.T. SPECIFICATION SECTION 425.
4) RECOMMENDED MAXIMUM PIPE SIZE: 2'–0" WALL – 18" PIPE, 3'–1" WALL – 24" PIPE
5) 15' MAXIMUM DEPTH SEE F.D.O.T. INDEX #201, SH. 4 & 5 FOR REINF. MOD. FOR DEPTHS 13' TO 15'.

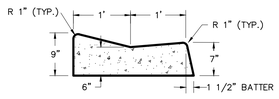
TYPE "C" INLET DETAIL
N.T.S.



GUTTER APPLICATION

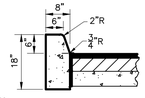
NOTES:
1. CONCRETE TO BE F.D.O.T. CLASS I OR EQUAL. (2,500 P.S.I. MINIMUM STRENGTH)
2. CONSTRUCTION TO BE IN ACCORDANCE WITH F.D.O.T. SPECIFICATION SECTION 520.
3. WHEN USED ON HIGH SIDE OF PAVEMENTS, THE CROSS SLOPE OF THE GUTTER SHALL SPILL OUT WITH 1" FALL AS SHOWN.

TYPE "F" CURB (MODIFIED)
N.T.S.



NOTES:
1. CONCRETE TO BE F.D.O.T. CLASS I OR EQUAL. (2,500 P.S.I. MINIMUM STRENGTH)
2. CONSTRUCTION TO BE IN ACCORDANCE WITH F.D.O.T. SPECIFICATION SECTION 520.

MIAMI STYLE VALLEY GUTTER
N.T.S.



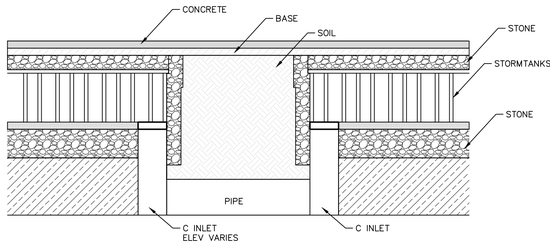
NOTES:
1. CONCRETE TO BE F.D.O.T. CLASS I OR EQUAL. (2,500 PSI MINIMUM STRENGTH).
2. CONSTRUCTION TO BE IN ACCORDANCE WITH F.D.O.T. SPECIFICATION SECTION 520.

TYPE "D" CURB DETAIL
N.T.S.

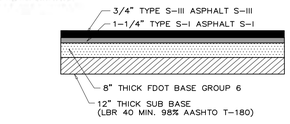
12" (305 mm) SIDE PANEL

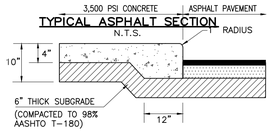
NOTES:
1. SIDE PANELS TO BE INSTALLED ALONG SYSTEM PERIMETER, UNLESS OTHERWISE SPECIFIED.
2. ALL HEIGHTS TO BE CUT FROM A 36" (914 mm) SIDE PANEL AT PRE–SCRIBED LOCATIONS, EXCEPT 33" (838 mm) & 12" (305 mm) SIDE PANEL.

SIDE PANEL DETAIL



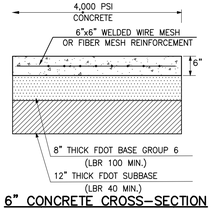
TYPICAL STORM DRAIN INLET CONNECTION DETAIL
N.T.S.



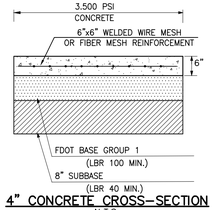


TYPICAL ASPHALT SECTION
N.T.S.

CONCRETE SIDEWALK TO ASPHALT SECTION W/ REINFORCED EDGE
N.T.S.



6" CONCRETE CROSS–SECTION (VEHICULAR TRAFFIC)
N.T.S.



4" CONCRETE CROSS–SECTION
N.T.S.

PREPARED FOR:

ZAMAGIAS PROPERTIES
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PITTSBURGH, PA 15222
(412)394–6825

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CITY MARKETPLACE

CHARLOTTE COUNTY, FLORIDA

| DATE | PROJECT | DRAWING | DESIGN |