PENSACOLA AVIATION CENTER

PENSACOLA, FLORIDA

STEWART 51 PARTNER, LLC

12376 GULF BEACH HWY

ESCAMBIA COUNTY, FLORIDA

GOODWYN | MILLS | CAWOOD PROJECT NO. CMOB200001

FEBRUARY 2020

STEWART 51 WAREHOUSE
STEWART 51 PARTNER, LLC
GMC PROJECT #CMOB200001
ESCAMBIA COUNTY - FLORIDA

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ECUA Engineering Manual Reference Note*

A. ECUA Engineering Manual Incorporated by Reference

The ECUA Engineering Manual, dated December 18, 2014, along with Update # 1 dated September 1, 2016 (hereinafter "Manual"), located at www.ecua.fl.gov, is hereby incorporated by reference into this Project's official contract documents as if fully set forth therein. It is the Contractor's responsibility to be knowledgeable of the Manual's contents and to construct the Project in accordance with the Manual. The Contractor shall provide its employees access to the Manual at all times, via Project site or office, via digital or paper format. In the event of a conflict between the Manual and Plans, Contractor shall consult Engineer of Record for proper resolution.

B. Additional Documents (to be completed by the Engineer of Record)

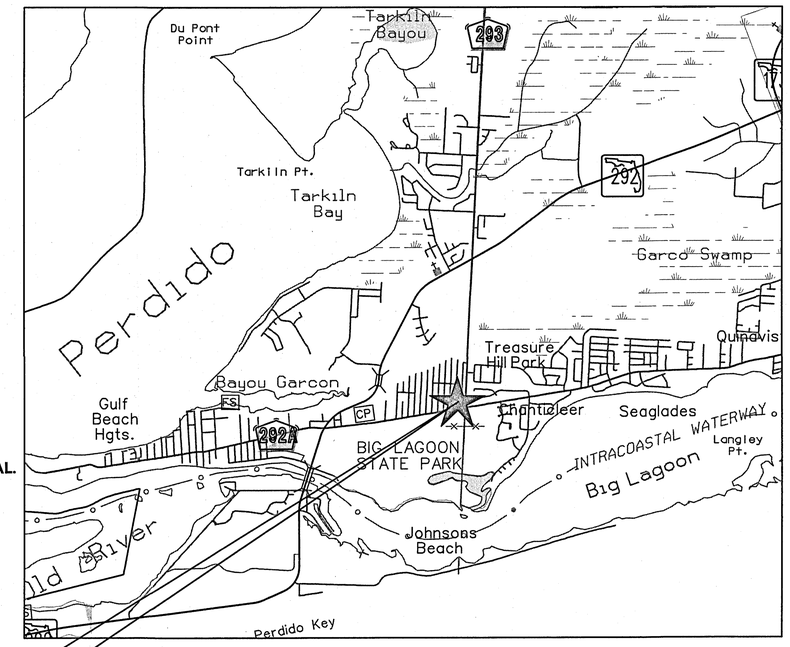
Does this Project have additional technical specifications or construction details that supplement and/or supersede the Manual listed above? ☐YES NO☐. If yes, Contractor shall construct Project in accordance with said documents as listed and located below:

Document Name	Document Type		Location	
	Specification	Detail	Plans	Project Manual*
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐

**Project Manuals used only with ECUA CIP Projects*

C. Engineer of Record Responsibilities

The Engineers of Record (EORs) that have affixed their seals and signatures on these plans warrant their portions of the plans have been designed in accordance with the Manual (unless otherwise directed by the ECUA Project Engineer). The EORs shall be knowledgeable of the Manual's contents and shall assume responsibility for its use on this Project.

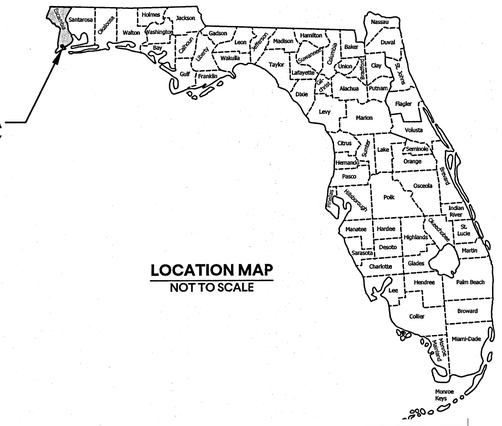


← TO ORANGE BEACH, AL.

PROJECT LOCATION

VICINITY MAP
NOT TO SCALE

TO PENSACOLA, FL. →



LOCATION MAP
NOT TO SCALE

Approved ESCAMBIA COUNTY DRC PLAN REVIEW	
DRC Chairman Signature: A.D. Holmer	Date: 8-12-2020
Printed Name: A.D. HOLMER, Development Services Director or Designee	

This document has been reviewed in accordance with the requirements of applicable Escambia County Regulations and Ordinances, and does not in any way relieve the submitting Architect, Engineer, Surveyor or other signatory from responsibility of details as drawn. A Development Order (DO) must be obtained through the Development Review Process prior to the commencement of construction. This DO approval does not constitute approval by any other agency. All additional state/federal permits shall be provided to the county prior to approval of a final plat or the issuance of state/federal permits shall be provided to the county prior to approval of a final plat or the issuance of a building permit.

GMC

BUILDING COMMUNITIES

GOODWYN | MILLS | CAWOOD
2039 MAIN STREET | Daphne, AL 36526
Tel 251.626.2626 | GMCNETWORK.COM
ROBERT ALDEN CUMMINGS, P.E., CFM
APPROVED: DATE: 8/4/2020
PROFESSIONAL ENGINEER NO. 73714

ROBERT ALDEN CUMMINGS LICENSE No 73714 STATE OF Florida PROFESSIONAL ENGINEER

NOTES:

a) THE PROJECT ENGINEER (ENGINEER OF RECORD) SHALL PROVIDE TO ESCAMBIA COUNTY "AS-BUILT" RECORD DRAWINGS FOR VERIFICATION AND APPROVAL BY ESCAMBIA COUNTY ONE WEEK PRIOR TO REQUESTING A FINAL INSPECTION AND CERTIFICATE OF OCCUPANCY, OR PROVIDE "AS-BUILT" CERTIFICATION THAT THE PROJECT CONSTRUCTION ADHERES TO THE PERMITTED PLANS AND SPECIFICATIONS. THE "AS-BUILT" CERTIFICATION OR THE "AS-BUILT" RECORD DRAWINGS MUST BE SIGNED, SEALED AND DATED BY A REGISTERED FLORIDA PROFESSIONAL ENGINEER.

b) ALL ASPECTS OF THE STORMWATER/DRAINAGE COMPONENTS AND/OR TRANSPORTATION COMPONENTS SHALL BE COMPLETED PRIOR TO ISSUANCE OF A FINAL CERTIFICATE OF OCCUPANCY.

c) NO DEVIATIONS OR REVISIONS FROM THESE PLANS BY THE CONTRACTOR SHALL BE ALLOWED WITHOUT PRIOR APPROVAL FROM BOTH THE DESIGN ENGINEER AND THE ESCAMBIA COUNTY. ANY DEVIATIONS MAY RESULT IN DELAYS IN OBTAINING A CERTIFICATE OF OCCUPANCY.

d) THE CONTRACTOR SHALL INSTALL PRIOR TO THE START OF CONSTRUCTION AND MAINTAIN DURING CONSTRUCTION ALL SEDIMENT CONTROL MEASURES AS REQUIRED TO RETAIN ALL SEDIMENTS ON THE SITE. IMPROPER SEDIMENT CONTROL MEASURES MAY RESULT IN CODE ENFORCEMENT VIOLATION.

e) RETENTION/DETENTION AREAS SHALL BE SUBSTANTIALLY COMPLETE PRIOR TO ANY CONSTRUCTION ACTIVITIES THAT MAY INCREASE STORMWATER RUNOFF RATES. THE CONTRACTOR SHALL CONTROL STORMWATER DURING ALL PHASES OF CONSTRUCTION AND TAKE ADEQUATE MEASURES TO PREVENT THE EXCAVATED POND FROM BLINDING DUE TO SEDIMENTS.

f) ALL DISTURBED AREAS WHICH ARE NOT PAVED SHALL BE STABILIZED.

g) ALL NEW BUILDING ROOF DRAINS, DOWN SPOUTS, OR GUTTERS SHALL BE ROUTED TO CARRY ALL STORMWATER TO RETENTION/DETENTION AREAS.

h) DEVELOPER/CONTRACTOR SHALL RESHAPE PER PLAN SPECIFICATIONS, CLEAN OUT ACCUMULATED SILT, AND STABILIZE RETENTION/DETENTION POND(S) AT THE END OF CONSTRUCTION WHEN ALL DISTURBED AREAS HAVE BEEN STABILIZED AND PRIOR TO REQUEST FOR INSPECTION.

i) CONTRACTOR SHALL MAINTAIN RECORD DRAWINGS DURING CONSTRUCTION WHICH SHOW "AS-BUILT" CONDITIONS OF ALL WORK INCLUDING PIPING, DRAINAGE STRUCTURES, TOPO OF POND(S), OUTLET STRUCTURES, DIMENSIONS, ELEVATIONS, GRADING ETC. RECORD DRAWINGS SHALL BE PROVIDED TO THE ENGINEER OF RECORD PRIOR TO REQUESTING FINAL INSPECTION.

j) THE OWNER OR HIS AGENT SHALL ARRANGE/SCHEDULE WITH THE COUNTY A FINAL INSPECTION OF THE DEVELOPMENT UPON COMPLETION AND ANY INTERMEDIATE INSPECTIONS AT (850) 595-3472. AS-BUILT CERTIFICATION IS REQUIRED PRIOR TO REQUEST FOR FINAL INSPECTION/APPROVAL.

k) PRIOR TO CONSTRUCTION A SEPARATE BUILDING INSPECTION DEPARTMENT PERMIT(S) SHALL BE OBTAINED FOR ALL RETAINING WALL(S) HIGHER THAN 2 FEET.

l) NOTIFY SUNSHINE UTILITIES 48 HOURS IN ADVANCE PRIOR TO DIGGING WITHIN R/W; 1-800-432-4770.

m) ANY DAMAGE TO EXISTING ROADS DURING CONSTRUCTION WILL BE REPAIRED BY THE DEVELOPER PRIOR TO FINAL "AS-BUILT" SIGN OFF FROM THE COUNTY.

n) THE CONTRACTOR SHALL NOTIFY FDOT 48 HOURS IN ADVANCE PRIOR TO INITIATING ANY WORK IN THE STATE RIGHTS-OF-WAY.

o) NO PROTECTED (12" DBH) TREES WILL BE REMOVED, DESTRUCTIVELY DAMAGED, MUTILATED, RELOCATED, DISFIGURED, DESTROYED, CUT DOWN, OR EXCESSIVELY PRUNED DURING CONSTRUCTION ACTIVITIES UNLESS OTHERWISE APPROVED.

p) PROPOSED TREES SHALL BE NATIVE, FLORIDA GRADE 1 TREES OR BETTER, AT A MINIMUM OF 2.5 CALIPER INCHES.

q) A SIGN PERMIT SHALL BE OBTAINED BY THE CONTRACTOR AT TIME OF BUILDING PERMIT ISSUANCE.

r) THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL INFRASTRUCTURE LOCATED WITHIN THE DEVELOPMENT.

s) ALL CONSTRUCTION ACTIVITIES SHALL ADHERE TO THE AMERICANS WITH DISABILITIES ACT (ADA).

t) WHERE CONFLICTS BETWEEN THE WRITTEN SPECIFICATIONS AND THESE PLANS ARISE, THE ITEMS DEPICTED ON THESE PLANS SHALL GOVERN. THE CONTRACTOR SHALL DEFER TO THE SPECIFICATIONS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION FOR MATTERS PERTAINING TO SITE WORK AND ON ALL MATTERS WHEREIN THE WRITTEN SPECIFICATIONS ARE SILENT.

u) ALL UTILITIES ARE TO BE CONSTRUCTED PERTAINING TO THE SPECIFICATIONS OF THE EMERALD COAST UTILITY AUTHORITY. WHERE CONFLICTS EXIST BETWEEN THE WRITTEN SPECIFICATIONS AND THESE PLANS, THE CONTRACTOR SHALL DEFER TO THE ECUA SPECIFICATIONS.

v) A HEALTHY GROWTH OF VEGETATION IN ALL DISTURBED AREAS SHALL BE ACHIEVED PRIOR TO THE COUNTY FINAL SITE INSPECTION.

NOTE: THE NOTES HEREIN SHALL NOT SUPERCEDE THOSE ON OTHER DRAWINGS.

GMC
2039 Main Street
Daphne, AL 36526
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GMCNETWORK.COM

JANUARY 2020

DRAWN BY: JHP
CHECKED BY:

STEWART 51 WAREHOUSE
12376 GULF BEACH HWY
PENSACOLA,FLORIDA

STEWART 51 PARTNER, LLC
GMCProject:CMOB200001

ROBERT ALDEN CUMMINGS
LICENSE
No. 73714
STATE OF FLORIDA
PROFESSIONAL ENGINEER
8/4/2020

CIVIL NOTES

SCALE: NONE

C2.01

sheet 2 of 15

DRAWING FILE: T:\MoSite\+CMOB Proj\Pensacola Aviation Center\CMOB200001 - Stewart 51 Warehouse\0 DWG\3-CMOB200001-EXISTING CONDITIONS.dwg
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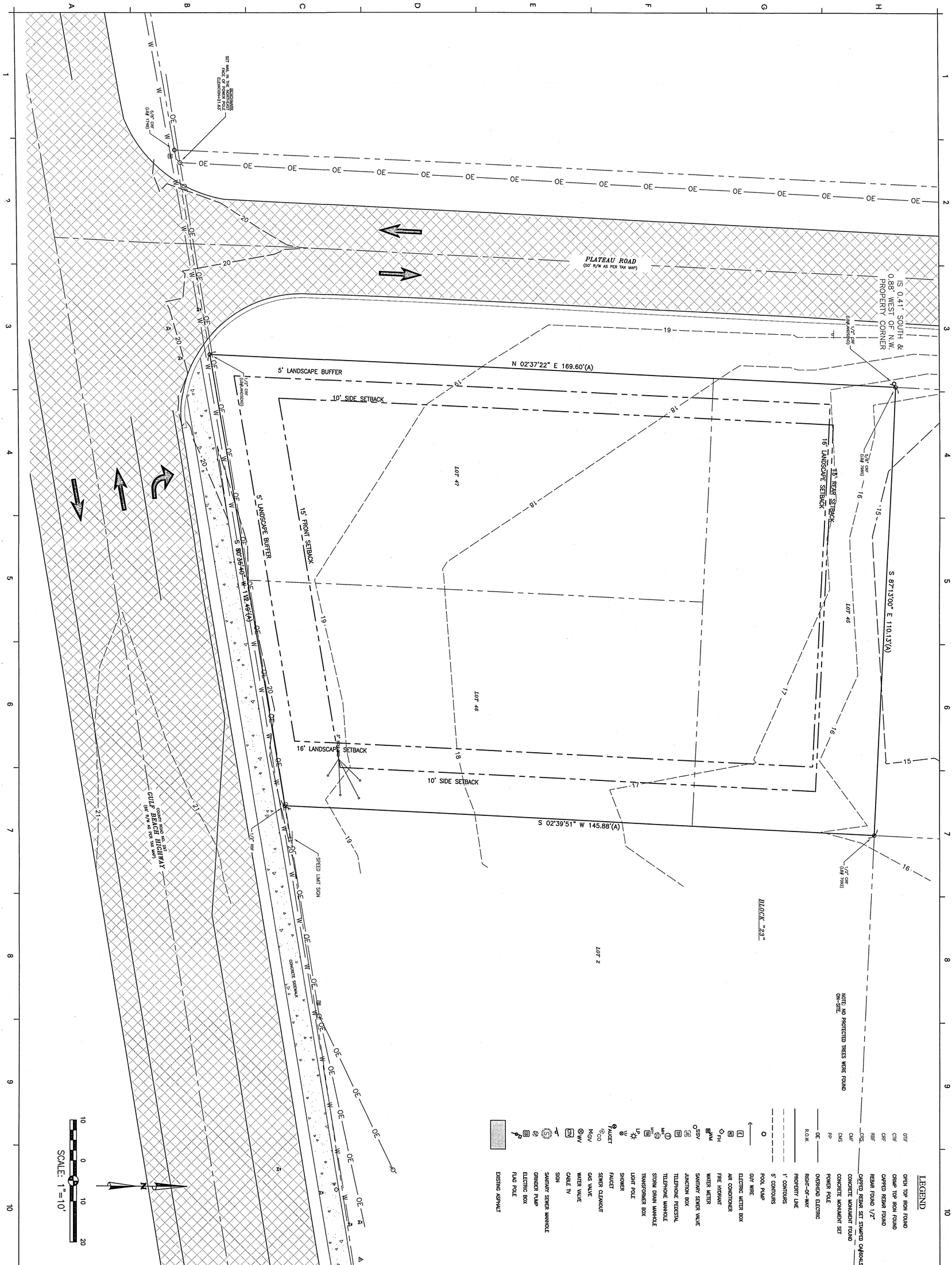

LEGEND

- OTF — OPEN TOP IRON FOUND
- CTIF — CRIMP TOP IRON FOUND
- CRF — CAPPED REBAR FOUND
- RBF — REBAR FOUND 1/2"
- CRS — CAPPED REBAR SET STAMPED CMOB#45
- CMF — CONCRETE MONUMENT FOUND
- CMS — CONCRETE MONUMENT SET
- PP — POWER POLE
- OE — OVERHEAD ELECTRIC
- R.O.W. — RIGHT-OF-WAY
- PROPERTY LINE
- 1' CONTOURS
- 5' CONTOURS
- POOL PUMP
- GUY WIRE
- ELECTRIC METER BOX
- AIR CONDITIONER
- FIRE HYDRANT
- WATER METER
- SANITARY SEWER VALVE
- JUNCTION BOX
- TELEPHONE PEDESTAL
- TELEPHONE MANHOLE
- STORM DRAIN MANHOLE
- TRANSFORMER BOX
- LIGHT POLE
- SHOWER
- FAUCET
- SEWER CLEANOUT
- GAS VALVE
- WATER VALVE
- CABLE TV
- SIGN
- SANITARY SEWER MANHOLE
- GRINDER PUMP
- ELECTRIC BOX
- FLAG POLE
- EXISTING ASPHALT

EXISTING CONDITIONS

SCALE: 1" = 10'

C3.01

sheet 3 of 14

STATE OF FLORIDA * ROBERT ALLEN CANNON * LICENSE No. 72174 * REGISTERED PROFESSIONAL ENGINEER

STEWART 51 WAREHOUSE
12376 GULF BEACH HWY
PENSACOLA,FLORIDA

STEWART 51 PARTNER, LLC
GMCProject:CMOB200001

JANUARY 2020

DRAWN BY: J.H.P.
CHECKED BY:

2039 Main Street
Daphne, AL 36526
T 251.626.2626
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GMC

IS 0.41' SOUTH & 0.88' WEST OF N.W. PROPERTY CORNER

SPEED LIMIT SIGN

S 87°13'00" E 110.13'(A)

LOT 45

REQ'D: 5'x5' CONC STOOP

15' REAR SETBACK

16' LANDSCAPE SETBACK

REQ'D: THERMOPLASTIC CROSSWALK

REQ'D: ASPHALT PAVING -SEE BUILDUP

REQ'D: TRENCH DRAIN

REQD: MILLED ASPHALT - SEE DETAIL

BUTT JOINT

PLATEAU ROAD
(50' R/W AS PER TAX MAP)

PROPOSED WAREHOUSE
6000 SF
60' x 100'

REQD: 6" CONC SIDEWALK

REQD: 6" CONC PAVING

REQD: CONC. BUMPER (x3)

N 02°37'22" E 169.60'(A)

LOT 47

REQD: 6" RAVEL CURB (TYP)

REQD: 5' CONC SIDEWALK

REQD: R7-8 HC SIGN W/$250 FINE (18"x19")

REQD: 5'x5' CONC STOOP

BLOCK "23"

REQD: 8' WOODEN PRIVACY FENCE

LOT 2

S 02°39'51" W 145.88'(A)

LOT 48

10' SIDE SETBACK

5' LANDSCAPE BUFFER

10' SIDE SETBACK

16' LANDSCAPE SETBACK

3" ROUND

15' FRONT SETBACK

SPEED LIMIT SIGN

CONCRETE SIDEWALK

5' LANDSCAPE BUFFER

S 80°36'40" W 112.49'(A)

BENCHMARK
NORTHEAST
POWER POLE
ELEV=21.63'

COUNTY ROAD NO. 297
GULF BEACH HIGHWAY
(66' R/W AS PER TAX MAP)

LEGEND

- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED DRAINAGE PIPE
- PROPOSED DOUBLE S-INLET
- PROPOSED SINGLE S-INLET
- PROPOSED JUNCTION BOX
- PROPOSED MANHOLE
- PROPOSED SEWER PIPE
- PROPOSED SIGN
- PROPOSED FENCE

SITE DATA TABLE:

PROPERTY ADDRESS: 12376 GULF BEACH HWY

PARCEL #12-3S-32-2000-045-023
LOT AREA: 17,363.56 SQ.FT. (0.399 AC.±)
DISTURBED AREA: 17,363.56 SQ. FT. (0.399 AC.)
EXISTING USE: VACANT
BUILDING FOOTPRINT AREA: 60FT x 100FT = 6,000 SQ.FT.

PARKING CALCULATIONS:

PARKING REQUIRED: [(6,000 SQ.FT.)/1000]*0.5 = 3 SPACES
PARKING PROVIDED: 3 SPACES
HANDICAPPED PARKING REQUIRED: <=25 SPACES = 1 SPACE
HANDICAP PARKING PROVIDED: 1 HC SPACE

FUTURE LAND USE: MU-U, MIXED USE-URBAN
ZONING: HC/LI
SETBACKS: FRONT - 15 FEET
REAR - 15 FEET
SIDE - 10 FEET

LANDSCAPE AREA REQUIRED:
17,363.56 SQ. FT. x 15% = 2,604.53 SQ. FT.

LANDSCAPE AREA PROVIDED: 9,213 SQ.FT. > 2604.535 SQ.FT.

COVER	EXISTING	PROPOSED
PERVIOUS	17,363.56	9,213.00
IMPERVIOUS	0	6439
SEMI-PERVIOUS	0	1712

NOTE:

1. THE SUBJECT PROPERTY AS SHOWN HEREON IS LOCATED IN FLOOD ZONE X, (MINIMAL RISK AREAS OUTSIDE THE 1-PERCENT AND 2-PERSENT-ANNUAL-CHANCE FLOODPLAINS. NO BFE's OR BASE FLOOD DEPTHS ARE SHOWN WITHIN THESE ZONES), AS DETERMINED FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP OF ESCAMBIA COUNTY, FLORIDA, COMMUNITY 120080, FIRM MAP PANEL NUMBER 12033C0509G, MAP REVISION DATED SEPTEMBER 29, 2006.

2. CLEAR SMALLEST AMOUNT NECESSARY TO AFFECT BUILDING AND FENCE INSTALLATION.

N

10 0 10 20

SCALE: 1"=10'

GMC
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JANUARY 2020

DRAWN BY: J.H.P.
CHECKED BY:

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12376 GULF BEACH HWY
PENSACOLA,FLORIDA

STEWART 51 PARTNER, LLC
GMCProject:CMOB200001

ROBERT ALDEN CUMMINGS
LICENSE
No. 73714
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Robert Alden Cummings
3/4/20

OVERALL SITE PLAN

SCALE: 1" = 10'

C4.01

sheet 4 of 14

DRAWING FILE:T:\Mobile\GMCS Proj\Pensacola Aviation Center\GMCB200001 - Stewart 51 Warehouse\© DWG\A-GMCB200001-SITE PLAN.dwg
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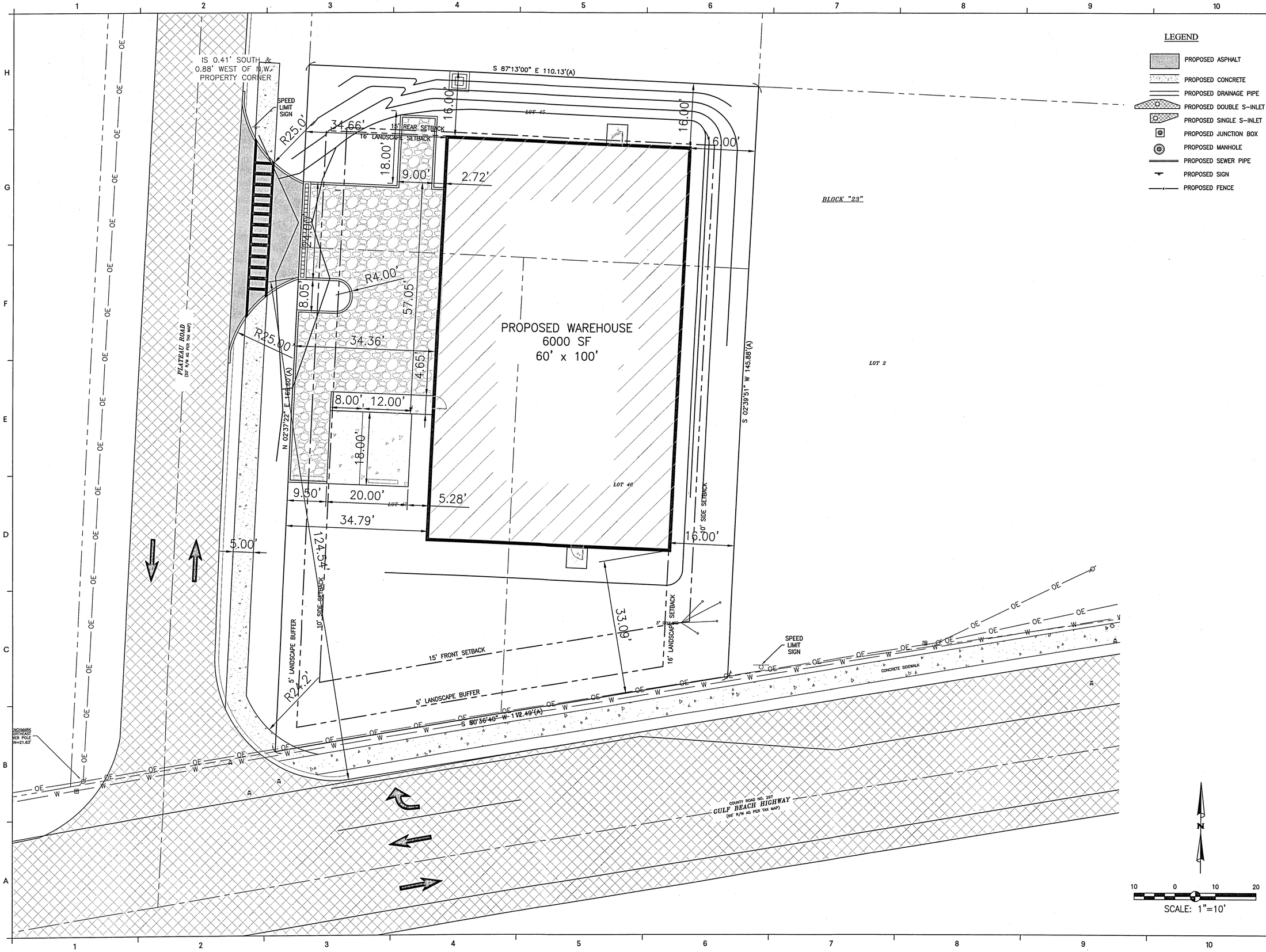

LEGEND

- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED DRAINAGE PIPE
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- PROPOSED SINGLE S-INLET
- PROPOSED JUNCTION BOX
- PROPOSED MANHOLE
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- PROPOSED SIGN
- PROPOSED FENCE

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8/4/2020

GEOMETRIC SITE PLAN

SCALE: 1" = 10'

C5.01

sheet 5 of 14

DRAWING FILE: T:\Mobile\+CMOB Proj\Pensacola Aviation Center\CMOB200001 - Stewart 51 Warehouse\0 DWG\5-CMOB200001-GEOMETRIC SITE PLAN.dwg
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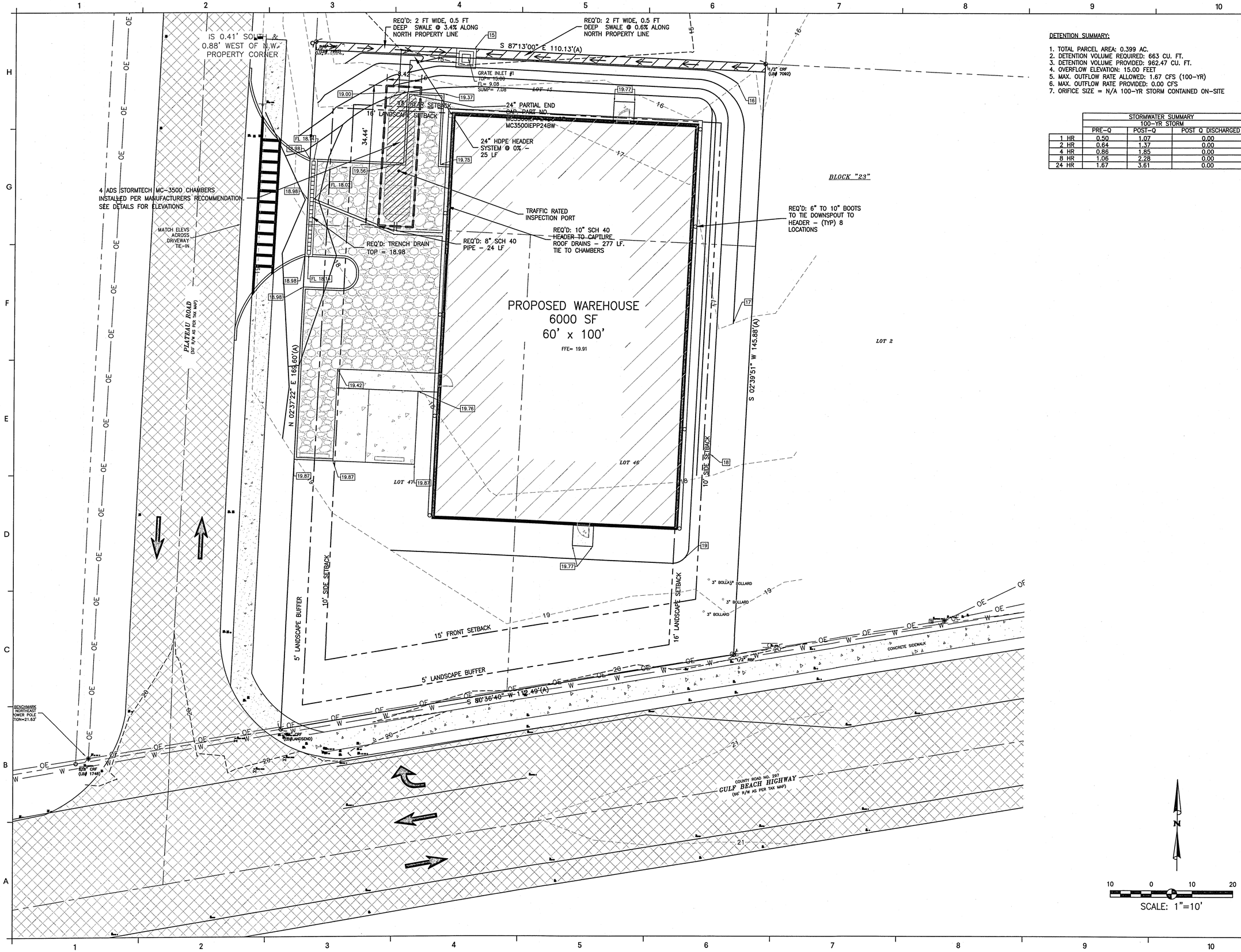

DETENTION SUMMARY:

1. TOTAL PARCEL AREA: 0.399 AC.
2. DETENTION VOLUME REQUIRED: 663 CU. FT.
3. DETENTION VOLUME PROVIDED: 962.47 CU. FT.
4. OVERFLOW ELEVATION: 15.00 FEET
5. MAX. OUTFLOW RATE ALLOWED: 1.67 CFS (100-YR)
6. MAX. OUTFLOW RATE PROVIDED: 0.00 CFS
7. ORIFICE SIZE = N/A 100-YR STORM CONTAINED ON-SITE

	STORMWATER SUMMARY		
	100-YR STORM		
	PRE-Q	POST-Q	POST Q DISCHARGED
1 HR	0.50	1.07	0.00
2 HR	0.64	1.37	0.00
4 HR	0.86	1.85	0.00
8 HR	1.06	2.28	0.00
24 HR	1.67	3.61	0.00

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PROFESSIONAL ENGINEER
8/4/2020

GRADING & DRAINAGE
SITE PLAN

SCALE: 1" = 10'

C6.01
sheet 6 of 14

DRAWING FILE:T:\Mobile+CMOB Proj\Pensacola Aviation Center\CMOB200001 - Stewart 51 Warehouse\0 DWG\6-CMOB200001GRADING AND DRAINAGE PLAN.dwg
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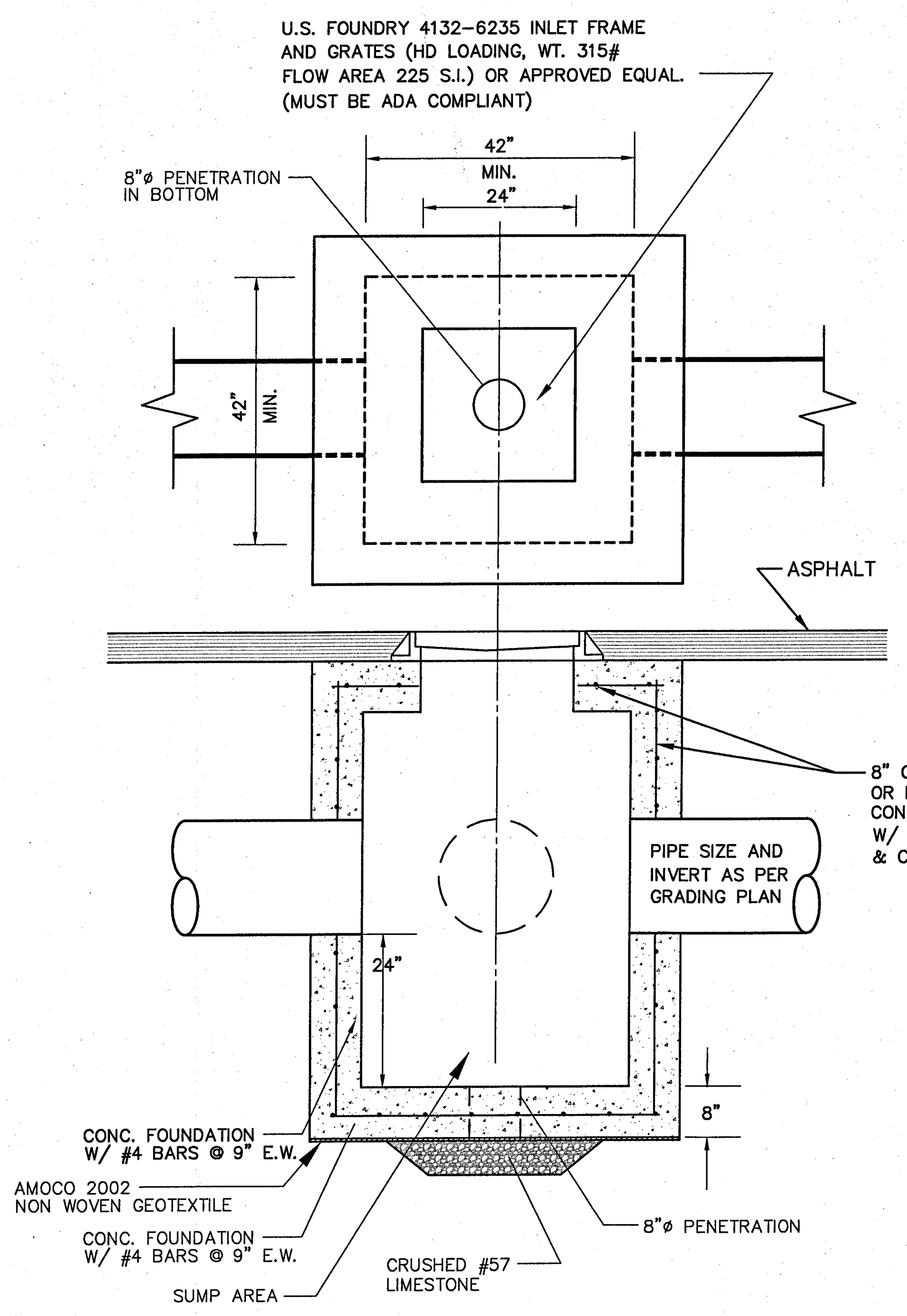
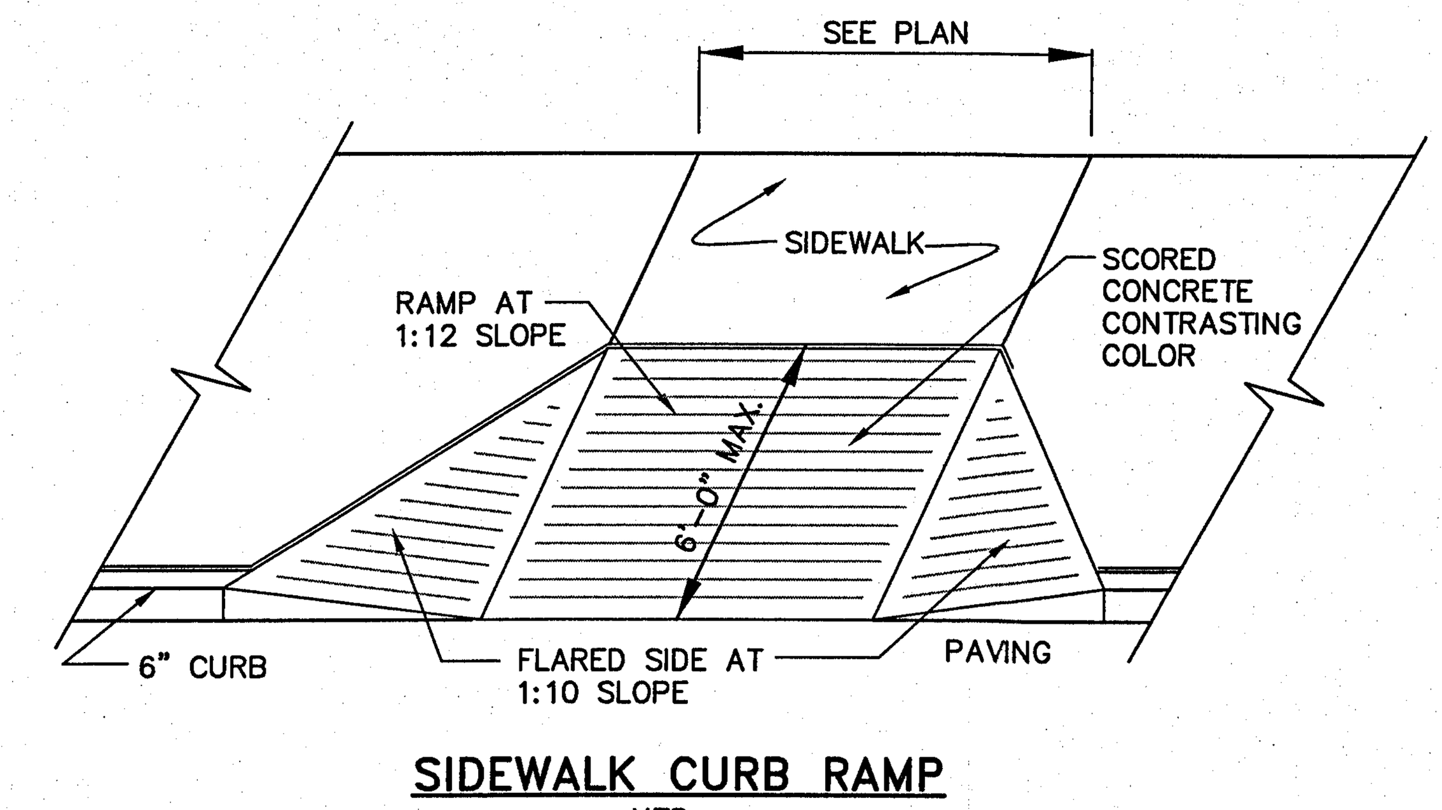
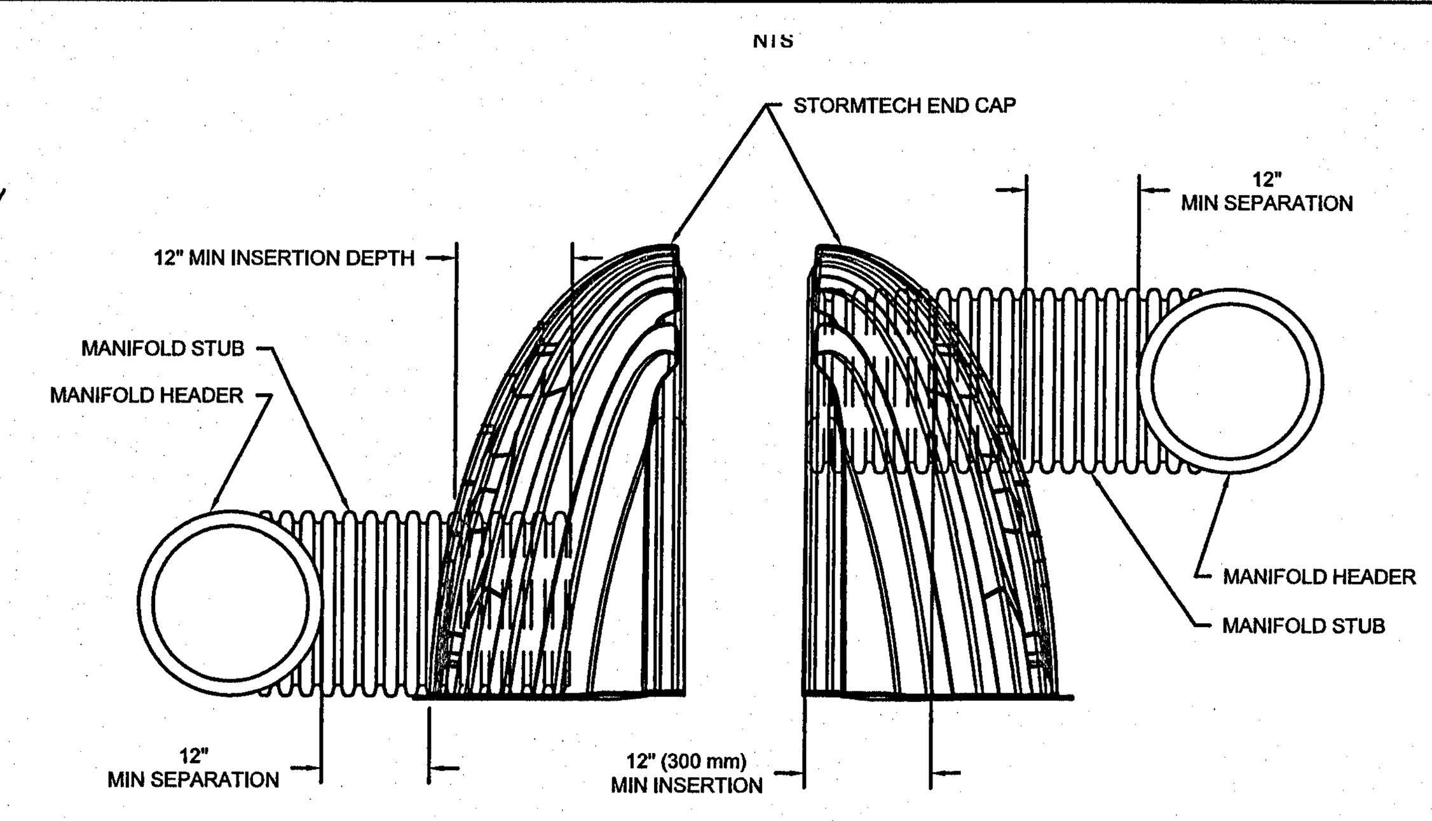


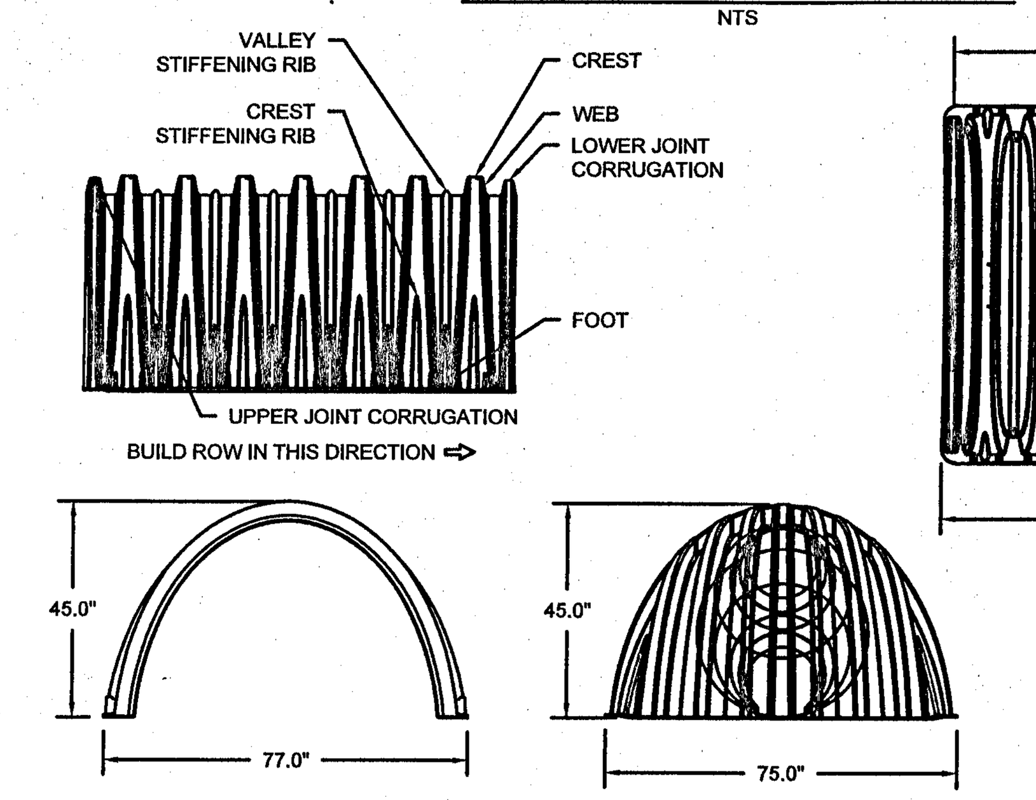
GRATE INLET DETAIL
NTS

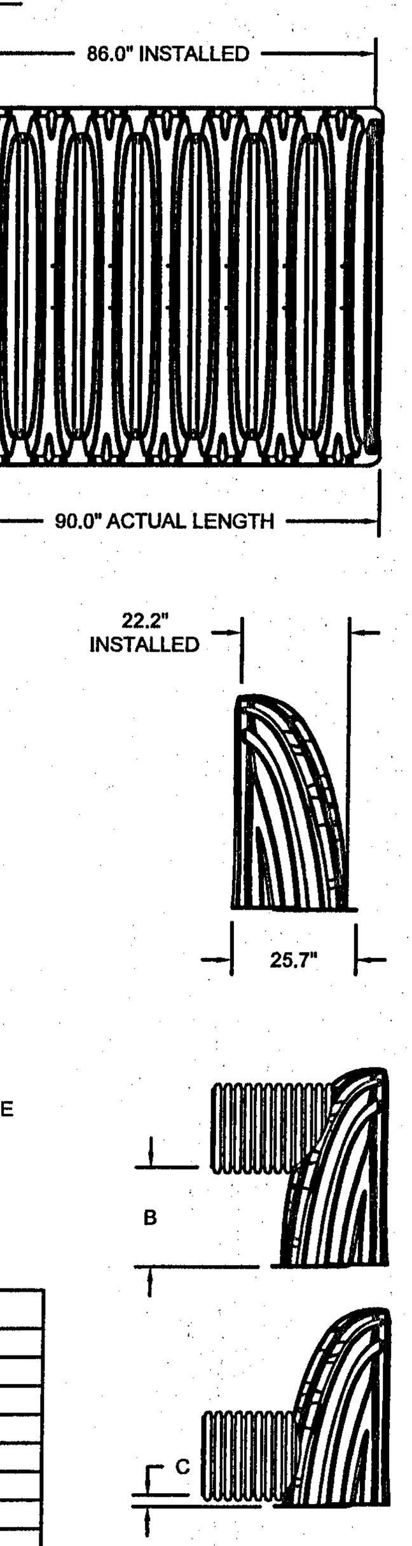


SIDEWALK CURB RAMP
NTS



NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN END CAP OPENING.





CHAMBER NOTES:

1. STORMTECH MC-3500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 6" SPACING BETWEEN THE CHAMBER ROWS.
7. INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" INTO CHAMBER END CAPS.
8. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE MEETING THE AASHTO M43 DESIGNATION OF #3 OR #4.
9. STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
10. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
11. USE "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

1. THE USE OF EQUIPMENT OVER MC-3500 CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - NO RUBBER TIRED LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
2. FULL 36" OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY USING THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	77.0" X 45.0" X 86.0"
CHAMBER STORAGE	109.9 CUBIC FEET
MINIMUM INSTALLED STORAGE*	175.0 CUBIC FEET
WEIGHT	134 lbs.

NOMINAL END CAP SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	75.0" X 45.0" X 22.2"
END CAP STORAGE	14.9 CUBIC FEET
MINIMUM INSTALLED STORAGE*	45.1 CUBIC FEET
WEIGHT	49 lbs.

*ASSUMES 12" STONE ABOVE, 9" STONE FOUNDATION, 6" STONE BETWEEN CHAMBERS, 6" STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY.

PARTIAL CUT HOLES AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
PARTIAL CUT HOLES AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"
END CAPS WITH A WELDED CROWN PLATE END WITH "C"

PART #	STUB	B	C
MC3500IEPP06T	6" (150 mm)	33.21" (844 mm)	—
MC3500IEPP06B		—	0.66" (17 mm)
MC3500IEPP08T	8" (200 mm)	31.16" (791 mm)	—
MC3500IEPP08B		—	0.81" (21 mm)
MC3500IEPP10T	10" (250 mm)	29.04" (738 mm)	—
MC3500IEPP10B		—	0.93" (24 mm)
MC3500IEPP12T	12" (300 mm)	26.36" (670 mm)	—
MC3500IEPP12B		—	1.35" (34 mm)
MC3500IEPP15T	15" (375 mm)	23.39" (594 mm)	—
MC3500IEPP15B		—	1.50" (38 mm)
MC3500IEPP18TC	18" (450 mm)	20.03" (509 mm)	—
MC3500IEPP18TW			
MC3500IEPP18BC		—	1.77" (45 mm)
MC3500IEPP18BW			
MC3500IEPP24TC	24" (600 mm)	14.48" (368 mm)	—
MC3500IEPP24TW			
MC3500IEPP24BC		—	2.06" (52 mm)
MC3500IEPP24BW			
MC3500IEPP30BC	30" (750 mm)	—	2.75" (70 mm)

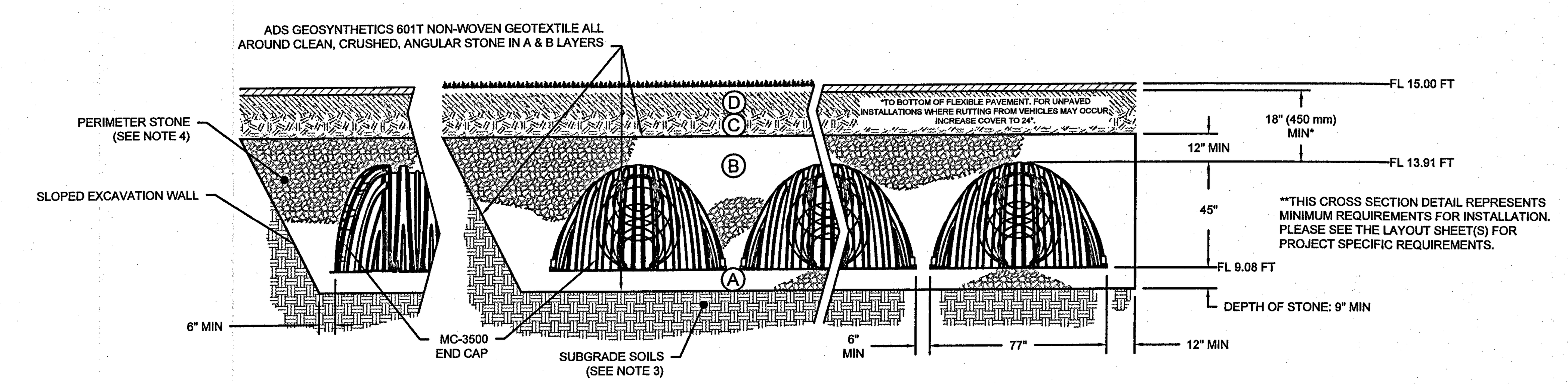
NOTE: ALL DIMENSIONS ARE NOMINAL

CUSTOM PARTIAL CUT INVERTS ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12-24" SIZE ON SIZE AND 15-48" ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-3500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10". THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

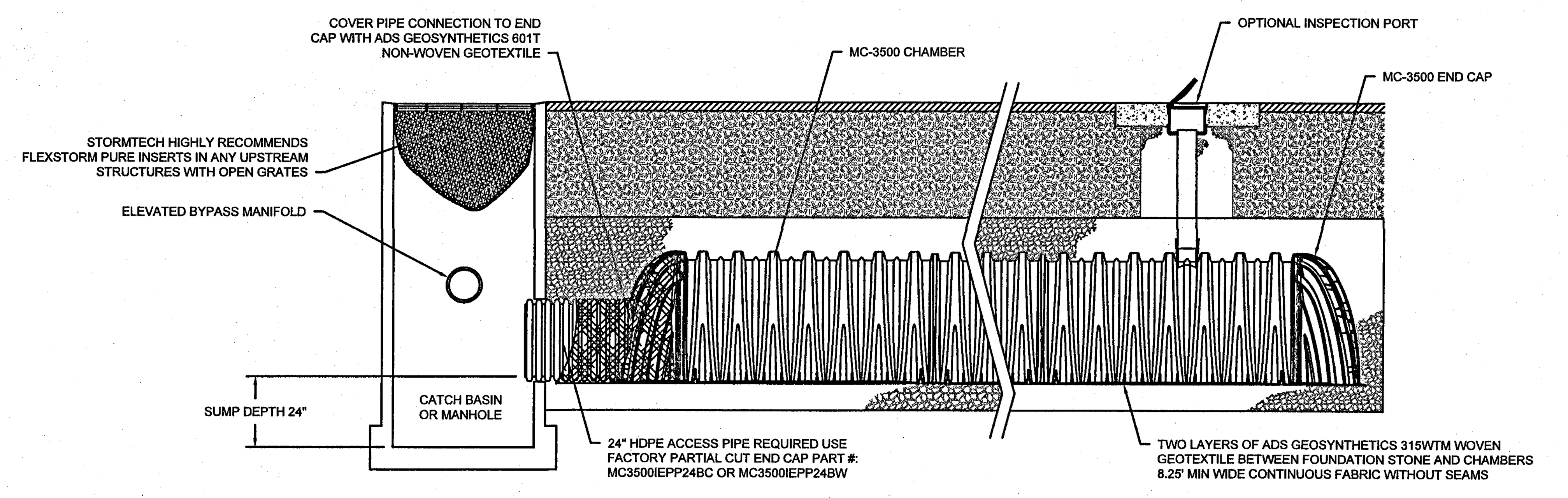
MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
4. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.



MC-3500 ISOLATOR ROW DETAIL
NTS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

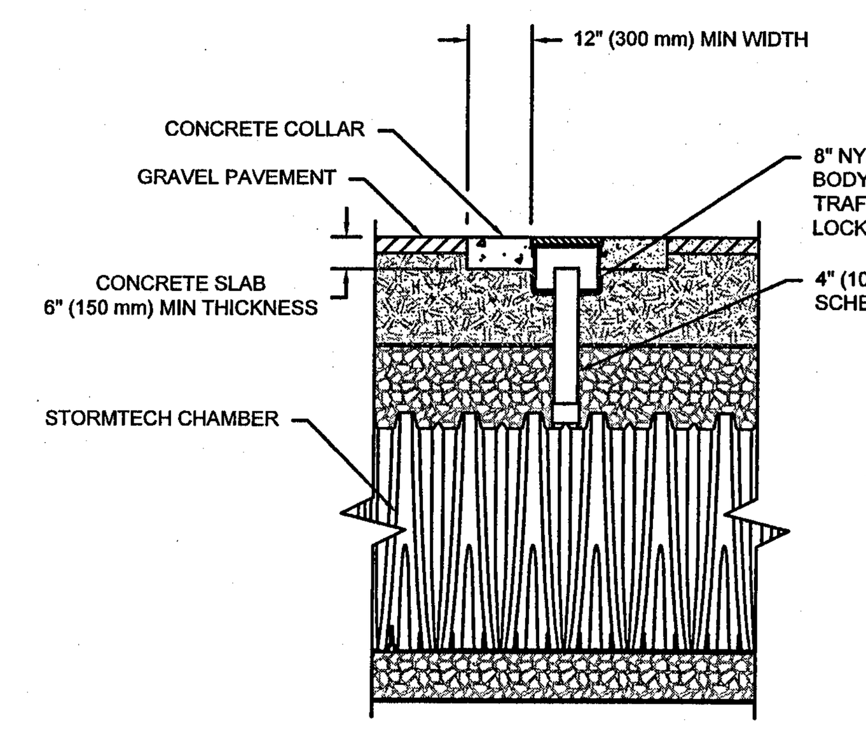
STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

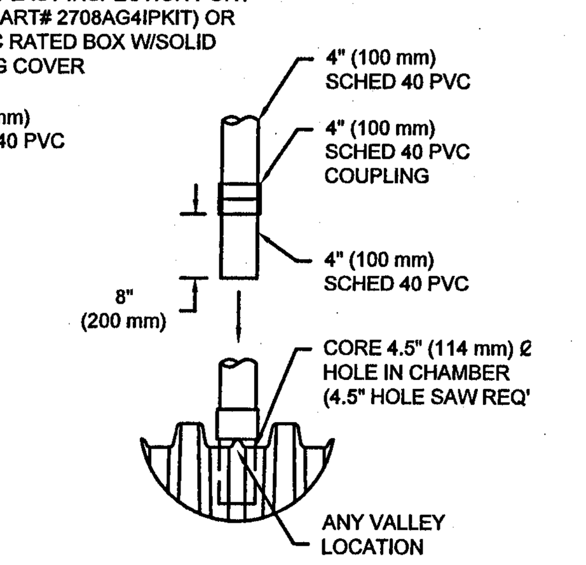
STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



NOTES:
1. INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION VALLEY.
2. ALL SCHEDULE 40 FITTINGS TO BE SOLVENT CEMENTED (4" PVC NOT PROVIDED BY ADS).



CONNECTION DETAIL
NTS

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JANUARY 2020
DRAWN BY: J.H.P.
CHECKED BY:

STEWART 51 WAREHOUSE
12376 GULF BEACH HWY
PENSACOLA,FLORIDA

STEWART 51 PARTNER, LLC
GMCProject:CMOB200001

ROBERT ALDEN CUMMINGS LICENSE No. 73714 STATE OF FLORIDA PROFESSIONAL ENGINEER
Robert Alden Cummings 8/4/2020

CIVIL DETAILS
SCALE: NONE
C7.01
sheet 7 of 14

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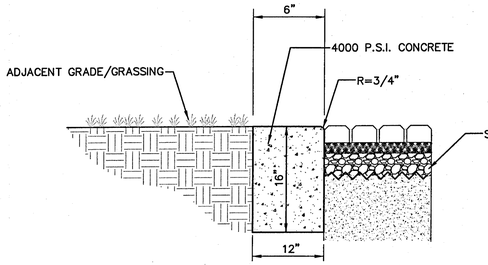
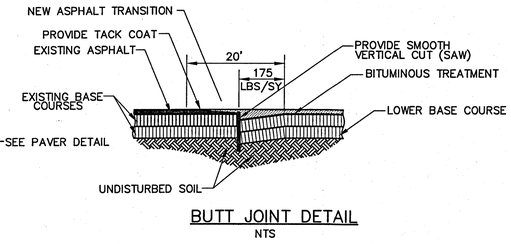
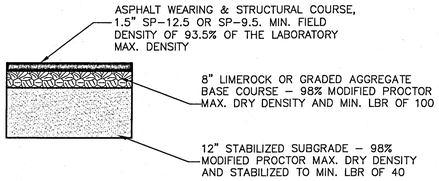


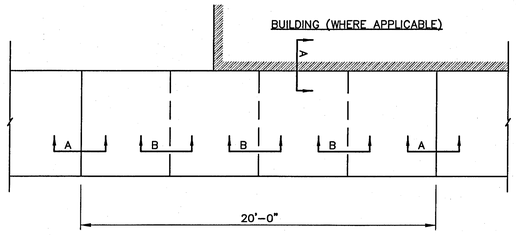
RAVEL CURB DETAIL
NTS

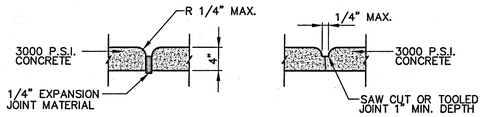


BUTT JOINT DETAIL
NTS



ASPHALT PAVEMENT BUILD-UP
N.T.S.

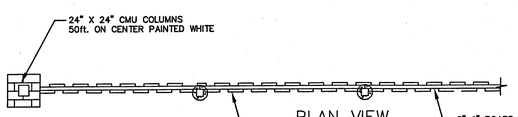




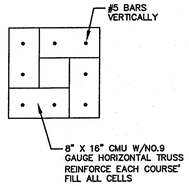
SECTION A
EXPANSION JOINT

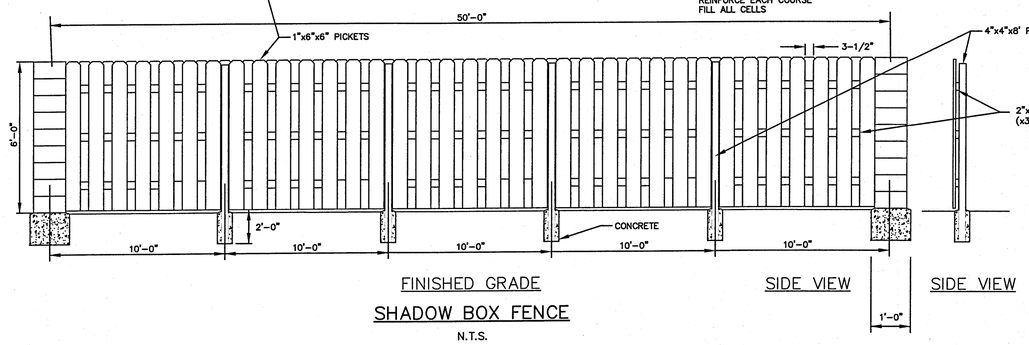
SECTION B
CONSTRUCTION CONTROL JOINT

CONCRETE WALK DETAIL
NTS



PLAN VIEW



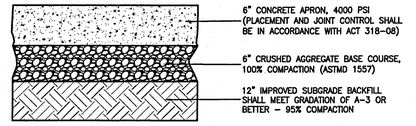


FINISHED GRADE

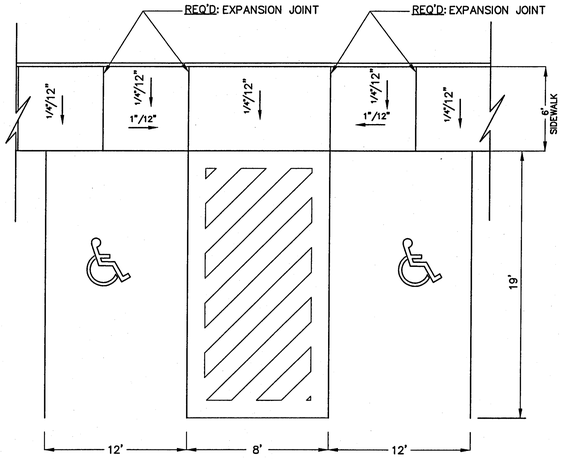
SHADOW BOX FENCE
N.T.S.

SIDE VIEW

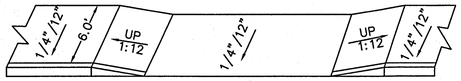
SIDE VIEW



CONCRETE BUILD UP DETAIL
N.T.S.



HANDICAP BLDG ACCESS
NTS



HANDICAP BLDG ACCESS
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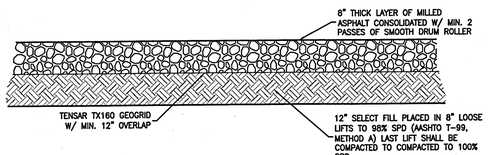
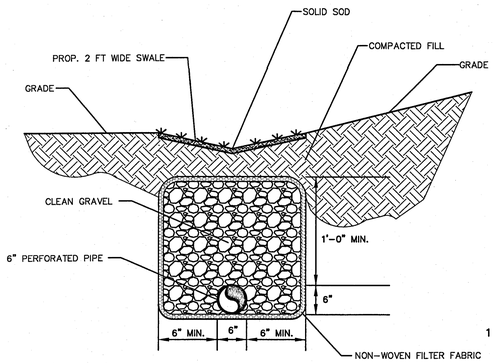
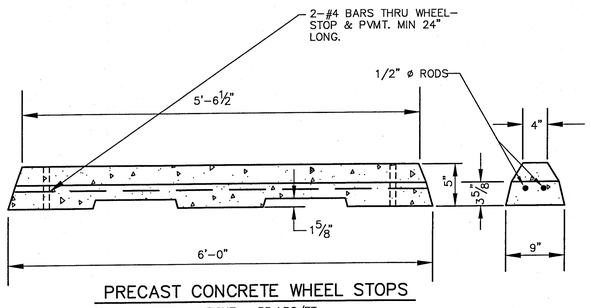


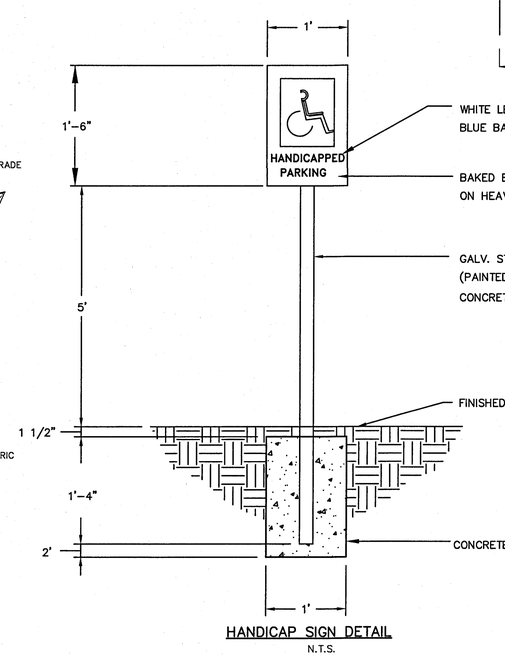
TYPICAL GRAVEL PARKING DETAIL



SWALE/UNDERDRAIN DETAIL
N.T.S.



PRECAST CONCRETE WHEEL STOPS
APPROX. WEIGHT - 33 LBS/FT



HANDICAP SIGN DETAIL
N.T.S.

H/C PARKING SIGNAGE
N.T.S.

GMC

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JANUARY 2020

DRAWN BY: J.H.P.
CHECKED BY:

STEWART 51 WAREHOUSE
12376 GULF BEACH HWY
PENSACOLA,FLORIDA

STEWART 51 PARTNER, LLC
GMCProject:CMOB200001

ROBERT ALDEN CUMMINGS
LICENSE
No. 75714
STATE OF FLORIDA
PROFESSIONAL ENGINEER
8/4/2020

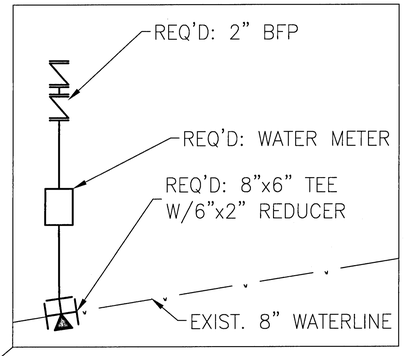
CIVIL DETAILS

SCALE: NONE

C8.01
sheet 8 of 14

NOTES:

1. ALL UTILITIES WORK AND CONNECTIONS ARE TO BE PROVIDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS OF THE UTILITY PROVIDING.
2. ALL MATERIALS AND WORKMANSHIP UTILIZED WITHIN THE CITY RIGHT-OF-WAY SHALL CONFORM WITH APPLICABLE RIGHT-OF-WAY ORDINANCE AND REQUIREMENTS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL IN ACCORDANCE WITH THE FEDERAL MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION, DURING AND CONSTRUCTION WITHIN THE RIGHT-OF-WAY.
4. SITE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES, HAVE EXISTING UTILITIES LOCATED PRIOR TO EXCAVATION
5. OWNER IS MADE AWARE THAT THE PROPOSED SEPTIC TANK SHALL NEVER BE REPAIRED AT ANY FUTURE TIME. THAT AT SUCH TIME AS ANY SEPTIC TANK REPAIRS ARE NEEDED THE OWNER MUST EXTEND A SANITARY SEWER SERVICE LINE TO CONNECT TO THE EXISTING 12 INCH ECUA SANITARY SEWER FORCE MAIN ON THE SOUTH SIDE OF THE ROAD COMPLETE WITH GRINDER PUMP AND CHECK VALVE.



IS 0.41' SOUTH & 0.88' WEST OF N.W. PROPERTY CORNER

S 87°13'00" E 110.13'(A)

15' REAR SETBACK

16' LANDSCAPE SETBACK

PLATEAU ROAD (50' R/W AS PER TAX MAP)

PROPOSED WAREHOUSE
6000 SF
60' x 100'

N 02°37'22" E 169.60'(A)

S 02°39'51" W 145.88'(A)

10' SIDE SETBACK

REQ'D: 1000 GAL SEPTIC TANK

REQ'D: 250 SQ. FT. EFFLUENT DISPOSAL FIELD

25.54'

3.00'

10' SIDE SETBACK

5' LANDSCAPE BUFFER

REQ'D: 2" PVC C-900 POTABLE WATERLINE

3" POLARIS

16' LANDSCAPE SETBACK

15' FRONT SETBACK

REQ'D: 4" PERF. PIPE OR CHAMBERS AS LLOWED BY HEALTH DEPT.

REQ'D: 4" SDR-35 WASTEWATER PIPE @ 1.04% ⊥ 18 LF

5' LANDSCAPE BUFFER

REQ'D: 2" BFP

REQ'D: 1" WATER METER

REQ'D: 8"x6" TEE W/6"x2" REDUCER AND THRUST BLOCK

S 80°36'40" W 172.43'(A)

SPEED LIMIT SIGN

EXIST. 8" WATERLINE

CONCRETE SIDEWALK

BENCHMARK
SET NAIL IN THE NORTHEAST FACE OF POWER POLE
ELEVATION=21.63'

EXISTING FIRE HYDRANT

COUNTY ROAD NO. 297
GULF BEACH HIGHWAY
(66' R/W AS PER TAX MAP)

EXIST. 12" ECUA FORCE MAIN

N

10 0 10 20
SCALE: 1"=10'

DRAWING FILE: T:\Michle\CMCB Proj\Pensacola Aviation Center\CMCB200001 - Stewart 51 Warehouse\0 DWG\9-CMCB200001H-UTILITY PLAN.dwg
PLOTTED: Aug 06, 2020 - 2:38pm

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JANUARY 2020

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GMCProject:CMOB200001

ROBERT ALDEN CUMMINS
LICENSE
No. 73714
STATE OF FLORIDA
PROFESSIONAL ENGINEER
8/6/2020

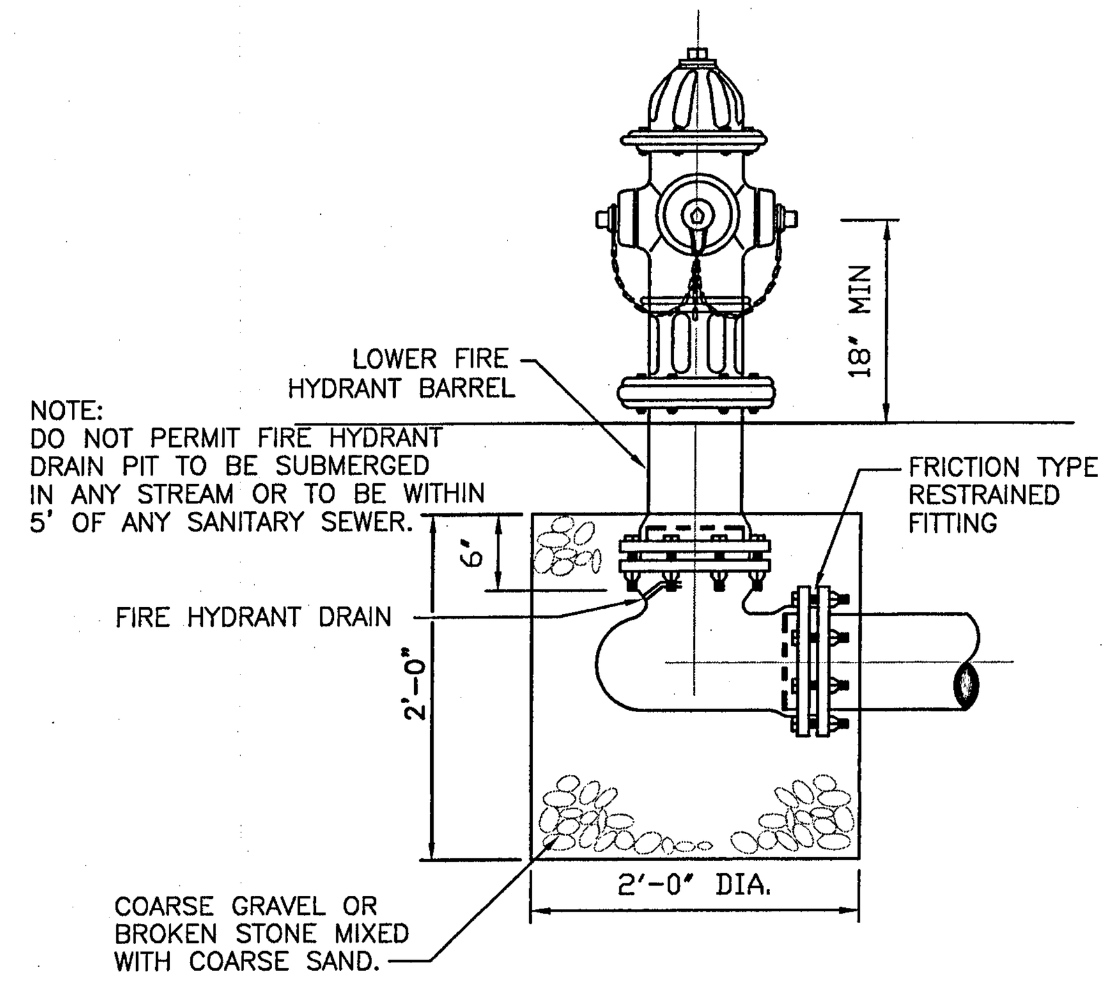
UTILITY PLAN

SCALE: 1" = 10'

C9.01

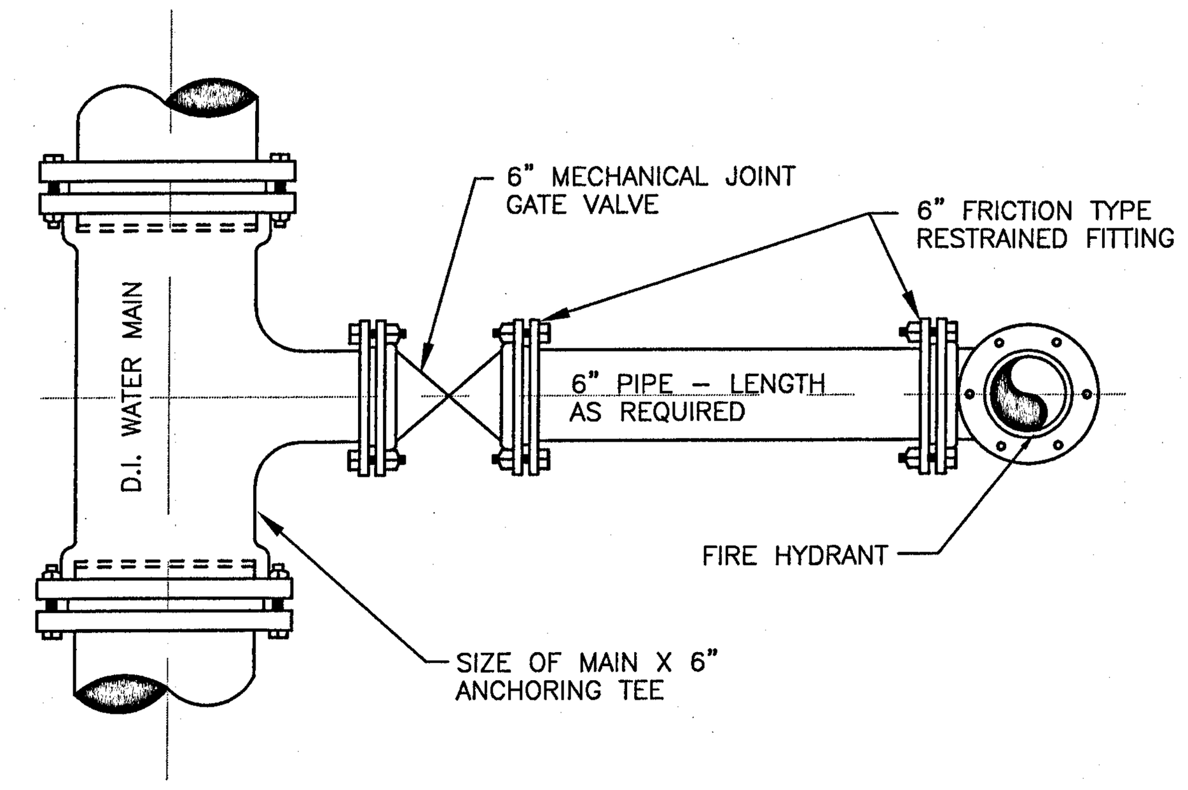
sheet 9 of 14

TYPICAL THRUST BLOCKS MINIMUM THRUST BLOCK AREA SQ. FT. L (FT.) X H (FT.)			
INSIDE DIA. PIPE LINE IN INCHES	90° BENDS	TEES, DEAD ENDS, OR 45° BENDS	22½° BENDS
6"	3.0	2.2	1.0
8"	5.5	4.0	1.5
10"	8.5	6.0	2.5
12"	12.0	9.0	3.5
16"	22.0	16.0	6.0
18"	27.0	20.0	8.0
20"	34.0	24.0	10.0
24"	48.0	34.0	14.0
30"	75.0	53.0	21.0



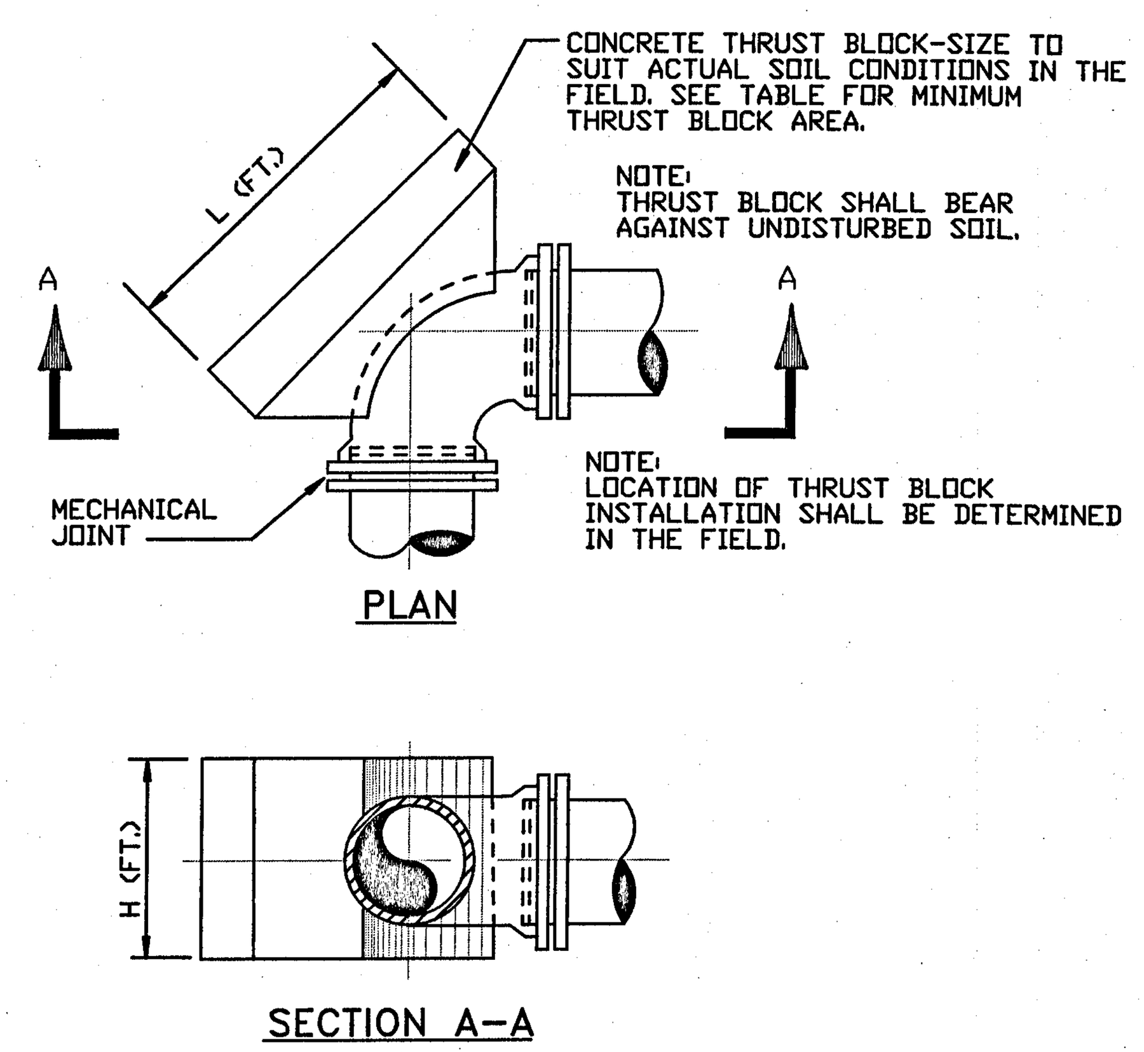
TYPICAL FIRE HYDRANT DRAIN PIT

N.T.S.



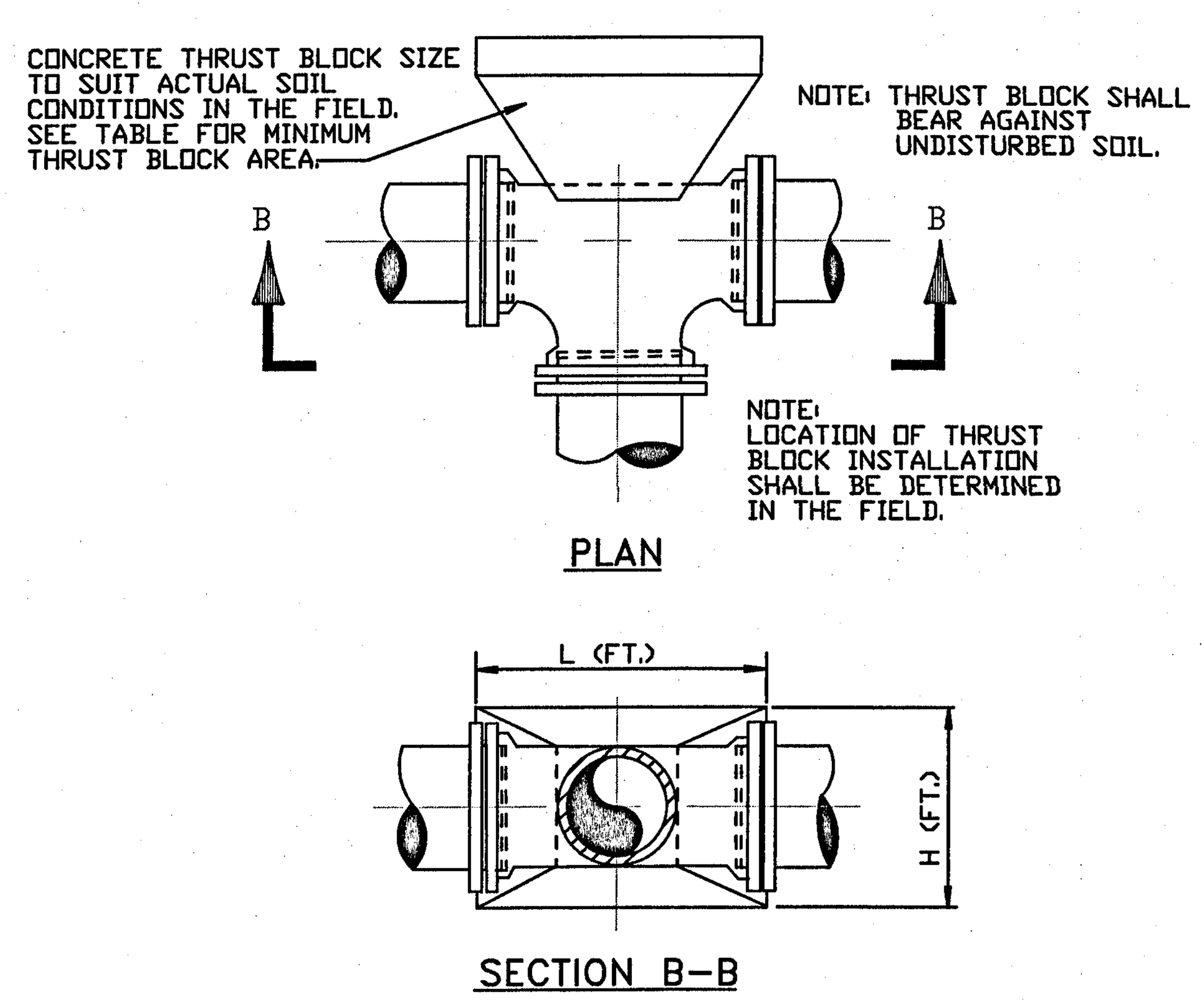
FIRE HYDRANT CONNECTION TO WATER MAIN (TYPICAL)

N.T.S.



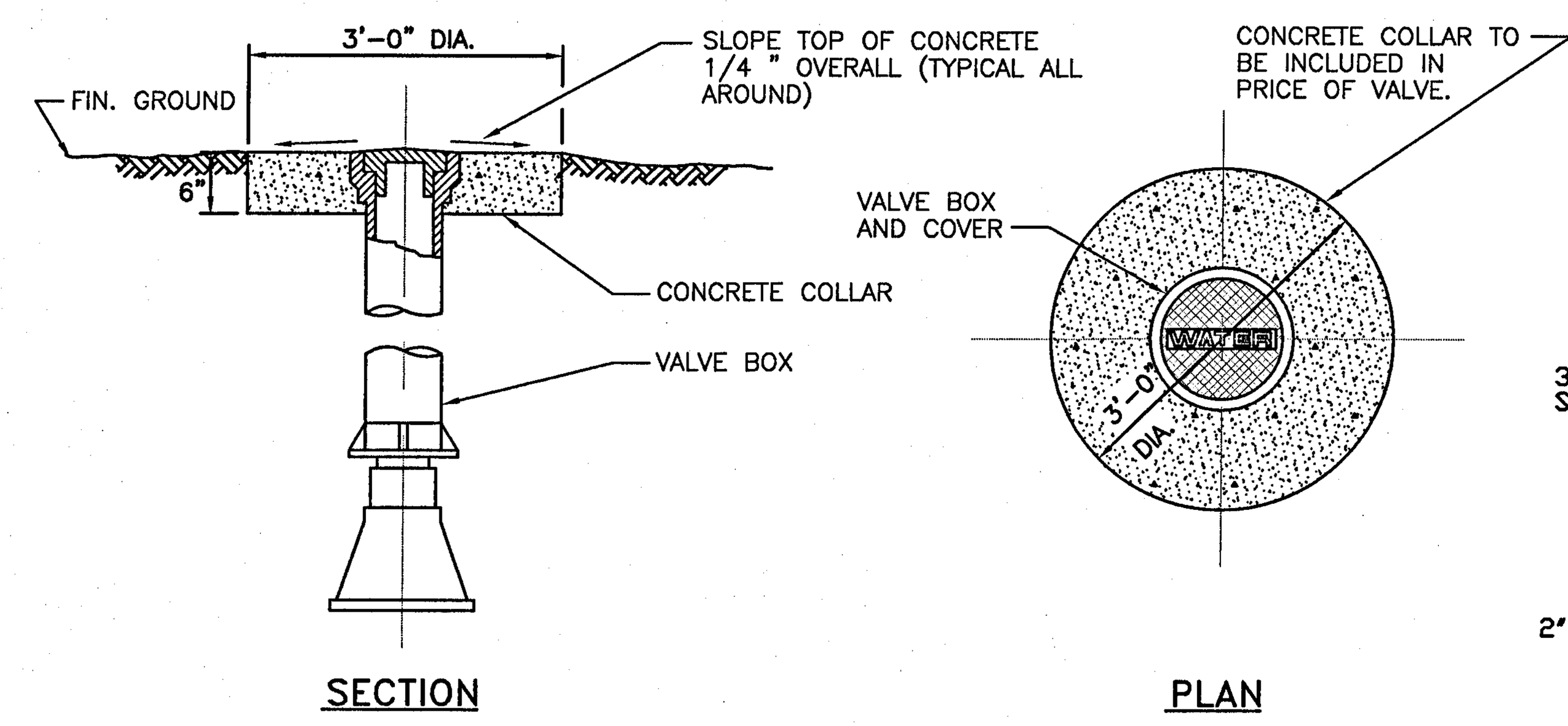
TYPICAL THRUST BLOCK DETAIL FOR BENDS

N.T.S.



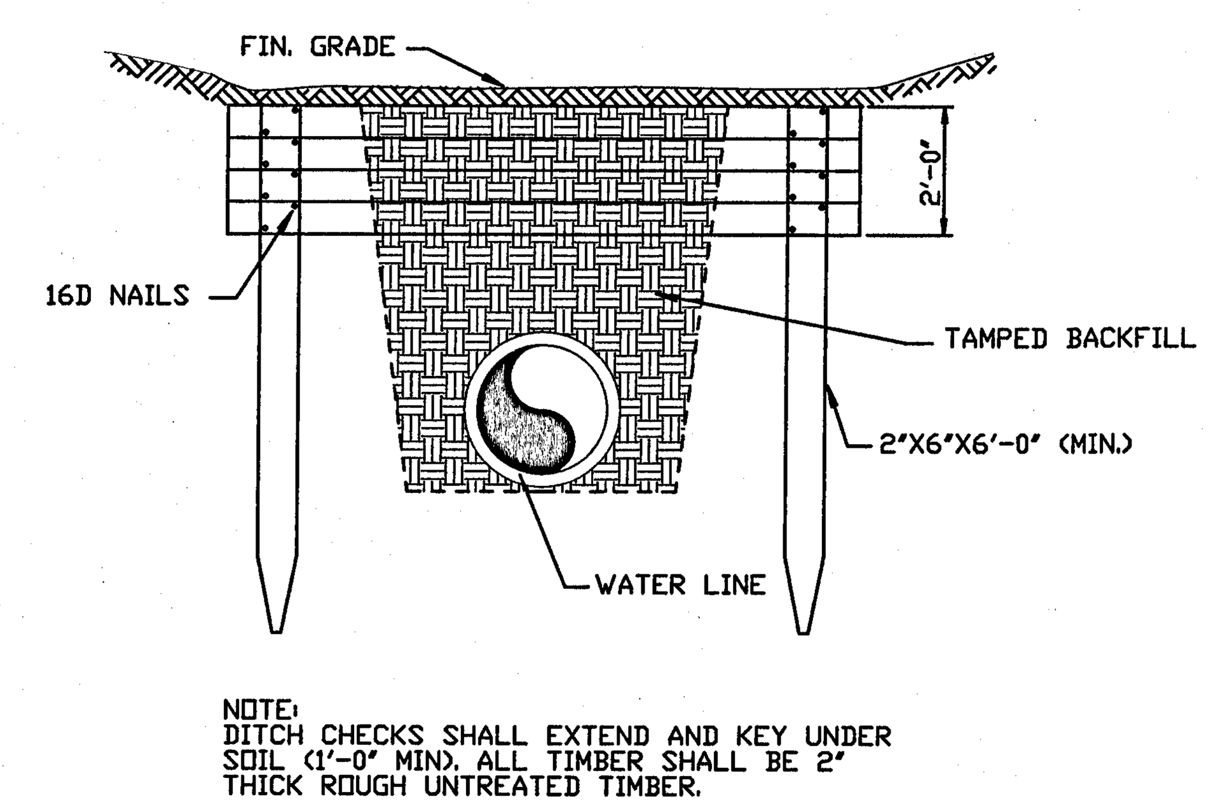
TYPICAL THRUST BLOCK DETAIL FOR TEES

N.T.S.



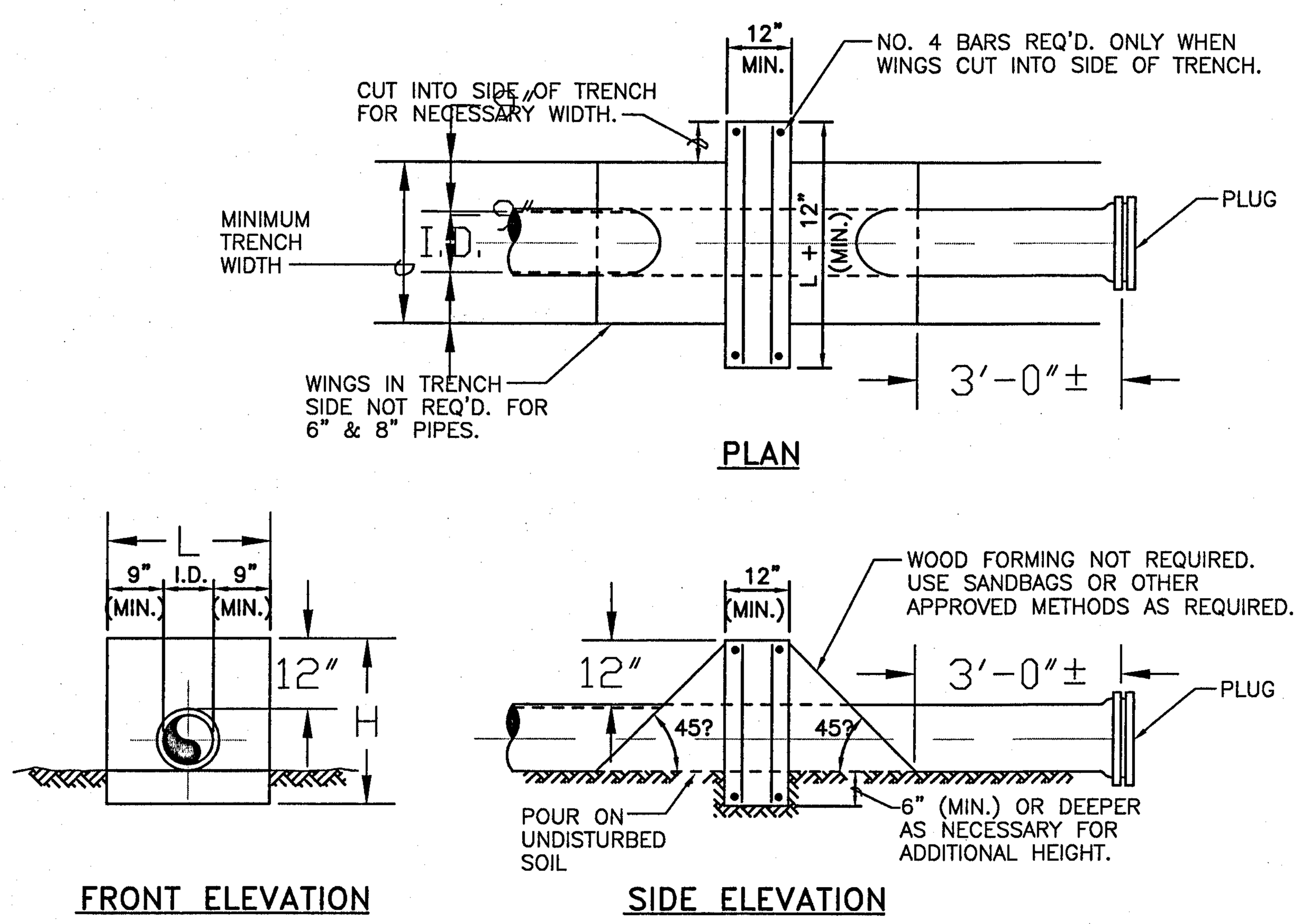
VALVE BOX COLLAR DETAIL

N.T.S.



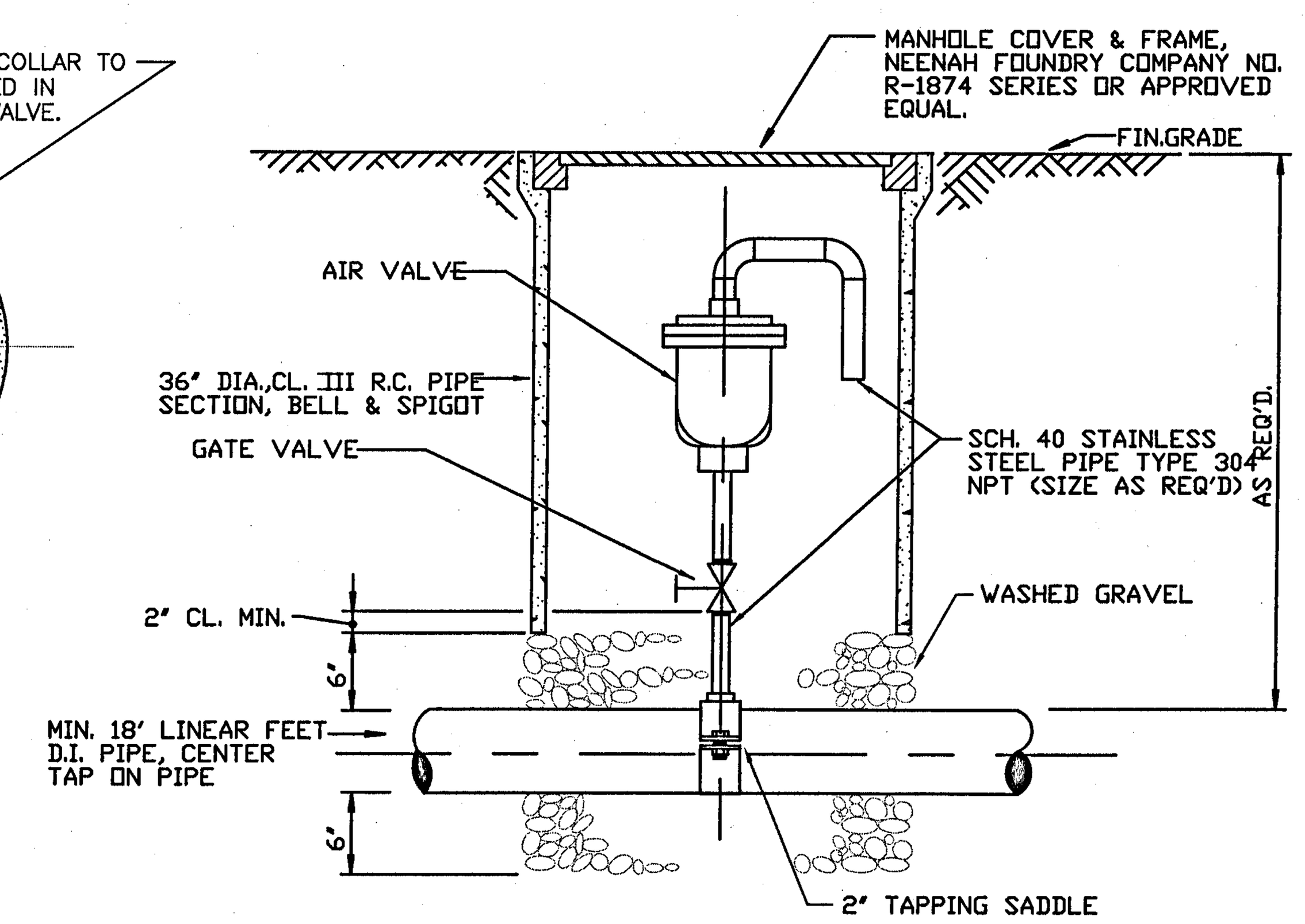
TYPICAL TIMBER DITCH CHECK

N.T.S.



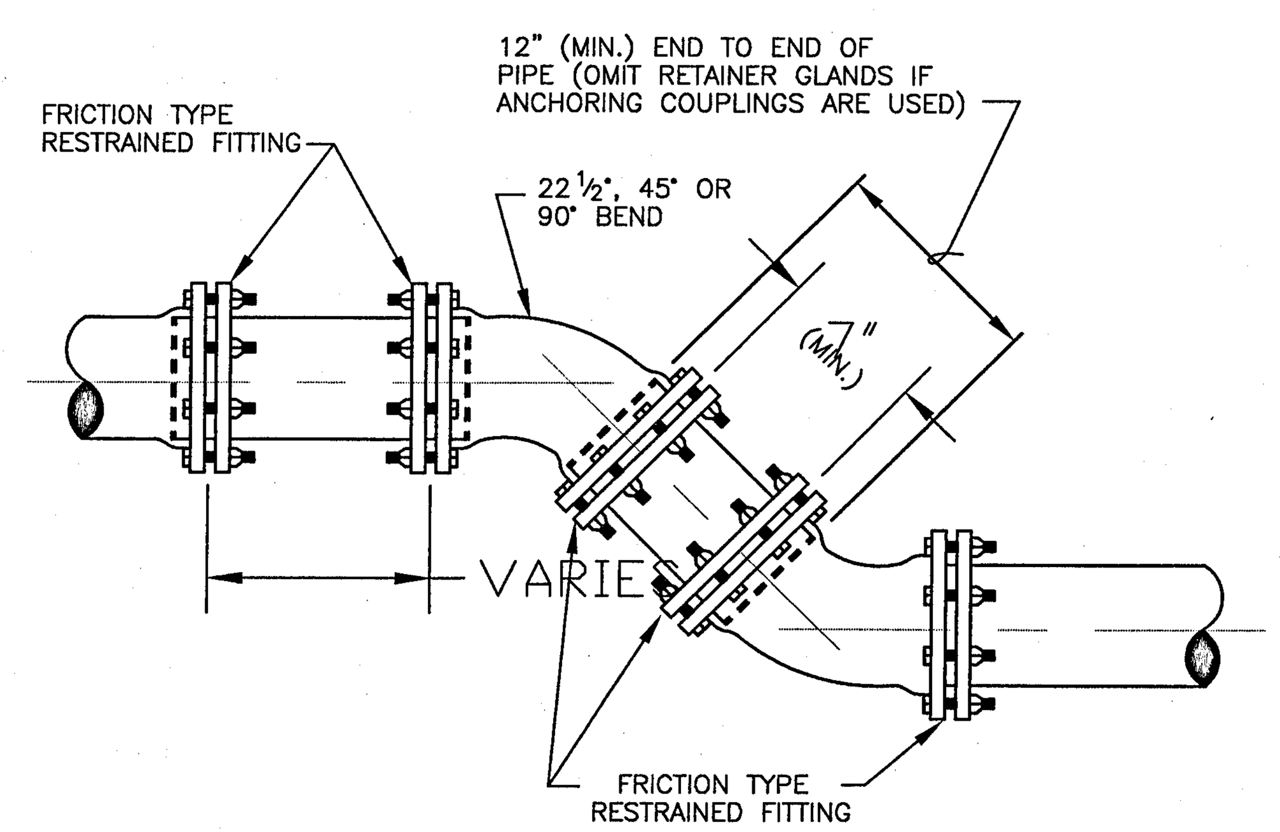
CONCRETE DEAD END ANCHOR BLOCK DETAILS

N.T.S.



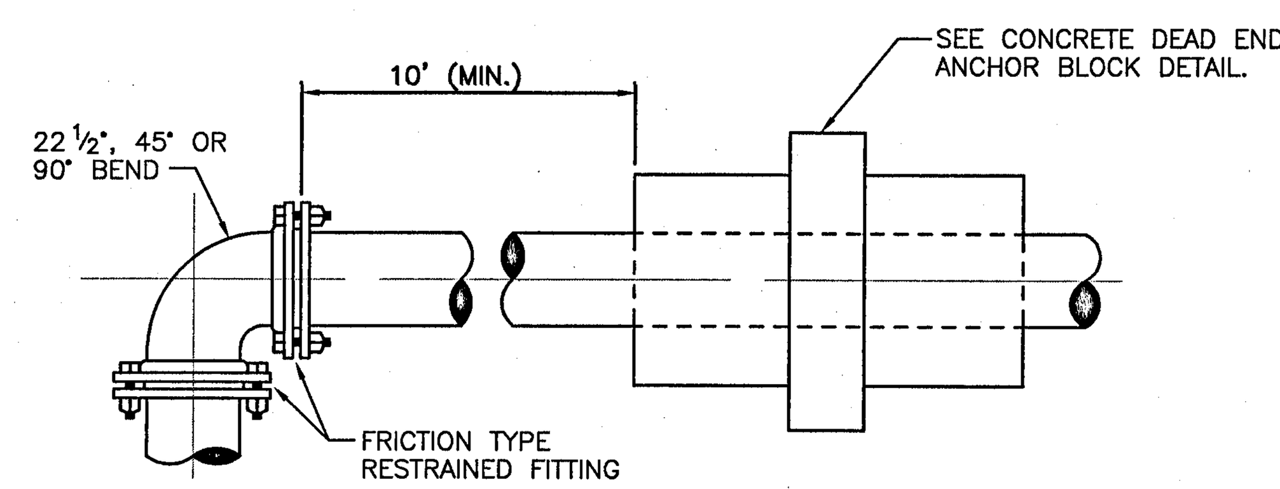
AIR RELEASE VALVE ASSEMBLY

N.T.S.



ANCHORING OF VERTICAL OR HORIZONTAL BENDS WHERE THRUST BLOCKS ARE NOT DESIRED

N.T.S.



ANCHORAGE OF BENDS WHERE THRUST BLOCKS ARE NOT DESIRED – DEAD END ANCHORS

N.T.S.

NOTES:

1.) THE DETAILS SHOWN HEREIN SHALL NOT SUPERCEDE THE REQUIREMENTS OF THE GULF SHORES UTILITEIES STANDARD REQUIREMENTS.

2.) NOT ALL DETAILS MAY BE APPLICABLE TO SUBJECT PROJECT.

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JANUARY 2020

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STEWART 51 WAREHOUSE
12376 GULF BEACH HWY
PENSACOLA,FLORIDA

STEWART 51 PARTNER, LLC
GMCProject:CMOB200001

ROBERT ALDEN CUMMINGS LICENSE No. 73714 STATE OF FLORIDA PROFESSIONAL ENGINEER

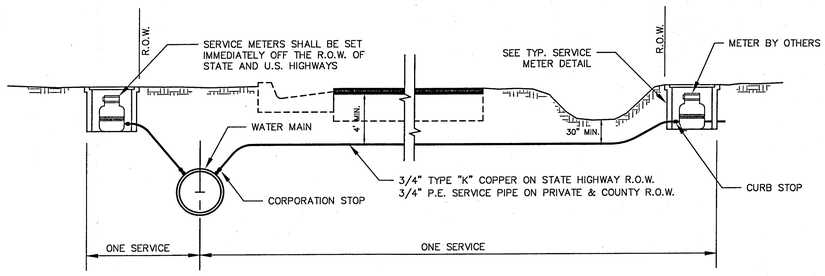
8/4/2020

WATER DETAILS

SCALE: NONE

C10.01

sheet 10 of 14



TYPICAL SERVICE CONNECTION

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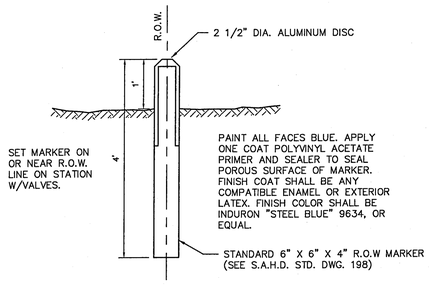

VALVE MARKER DETAIL

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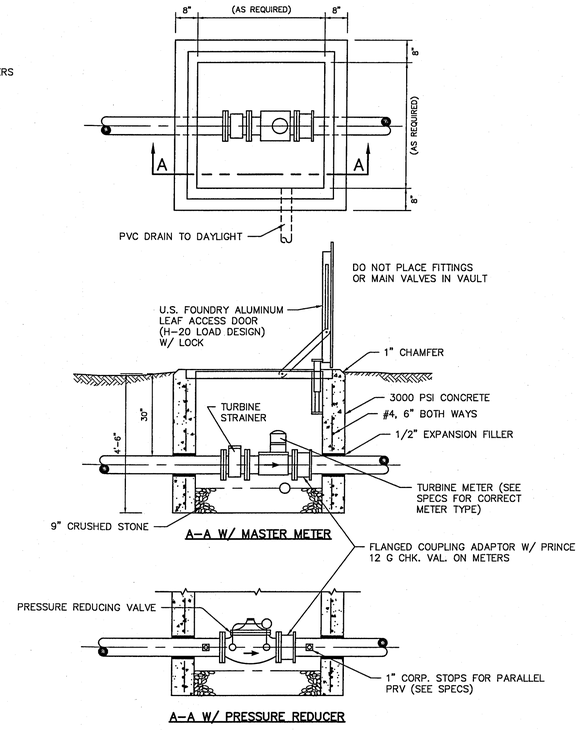

SPECIAL BOX DETAIL

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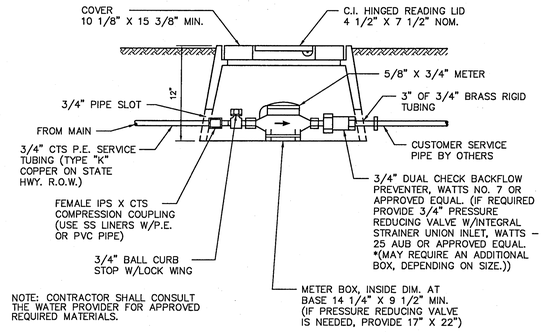

TYPICAL SERVICE METER / (PRESSURE REGULATOR)

N.T.S.

NOTES:

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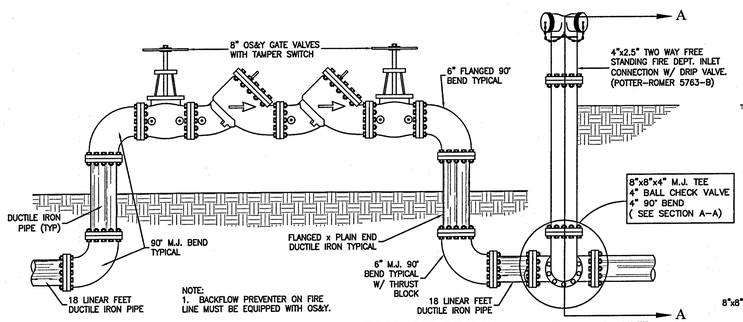
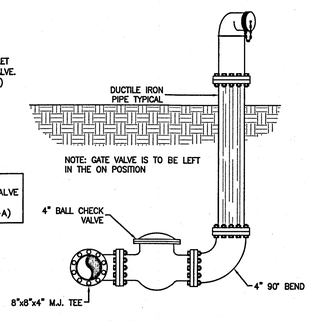


6" BACKFLOW PREVENTOR ASSEMBLY AND FDC CONNECTION DETAIL

N.T.S.



SECTION A-A

N.T.S.

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8/4/2020

WATER DETAILS

SCALE: NONE

C11.01

sheet 11 of 14

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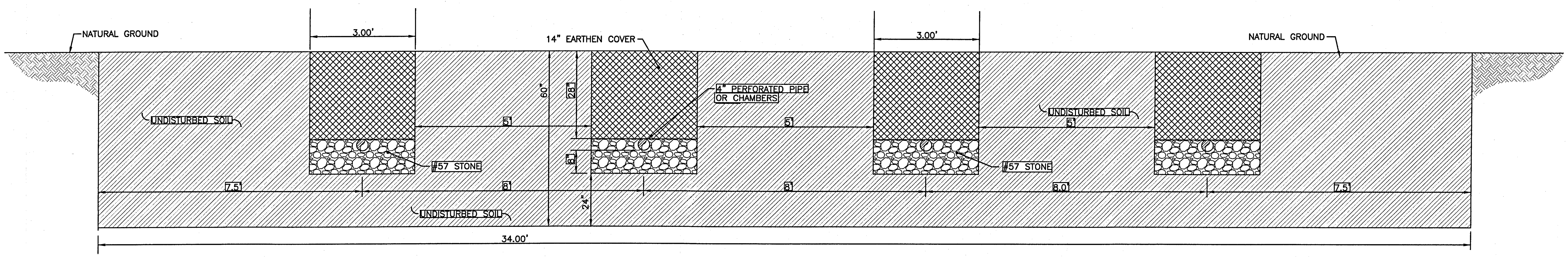
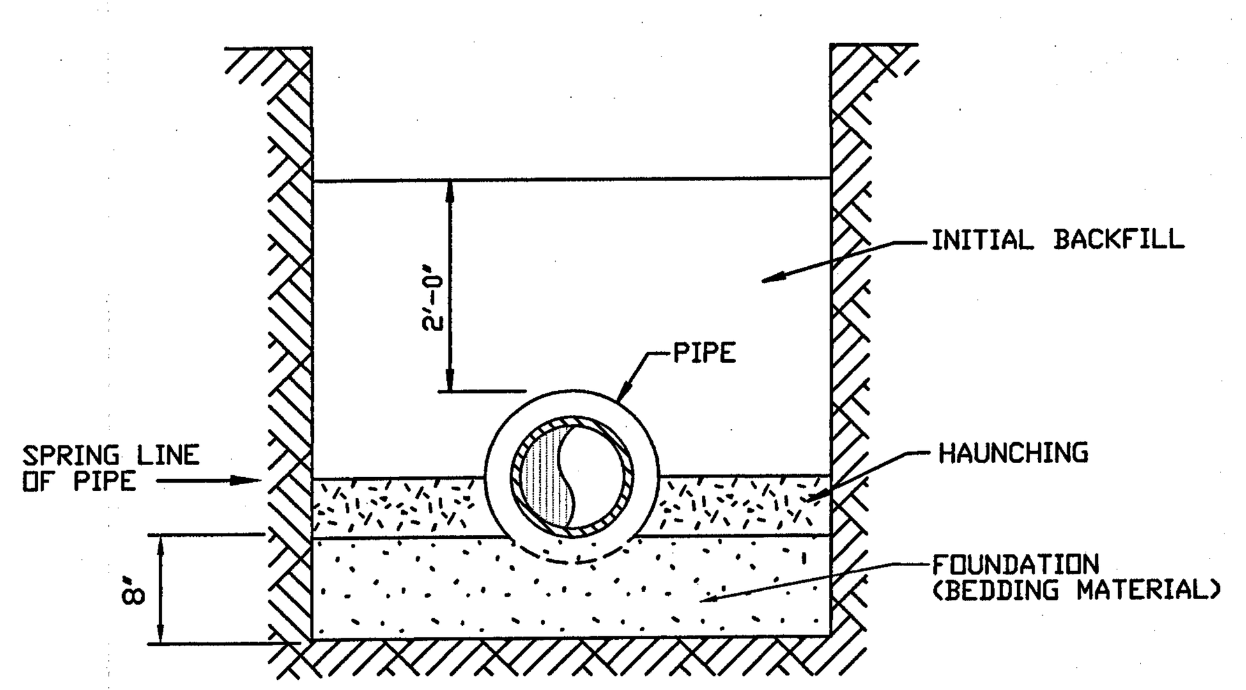


SEPTIC EDF CROSS-SECTION



EMBEDMENT DETAIL FOR PVC GRAVITY SEWER PIPE

NTS

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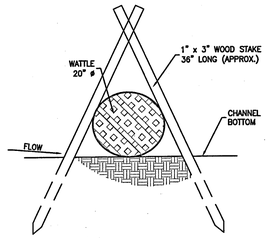
8/4/2020

SEWER DETAILS

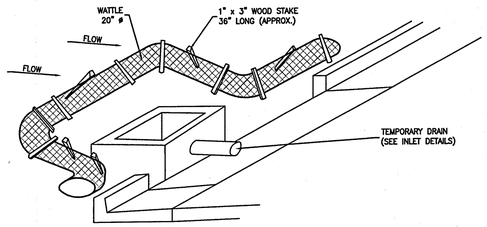
SCALE: NONE

C12.01

sheet 12 of 15

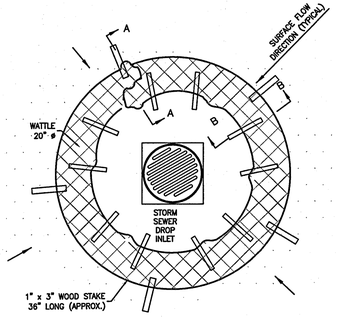


SECTION B-B

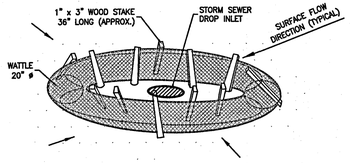


NOTE:
COST OF WOOD STAKES OR EQUAL SHALL BE INCLUDED IN COST OF WATTLES

CURB INLET PROTECTION

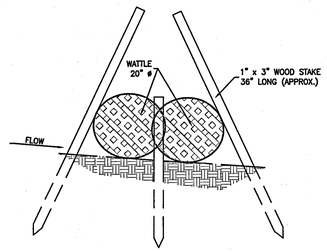


PLAN VIEW

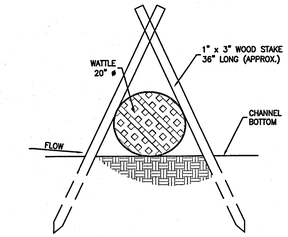


NOTE:
COST OF WOOD STAKES OR EQUAL SHALL BE INCLUDED IN COST OF WATTLES

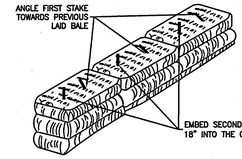
DROP INLET PROTECTION



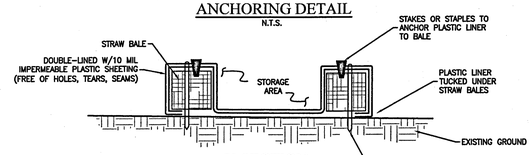
SECTION A-A



SECTION B-B



ANCHORING DETAIL
N.T.S.



X-SECTION
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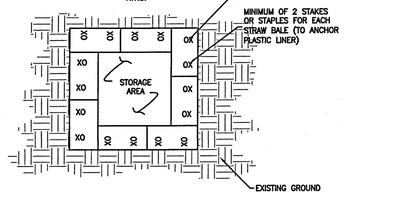
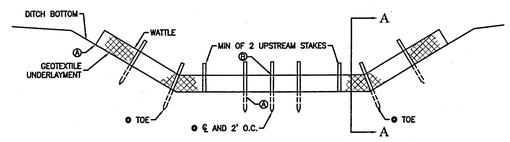


PLAN VIEW
N.T.S.

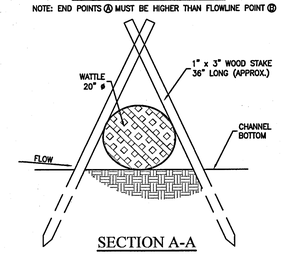
NOTES:
1) ANCHOR AND EMBED INTO SOIL TO PREVENT WASHOUT OR WATER WORKING UNDER BARRIER.
2) REPAIR OR REPLACEMENT MUST BE MADE PROMPTLY AS NEEDED.

ABOVE-GRADE CONCRETE WASHOUT PIT



WATTLE DITCH CHECK

NOTE: END POINTS Ⓐ MUST BE HIGHER THAN FLOWLINE POINT Ⓑ



SECTION A-A

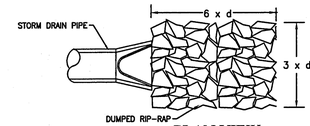
NOTES:
1. MINIMUM RECOMENDED PLACEMENT INTERVAL BETWEEN WATTLE DITCH CHECK IS 100 FEET UNLESS SHOWN OTHERWISE ON THE PLANS OR APPROVED BY THE ENGINEER. SEE SPACING GUIDANCE ON PLAN
2. ANCHORING STAKES SHALL BE SIZED, SPACED, DRIVEN, AND BE OF A MATERIAL THAT EFFECTIVELY SECURES THE CHECK. SPIKE SPACING SHALL BE A MAXIMUM OF TWO FEET.
3. WATTLES SHOULD NOT BE USED IN HARD BOTTOMS CHANNELS.
4. STAPLES SPACED 18 INCHES APART, ALONG THE CHANNEL EDGES AND DOWN THE CENTER OF THE CHANNEL. STAPLES SPACED 10 INCHES APART, ACROSS THE UPSTREAM AND DOWNSTREAM EDGES.

WATTLE DITCH CHECK SELECTION GUIDELINES

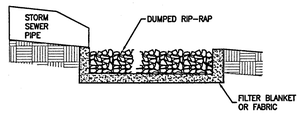
WATTLE DITCH CHECKS ARE APPROPRIATE FOR VELOCITY REDUCTION AND CONTROL OF SEDIMENT TRANSPORT UNDER LOW TO MEDIUM FLOW CONDITIONS NOT EXCEEDING 1.0 CU FT/SEC.

WATTLE DITCH CHECK

NOTE:
COST OF WOOD STAKES OR EQUAL SHALL BE INCLUDED IN COST OF WATTLES

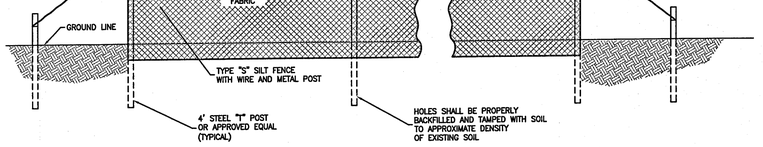


PLAN VIEW

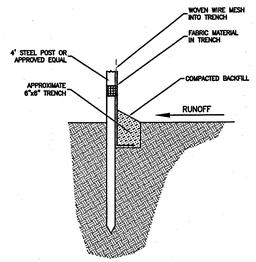


SITE VIEW

RIP RAP OUTLET PROTECTION



SILT FENCE



SECTION

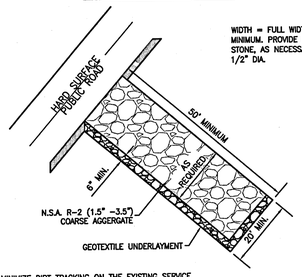
TYPICAL SILT FENCE INSTALLATION

1. TYPE "A" SILT FENCE SHALL BE USED IN AREAS OF CONCENTRATED FLOW.
2. SILT FENCES ARE TEMPORARY EROSION CONTROL ITEMS THAT SHALL BE ERECTED OPPOSITE ERODIBLE AREAS SUCH AS NEWLY GRADED FILL SLOPES AND ADJACENT TO STREAMS AND CHANNELS.
3. SILT FENCE SHOULD BE PLACED WELL INSIDE PROPERTY BOUNDARY AND ALONG EDGE OF CLEARING LIMITS. THIS WILL ALLOW ROOM FOR A BACK-UP FENCE IF FIRST BECOMES FULL. SILT FENCES SHALL BE IN PLACE PRIOR TO ANY CONSTRUCTION OPERATION.
4. WHEREVER POSSIBLE, SILT FENCES SHALL BE CONSTRUCTED ACROSS A FLAT AREA IN THE SHAPE OF A HORSESHOE. THIS AIDS IN POND- ING OF RUNOFF AND FACILITATES SEDIMENTATION.
5. AFTER THE CONSTRUCTION AREA IS STABILIZED AND EROSION ACTIVITY CURTAILED, SILT FENCES SHALL BE REMOVED.
6. RING FASTENERS USED TO SECURE GEOTEXTILES TO WOVEN WIRE SHALL BE 13 GA. (AMERICAN).
7. IF WOOD POSTS ARE USED, STAPLES FOR SECURING WOVEN WIRE TO POSTS SHALL BE NINE (9) GAUGE, GALVANIZED, 1 1/2" LONG, FIVE (5) PER POST @ APPROXIMATELY 1'-0" ON CENTER.
8. WOVEN WIRE TO BE 12 1/2 GAUGE (MINIMUM).

SPECIFICATIONS

CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

SILT FENCE NOTES



WIDTH = FULL WIDTH OF VEHICULAR ACCESS, 20' MINIMUM. PROVIDE PERIODIC TOP DRESSING WITH 2" STONE, AS NECESSARY. STONE SIZE = 1 1/2" TO 3 1/2" DIA.

NOTE:
CONTRACTOR SHALL MINIMIZE DIRT TRACKING ON THE EXISTING SERVICE ROAD AT ALL TIMES. IF TRACKING DOES OCCUR, THE CONTRACTOR SHALL CLEAN ALL MATERIAL OFF OF ROAD BEFORE LEAVING THE SITE EACH DAY.

STONE PAD CONSTRUCTION ENTRANCE & EXIT

SPECIES	SEEDING RATE/AC PLS	NORTH	CENTRAL	SOUTH
MILLET,BROWNTOP OR GEWRMAN	40 LBS	APR 1 – AUG 1	APR 1 – AUG 15	APR 1 – AUG 15
RYE	3 BU	SEP 1 – NOV 15	SEP 1 – NOV 15	SEP 1 – NOV 15
RYEGRASS	30 LBS	AUG 1 – SEP 15	SEP 1 – OCT 15	SEP1 – OCT 15
SORGHUM–SUDAN HYBRIDS	40 LBS	MAY 1 – AUG 1	APR 15 – AUG 1	APR 1 – AUG 15
SUDANGRASS	40 LBS	MAY 1 – AUG 1	APR 15 – AUG 15	APR 1 – AUG 15
WHEAT	3 BU	SEP 1 – NOV 1	SEP 15 – NOV 15	SEP 15 – NOV 15
COMMON BERMUDAGRASS	10 LBS	APR 1 – JULY 1	MAR 15 – JULY 15	MAR 1 – JULY 15
CRIMSON CLOVER	10 LBS	SEPT 1 – NOV 1	SEPT 1– NOV 1	SEPT 1 – NOV 1

PLS means pure live seed and is used to adjust seeding rates. For example, to plant 10 lbs PLS of a species with germination of 80% and purity of 90%, PLS= 0.8X 0.9 = 72% 10 lbs PLS = 10/0.72 = 13.9 lbs of the species to be planted.

SEEDING SCHEDULE NOTES

SITE PREPARATION AND SOIL AMENDMENTS

COMPLETE GRADING AND SHAPING BEFORE APPLYING SOIL AMENDMENTS IF NEEDED TO PROVIDE A SURFACE ON WHICH EQUIPMENT CAN SAFELY AND EFFICIENTLY BE USED TO APPLY SOIL AMENDMENTS AND ACCOMPLISH SEEDBED PREPARATION AND SEEDING.

LIME

APPLY LIME ACCORDING TO SOIL TEST RECOMMENDATIONS. IF A SOIL TEST IS NOT AVAILABLE, USE 1 TON OF AGRICULTURAL LIMESTONE OR EQUIVALENT PER ACRE ON COARSE TEXTURED SOILS AND 2 TONS PER ACRE ON FINE TEXTURED SOILS. DO NOT APPLY LIME TO ALKALINE SOILS OR TO AREAS WHICH HAVE BEEN LIMED DURING THE PRECEDING 2 YEARS. OTHER LIMING MATERIALS THAT MAY BE SELECTED SHOULD BE PROVIDED IN AMOUNTS THAT PROVIDE EQUAL VALUE TO THE CRITERIA LISTED FOR AGRICULTURAL LIME OR BE USED IN COMBINATION WITH AGRICULTURAL LIMESTONE OR SELMA CHALK TO PROVIDE EQUIVALENT VALUES TO AGRICULTURAL LIMESTONE.

FERTILIZER

APPLY FERTILIZER ACCORDING TO SOIL TEST RESULTS. IF A SOIL TEST IS NOT AVAILABLE, APPLY 8–24–24 FERTILIZER. WHEN VEGETATION HAS EMERGED TO A STAND AND IS GROWING, 30 TO 40 LBS/ACRE (APPROXIMATELY 0.8 LBS/1000 FT2) OF ADDITIONAL NITROGEN FERTILIZER SHOULD BE APPLIED

SEEDING

EVENLY APPLY SEED USING A CYCLONE SEEDER (BROADCAST), DRILL SEEDER, CULTIPACKER SEEDER, OR HYDROSEEDER. BROADCAST SEEDING AND HYDROSEEDING ARE APPROPRIATE FOR STEEP SLOPES WHERE EQUIPMENT CANNOT OPERATE SAFELY. SMALL GRAINS SHOULD BE PLANTED NO MORE THAN 1" DEEP, AND GRASSES AND LEGUMES NO MORE THAN ½" DEEP. SEED THAT ARE BROADCAST MUST BE COVERED BY RAKING OR CHAIN DRAGGING, AND THEN LIGHTLY FIRMED WITH A ROLLER OR CULTIPACKER.

HYDROSEEDING

SURFACE ROUGHENING IS PARTICULARLY IMPORTANT WHEN HYDROSEEDING, AS A ROUGHENED SLOPE WILL PROVIDE SOME NATURAL COVERAGE FOR LIME, FERTILIZER, AND SEED. THE SURFACE SHOULD NOT BE COMPACTED OR SMOOTH. FINE SEEDBED PREPARATION IS NOT NECESSARY FOR HYDROSEEDING OPERATIONS; LARGE CLODS, STONES, AND IRREGULARITIES PROVIDE CAVITIES IN WHICH SEEDS CAN LODGE. MIX SEED, INOCULANT IF REQUIRED, AND A SEED CARRIER WITH WATER AND APPLY AS SLURRY UNIFORMLY OVER THE AREA TO BE TREATED. THE SEED CARRIER SHOULD BE A CELLULOSE FIBER, NATURAL WOOD FIBER OR OTHER APPROVED FIBER MULCH MATERIAL WHICH IS DYED AN APPROPRIATE COLOR TO FACILITATE UNIFORM APPLICATION OF SEED. USE THE CORRECT LEGUME INOCULANT AT 4 TIMES THE RECOMMENDED RATE WHEN ADDING INOCULANT TO HYDROSEEDER THE MIXTURE SHOULD BE APPLIED WITHIN ONE HOUR AFTER MIXING TO REDUCE DAMAGE TO SEED. FERTILIZER SHOULD NOT BE MIXED WITH THE SEED–INOCULANT MIXTURE BECAUSE FERTILIZER SALTS MAY DAMAGE SEED AND REDUCE GERMINATION AND SEEDLING VIGOR. FERTILIZER MAY BE APPLIED WITH A HYDRO SEEDER AS A SEPARATE OPERATION AFTER SEEDLINGS ARE ESTABLISHED.

SURFACE ROUGHENING

TEMPORARY METHODS:

MULCHES – REFER TO (DISTURBED AREA STABILIZATION)

VEGETATIVE COVER – REFER (DISTURBED AREA STABILIZATION WITH TEMPORARY SEEDING)

TILLAGE – ROUGHEN AND BRING CLODS TO THE SURFACE BY USE OF CHISEL–TYPE PLOWS SPACED ABOUT 12 INCHES APART

IRRIGATION – SITE SPRINKLED WITH WATER UNTIL WET. REPEAT AS NEEDED

BARRIERS – FENCES, HAY BALES, AND CRATE WALLS PLACED AT INTERVALS 15 TIMES THEIR HEIGHT AND PERPENDICULAR TO AIR CURRENTS

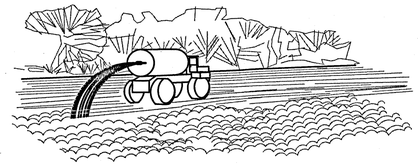
CALCIUM CHLORIDE – APPLY TO KEEP SURFACE WET. REPEAT AS NEEDED.

PERMANENT METHODS:

PERMANENT VEGETATION – REFER TO SEEDING SCHEDULE (DISTURBED AREA STABILIZATION WITH PERMANENT VEGETATION)

TOPSOILING – COVERING THE SURFACE WITH A LESS EROSIVE SOIL MATERIAL

STONE – SURFACE WITH CRUSHED STONE OR COARSE GRAVEL (SEE CR – CONSTRUCTION ROAD STABILIZATION)



DUST CONTROL

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JANUARY 2020

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STEWART 51 PARTNER, LLC
GMCProject:CMOB200001

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No. 73714
STATE OF
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PROFESSIONAL ENGINEER
8/4/2020

EROSION CONTROL DETAILS

SCALE: NONE

C13.01

sheet 13 of 14

DRAWING FILE: T:\Mobile\+CMOB Proj\Pensacola Aviation Center\CIVIC\B200001 - Stewart 51 Warehouse\0 DWG\13-CMOB200001-ECP-DETAILS.dwg
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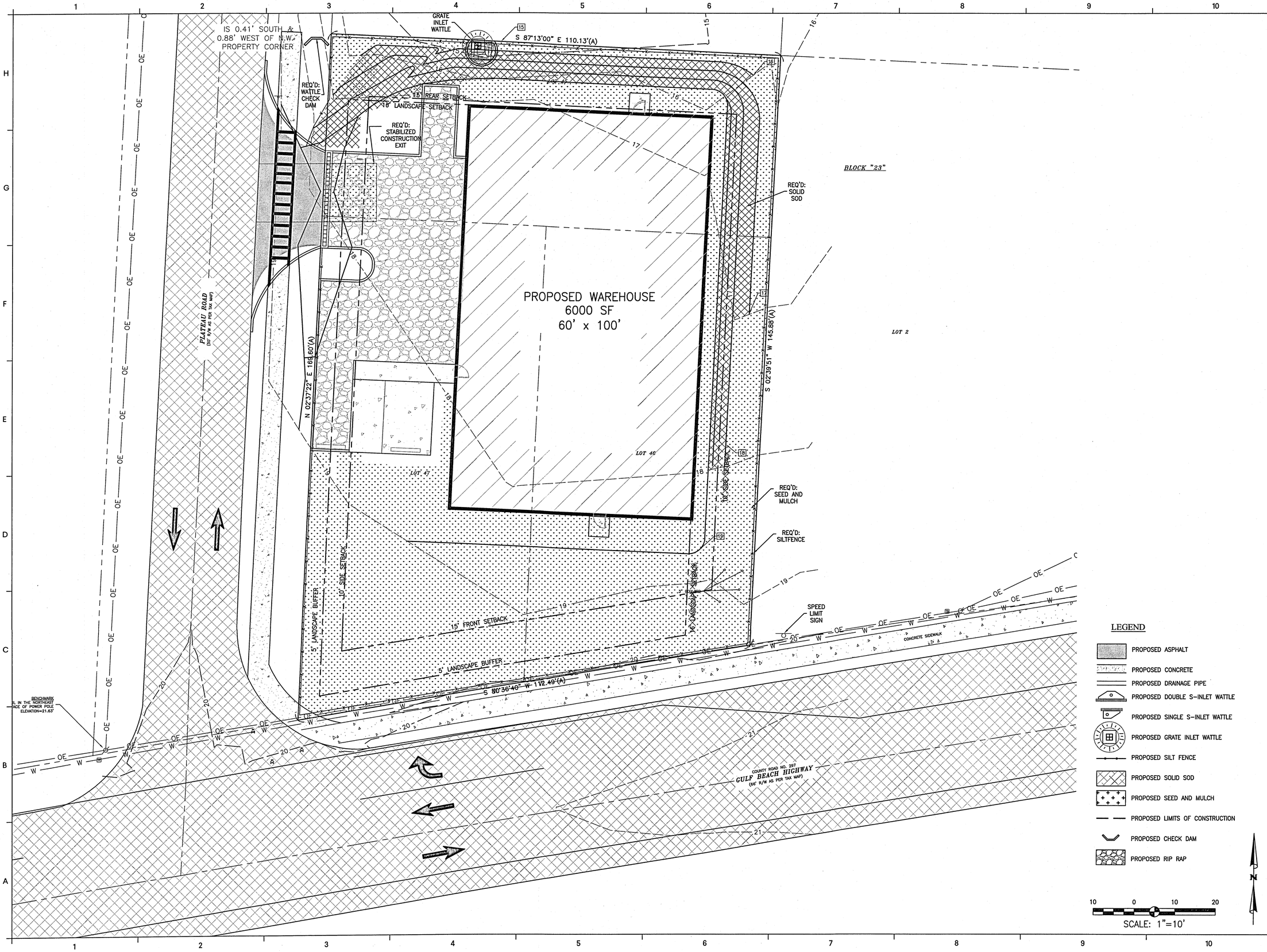

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8/4/2020

EROSION CONTROL SITE PLAN

SCALE: 1" = 10'

C14.01

sheet 14 of 14

DRAWING FILE: T:\Mobile\GMC\8 Proj\Pensacola Aviation Center\CMOB200001 - Stewart 51\Warehouse\0 DWG\14-CMOB200001-EROSION CONTROL PLAN.dwg
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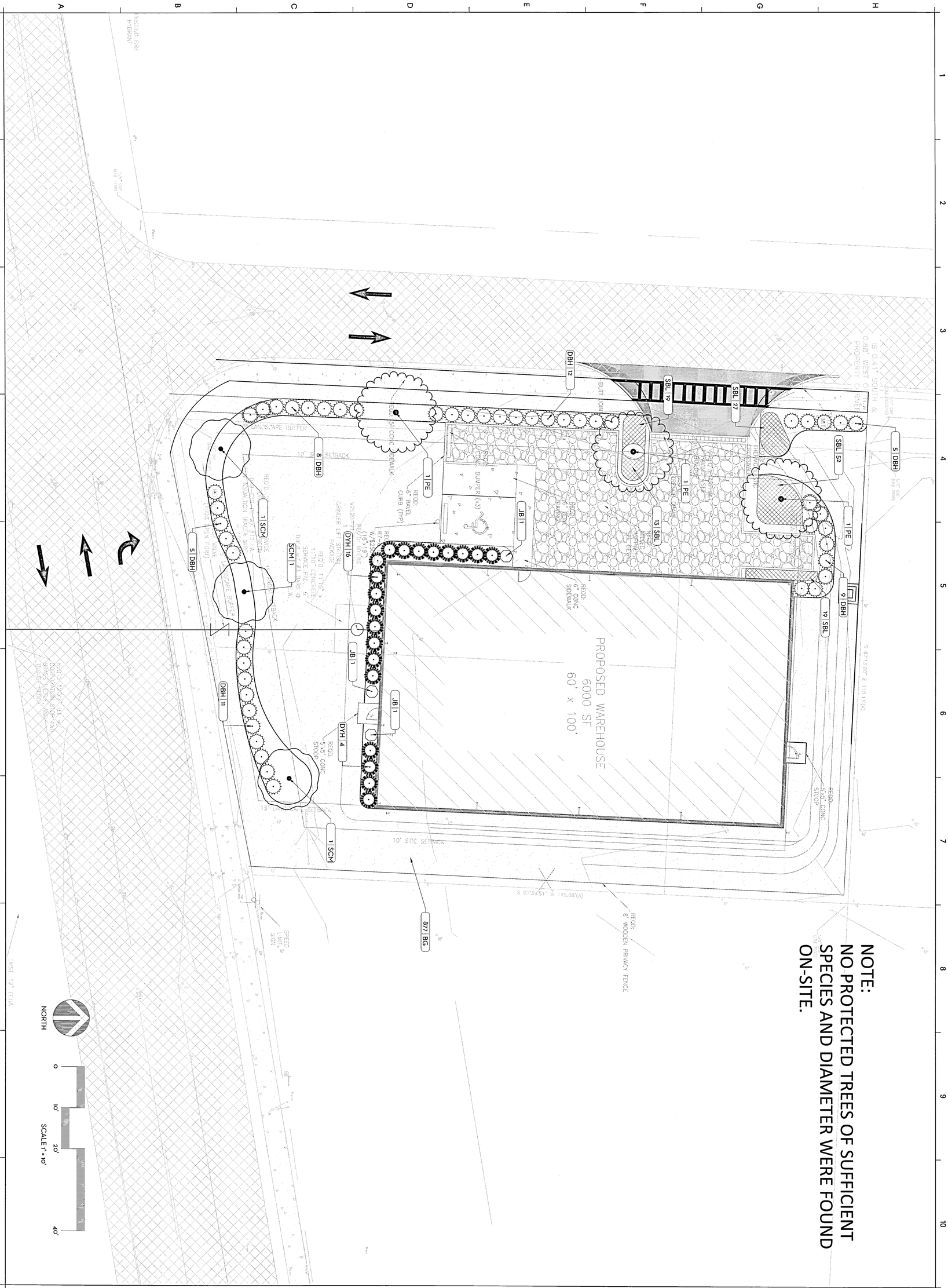

NOTE:
NO PROTECTED TREES OF SUFFICIENT SPECIES AND DIAMETER WERE FOUND ON-SITE.

LANDSCAPE PLAN

L-.1.00
sheet ___ of ___

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PENSACOLA, FLORIDA

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ISSUE	DATE
ISSUE	DATE
DRAWN BY:	
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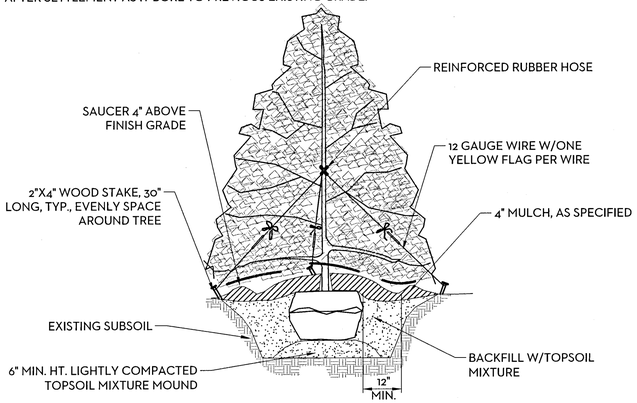
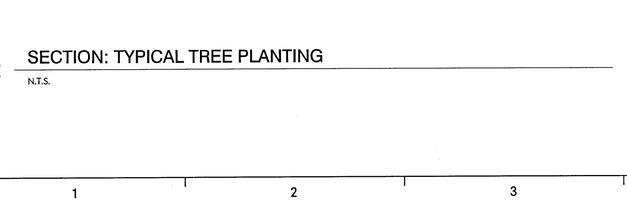
NOTE: TREE SHALL BEAR SAME RELATION TO FINISH GRADE AFTER SETTLEMENT AS IT BORE TO PREVIOUS EXISTING GRADE.



1 DETAIL: TYP. EVERGREEN TREE PLANTING

N.T.S.

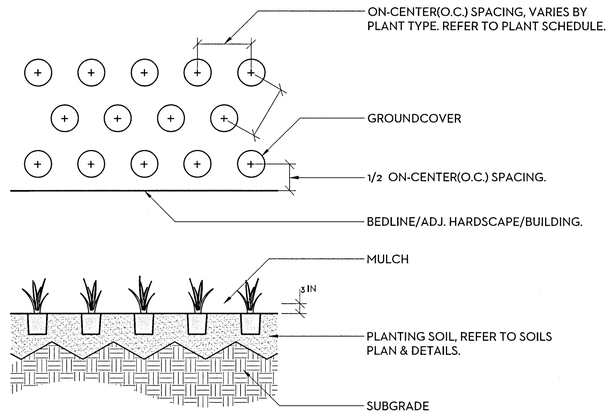


TREE PLANTING NOTES & PROCEDURES

1. EXCAVATE TREE PIT TO A DEPTH EQUAL TO DEPTH OF ROOTBALL PLUS 24", AND A WIDTH EQUAL TO TWO (2) TIMES THE DIAMETER OF THE ROOTBALL.
2. FILL TREE PIT WITH WATER AND CONFIRM PERCOLATION RATE. (NOTIFY LANDSCAPE ARCHITECT IF POOR DRAINAGE CON DITIONS EXIST.)
3. INSTALL TREE PER DETAIL AVOIDING DAMAGE TO ROOTBALL OR TREE TRUNK.
4. ADD SPECIFIED FERTILIZER TABLETS & MYCORRHIZAL TRANSPLANT INOCULANT.
5. REMOVE BURLAP ON TOP 1/3 OF TREE ROOTBALL. REMOVE BURLAP ON TOP 1/3 OF TREE ROOTBALL.
6. IMMEDIATELY SOAK TREE PIT WITH WATER AND REMOVE ANY AIR POCKETS THAT MAY HAVE OCCURRED DURING BACKFILLING.

2 SECTION: TYPICAL TREE PLANTING

N.T.S.



3 DETAIL: GROUNDCOVER & PERENNIAL PLANTING

N.T.S.

PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL / COMMON NAME	CONT.	CAL/SIZE		REMARKS
	LO	3	Quercus virginiana / Southern Live Oak	B & B	3"		
	PE	3	Ulmus americana `Princeton` / American Elm	B & B	3"		
SHRUBS	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**CONT.**	**SIZE**		**REMARKS**
	JB	3	Buxus microphylla japonica / Japanese Boxwood	7 gal	MIN. 30" HT.		
	DBH	50	Ilex cornuta `Burfordii Nana` / Dwarf Burford Holly	7 gal	MIN. 30" HT.		
	DYH	20	Ilex vomitoria `Nana` / Dwarf Yaupon	7 gal	MIN. 30" HT.		
GROUND COVERS	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**CONT.**	**SIZE**	**SPACING**	**REMARKS**
	BG	877 s.y.	Cynodon dactylon `419 Hybrid` / Bermuda Grass	sod		s.y.	
	SBL	130	Liriope muscari `Super Blue` / Super Blue Liriope	4"pot		18" o.c.	

LANDSCAPE NOTES

1. Contractor to carefully examine the contract documents and existing conditions before submitting bid proposal or commencing work.
2. Contractor shall verify the total quantities indicated in the plant list with the quantities shown on the plan. The contractor shall provide the quantities required to complete the proposed planting as indicated on the plan.
3. Contractor to verify location of all utilities prior to beginning work. Damage to existing utilities or site improvements caused by the contractor are the full responsibility of contractor.
4. Contractor's base bid to include all materials, labor, permits, equipment, tools, insurance, ETC. to perform the work as described in the contract documents.
5. Contractor to complete work within schedule established by owner.
6. Contractor to provide one year warranty for all material from date of substantial completion.
7. Contractor to provide interim maintenance (watering, pruning, fertilizing, guying, mowing, trimming, adequate drainage of ponding areas, edging, weeding, mulching, application of insecticides/herbicides, and general landscape clean-up) until substantial completion notice is provided by the owner or landscape architect.
8. Perform work in compliance with all applicable laws, codes, and regulations required by authorities having jurisdiction over such work and provide for permits required by local authorities.
9. Layout all plant material according to landscape drawings. Receive approval of all layouts before installation. Adjustments to the layout shall be made by the landscape architect. Landscape contractor to make adjustments to layout at no additional cost to the owner. Landscape contractor responsible for adjustment of layout in order to avoid utilities. Notify landscape architect of contemplated adjustments to the layout and receive approval before commencing.
10. All shrubs in parking lot islands are to be planted a minimum of 6" from back of curb to allow for better pedestrian circulation.
11. All planted material shall be equivalent in quality to specimen grade or better, as noted by the American Association of Nurserymen, latest edition. All trees of lesser quality shall be rejected by the city arborist.
12. Plant material to be free of disease, insect pests, eggs, or larvae. Damaged plant material shall be rejected.
13. Test plant beds and plant pits for adequate drainage. Work shall be made by the contractor at no additional cost to owner. Hardpan or moisture barriers shall be broken, or drain pipes to be installed to provide proper drainage of plant areas. Plant pits shall be excavated to the bottom of the pit. Fill each plant pit with water and observe the pit for 2 hours. If the water has not dissipated by 50% within 2 hours, notify the landscape architect of such in writing before installing plants in the questionable area(s), otherwise contractor shall be held liable for the livability of the plant. In hardpan conditions where water does not drain within 2 hours, install drain pipes as per tree planting in compacted soil area detail.
14. Trees shall be installed 2-3" above finish grade in hardpan areas unless otherwise directed to provide drainage.
15. Ground cover, shrub mass beds shall be cultivated to a depth of 12 inches below grade to break through compacted or hardpan soil. Remove all stones, roots, and inferior material greater than 2" in diameter. Add specified soil amendments and fertilizer. Elevate entire bed 6 inches above original grade. Rake to a consistent smooth surface. Install plants, edge bed area, mulch and water thoroughly.
16. Set all plants plumb and turned so that the most attractive side is viewed.
17. Plants shall be measured to their main structure, not tip to tip of branches.
18. Remove top one-third burlap of B & B wrapping. Remove all binding. If rootball is wrapped in non-biodegradeable burlap, remove entire wrap after placed in pit.
19. Tree pit and shrub pit to be twice the size of the root mass. Fill with plant mix. See details.
20. Broken root balls for trees shall be rejected.
21. Any plant materials shipped to site in uncovered vehicles/ trailer shall be rejected regardless of season.
22. Space shrubs, ground cover, and seasonal color evenly and in straight rows.
23. All tree scars over 1 -1/2" shall be rejected and tree to be replaced.
24. All shrubs to be dense and full. All trees to have a symmetrical growth habit (360 degrees) unless uncharacteristic to plant type.
25. Scarify root mass of shrubs and ground cover before installing.
26. Remove all excess growth of trees and shrubs as directed by landscape architect. Do not cut central leader.
27. All shrubs shall be dense and well-branched from bottom to top and all sides. "Leggy" shrubs will be rejected by L.A.
28. Plant beds shall be neatly edged using a 3" wide by 6" deep trench unless otherwise noted. Provide 2/1 side slope behind trench edge.
29. Mulch to be clean, fresh, new, shredded pine bark, 4" deep. Use red, long-needle pine straw on slopes greater than 3:1
30. Apply fertilizer and pre-emergent for weed prevention as per specification.
31. Topsoil shall be natural, fertile, friable, sandy clay loam capable of sustaining plant growth, free of stones, stumps, ETC.
32. For all turf lawn areas spread 4" of topsoil into existing soil to a depth of 6" below finish grade. Hand rake finished grades to provide even contours.
33. Characteristics of topsoil to be furnished:
    a. Fertile, friable, naturally occurring. Free of stones, clay, lumps, hardpan, roots, stumps, branches, sticks and other debris larger than two (2) inches in any dimension; free of noxious weeds, grasses, seeds, plants, extraneous matter and any substance harmful to plant growth. Topsoil from open fields will not be accepted.
    b. Ph: 5.0 to 7.0
    c. Organic Matter: 5% to 10%
    d. Sand: 50% to 70%
    e. Silt: less than 30%
    f. Clay: 10% to 25%
    g. Permeability Rate of 5 x 10 <-3> centimeters or greater at 85% compaction.
34. Topsoil Mix Requirements; Prepare all topsoil mix used in tree and shrub pits and ground cover beds in the following proportions:
    h. 2 parts by volume topsoil as specified above.
    i. 1 parts by volume decomposed organic matter.
    j. Add three (3) pounds of 12-6-6 fertilizer to each cubic yard of topsoil mix during the mixing process, for all plants.
35. Contractor shall collect three (3) soil samples of existing soil from areas on site to receive planting for testing. Each soil sample shall be approximately 1 kg. (1 gal. zip lock bag) in volume and will receive the following tests by soil testing lab approved in advance by Engineer, by this Contractor at his expense:
    k. s1-a
    l. s3
    m. texture analysis
    n. infiltration
36. Sight lines may not be obstructed between a height of 30-inches and 84-inches above the crown of the roadway surface.
37. Contractor to provide irrigation for all new plantings, see drawings and/or specifications.
38. General contractor to provide grades to two-tenths (.20+) of a foot of proposed finish grades.
39. See civil drawings for further information regarding: erosion sediment control information, locations of existing and proposed structures, paving, driveways, cut and fill areas, and retention areas, limits of construction, locations of existing and proposed utilities or easements.
40. Owner or landscape architect shall review project at completion of installation for substantial completion. Final completion shall be given at the end of the warranty period if all items are completed to the owner's satisfaction. Contractor shall be notified in writing of substantial and final completion dates.

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DRAWN BY:
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STEWART 51 WAREHOUSE
PENSACOLA, FLORIDA

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DETAILS

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