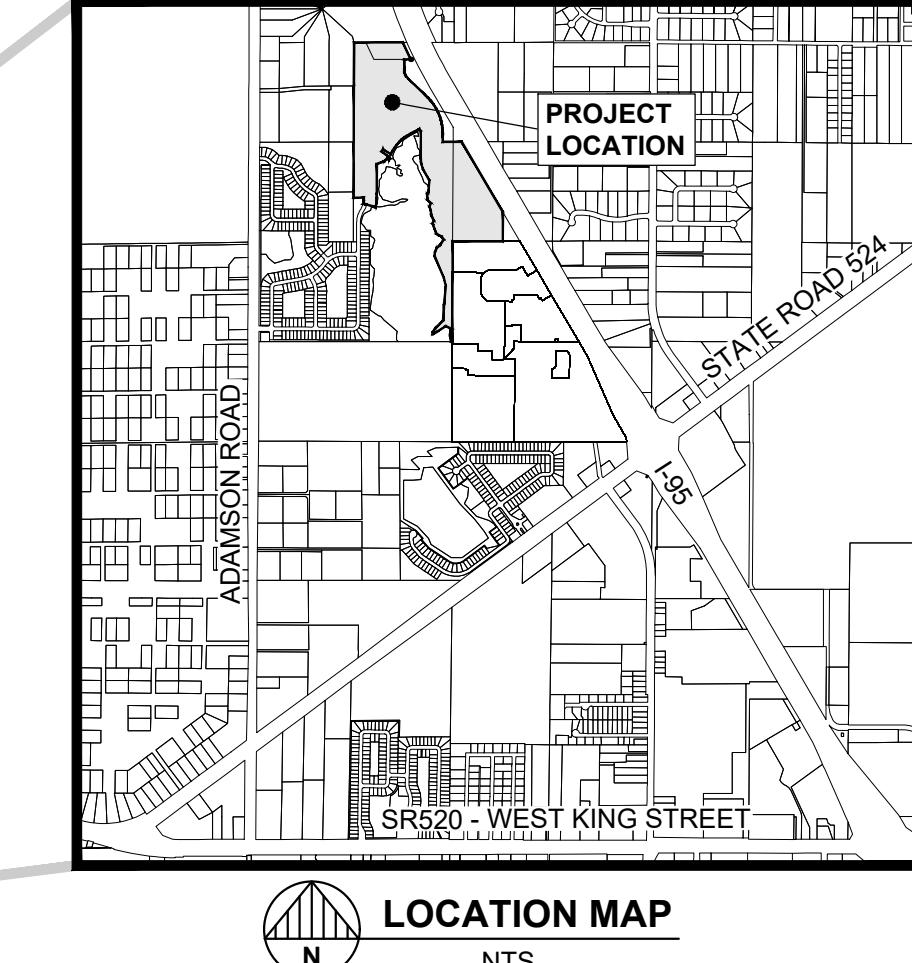
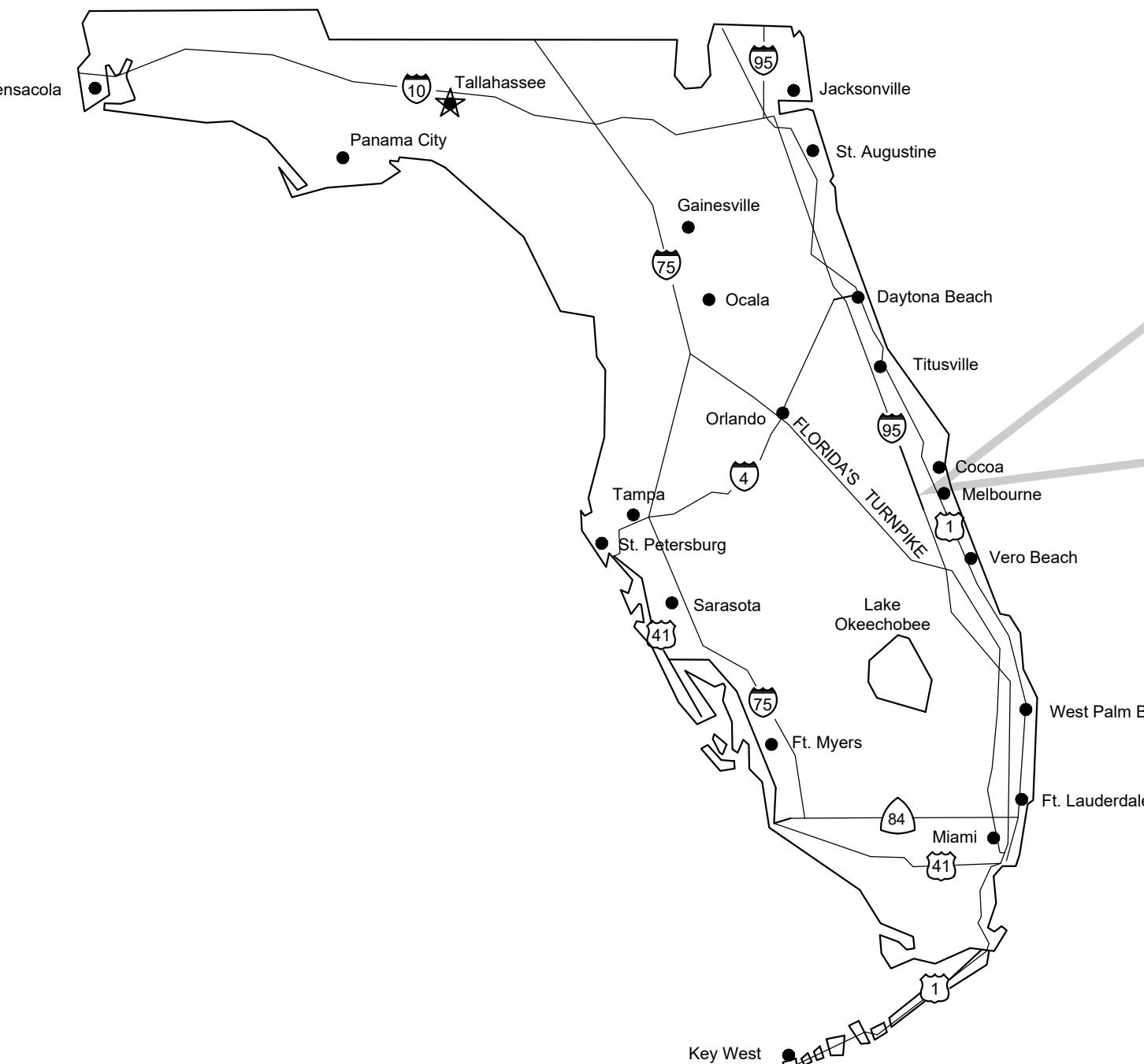


# ADAMSON CREEK

## PHASE ONE-C

### PRELIMINARY SUBDIVISION/FINAL PUD/LARGE SCALE SITE PLAN SECTION 22, TOWNSHIP 24 SOUTH, RANGE 35 EAST CITY OF COCOA, BREVARD COUNTY, FLORIDA

SHEET INDEX		
SHEET #	DRAWING #	SHEET TITLE
1	1145302_400_001	COVER SHEET
2	1145302_400_002	SYMBOLS AND ABBREVIATIONS
3	1145302_400_003	EXISTING CONDITIONS PLAN
3A	1145302_400_003A	OVERALL SITE PLAN WITH AMENITIES
3B	1145302_400_003B	AMENITIES DETAILS
4	1145302_400_004	OVERALL DRAINAGE PLAN
5	1145302_400_005	PAVING, GRADING, DRAINAGE AND AMENITIES PLAN
6	1145302_400_006	PAVING, GRADING, DRAINAGE AND AMENITIES PLAN
7	1145302_400_007	PAVING, GRADING, DRAINAGE AND AMENITIES PLAN
8	1145302_400_008	PAVING, GRADING, DRAINAGE AND AMENITIES PLAN
8A	1145302_400_008A	PAVING, GRADING, DRAINAGE AND AMENITIES PLAN
9	1145302_400_009	PAVING, GRADING, DRAINAGE AND AMENITIES ENLARGEMENT DETAILS
9A	1145302_400_009A	PAVING, GRADING, DRAINAGE AND AMENITIES ENLARGEMENT DETAILS
10	1145302_400_010	OVERALL UTILITY PLAN
11	1145302_400_011	UTILITY PLAN
12	1145302_400_012	UTILITY PLAN
13	1145302_400_013	UTILITY PLAN
13A	1145302_400_013A	UTILITY PLAN
14	1145302_400_014	ROADWAY PLAN AND PROFILE
15	1145302_400_015	ROADWAY PLAN AND PROFILE
16	1145302_400_016	ROADWAY PLAN AND PROFILE
17	1145302_400_017	ROADWAY PLAN AND PROFILE
18	1145302_400_018	GENERAL DETAILS
19	1145302_400_019	GENERAL DETAILS
20	1145302_400_020	FDOT DETAILS
21	1145302_400_021	FDOT DETAILS
22	1145302_400_022	BREVARD COUNTY PUBLIC WORKS ENGINEERING STANDARD DEVELOPMENT NOTES
23	1145302_400_023	BREVARD COUNTY DETAILS
24	1145302_400_024	SANITARY SEWER LIFT STATION PUMP SPECIFICATIONS
25	1145302_400_025	CITY OF COCOA WATER TECHNICAL PROVISIONS
29	1145302_400_029	CITY OF COCOA WATER DETAILS
27	1145302_400_027	CITY OF COCOA WATER TECHNICAL PROVISIONS
28	1145302_400_028	CITY OF COCOA WATER DETAILS
29	1145302_400_029	CITY OF COCOA WATER DETAILS
30	1145302_400_030	STORM WATER POLLUTION PREVENTION PLAN (SWPPP)
PRELIMINARY PLAT		
1	1145302_300_001	PRELIMINARY PLAT
2	1145302_300_002	PRELIMINARY PLAT
4	1145302_300_004	PRELIMINARY PLAT
4	1145302_300_004	PRELIMINARY PLAT
5	1145302_300_005	PRELIMINARY PLAT
BOUNDARY SURVEY		
1	1145302_100_001	BOUNDARY SURVEY
LANDSCAPE PLAN		
1	1145302_401_LS1	COVER SHEET
2	1145302_401_LS2	GENERAL LANDSCAPE PLAN AND NOTES
3	1145302_401_LS3	GENERAL LANDSCAPE PLAN
4	1145302_401_LS4	GENERAL LANDSCAPE PLAN AND DETAILS



D.R. HORTON  
1430 CULVER DRIVE  
PAL BAY, FL. 32907  
(321) 953-3135

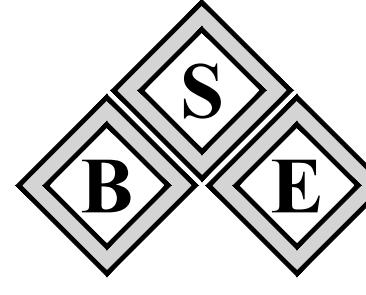
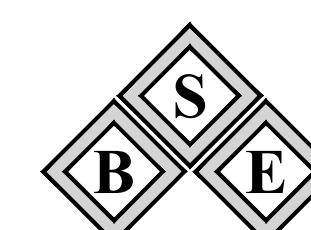
- PREPARED BY -

B.S.E. CONSULTANTS, INC.  
CONSULTING - ENGINEERING - LAND SURVEYING

312 SOUTH HARBOR CITY BOULEVARD, SUITE 4 MELBOURNE, FLORIDA 32901

PHONE: (321) 725-3674 / FAX: (321) 723-1159

CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905



B.S.E. CONSULTANTS, INC.  
CONSULTING - ENGINEERING -  
LAND SURVEYING

312 SOUTH HARBOR CITY BOULEVARD, SUITE 4  
MELBOURNE, FLORIDA 32901  
PHONE: (321) 725-3674 FAX: (321) 723-1159  
CERTIFICATE OF PROFESSIONAL ENGINEERS  
BUSINESS AUTHORIZATION: 4905  
CERTIFICATE OF LAND SURVEYING  
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.  
STATE OF FLORIDA, No. 33659 No. 41951

HASSAN A. KAMAL, P.E.  
STATE OF FLORIDA, No. 41951

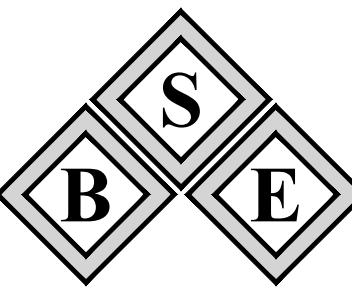
TRACT DATA TABLE / OPEN SPACE CALCULATION			
TRACT (S)	AREA (±ACRE ±PERCENT)	USE	COMMON OPEN SPACE CREDIT (±ACRES)
A-C	1.30 0.67%	LANDSCAPE AMENITIES	0.77
A	0.09 0.05%	LANDSCAPE AMENITIES	0.09
B	1.14 0.59%	LANDSCAPE AMENITIES	0.61
C	0.07 0.04%	LANDSCAPE AMENITIES	0.07
D-I	36.95 19.15%	STORMWATER MANAGEMENT, OPEN SPACE AND RECREATIONAL AMENITIES	24.12
D	1.59 0.82%	STORMWATER MANAGEMENT, OPEN SPACE AND RECREATIONAL AMENITIES	1.59
E	4.05 2.10%	STORMWATER MANAGEMENT, OPEN SPACE AND RECREATIONAL AMENITIES *50% OF 48.26 = 24.13 (TOTAL USABLE POND)	4.05
F	2.44 1.26%	STORMWATER MANAGEMENT, OPEN SPACE AND RECREATIONAL AMENITIES *50% OF 48.26 = 24.13 (TOTAL USABLE POND)	2.44
G	4.23 2.19%	STORMWATER MANAGEMENT, OPEN SPACE AND RECREATIONAL AMENITIES *50% OF 48.26 = 24.13 (TOTAL USABLE POND)	4.23
H	3.84 1.99%	STORMWATER MANAGEMENT, OPEN SPACE AND RECREATIONAL AMENITIES *50% OF 48.26 = 24.13 (TOTAL USABLE POND)	3.84
I	20.80 10.78%	STORMWATER MANAGEMENT, OPEN SPACE AND RECREATIONAL AMENITIES *50% OF 48.26 = 24.13 (TOTAL USABLE POND)	7.97
J-W	9.19 4.76%	OPEN SPACE AND RECREATIONAL AMENITIES	6.78
J	0.34 0.19%	OPEN SPACE AND RECREATIONAL AMENITIES	0.34
K	0.30 0.16%	OPEN SPACE AND RECREATIONAL AMENITIES	0.30
L	0.06 0.50%	OPEN SPACE AND RECREATIONAL AMENITIES	0.96
M	7.14 3.70%	OPEN SPACE AND RECREATIONAL AMENITIES	4.73
M-1	0.16 0.08%	DRAINAGE, OPEN SPACE AND RECREATIONAL AMENITIES	0.16
N	0.15 0.08%	OPEN SPACE AND RECREATIONAL AMENITIES	0.15
O	0.14 0.07%	OPEN SPACE AND RECREATIONAL AMENITIES	0.14
W	0.05 0.03%	OPEN SPACE AND RECREATIONAL AMENITIES	0.05
CONSERVATION OF PRESERVED WETLANDS AND UPLANDS/PASSIVE RECREATIONAL USE			
P-V	65.79 34.10%		16.57
P	3.55 1.84%	UPLAND AND WETLAND OPEN SPACE	1.96
Q	6.29 3.26%	UPLAND AND WETLAND OPEN SPACE	1.57
R	45.05 23.35%	UPLAND AND WETLAND OPEN SPACE	8.94
S	4.05 2.10%	UPLAND AND WETLAND OPEN SPACE	2.00
V	6.85 3.55%	UPLAND AND WETLAND OPEN SPACE	2.10
T-U	0.14 0.07%	LIFT STATIONS	0.00
T	0.10 0.05%	LIFT STATIONS	0.00
U	0.04 0.02%	LIFT STATIONS	0.00
1	0.69 0.36%	RETAINED BY THE DEVELOPER	0.00
1	0.69 0.36%	RETAINED BY THE DEVELOPER	0.00
N/A	63.46 32.89%	RESIDENTIAL DEVELOPMENT (406 LOTS)	0.00
N/A	15.44 8.00%	ROAD RIGHT-OF-WAY	0.00
	48.24 25.00%	TOTAL RECREATION COMMON OPEN SPACE	48.24
	192.96 100.00%	TOTAL PUD BOUNDARY	192.96
	25.00%	REQUIRED OPEN SPACE (25% OF 192.96 AC = 48.24 acres)	48.24
	25.00%	PROVIDED COMMON OPEN SPACE	48.24

\*50% OF 48.24 = 24.12 (TOTAL USABLE POND)

VERTICAL DATUM: NGVD29

CONVERSION FROM NGVD29 TO NAVD88: SUBTRACT 1.38' FROM NGVD29

1 of 35



B.S.E. CONSULTANTS, INC.  
CONSULTING - ENGINEERING -  
LAND SURVEYING

312 SOUTH HARBOR CITY BOULEVARD, SUITE 4  
MELBOURNE, FLORIDA 32901  
PHONE: (321) 725-3674 FAX: (321) 723-159

CERTIFICATE OF PROFESSIONAL ENGINEERS  
BUREAU OF LAND SURVEYING  
CERTIFICATE OF LAND SURVEYING  
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.  
STATE OF FLORIDA, No. 33659

HASSAN A. KAMAL, P.E.  
STATE OF FLORIDA, No. 41951

LANDSCAPE  
SYMBOL LEGEND

- \* CABBAGE PALM TREE
- \* PALM TREE
- \* PINE TREE
- \* OAK TREE
- TREE LINE
- SHRUB 1
- SHRUB 2

IRRIGATION  
SYMBOL LEGEND

- \* SPRINKLER
- RAINBIRD 1/4
- RAINBIRD 1/2
- RAINBIRD 3/4
- RAINBIRD FULL

LINE TYPES

- BEL — BEL — EXISTING BURIED ELECTRIC
- BTL — BTL — EXISTING BURIED TELEPHONE
- CATV — CATV — EXISTING CABLE TV
- X — X — X — X — FENCE (TYPE, HEIGHT AS NOTED)
- FM — FM — EXISTING FORCE MAIN (SIZE, TYPE AS NOTED)
- FO — FO — EXISTING FIBER OPTIC
- GAS — GAS — EXISTING GAS LINE
- IRR — IRR — EXISTING IRRIGATION (SIZE, TYPE AS NOTED)
- OHE — OHE — EXISTING OVERHEAD ELECTRIC
- OHU — OHU — EXISTING OVERHEAD UTILITY
- RM — RM — EXISTING REUSE MAIN (SIZE, TYPE AS NOTED)
- SF — SF — SILT FENCE
- SS — SS — EXISTING SANITARY SEWER (SIZE, TYPE AS NOTED)
- WM — WM — EXISTING WATER MAIN (SIZE, TYPE AS NOTED)
- — — — — CENTERLINE
- — — — — BASIN BOUNDARY
- — — — — COLUMN / WALL
- — — — — GUARD RAIL
- — — — — TREE LINE
- — — — — DRAINAGE PIPE (SIZE, TYPE AS NOTED)

SYMBOL LEGEND

- (S) EXISTING SANITARY MANHOLE
- (O) EXISTING MANHOLE (TYPE NOTED)
- (●) PROPOSED MANHOLE
- (▲) TYPE 2 INLET
- (▲) TYPE 3 INLET
- (▲) TYPE 4 INLET
- (▲) TYPE 5 INLET
- (□) CATCH BASIN
- (□) YARD DRAIN
- (□) FLARED END SECTION
- (□) MITERED END SECTION
- (X) EXISTING GATE VALVE
- (X) PROPOSED GATE VALVE
- (X) EXISTING FIRE HYDRANT
- (X) PROPOSED FIRE HYDRANT
- (X) EXISTING BLOW-OFF
- (X) PROPOSED BLOW-OFF ASSEMBLY WITH GATE VALVE
- (X) EXISTING FIRE DEPT. CONNECTION
- (X) PROPOSED FIRE DEPT. CONNECTION
- (X) EXISTING WATER METER
- (X) PROPOSED WATER METER
- (□) EXISTING WATER SERVICE
- (□) PROPOSED WATER SERVICE
- (○) EXISTING REUSE SERVICE
- (●) PROPOSED REUSE SERVICE
- (—) SANITARY SERVICE
- (—) STUB OUT
- (○) EXISTING AIR RELEASE VALVE
- (○) AIR RELEASE VALVE
- (○) EXISTING CLEAN OUT
- (●) CLEAN OUT
- (●) CROSS TEE
- (—) TEE
- (—) BACK FLOW PREVENTION DEVICE
- (—) REDUCER
- (—) POST INDICATOR VALVE
- (—) UTILITY RISER
- (—) CONCRETE POWER POLE
- (—) WOOD UTILITY POLE
- (—) GUY WIRE
- (—) GUY POLE
- (—) EXISTING LIGHT POLE
- (—) PROPOSED LIGHT POLE
- (—) EXISTING SIGN
- (—) PROPOSED SIGN
- (—) DIRT PAD ELEVATION
- (—) FINISHED FLOOR ELEVATION
- (—) TYPE A LOT DRAINAGE
- (—) TYPE B LOT DRAINAGE
- (—) LOT NUMBER
- (—) FLOW ARROW

ABBREVIATIONS

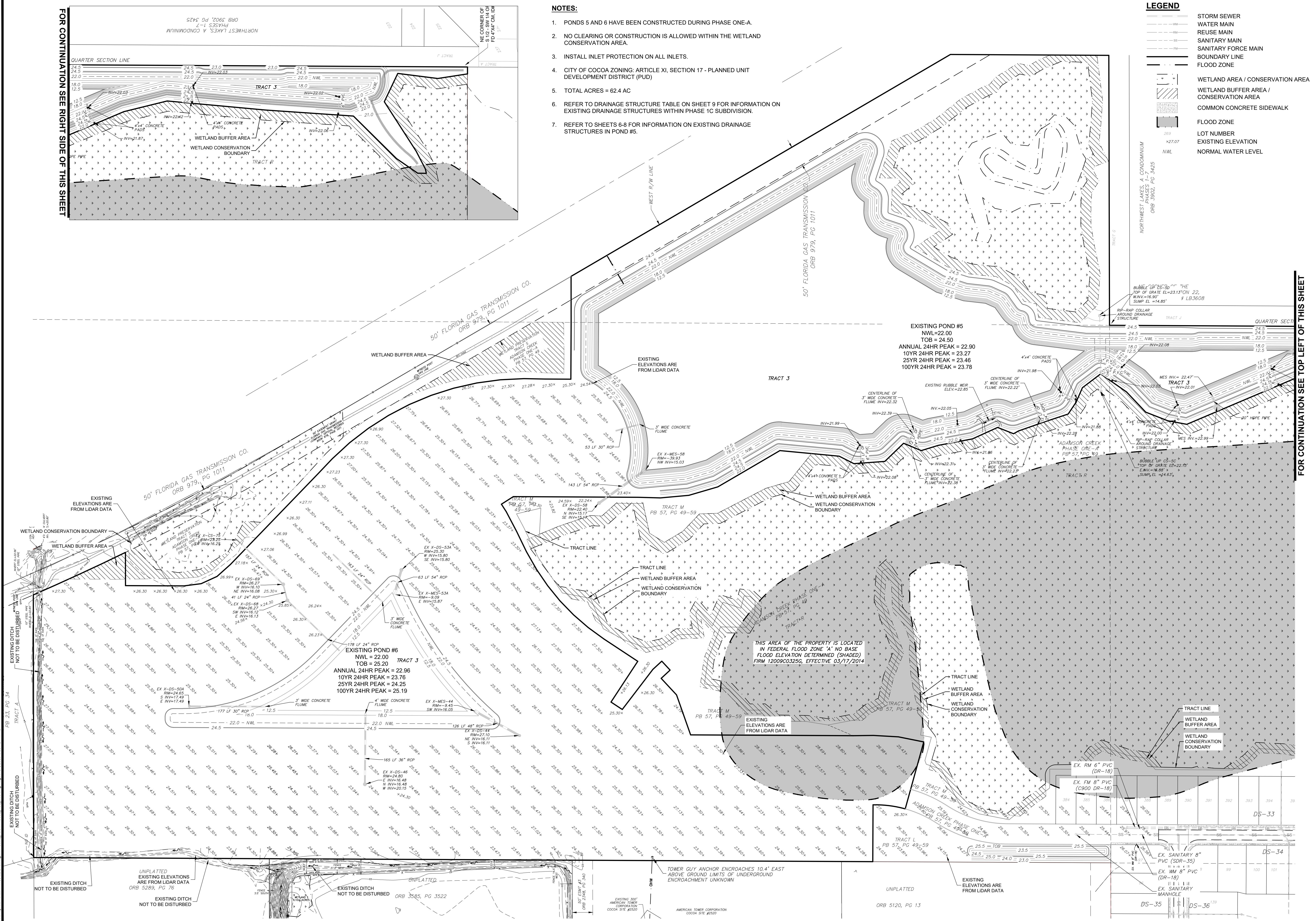
MINUTES/FEET	LS	LANDSCAPE
SECONDS/INCHES	LWP	LIGHTER WOOD POST
DEGREES	MAX	MAXIMUM
(C)	MES	MITERED END SECTION
(D)	MH	MANHOLE
(F)	MHW	MEAN HIGH WATER
(M)	M	MILE(S)
(NR)	MIN	MINIMUM
(P)	N	NORTH
A/C	N&D	NAIL AND DISK
ACRES	NAV088	NORTH AMERICAN VERTICAL DATUM 1988
ADS	NGVD29	NATIONAL GEODETIC VERTICAL DATUM 1929
AL	NG	NATURAL GROUND
ARV	NIC	NOT IN CONTRACT
AVE	NTS	NOT TO SCALE
BLVD	NWL	NORMAL WATER LEVEL
BM	OHE	OVERHEAD ELECTRIC/UTILITY
BVC	OR/ORB	OFFICIAL RECORDS BOOK
BVP	P/L	PROPERTY LINE
C/L	PAVT	PAVEMENT
C/O	PB	PLAT BOOK
CA	PC	POINT OF CURVATURE
CATV	PCC	POINT OF COMPOUND CURVATURE
CB	PCP	PERMANENT CONTROL POINT
CBS	PD&UE	PUBLIC DRAINAGE AND UTILITY EASEMENT
CH	PDE	PUBLIC DRAINAGE EASEMENT
CM	PG(S)	PAGE(S)
CMP	PGL	PROPOSED GRADE LINE
CONCRETE	PK	PARKER-KALEN
COR	POB	POINT OF BEGINNING
CORNER	POC	POINT OF COMMENCEMENT
CLEAN OUT	POL	POINT ON LINE
CORRUGATED PLASTIC PIPE	PP	POWER/UTILITY POLE
DE	PR	PRIVATE
DRAINAGE EASEMENT	PRC	POINT OF REVERSE CURVATURE
DEL	PT	POINT OF TANGENCY
DELTA/CENTRAL ANGLE	PVC	POLYVINYL CHLORIDE PIPE
DI	PVI	POINT OF VERTICAL INTERSECTION
DIP	R	RADIUS/RIGHT
DUCTILE IRON PIPE	R/W	RIGHT-OF-WAY
DS	RAD	RADIAL
DRAINAGE STRUCTURE	RB	RADIAL BEARING
E	RCP	REINFORCED CONCRETE PIPE
EAST	REF	REFERENCE
ELEVATION	RGE	RANGE
ELEVATION	RM	REUSE MAIN
EOP	RND	ROUND
EDGE OF PAVEMENT	RPB	ROAD PLAT BOOK
EOW	RR	RAILROAD
EDGE OF WATER	S	SOUTH
ERCP	SEC	SECTION
ELLiptical REINFORCED CONCRETE PIPE	SF	SQUARE FOOT
ESMT	SMH	SEWER MANHOLE
EASEMENT	SPK	SPIKE
EVC	SS	SANITARY SEWER
END VERTICAL CURVE	ST	STREET
EVP	STA	STATION
END VERTICAL PROFILE	SVC	SERVICE
EX	SW	SIDEWALK
EXISTING	TEL	TELEPHONE
FD	TOB	TOP OF BANK
FOUND	TOE	TOE OF SLOPE
FDC	TWP	TOWNSHIP
FIRE DEPARTMENT CONNECTION	ID#	IDENTIFICATION NUMBER
FDOT	INV	INVERT
FLORIDA DEPARTMENT OF TRANSPORTATION	IP	IRON PIPE
FES	IPC	IRON PIPE AND CAP
FLARED END SECTION	IR	IRON ROD
FFE	IRC	IRON ROD AND CAP
FINISHED FLOOR ELEVATION	JCT	JUNCTION
TYPE A LOT DRAINAGE	LF	LINEAR FEET
TYPE B LOT DRAINAGE	L	LEFT
LOT NUMBER	LP	LOW POINT
FLOW ARROW	UTIL	UTILITY
	W	WEST
	WM	WATER MAIN

ABBREVIATIONS

PROJECT TITLE  
**ADAMSON CREEK  
PHASE ONE-C**

SHEET TITLE  
**SYMBOLS AND  
ABBREVIATIONS**

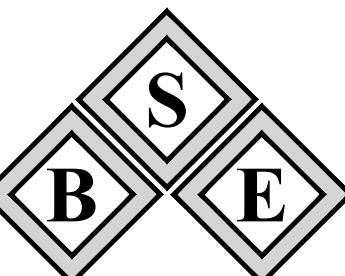
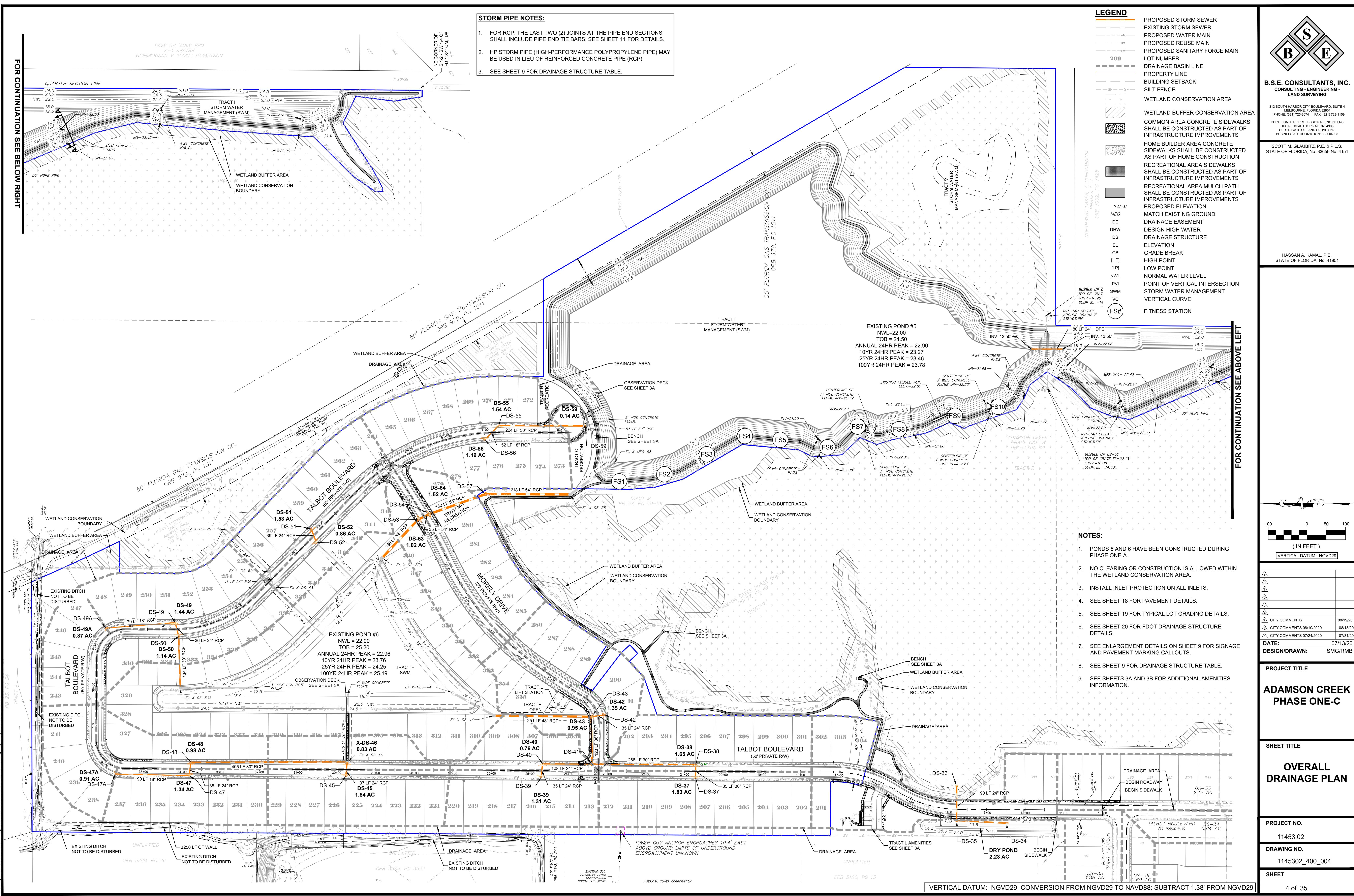
PROJECT NO.  
11453.02  
DRAWING NO.  
1145302\_400\_002  
SHEET  
2 of 35



B.S.E. CONSULTANTS, INC.																			
CONSULTING - ENGINEERING -																			
LAND SURVEYING																			
<p>312 SOUTH HARBOR CITY BOULEVARD, SUITE 4            MELBOURNE, FLORIDA 32901            PHONE: (321) 725-3674 FAX: (321) 723-1159</p> <p>CERTIFICATE OF PROFESSIONAL ENGINEERS            BUSINESS AUTHORIZATION: 4905            CERTIFICATE OF LAND SURVEYING            BUSINESS AUTHORIZATION: LB0004905</p>																			
<p>SCOTT M. GLAUBITZ, P.E. &amp; P.L.S.            STATE OF FLORIDA, No. 33659 No. 4151</p>																			
<p>HASSAN A. KAMAL, P.E.            STATE OF FLORIDA, No. 41951</p>																			
 <p>( IN FEET )</p> <p>VERTICAL DATUM: NGVD29</p>																			
<table border="1"> <tr> <td>9</td> <td></td> </tr> <tr> <td>8</td> <td></td> </tr> <tr> <td>7</td> <td></td> </tr> <tr> <td>6</td> <td></td> </tr> <tr> <td>5</td> <td></td> </tr> <tr> <td>4</td> <td></td> </tr> <tr> <td>3 CITY COMMENTS</td> <td>08/19/2020</td> </tr> <tr> <td>2 CITY COMMENTS 08/10/2020</td> <td>08/13/2020</td> </tr> <tr> <td>1 CITY COMMENTS 07/24/2020</td> <td>07/31/2020</td> </tr> </table>		9		8		7		6		5		4		3 CITY COMMENTS	08/19/2020	2 CITY COMMENTS 08/10/2020	08/13/2020	1 CITY COMMENTS 07/24/2020	07/31/2020
9																			
8																			
7																			
6																			
5																			
4																			
3 CITY COMMENTS	08/19/2020																		
2 CITY COMMENTS 08/10/2020	08/13/2020																		
1 CITY COMMENTS 07/24/2020	07/31/2020																		
<p><b>DATE:</b> 07/13/2020</p> <p><b>DESIGN/DRAWN:</b> SMG/RM</p>																			
<p><b>PROJECT TITLE</b></p> <p><b>ADAMSON CREEK PHASE ONE-C</b></p>																			
<p><b>SHEET TITLE</b></p> <p><b>EXISTING CONDITIONS PLAN</b></p>																			
<p><b>PROJECT NO.</b></p> <p>11453.02</p>																			
<p><b>DRAWING NO.</b></p> <p>1145302_400_003</p>																			
<p><b>SHEET</b></p> <p>3 of 35</p>																			



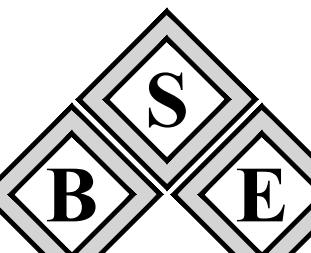




B.S.E. CONSULTANTS, INC.  
CONSULTING - ENGINEERING - LAND SURVEYING  
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4  
MELBOURNE, FLORIDA 32901  
PHONE: (321) 725-3674 FAX: (321) 723-159  
CERTIFICATE OF PROFESSIONAL ENGINEERS  
LICENSURE NO. 400450  
CERTIFICATE OF LAND SURVEYING  
BUSINESS AUTHORIZATION: LB000495

SCOTT M. GLAUBITZ, P.E. & P.L.S.  
STATE OF FLORIDA, No. 3659 No. 41951

HASSAN A. KAMAL, P.E.  
STATE OF FLORIDA, No. 41951

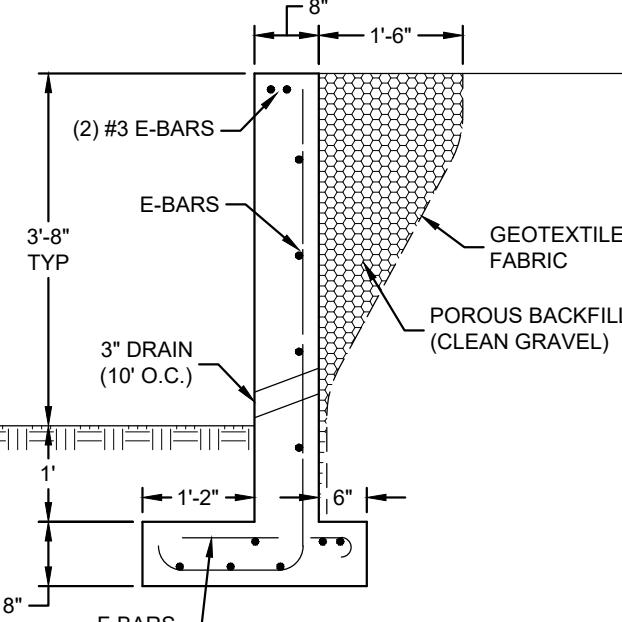


B.S.E. CONSULTANTS, INC.  
CONSULTING - ENGINEERING -  
LAND SURVEYING

312 SOUTH HARBOR CITY BOULEVARD, SUITE 4  
MELBOURNE, FLORIDA 32901  
PHONE: (321) 725-3674 FAX: (321) 723-159  
CERTIFICATE OF PROFESSIONAL ENGINEERS  
IN FLORIDA  
CERTIFICATE OF LAND SURVEYING  
BUSINESS AUTHORIZATION: LB004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.  
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.  
STATE OF FLORIDA, No. 41951



**RETAINING WALL DETAIL**  
N.T.S.

**SECTION D-D**  
N.T.S.

**SECTION E-E**  
N.T.S.

**SECTION F-F**  
(EX POND #6)  
N.T.S.

**LEGEND**

PROPOSED STORM SEWER  
EXISTING STORM SEWER  
PROPOSED WATER MAIN  
PROPOSED REUSE MAIN  
PROPOSED SANITARY FORCE MAIN  
GRADE BREAK LINE

LOT NUMBER  
PROPERTY LINE  
BUILDING SETBACK  
SILT FENCE

WETLAND CONSERVATION AREA  
WETLAND BUFFER CONSERVATION AREA

COMMON AREA CONCRETE SIDEWALKS  
SHALL BE CONSTRUCTED AS PART OF  
INFRASTRUCTURE IMPROVEMENTS

HOME BUILDER AREA CONCRETE  
SIDEWALKS SHALL BE CONSTRUCTED AS  
PART OF HOME CONSTRUCTION

RECREATIONAL AREA SIDEWALKS  
SHALL BE CONSTRUCTED AS PART OF  
INFRASTRUCTURE IMPROVEMENTS

RECREATIONAL AREA MULCH PATH  
SHALL BE CONSTRUCTED AS PART OF  
INFRASTRUCTURE IMPROVEMENTS

FINISHED CENTERLINE OF ROAD  
ELEVATION

TYPE 'A' LOT  
LOT DRAINS REAR TO FRONT

TYPE 'B' LOT  
LOT WITH SPLIT DRAINAGE

TYPE 'C' LOT  
LOT DRAINS FRONT TO REAR

FINISHED FLOOR ELEVATION (FFE)

DIRT PAD ELEVATION

EXISTING GROUND SPOT ELEVATION

DESIGN SPOT ELEVATION

MATCH EXISTING GROUND

DRAINAGE EASEMENT

DESIGN HIGH WATER

DRAINAGE STRUCTURE

ELEVATION

GRADE BREAK

HIGH POINT

LOW POINT

NORMAL WATER LEVEL

POINT OF VERTICAL INTERSECTION

VERTICAL CURVE

PROPOSED LIGHT POLE

FITNESS STATION



(IN FEET)

VERTICAL DATUM: NGVD29

DATE: 07/13/20

DESIGN/DRAWN: SMG/RMB

PROJECT TITLE

**ADAMSON CREEK  
PHASE ONE-C**

NOTES:

1. PONDS 5 AND 6 HAVE BEEN CONSTRUCTED DURING PHASE ONE-A.
2. NO CLEARING OR CONSTRUCTION IS ALLOWED WITHIN THE WETLAND CONSERVATION AREA.
3. INSTALL INLET PROTECTION ON ALL INLETS.
4. SEE SHEET 18 FOR PAVEMENT DETAILS.
5. SEE SHEET 19 FOR TYPICAL LOT GRADING DETAILS.
6. SEE SHEET 20 FOR FDOT DRAINAGE STRUCTURE DETAILS.
7. SEE ENLARGEMENT DETAILS ON SHEET 9 FOR SIGNAGE AND PAVEMENT MARKING CALLOUTS.
8. SEE SHEET 9 FOR DRAINAGE STRUCTURE TABLE.
9. SEE SHEETS 3A AND 3B FOR ADDITIONAL AMENITIES INFORMATION.

FOR CONTINUATION SEE SHEET 6

SHEET TITLE

**PAVING,  
GRADING,  
DRAINAGE AND  
AMENITIES PLAN**

PROJECT NO.

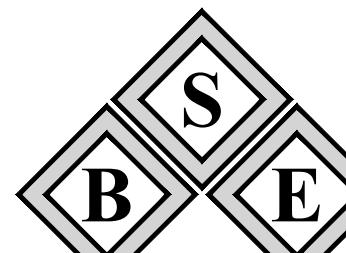
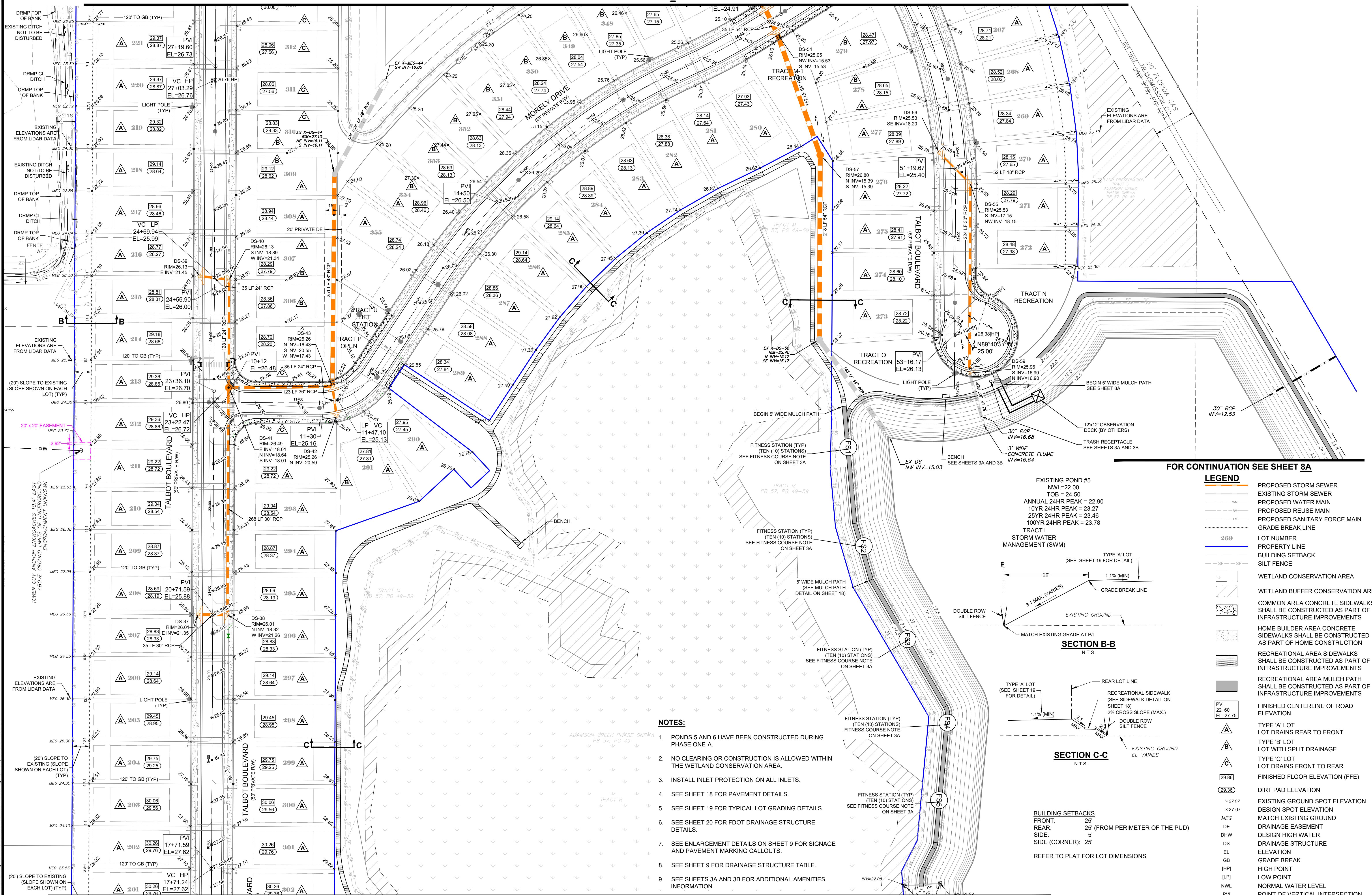
11453.02

DRAWING NO.

1145302\_400\_005

SHEET

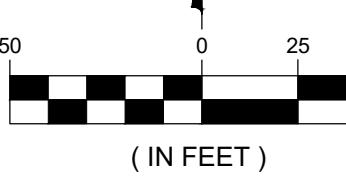
FOR CONTINUATION SEE SHEET 5



B.S.E. CONSULTANTS, INC.  
CONSULTING - ENGINEERING -  
LAND SURVEYING  
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4  
MELBOURNE, FLORIDA 32901  
PHONE: (321) 725-3674 FAX: (321) 725-1159  
CERTIFICATE OF PROFESSIONAL ENGINEERS  
LICENSE NO. 41951  
CERTIFICATE OF LAND SURVEYING  
BUSINESS AUTHORIZATION: LB004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.  
STATE OF FLORIDA, No. 36369 No. 4151

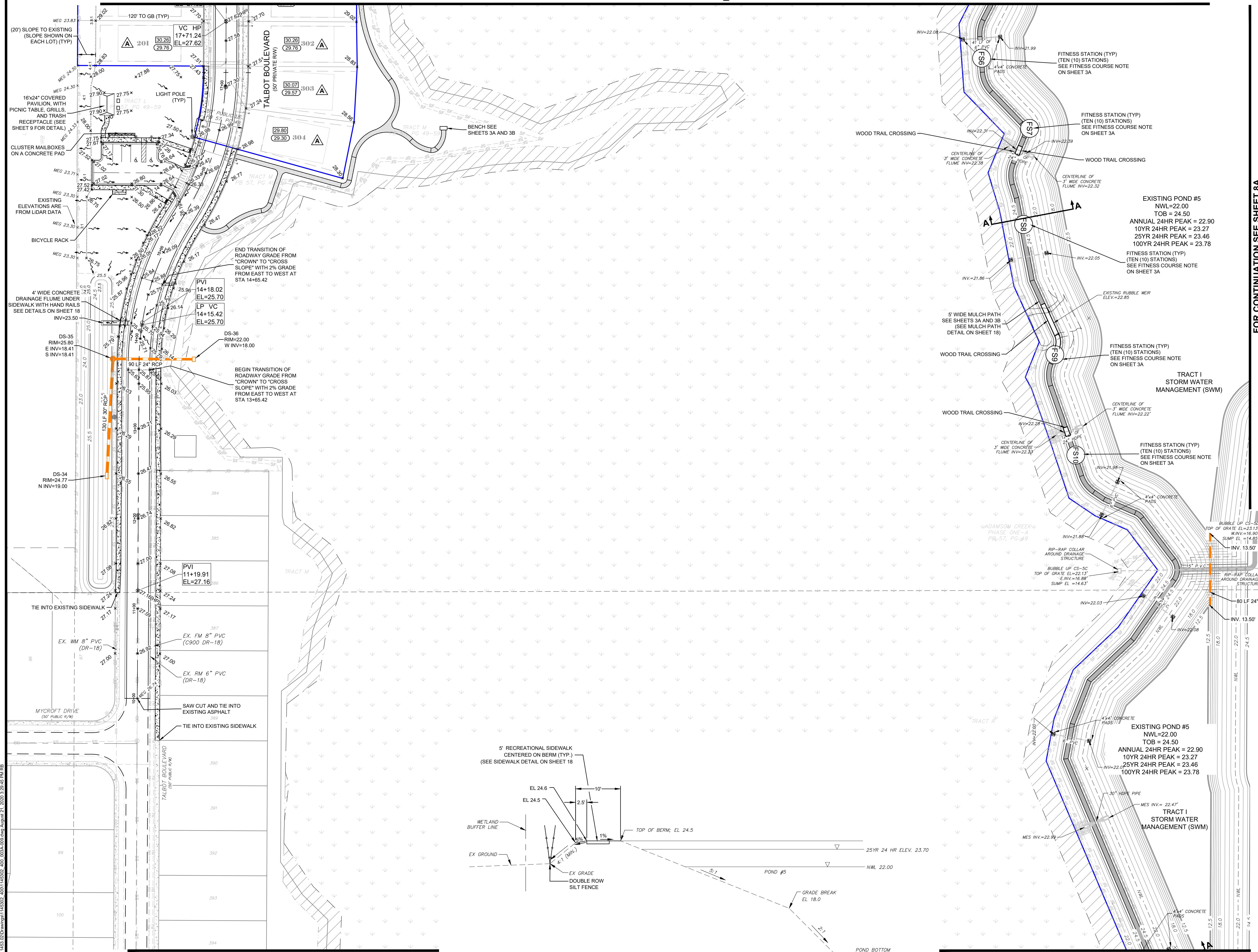
HASSAN A. KAMAL, P.E.  
STATE OF FLORIDA, No. 41951



DATE: 07/13/20  
DESIGN/DRAWN: SMG/RMB  
PROJECT TITLE  
**ADAMSON CREEK  
PHASE ONE-C**

SHEET TITLE  
**PAVING,  
GRADING,  
DRAINAGE AND  
AMENITIES PLAN**  
PROJECT NO.  
11453.02  
DRAWING NO.  
1145302\_400\_006  
SHEET  
6 of 35

FOR CONTINUATION SEE SHEET 6



LEGEND

- PROPOSED STORM SEWER
- EXISTING STORM SEWER
- PROPOSED WATER MAIN
- PROPOSED REUSE MAIN
- PROPOSED SANITARY FORCE MAIN
- GRADE BREAK LINE
- LOT NUMBER
- PROPERTY LINE
- BUILDING SETBACK
- SILT FENCE
- WETLAND CONSERVATION AREA
- WETLAND BUFFER CONSERVATION AREA
- COMMON AREA CONCRETE SIDEWALKS SHALL BE CONSTRUCTED AS PART OF INFRASTRUCTURE IMPROVEMENTS
- HOME BUILDER AREA CONCRETE SIDEWALKS SHALL BE CONSTRUCTED AS PART OF HOME CONSTRUCTION
- RECREATIONAL AREA SIDEWALKS SHALL BE CONSTRUCTED AS PART OF INFRASTRUCTURE IMPROVEMENTS
- RECREATIONAL AREA MULCH PATH SHALL BE CONSTRUCTED AS PART OF INFRASTRUCTURE IMPROVEMENTS
- FINISHED CENTERLINE OF ROAD ELEVATION
- TYPE 'A' LOT
- TYPE 'B' LOT
- TYPE 'C' LOT
- FINISHED FLOOR ELEVATION (FFE)
- DIRT PAD ELEVATION
- EXISTING GROUND SPOT ELEVATION
- DESIGN SPOT ELEVATION
- MATCH EXISTING GROUND
- DRAINAGE EASEMENT
- DESIGN HIGH WATER
- DRAINAGE STRUCTURE
- ELEVATION
- GRADE BREAK
- HIGH POINT
- LOW POINT
- NORMAL WATER LEVEL
- POINT OF VERTICAL INTERSECTION
- VERTICAL CURVE
- PROPOSED LIGHT POLE
- FITNESS STATION

SCOTT M. GLAUBITZ, P.E. & P.L.S.  
STATE OF FLORIDA, No. 3659 No. 41951

B.S.E. CONSULTANTS, INC.  
CONSULTING - ENGINEERING -  
LAND SURVEYING

312 SOUTH HARBOR CITY BOULEVARD, SUITE 4  
MELBOURNE, FLORIDA 32901  
PHONE: (321) 725-3674 FAX: (321) 723-159  
CERTIFICATE OF PROFESSIONAL ENGINEERS  
BUSINESS AUTHORIZATION: LBO004905  
CERTIFICATE OF LAND SURVEYING  
BUSINESS AUTHORIZATION: LBO004905

HASSAN A. KAMAL, P.E.  
STATE OF FLORIDA, No. 41951

50 0 25 50  
(IN FEET)

VERTICAL DATUM: NGVD29

DATE: 07/13/20

DESIGN/DRAWN: SMG/RMB

PROJECT TITLE

ADAMSON CREEK

PHASE ONE-C

NOTES:

1. PONDS 5 AND 6 HAVE BEEN CONSTRUCTED DURING PHASE ONE-A.

2. NO CLEARING OR CONSTRUCTION IS ALLOWED WITHIN THE WETLAND CONSERVATION AREA.

3. INSTALL INLET PROTECTION ON ALL INLETS.

4. SEE SHEET 18 FOR PAVEMENT DETAILS.

5. SEE SHEET 19 FOR TYPICAL LOT GRADING DETAILS.

6. SEE SHEET 20 FOR FDOT DRAINAGE STRUCTURE DETAILS.

7. SEE ENLARGEMENT DETAILS ON SHEET 9 FOR SIGNAGE AND PAVEMENT MARKING CALLOUTS.

8. SEE SHEET 9 FOR DRAINAGE STRUCTURE TABLE.

9. SEE SHEETS 3A AND 3B FOR ADDITIONAL AMENITIES INFORMATION.

BUILDING SETBACKS

FRONT: 25'

REAR: 25' (FROM PERIMETER OF THE PUD)

SIDE: 5'

SIDE (CORNER): 25'

REFER TO PLAT FOR LOT DIMENSIONS

1. PONDS 5 AND 6 HAVE BEEN CONSTRUCTED DURING PHASE ONE-A.

2. NO CLEARING OR CONSTRUCTION IS ALLOWED WITHIN THE WETLAND CONSERVATION AREA.

3. INSTALL INLET PROTECTION ON ALL INLETS.

4. SEE SHEET 18 FOR PAVEMENT DETAILS.

5. SEE SHEET 19 FOR TYPICAL LOT GRADING DETAILS.

6. SEE SHEET 20 FOR FDOT DRAINAGE STRUCTURE DETAILS.

7. SEE ENLARGEMENT DETAILS ON SHEET 9 FOR SIGNAGE AND PAVEMENT MARKING CALLOUTS.

8. SEE SHEET 9 FOR DRAINAGE STRUCTURE TABLE.

9. SEE SHEETS 3A AND 3B FOR ADDITIONAL AMENITIES INFORMATION.

SHEET TITLE

PAVING,  
GRADING,  
DRAINAGE AND  
AMENITIES PLAN

PROJECT NO.

11453.02

DRAWING NO.

1145302\_400\_007

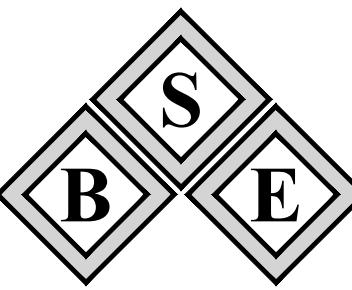
SHEET

7 of 35







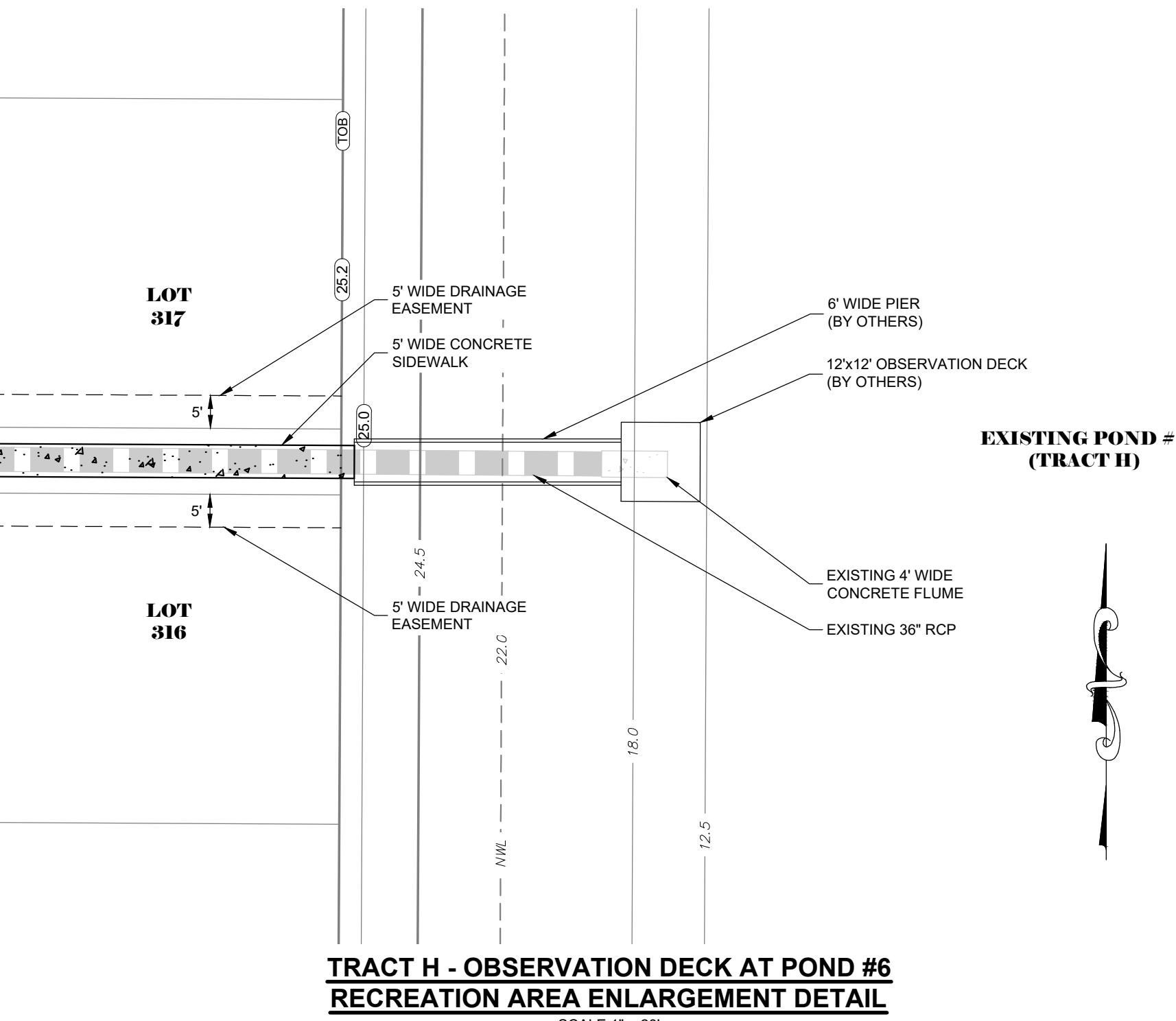


B.S.E. CONSULTANTS, INC.  
CONSULTING - ENGINEERING -  
LAND SURVEYING

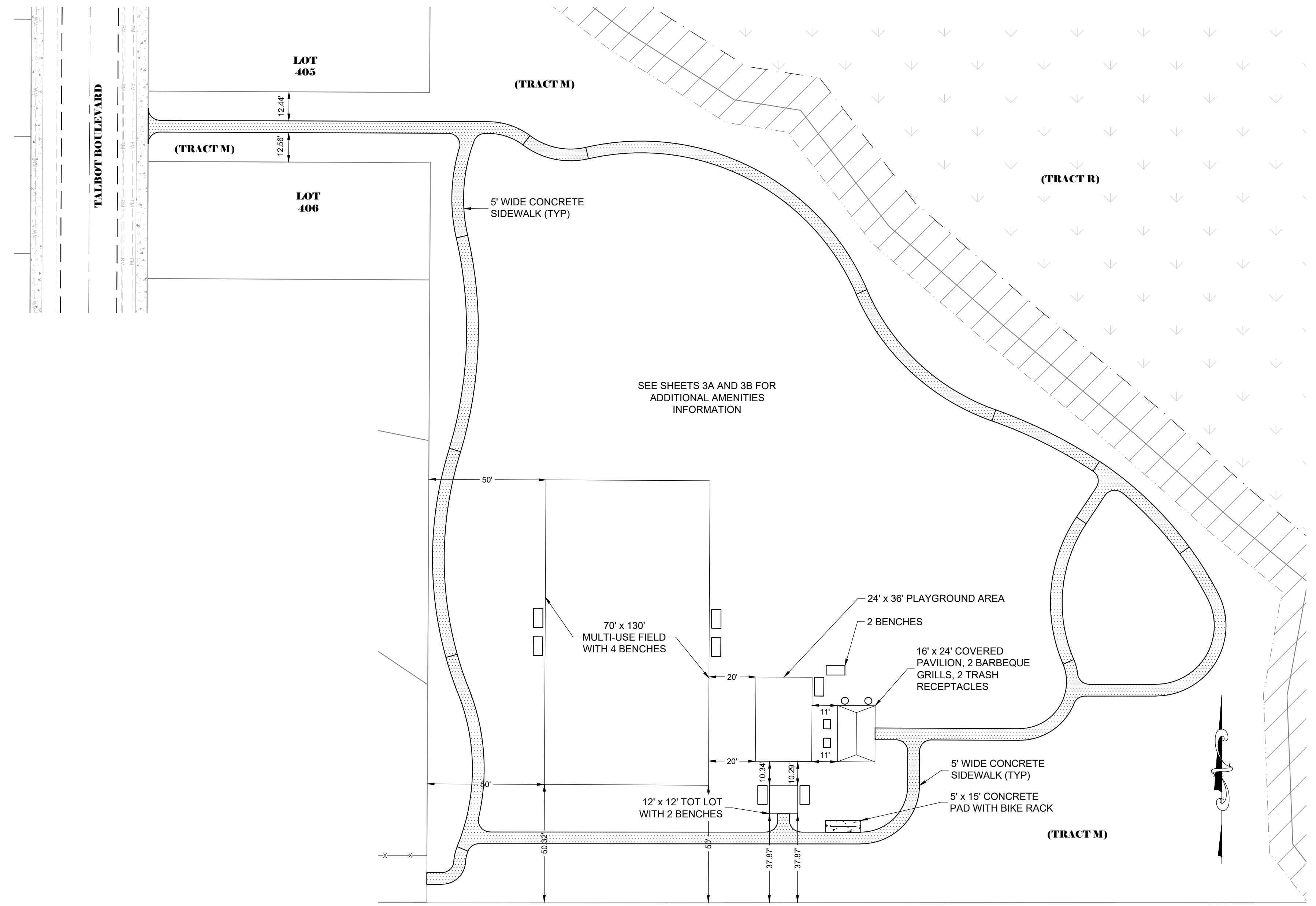
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4  
MELBOURNE, FLORIDA 32901  
PHONE: (321) 725-3674 FAX: (321) 723-1159  
CERTIFICATE OF PROFESSIONAL ENGINEERS  
BUSINESS AUTHORIZATION: LBM004905  
CERTIFICATE OF LAND SURVEYING  
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.  
STATE OF FLORIDA, No. 36569 No. 41951

HASSAN A. KAMAL, P.E.  
STATE OF FLORIDA, No. 41951



EXISTING POND #6  
(TRACT H)



LEGEND

	PROPOSED STORM SEWER
	EXISTING STORM SEWER
	PROPOSED WATER MAIN
	PROPOSED REUSE MAIN
	PROPOSED SANITARY FORCE MAIN
	GRADE BREAK LINE
	LOT NUMBER
	PROPERTY LINE
	BUILDING SETBACK
	SILT FENCE
	WETLAND AREA
	WETLAND BUFFER AREA
	COMMON AREA CONCRETE SIDEWALKS SHALL BE CONSTRUCTED AS PART OF INFRASTRUCTURE IMPROVEMENTS
	HOME BUILDER AREA CONCRETE SIDEWALKS SHALL BE CONSTRUCTED AS PART OF HOME CONSTRUCTION
	RECREATIONAL AREA SIDEWALKS SHALL BE CONSTRUCTED AS PART OF INFRASTRUCTURE IMPROVEMENTS
	FINISHED CENTERLINE OF ROAD ELEVATION
	PVI 22-60 EL=27.75
	TYPE 'A' LOT
	LOT DRAINS REAR TO FRONT
	TYPE 'B' LOT
	LOT WITH SPLIT DRAINAGE
	TYPE 'C' LOT
	LOT DRAINS FRONT TO REAR
	FINISHED FLOOR ELEVATION (FFE)
	DIRT PAD ELEVATION
	EXISTING GROUND SPOT ELEVATION
	DESIGN SPOT ELEVATION
	MATCH EXISTING GROUND
	DRAINAGE EASEMENT
	DESIGN HIGH WATER
	DRAINAGE STRUCTURE
	ELEVATION
	GRADE BREAK
	HIGH POINT
	LOW POINT
	NORMAL WATER LEVEL
	POINT OF VERTICAL INTERSECTION
	VERTICAL CURVE
	TYPICAL
	PROPOSED LIGHT POLE

VERTICAL DATUM: NGVD29

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△

△



**FOR CONTINUATION SEE SHEET 12**

**FOR CONTINUATION SEE SHEET 13A**

TRACT L AMENITY AREA SEE SHEET 3A

UNPLATTED ORB 5120, PG 13

TRACT L 50' PUBLIC R/W

HYDRANT ASSEMBLY (TYP) 16+50.00, 19.00' L

SMH7 RIM=27.30 N INV=23.40

351 LF 8" PVC @ 1.00% 303

8" GV WM

6" GV RM

ADANSON CTEA PB 57, PG 49-59

REUSE SERVICE (TYP)

WATER SERVICE (TYP)

LF OF 8" PVC (DR-18) WM (CONNECTION TO DIP)

6" PVC (DR-18) RM

1,520 LF OF 8" (C-900 DR-18) SANITARY FM (CONNECTION TO LIFT STATION)

PROPOSED LIGHT POLE (TYP)

TALBOT BOULEVARD (50' PRIVATE RW)

EXISTING SANITARY MANHOLE WITH TEMPORARY TOP  
**ADJUST PERMANENT TOP TO RIM ELEVATION 26.72**

REMOVE BLOWOFF ASSEMBLY AND CONNECT TO EXISTING 6" PVC (DR-18) RM

CONNECT TO EXISTING 8" (C-900 DR-18) SANITARY FM

EX. WM 8" PVC (DR-18)

EX. FM 8" PVC (C900 DR-18)

EX. RM 6" PVC (DR-18)

EXISTING LIGHT POLE

MYCROFT DRIVE (50' PUBLIC R/W)

TRACT M PB 57, PG 49-59

TRACT 302

TRACT 304

TRACT M

96

97

98

99

100

101

102

103

104

105

106

107

108

109

110

111

112

113

114

115

116

117

118

119

120

121

122

123

124

125

126

127

128

129

130

131

132

133

134

135

136

137

138

139

140

141

142

143

144

145

146

147

148

149

150

151

152

153

154

155

156

157

158

159

160

161

162

163

164

165

166

167

168

169

170

171

172

173

174

175

176

177

178

179

180

181

182

183

184

185

186

187

188

189

190

191

192

193

194

195

196

197

198

199

200

201

202

203

204

205

206

207

208

209

210

211

212

213

214

215

216

217

218

219

220

221

222

223

224

225

226

227

228

229

230

231

232

233

234

235

236

237

238

239

240

241

242

243

244

245

246

247

248

249

250

251

252

253

254

255

256

257

258

259

260

261

262

263

264

265

266

267

268

269

270

271

272

273

274

275

276

277

278

279

280

281

282

283

284

285

286

287

288

289

290

291

292

293

294

295

296

297

298

299

300

301

302

303

304

305

306

307

308

309

310

311

312

313

314

315

316

317

318

319

320

321

322

323

324

325

326

327

328

329

330

331

332

333

334

335

336

337

338

339

340

341

342

343

344

345

346

347

348

349

350

351

352

353

354

355

356

357

358

359

360

361

362

363

364

365

366

367

368

369

370

371

372

373

374

375

376

377

378

379

380

381

382

383

384

385

386

387

388

389

390

391

392

393

394

395

396

397

398

399

400

401

402

403

404

405

406

407

408

409

410

411

412

413

414

415

416

417

418

419

420

421

422

423

424

425

426

427

428

429

430

431

432

433

434

435

436

437

438

439

440

441

442

443

444

445

446

447

448

449

450

451

452

453

454

455

456

457

458

459

460

461

462

463

464

465

466

467

468

469

470

471

472

473

474

475

476

477

478

479

480

481

482

483

484

485

486

487

488

489

490

491

492

493

494

495

496

497

498

499

500

501

502

503

504

505

506

507

508

509

510

511

512

513

514

515

516

517

518

519

520

521

522

523

524

525

526

527

528

529

530

531

532

533

534

535

536

537

538

539

540

541

542

543

544

545

546

547

548

549

550

551

552

553

554

555

556

557

558

559

560

561

562

563

564

565

566

567

568

569

570

571

572

573

574

575

576

577

578

579

580

581

582

583

584

585

586

587

588

589

590

591

592

593

594

595

596

597

598

599

600

601

602

603

604

605

606

607

608

609

610

611

612

613

614

615

616

617

618

619

620

621

622

623

624

625

626

627

628

629

630

631

632

633

634

635

636

637

638

639

640

641

642

643

644

645

646

647

648

649

650

651

652

653

654

655

656

657

658

659

660

661

662

663

664

665

666

667

668

669

670

671

672

673

674

675

676

677

678

679

680

681

682

683

684

685

686

687

688

689

690

691

692

693

694

695

696

697

698

699

700

701

702

703

704

705

706

707

708

709

710

711

712

713

714

715

716

717

718

719

720

721

722

723

724

725

726

727

728

729

730

731

732

733

734

735

736

737

738

739

740

741

742

743

744

745

746

747

748

749

750

751

752

753

754

755

756

757

758

759

760

761

762

763

764

765

766

767

768

769

770

771

772

773

774

775

776

777

778

779

780

781

782

783

784

785

786

787

788

789

790

791

792

793

794

795

796

797

798

799

800

801

802

803

804

805

806

807

808

809

810

811

812

813

814

815

816

817

818

819

820

821

822

823

824

825

826

827

828

829

830

831

832

833

834

835

836

837

838

839

840

841

842

843

844

845

846

847

848

849

850

851

852

853

854

855

856

857

858

859

860

861

862

863

864

865

866

867

868

869

870

871

872

873

874

875

876

877

878

879

880

881

882

883

884

885

886

887

888

889

890

891

892

893

894

895

896

897

898

899

900

901

902

903

904

905

906

907

908

909

910

911

912

913

914

915

916

917

918

919

920

921

922

923

924

925

926

927

928

929

930

931

932

933

934

935

936

937

938

939

940

941

942

943

944

945

946

947

948

949

950

951

952

953

954

955

956

957

958

959

960

961

962

963

964

965

966

967

968

969

970

971

972

973

974

975

976

977

978

979

980

981

982

983

984

985

986

987

988

989

990

991

992

993

994

995

996

997

998

999

1000

**TRACT I STORM WATER MANAGEMENT (SWM)**

**TRACT I RECREATION AREA FITNESS COURSE**  
SEE SHEET 3A FOR ALL AMENITIES

**EXISTING POND #5**  
NWL=22.00  
TOB = 24.50  
ANNUAL 24HR PEAK = 22.90  
10YR 24HR PEAK = 23.27  
25YR 24HR PEAK = 23.46  
100YR 24HR PEAK = 23.78

**TRACT I STORM WATER MANAGEMENT (SWM)**

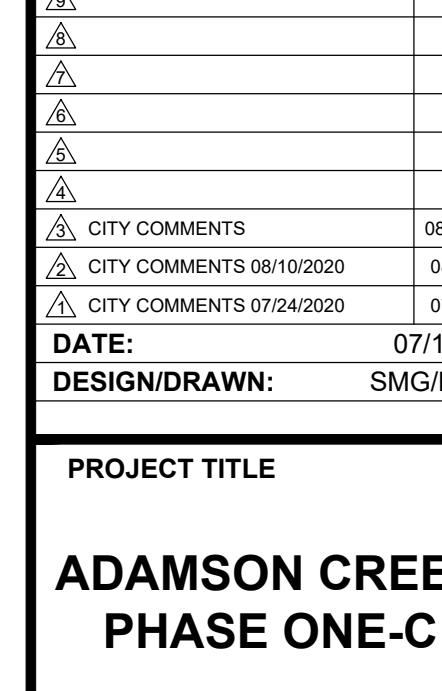
**TRACT I STORM WATER MANAGEMENT (SWM)**

**ADAMSON CREEK PHASE ONE-A**  
P&G 57, PG 49

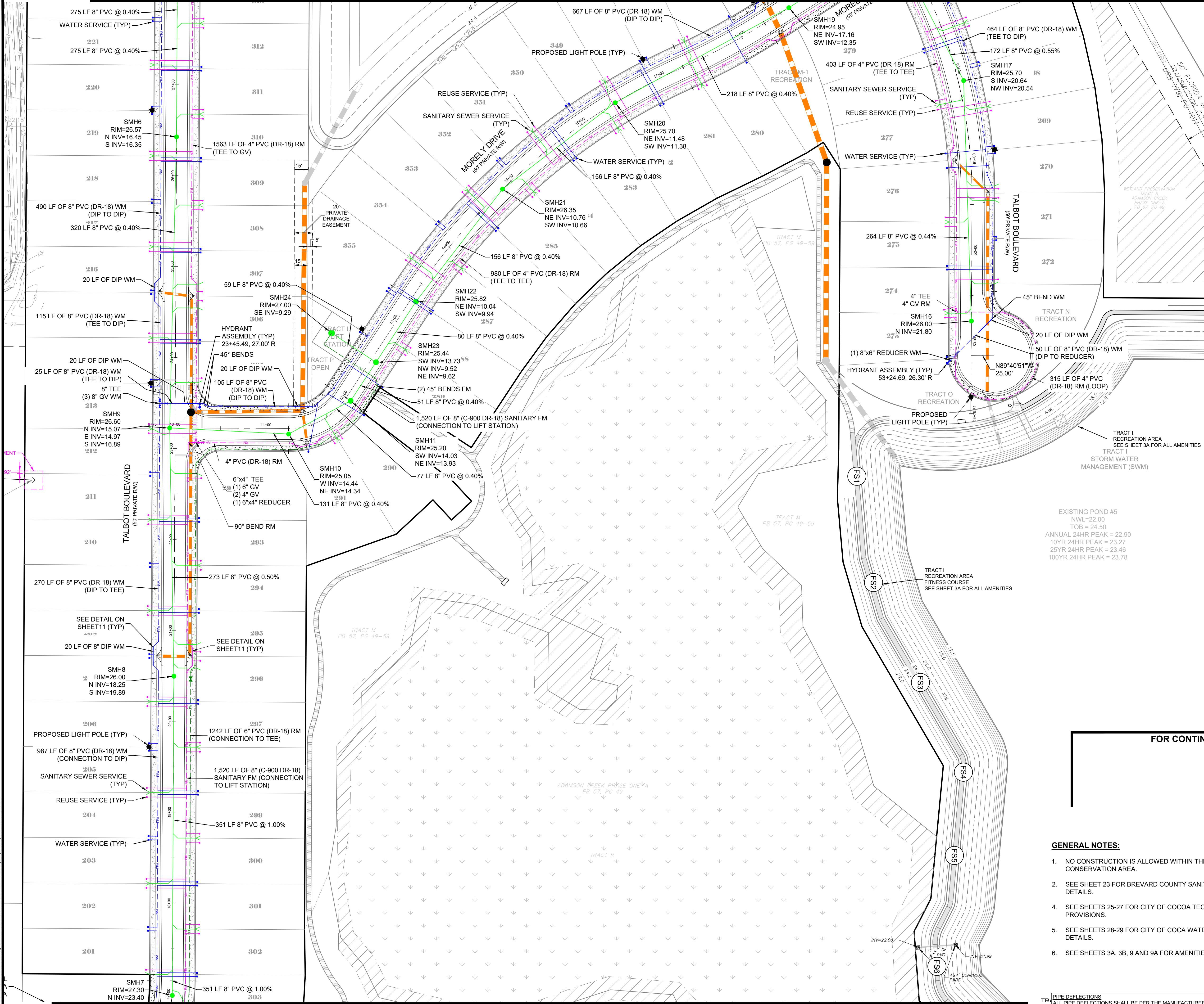
**EXISTING POND #5**  
NWL=22.00  
TOB = 24.50  
ANNUAL 24HR PEAK = 22.90  
10YR 24HR PEAK = 23.27  
25YR 24HR PEAK = 23.46  
100YR 24HR PEAK = 23.78

**LEG**

FOR CONTINUATION SEE SHEET 13A

	<p><b>B.S.E. CONSULTANTS, INC.</b> CONSULTING - ENGINEERING - LAND SURVEYING</p> <p>312 SOUTH HARBOR CITY BOULEVARD, SUITE 4 MELBOURNE, FLORIDA 32901 PHONE: (321) 725-3674 FAX: (321) 723-1159</p> <p>CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905 CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: LB0004905</p> <p>SCOTT M. GLAUBITZ, P.E. &amp; P.L.S. STATE OF FLORIDA, No. 33659 No. 4151</p> <p>HASSAN A. KAMAL, P.E. STATE OF FLORIDA, No. 41951</p>
 <p>( IN FEET )</p> <p>VERTICAL DATUM: NGVD29</p>	
<p>9 8 7 6 5 4 △ CITY COMMENTS 08/19/20 △ CITY COMMENTS 08/10/2020 08/13/20 △ CITY COMMENTS 07/24/2020 07/31/20</p> <p><b>DATE:</b> 07/13/20 <b>DESIGN/DRAWN:</b> SMG/RMB</p>	
<p><b>PROJECT TITLE</b></p> <p><b>ADAMSON CREEK PHASE ONE-C</b></p>	
<p><b>PROJECT NO.</b></p> <p>11453.02</p> <p><b>DRAWING NO.</b></p> <p>1145302_400_011</p>	
<p><b>SHEET</b></p> <p>11 of 35</p>	
<p>PROPOSED STORM SEWER EXISTING STORM SEWER PROPOSED WATER MAIN PROPOSED REUSE MAIN PROPOSED SANITARY FORCE MAIN LOT NUMBER PROPERTY LINE WETLAND AREA WETLAND BUFFER AREA COMMON CONCRETE SIDEWALK HOME BUILDER CONCRETE SIDEWALK RECREATIONAL SIDEWALK ELEVATION FORCE MAIN GATE VALVE NORMAL WATER LEVEL REUSE MAIN WATER MAIN PROPOSED LIGHT POLE FITNESS STATION</p>	

FOR CONTINUATION SEE SHEET 13





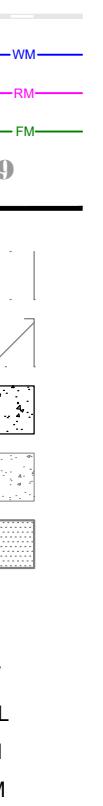
**B.S.E. CONSULTANTS, INC.**  
**CONSULTING - ENGINEERING -**  
**LAND SURVEYING**

312 SOUTH HARBOR CITY BOULEVARD, SUITE  
MELBOURNE, FLORIDA 32901  
PHONE: (321) 725-3674 FAX: (321) 723-1711

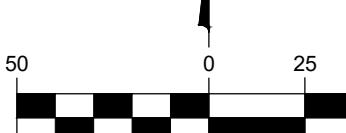
CERTIFICATE OF LAND SURVEYING  
BUSINESS AUTHORIZATION: LB0004905

HASSAN A. KAMAL, P.E.  
STATE OF FLORIDA, No. 41951

**LEGEND**



PROPOSED STORM SEWER	
EXISTING STORM SEWER	
PROPOSED WATER MAIN	
PROPOSED REUSE MAIN	
PROPOSED SANITARY FORCE MAIN	
<b>LOT NUMBER</b>	<b>269</b>
PROPERTY LINE	
WETLAND AREA	
WETLAND BUFFER AREA	
COMMON CONCRETE SIDEWALK	
HOME BUILDER CONCRETE SIDEWALK	
RECREATIONAL SIDEWALK	
EL	ELEVATION
FM	FORCE MAIN
GV	GATE VALVE
NWL	NORMAL WATER LEVEL
RM	REUSE MAIN
WM	WATER MAIN
	PROPOSED LIGHT POLE
	FITNESS STATION



( IN FEET )

VERTICAL DATUM: NGVD29

 9	
 8	
 7	
 6	
 5	
 4	
 3	CITY COMMENTS
 2	CITY COMMENTS 08/10/2020
 1	CITY COMMENTS 07/24/2020

**DATE:** 07/10/2020

**DESIGN/DRAWN:** SMG

**PROJECT TITLE**

**ADAMSON CREEK**

# ADAMSON CREEK PHASE ONE-C

## SHEET TITLE

**NOTES:**

STRUCTION IS ALLOWED WITHIN THE WETLAND  
ATION AREA.

23 FOR BREVARD COUNTY SANITARY SEWER

TS 25-27 FOR CITY OF COCOA TECHNICAL  
IS.

TS 28-29 FOR CITY OF COCA WATER MAIN

TS 31, 32, 33 AND 34 FOR AMENDMENT INFORMATION

PIPE DEFLECTIONS  
PIPE DEFLECTIONS SHALL BE PER THE MANUFACTURER'S  
RECOMMENDATIONS AND AWWA REQUIREMENTS FOR MAXIMUM  
DEFLECTION. CONTRACTOR SHALL INCORPORATE THE APPROPRIATE  
NOTES ON PIPE DEFLECTIONS (IN ACCORDANCE WITH PIPE  
MANUFACTURER'S RECOMMENDATIONS) TO COMPLETE THE  
INSTALLATION OF ALL REUSE MAIN, FORCE MAIN, AND WATER MAIN PIPES  
CONFORMANT WITH THE LOCATIONS DEPICTED UPON THESE PLANS.

**FOR CONTINUATION SEE SHEET**





B.S.E. CONSULTANTS, INC.  
CONSULTING - ENGINEERING -  
LAND SURVEYING

312 SOUTH HARBOR CITY BOULEVARD, SUITE 4  
MELBOURNE, FLORIDA 32901  
PHONE: (321) 725-3674 FAX: (321) 723-159  
CERTIFICATE OF PROFESSIONAL ENGINEERS  
LICENSE NO. 41951  
CERTIFICATE OF LAND SURVEYING  
BUSINESS AUTHORIZATION: LB004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.  
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.  
STATE OF FLORIDA, No. 41951

FOR CONTINUATION SEE SHEET 15

FOR CONTINUATION SEE SHEET 17

NOTES:

1. PONDS 5 AND 6 HAVE BEEN CONSTRUCTED DURING PHASE ONE-A. CONTRACTOR TO ENSURE POND MEETS CURRENT DESIGN CRITERIA.
2. NO CLEARING OR CONSTRUCTION IS ALLOWED WITHIN THE WETLAND CONSERVATION AREA.
3. INSTALL INLET PROTECTION ON ALL INLETS.
4. SEE SHEET 18 FOR PAVEMENT DETAILS.
5. SEE SHEET 19 FOR TYPICAL LOT GRADING DETAILS.
6. SEE SHEET 20 FOR FDOT DRAINAGE STRUCTURE DETAILS.
7. SEE ENLARGEMENT DETAILS ON SHEET 9 FOR SIGNAGE AND PAVEMENT MARKING CALLOUTS.
8. MAINTAIN 36" TYPICAL COVER OVER WATER MAIN, RECLAIM WATER MAIN AND FORCE MAIN. PER CITY DETAIL, ("TYPICAL REQUIRED SEPARATION") 30" MINIMUM COVER FOR PVC PIPE AND MINIMUM 24" COVER FOR DUCTILE IRON PIPE. SEE DETAIL SHEET 29.
9. WHEN WATER AND OR RECLAIM MAIN CROSSES OVER STORM PIPE MAINTAIN A 6" MINIMUM SEPARATION AT CROSSING, 12" OR GREATER IS PREFERRED PER CITY DETAIL, STORM DRAIN CROSSING. SEE DETAIL SHEET 29.
10. WHEN WATER AND OR RECLAIM MAIN CONFLICTS WITH STORM PIPE THE WATER AND OR RECLAIMED MAIN SHALL BE DEFLECTED UNDER STORM PIPE, MAINTAIN A 12" MINIMUM SEPARATION PER CITY DETAIL, STORM DRAIN CROSSING. SEE DETAIL SHEET 29.
11. FOR SANITARY AND STORM SEWER PIPE CROSSINGS REFER TO BREVARD COUNTY UTILITY SERVICES DETAILS US-60 AND US-66 ON SHEET 23.

50 0 25 50  
(IN FEET)

2.5'

0

5'

VERTICAL DATUM: NGVD29

DATE: 07/13/20  
DESIGN/DRAWN: SMG/RMB

PROJECT TITLE

ADAMSON CREEK  
PHASE ONE-C

SHEET TITLE

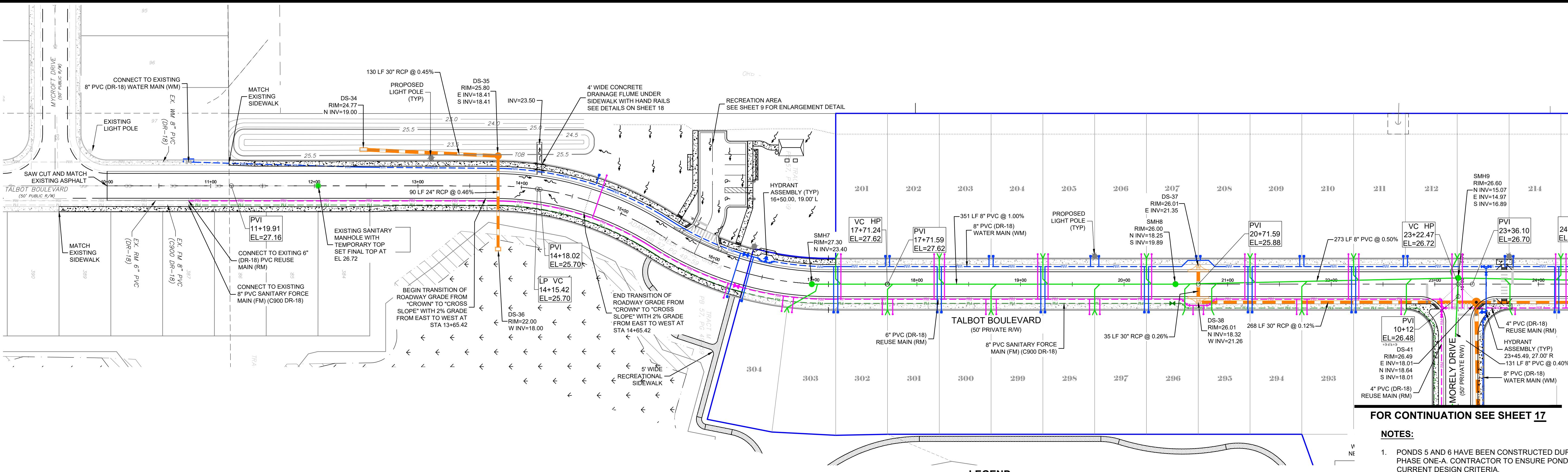
ROADWAY PLAN  
AND PROFILE  
TALBOT BLVD  
CL STA 10+00 TO 24+00

PROJECT NO.  
11453.02

DRAWING NO.  
1145302\_400\_014

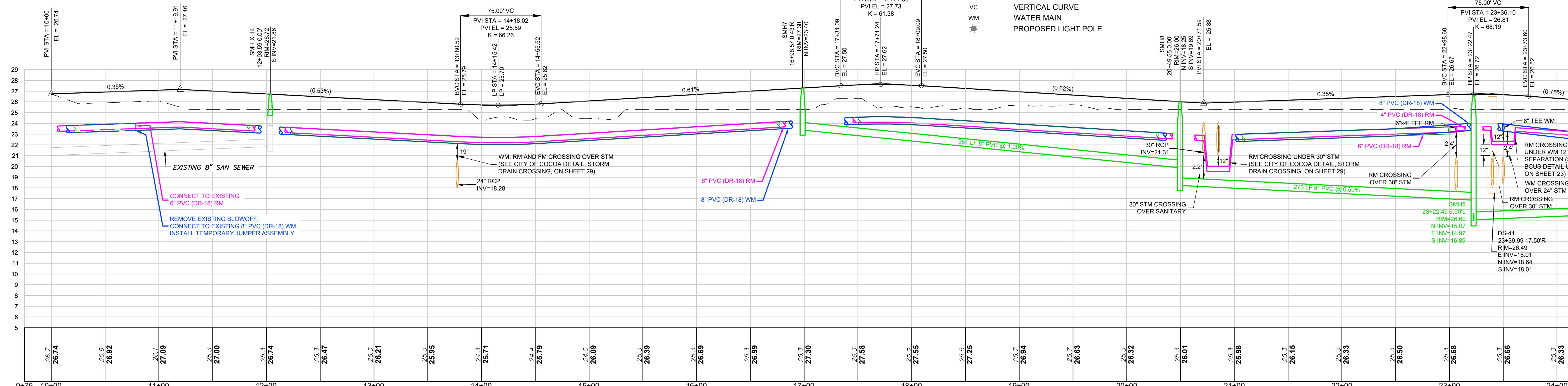
SHEET

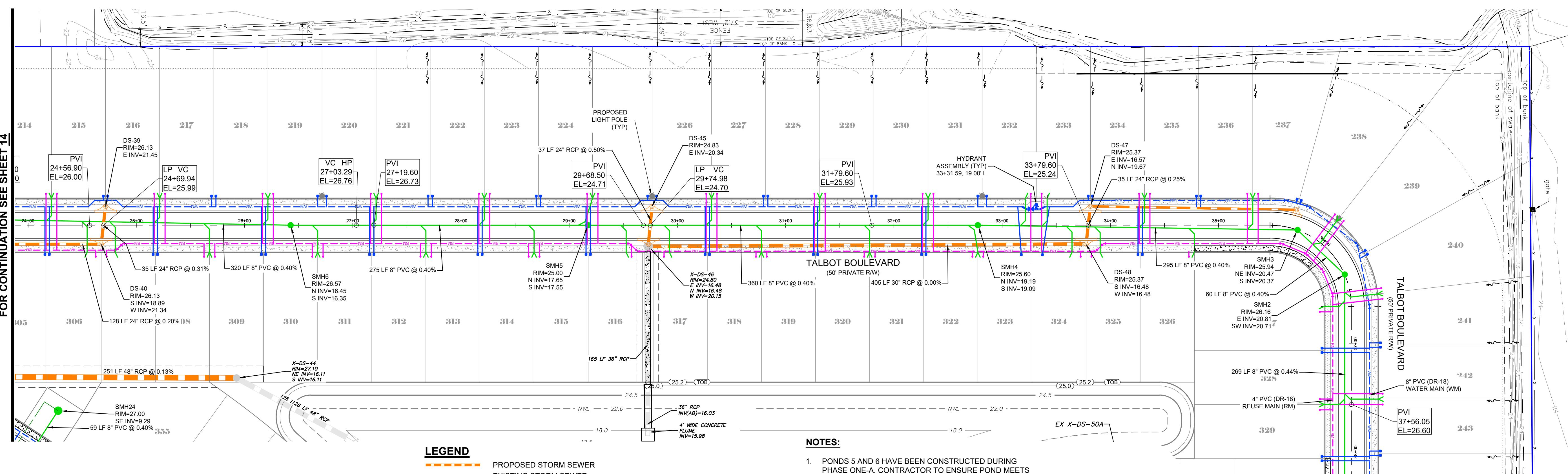
14 of 35



LEGEND

- PROPOSED STORM SEWER
- EXISTING STORM SEWER
- PROPOSED WATER MAIN
- EXISTING WATER MAIN
- PROPOSED REUSE MAIN
- PROPOSED SANITARY FORCE MAIN
- GRADE BREAK LINE
- LOT NUMBER
- PROPERTY LINE
- WETLAND AREA
- WETLAND BUFFER AREA
- COMMON AREA CONCRETE SIDEWALKS  
SHALL BE CONSTRUCTED AS PART OF  
INFRASTRUCTURE IMPROVEMENTS
- HOME BUILDER AREA CONCRETE  
SIDEWALKS SHALL BE CONSTRUCTED  
AS PART OF HOME CONSTRUCTION
- RECREATIONAL AREA SIDEWALKS  
SHALL BE CONSTRUCTED AS PART OF  
INFRASTRUCTURE IMPROVEMENTS
- BREVARD COUNTY UTILITY SERVICES
- BEGIN VERTICAL CURVE
- ELEVATION
- END VERTICAL CURVE
- FORCE MAIN
- GRADE BREAK
- HIGH POINT
- LOW POINT
- NORMAL WATER LEVEL
- POINT OF VERTICAL INTERSECTION
- RECLAIM WATER MAIN
- VERTICAL CURVE
- WATER MAIN
- PROPOSED LIGHT POLE





FOR CONTINUATION SEE SHEET 14

## LEGE

PROPOSED STORM SEWER
EXISTING STORM SEWER
PROPOSED WATER MAIN
PROPOSED REUSE MAIN
PROPOSED SANITARY FORCE MAIN
GRADE BREAK LINE
LOT NUMBER
PROPERTY LINE
WETLAND AREA
WETLAND BUFFER AREA
COMMON AREA CONCRETE SIDEWALK SHALL BE CONSTRUCTED AS PART OF INFRASTRUCTURE IMPROVEMENTS
HOME BUILDER AREA CONCRETE SIDEWALKS SHALL BE CONSTRUCTED AS PART OF HOME CONSTRUCTION
RECREATIONAL AREA SIDEWALKS SHALL BE CONSTRUCTED AS PART OF INFRASTRUCTURE IMPROVEMENTS
BREVARD COUNTY UTILITY SERVICES
BEGIN VERTICAL CURVE
ELEVATION
END VERTICAL CURVE
FORCE MAIN
GRADE BREAK
HIGH POINT
LOW POINT
NORMAL WATER LEVEL
POINT OF VERTICAL INTERSECTION
RECLAIM WATER MAIN
VERTICAL CURVE
WATER MAIN
PROPOSED LIGHT POLE

## **NOTES:**

DS 5 AND 6 HAVE BEEN CONSTRUCTED DURING  
ONE-A. CONTRACTOR TO ENSURE POND MEETS  
RENT DESIGN CRITERIA.

LEARING OR CONSTRUCTION IS ALLOWED WITHIN  
WETLAND CONSERVATION AREA.

ALL INLET PROTECTION ON ALL INLETS.

SHEET 18 FOR PAVEMENT DETAILS.

SHEET 19 FOR TYPICAL LOT GRADING DETAILS.

SHEET 20 FOR FDOT DRAINAGE STRUCTURE  
AILS.

ENLARGEMENT DETAILS ON SHEET 9 FOR SIGNAGE  
PAVEMENT MARKING CALLOUTS.

TAINT 36" TYPICAL COVER OVER WATER MAIN,  
AIM WATER MAIN AND FORCE MAIN. PER CITY  
AIL, ("TYPICAL REQUIRED SEPARATION") 30" MINIMUM  
ER FOR PVC PIPE AND MINIMUM 24" COVER FOR  
TILE IRON PIPE. SEE DETAIL SHEET 29.

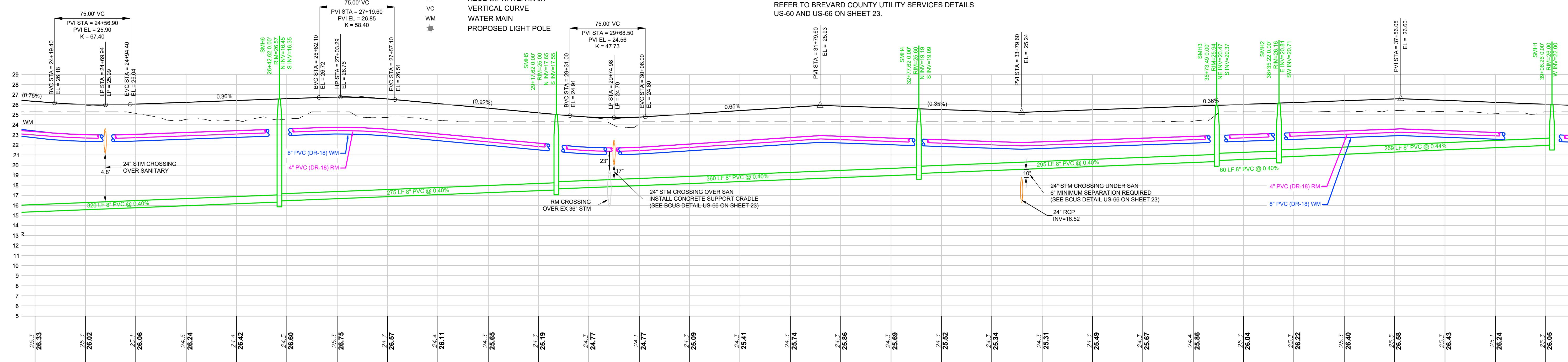
IN WATER AND OR RECLAIM MAIN CROSSES OVER  
RM PIPE MAINTAIN A 6" MINIMUM SEPARATION AT  
SSING, 12" OR GREATER IS PREFERRED PER CITY  
AIL, STORM DRAIN CROSSING. SEE DETAIL SHEET 29.

IN WATER AND OR RECLAIM MAIN CONFLICTS WITH  
RM PIPE THE WATER AND OR RECLAIMED MAIN  
LL BE DEFLECTED UNDER STORM PIPE, MAINTAIN A  
MINIMUM SEPARATION PER CITY DETAIL, STORM  
N CROSSING. SEE DETAIL SHEET 29.

SANITARY AND STORM SEWER PIPE CROSSINGS  
R TO BREVARD COUNTY UTILITY SERVICES DETAILS  
D AND US-66 ON SHEET 23.

FOR CONTINUATION SEE SHEET 16

SMH1  
RIM=26.00  
W INV=22.00



**B.S.E. CONSULTANTS, I.M.**  
CONSULTING - ENGINEERING -  
LAND SURVEYING

312 SOUTH HARBOR CITY BOULEVARD, SUITE  
MELBOURNE, FLORIDA 32901  
PHONE: (321) 725-3674 FAX: (321) 723-1133

CERTIFICATE OF PROFESSIONAL ENGINEER  
BUSINESS AUTHORIZATION: 4905  
CERTIFICATE OF LAND SURVEYING  
BUSINESS AUTHORIZATION: LB0004905

---

SCOTT M. GLAUBITZ, P.E. & P.L.S.  
STATE OF FLORIDA, No. 33659 No. 4

HASSAN A. KAMAL, P.E.  
STATE OF FLORIDA, No. 41951

1. *What is the primary purpose of the study?* (e.g., to evaluate the effectiveness of a new treatment, to describe a population, to compare two groups, to predict an outcome, to explore a phenomenon)

( IN FEET )

5	
4	
3	CITY COMMENTS
2	CITY COMMENTS 08/10/2020

**DATE:** 07/11/2020

# ADAMSON CREEK PHASE ONE-C

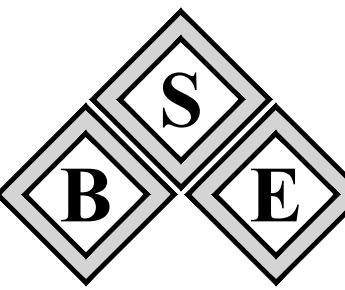
1. *What is the primary purpose of the study?*

# ROADWAY PLAN AND PROFILE TALBOT BLVD

—

PROJECT NO.

**DRAWING NO.**



**B.S.E. CONSULTANTS, INC.**  
**CONSULTING - ENGINEERING -**  
**LAND SURVEYING**

312 SOUTH HARBOR CITY BOULEVARD, SUITE  
MELBOURNE, FLORIDA 32901  
PHONE: (321) 725-3674 FAX: (321) 723-1722

SCOTT M. GLAUBITZ, P.E. & P.L.S.  
STATE OF FLORIDA, No. 33659 No. 4

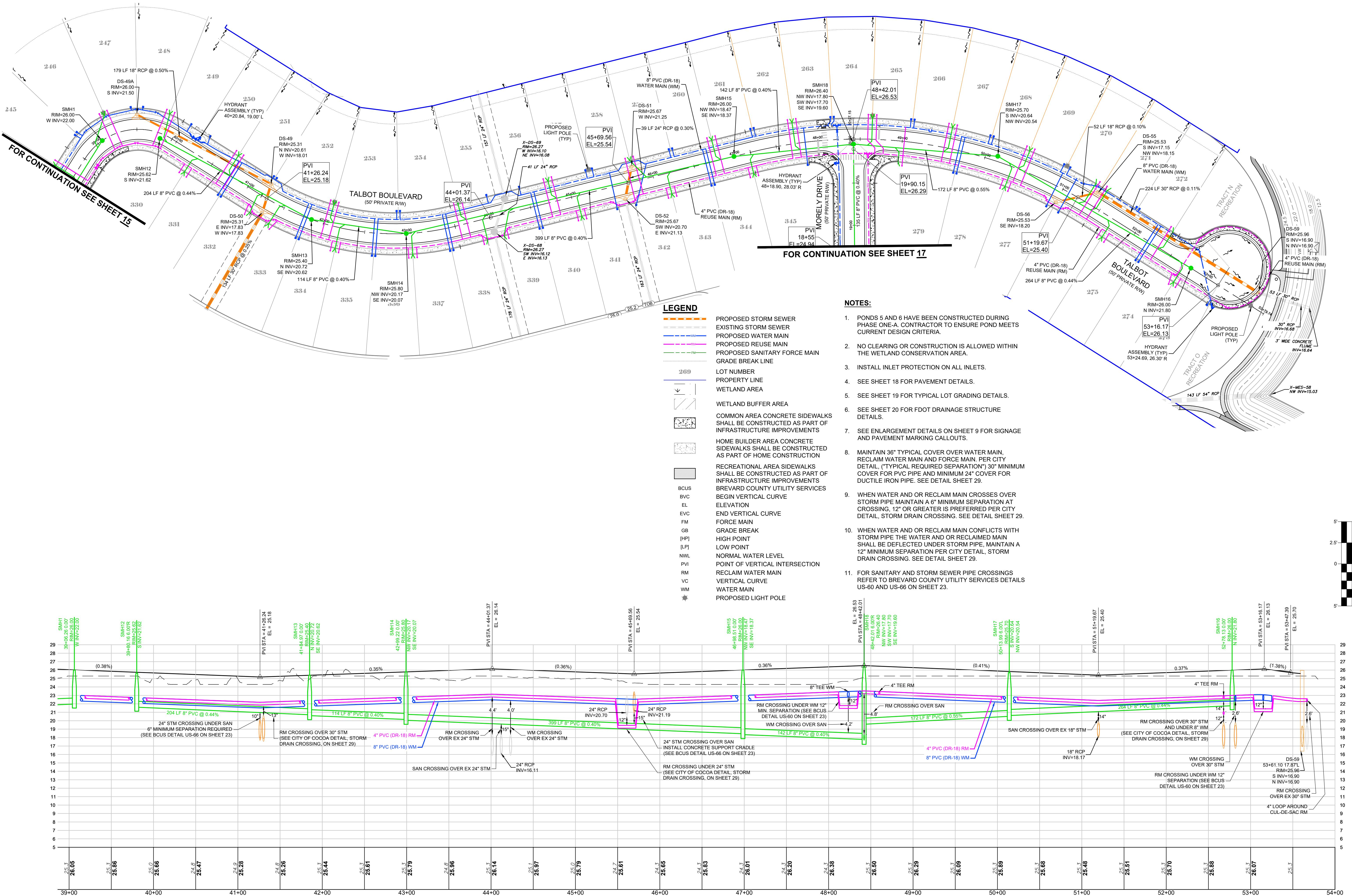
HASSAN A. KAMAL, P.E.  
STATE OF FLORIDA, No. 41951

FOR CONTINUATION SEE SHEET 17

## LEGEND

## NOTES:

1. PONDS 5 AND 6 HAVE BEEN CONSTRUCTED DURING PHASE ONE-A. CONTRACTOR TO ENSURE POND MEETS CURRENT DESIGN CRITERIA.
2. NO CLEARING OR CONSTRUCTION IS ALLOWED WITHIN THE WETLAND CONSERVATION AREA.
3. INSTALL INLET PROTECTION ON ALL INLETS.
4. SEE SHEET 18 FOR PAVEMENT DETAILS.
5. SEE SHEET 19 FOR TYPICAL LOT GRADING DETAILS.
6. SEE SHEET 20 FOR FDOT DRAINAGE STRUCTURE DETAILS.
7. SEE ENLARGEMENT DETAILS ON SHEET 9 FOR SIGNAGE AND PAVEMENT MARKING CALLOUTS.
8. MAINTAIN 36" TYPICAL COVER OVER WATER MAIN, RECLAIM WATER MAIN AND FORCE MAIN. PER CITY DETAIL, ("TYPICAL REQUIRED SEPARATION") 30" MINIMUM COVER FOR PVC PIPE AND MINIMUM 24" COVER FOR DUCTILE IRON PIPE. SEE DETAIL SHEET 29.
9. WHEN WATER AND OR RECLAIM MAIN CROSSES OVER STORM PIPE MAINTAIN A 6" MINIMUM SEPARATION AT CROSSING, 12" OR GREATER IS PREFERRED PER CITY DETAIL, STORM DRAIN CROSSING. SEE DETAIL SHEET 29.
10. WHEN WATER AND OR RECLAIM MAIN CONFLICTS WITH STORM PIPE THE WATER AND OR RECLAIMED MAIN SHALL BE DEFLECTED UNDER STORM PIPE, MAINTAIN A 12" MINIMUM SEPARATION PER CITY DETAIL, STORM DRAIN CROSSING. SEE DETAIL SHEET 29.
11. FOR SANITARY AND STORM SEWER PIPE CROSSINGS REFER TO BREVARD COUNTY UTILITY SERVICES DETAILS US-60 AND US-66 ON SHEET 23.



 CITY COMMENTS 08/10/2020  
 CITY COMMENTS 07/24/2020  
**DATE:** 07/

# PROJECT TITLE

# ADAMSON CREEK

## PHASE ONE C

Digitized by srujanika@gmail.com

# ROADWAY PLA AND PROFILE TALBOT BLVD

---

**PROJECT NO.**

---

**DRAWING NO.**

## **SHEET**



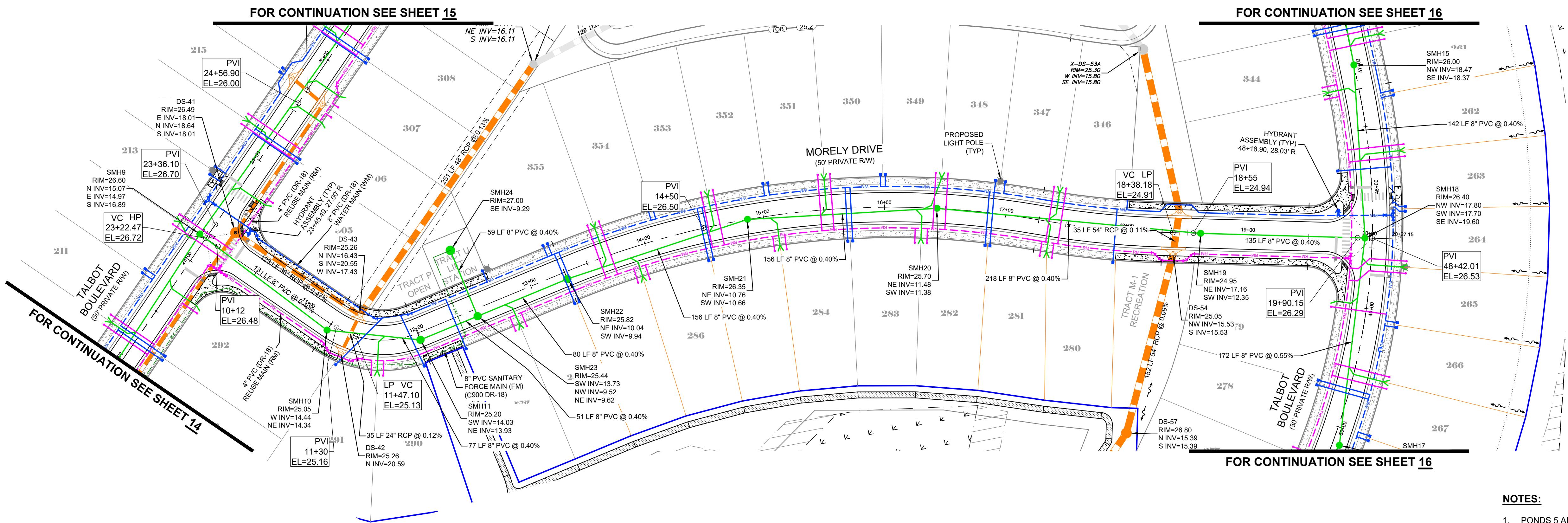
B.S.E. CONSULTANTS, INC.  
CONSULTING - ENGINEERING -  
LAND SURVEYING

312 SOUTH HARBOR CITY BOULEVARD, SUITE 4  
MELBOURNE, FLORIDA 32901  
PHONE: (321) 725-3674 FAX: (321) 723-159

CERTIFICATE OF PROFESSIONAL ENGINEERS  
USPEN 100495  
CERTIFICATE OF LAND SURVEYING  
BUSINESS AUTHORIZATION: LB000495

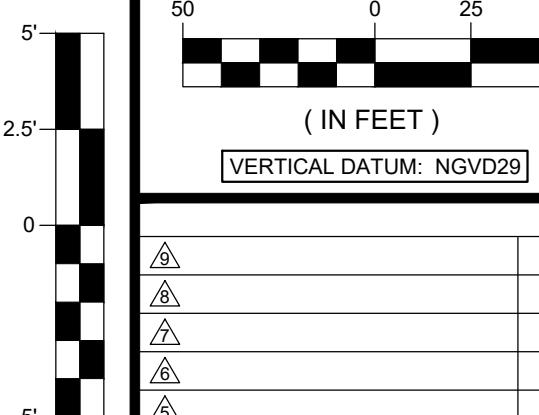
SCOTT M. GLAUBITZ, P.E. & P.L.S.  
STATE OF FLORIDA, No. 33659 No. 41951

HASSAN A. KAMAL, P.E.  
STATE OF FLORIDA, No. 41951



NOTES:

1. PONDS 5 AND 6 HAVE BEEN CONSTRUCTED DURING PHASE ONE-A. CONTRACTOR TO ENSURE POND MEETS CURRENT DESIGN CRITERIA.
2. NO CLEARING OR CONSTRUCTION IS ALLOWED WITHIN THE WETLAND CONSERVATION AREA.
3. INSTALL INLET PROTECTION ON ALL INLETS.
4. SEE SHEET 18 FOR PAVEMENT DETAILS.
5. SEE SHEET 19 FOR TYPICAL LOT GRADING DETAILS.
6. SEE SHEET 20 FOR FDOT DRAINAGE STRUCTURE DETAILS.
7. SEE ENLARGEMENT DETAILS ON SHEET 9 FOR SIGNAGE AND PAVEMENT MARKING CALLOUTS.
8. MAINTAIN 36" TYPICAL COVER OVER WATER MAIN, RECLAIM WATER MAIN AND FORCE MAIN. PER CITY DETAIL, ("TYPICAL REQUIRED SEPARATION") 30" MINIMUM COVER FOR PVC PIPE AND MINIMUM 24" COVER FOR DUCTILE IRON PIPE. SEE DETAIL SHEET 29.
9. WHEN WATER AND OR RECLAIM MAIN CROSSES OVER STORM PIPE MAINTAIN A 6" MINIMUM SEPARATION AT CROSSING. 12" OR GREATER IS PREFERRED PER CITY DETAIL, STORM DRAIN CROSSING. SEE DETAIL SHEET 29.
10. WHEN WATER AND OR RECLAIM MAIN CONFLICTS WITH STORM PIPE THE WATER AND OR RECLAIMED MAIN SHALL BE DEFLECTED UNDER STORM PIPE, MAINTAIN A 12" MINIMUM SEPARATION PER CITY DETAIL, STORM DRAIN CROSSING. SEE DETAIL SHEET 29.
11. FOR SANITARY AND STORM SEWER PIPE CROSSINGS REFER TO BREVARD COUNTY UTILITY SERVICES DETAILS US-60 AND US-66 ON SHEET 23.



DATE: 07/13/20  
DESIGN/DRAWN: SMG/RMB

PROJECT TITLE

## ADAMSON CREEK PHASE ONE-C

SHEET TITLE

### ROADWAY PLAN AND PROFILE MORELY DRIVE CL STA 10+00 TO 20+02.15

PROJECT NO.

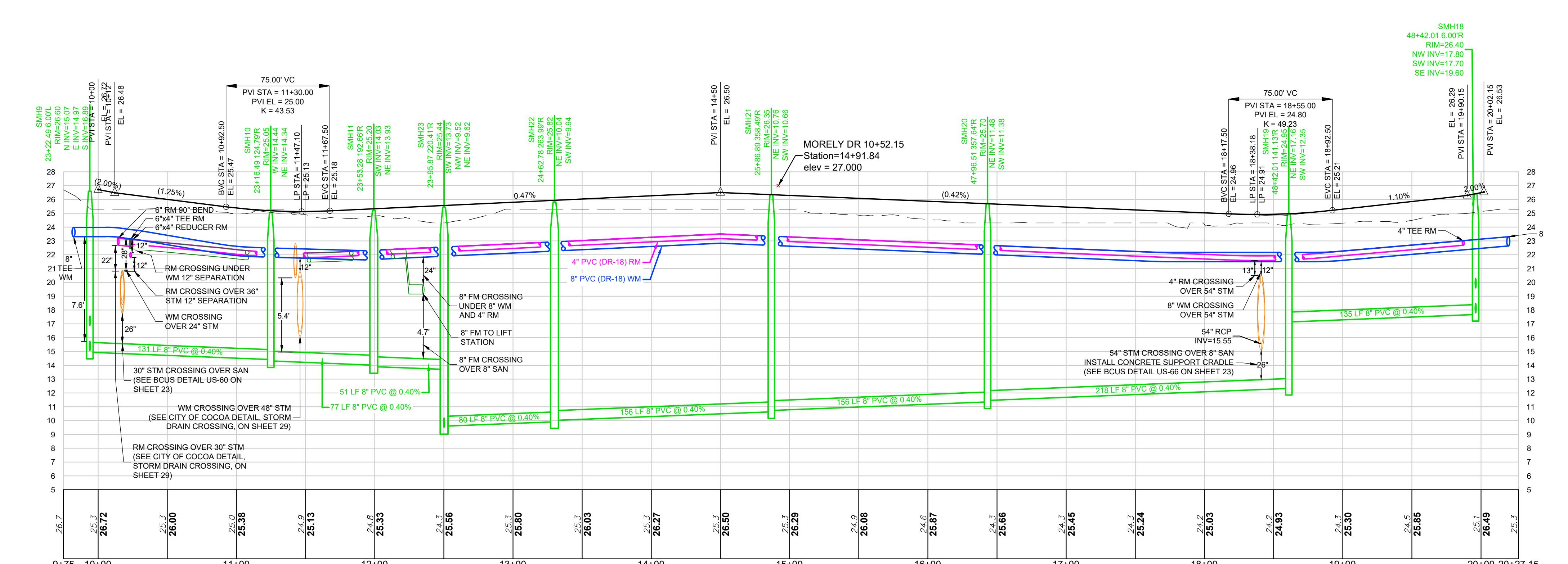
11453.02

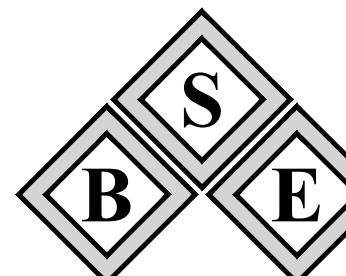
DRAWING NO.

1145302\_400\_017

SHEET

17 of 35





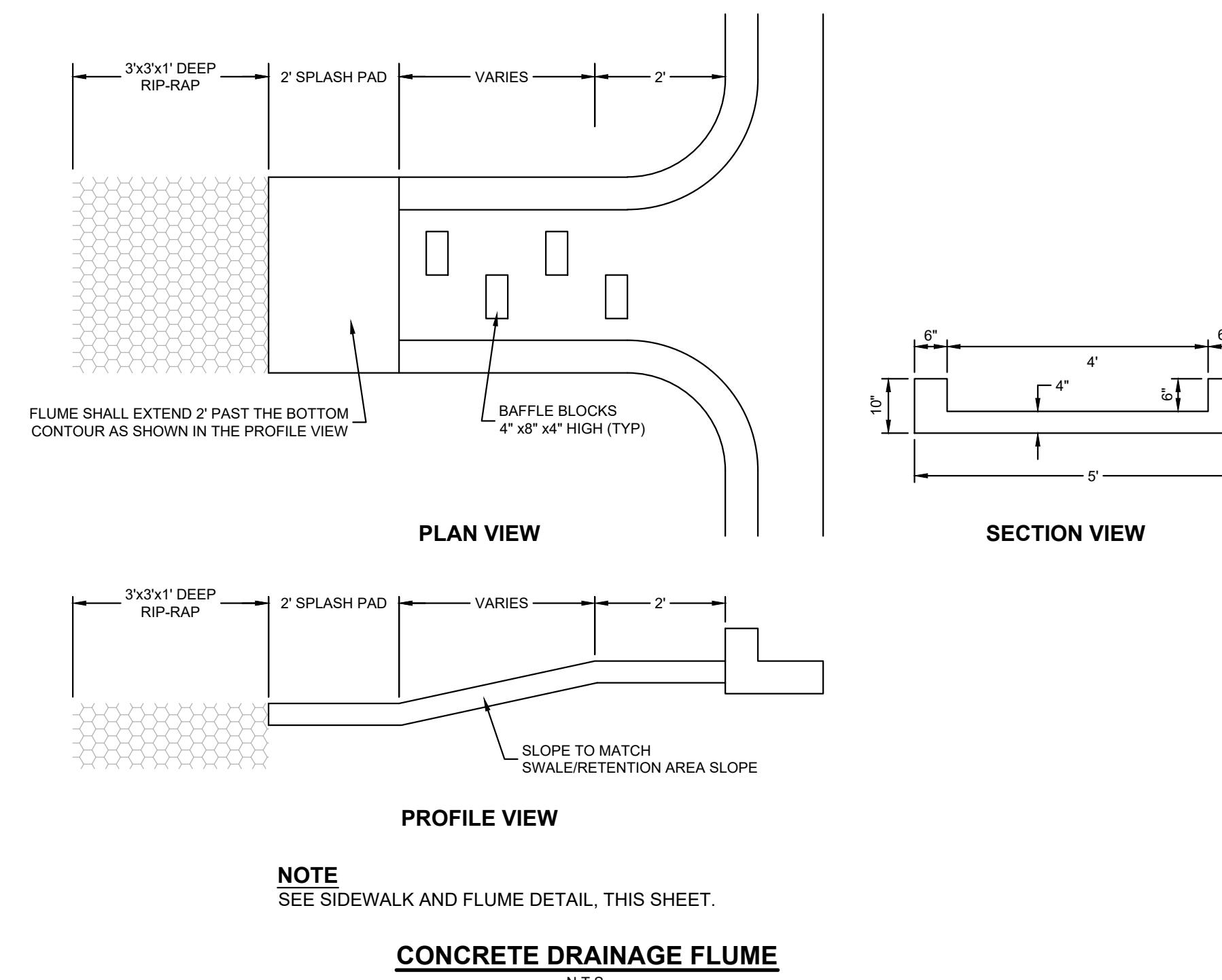
B.S.E. CONSULTANTS, INC.  
CONSULTING - ENGINEERING -  
LAND SURVEYING

312 SOUTH HARBOR CITY BOULEVARD, SUITE 4  
MELBOURNE, FLORIDA 32901  
PHONE: (321) 725-3674 FAX: (321) 723-159

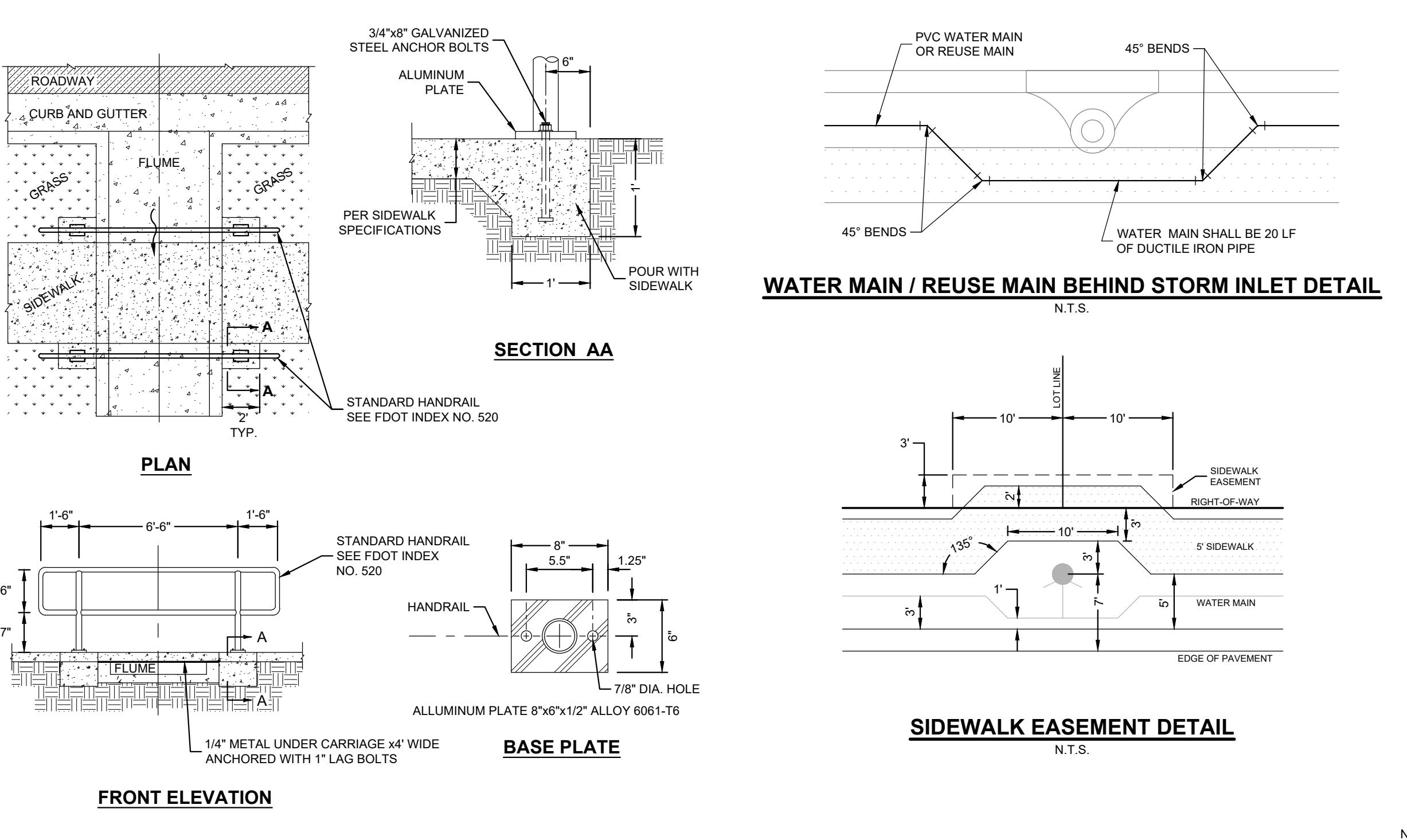
CERTIFICATE OF PROFESSIONAL ENGINEERS  
LICENSE NO. 41951  
CERTIFICATE OF LAND SURVEYING  
BUSINESS AUTHORIZATION: LB004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.  
STATE OF FLORIDA, No. 33659 No. 4151

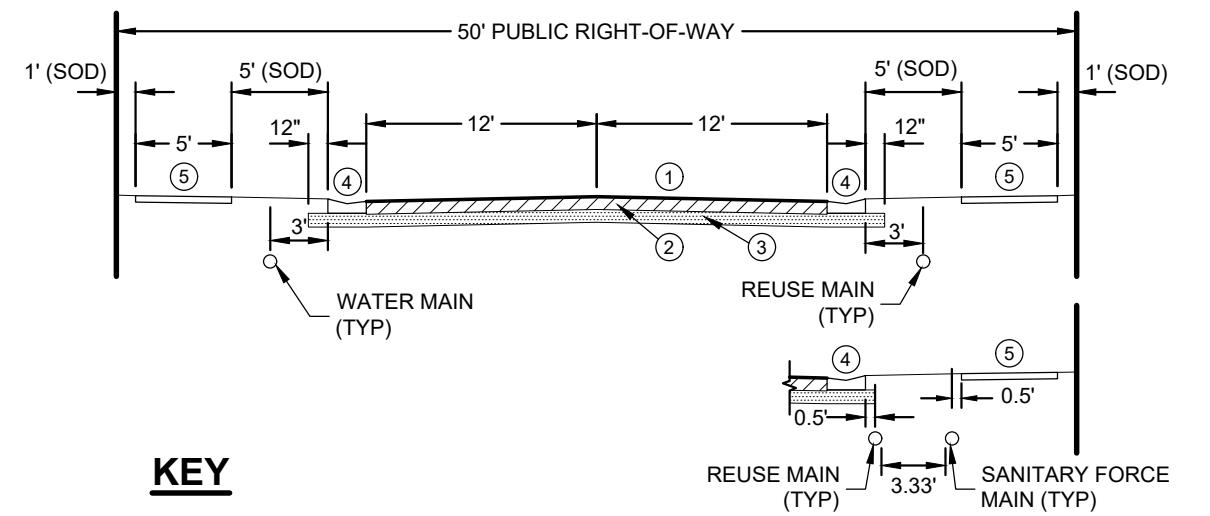
HASSAN A. KAMAL, P.E.  
STATE OF FLORIDA, No. 41951



CONCRETE DRAINAGE FLUME  
N.T.S.



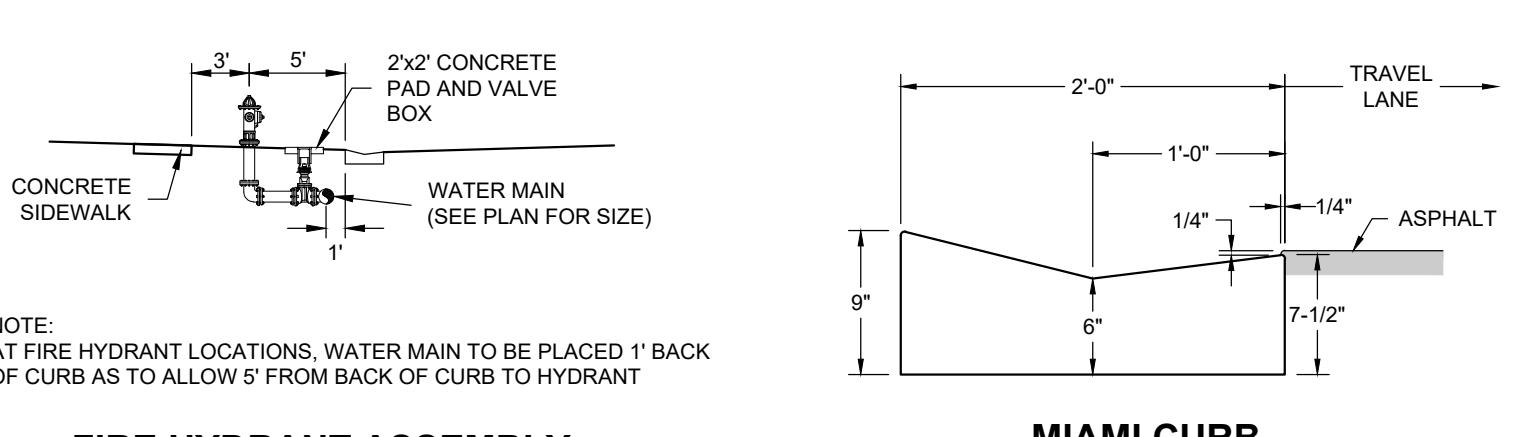
WATER MAIN / REUSE MAIN BEHIND STORM INLET DETAIL  
N.T.S.



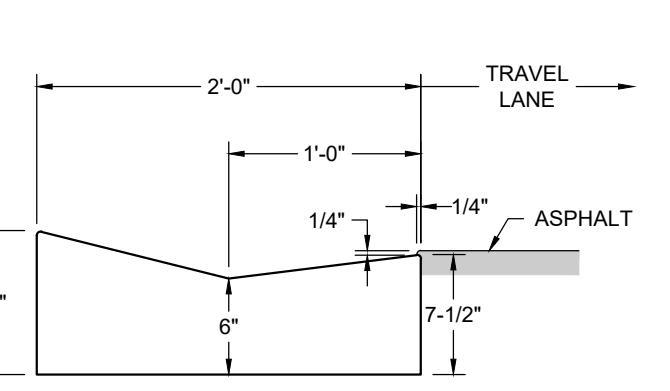
KEY  
 ① 1-1/2" TYPE SP-12.5 ASPHALTIC CONCRETE  
 ② 8" BASE WITH FDOT APPROVED PRIME COAT  
 OPTIONS:  
 • LIMEROCK, L.B.R. 100 MIN.  
 • CEMENTED COQUINA SHELL, F.D.O.T. APPROVED, L.B.R. 100 MIN., COMPACTED TO 98% MAX. DENSITY PER AASHTO T-180

③ 8" STABILIZED SUB-GRADE, L.B.R. 50 MIN., COMPACTED TO 98% MAX. DENSITY PER AASHTO T-180 (EXTEND 12" BEYOND CURB)  
 ④ MIAMI CURB - 2" WIDE  
 ⑤ CONCRETE SIDEWALK (DESIGN CROSS SLOPE IS 1.5%, MAX 2%); SEE DETAIL FOR SPECIFICATIONS

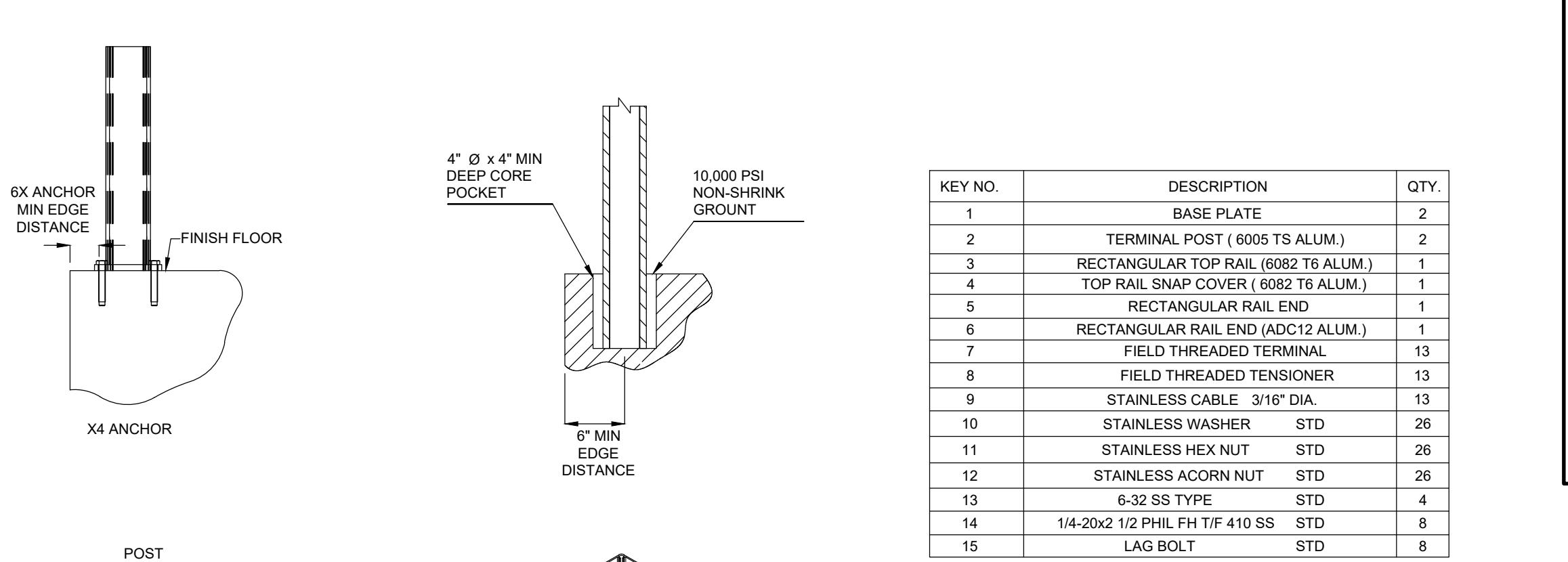
ALTERNATE ROAD SECTION: NO STABILIZED SUB-GRADE, 12" BASE, AND 1-1/2" ASPHALTIC CONCRETE  
NOTE: INSTALL SOD BEHIND ALL CURB, SIDEWALK, AND DISTURBED AREAS WITHIN THE RIGHT-OF-WAY  
RIGHT-OF-WAY AND ROAD SECTION DETAIL  
N.T.S.



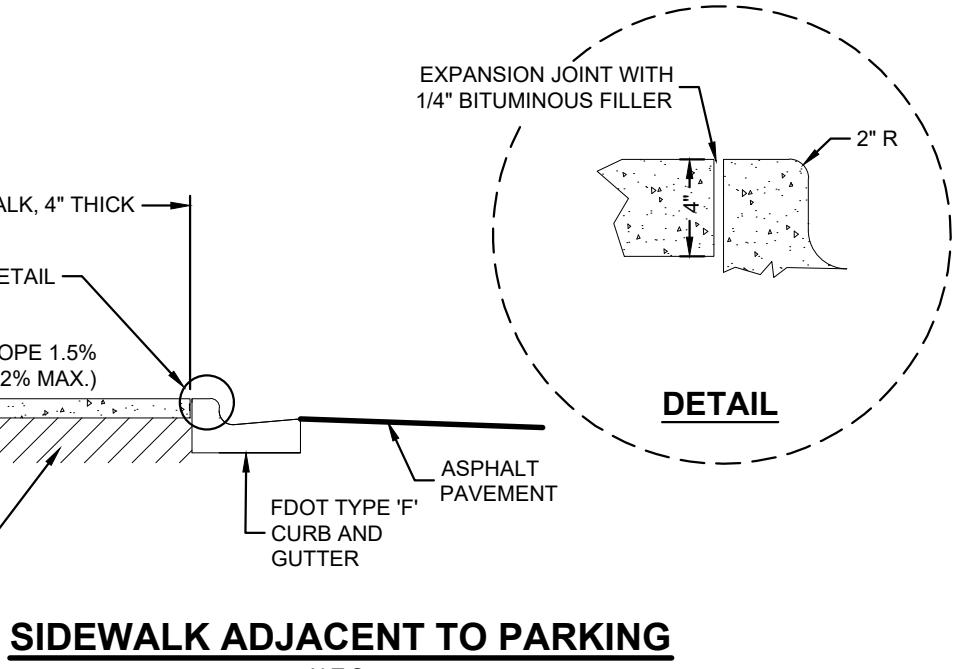
SIDEWALK EASEMENT DETAIL  
N.T.S.



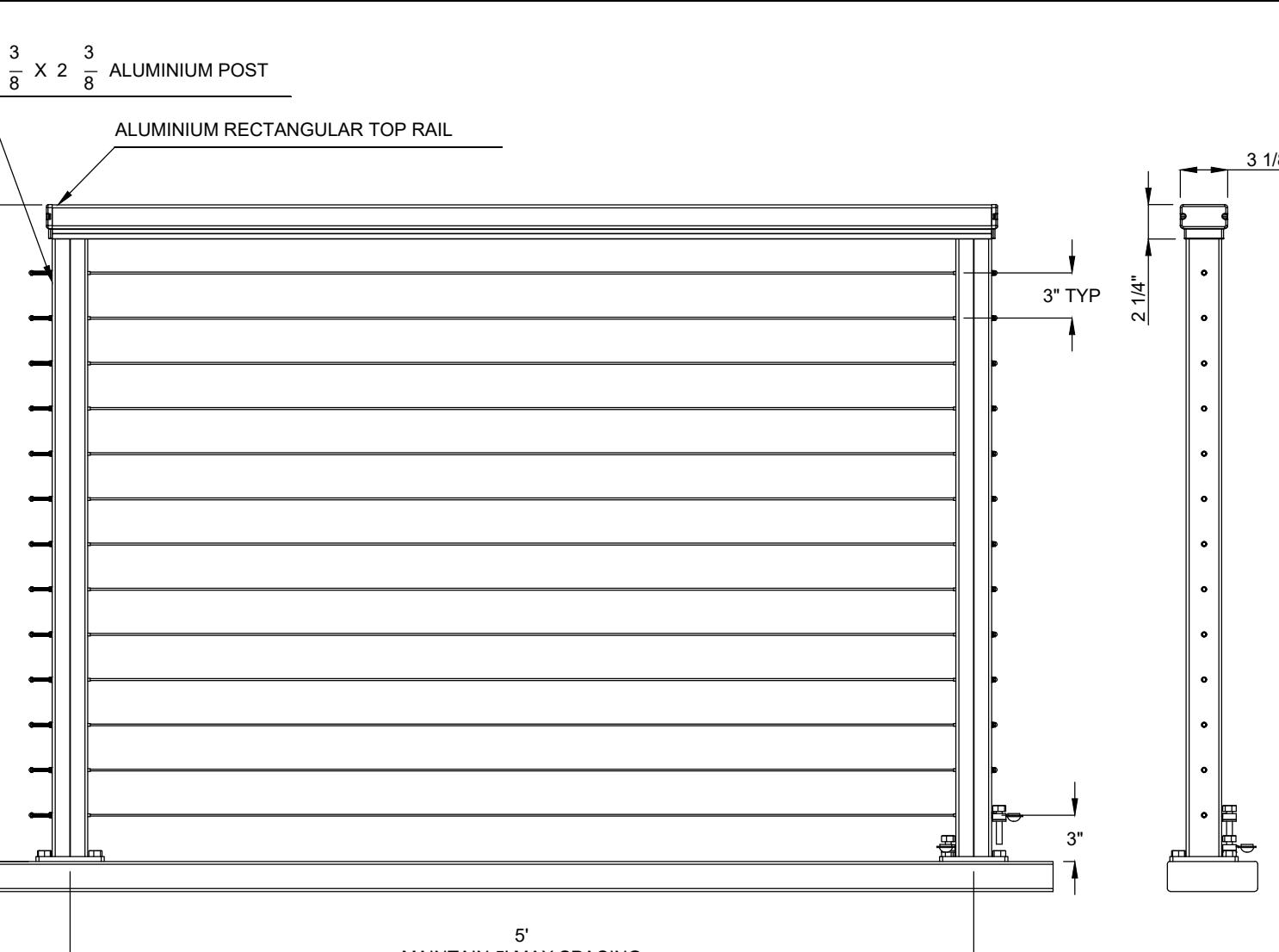
MIAMI CURB  
N.T.S.



KEY NO.	DESCRIPTION	QTY.
1	BASE PLATE	2
2	TERMINAL POST (6005 TS ALUM.)	2
3	RECTANGULAR TOP RAIL (6082 T6 ALUM.)	1
4	TOP RAIL SNAP COVER (6082 T6 ALUM.)	1
5	RECTANGULAR RAIL END	1
6	RECTANGULAR RAIL END (ADCD12 ALUM.)	1
7	FIELD THREADED TERMINAL	13
8	FIELD THREADED TENSIONER	13
9	STAINLESS CABLE 3/16" DIA.	13
10	STAINLESS WASHER STD	26
11	STAINLESS HEX NUT STD	26
12	STAINLESS ACORN NUT STD	26
13	6-32 SS TYPE STD	4
14	1/4-20x2 1/2 PHIL FH 7/8 410 SS STD	8
15	LAG BOLT STD	8



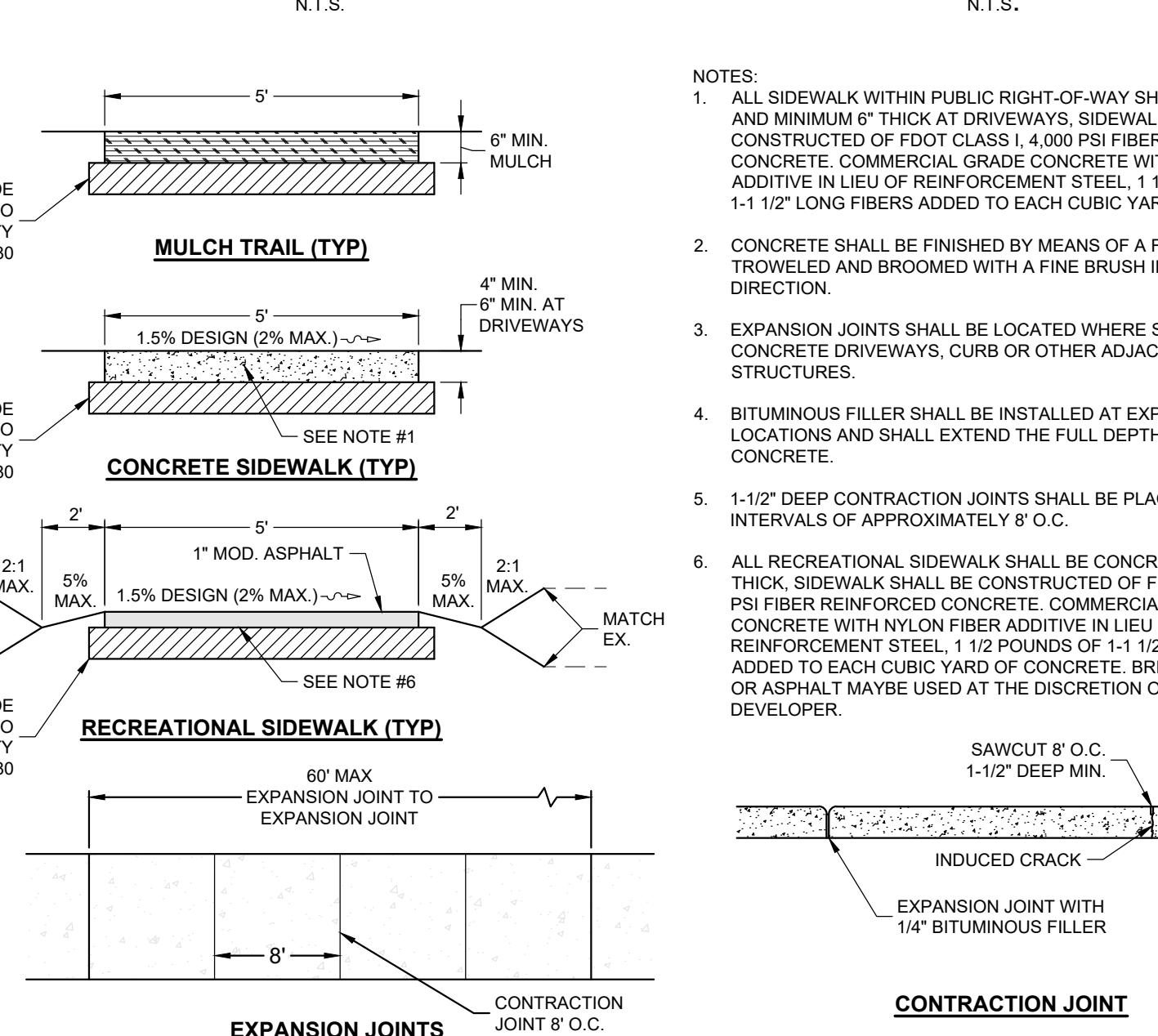
SIDEWALK ADJACENT TO PARKING  
N.T.S.



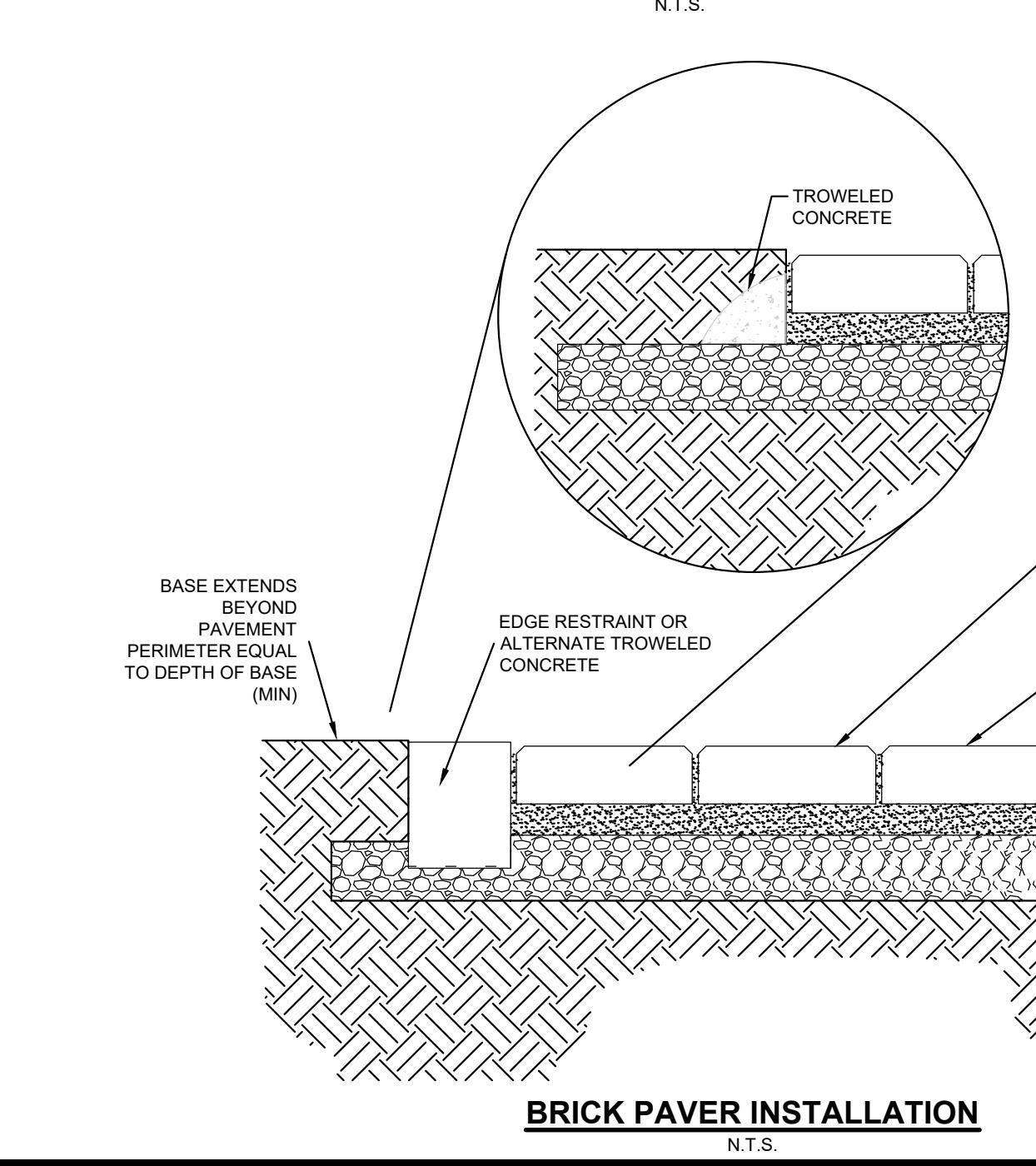
CABLE ATTACHMENT DETAIL

1. CUT EXCESS THREAD.  
2. REMOVE SACRIFICIAL NUT.  
3. SCREW ON ACORN NUT.

42" CABLE RAILING DETAIL  
N.T.S.



SIDEWALK DETAILS AND SPECIFICATIONS  
N.T.S.



BRICK PAVER INSTALLATION  
N.T.S.

DATE: 07/13/20  
DESIGN/DRAWN: SMG/RMB  
PROJECT TITLE  
ADAMSON CREEK  
PHASE ONE-C

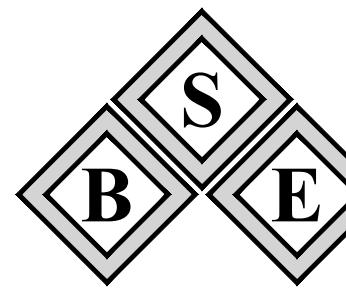
SHEET TITLE  
GENERAL DETAILS

PROJECT NO.  
11453.02

DRAWING NO.  
1145302\_400\_018

SHEET  
18 of 35



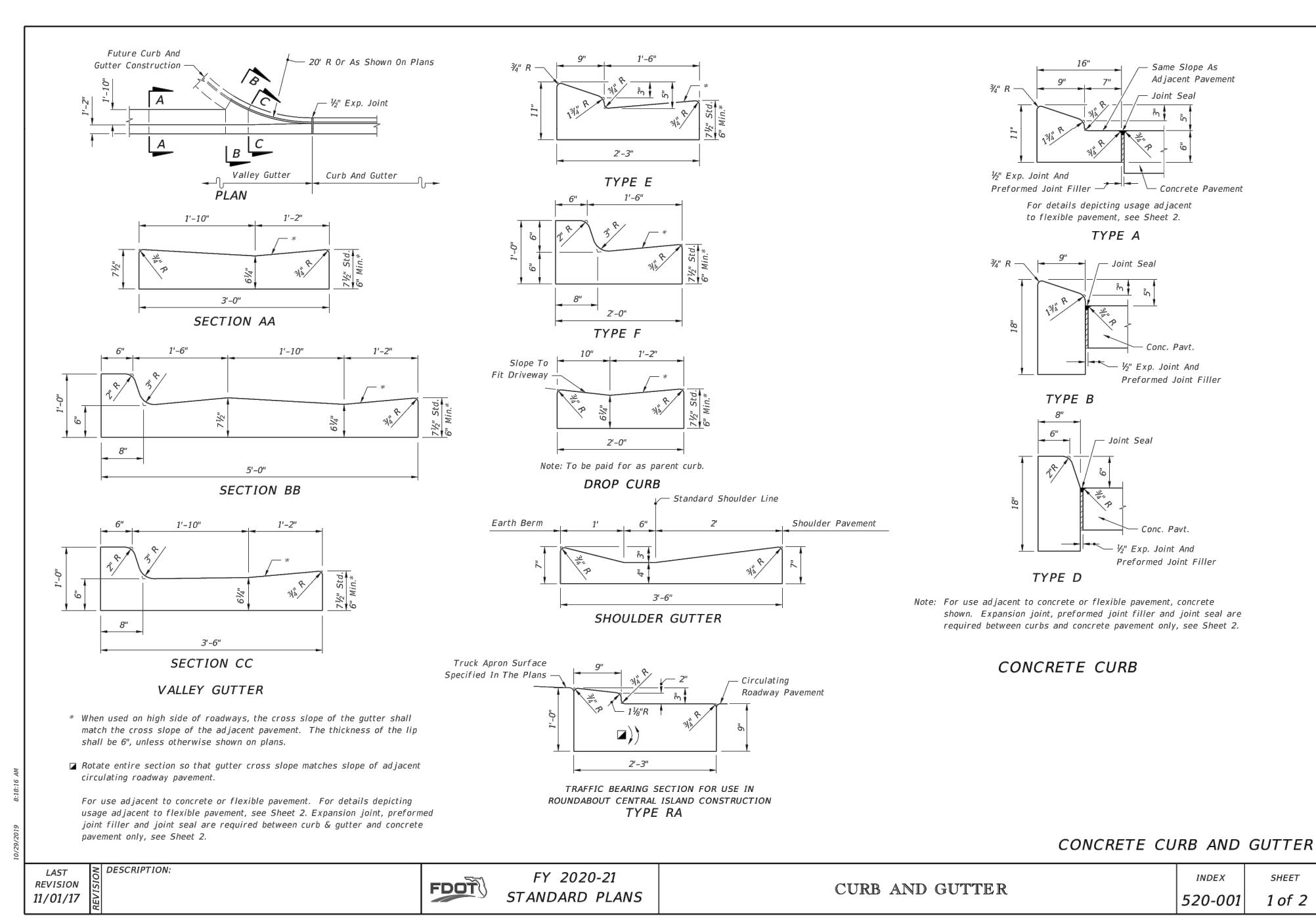
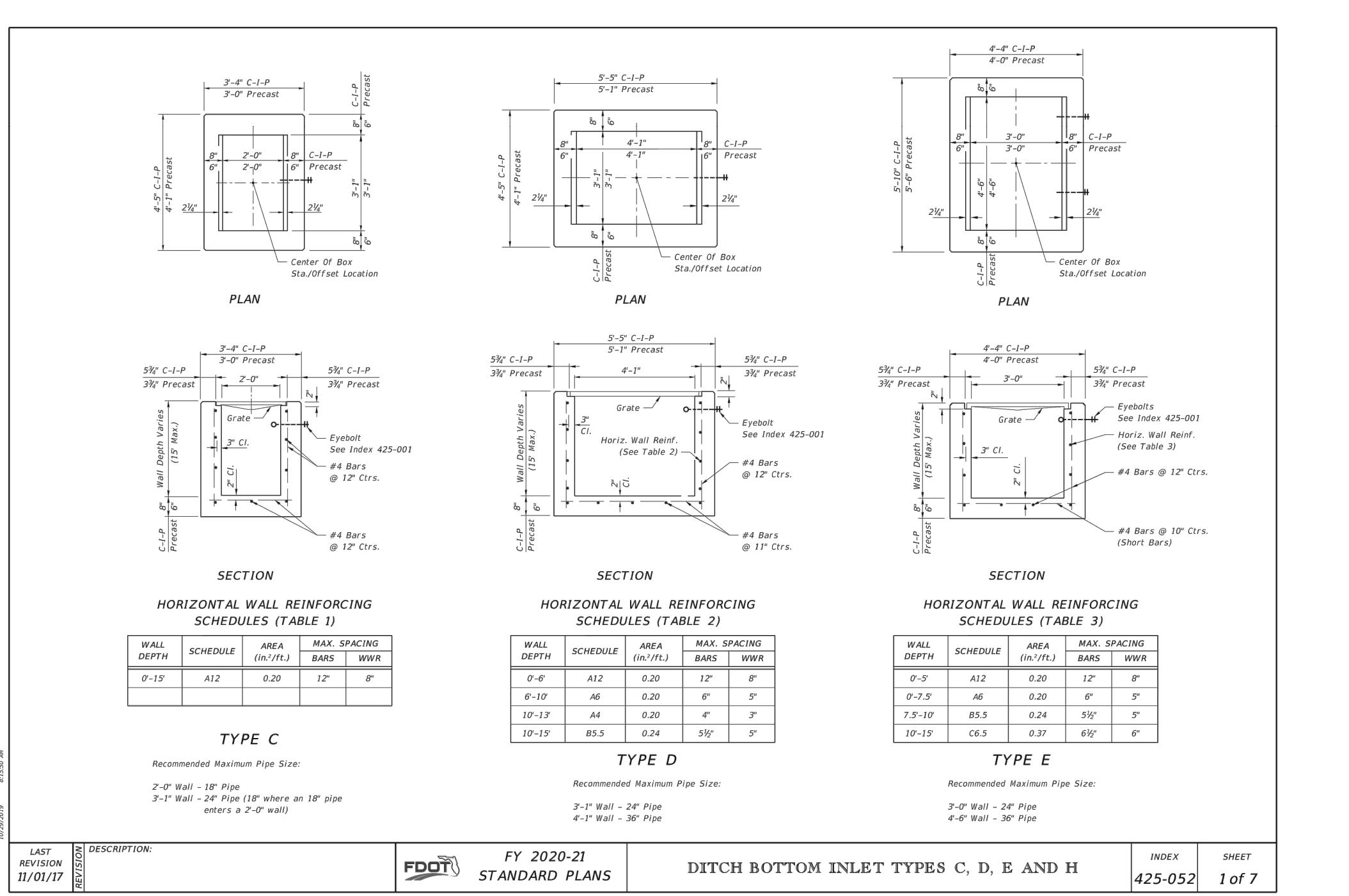
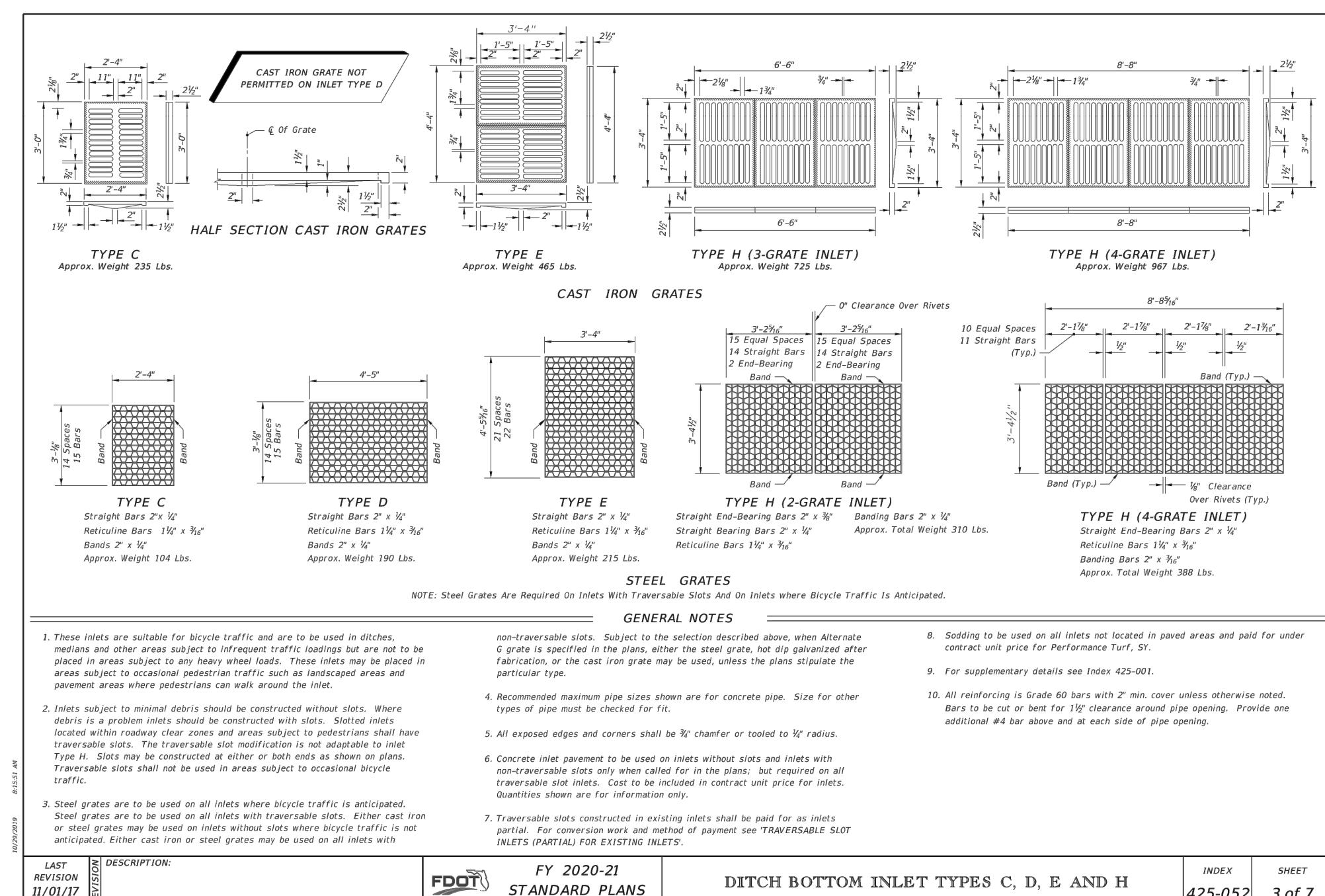
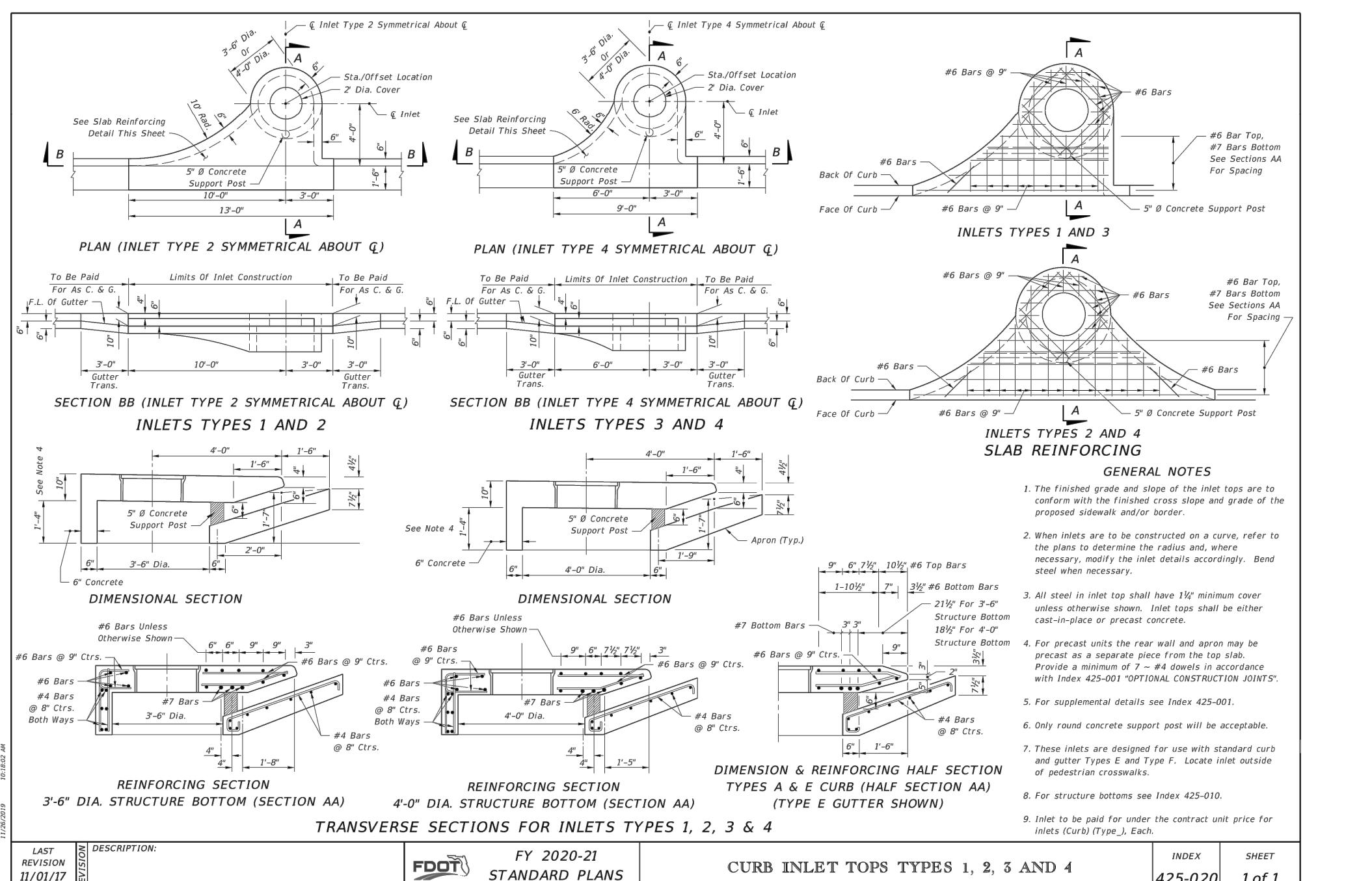
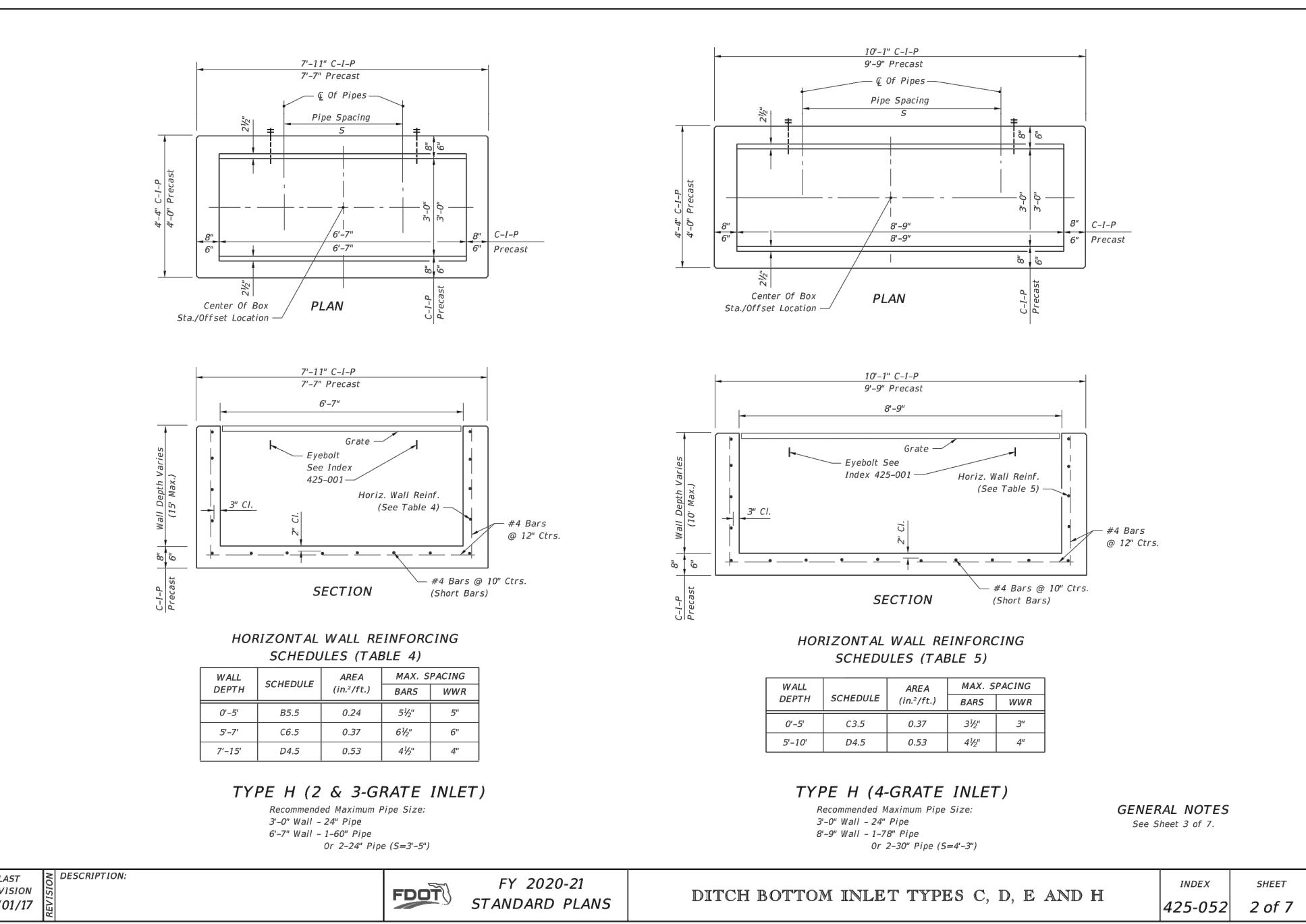
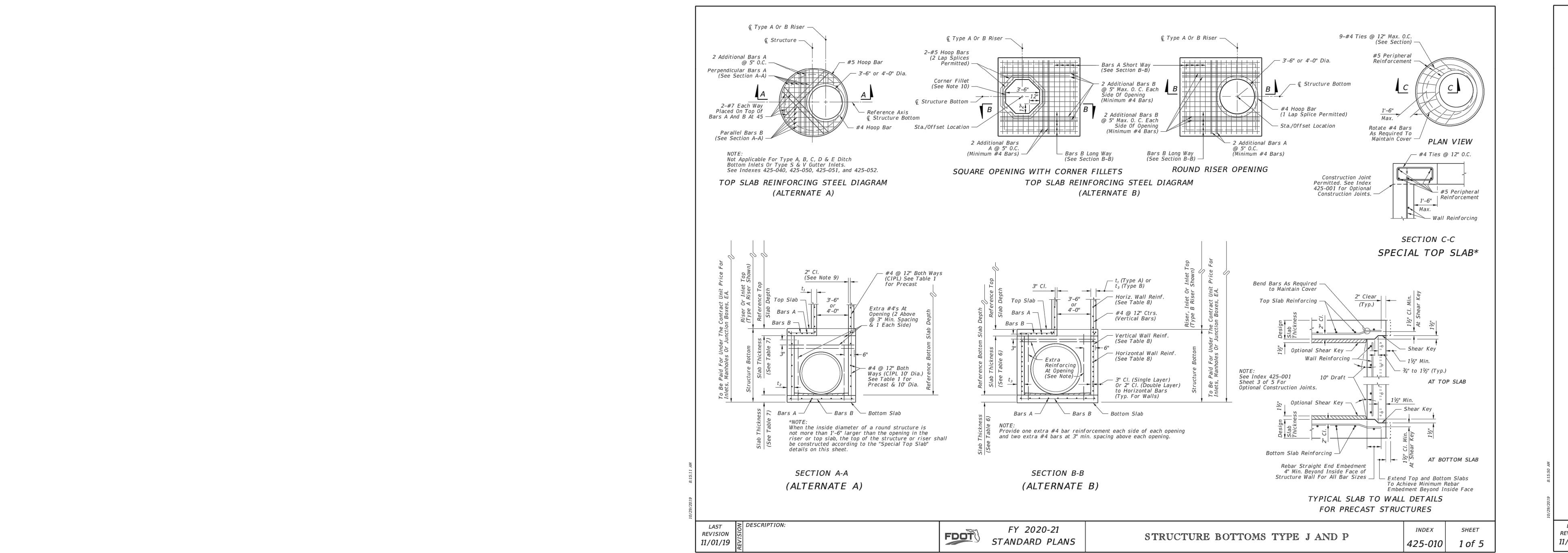


B.S.E. CONSULTANTS, INC.  
CONSULTING ENGINEERING  
LAND SURVEYING

312 SOUTH HARBOR CITY BOULEVARD, SUITE 4  
MELBOURNE, FLORIDA 32901  
PHONE: (321) 725-3674 FAX: (321) 725-1159  
CERTIFICATE OF PROFESSIONAL ENGINEERS  
LICENSED IN THE STATE OF FLORIDA  
BUSINESS AUTHORIZATION LB000495

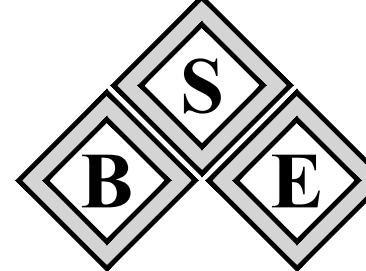
SCOTT M. GLAUBITZ, P.E. & P.L.S.  
STATE OF FLORIDA, No. 3695 No. 41951

HASSAN A. KAMAL, P.E.  
STATE OF FLORIDA, No. 41951







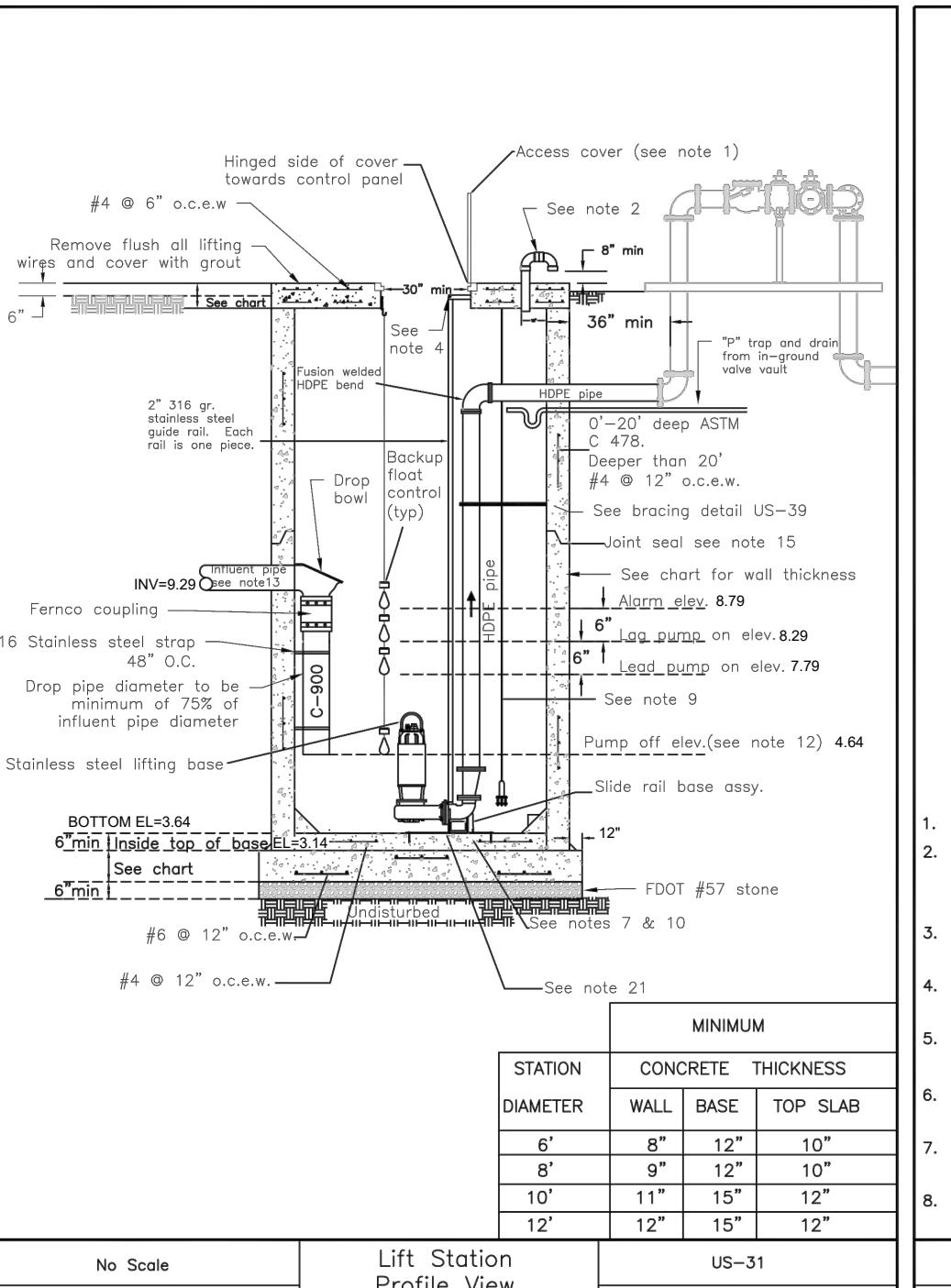
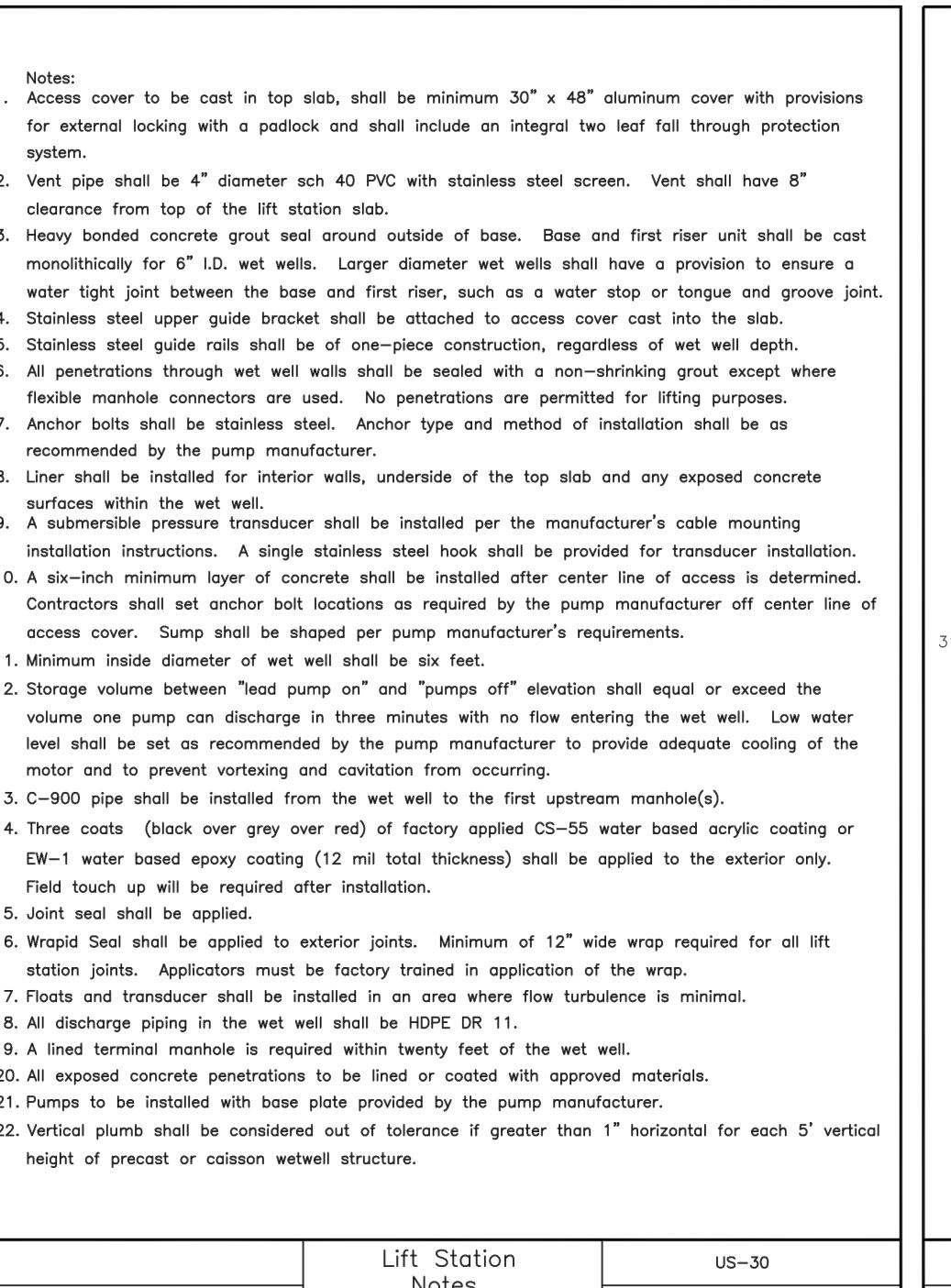
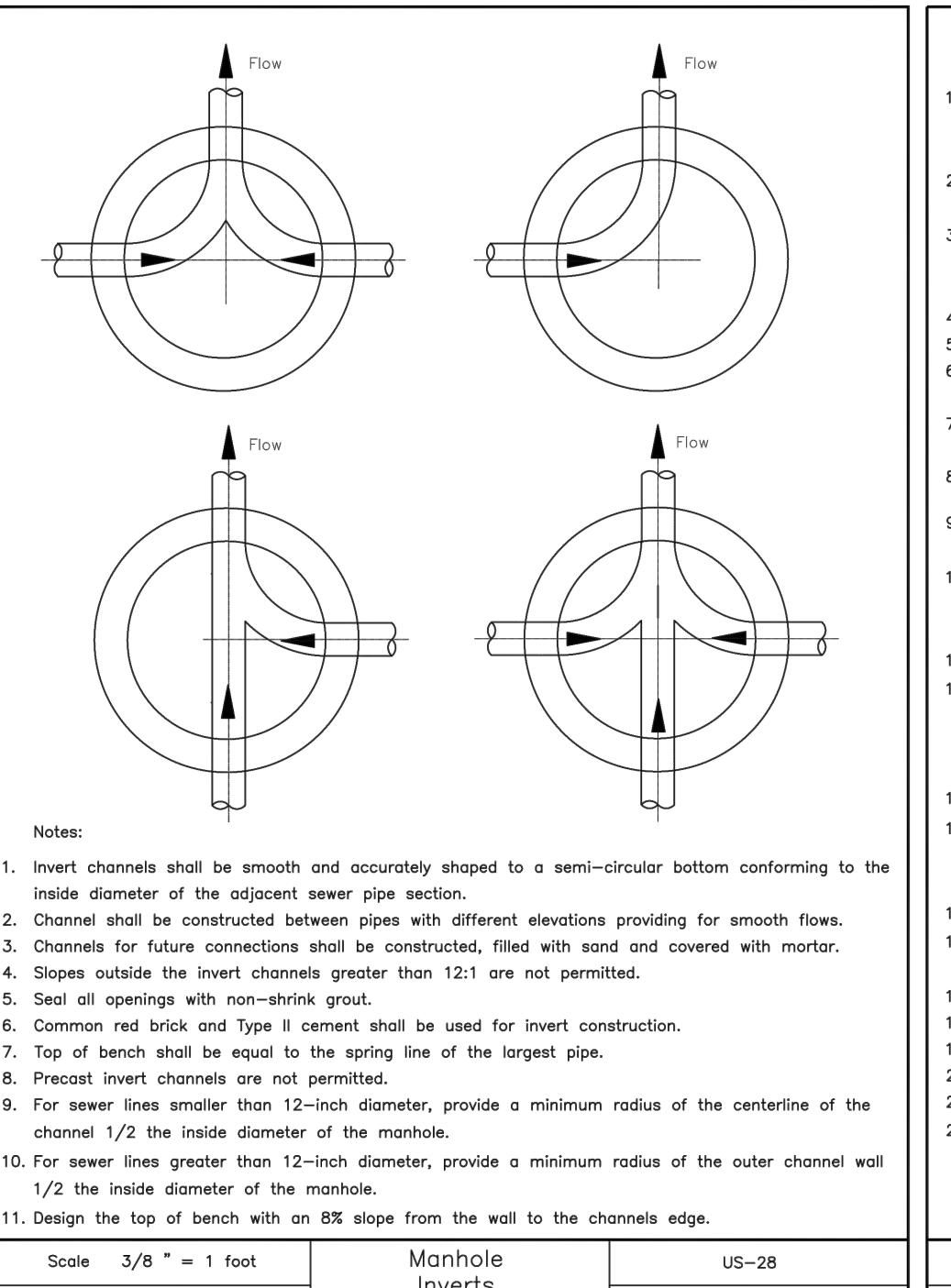
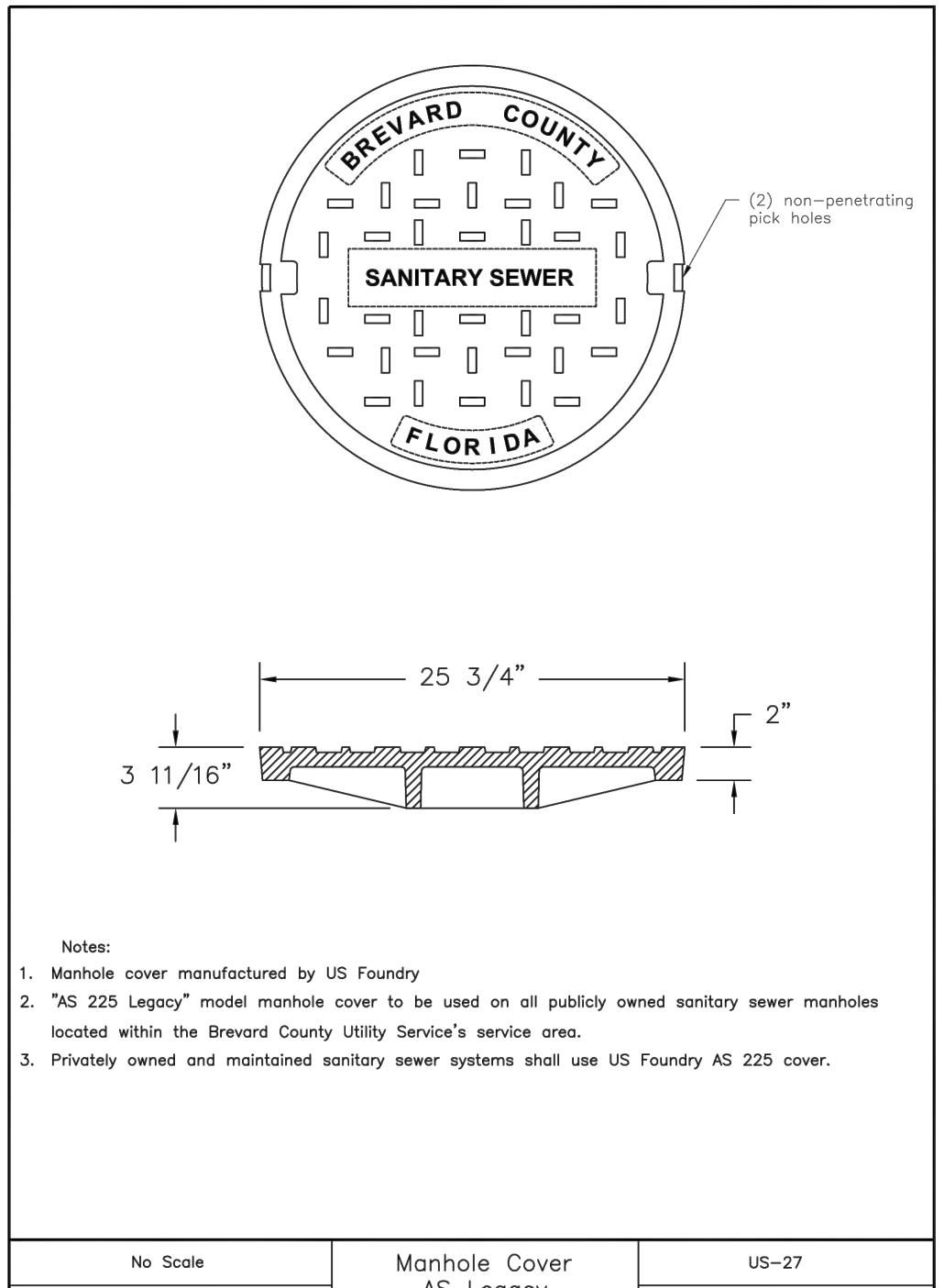
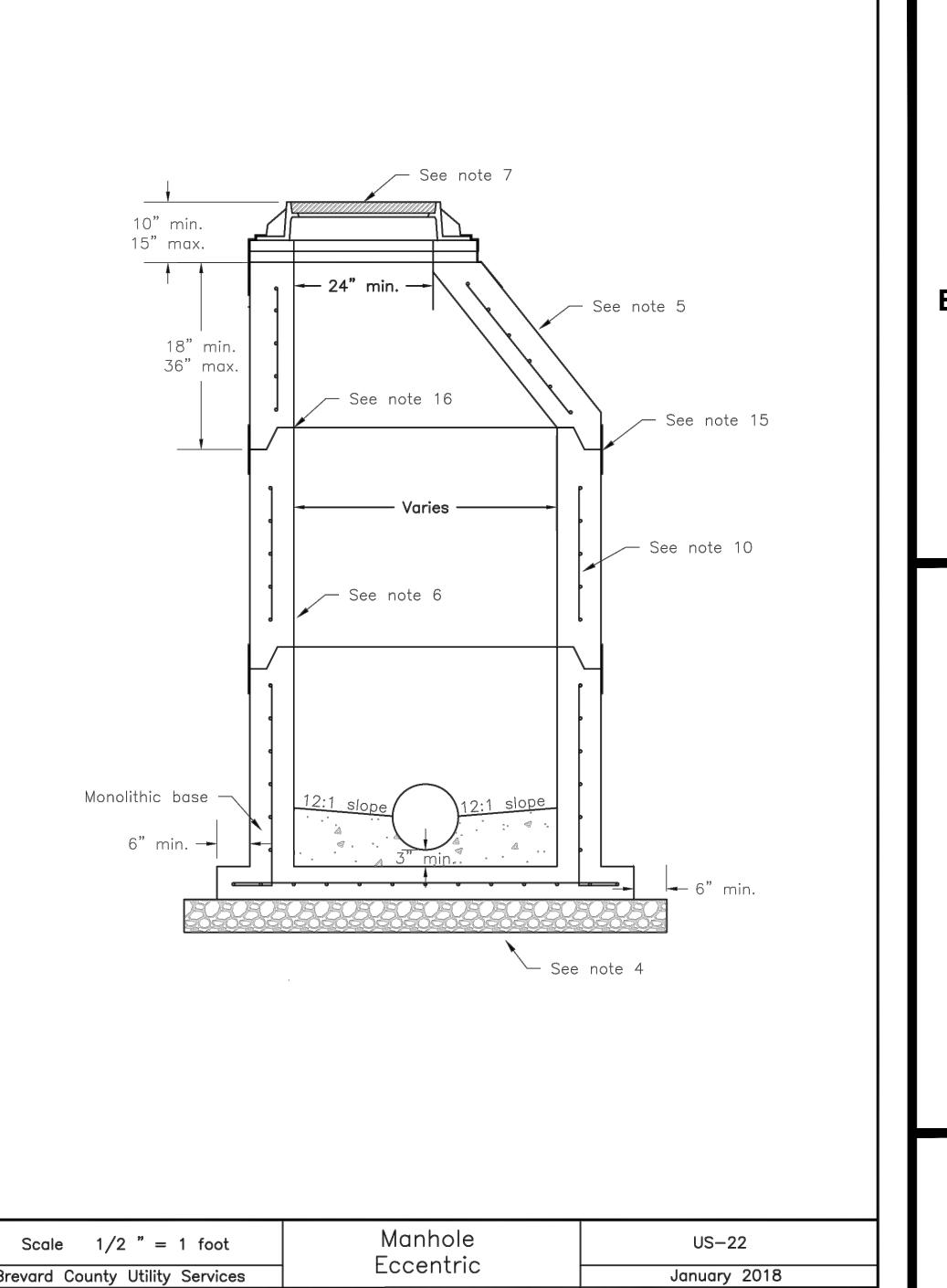
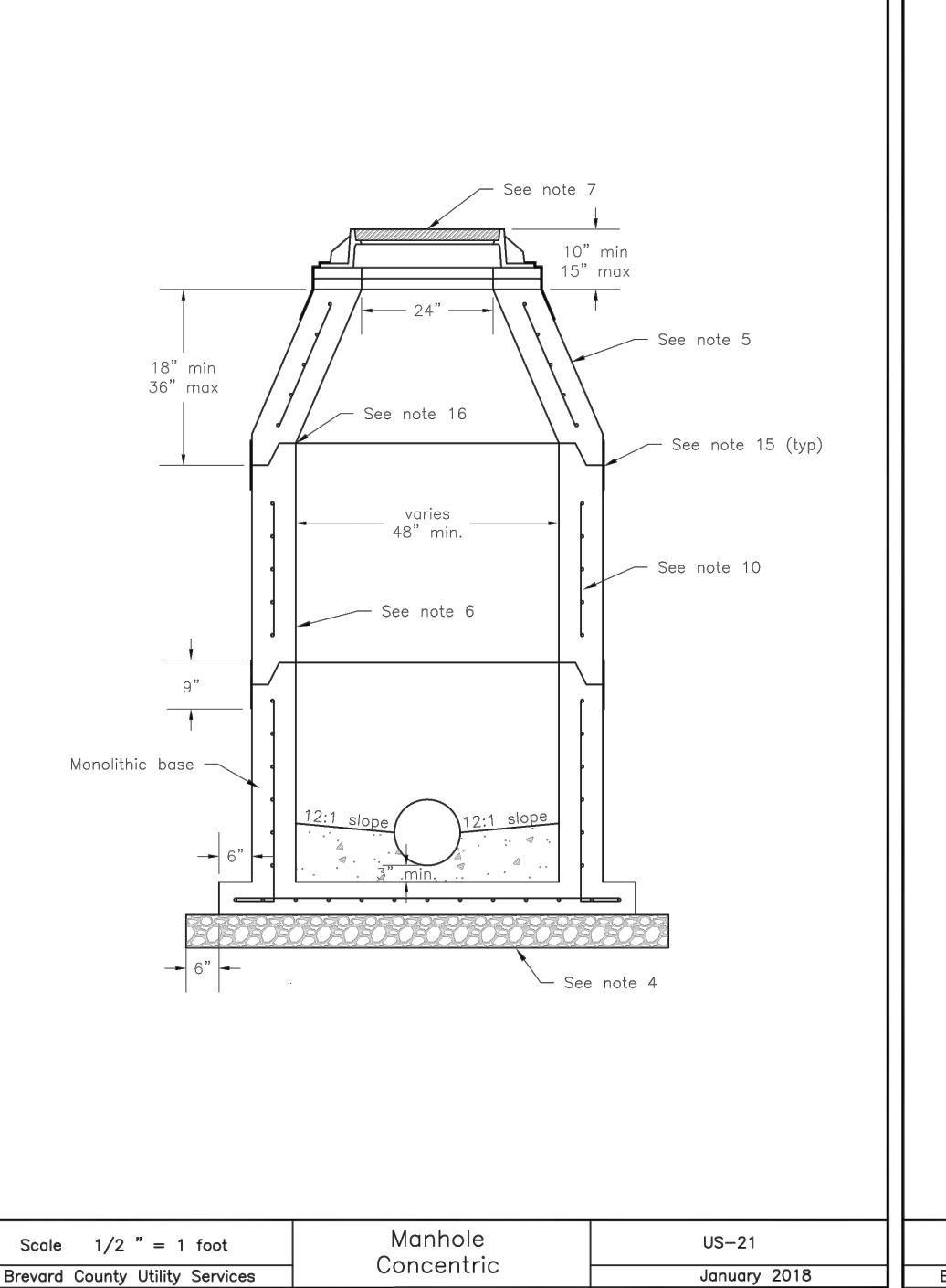
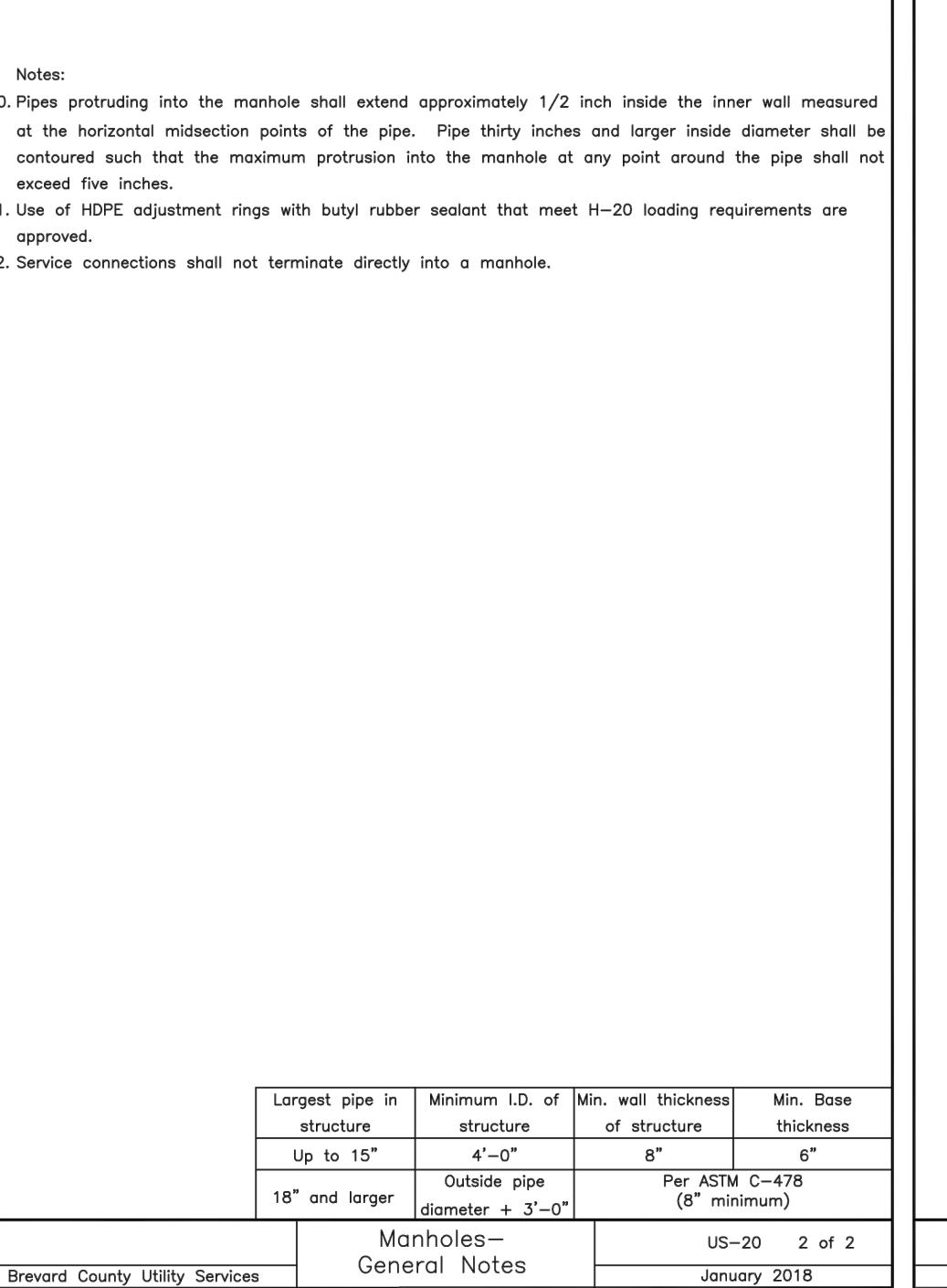
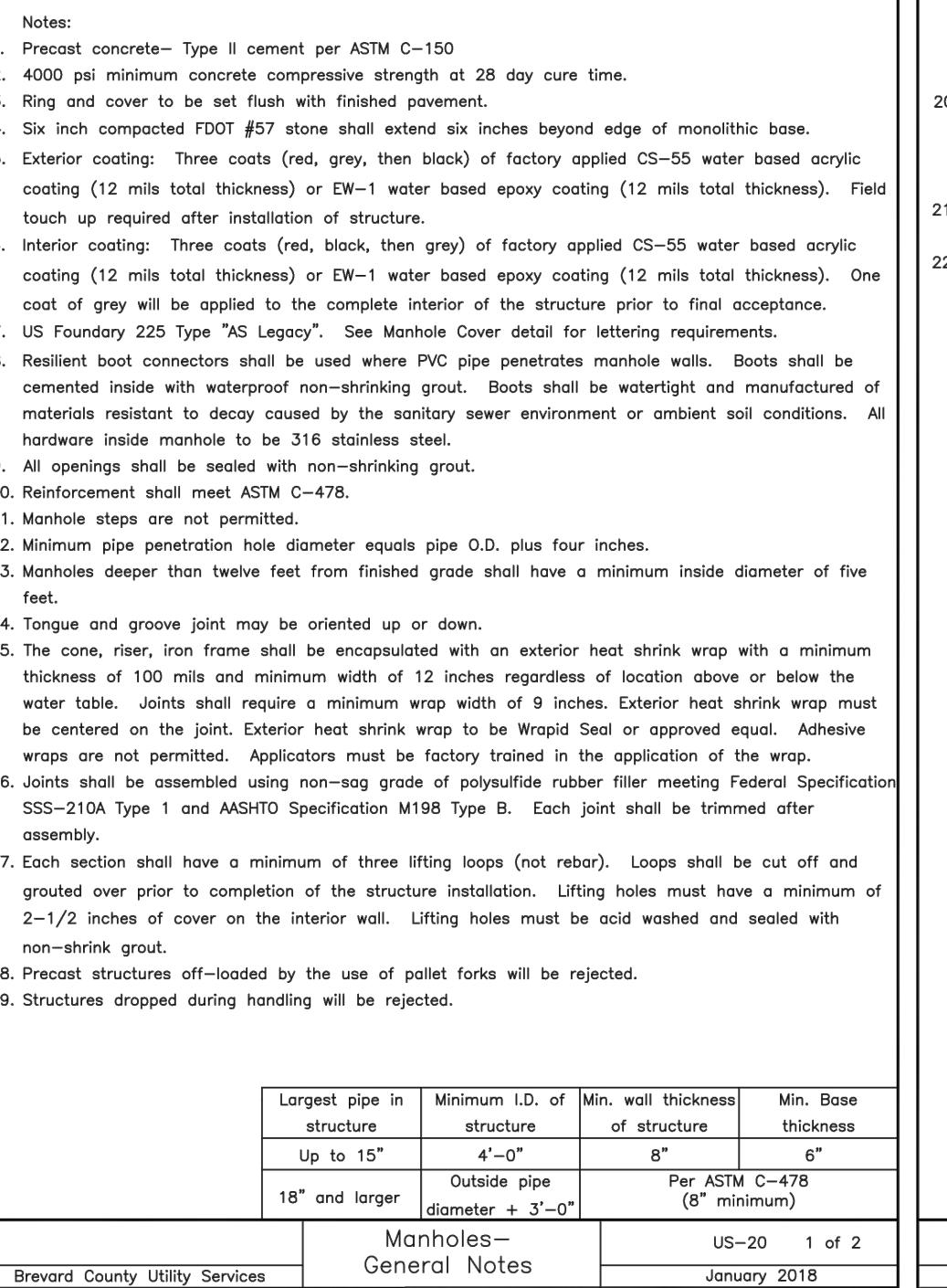
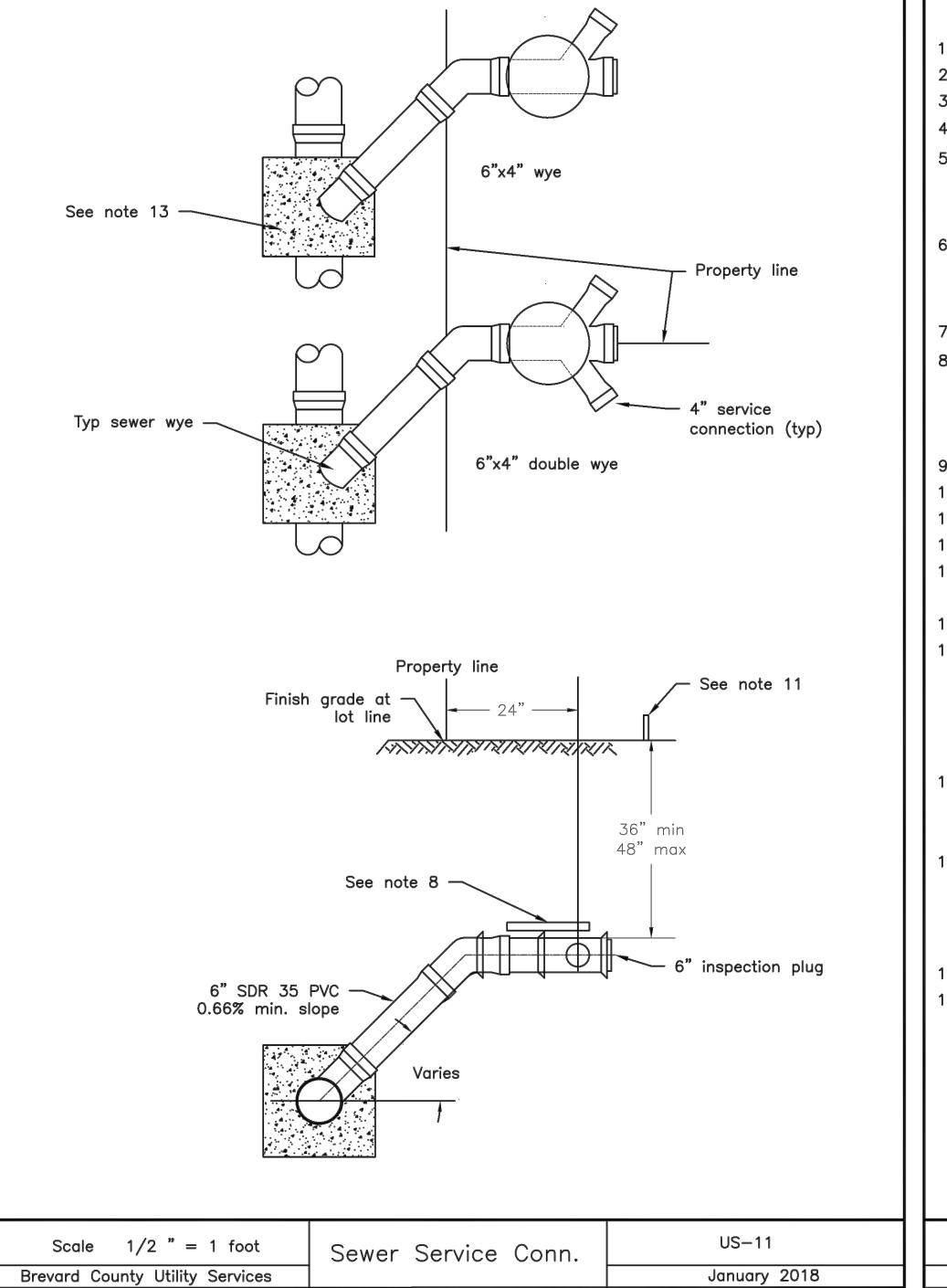
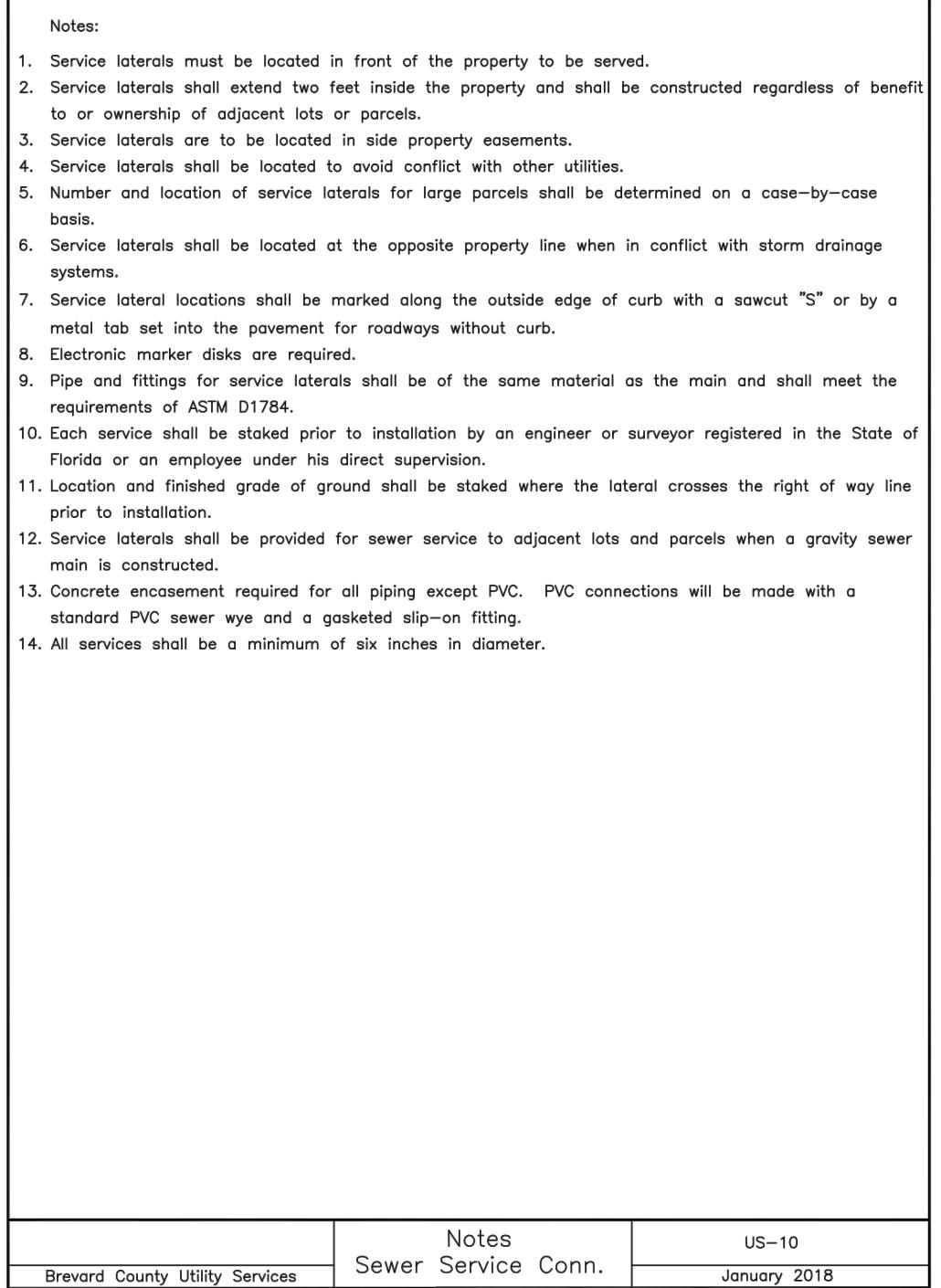


B.S.E. CONSULTANTS, INC.  
CONSULTING - ENGINEERING -  
LAND SURVEYING

312 SOUTH HARBOR CITY BOULEVARD, SUITE 4  
MELBOURNE, FLORIDA 32901  
PHONE: (321) 725-3674 FAX: (321) 723-1592  
CERTIFICATE OF PROFESSIONAL ENGINEERS  
AND LAND SURVEYORS  
CERTIFICATE OF LAND SURVEYING  
BUSINESS AUTHORIZATION: LBC004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.  
STATE OF FLORIDA, No. 3695 No. 41951

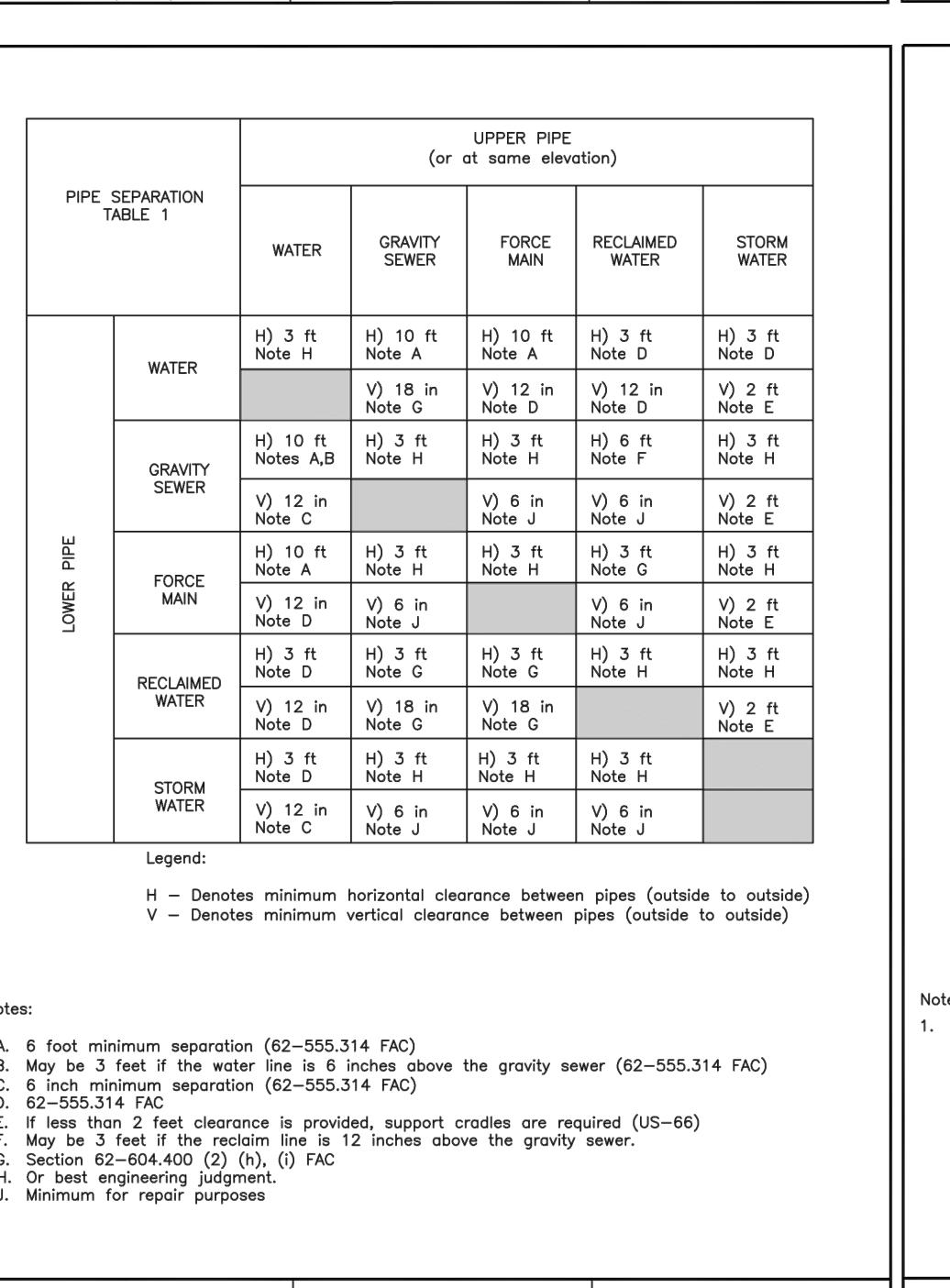
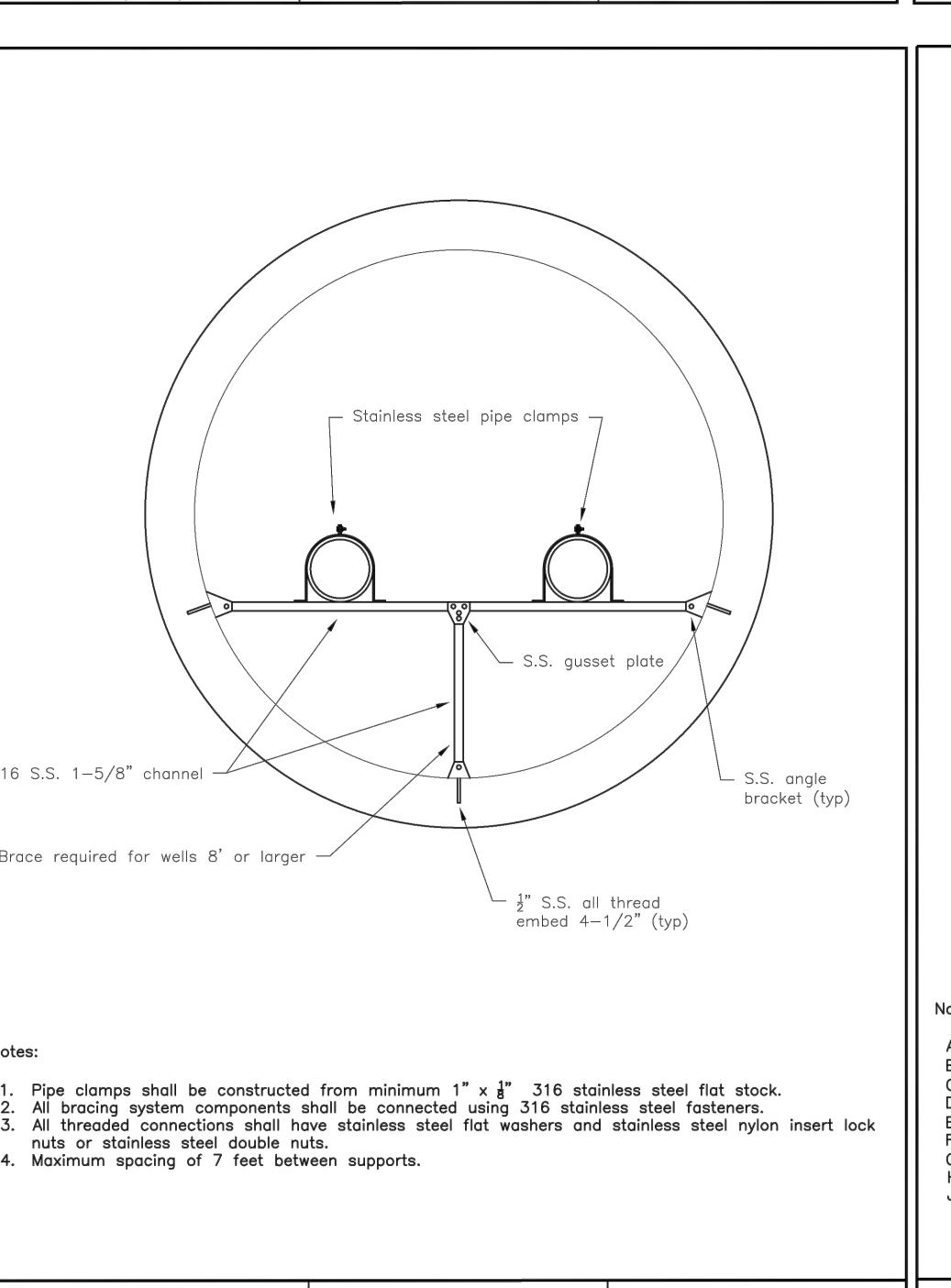
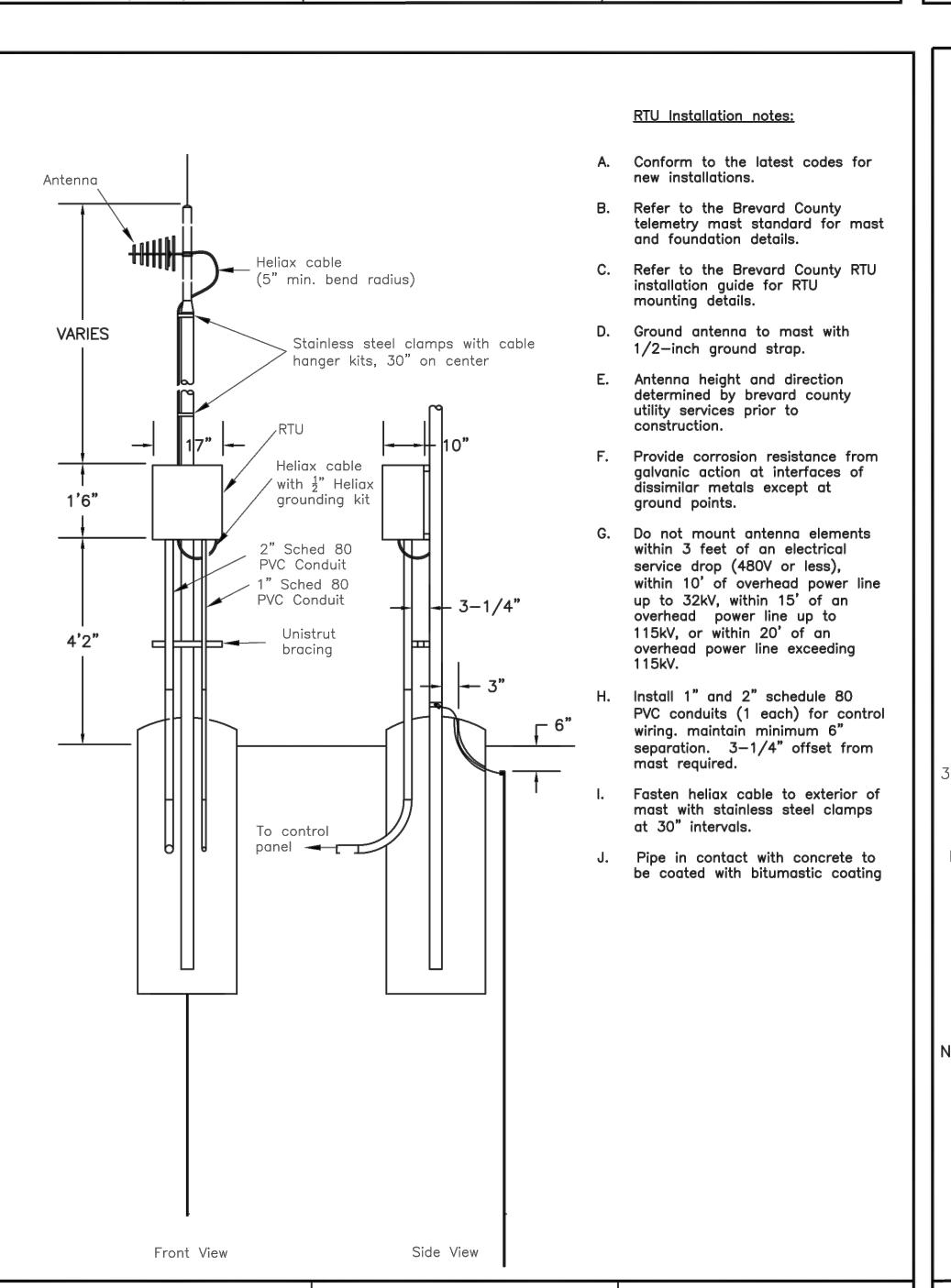
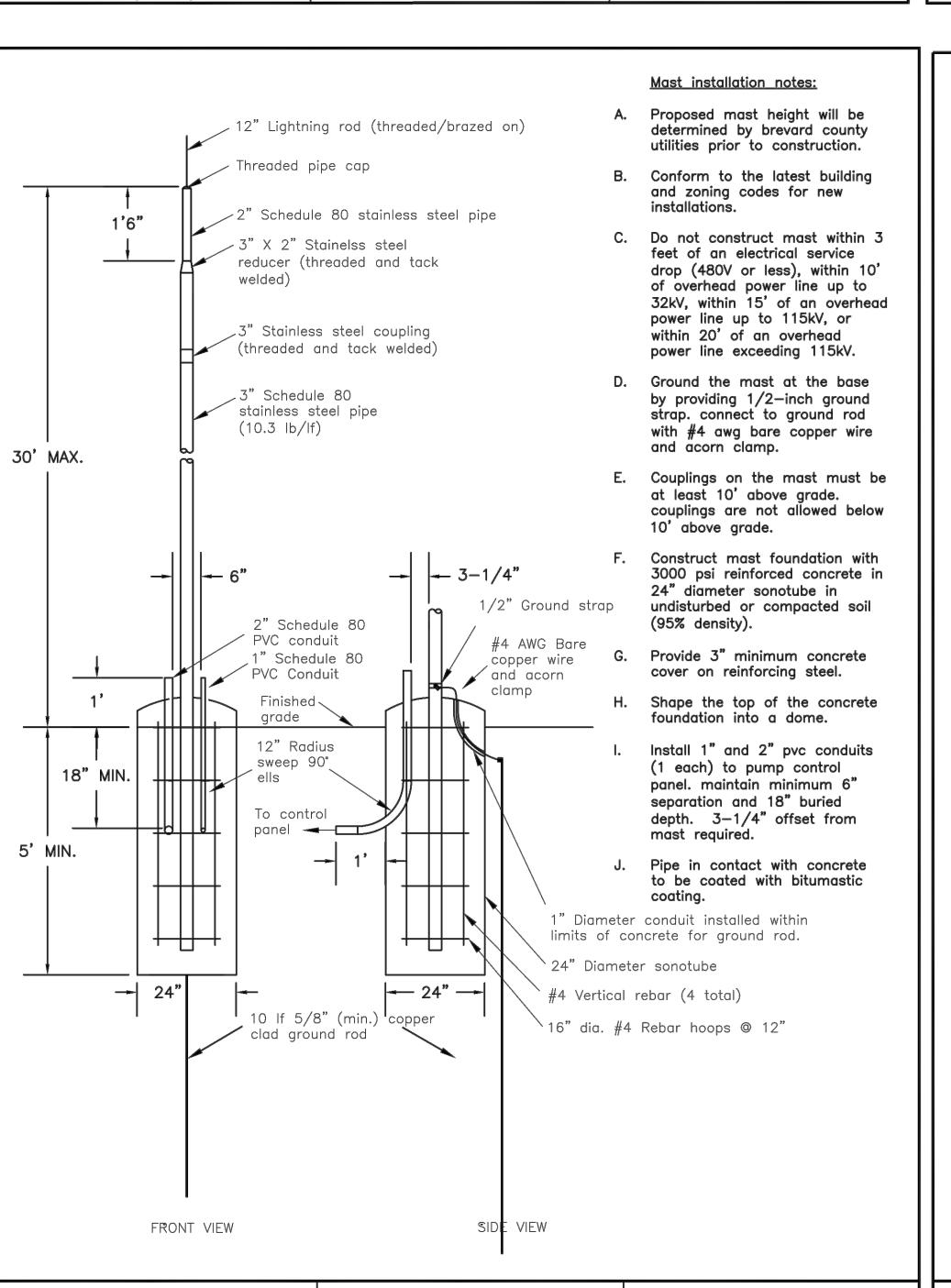
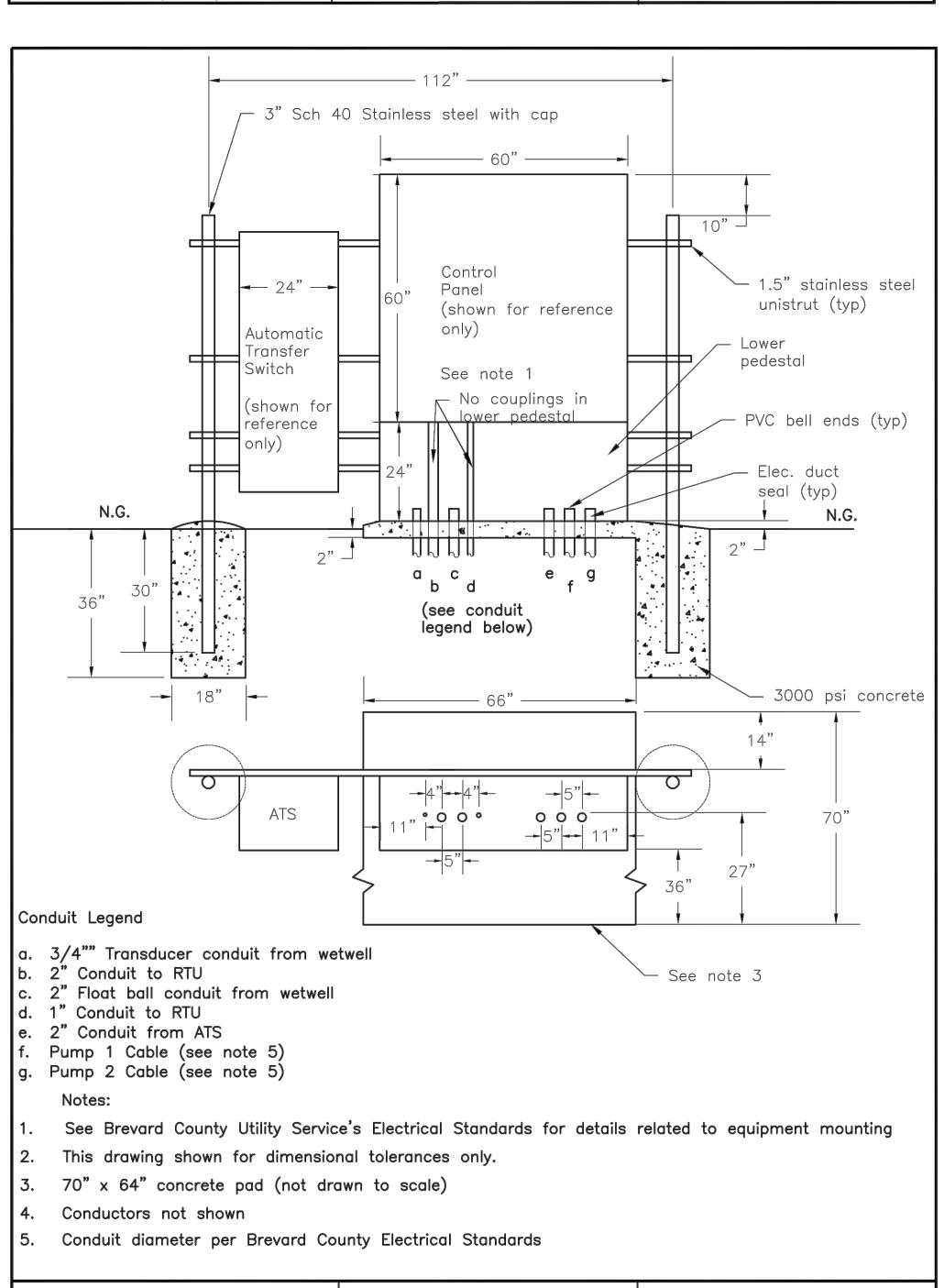
HASSAN A. KAMAL, P.E.  
STATE OF FLORIDA, No. 41951

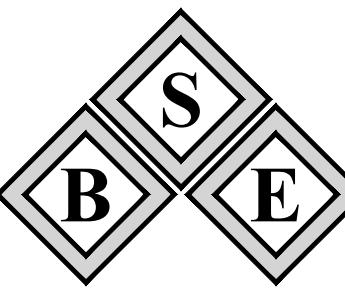


No Scale Manhole Cover AS Legacy Notes

No Scale Lift Station Profile View Notes

No Scale Lift Station Plan View Notes



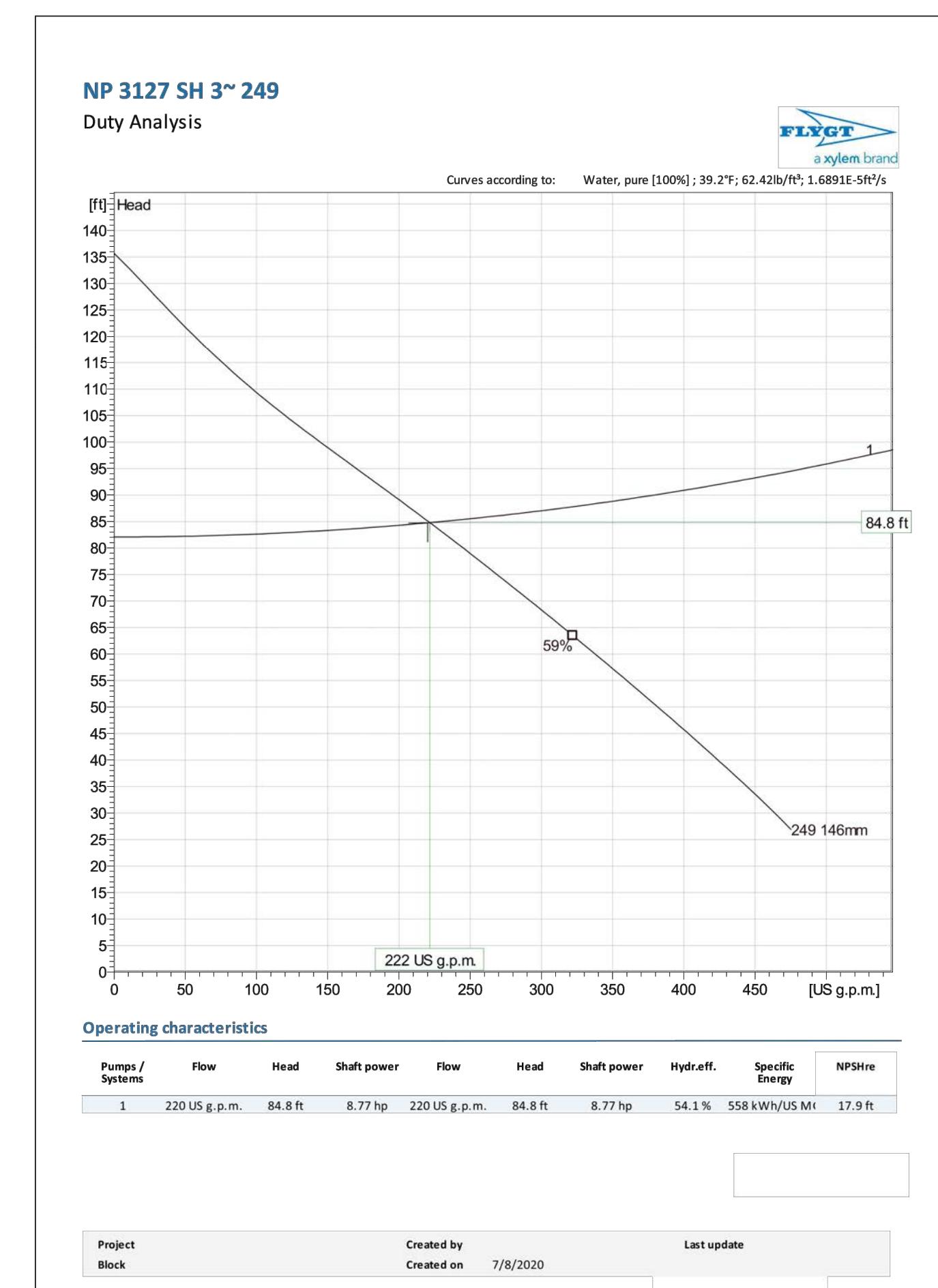
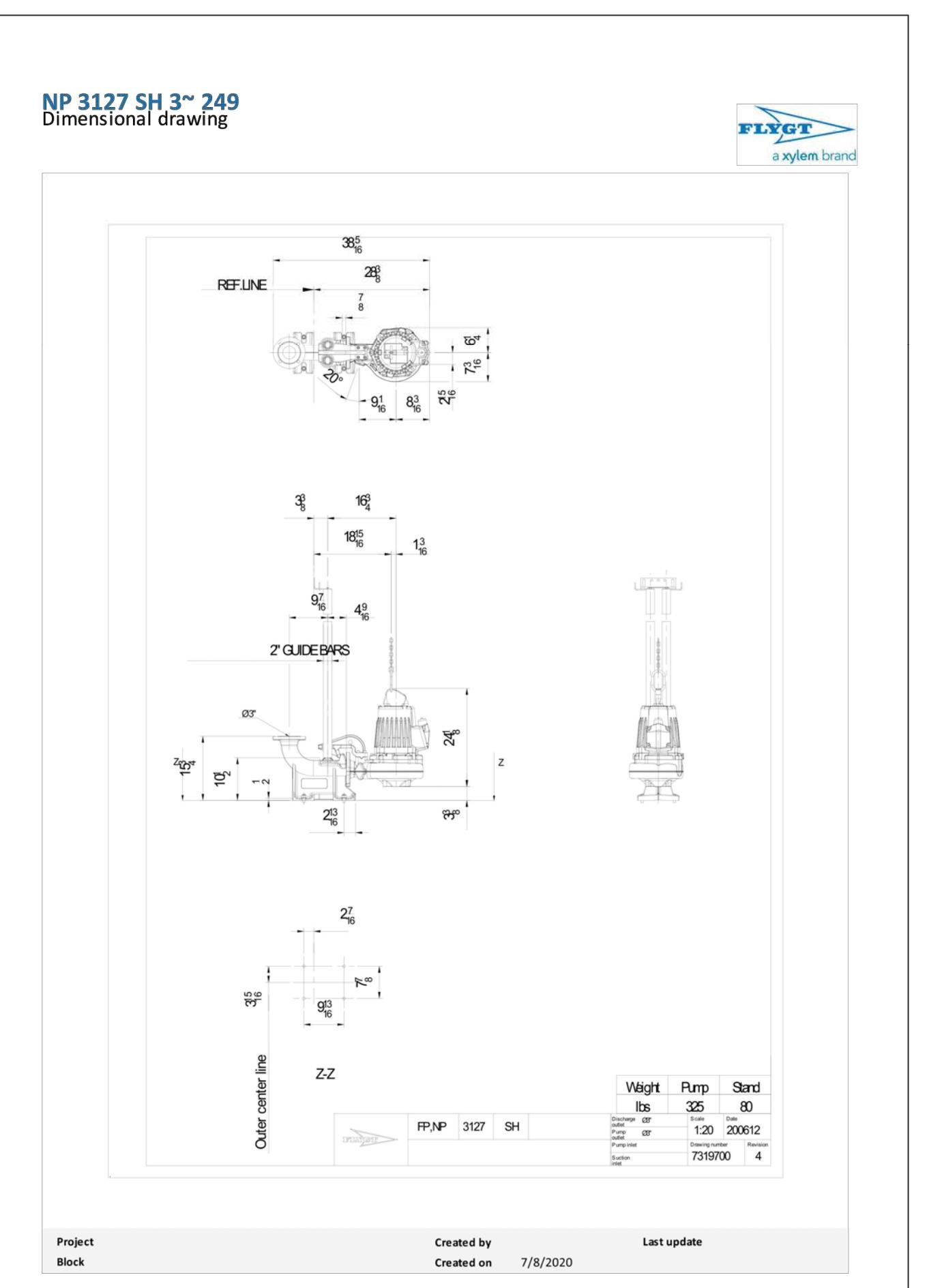
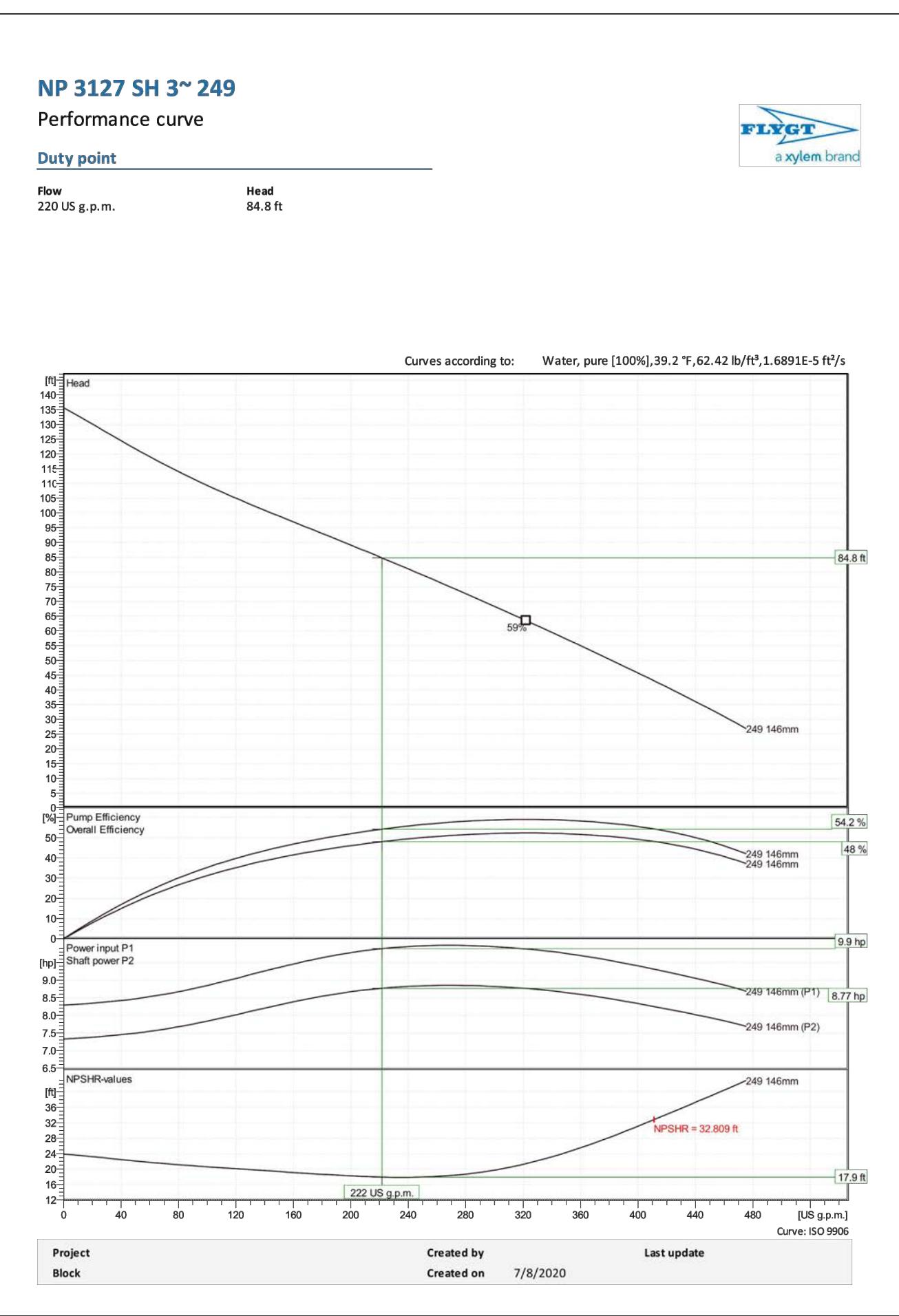
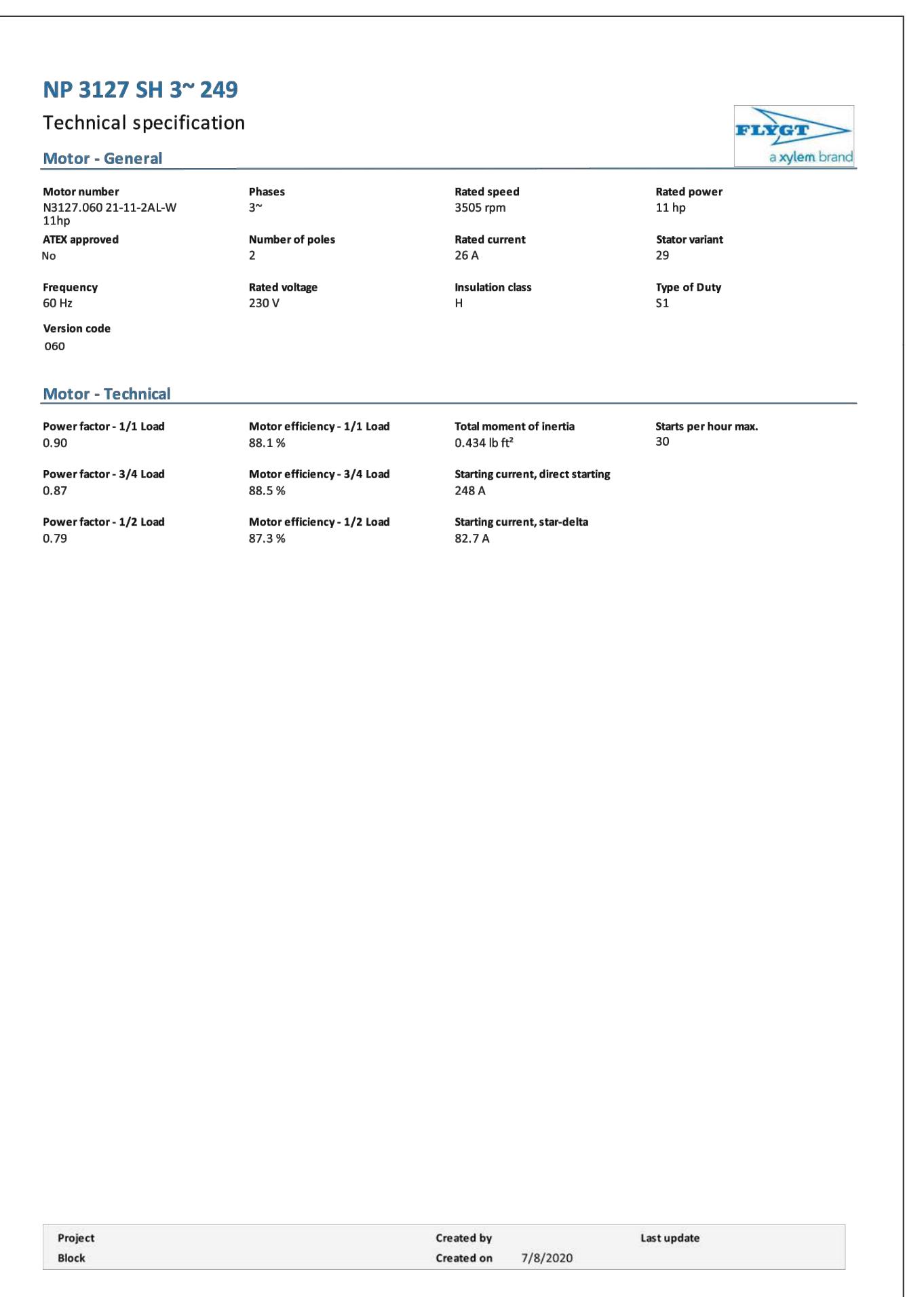
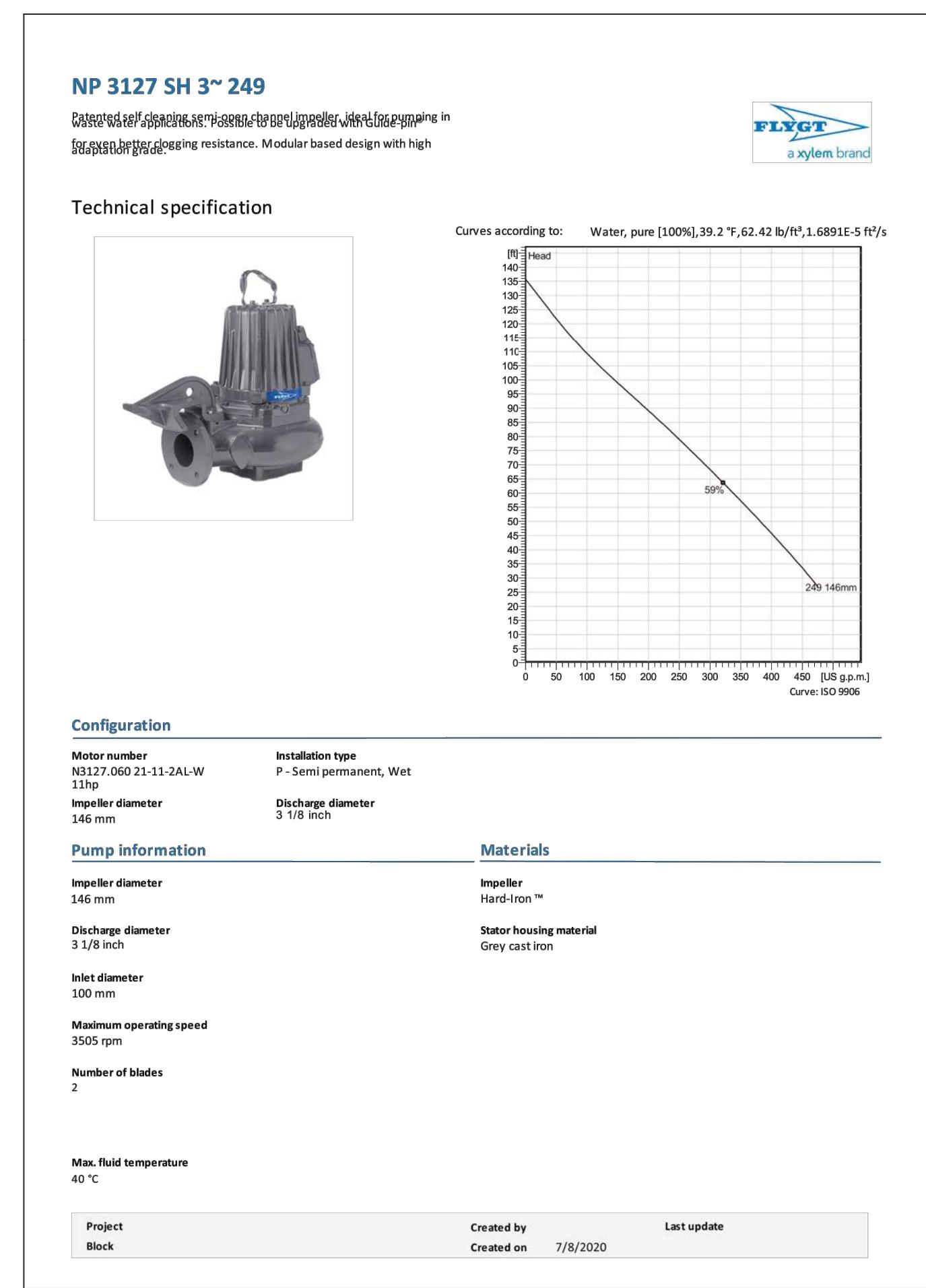


B.S.E. CONSULTANTS, INC.  
CONSULTING - ENGINEERING -  
LAND SURVEYING

312 SOUTH HARBOR CITY BOULEVARD, SUITE 4  
MELBOURNE, FLORIDA 32901  
PHONE: (321) 725-3674 FAX: (321) 723-159  
CERTIFICATE OF PROFESSIONAL ENGINEERS  
LICENSE NO. 41595  
CERTIFICATE OF LAND SURVEYING  
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.  
STATE OF FLORIDA, No. 3659 No. 4151

HASSAN A. KAMAL, P.E.  
STATE OF FLORIDA, No. 41951



**ADAMSON CREEK  
PHASE ONE-C**

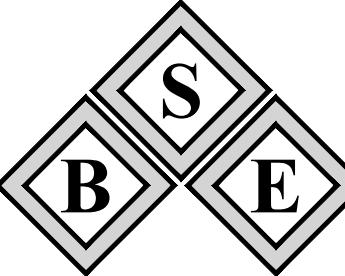
**SHEET TITLE**  
**SANITARY SEWER  
LIFT STATION  
PUMP  
SPECIFICATIONS**

**PROJECT NO.**  
1145302

**DRAWING NO.**  
1145302\_400\_024

**SHEET**

24 of 35



**B.S.E. CONSULTANTS, INC.**  
CONSULTING - ENGINEERING -  
LAND SURVEYING

312 SOUTH HARBOR CITY BOULEVARD, SUITE 4  
MELBOURNE, FLORIDA 32901  
PHONE: (321) 725-3674 FAX: (321) 723-1159  
CERTIFICATE OF PROFESSIONAL ENGINEERS  
LICENSE NO. 400040  
CERTIFICATE OF LAND SURVEYING  
BUSINESS AUTHORIZATION: LB0004905

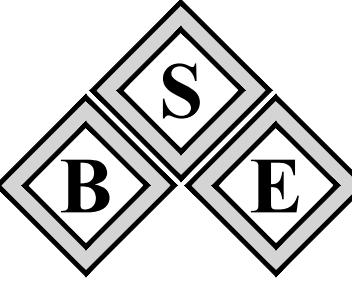
SCOTT M. GLAUBITZ, P.E. & P.L.S.  
STATE OF FLORIDA, No. 36959 No. 4151

HASSAN A. KAMAL, P.E.  
STATE OF FLORIDA, No. 41951

<p><b>1.1 GENERAL</b></p> <p>These Technical Provisions and Standard Details identifies design, installation, inspection, and acceptance specifications to be used for water, wastewater, and reclaimed water systems that will be maintained and operated by the City of Cocoa. All potable water, wastewater, and reclaimed water mains and appurtenances must be installed in accordance with this Manual, the City of Cocoa Cross Connection Control Program Manual, the City of Cocoa Utilities Handbook, and the approved plans.</p> <p>Contractor requirements include:</p> <ul style="list-style-type: none"> <li>Furnishing all labor, materials, tools and equipment necessary or incidental to the construction.</li> <li>Obtaining and paying for all permits, inspections, and other official fees in connection with the work.</li> <li>Arranging a pre-construction conference with the Engineering Inspection Division. All fees must be paid prior to the pre-construction meeting. It is required that the pre-construction meeting be held prior to the start of construction.</li> <li>Scheduling materials inspection (24-hour notice), open ditch inspection, pressure/leakage test, and final inspection.</li> <li>Provide all documents per the project requirement letter, including but not limited to As Built Drawings, Bills of Sale, Easements, etc.</li> <li>Make certain that no public water/wastewater lines are placed on private property.</li> <li>Any deviation from these requirements must be approved in writing by the Utilities Director or his designee prior to commencement of construction.</li> <li>Fees charged by the City are set by City Council by resolution and are listed on the appendix "Water Service Rates and Charges" made a part of the Utilities Handbook. Fees are subject to change without notice. The most current fees will be charged.</li> <li>The Utilities Department and Engineering Division are located at 351 Shearer Blvd., Cocoa, Florida, 32922. The telephone number is (321) 433-8701; facsimile number is (321) 433-8708.</li> </ul> <p><b>1.2 DEFINITIONS</b></p> <p>The term "approved equal" is used to mean a part or item that has been approved in writing by the Technical Provisions and Standard Details Advisory Committee or the Utilities Director. A written request must be made in order to have an item accepted as an approved equal. Written specifications on the part or item must be furnished with the request.</p> <p><b>Approved Tapping/Linestop Contractor</b> - A Contractor who has been approved by the Engineering Division to perform taps or linestops within the Cocoa Water System. A current list is maintained and available through the Engineering Division.</p> <p><b>Backflow Preventer Assembly</b> - A backflow preventer assembly, also called a cross connection control (CCO) device, is a mechanical or non-mechanical device used to prevent the flow of water from a non-potable source to the potable water distribution system. Approved backflow preventers are testable assemblies composed of two independently acting, approved check valves, including tightly closing resilient seated shutoff valves attached at each end of the assembly, and fitted with properly located resilient seated test cocks.</p> <p><b>Canal</b> - A trench, the bottom of which is normally covered by water, with the upper edges of its two sides normally above water.</p> <p><b>City</b> - Means the City of Cocoa.</p> <p><b>Collection Mains</b> - Wastewater gravity mains.</p> <p><b>Competent Person</b> - A person who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.</p> <p><b>Distribution Main</b> - Any water main twelve inches (12") and smaller.</p> <p><b>Domestic</b> - Means made or manufactured in the USA.</p> <p><b>Drainage Ditch or Irrigation Ditch</b> - A man-made trench which is dug for the purpose of draining water from the land or for transporting water for use on the land and which is not built for navigational purposes.</p> <p><b>Force Main</b> - Wastewater main under pressure.</p> <p><b>Manual</b> - City of Cocoa Utilities Technical Specification and Standard Details Manual</p> <p><b>Normal Working Day</b> - Monday through Friday, excluding CITY holidays.</p> <p><b>Normal Working Hours</b> - Hours are between the hours of 8:00 a.m. to 5:00 p.m. of a NORMAL WORKING DAY.</p> <p><b>Passivated</b> - Treated or coated metal to reduce the chemical reactivity of its surface.</p> <p><b>Stainless Steel</b> - A steel alloy with a minimum of 10.5% to 11% chromium.</p> <p><b>Substantial Completion</b> - The point when the construction project has been finished to the point that the City of Cocoa can use the project for the purpose it was intended.</p> <p><b>Swale</b> - A man-made trench which:</p> <ul style="list-style-type: none"> <li>A. Has a top width-to-depth ratio of the cross-section equal to or greater than 6:1, or side slopes equal to or greater than three feet horizontal to one foot vertical;</li> <li>B. Contains contiguous areas of standing or flowing water only following a rainfall event; C. Is planted with or has stabilized vegetation suitable for soil stabilization, stormwater treatment, and nutrient uptake;</li> <li>D. Is designed to take into account the soil erodibility, soil percolation, slope, slope length, and drainage area to prevent erosion and reduce pollutant concentration of any discharge.</li> </ul> <p><b>Technical Provision and Standard Details Committee</b> - Committee whose members shall consist of the manager, or their designee, of the following UTILITIES staff: Engineering, Inspections, Water Field Operations, and Sewer Field Operations. The committee evaluates and proposes revisions for the design standards, specifications, drawings, products and procedures for the Manual.</p> <p><b>Transmission Main</b> - Any water main sixteen inch (16") and larger. Fourteen-inch (14") pipelines are not acceptable.</p> <p><b>Utilities</b> - Utilities Department of the City of Cocoa, Cocoa, Florida, and/or its designated representatives.</p> <p><b>Utilities Handbook</b> - The City of Cocoa Utilities Handbook produced by the Customer Service Division of the Finance Department.</p> <p>Whenever a specification from a specific source is cited, the most current revision of that specification will be used. The word "shall" is mandatory, and the word "may" is permissive.</p> <p>Unless otherwise specified, "City" means City of Cocoa. "Utilities Department" means City of Cocoa Utilities Department; "Engineering Division" means City of Cocoa Utilities Engineering Division; "Inspections or Inspector" means City of Cocoa Utilities Engineering Inspections Division.</p>		<p><b>2.1 WATER MAIN CROSSINGS</b></p> <p><b>2.1.1 GENERAL</b></p> <p>In all cases where sanitary gravity or force mains cross water mains the crossing shall meet the vertical and horizontal separation requirements of FAC Rule 62-555.314. When separation requirements cannot be met, the Engineer of Record must propose an alternative solution that meets the requirements of FAC 62-555.314 for approval by the Engineering Division. The water main should cross above the sanitary main, when the water main must cross below the sanitary main, the minimum separation shall be 12 inches.</p> <p><b>2.2 MATERIALS SPECIFICATIONS</b></p> <p><b>2.2.1 PIPE</b></p> <p><b>2.2.1.1 Polyvinyl Chloride Pressure Pipe, 4" - 12"</b></p> <p>Polyvinyl chloride pressure pipe (sizes 4" through 12") will be cast iron pipe equivalent outside diameter Class 235 (18) conforming to the American Water Works Association's (AWWA) specification C900 and will be blue or white in color. Pipe will be in standard 20-foot lengths. All joints will be of the elastomeric-gasket type with thickened, integral solid-wall bell or coupling with the same DR as the barrel. All PVC pipe and couplings will bear the UL label and NSF approval for potable water.</p> <p><b>2.2.1.2 Fusible Polyvinyl Chloride Pipe, 4" - 12"</b></p> <p>Polyvinyl chloride pressure pipe (size 4" through 12") will be cast iron pipe equivalent outside diameter and a pressure rating of 235 PSI (DR 18) conforming to AWWA specification C900 and will be blue or white in color. Fusible PVC pipe shall be supplied by Underground Solutions, Inc. It shall be installed in accordance with the suppliers' specifications. All PVC pipe will bear the UL label and NSF approval for potable water.</p> <p><b>2.2.1.3 Ductile Iron Pipe</b></p> <p>Ductile iron pipe will be cement-lined pressure Class 350 for 12-inch diameter and smaller and Class 250 for 16-inch and larger conforming to AWWA specification C151. Water main and storm drain crossing pipes will be properly designed by the project engineer and approved by the Utilities Department. Ductile iron pipe shall be used for water mains 10 feet or less from building foundations or other permanent objects will be ductile iron pipe. In no case will water mains be located less than 5 feet from foundations. The above distances will be doubled for water mains larger than 8" in diameter. Polyethylene sleeve conforming to AWWA specification C105 will be provided for all installations. The polyethylene sleeve will be sealed with tape and shall be blue for water mains.</p> <p><b>2.2.1.4 High Density Polyethylene (HDPE) Pipe</b></p> <p>HDPE pipe is generally not accepted in the City of Cocoa water system, except as a carrier pipe for a pressurized utility main.</p> <p><b>2.2.1.5 Reclaimed Water</b></p> <p>PVC pipe installed in reclaimed water systems will be Class 235 (DR 18) conforming to AWWA specification C900 and will be purple in color. Ductile iron pipe installed in the reclaimed water system will be pressure Class 350 for 12" and smaller and pressure Class 250 for 16" and larger, provided 3 feet of cover can be maintained. Where cover is less than 3 feet, pressure Class 350 is required. Polyethylene sleeve conforming to AWWA specification C105 will be provided for all installations. The polyethylene sleeve will be sealed with tape and shall be purple for reclaimed water mains.</p> <p><b>2.2.2 VALVES, VALVE BOXES, AND VALVE EXTENSIONS</b></p> <p><b>2.2.2.1 Resilient Seat Gate Valves, 4" - 36"</b></p> <p>Resilient seat gate valves will have mechanical joint ends as manufactured by American Flow Control, AVK, MSH, U.S. Pipe, Clow, Mueller or an approved equal. The resilient seat gate valves must conform to AWWA specification C509 or C515 and be manufactured in the U.S.A. Resilient seats will be of natural or synthetic rubber and be fully encapsulated to gate. Valves will have 18-8 Type 304 Stainless Steel bolts and nuts. The interior and exterior of the valve body will be fusion-bonded epoxy coated in accordance with AWWA specification C550 in order to provide a corrosion-resistant seat. The coating must be applied in a manner to withstand the action of line fluids and operation of the seating gate under long-term service. Valve seats must be supplied with 2" square operating nuts and be designed to provide a bubble-tight seal regardless of direction of flow. Opening the valve will be in the counterclockwise direction. Valves 16" and larger will have Bevel Gear Operators. For gate valves 16" and larger to be stood up straight, the 2" operating nut must have 12" of cover. Engineer of Record or Contractor must demonstrate the 12" of cover over the 2" operating nut can be achieved by showing all pertinent dimensions. Tapping valves shall have a centering ring.</p> <p><b>2.2.2.2 Butterfly Valves, 16" and Larger</b></p> <p>Butterfly valves shall be used for above ground service. Butterfly valves shall have flanged ends, be rubber seated, 90° tight closing type, short body. The interior and exterior will be fusion-bonded epoxy coated in accordance with AWWA specification C550. The valve shaft will be of 3/4" diameter and the valve body dimensions and minimum clearances will be in accordance with Tables 1 and 3 of AWWA specification C504. The valve seat will be of molded natural or synthetic rubber, will be mechanically secured to the disc or to the valve body, and will mate against a stainless-steel seat surface. The gear ratio will be such as to require not more than 50-foot pounds of input torque to operate the valve against the worst case of a water flow velocity of 10 feet per second at a pressure of 100 psi differential. A torque-limiting device will be supplied if the allowable operator input is less than 450-foot pounds. Butterfly valves will have a factory installed hand wheel. The valve will open when the operator nut is turned counterclockwise. <b>Butterfly valves will not be used for buried service.</b></p> <p><b>2.2.2.3 Valves, 2"</b></p> <p>Two-inch valves for use with the 2" blow-off gate valve will be rated at 125 SWP or 200 WOG. All 2" gate valves must meet all EPA and DEP requirements regarding lead and zinc contents. Brass fittings and 2" brass wheel valves shall be used on blow-offs. All valves must be manufactured in the U.S.A.</p> <p><b>2.2.2.4 Valve Boxes</b></p> <p>Valve boxes and lids must be manufactured in the U.S.A. Boxes and lids must be structurally equal to those produced by <b>East Jordan Iron Works</b> or <b>Tyler</b>, and must have 5-1/4" minimum inside diameter. Cast iron valve boxes will consist of a circular cast iron top and bottom section. The depth must be determined, and the appropriate valve box must be used. No PVC or ductile iron gaskets are to be used. Box lids must be in flush with the finished ground surface in such a manner as to permit easy use of a valve wrench and to prevent surface loads from being transmitted to the pipe or pipe. Box sections must be telescopic and adjustable. Valve box lids should have the word "WATER" or "SEWER" or "RELIEF", as appropriate, cast on the top. A concrete pad (24" L x 24" W x 4" D) will be poured around all boxes at finished grade level unless the valve is located in a paved roadway or parking lot. A Valve identification plate engraved to indicate the type, size, and number of turns will be securely anchored to the concrete pad. Valve identification plates for valves 12" and larger will also indicate the torque necessary for actuation.</p> <p><b>2.2.2.5 Valve Extensions</b></p> <p>If the depth of the valve nut is greater than 48" below grade, or 30" below grade and under the water table, a valve extension stem will be required. The extension will have a centering collar and will be mechanically attached to the valve operating nut, such as extensions manufactured by the General Engineering Company, Model #4840-0001-3, or an approved equal to be determined by the Engineering Supervisor or his/her designee.</p> <p><b>2.2.2.6 Valve Box Debris Shield</b></p> <p>All buried valves 4-inch through 12-inch requiring a valve box shall be furnished with a valve box shield (alignment device). The device shall minimize debris infiltration and center the valve box over the operating nut. The device shall be of HDPE or plastic and colored white or black. It shall be furnished in two pieces that will lock together under the operating nut without requiring the removal of the operating nut. The device shall not affect the operation of the valve. No one-piece device will be accepted. The device shall be <b>Box Lok</b>, American or approved equal.</p> <p><b>2.2.2.7 Insert Valve Specification</b></p> <p>The Insert Valve shall conform to the following:</p> <p>The Ductile Iron 250 p.s.i. Insert Valve shall be a Resilient Wedge Gate Valve designed for use in potable water, raw water, reclaimed water, wastewater and backflow control systems. The valve shall be of a single piece construction with a resilient wedge gate, a full 360° seat, a bonnet, and wedge profile strength and a pressure rating that meets or exceeds the requirements of AWWA C515. Insert Valve shall be ductile iron construction meeting ASTM A536 Grade 65-45-12 Sizes 12" and smaller must be capable of working on Cast/Grey Iron or Ductile Iron Class A, B, C and D, IPS PVC, C900 and C909 PVC, Steel, AC pipe diameters without changing either top or bottom portion of split valve body. The Insert Valve shall have a 250 psi maximum working pressure. The pressure rating markings must be cast into the body of the insert valve. The construction of the Resilient Wedge shall be fully encapsulated with EPDM rubber by a high pressure vulcanizing process. The valve body shall be cast iron with a 304 stainless steel seat on the valve body and not the pipe to obtain the optimum seating and flow control results. The resilient wedge shall be totally independent of the carrier pipe. The resilient wedge shall not come into contact with the carrier pipe or depend on the carrier pipe to create a seal. The resilient wedge must ride inside the body channels to maintain wedge alignment throughout its travel. The insert valve shall be fully epoxy coated on the interior and the exterior. Valve shall be coated with a minimum of 10 mils epoxy in compliance with AWWA C550 and certified to ANSI/NSF-61. The stuffing box, operating stem and resilient wedge (complete bonnet and all moving parts) shall be removable, repairable and/or replaceable under pressure.</p> <p>See "Appendix A" Approved Materials for approved Insert Gate Valves.</p> <p><b>2.2.3 BACKFLOW PREVENTERS</b></p> <p><b>2.2.3.1 General</b></p> <p>All connections to the City of Cocoa potable water system shall contain a backflow preventer assembly as required in the "City of Cocoa Cross Connection Control Program Manual". Backflow preventer assemblies shall be in accordance with AWWA specification C510, ASSE 1048, UL 1469, and as listed in "Appendix A" of this document. All backflow preventers shall be installed per Standard Details in "Appendix B". Backflow preventers on fire line and commercial services shall have test certifications submitted and approved prior to final inspection.</p> <p>Backflow preventers will have interior fusion bonded epoxy coating 5 to 12 mils and will be installed above grade in accordance with manufacturer's recommendations on a concrete slab adjacent to the meter. Check valves must have bronze seats.</p> <p><b>2.2.3.2 Fire Services</b></p> <p>Cross connection control devices for fire line systems shall be double check detector assemblies (DCDA) or reduced pressure detector assemblies (RPDA). DCDA and RPDA shall meet the requirements of the Florida Building Code and must be supplied with a 3/4-inch or larger bypass assembly. The cross connection device must be in accordance with the "Cross Connection Control and Backflow Prevention and Cross-Connection Control" in the Utilities Handbook. The Engineering Division will inspect the interior of the DCDA prior to installation. DCDA must be installed horizontally above ground in a grassed or non-traffic area. The DCDA will be installed with 24" minimum and 30" maximum clearance from finished grade. "N" shaped DCDA will be accepted on a case-by-case basis. Fire lines requiring an RP2 will be handled on a case-by-case basis. The Engineering Division shall paint the DCDA, to be paid for by the Developer/Contractor.</p> <p><b>2.2.3.3 Meter Station Backflow Preventer</b></p> <p>Backflow Preventers for the large meter stations (3-inch and larger) are a Reduced Pressure Zone Assembly and manufactured in accordance with AWWA C511. The device will be installed so as the relief valve opening will be a minimum of 12" above concrete slab. If the meter station is in a planter, the top of the planter is considered the flood rim and the relief valve opening shall be 12" above the concrete slab. The Engineering Division shall paint the meter station assembly, to be paid for by the Developer/Contractor.</p> <p><b>2.2.3.4 Backflow Preventer Certification Test</b></p> <p>The Contractor will provide test certifications on the jumper backflow preventer before jumper is placed into service. Backflow preventers on fire-line and meter stations will have test certifications submitted and approved prior to final inspection.</p> <p><b>2.2.4 FITTINGS</b></p> <p>All fittings must be of the mechanical joint type with an approved joint restraint, or push-on with a gasket joint field restraint system. All fittings must be manufactured in the U.S.A.</p> <p><b>2.2.4.1 Cast Iron</b></p> <p>Cast iron fittings will be AWWA specification C110; Class 250, cement lined with inside seal coating. The fittings will be bituminous coated on the outside and be wrapped with 6 mil polyethylene (sealed with tape). Cast iron fittings are only to be used in larger applications where ductile iron fittings are not available.</p> <p><b>2.2.4.2 Ductile Iron, 4" - 16"</b></p> <p>Ductile iron compact fittings (sizes 4" through 16") must conform to AWWA specification C153. Ductile iron compact fittings will be mechanical joint with an interior cement lining with seal coating and an exterior bituminous coating. All fittings will be wrapped with 6 mil polyethylene (sealed with tape).</p> <p><b>2.2.4.3 Bolts</b></p> <p>All buried mechanical joint bolts and nuts must be CORTEN Steel. All above ground bolts and nuts for flanged fittings must be 18-8 Type 304 stainless steel. Never-seize/Anti-seize shall be applied to all SS bolts and nuts.</p> <p><b>2.2.4.4 Tapping Sleeve</b></p> <p>Tapping sleeves on mains 4" to 12" in diameter will be all Stainless Steel Sleeves.</p> <p>The All Stainless Steel Sleeve shall be fabricated from 304 Stainless Steel. They shall have a pass through bolt design and full circumferential gasket to provide 360° seal around the pipe. The tapping sleeve is to be fully passivated to return the stainless steel to its highest corrosion resistance stage.</p> <p>Sleeves on mains 16" to 24" in diameter will be fabricated with steel with O-ring seal, fusion bonded, epoxy coated with 304 stainless steel nuts and bolts or M.J. ductile iron body. Sleeves on mains larger than 24" will be handled on a case-by-case basis.</p> <p>Tapping Sleeves for reinforced concrete mains will be handled on a case-by-case basis. The sleeves will have a fusion-bonded epoxy coating on the entire body and throat assembly. The straps and bolts shall be 18-8 Type 304 stainless steel.</p> <p>The tapping valve must have centering ring and conform to Section 2.2.2.1 "Resilient Seat Gate Valves" in these Technical Provisions.</p> <p>Tapping saddle to be placed on asbestos concrete (AC) pipe shall be an <b>JCM A432</b> All Stainless Steel Sleeve or equal.</p> <p><b>2.2.4.5 Line Stop Sleeve Specifications</b></p> <p><b>Sizes 4" through 12"</b></p> <p><b>Sleeve/Body</b></p> <p>The entire Line Stop sleeve shall be fabricated from 304 Stainless Steel. They shall have a pass through bolt design and provide 360° seal around the pipe. The line stop sleeve is to be fully passivated to return the stainless steel to its highest corrosion resistance stage. Outlet on sleeve will be full port, i.e. on 8" sleeve, outlet will be 8", on 6" sleeve, outlet will be 6".</p> <p><b>Bolts, Nuts &amp; Washers</b></p> <p>18-8 Type 304 Stainless Steel, the bolts shall be track head type and furnished with permanently lubricated heavy-hex nuts and stainless washers.</p> <p><b>Gasket</b></p> <p>The full circumferential gasket shall be molded of synthetic rubber compounded for use with water salt solutions, mild acids, bases and sewage. The gasket shall have a gridded surface, be a full 1/4" thick with 304 stainless steel bridge plates molded flush into the gasket and have a raised hydro/mechanical outlet seal to seal against line surges and water hammer.</p> <p><b>Pressure Rating</b></p> <p>The sleeves shall be rated at 150 PSI hydrostatic with a test pressure of 200 PSI on pipe with full circumferential break.</p> <p>Line Stop Sleeves shall be a <b>JCM A440 Line Stop Sleeve</b> or approved equal.</p>
<p><b>2.2.5 FIRE HYDRANTS</b></p> <p>Fire hydrants must be manufactured in accordance with AWWA specification C502. Hydrants must have bronze-to-bronze main seat threading surfaces. They will be traffic type with drain holes plugged at the factory. Fire hydrants will have 18-8 Type 304 Stainless Steel bolts and nuts (bonnet, traffic flange and shoe).</p> <p><b>Residential Services</b>: Cross connection control device required for residential service shall be a dual check backflow preventer.</p> <p><b>Construction Sites</b>: Cross connection control device required for temporary construction jumpers shall be a double check backflow preventer. The Contractor shall provide test certifications on the jumper backflow preventer before the jumper is placed into service.</p> <p><b>2.2.6 SERVICE CONNECTIONS, 3/4"-2"</b></p> <p>All service connections will be single connections. Services that are 3/4" and 1" are to be type K annealed temper soft copper. All connections are to be of the flare type, 1-1/2" and 2" services are to be of type K drawn temper in straight lengths or annealed temper if furnished in coils. Absolutely no lead-based solder joints will be accepted. Any repairs of service lines will be by flare-to-flare coupling. No compression fittings will be accepted. Taps in the pipe will be drilled with a same nominal diameter as the service line. Service taps in PVC pipe will be drilled with a shutoff designed to cut PVC pipe, and the PVC plug will be removed.</p> <p>Brass goods furnished under this specification shall be new and unused. All fittings shall conform to ANSI/AWWA Standard C800, latest revision.</p> <p>All brass components in contact with potable water must be made from either CDA/UNS Brass Alloys C36520 or C36933 with a maximum lead content of 15% by weight. Brass alloys not listed in ANSI/AWWA C800 Paragraph 4.1.3 are not approved. All service fittings shall be certified as suitable for contact with drinking water by an ANSI accredited organization in accordance with ANSI/NSF Standard 61. All fittings shall be stamped or embossed with a mark or name indicating that the product is manufactured from the low-lead alloy as specified above.</p> <p>Brass saddles shall be made from CDA/UNS C83600 and are exempt from the "no lead" requirement.</p> <p><b>2.2.6.1 Saddles</b></p> <p>Saddles must be used for all connections to PVC, AC and D.I. pipe. Saddles must be all brass with "CC" threads as manufactured by <b>Mueller Company</b>, or <b>Ford Meter Box Company</b>. The pipe sizes for these manufacturers are noted below (approved materials are also listed in "Appendix A"):</p> <p><b>MUELLER</b>: For ductile iron pipe sizes 4" to 12", for 3/4" and 1" services, the single strap design must be used. For 1-1/2" and 2" services, the BR 2 B double strap design must be used.</p> <p><b>FORD</b>: For pipe sizes 4" to 12", for 3/4" and 1" services, the style 1018 single strap design must be used. For 1-1/2" and 2" services, the style 2028 double strap design must be used. For pipe sizes 16", and larger, for 3/4", 1", 1-1/2", and 2" services, the style 2028 double strap design must be used.</p> <p>An approved equal may be used in lieu of any of the above-listed designs/models.</p> <p><b>2.2.6.2 Curb Stops, 3/4" - 2"</b></p> <p>Curb stops 3/4" and 1" in size will be flare-by-meter coupling. Curb stops must have locking wings and a swivel meter nut. Curb stops that are 1-1/2" or 2" will be flare-by-meter flange with locking wing or an approved equal. All curb stops shall be centered in the meter box and installed in a horizontal position.</p>		

<p><b>CITY OF COCOA</b> Brevard County, Florida UTILITIES DEPARTMENT</p>	
<p>WATER TECHNICAL PROVISIONS</p>	
DRAWN BY:	SCALE:
CHECKED BY:	DATE: APRIL 2020
DRAWING No. :	SHEET: 1 OF 3
ACAD NAME:	

PROJECT NO.	114530_02
DRAWING NO.	114530_400_025
SHEET	25 of 35



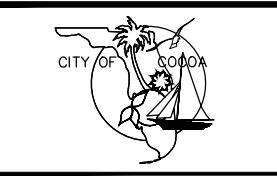
**B.S.E. CONSULTANTS, INC.**  
CONSULTING - ENGINEERING -  
LAND SURVEYING

312 SOUTH HARBOR CITY BOULEVARD, SUITE 4  
MELBOURNE, FLORIDA 32901  
PHONE: (321) 725-3674 FAX: (321) 723-159  
CERTIFICATE OF PROFESSIONAL ENGINEERS  
LICENSE NO. 41951  
CERTIFICATE OF LAND SURVEYING  
BUSINESS AUTHORIZATION: LB0004905

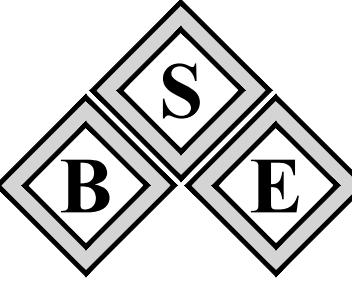
SCOTT M. GLAUBITZ, P.E. & P.L.S.  
STATE OF FLORIDA, No. 36369 No. 41951

HASSAN A. KAMAL, P.E.  
STATE OF FLORIDA, No. 41951

<p><b>2.2.6.3 Corporation Stops, 3/4" - 2"</b> All corporation stops for water service "X" thru "2" will be brass and have "CC" inlet threads and copper flare outlet. 2" Corporation stops for "jumpers" will be "CC"-by-F.I.P.</p> <p><b>2.2.6.4 Meter Boxes</b> Meter boxes for traditional meters are to be plastic with an iron flipper lid with a full pin hinge. Meter boxes for radio-read meters must have a lid compatible with City's AMR meter antenna (4 1/2" round). Service locations will be permanently cut and painted on concrete curbs or the street with a blue "W" for potable water or a purple "R" for reclaimed. Reclaimed services will be located at the opposite lot corner from water services where practical or with five feet minimum separation.</p> <p>For larger 1-1/2 and 2-inch meters, 17" x 30" meter boxes shall be used. For areas that are anticipated for high traffic areas, a traffic rate H-20-meter box shall be used. Reclaimed Water services will be set in purple meter boxes of meters per above. They are also required to have a 3" x 5" permanent plastic tag, secured to the curb stop with a nylon tie wrap, which will be supplied. Tags will be inscribed, "RECLAIMED WATER DO NOT DRINK".</p> <p><b>2.3 PROTECTION OF PROPERTY AND OBSTRUCTIONS</b></p> <p><b>2.3.1 PROTECTION</b> Temporary supports and/or adequate protection and maintenance must be provided on all underground and surface structures encountered in the progress of the work. Structures that have been disturbed will be restored to a condition equal to their original state upon completion of the work.</p> <p><b>2.3.2 OBSTRUCTIONS</b> All utility owners must be notified prior to beginning construction. Any known obstructions will be shown on the plans; however, Contractor is solely responsible for field verifying existing conditions. The utmost caution will be taken in all operations to avoid damage to existing obstructions whether or not shown on the plans. Damage to other utilities will be at the Contractor's expense.</p> <p>If the Contractor encounters any unforeseen obstructions during construction, the Contractor shall immediately cease work in that area and notify the Engineer of Record (EOR). The EOR shall design and provide detailed drawings to correct the situation. The drawings shall be submitted to the Engineering Division for approval. After approval by the Engineering Division, a set of approved drawings will be given to the contractor and they may resume work.</p> <p><b>2.3.3 EXISTING ASBESTOS CEMENT WATERMAINS</b> In areas where asbestos cement water mains are existing, water main relocations or replacements may be necessary. If new construction of facilities is over, under, or near asbestos cement water mains, it shall require that the asbestos cement water main be changed out to polyvinyl chloride pipe or ductile iron pipe. All asbestos cement pipe that is replaced shall be removed and disposed of by the contractor. Glass specifically directed in writing shall be removed and disposed of. No asbestos shall be removed from the pipe and location of the facilities being constructed. The Developers Engineer shall design the replacement and submit it for the Engineering Division approval. The Developer is responsible for all design, materials, labor, equipment, testing, and costs for the replacement. Contractor shall remove and dispose of AC pipe in accordance with FAC Codes 62-204.800 and 62-257.</p> <p><b>2.3.4 ABANDONMENT OF ASBESTOS CEMENT PIPE</b> Where asbestos cement water mains have been directed by the City to be abandoned in place they shall be filled with a sand/cement grout by the contractor. Grout shall be injected within the pipe sections to be abandoned where the ends of the sections shall be capped and/or plugged. The grouting program shall consist of pumping sand-cement grout with suitable chemical additives at pressures necessary to fill the pipe sections to prevent the potential for future collapse. The rate of pumping shall not exceed six (6) cubic feet per minute. The pumping pressures shall be in the range of 100 to 150 psi.</p> <p>The Contractor shall provide standpipes and/or additional means of visual inspections as required by the City to determine if adequate grout material has filled the entire pipe section(s).</p> <p><b>2.4 TRENCH PREPARATION</b></p> <p><b>2.4.1 EXCAVATION</b> A trench will be opened so that the pipe can be installed to the alignment and depth required. It will be excavated only so far in advance of pipe placement as necessary. The trench will be excavated to the depth required to provide a uniform and continuous bearing support for the pipe or undisturbed ground. Bell holes will be provided at each joint to permit joining to be made and inspected properly.</p> <p>During excavation, if ashes, cinders, muck or other organic material considered unsuitable is discovered at the bottom of the trench at sub-grade, unsuitable material will be removed and backfilled with approved material. This material will be compacted in layers to provide a uniform and continuous bearing characteristic of that area's soil condition. Where the bottom of the trench at sub-grade consists of unsuitable material to such a degree that it cannot be removed and replaced with an approved material to support the pipe properly, a suitable foundation must be constructed. Excavated material will be piled in such a manner that it will not endanger work or obstruct natural watercourses, sidewalks or driveways. Fire hydrants under pressure, valve boxes, or other utility controls will be left unobstructed and accessible at all times. Gutters will be kept clear or other satisfactory provisions will be made for street drainage.</p> <p><b>2.4.2 SHORING AND BRACING</b> Open cut trenches must be sloped, shored or braced as required by all governing State law, municipal ordinances, OSHA Standards, and as may be necessary to protect life, property, or the work. Trench bracing may be removed after backfilling has been completed or has been brought up to such an elevation as to permit its safe removal. The use of a trench box may be used in place of sheeting and bracing where appropriate. The Contractor is required to have a Competent Person designated and in charge at all times while workers are in the trench.</p> <p><b>2.4.3 DE-WATERING</b> Excess water must not be allowed in the trench at any time. An adequate supply of well points, headers or pumps, all in first-class operating condition, may be used to remove the water. The use of gravel and pumps will also be an acceptable means of removing the water. The trench will be excavated no more than the available pumping facilities are capable of de-watering. Discharge from pumps will be accommodated in accordance with the St. Johns River Water Management District's requirements. The Contractor is responsible for obtaining all de-watering permits such as NPDES permit.</p>		<p><b>2.5 PIPE LINE CONSTRUCTION</b></p> <p><b>2.5.1 GENERAL</b> All water mains, service lines, and appurtenances must be installed as specified on the approved plans and in accordance with the Standard Detail Sheet. Installation will conform to AWWA specification C600 except as modified herein.</p> <p>Domestic water service can only come from a Distribution main. When water service is requested and the only water main available is a Transmission main, a large tap and section of pipe shall be installed on the Transmission Main for the water service.</p> <p>The minimum size tap on a Transmission Main shall be a six (6) inch.</p> <p><b>2.5.2 MATERIAL HANDLING</b></p> <p><b>2.5.2.1 Precautions</b> Every precaution will be taken to prevent damage to pipe and piping materials during transportation and delivery to the work site. Under no condition will pipe be dropped, bumped, dragged or picked up by inserting forks into end of pipe. Pipe lifted by placing forks into pipe shall be removed from job site.</p> <p><b>2.5.2.2 Damaged Materials</b> If in the process of transportation, unloading or handling, any pipe or fitting is damaged, it will be rejected and removed from the site.</p> <p><b>2.5.2.3 Storage</b> Pipe fittings and specials will be stored in a manner which will assure the protection of the material from damage and which will keep it clean.</p> <p><b>2.5.3 INSPECTION OF MATERIALS</b> Materials delivered to the job site will be subject to inspection by the Engineering Division prior to installation. Contractor shall notify Inspections 24 hours in advance. All materials found to be defective or not meeting specifications during inspection or during the progress of the work will be rejected and removed from the job site without delay. All materials delivered to the job site will be in accordance with the materials specifications. Materials not inspected by the Engineering Division prior to installation will be uncovered by the Contractor at their expense to verify compliance with these specifications. The Contractor will furnish copies of the packing list for materials upon demand.</p> <p><b>2.5.4 PIPE PLACEMENT</b> The bottom of the trench will not be excavated below the specified grade. If undercutting occurs, the bottom of the trench will be brought up to the original grade with approved material and thoroughly compacted, as directed by the Engineering Division. Before placing pipe into the trench, the outside of the spigot and the inside of the bell will be wiped clean, dry, and free from oil and grease. Every precaution will be taken to prevent foreign material from entering the pipe. During placement operation, no debris, tools, clothing or other material will be placed in the pipe.</p> <p>All mechanical joints will be made up in strict accordance with the manufacturer's specifications. Beveled ends will be removed from PVC pipe entering a mechanical joint. The joint will be carefully cleaned before the gasket is inserted. Gaskets must be evenly seated, the gland placed in position with the bolts, and evenly tightened. All slip joints will be made up in strict accordance with the manufacturer's specifications.</p> <p>After placing a length of pipe in the trench, the spigot end will be centered in the bell, the pipe forced home, brought to correct alignment, and covered with an approved backfill material. Ductile iron pipe will be backfilled to the centerline of the pipe and compacted to ninety-five percent (95%) of standard Proctor T-39.</p> <p>PVC pipe will be backfilled in accordance with the manufacturer's recommendations for the laying conditions.</p> <p>Pipe will be installed with 30" minimum cover. Maximum cover of 42" will be accepted. Cover depth will be determined from proposed finish grade as indicated on the plans. At times when pipe placement is not in progress, the open ends of pipe must be closed by a watertight plug or other approved means. This provision will apply during the lunch hour as well as overnight. If water is in the trench, the seal will remain in place until the trench is pumped completely dry.</p> <p>All underground water main shall meet the horizontal and vertical separation requirements in FAC 62-555.314 as related to sanitary force main and gravity main, reclaim mains, and storm water gravity and force mains.</p> <p>Pipe installed under swales shall be D.I. and have 3 feet minimum cover. D.I. pipe to be centered on swale. If more than one joint of pipe is necessary, restrained joint pipe is required. See "Swale Crossing" detail and definitions.</p> <p>Pipe installed under canal or drainage ditch shall conform to all FDEP requirements. Pipe shall be restrained joint D.I. pipe with gate valves on both sides of canal/ditch. D.I. pipe shall have 5 feet minimum cover with a concrete cap. See "Canal or Drainage Ditch Crossing" detail and definitions.</p> <p><b>2.5.5 LOCATING WIRE</b> A UF 14 Copper Wire that allows for the location of the pipe using an induced current line locator will be installed on all potable water, reclaimed water, and wastewater mains. The wire must be placed on the top of the pipe and tamped approximately every ten feet. A run of wire must run from the main to each hydrant. Each fire hydrant must have one wrap of the wire around the barrel located at final grade.</p> <p>Wire color shall be blue for water, green for wastewater, and purple for reclaimed.</p> <p>A run of wire will also be brought up in each valve box. The wire will have 18 inches of excess length. Wire is to be connected together using an underground wire nut with a silicone-based sealant.</p> <p>The CCS wire shall meet the following requirements. HDPE insulation of 30 mils, #14 AWG conductor, maximum Ohms resistance of 8.28 ohms per 1000 ft., breaking load 256 lbs.</p> <p>When directional drilling is used, one continuous #10 CCS extra high strength locator wire shall be installed. The CCS wire shall meet the following requirements. HDPE insulation of 45 mils, #10 AWG conductor, maximum Ohms resistance of 0.999 ohms per 1000 ft., breaking load 1150 lbs.</p> <p><b>2.5.6 SERVICE LINE LOCATION</b> Service lines will be located at alternating lot lines outside the sidewalk within two feet of the right-of-way line as shown on approved plans or in a grased area behind the curb if located in other than a subdivision.</p> <p>Reclaimed service line is to be located adjacent to sewer cleanouts.</p> <p><b>2.5.7 BACKFILLED MATERIAL AND INSPECTION</b> All backfilling material will be free from cinders, ashes, refuse, vegetable or organic material, boulders, rocks, stones, or other material which is considered unsuitable. When backfill material is not specified on the plans, backfilling with the excavated material may be acceptable provided that such material is suitable for backfilling. Pipe should be backfilled as soon as possible to minimize the length of open trench. Pipe joints, valves, fittings, and thrust blocks will be left uncovered until inspection by the Engineering Division has been completed.</p> <p>The bore plan shall be signed by the responsible person in charge of the bore.</p> <p><b>2.5.8 VALVES AND FITTINGS</b> All valves and fittings will be set and joined to the pipe in the proper location as shown on the plans. Valves should be installed outside of the pavement where practical. A roadway valve box will be provided for every valve. This valve box must not transmit shock or stress to the valve. Valve will have alignment ring installed and valve box centered and plumbed over the wrench nut of the valve. The box cover is to be flush with the surface of the finished pavement or grade level as specified in the plans. A 2 1/4" square concrete pad 4" in thickness will be poured around the valve box when it is located outside of pavement. A bronze or stainless-steel disc will be cast into the pad for all valves 12" or larger. Valve nomenclature to be stamped into the disc will include the valve size, type, manufacturer's initials, number of turns, and direction to open the valve. (Example: 12" G.V. U.S.P. 20 c.c.w.)</p> <p>All valves will be located within two feet of the tee, see detail "Gate Valve and Fitting."</p> <p>When solid sleeves or couplings are used to join/tie-in pipelines, a Spacer Piece shall be installed if there is a gap in the pipeline.</p> <p><b>2.5.9 FIRE HYDRANTS</b> All fire hydrants (hydrants) will be located as shown on the plans and marked on the pavement with a blue reflector. On unpaved streets, a blue reflector will be affixed to a post and placed as close to the edge of the road as feasible to be easily visible. The hydrants will be located in such a manner as to provide complete accessibility and in a manner so that the possibility of damage from vehicles or injury to pedestrians will be minimized. All hydrants must stand plumb and the bury line of the hydrant at the finished grade. Hydrants installed in State highway rights-of-way will be placed in accordance with any F.D.O.T. requirements. Contractors shall not turn or add risers to hydrants. All hydrants will be connected to the main in the manner shown on the Standard Detail Sheet. If the installation of the hydrant requires the hydrant to be greater than 40 ft. away from the fire hydrant value, an additional valve shall be installed. If the fire hydrant value ends up in asphalt of a major road (not subdivision) an additional hydrant valve regardless of distance shall be installed.</p> <p><b>2.5.10 RESTRAINED PIPE JOINTS</b> The Engineer of Record shall provide a restrained joint detail on drawings submitted to the City for approval. Restraining is to apply to all new fittings installed as part of the job, including tapping saddles.</p> <p><b>2.5.11 THRUST BLOCKS AND COLLARS</b> Restrained joint systems are the preferred method. Thrust blocks may only be used with the City's standard thrust block, which has been specified for the job and is shown on the Standard Detail Sheet. Metal harnesses, tie rods, or clamps of adequate strength to prevent movement may be installed at locations where thrust blocks are not practical. Rods and clamps will be stainless steel. A 20-ft length of ductile iron pipe will be installed at all main endings and a concrete thrust collar will be poured around the pipe at a distance of 10 feet from the end of the joint. In lieu of concrete thrust collar, restrained pipe upstream of the proposed concrete thrust collar may be used.</p> <p><b>2.5.12 JACK AND BORE, PIPE INSTALLED IN CASINGS</b> Pipe to be installed under pavement where open trenching is not permitted will be installed through a steel casing that has been jacked and bored. The casing pipe will be six to eight inches larger than the outside diameter of the pipe on the bell of the Ductile Iron pipe. The Engineer of Record will design the casing and bore to meet FDOT or FCRR requirements.</p> <p>Ductile iron pipe of the appropriate Class will be installed in the casing. Water mains must be pushed or pulled through the casing on stainless steel casing spacers with polyethylene skids attached to the pipe with stainless steel straps. The stainless-steel casing spacers with polyethylene skids will be placed in accordance with manufacturer's recommendations. Casing spacers must be manufactured by Cascade or an approved equal. Restrained joints are required on mains installed inside casings.</p> <p><b>2.5.13 JACK AND BORE, PIPE INSTALLED IN CASINGS</b> J&amp;B installed under FDOT roadways shall conform to the latest FDOT Road and Bridge Construction design standards. J&amp;B installed under FCRR shall conform to FCRR requirements.</p> <p><b>2.5.14 BLOWOFFS</b> Flushing blow-offs are to be installed and constructed as shown on the Standard Detail Sheet. Blow-off shall consist of 2" brass for valves, brass threaded fittings, 2" brass angle wheel valves, and plastic meter box (brass for reclaimed). The plastic meter box is to be installed at grade over the wheel valve. The angle wheel valve will be within six inches of finished grade and will be plugged with a brass plug. 4" blow-offs will be required on both potable water and reclaimed water mains 12" and larger and must be constructed as shown on the Standard Detail Sheet. A reclaimed tag will be installed on reclaimed main blow-offs in a reclaimed meter box.</p> <p>Brass used in potable water shall meet the low lead requirements as set forth in Section 2.1.6, "Service Connections".</p> <p><b>2.6 TIE-INS TO EXISTING SYSTEMS</b></p> <p><b>2.6.1 GENERAL</b> The Contractor is not to operate any valve or remove any thrust block from City-owned mains except under direct supervision of an inspector of the Engineering Division. The Contractor may have a post request the existing piping for the tie-in as required by the Engineering Division. All Contractors must follow the procedures listed below for connecting new mains to existing water systems.</p> <p><b>2.6.1.1 Mains 8" and smaller</b> Existing tie-in valves will be operated and pressure tested to verify water tightness prior to the tie-in. Existing main valves that are not open may be closed to allow a new valve to be installed. Existing main valves that are open may be closed to allow a new valve to be installed. The contractor shall provide a 2" tap on the main new and a 2" tap on the existing main at the tie-in valve. A 3" jumper equipped with a City supplied meter and contractor supplied backflow preventer (double check) will be installed. The jumper will be utilized for filling the main, flushing the main, providing water for bacteriological sampling, and maintaining pressure in the main after a successful bacteriological test. The proposed tie-in valve is not to be operated and the jumper is not to be removed until clearance has been obtained from FDEP and the City. The Engineer of Record will be required to provide an executed FDEP certificate of completion prior to clearance. After clearance, the tie-in valve will be opened, the jumper removed, and the main thoroughly flushed under the supervision of the inspector. All other existing valves closed as part of the job will be opened by the contractor under the supervision of Engineering Division.</p> <p><b>2.6.1.2 Mains 10" and larger</b> The same procedure as noted for mains 8" and smaller will be used for mains 10" and larger except that the jumper will be utilized only for filling the main, providing water for bacteriological sampling, and maintaining pressure in the main after a successful bacteriological test. The tie-in valve can be opened for flushing and during chlorination only under the supervision of the Engineering Inspection Division. The tie-in valve is not to be operated and the jumper is not to be removed until clearance has been obtained from FDEP and the City. After clearance, the tie-in valve will be opened, the jumper removed, and the main thoroughly flushed under the supervision of the inspector. All other existing valves closed as part of the job will be opened by the contractor under the supervision of the Inspector.</p> <p><b>2.7 TESTING</b></p> <p><b>2.7.1 GENERAL</b> All newly installed pipe and services that have been backfilled must be tested in accordance with AWWA specification C651.</p> <p><b>2.7.2 JUMPER METER ASSEMBLY</b> All fitting, and flushing, must be accomplished through a jumper meter assembly. The jumper meter assembly shall consist of a meter (provided by the City, paid for by the Developer/Contractor), and a double check backflow preventer and galvanized piping (provided by the Contractor). The jumper meter assembly shall be installed by the Contractor under the direct supervision of the Engineering Division. After installation, the Contractor shall have the backflow preventer certified by a backflow technician, and a copy of the test report shall be provided to the Engineering Division.</p> <p><b>2.7.3 PLACING AND SWABBLING</b> The details for placing any water main from existing active water mains and for flushing of new mains up to 8" diameter (2.5 P.S. minimum velocity) and for pulling bacteriological samples from any new water main of any size can be found in Section 2.7.3-Placing and Swabbing. The jumper connection shall be maintained until after filling, flushing, testing, and disinfection of the new main has been successfully completed and clearance for use from the Florida Department of Environmental</p>
---	--	---

 <p><b>CITY OF COCOA</b> Brevard County, Florida UTILITIES DEPARTMENT</p>	
<p><b>WATER TECHNICAL PROVISIONS</b></p>	
DRAWN BY: _____	SCALE: _____
CHECKED BY: _____	DATE: APRIL 2020
DRAWING No.: _____	SHEET: 2 OF 3
ACAD NAME: _____	

PROJECT NO.	11453.02
DRAWING NO.	1145302_400_026
SHEET	26 of 35



B.S.E. CONSULTANTS, INC.  
CONSULTING - ENGINEERING -  
LAND SURVEYING

312 SOUTH HARBOR CITY BOULEVARD, SUITE 4  
MELBOURNE, FLORIDA 32901  
PHONE: (321) 725-3674 FAX: (321) 723-1159  
CERTIFICATE OF PROFESSIONAL ENGINEERS  
LICENSED IN THE STATE OF FLORIDA  
CERTIFICATE OF LAND SURVEYING  
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.  
STATE OF FLORIDA, No. 36859

HASSAN A. KAMAL, P.E.  
STATE OF FLORIDA, No. 41951

### 2.7.3 FLUSHING AND SWABBING

The City will provide an adequate volume of water for the filling, flushing, and testing of mains. The Contractor will notify the Engineering Division prior to flushing or filling mains. The pressure in the City's system will be monitored during the flushing; at no time should the pressure in the City's system be allowed to drop below 35 psi. Water used during flushing will be billed to the Contractor.

The City of Cocoa Engineering Division requires all new mains regardless of size or material to be pigged/swabbed. In an effort to make sure all footages of a pipeline are pigged, the following procedures are to be used as a guide and in no way to be construed as means and methods.

The following terminology may be used in the discussion or operation of the pigging procedure. Pigs shall be manufactured of a 2 pounds per cubic foot

density open cell polyurethane foam  
body (swab) complete with rear polyurethane drive seal.

Pig launching station may be a "wye", "tee", or simply inserting the pig at the very beginning of the pipeline. The beginning of the pipeline is defined at the jumper assembly location.

Pig retrieval point or cannon is a "wye", "tee" or open end of pipe at which point the pig will exit the pipeline.

The pipeline will be filled through the jumper assembly the day before of the pigging operation.

The pig will be advanced through the pipeline at a rate of 2 feet per second, 80 gpm for 4", 180 gpm for 6", 320 gpm for 8". Flow rates and jumper assemblies for mains 10" and larger will be determined by the Engineer of Record and approved by the City of Cocoa Engineering Division.

The pig retrieval point or cannon will project at least one foot above the surrounding grade. The water from the pig retrieval station and its location to discharge shall be approved by the Engineering Division. The contractor will be responsible for following the National Pollutant Discharge Elimination System (NPDES) requirements to remove chlorine from discharge as well as protect retrieval area from erosion. Retrieval cannons will not be left in place. After pigging and flushing are complete, the cannon will be removed and capped below ground in accordance with Engineer of Record details or City of Cocoa Standard Details.

The contractor may insert the pig into the first section of pipe between the isolation valve and the downstream point of jumper assembly. By inserting the pig between the isolation valve and the downstream jumper assembly point it will allow the pipeline to be filled without moving the pig down the pipeline. If the pig is moved during filling operation another pig will be inserted into the pipeline. The isolation valve may be cracked open for a few seconds under the direction of the Engineering Division to move the pig past the jumper assembly downstream point so the jumper assembly can advance the pig through the pipeline.

When the pig exits the pipeline, the flushing will continue until the water is clear. A simple way to determine if water is running clear is to capture some water in a WHITE cup. If water is clear and no particles in cup then flushing is complete; if not, flushing will continue until water is clear.

### 2.7.4 HYDROSTATIC TEST

A blow-off or fire hydrant will be installed at the end of the pipeline under test. The line being tested will be slowly filled with water to the specified test pressure. Before applying the specified test pressure, all air will be expelled from the test section including service connections. If fire hydrants or blow-offs are not available at high elevations, taps at points of highest elevation will be made to facilitate air removal and testing. When testing is complete, the service lines installed for air removal must be removed.

The line must hold the 150-psi test pressure for a two-hour test period and must be performed under the direct supervision of the Engineering Division. Sufficient human resources are to be employed to ensure inspection. If the line fails to meet the test, it will be repaired and re-tested until the test requirements are satisfied. Line pressure will be maintained to within 5 psi of the test pressure at all times.

### 2.7.5 LEAKAGE TEST

A leakage test at 150 psi will be performed on all newly installed sections of pipe in accordance with AWWA C600 or C605 after installation of all service connections. Any leakage observed must be less than the following per thousand feet of pipe:

Size (in)	Allowable Leakage (gall/hour)
2	0.33
4	0.50
6	0.67
8	0.83
10	1.06
12	1.16
14	1.32
16	1.48

$$L = \frac{SD}{P} \sqrt{P}$$

L = testing allowance (makeup water), in gallons per hour

S = length of pipe in feet

D = nominal diameter of pipe, in inches

P = average test pressure during the hydrostatic test, in pounds per square inch (gauge). P has the square root taken.

On small main extensions where the allowable leakage loss cannot be reasonable measured (.25 gallons or less), NO LOSS OF PRESSURE shall be allowed.

### 2.8 DISINFECTION AND BACTERIOLOGICAL TESTING

#### 2.8.1 GENERAL

The Contractor must flush potable mains and arrange for complete disinfection by chlorination in coordination with the Engineering Division. Work will conform to applicable provisions of AWWA specification C651-14, "Disinfecting Water Mains". Water with a chlorine concentration of 50 ppm will be evenly distributed throughout the pipe system and allowed to remain in the pipe for twenty-four hours. Transmission mains may be chlorinated using the "slug method". If the slug method is used, a detailed written procedure shall be submitted for approval. The main shall be dechlorinated to zero ppm chlorine before any flushing is performed. The method for dechlorination shall be approved by the Engineer of Record. After flushing, the water shall remain in the pipe for 24 hours before sampling. Service connections and tie-ins made before testing must be disinfected in accordance with AWWA specification C651. Samples will be taken by an Engineering Division approved laboratory. Two consecutive day samples are required for potable water mains. Water mains shall not be flushed between samples. The Contractor will be responsible for ALL bacteriological testing fees. Sample points are determined by the Engineer of Record and approved by FDEP. If samples taken do not demonstrate satisfactory results, re-chlorination and retesting of all sample locations is required at the Contractors expense.

#### CONTRACTORS WORKING ON EXISTING MAINS

When existing water mains are taken out of service by contractors, and water service to existing customers is interrupted causing a precautionary boil water notice (PBWN), the water main will be taken out of service on Monday or Tuesday. If for some reason the water main cannot be taken out of service on Monday or Tuesday, then the contractor at their expense shall have the laboratory perform bacteriological testing after normal working hours. This procedure is to lessen the time water customers are under a PBWN.

### 2.9 WET TAP CONNECTIONS TO EXISTING SYSTEM

#### 2.9.1 GENERAL

**Tap Being Performed**  
Parties Allowed to Perform the Tap  
Taps 2" and smaller  
Approved tapping and line stop contractor  
Contractor approved to tap mains solely for their own project  
Contractor must perform 5 successful taps under the supervision of the inspection team and demonstrate possession of proper tapping equipment  
Taps 2"-16"  
Approved tapping and line stop contractor  
Taps 16" and greater  
Approved

tapping and line stop contractor  
Each tap requires independent review and approval  
The tap must be performed under direct supervision of the engineering division  
Taps on concrete  
Transmission mains Contractor approved for taps on City of Cocoa transmission mains

- Tapping plan must be submitted by the contractor prior to the tap  
On transmission mains, the approved tapping and line stop contractor will install the tapping saddle and valve. For all connections from 4"-12" the contractor may install tapping saddle and valve under direct supervision of the Engineering Division.  
For all other connections, the Contractor must obtain the required permits, provide a pit area, provide pit preparation including shoring and bracing, provide maintenance of traffic, provide all right-of-way restoration, and notify all utilities prior to construction. Connections must be completed under direct supervision of the Engineering Division.  
The list of approved contractors may be found on pg. 158.

Tapping saddles and valves supplied by the Contractor will be inspected by the Engineering Division prior to installation. The installed tapping saddle and valve must be tested with water at 100 psi for 15 minutes prior to tapping to ensure a watertight installation. Saddles installed on concrete pressure pipe will be tested 10% over line pressure. The pressure test will be performed by the Contractor and supervised by the Engineering Division. After the pressure test of the saddle has been completed, an Approved Tapping Contractor can tap the main.

#### 2.9.2 TAPPING AND LINESTOP PROCEDURES

ALL TAPS OR LINESTOPS on City of Cocoa potable, reclaimed, and wastewater mains will be performed by an **Approved Tapping Contractor**.

Absolutely NO taps or linestops will be performed on Friday or any day preceding a holiday.

Approved Contractors must disinfect tapping machine with AWWA approved disinfectant.  
This will be witnessed by the Inspector.

The Contractor's tapping or linestop machines will be in good working order with appropriate bits and shell cutters for the type of pipe being worked on (i.e. shellcutter for PVC).  
\*\*

When taps or linestops are installed on Transmission Mains (> 12"), a preconstruction meeting will be held with the tapping contractor prior to ANY work being performed. The meeting may be held at the job site.

Taps and linestops on the Utilities concrete pressure mains will be a two (2) day process and will require a pre-construction meeting. Day one the saddle is installed and grouted. Day two tighten straps, cut pre-stressing wires, install throat and valve. Pressure test on saddle is 10% over line pressure for 30 minutes. After successfully completing pressure test, tap can be made.

Toggle bolts will be required for CCP taps to assure the entire coupon remains intact. The coupon must be provided to the City.

ALL excavations must conform to current OSHA Trench Safety Act.

The City of Cocoa reserves the right to remove any contractor from the approved list for any work considered substandard.

\* Tap or linestop to include: Material, installation, labor, drilling, and testing

\*\* Bit, boring bar, and adapter

### 2.10 FINAL CLEAN-UP AND ACCEPTANCE

#### 2.10.1 GENERAL

Upon completion of the work and before acceptance by the Engineering Division, the Contractor will meet all permit conditions, remove all debris, and complete sodding, sprigging, or seeding if required by the plans. The Contractor will leave all areas affected by operations in a neat and presentable condition.

Acceptance of completed work by the City will be contingent on the following work items completed to the satisfaction of the Engineering Division.

### 2.14 RECORD DRAWINGS

#### Pressure Test

#### Bacteriological Testing

#### Restoration

#### Payment of fees

#### Approved As-Builts

#### Easements

#### Bill of Sale

#### Fire line DCDA certification, as needed

#### Final Inspection

### 2.11 FIRE SERVICE

#### 2.11.1 GENERAL

All Fire Lines shall be installed by a licensed Fire Line Contractor in accordance with Florida Statute Chapter 633 and Rule Chapter: 69A-46. Where wet pipe sprinkler service is used, an RPDA or DCDA will be installed in accordance with the "Backflow Prevention and Cross-Connection Control" Section of the Utilities Handbook and as described in the "City of Cocoa Cross Connection Control Program Manual".

Fire line backflow preventer assemblies shall be installed in non-traffic areas. Four to six bollards may be required.

### 2.12 CONNECTION OF BUILDINGS OVER FOUR FLOORS

#### 2.12.1 GENERAL

Connection of domestic water supply systems serving buildings over four floors in height to the City's water distribution system will be subject to the following requirements:

A fixture unit analysis will be performed by the Owner's engineer to determine peak domestic flow requirements. This analysis is to be provided to the Engineering Division.

A water meter and a reduced pressure backflow preventer, sized in accordance with the domestic flow requirements, will be installed above ground at the developer's expense.

Upon written request, the City will provide the site engineer with the minimum expected system pressure. The site engineer will be responsible for providing this information to the architect and building owner. Means for providing an adequate supply of domestic water and fire protection to all parts of the building during periods of minimum pressure will be the responsibility of the building Architect or Engineer of Record.

Repair costs for damage to the water meter caused by flows exceeding its rated capacity will be charged to the customer.

### 2.13 BACKFLOW PREVENTERS

#### 2.13.1 GENERAL

All connections to the City of Cocoa potable water system shall contain a backflow preventer assembly per the Standard Details in "Appendix B". Backflow preventer requirements for each service type are described in the "City of Cocoa Cross Connection Control Program Manual" and are summarized in Paragraph 2.1.3, "Backflow Preventers" and "Appendix A" of this document.

		CITY OF COCOA	
		Brevard County, Florida UTILITIES DEPARTMENT	
WATER TECHNICAL PROVISIONS			
DRAWN BY:	SCALE:		
CHECKED BY:	DATE: APRIL 2020		
DRAWING No.:	SHEET: 3 OF 3		
ACAD NAME:			

DATE: 07/13/20  
DESIGN/DRAWN: SMG/RMB

PROJECT TITLE

ADAMSON CREEK  
PHASE ONE-C

SHEET TITLE

CITY OF COCOA  
WATER  
TECHNICAL  
PROVISIONS

PROJECT NO.

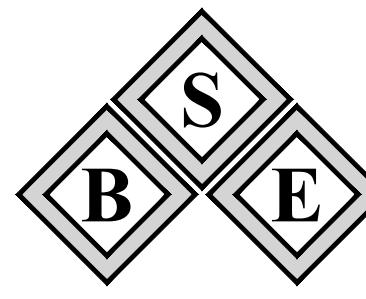
1145302

DRAWING NO.

1145302\_400\_027

SHEET

27 of 35



B.S.E. CONSULTANTS, INC.  
CONSULTING ENGINEERING -  
LAND SURVEYING

312 SOUTH HARBOR CITY BOULEVARD, SUITE 4  
MELBOURNE, FLORIDA 32901  
PHONE: (321) 725-3674 FAX: (321) 723-159

CERTIFICATE OF PROFESSIONAL ENGINEERS  
LICENSED AND REGISTERED  
CERTIFICATE OF LAND SURVEYING  
BUSINESS AUTHORIZATION: LB000495

SCOTT M. GLAUBITZ, P.E. & P.L.S.  
STATE OF FLORIDA, No. 33659

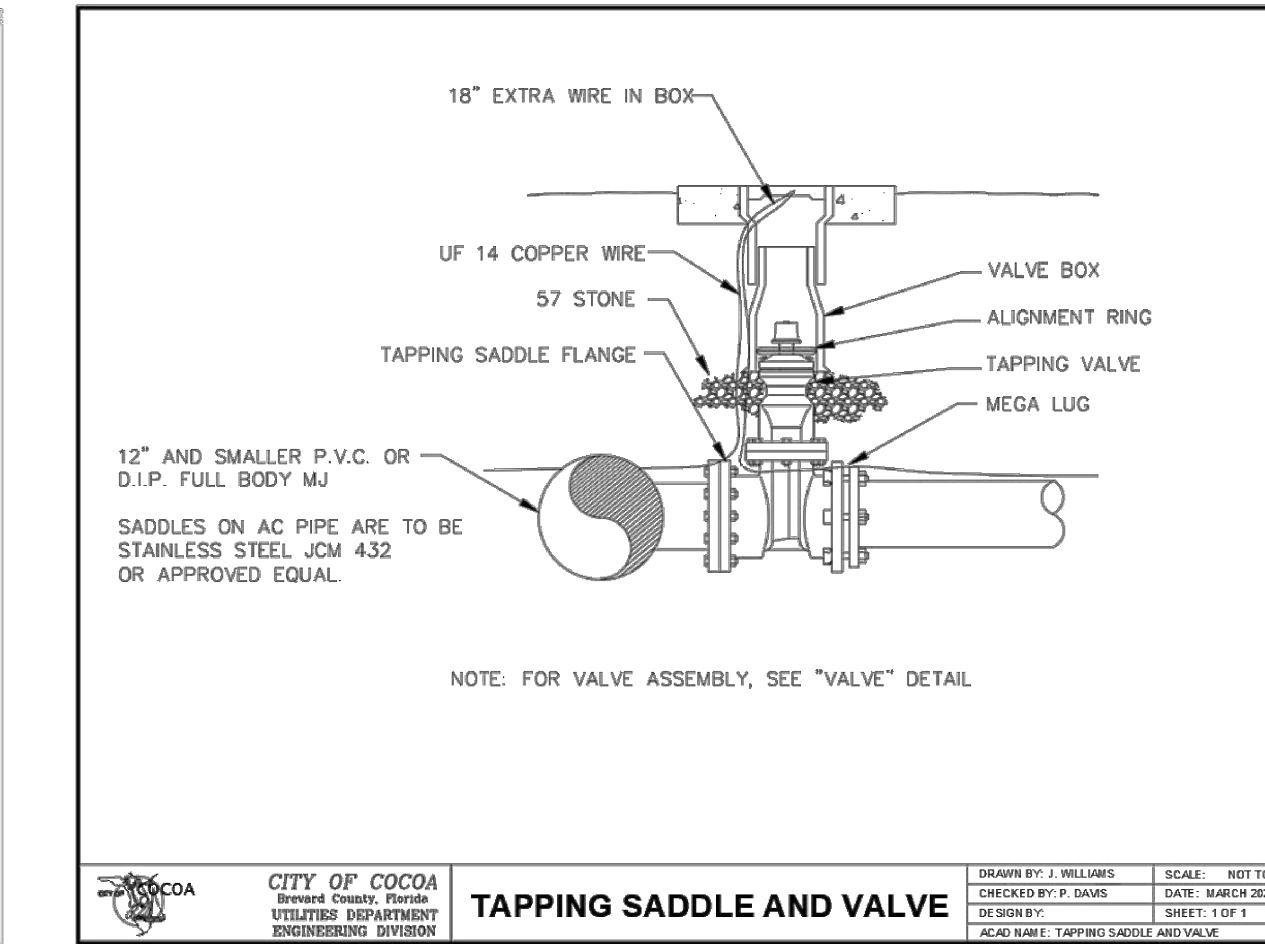
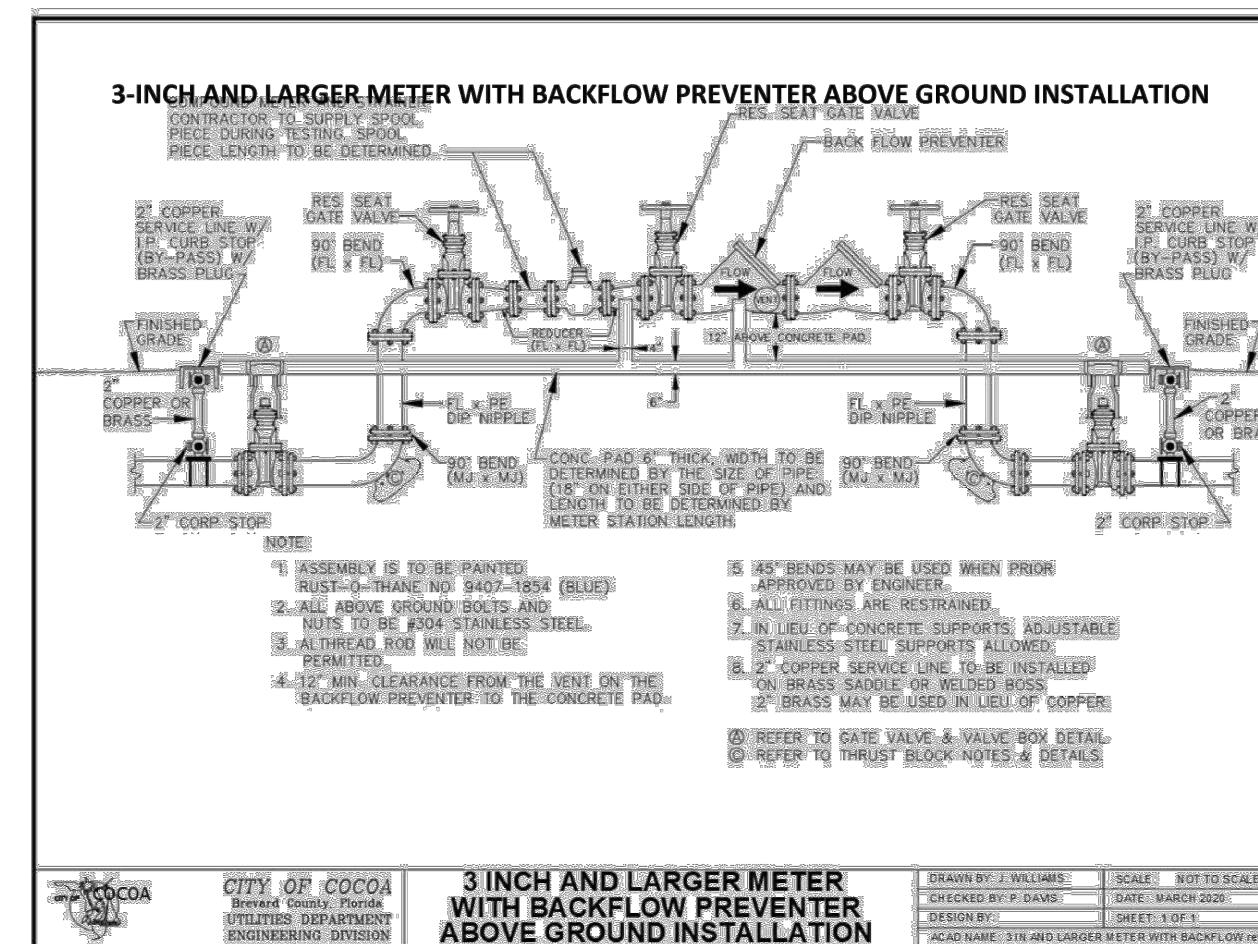
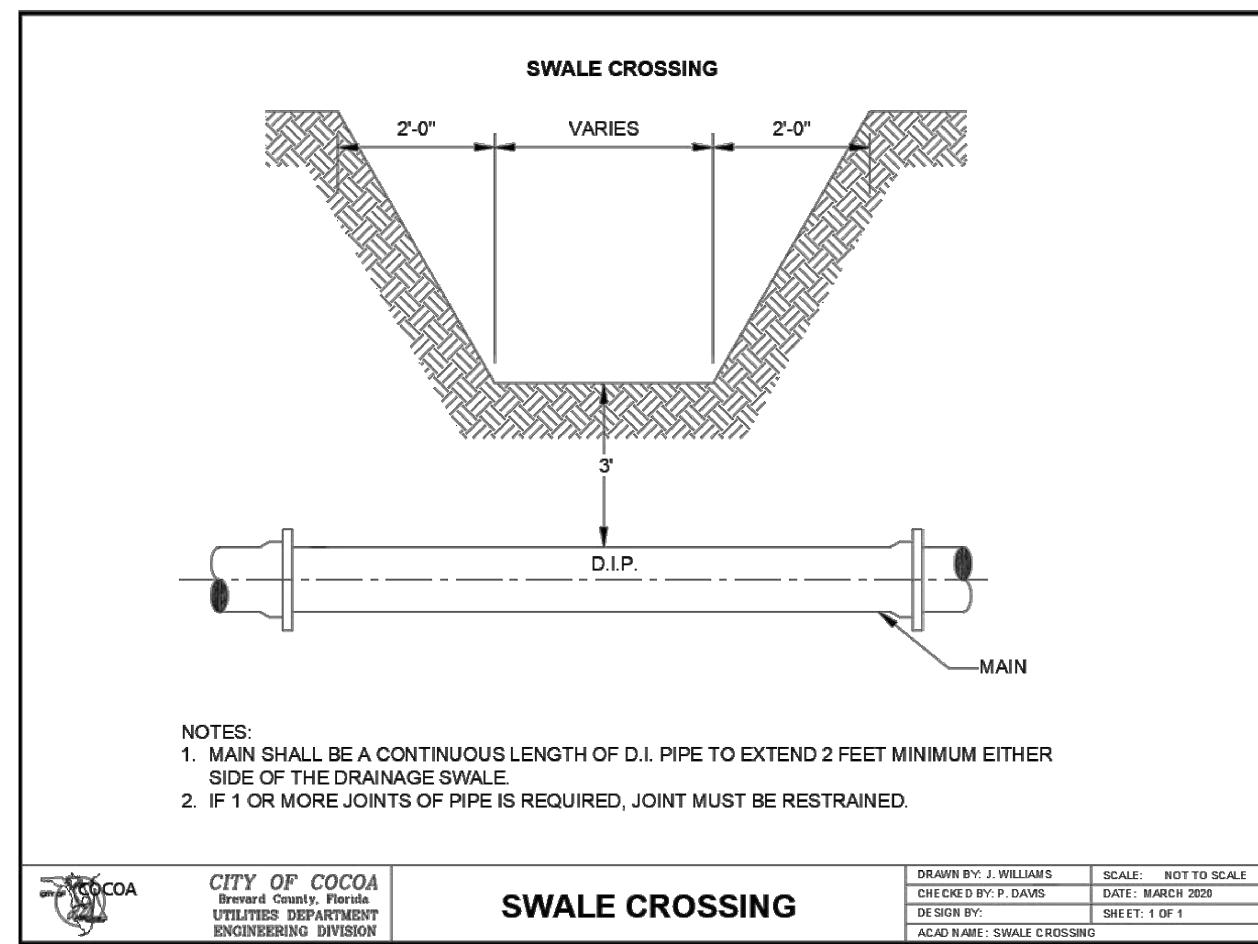
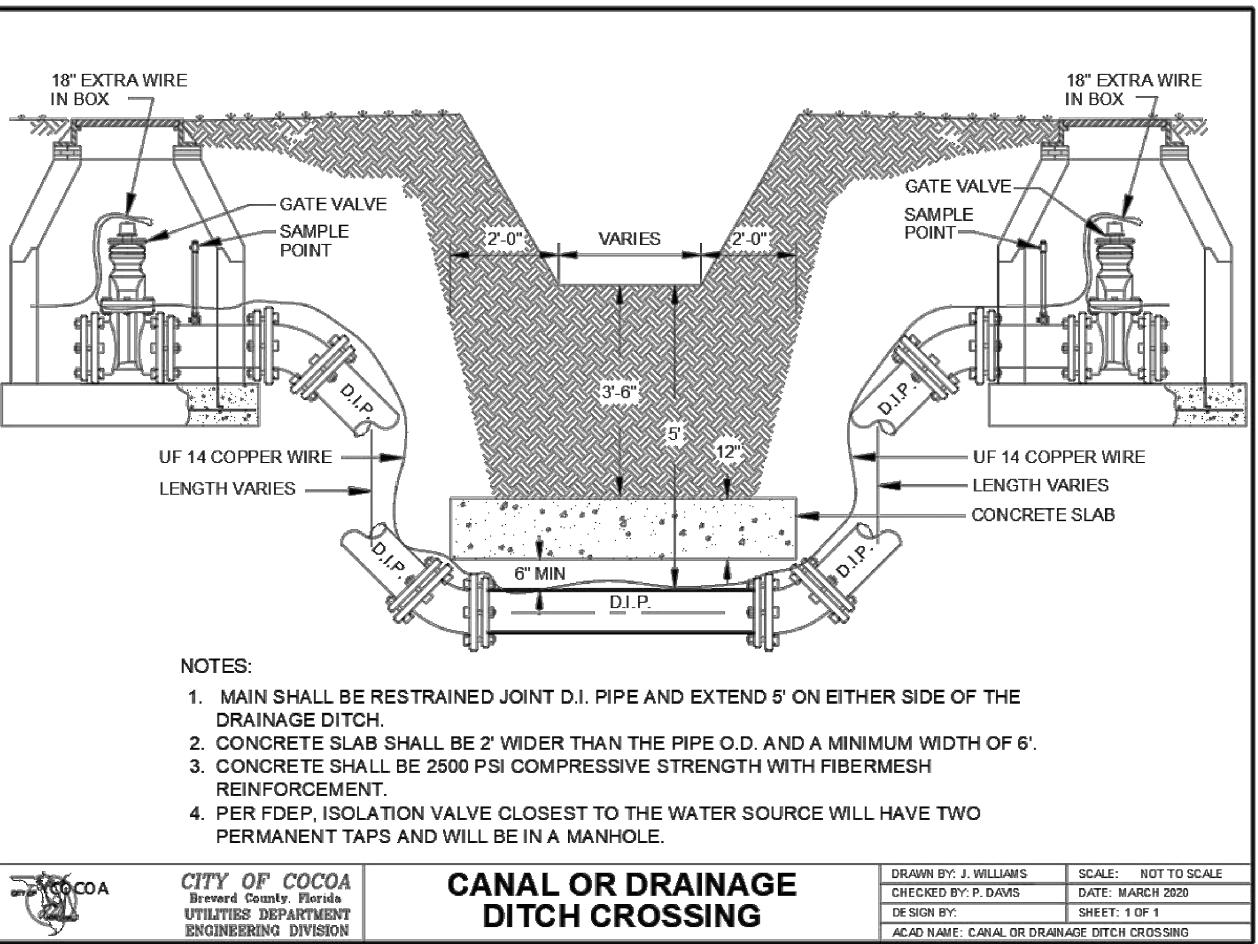
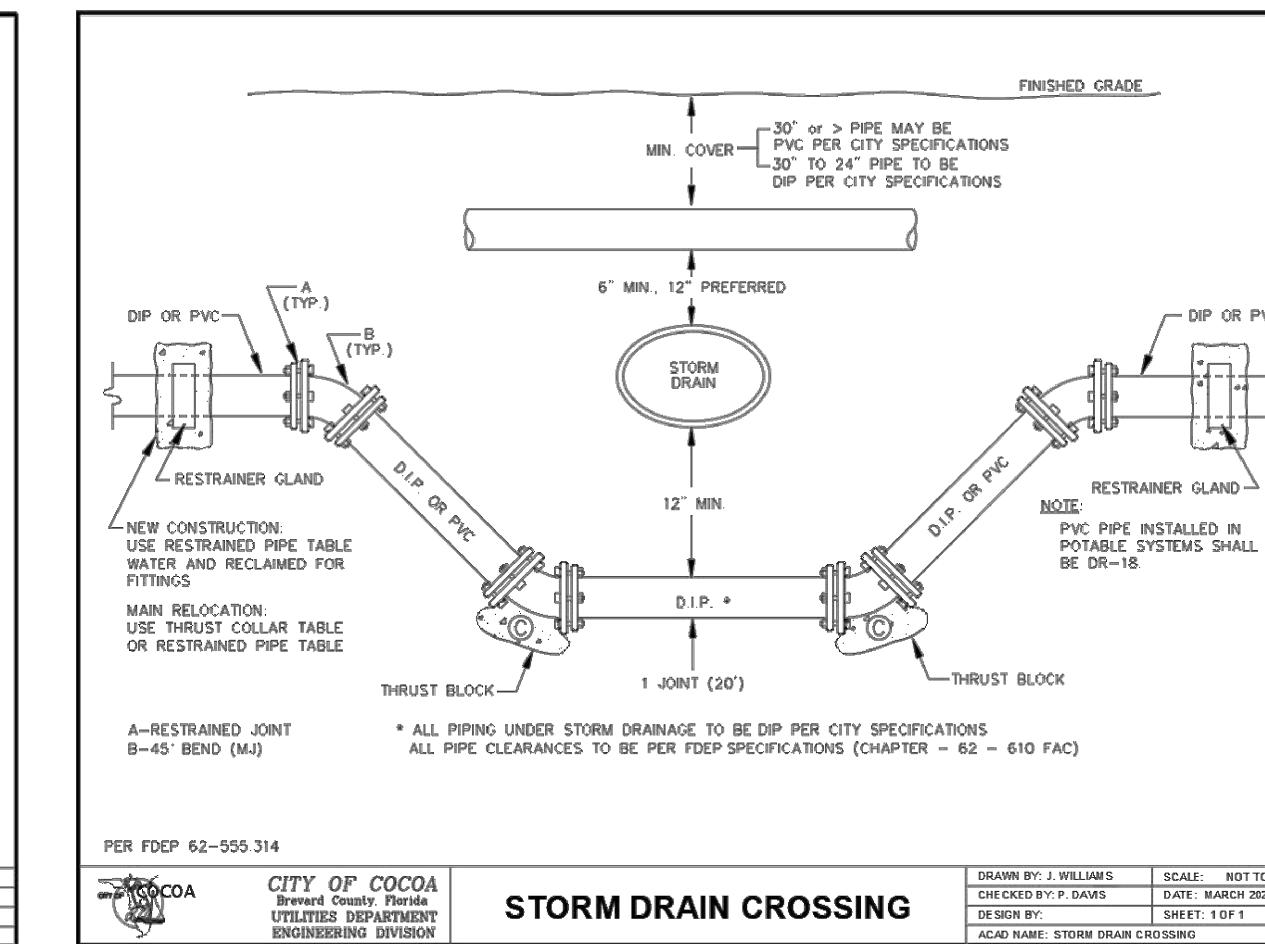
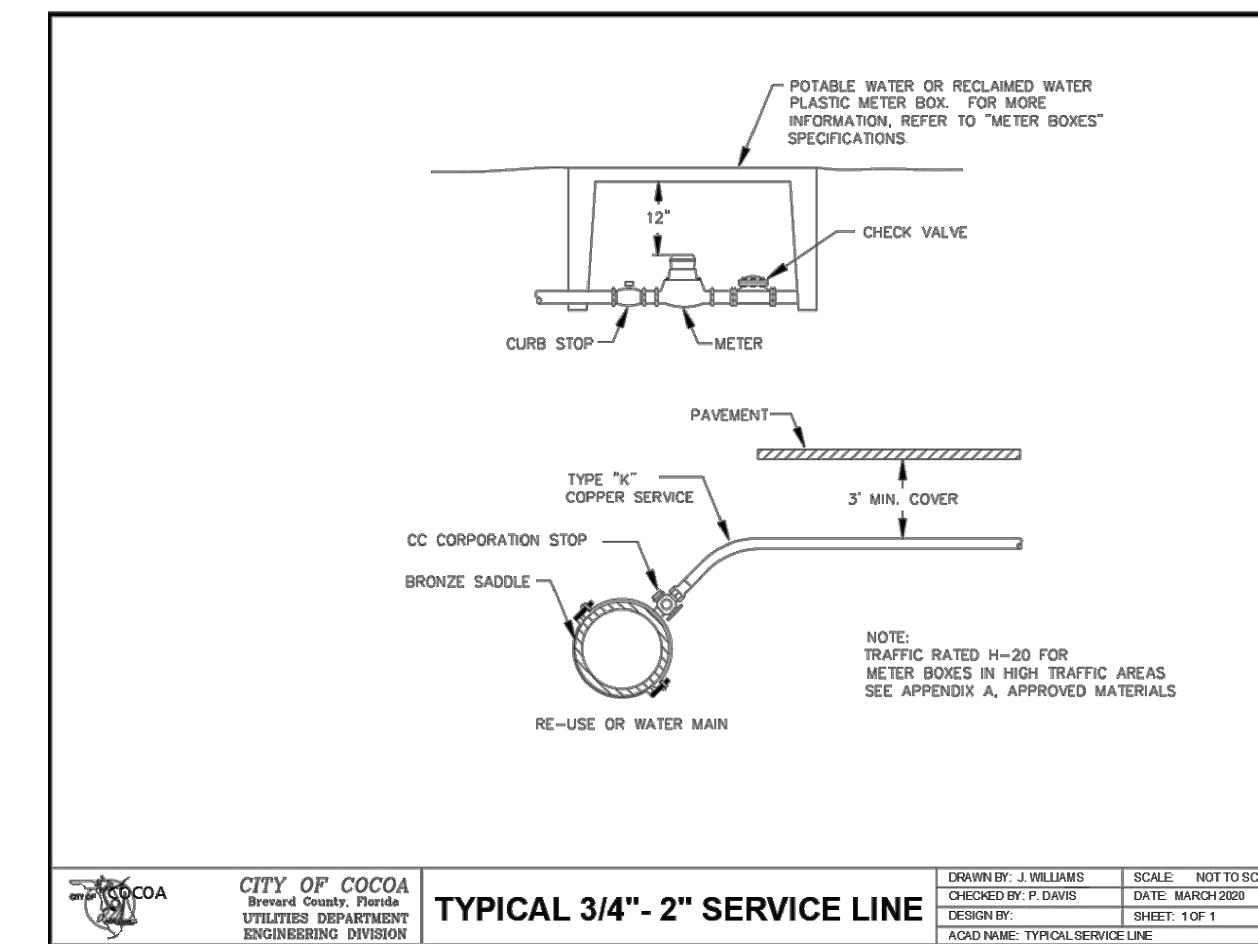
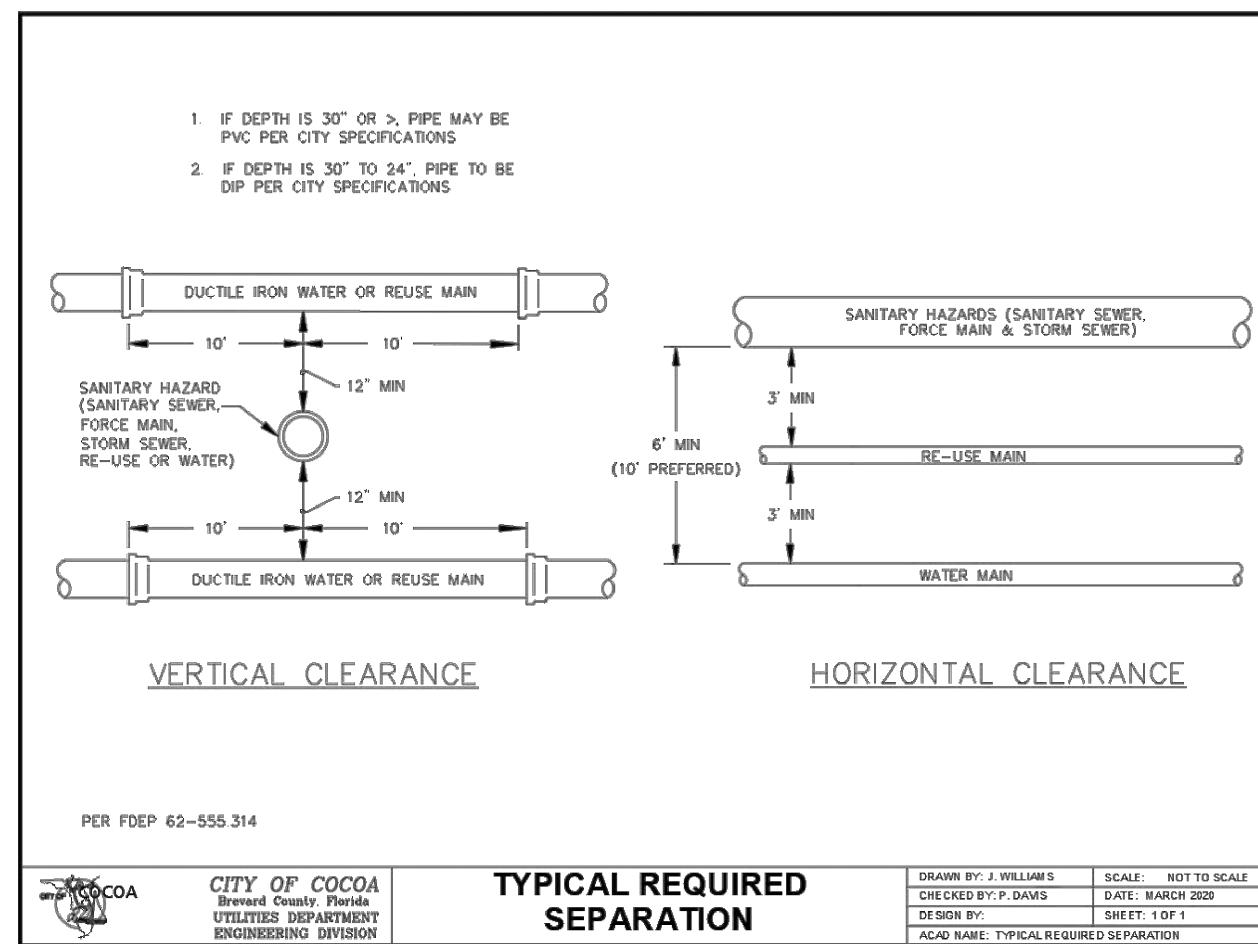
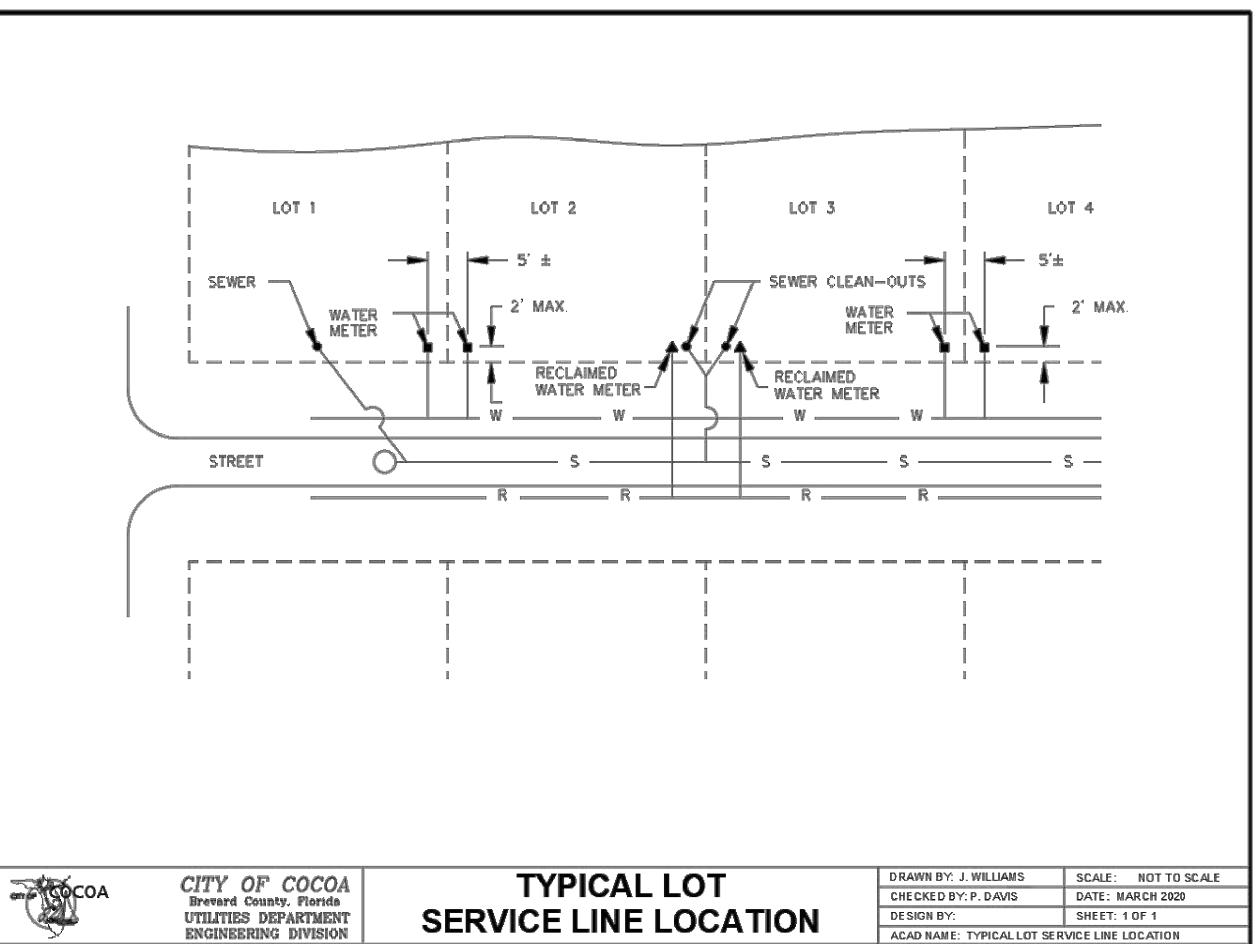
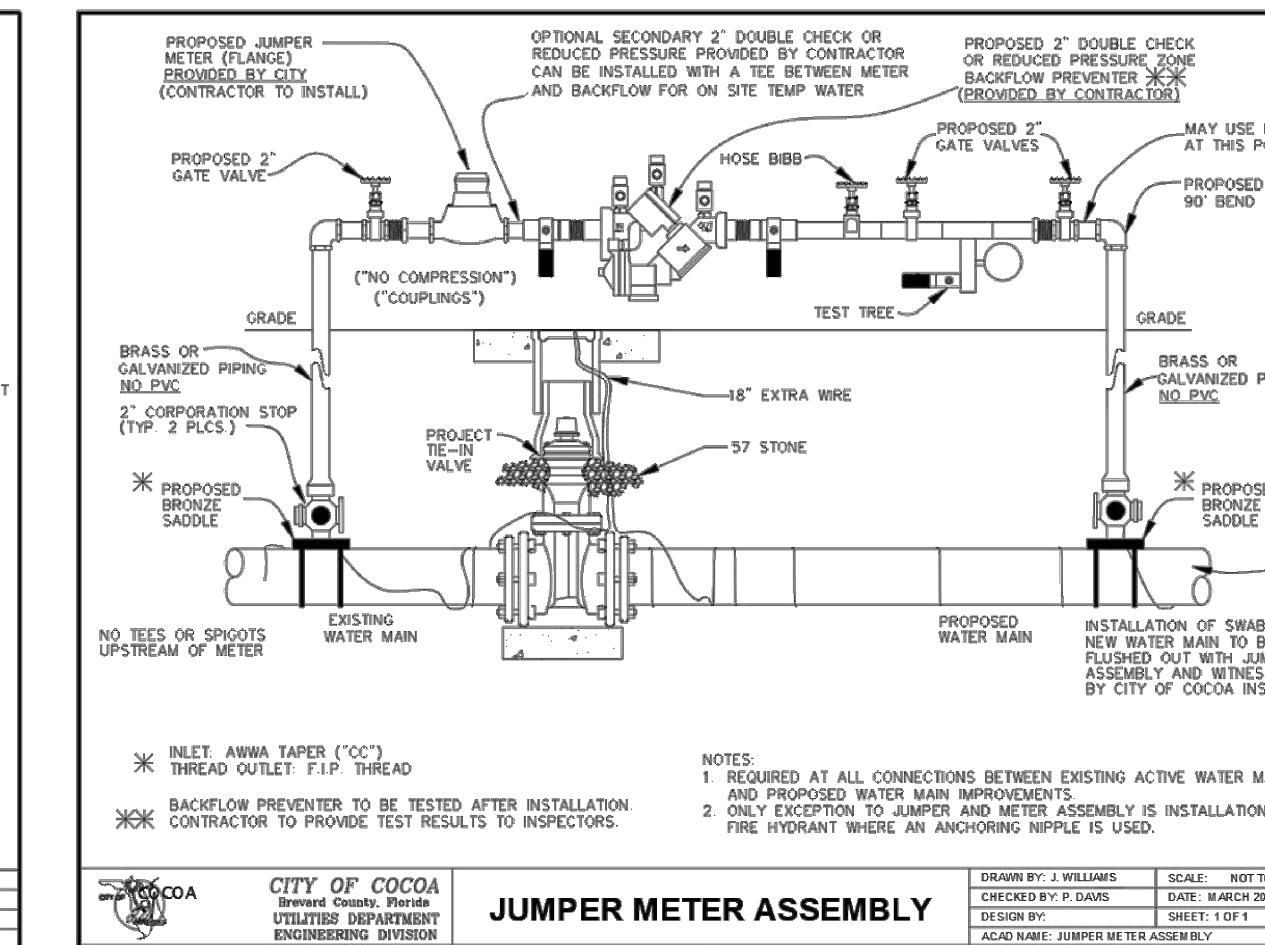
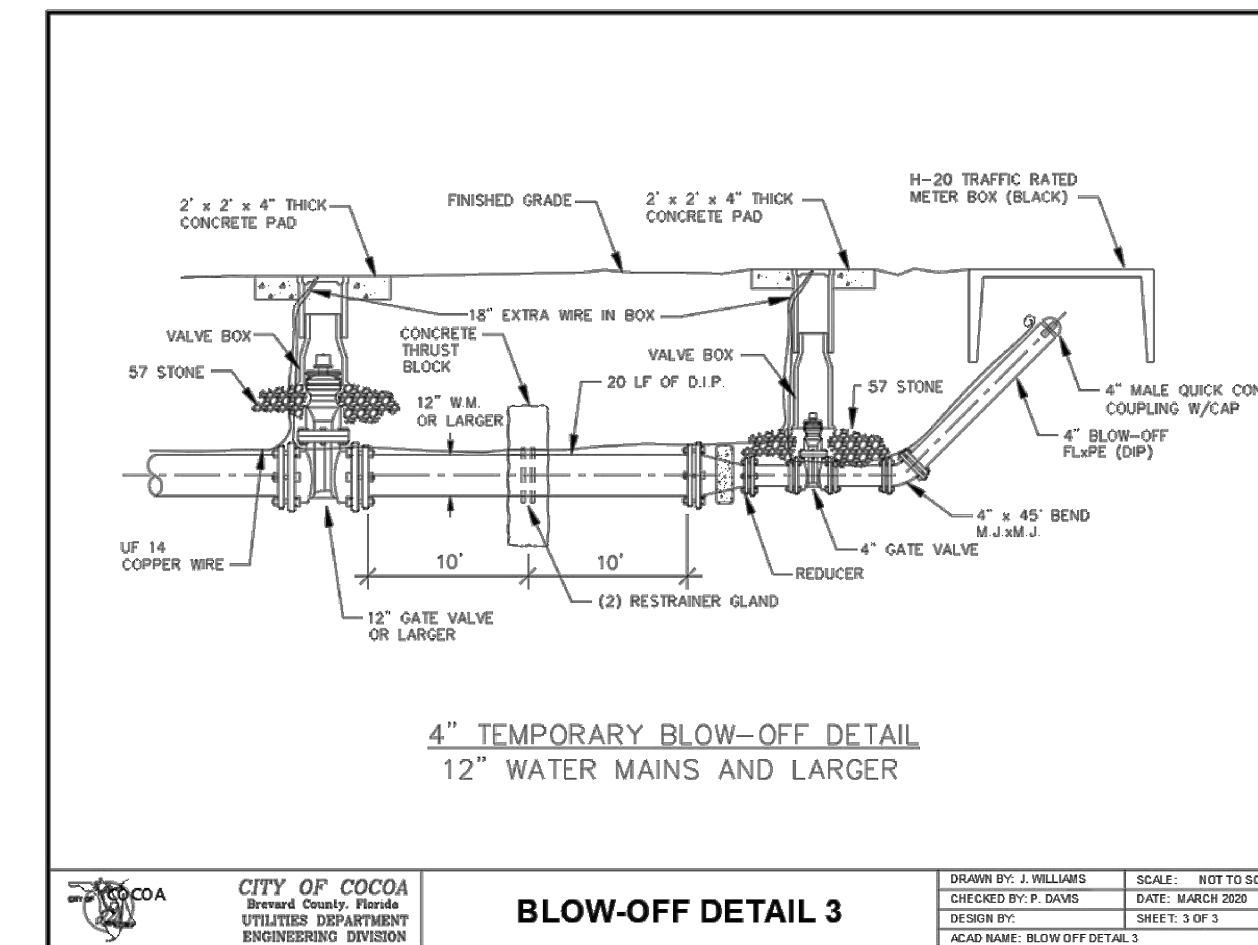
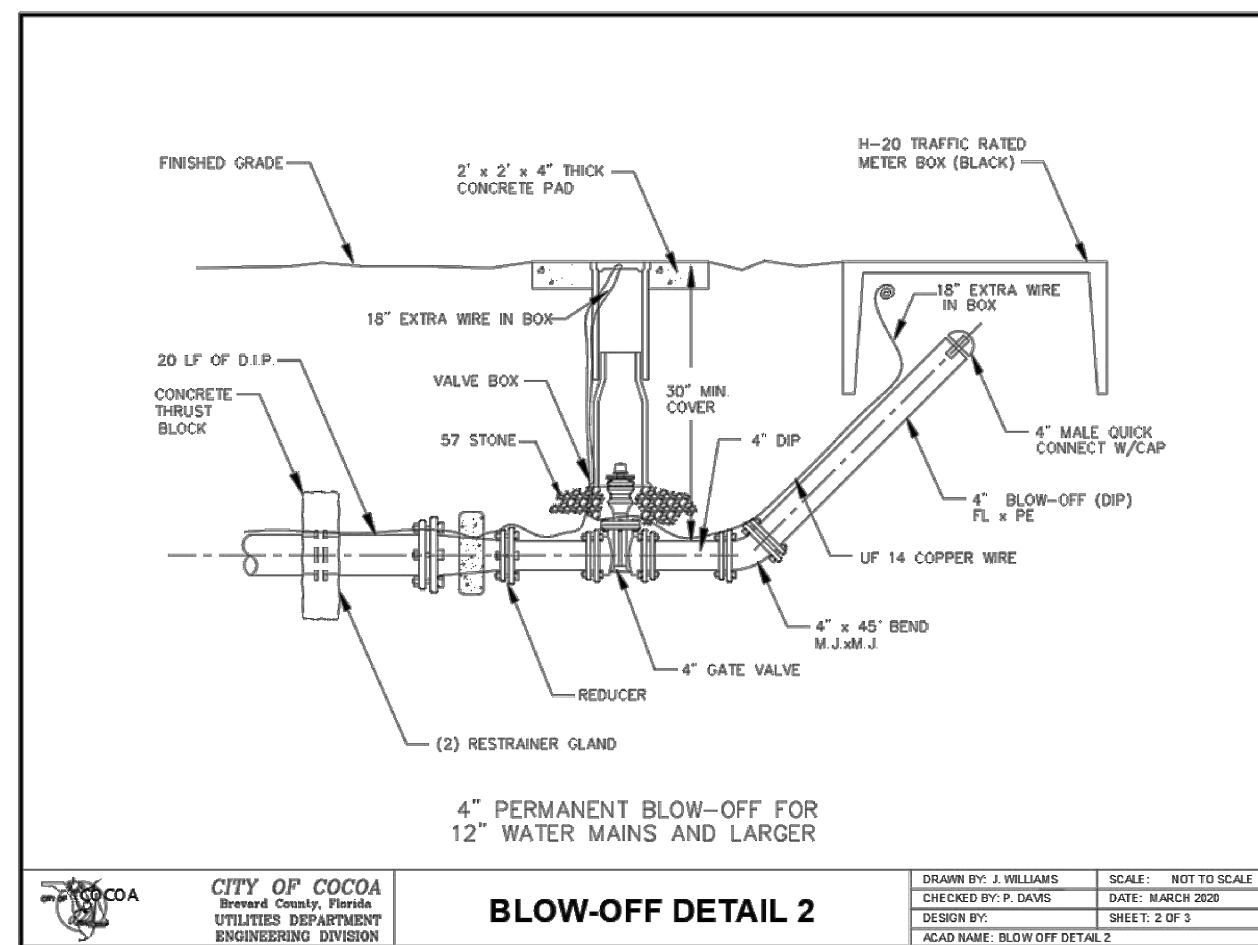
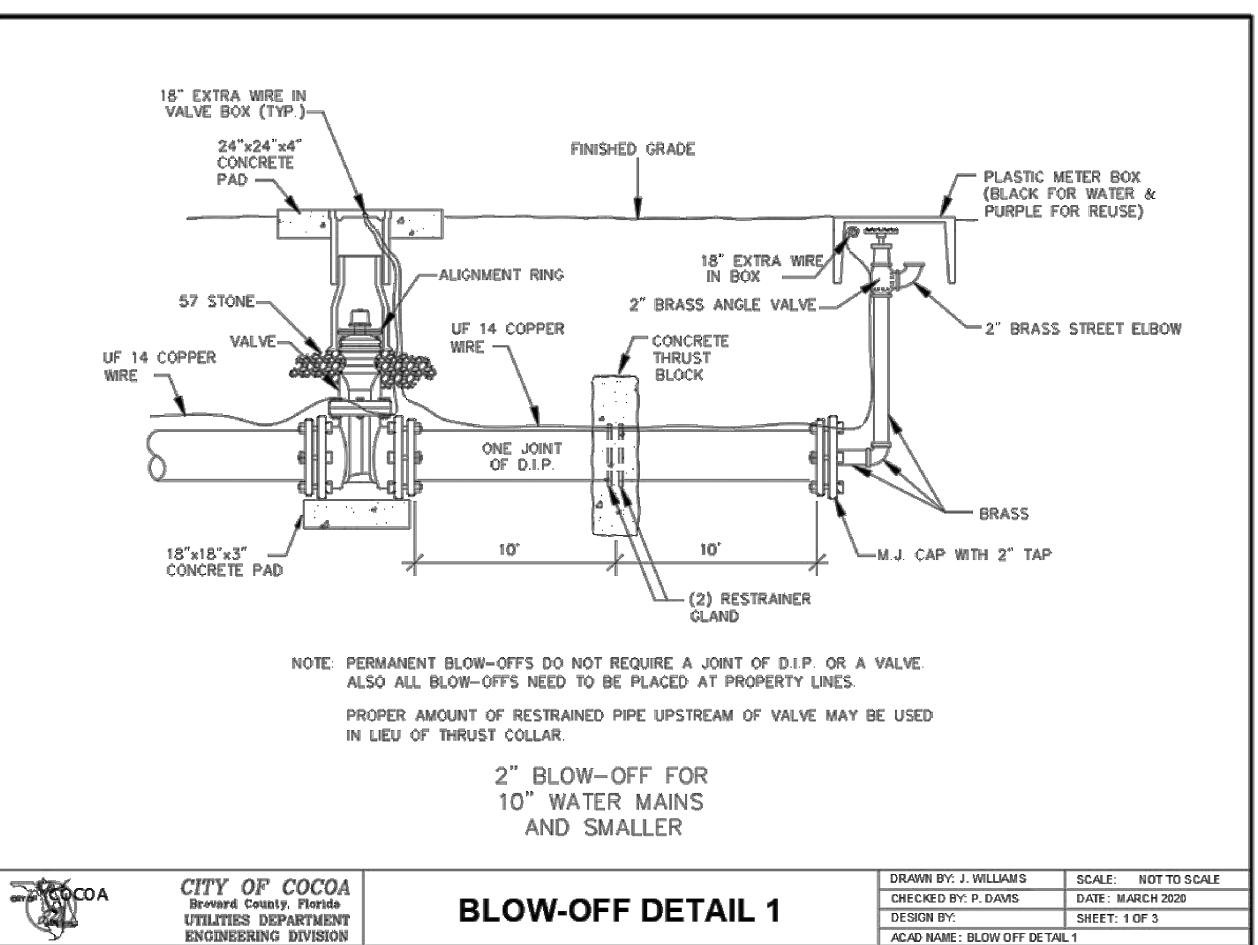
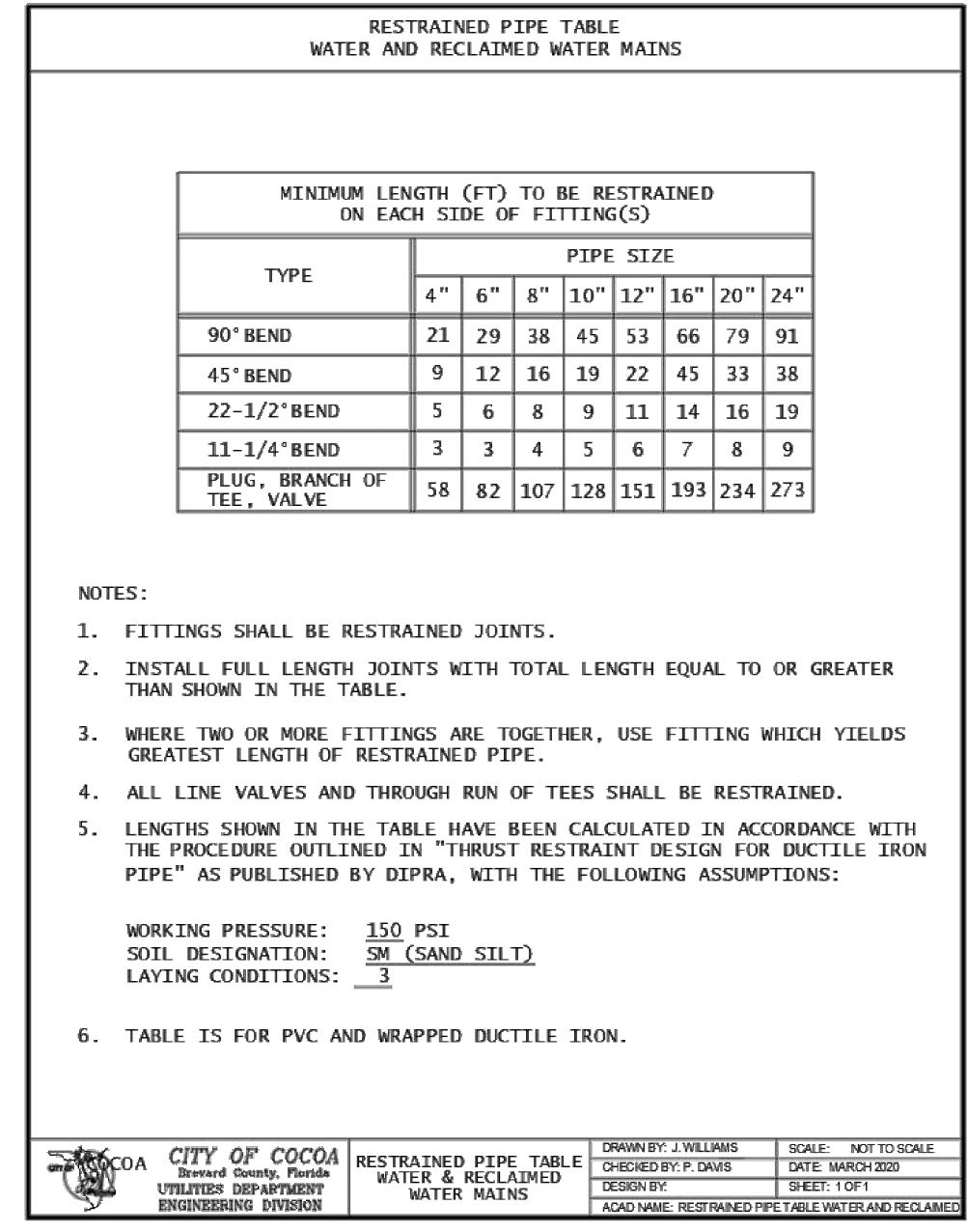
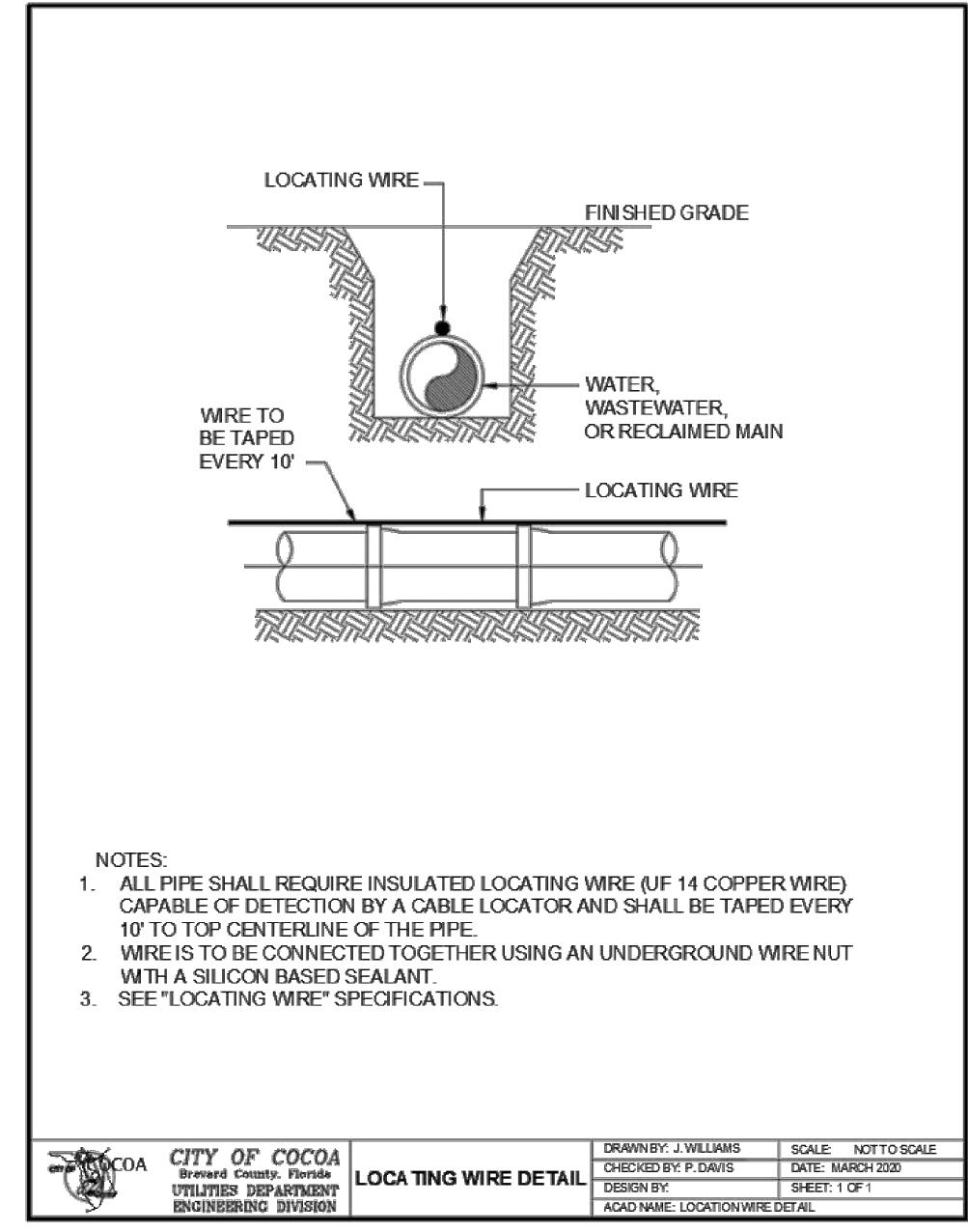
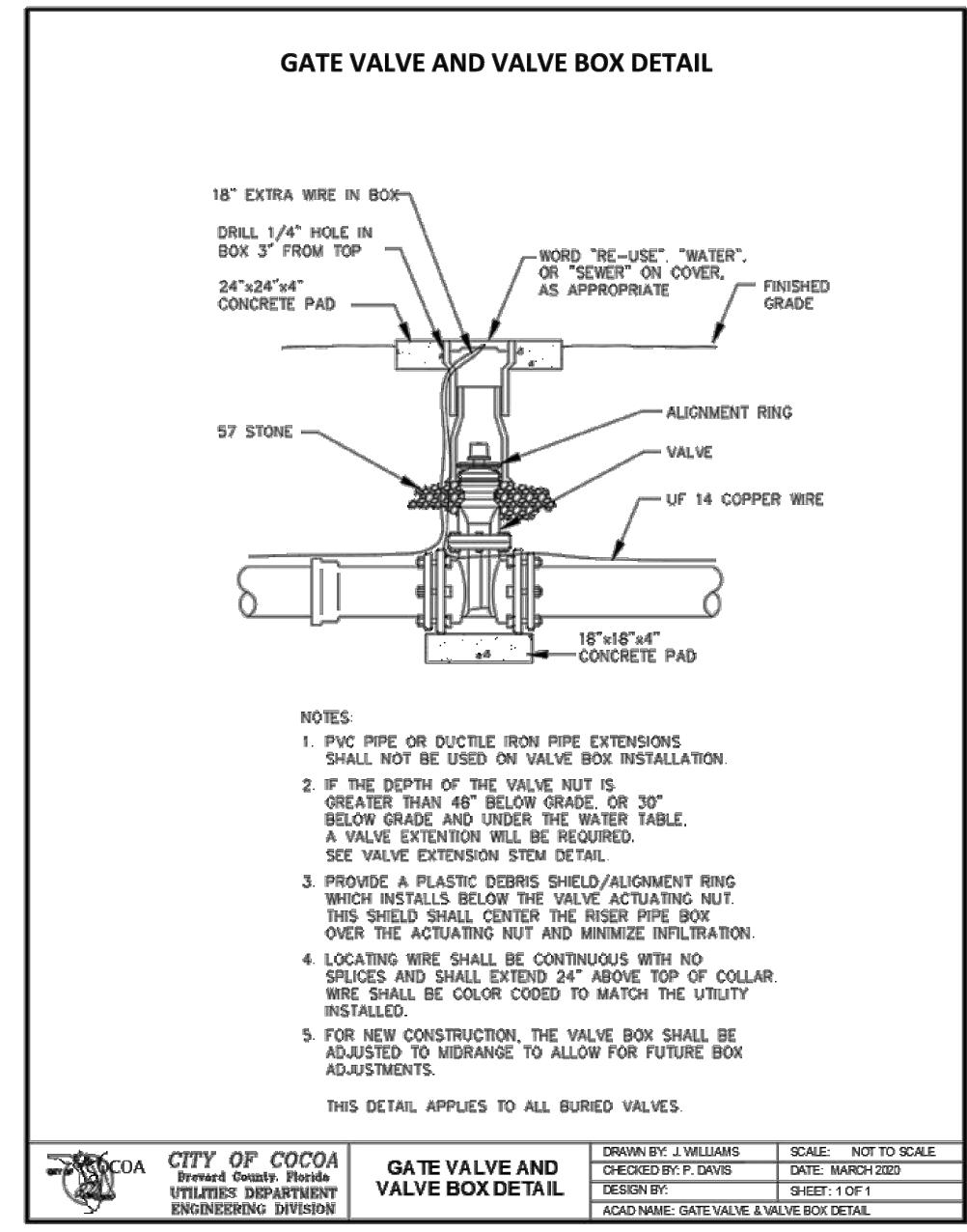
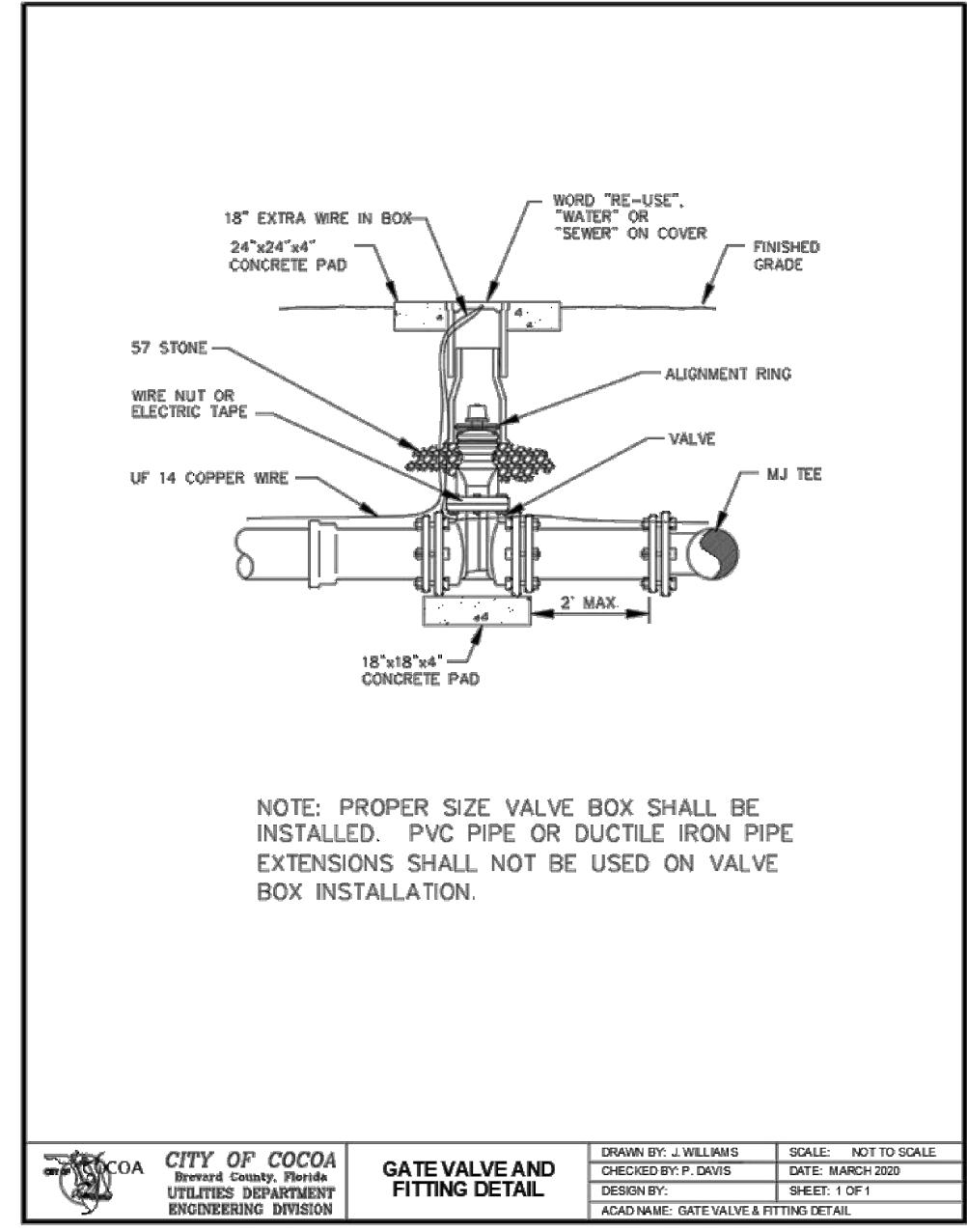
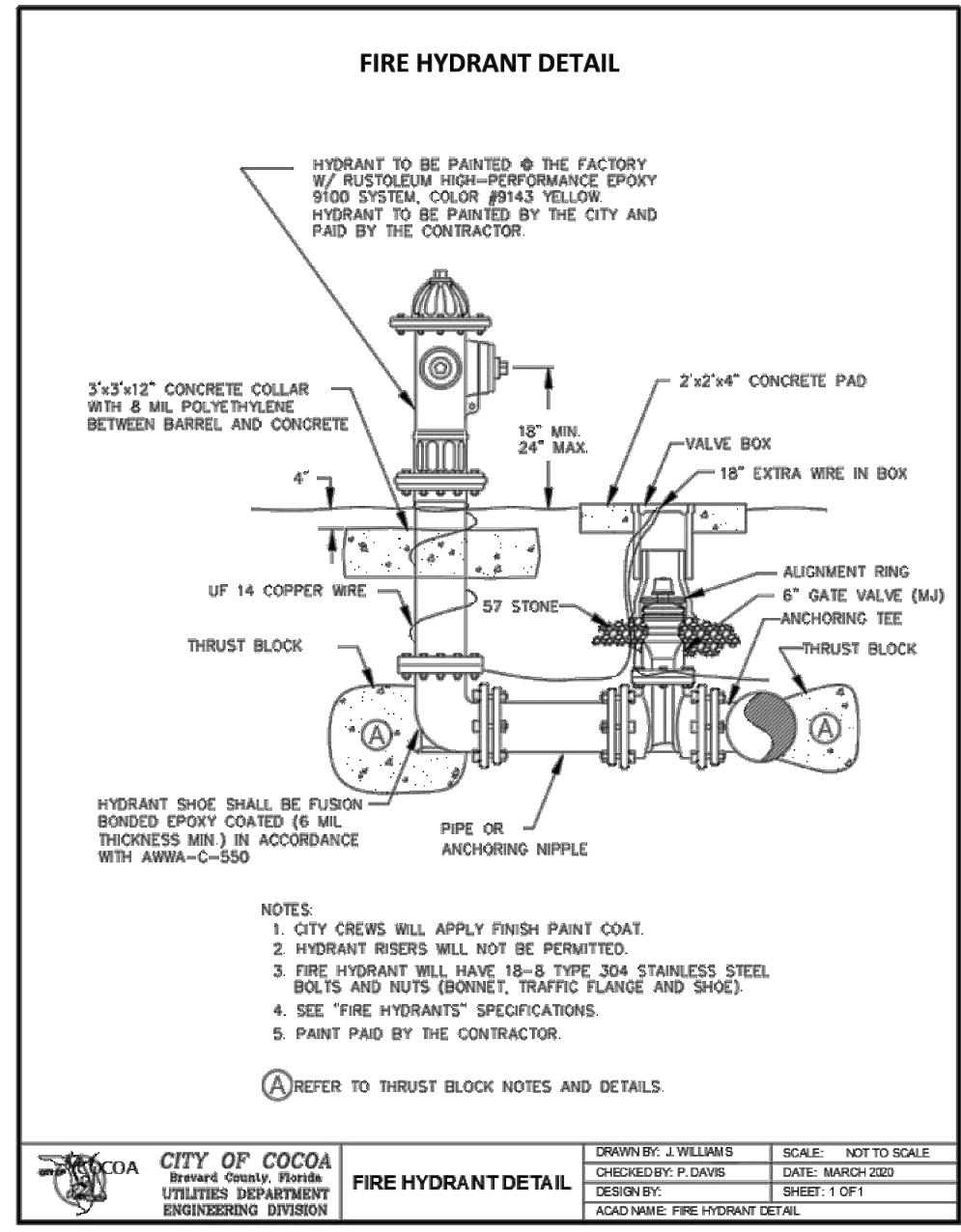
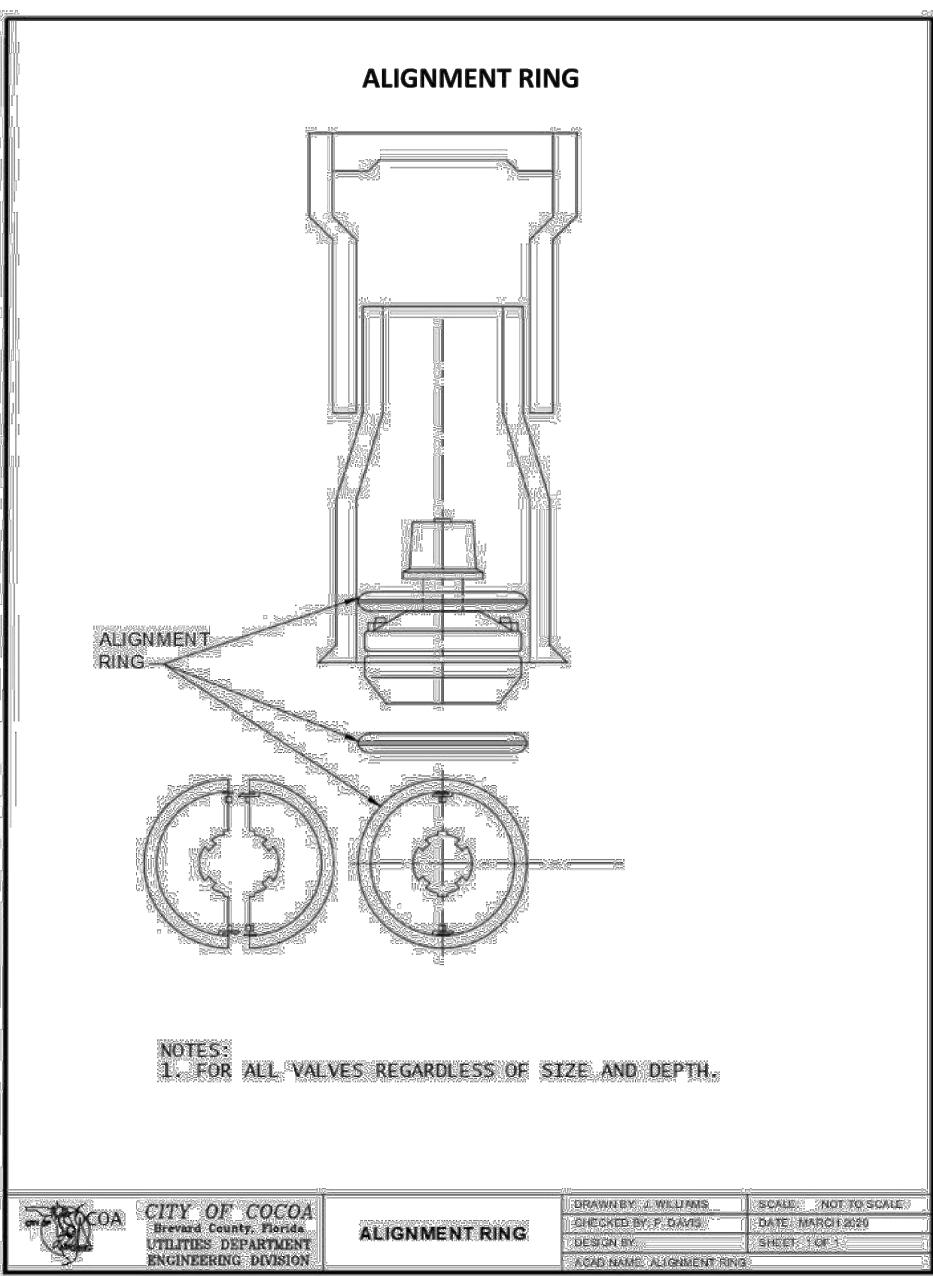
NOTES:

1. FITTINGS SHALL BE RESTRAINED JOINTS.
2. INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN SHOWN IN THE TABLE.
3. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
4. ALL LINE VALVES AND THROUGH RUN OF TEES SHALL BE RESTRAINED.
5. LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY DIPRA, WITH THE FOLLOWING ASSUMPTIONS:

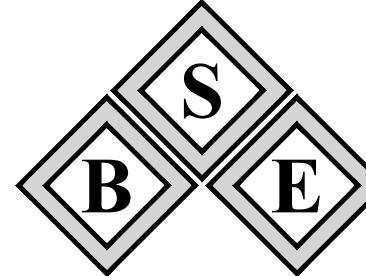
WORKING PRESSURE: 150 PSI  
SOIL DESIGNATION: SR (SAND SILT)  
LAYING CONDITIONS: 3

6. TABLE IS FOR PVC AND WRAPPED DUCTILE IRON.

HASSAN A. KAMAL, P.E.  
STATE OF FLORIDA, No. 41951



ADAMSON CREEK  
PHASE ONE-C  
PROJECT TITLE  
CITY OF COCOA  
WATER DETAILS  
SHEET TITLE  
PROJECT NO. 11453.02  
DRAWING NO. 1145302\_400\_028  
SHEET 1 OF 1  
28 of 35

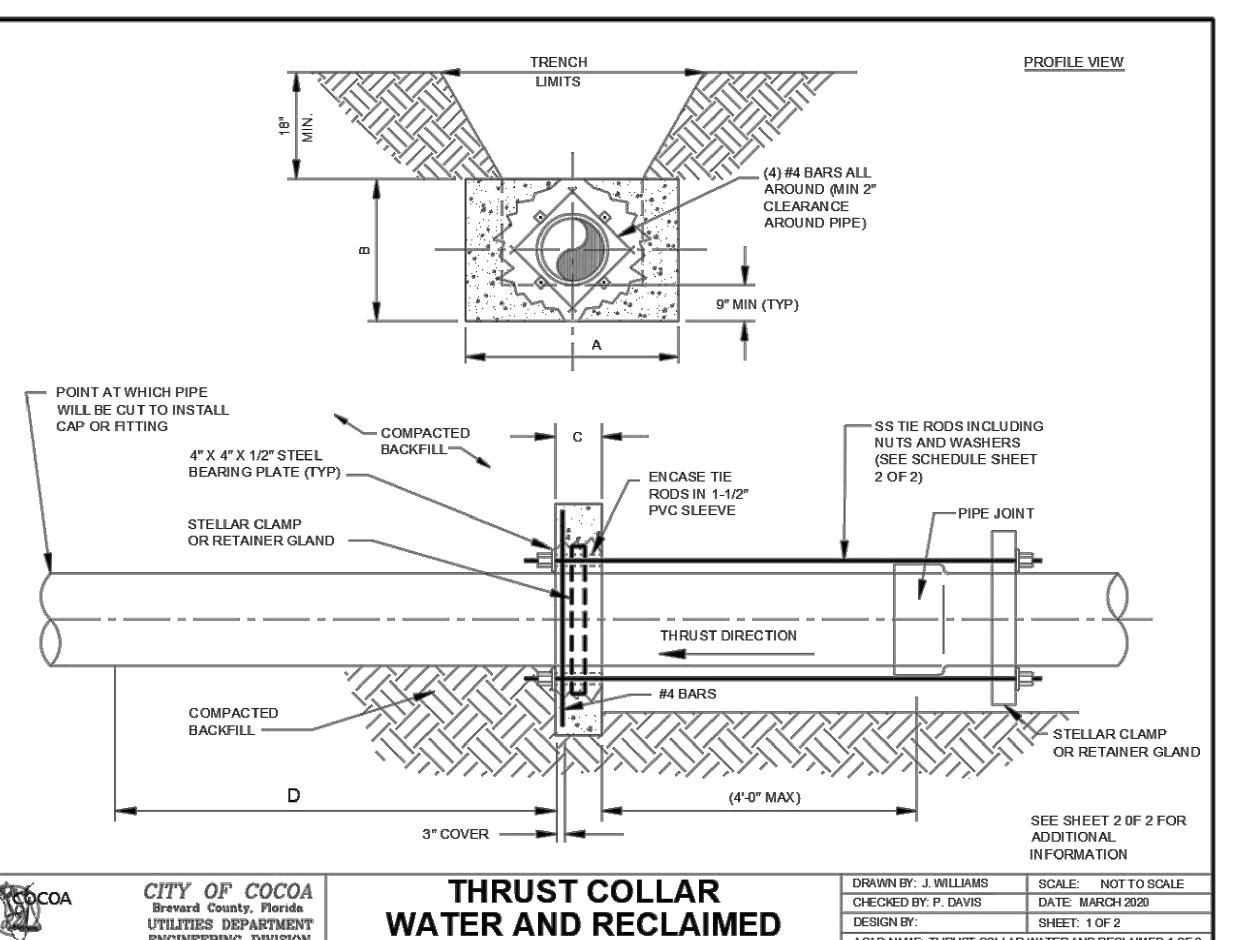
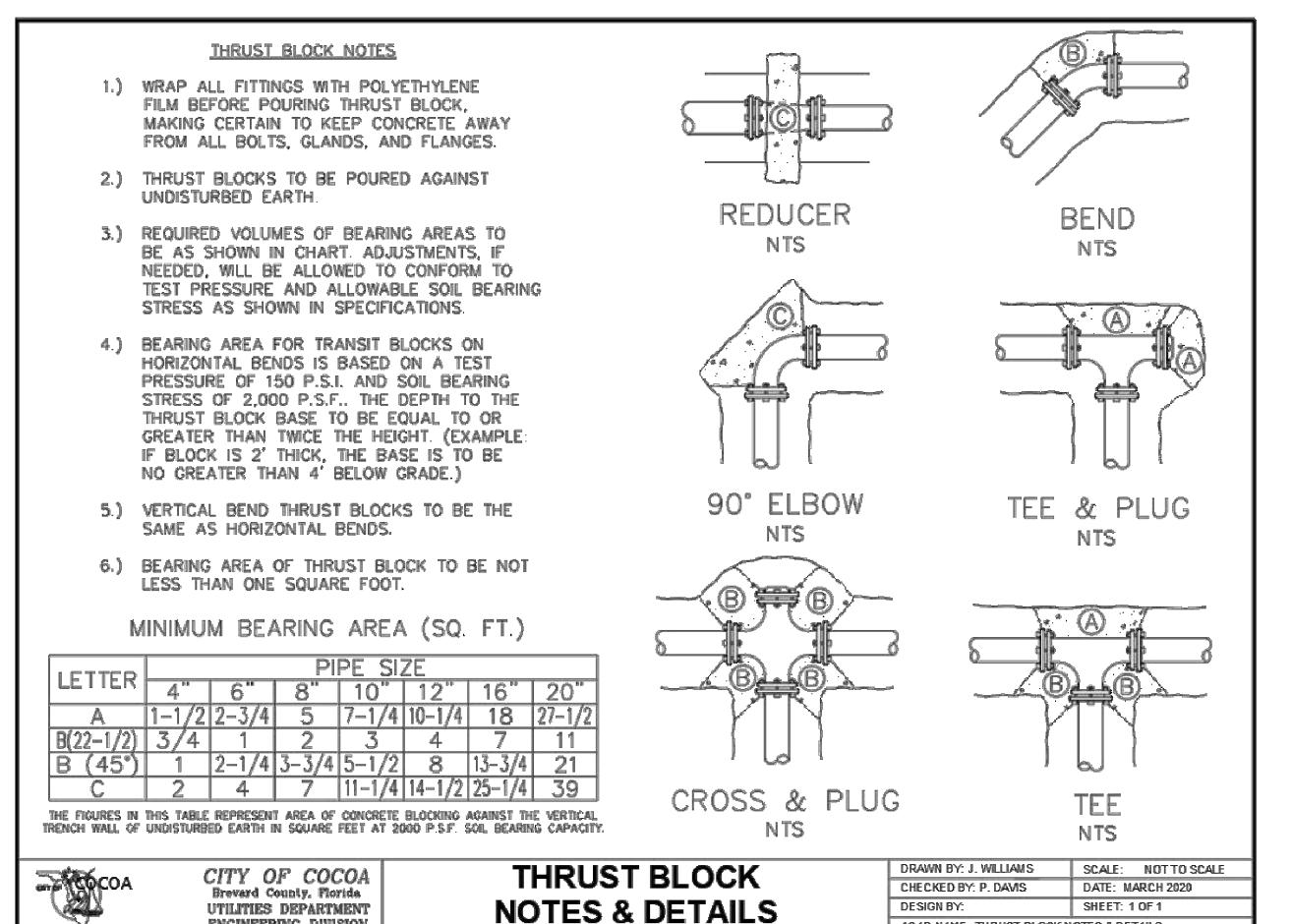
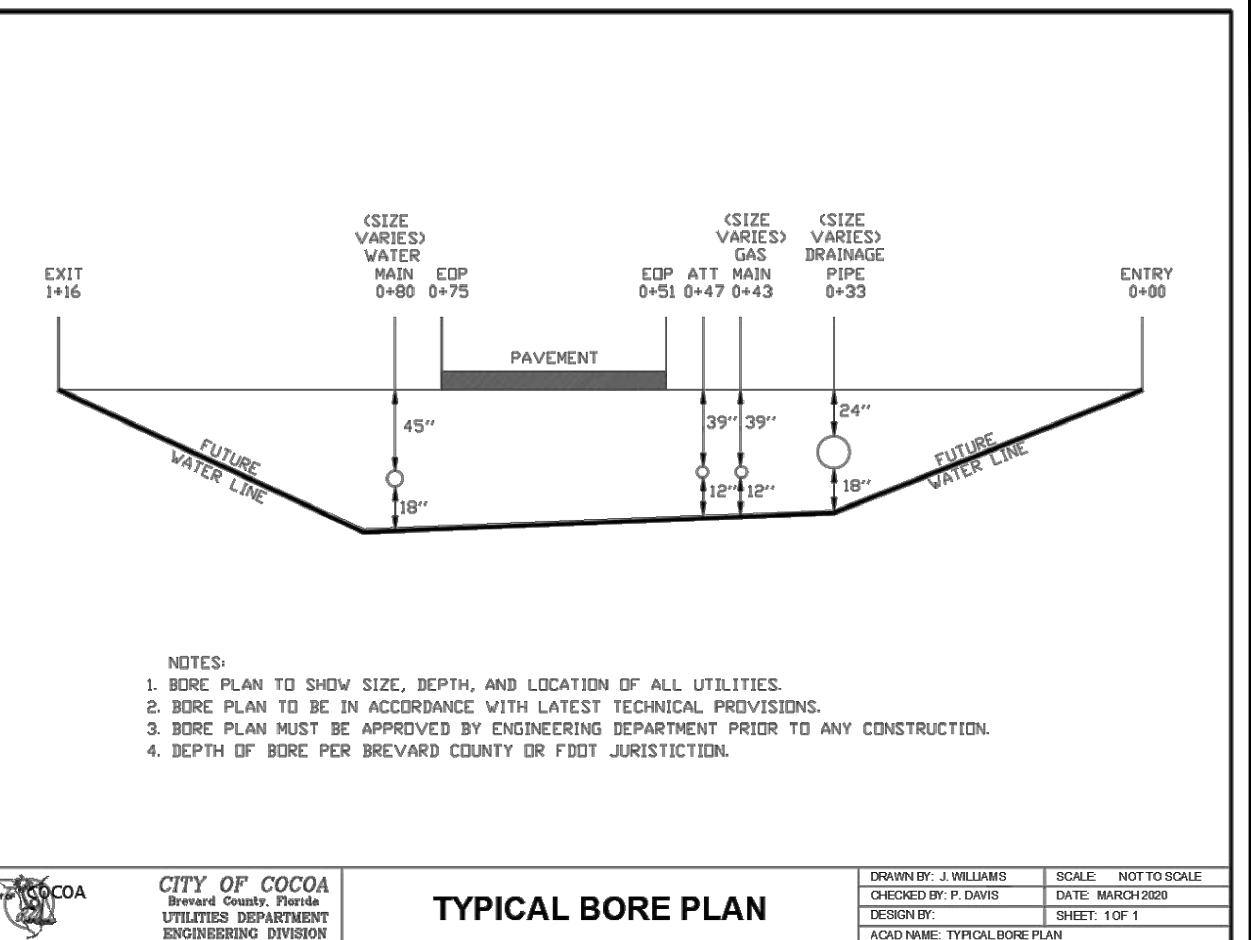
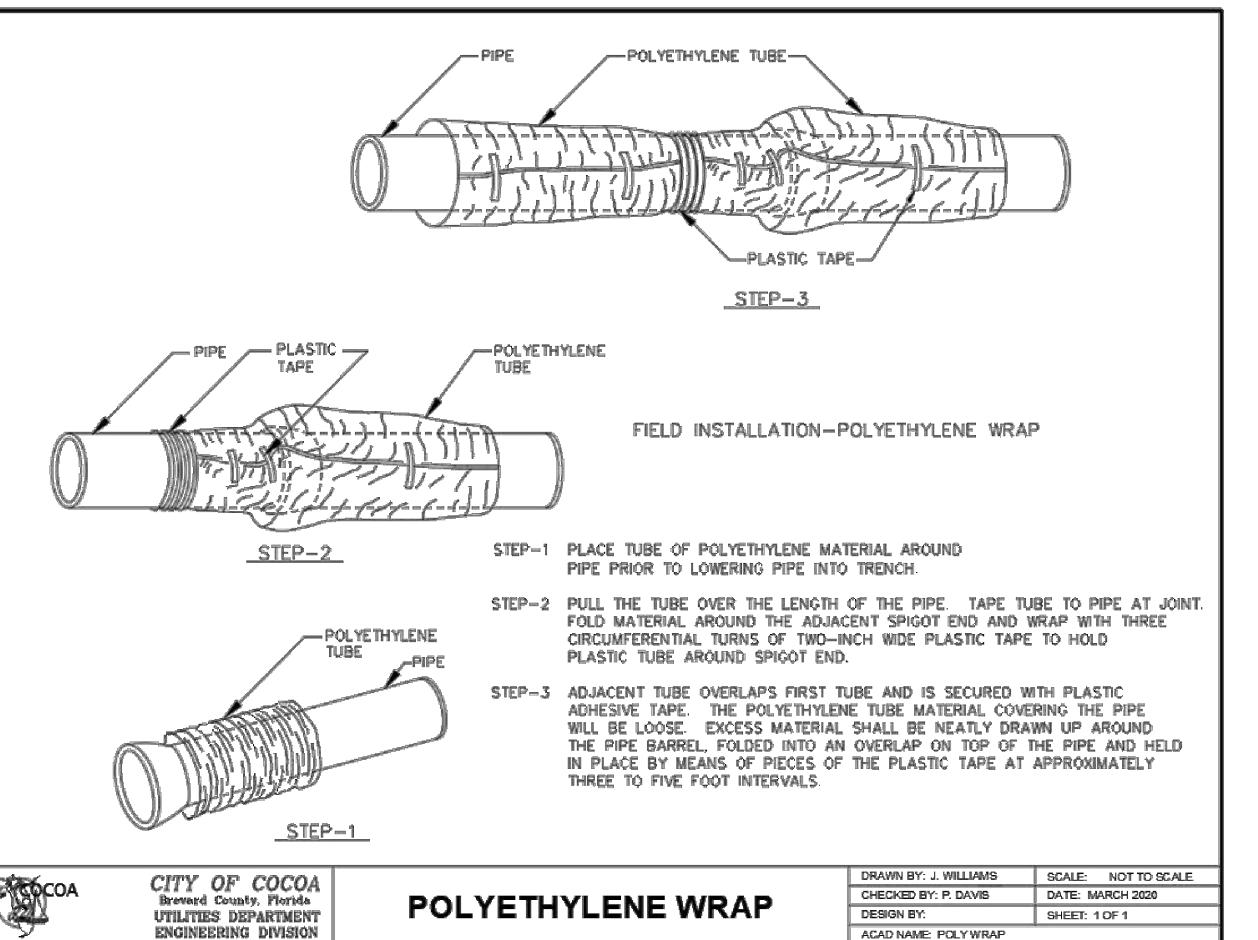
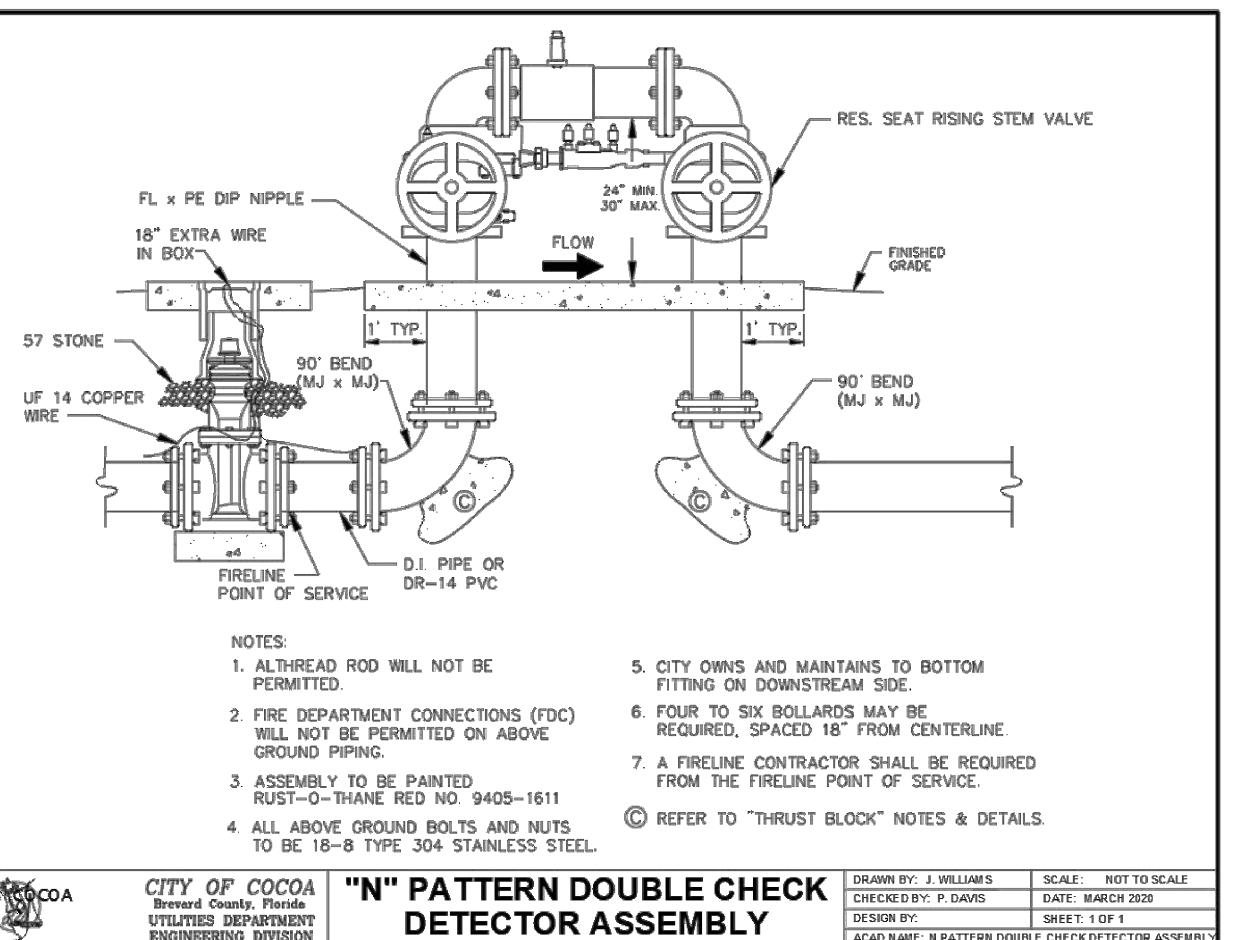
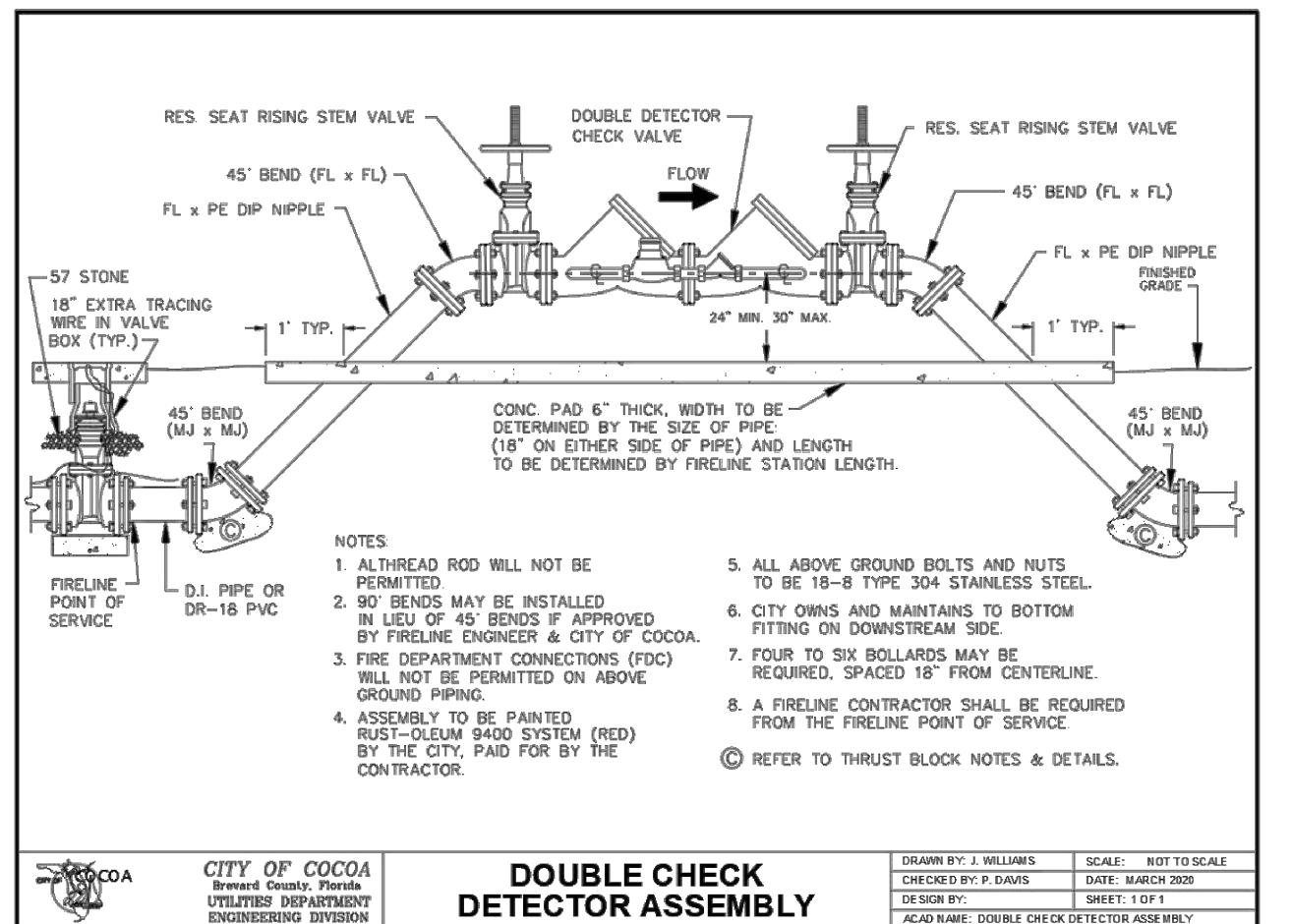


B.S.E. CONSULTANTS, INC.  
CONSULTING - ENGINEERING -  
LAND SURVEYING

312 SOUTH HARBOR CITY BOULEVARD, SUITE 4  
MELBOURNE, FLORIDA 32901  
PHONE: (321) 725-3674 FAX: (321) 723-159

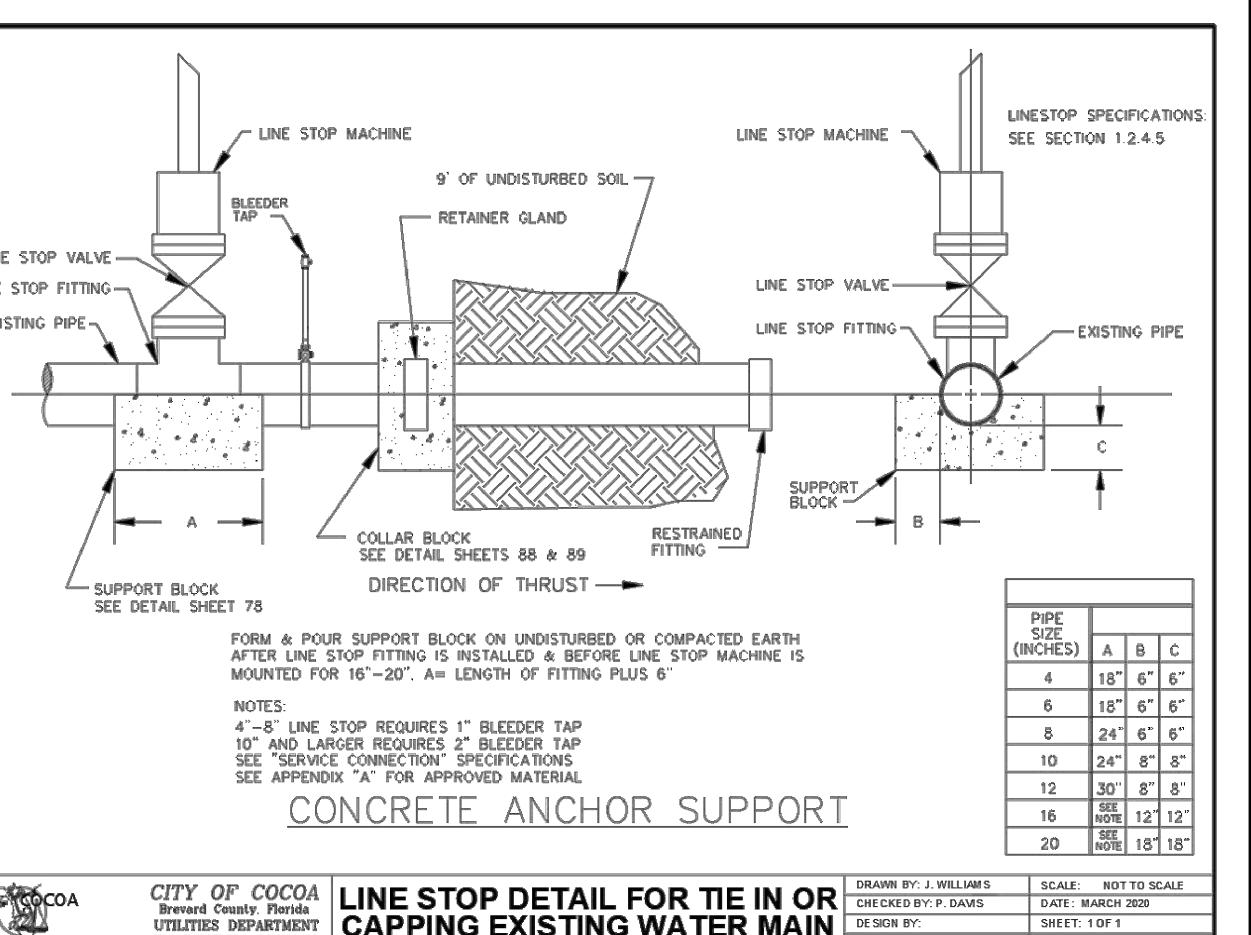
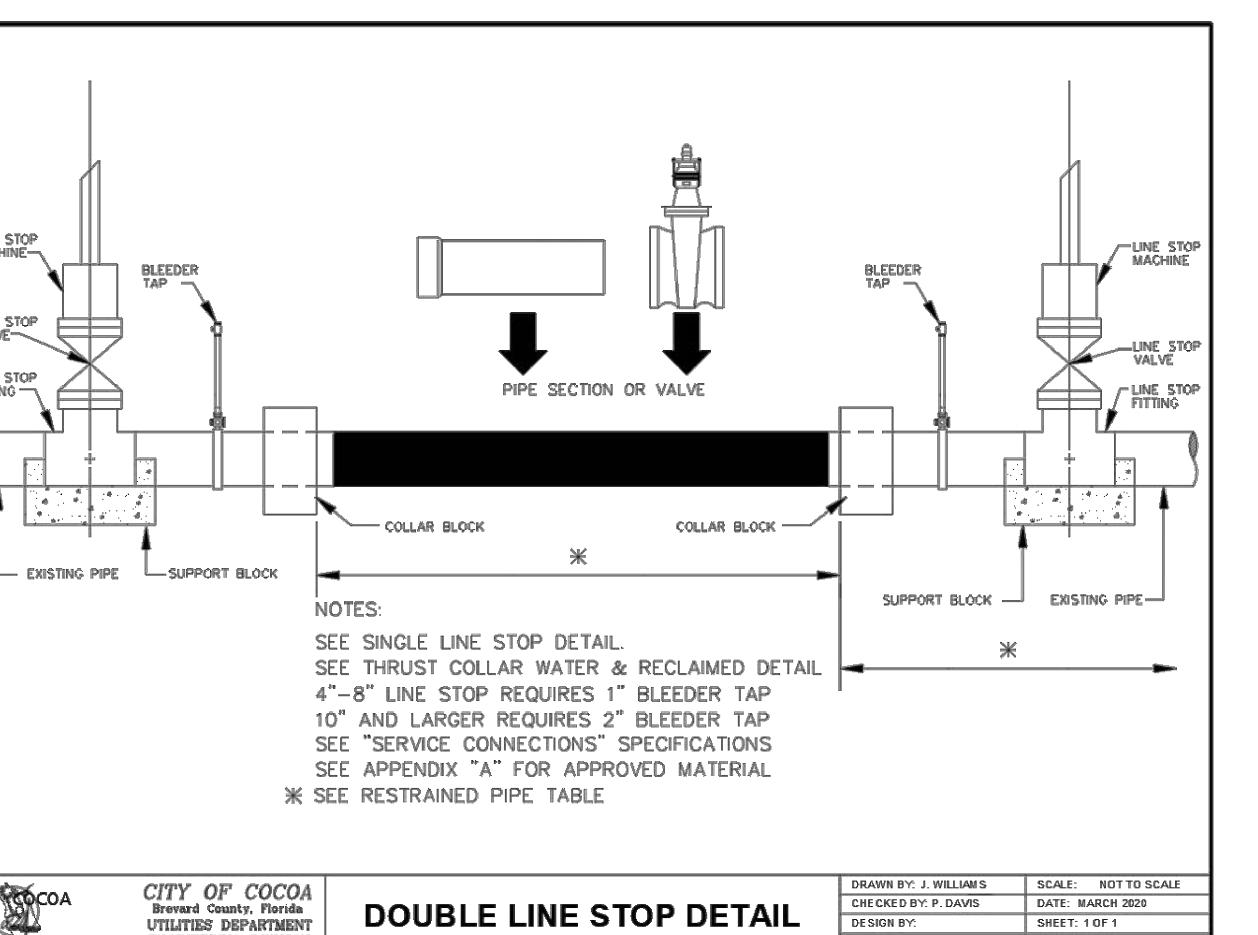
CERTIFICATE OF PROFESSIONAL ENGINEERS  
LICENSE NO. 41503  
CERTIFICATE OF LAND SURVEYING  
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.  
STATE OF FLORIDA, No. 33695 No. 4151



SCHEDULE OF DIMENSIONS AND MATERIALS						
PIPE SIZE (INCHES)	DIMENSIONS (FT.)				TIE RODS REQ'D	
	A	B	C	D	DIA. (IN.)	NO.
4	2.0	2.0	1.0	2.0	3/4	2
6	2.0	2.0	1.0	4.0	3/4	2
8	2.0	3.0	1.0	5.0	3/4	2
10	2.0	3.0	1.0	6.0	3/4	2
12	5.0	3.0	1.0	10.0	3/4	4
16	*	*	*	*	*	*
20	*	*	*	*	*	*
24	*	*	*	*	*	*

NOTE: THRUST COLLAR AREAS TO BE COMPUTED ON BASIS OF 2000 LBS/SF SOIL RESTRAINT BEARING. SOIL DENSITY ASSUMED 129 P.S.F. SOIL COHESION 20'.



HASSAN A. KAMAL, P.E.  
STATE OF FLORIDA, No. 41951

## ADAMSON CREEK PHASE ONE-C

### CITY OF COCOA WATER DETAILS

PROJECT NO. 1145302  
DRAWING NO. 1145302\_400\_029  
SHEET 29 of 35

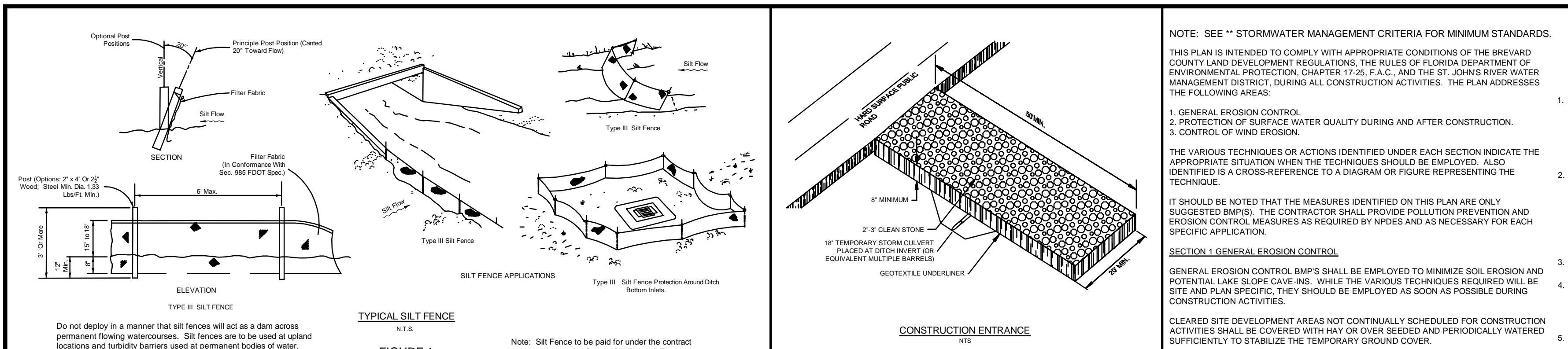


FIGURE 1

Note: Silt Fence to be paid for under the contract unit price for Staked Silt Fence (L.F.)

N.T.S.

SECTION

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

FIGURE 1

Note: Silt Fence to be paid for under the contract unit price for Staked Silt Fence (L.F.)

N.T.S.

SECTION

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

FIGURE 1

Note: Silt Fence to be paid for under the contract unit price for Staked Silt Fence (L.F.)

N.T.S.

SECTION



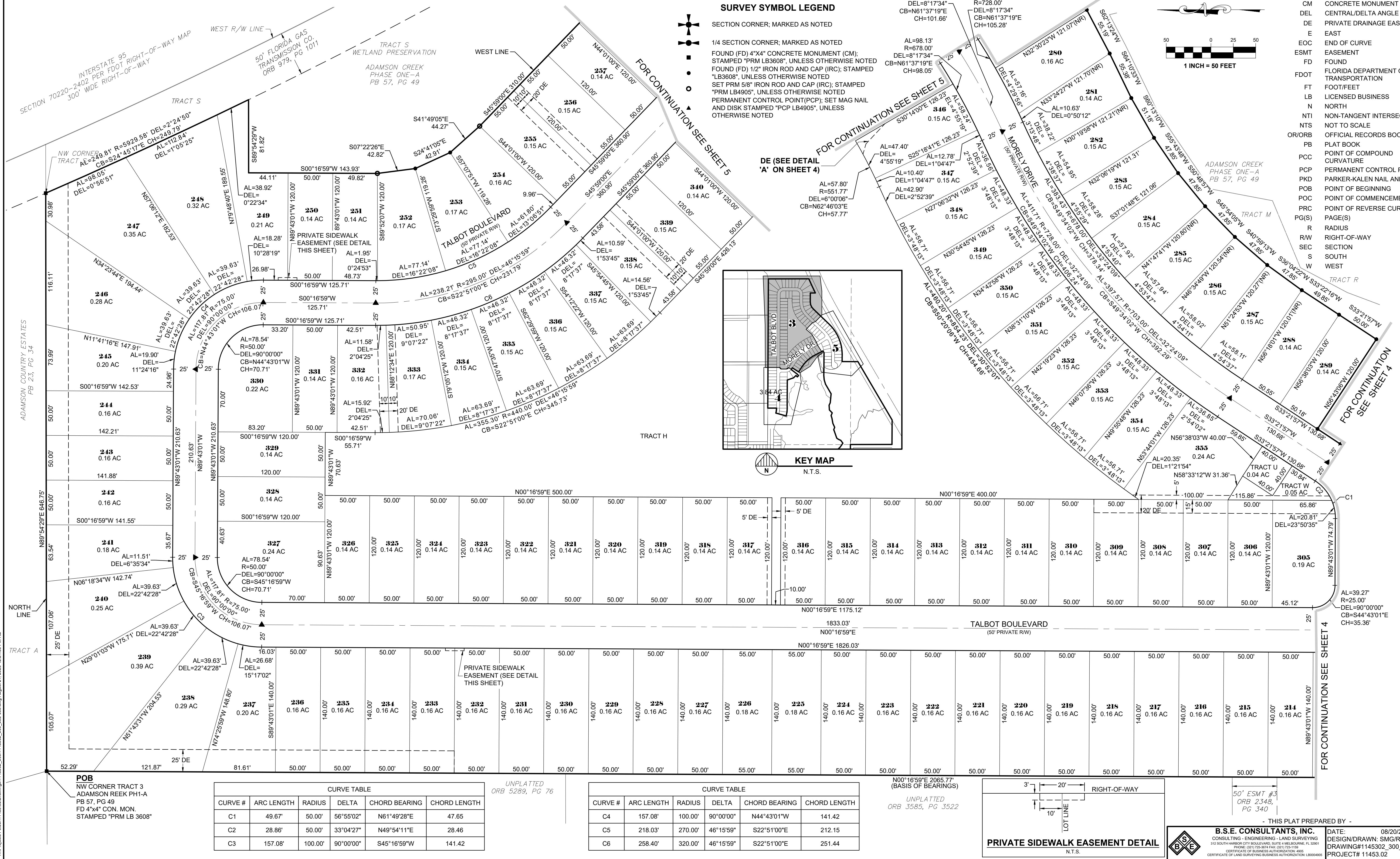


# *ADAMSON CREEK PHASE ONE-C*

**PLAT BOOK \_\_\_\_\_, PAGE \_\_\_\_\_**  
**SHEET 3 OF 5**  
**SECTION 22, TOWNSHIP 24 SOUTH, RANGE 35 EAST**

A REPLAT OF (TRACT 3, ADAMSON CREEK PHASE ONE-A, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 57, PAGE 49, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, TOGETHER WITH THAT CERTAIN PARCEL OF LAND DESCRIBED AS PARCEL 4 IN OFFICIAL RECORDS BOOK 8071, PAGE 1946, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, TOGETHER ALSO WITH THAT PART OF THE WEST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 22, TOWNSHIP 24 SOUTH, RANGE 35 EAST), CITY OF COCOA, BREVARD COUNTY, FLORIDA

# **PRELIMINARY PLAT**



ABBREVIATIONS

MINUTES/FEET  
SECONDS/INCHES  
DEGREES  
NOT RADIAL  
ACRES  
ARC LENGTH  
BEGINNING OF CURVE  
CHORD BEARING  
CENTRAL DRAINAGE DISTRICT  
CHORD LENGTH  
CONCRETE MONUMENT  
CENTRAL/DELTA ANGLE  
PRIVATE DRAINAGE EASEMENT  
EAST  
END OF CURVE  
EASEMENT  
FOUND  
FLORIDA DEPARTMENT OF  
TRANSPORTATION  
FOOT/FEET  
LICENSED BUSINESS  
NORTH  
NON-TANGENT INTERSECTION  
NOT TO SCALE  
OFFICIAL RECORDS BOOK  
PLAT BOOK  
POINT OF COMPOUND  
CURVATURE  
PERMANENT CONTROL POINT  
PARKER-KALEN NAIL AND DISK  
POINT OF BEGINNING  
POINT OF COMMENCEMENT  
POINT OF REVERSE CURVATURE

FOR CONTINUATION SEE SHEET 4

AL=39.27'  
R=25.00'  
DEL=90°00'00"  
CB=S44°43'01"E  
CH=35.36'

N56°43'06"W 120.00'  
E38' 25'

C1

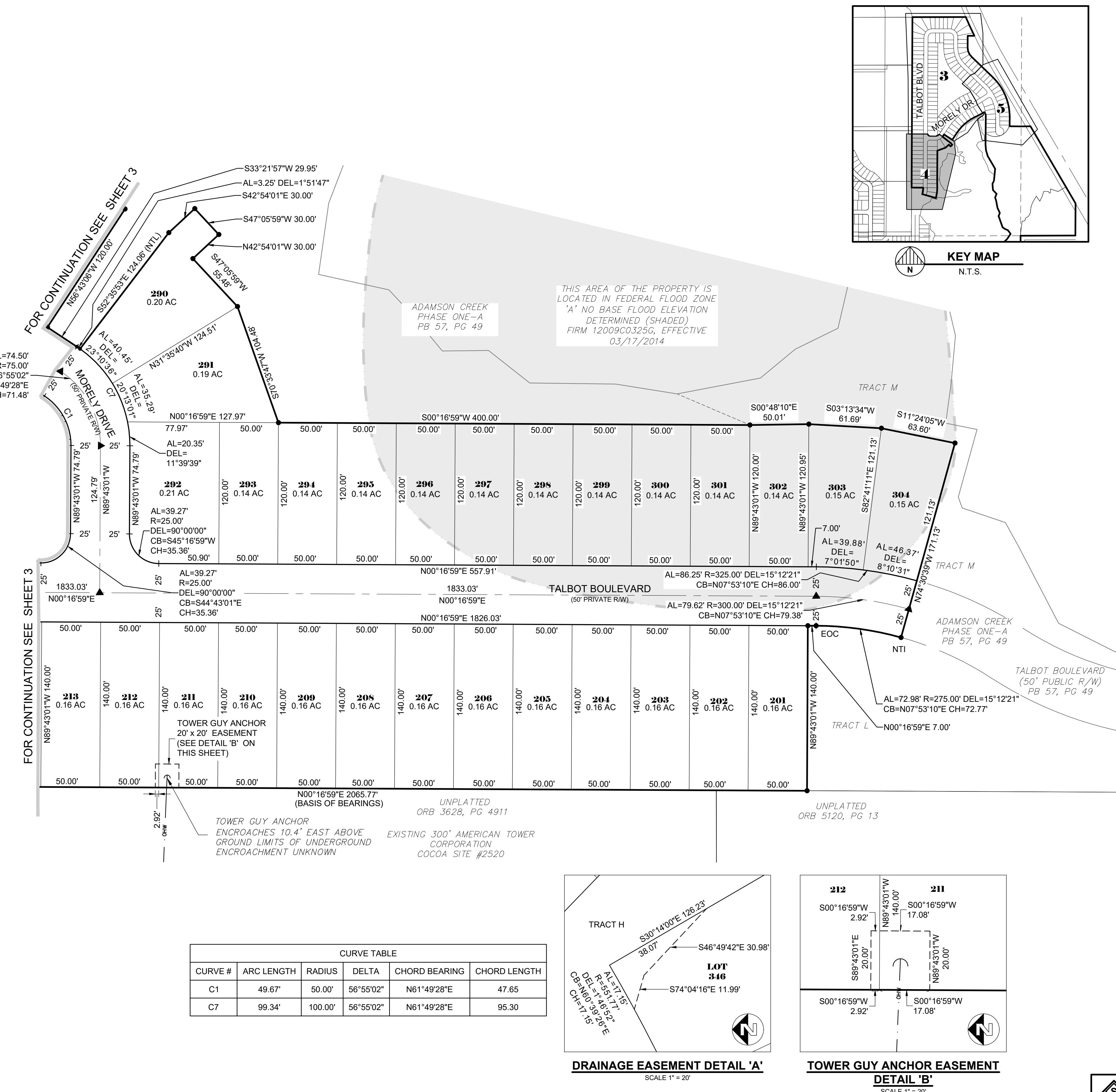
FOR CONTINUATION  
SEE SHEET 4

ARED BY -  
DATE: 08/2  
DESIGN/DRAWN: SMC  
DRAWING#1145302\_3  
PROJECT# 11453.02

BY -  
TE: 08/20/2020  
SIGN/DRAWN: SMG/RMB  
AWING#1145302\_300\_002-005  
OBJECT# 11453.02

# *ADAMSON CREEK PHASE ONE-C*

**A REPLAT OF (TRACT 3, ADAMSON CREEK PHASE ONE-A, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 57, PAGE 49,  
PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, TOGETHER WITH THAT CERTAIN PARCEL OF LAND DESCRIBED AS PARCEL 4 IN OFFICIAL  
RECORDS BOOK 8071, PAGE 1946, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, TOGETHER ALSO WITH THAT PART OF THE WEST 1/2 OF THE  
SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 22, TOWNSHIP 24 SOUTH, RANGE 35 EAST), CITY OF COCOA, BREVARD COUNTY, FLORIDA  
PRELIMINARY PLAT**



## **SURVEY SYMBOL LEGEND**

1/4 SECTION CORNER; MARKED AS NOTED

FOUND (FD) 4"X4" CONCRETE MONUMENT (CM);  
STAMPED "PRM LB3608", UNLESS OTHERWISE NOTED

FOUND (FD) 1/2" IRON ROD AND CAP (IRC); STAMPED  
"LB3608", UNLESS OTHERWISE NOTED

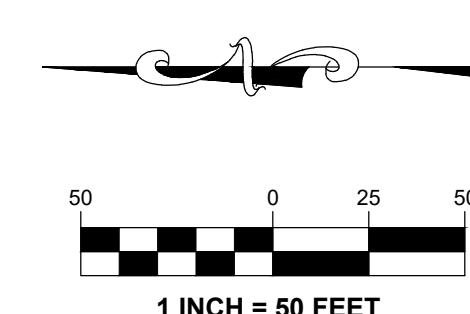
SET PRM 5/8" IRON ROD AND CAP (IRC); STAMPED  
"PRM LB4905", UNLESS OTHERWISE NOTED

PERMANENT CONTROL POINT(PCP); SET MAG NAIL  
AND DISK STAMPED "PCP LB4905", UNLESS  
OTHERWISE NOTED

FLOOD ZONE

## ABBREVIATIONS

'	MINUTES/FEET
"	SECONDS/INCHES
°	DEGREES
(NR)	NOT RADIAL
AC	ACRES
AL	ARC LENGTH
BOC	BEGINNING OF CURVE
CB	CHORD BEARING
CDD	CENTRAL DRAINAGE DISTRICT
CH	CHORD LENGTH
CM	CONCRETE MONUMENT
DEL	CENTRAL/DELTA ANGLE
DE	PRIVATE DRAINAGE EASEMENT
E	EAST
EOC	END OF CURVE
ESMT	EASEMENT
FD	FOUND
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION
FT	FOOT/FEET
LB	LICENSED BUSINESS
N	NORTH
NTI	NON-TANGENT INTERSECTION
NTS	NOT TO SCALE
OR/ORB	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PCC	POINT OF COMPOUND CURVATURE
PCP	PERMANENT CONTROL POINT
PKD	PARKER-KALEN NAIL AND DISK
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PRC	POINT OF REVERSE CURVATURE
PG(S)	PAGE(S)
R	RADIUS
R/W	RIGHT-OF-WAY
SEC	SECTION
S	SOUTH
W	WEST



- THIS PLAT PREPARED BY -

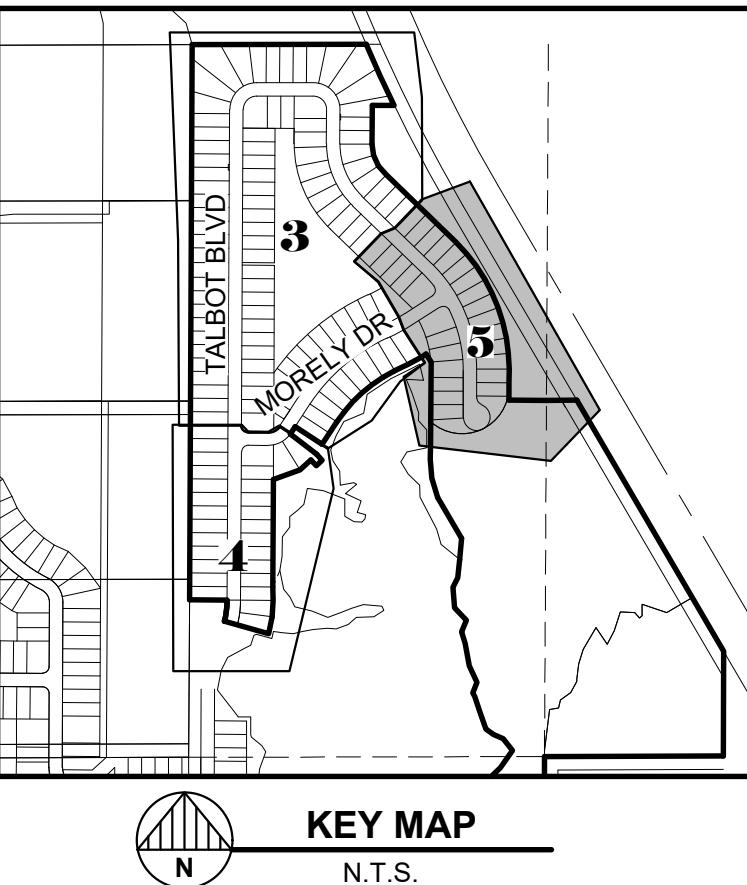
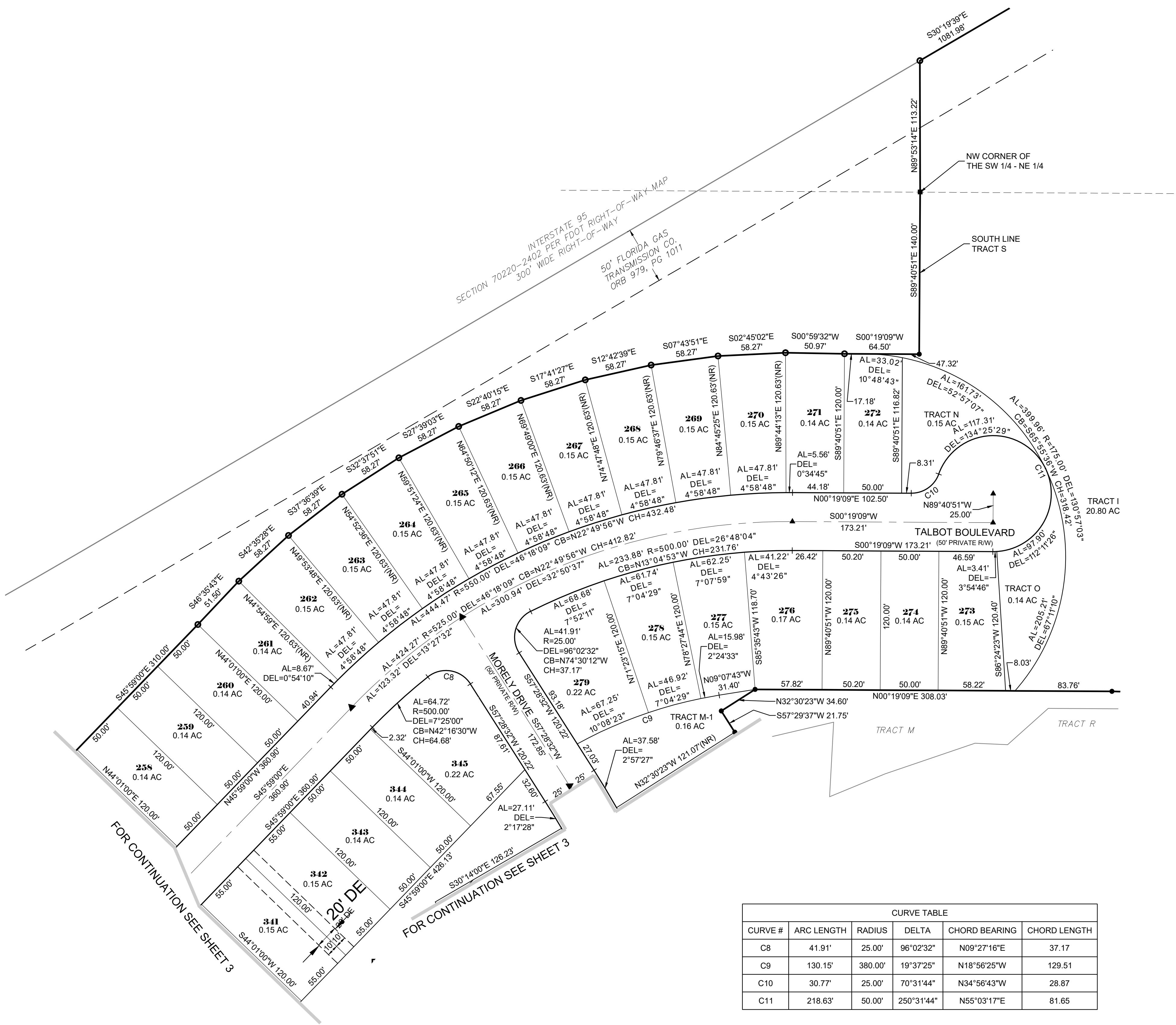
**B.S.E. CONSULTANTS, INC.**  
CONSULTING - ENGINEERING - LAND SURVEYING  
SOUTH HARBOR CITY BOULEVARD, SUITE 4 MELBOURNE, FL 32901  
PHONE: (321) 725-3674 FAX: (321) 723-1159  
CERTIFICATE OF BUSINESS AUTHORIZATION: 4905  
CERTIFICATE OF LAND SURVEYING BUSINESS AUTHORIZATION: 1

DATE: 08/20/2020  
DESIGN/DRAWN: SMG/RMB  
DRAWING#1145302\_300\_002-005  
PROJECT# 11453.02

# ADAMSON CREEK PHASE ONE-C

PLAT BOOK \_\_\_\_\_, PAGE \_\_\_\_\_  
SHEET 5 OF 5  
SECTION 22, TOWNSHIP 24 SOUTH, RANGE 35 EAST

A REPLAT OF (TRACT 3, ADAMSON CREEK PHASE ONE-A, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 57, PAGE 49, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, TOGETHER WITH THAT CERTAIN PARCEL OF LAND DESCRIBED AS PARCEL 4 IN OFFICIAL RECORDS BOOK 8071, PAGE 1946, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, TOGETHER ALSO WITH THAT PART OF THE WEST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 22, TOWNSHIP 24 SOUTH, RANGE 35 EAST), CITY OF COCOA, BREVARD COUNTY, FLORIDA  
PRELIMINARY PLAT



#### SURVEY SYMBOL LEGEND

- SECTION CORNER; MARKED AS NOTED
- 1/4 SECTION CORNER; MARKED AS NOTED
- FOUND (FD) 4"X4" CONCRETE MONUMENT (CM); STAMPED "PRM LB3608" UNLESS OTHERWISE NOTED
- FOUND (FD) 1/2" IRON ROD AND CAP (IRC); STAMPED "LB3608", UNLESS OTHERWISE NOTED
- SET PRM 5/8" IRON ROD AND CAP (IRC); STAMPED "PRM LB4905", UNLESS OTHERWISE NOTED
- PERMANENT CONTROL POINT (PCP); SET MAG NAIL AND DISK STAMPED "PCP LB4905", UNLESS OTHERWISE NOTED

#### ABBREVIATIONS

- ' MINUTES/FEET
- " SECONDS/INCHES
- ° DEGREES
- (NR) NOT RADIAL
- AC ACRES
- AL ARC LENGTH
- BOC BEGINNING OF CURVE
- CB CHORD BEARING
- CDD CENTRAL DRAINAGE DISTRICT
- CH CHORD LENGTH
- CM CONCRETE MONUMENT
- DEL CENTRAL/DELTA ANGLE
- DE PRIVATE DRAINAGE EASEMENT
- E EAST
- EOC END OF CURVE
- ESMT EASEMENT
- FD FOUND
- FDOT FLORIDA DEPARTMENT OF TRANSPORTATION
- FT FOOT/FEET
- LB LICENSED BUSINESS
- N NORTH
- NTI NON-TANGENT INTERSECTION
- NTS NOT TO SCALE
- OR/ORB OFFICIAL RECORDS BOOK
- PB PLAT BOOK
- PCC POINT OF COMPOUND CURVATURE
- PCP PERMANENT CONTROL POINT
- PKD PARKER-KALEN NAIL AND DISK
- POB POINT OF BEGINNING
- POC POINT OF COMMENCEMENT
- PRC POINT OF REVERSE CURVATURE
- PG(S) PAGE(S)
- R RADIUS
- R/W RIGHT-OF-WAY
- SEC SECTION
- S SOUTH
- W WEST



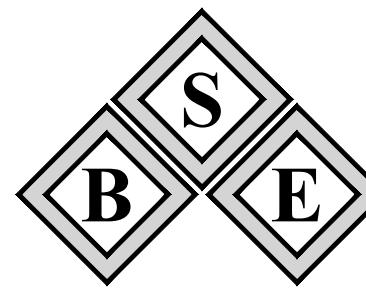
# ADAMSON CREEK

## PHASE ONE-C

### LANDSCAPE PLAN

#### SECTION 22, TOWNSHIP 24 SOUTH, RANGE 35 EAST

#### CITY OF COCOA, BREVARD COUNTY, FLORIDA



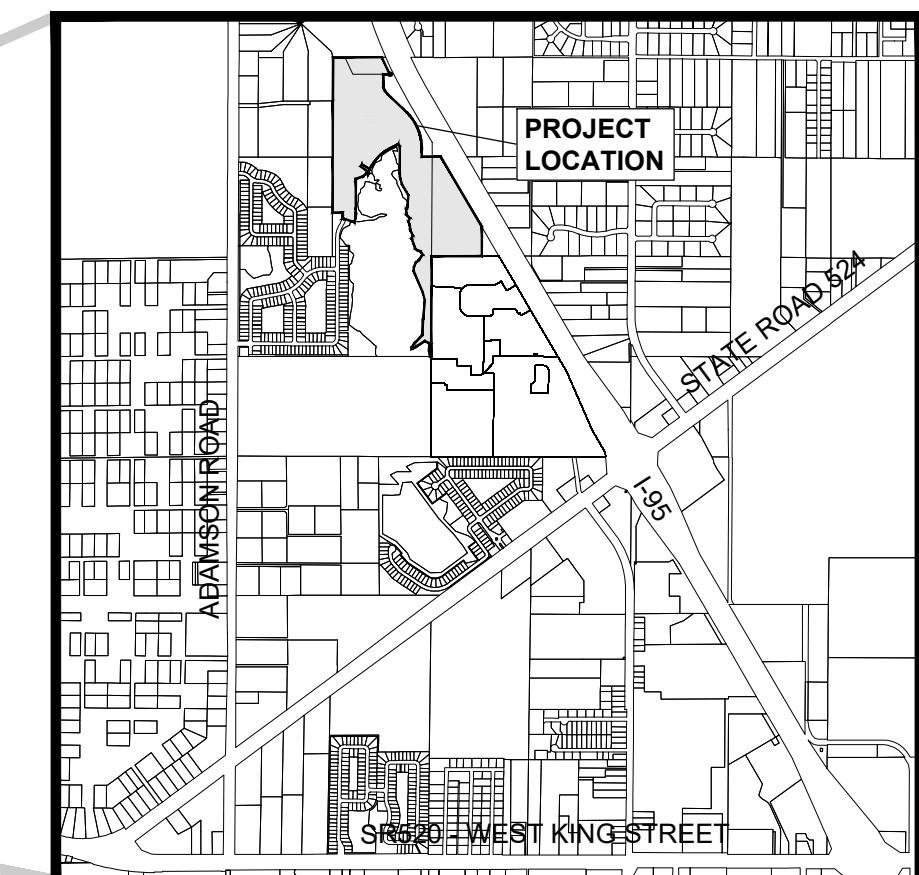
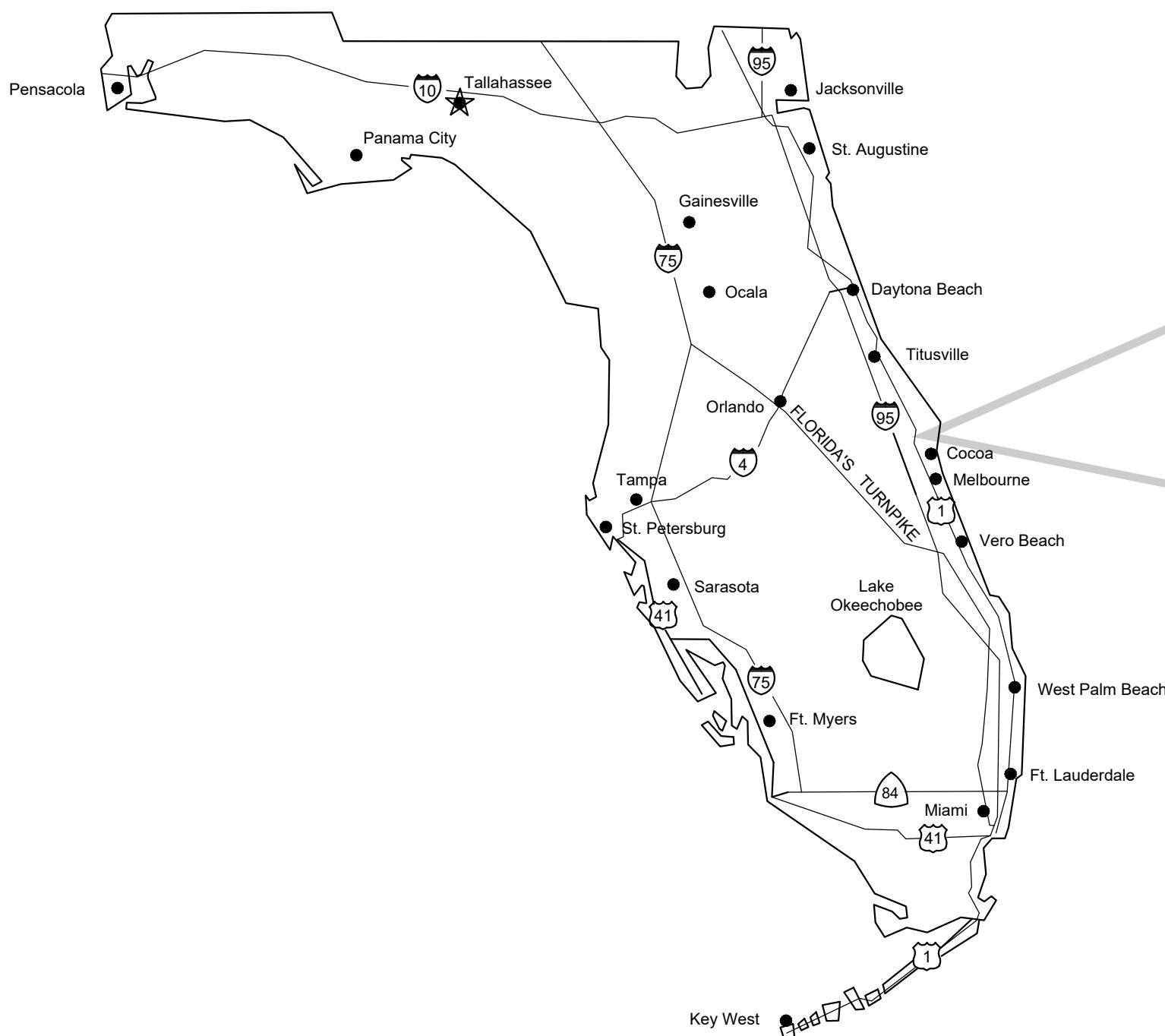
B.S.E. CONSULTANTS, INC.  
CONSULTING - ENGINEERING -  
LAND SURVEYING

312 SOUTH HARBOR CITY BOULEVARD, SUITE 4  
MELBOURNE, FLORIDA 32901  
PHONE: (321) 725-3674 / FAX: (321) 723-1159  
CERTIFICATE OF PROFESSIONAL ENGINEERS  
BUSINESS AUTHORIZATION: 4905  
CERTIFICATE OF LAND SURVEYING  
BUSINESS AUTHORIZATION: LB0004905

SCOTT M. GLAUBITZ, P.E. & P.L.S.  
STATE OF FLORIDA, No. 33659 No. 4151

HASSAN A. KAMAL, P.E.  
STATE OF FLORIDA, No. 41951

SHEET INDEX		SHEET TITLE
SHEET #	DRAWING #	
1	1145302_401_001	COVER SHEET
2	1145302_401_002	GENERAL LANDSCAPE PLAN AND NOTES
3	1145302_401_003	GENERAL LANDSCAPE PLAN
4	1145302_401_004	GENERAL LANDSCAPE PLAN AND DETAILS



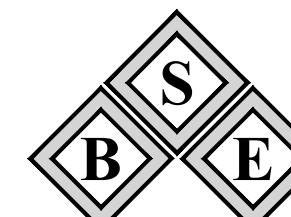
LOCATION MAP  
N  
NTS

D.R. HORTON  
1430 CULVER DRIVE  
PAL BAY, FL. 32907  
(321) 953-3135

- PREPARED BY -

**B.S.E. CONSULTANTS, INC.**  
CONSULTING - ENGINEERING - LAND SURVEYING

312 SOUTH HARBOR CITY BOULEVARD, SUITE 4 MELBOURNE, FLORIDA 32901  
PHONE: (321) 725-3674 / FAX: (321) 723-1159  
CERTIFICATE OF PROFESSIONAL ENGINEERS BUSINESS AUTHORIZATION: 4905

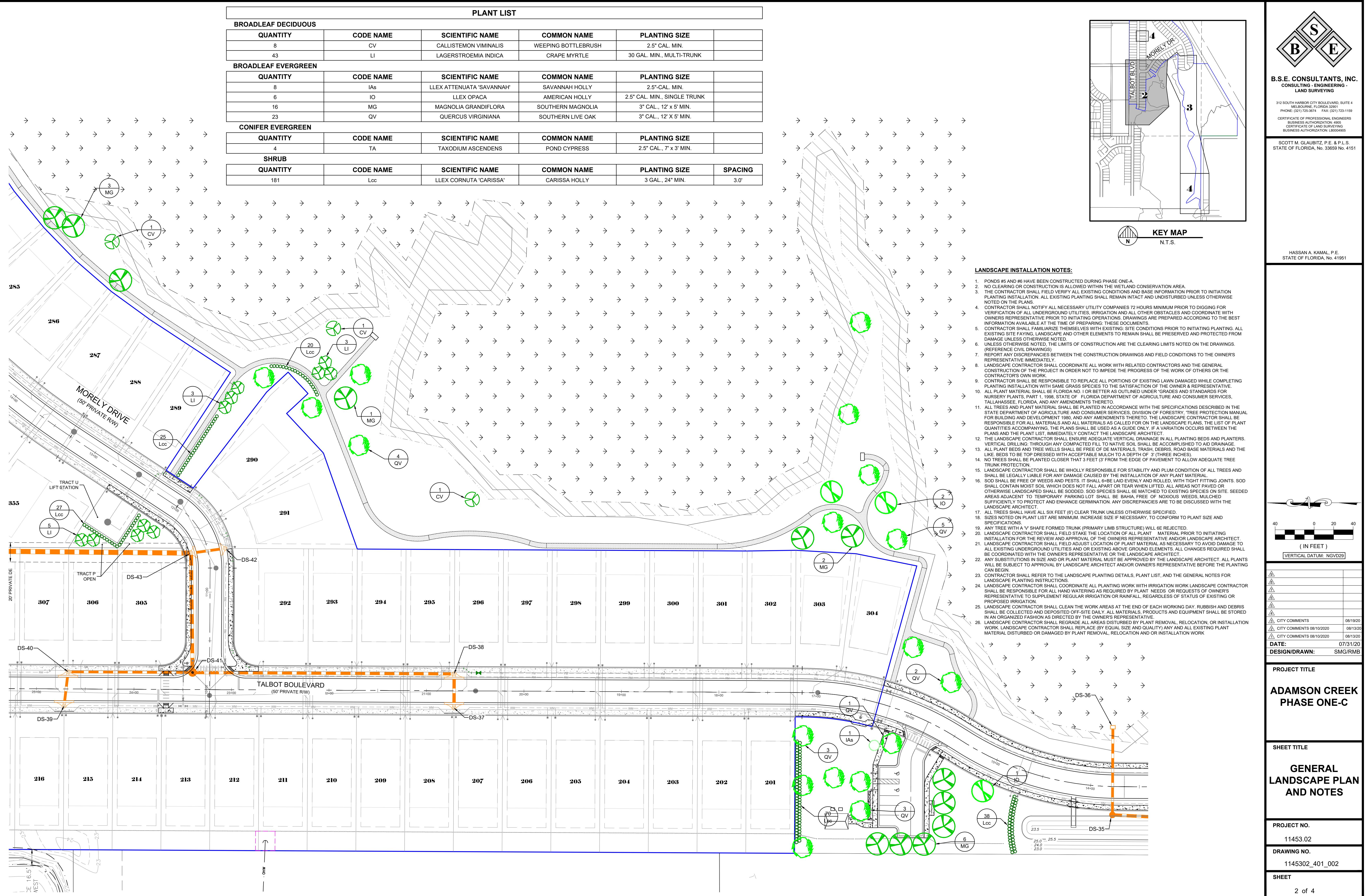


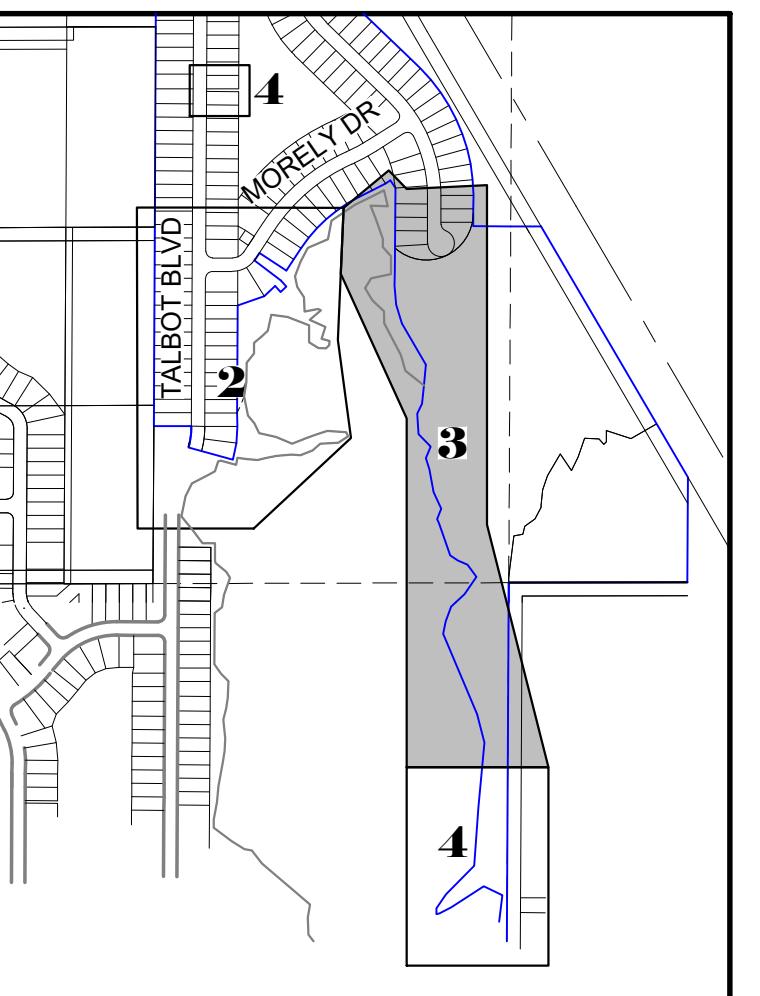
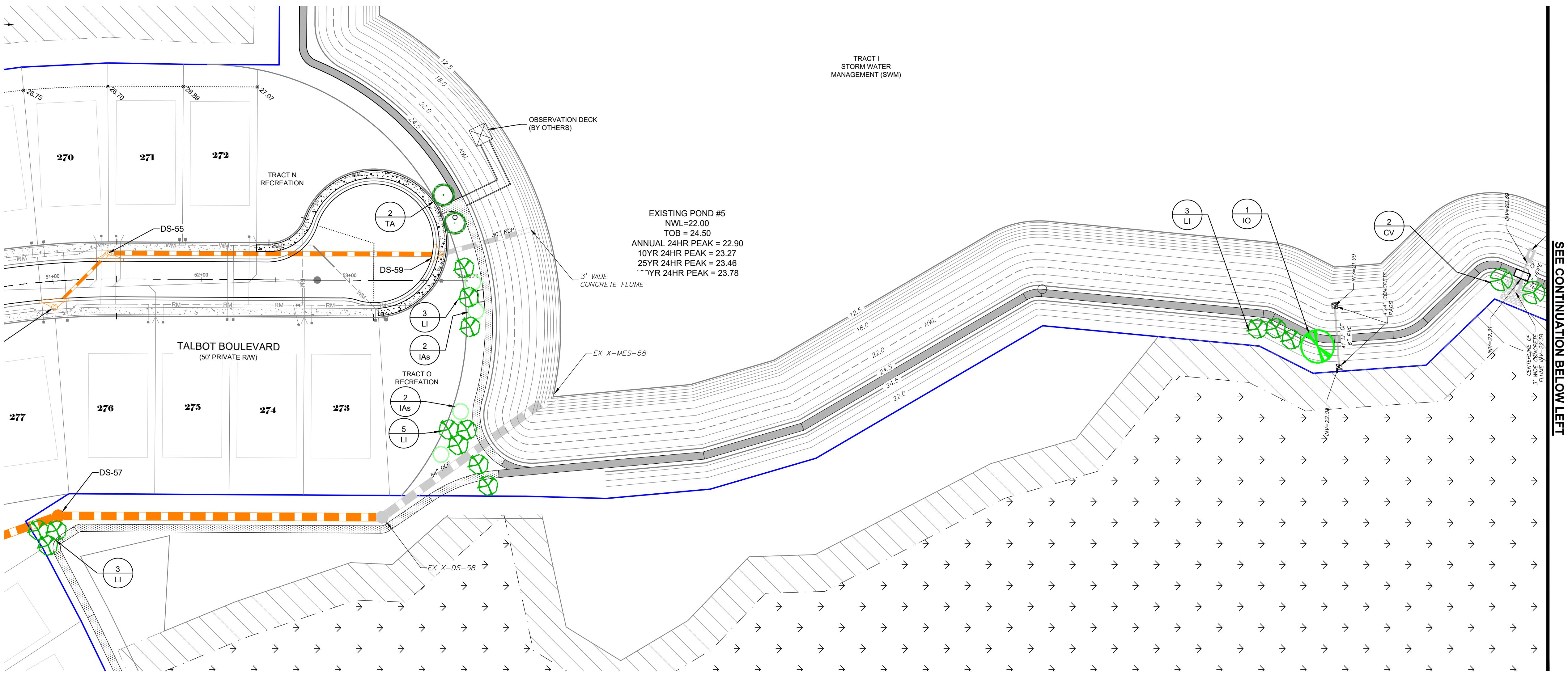
VERTICAL DATUM: NGVD29  
CONVERSION FROM NGVD29 TO NAVD88: SUBTRACT 1.38' FROM NGVD29

1 of 4

SYMBOLS SHOWN ARE GRAPHIC IN NATURE; DUE TO SCALE, ALL DESIGN ELEMENTS ARE NOT NECESSARILY SHOWN ON PLAN VIEWS. THE CONTRACTOR SHALL ALSO REFER TO SPECIFICATION AND DETAIL SHEETS AS WELL AS THE COMPLETE PLAN SET.

1145302\_401\_001.Dwg|1145302\_401\_001.Lsp Aug 21, 2020 3:52:46 PM RS



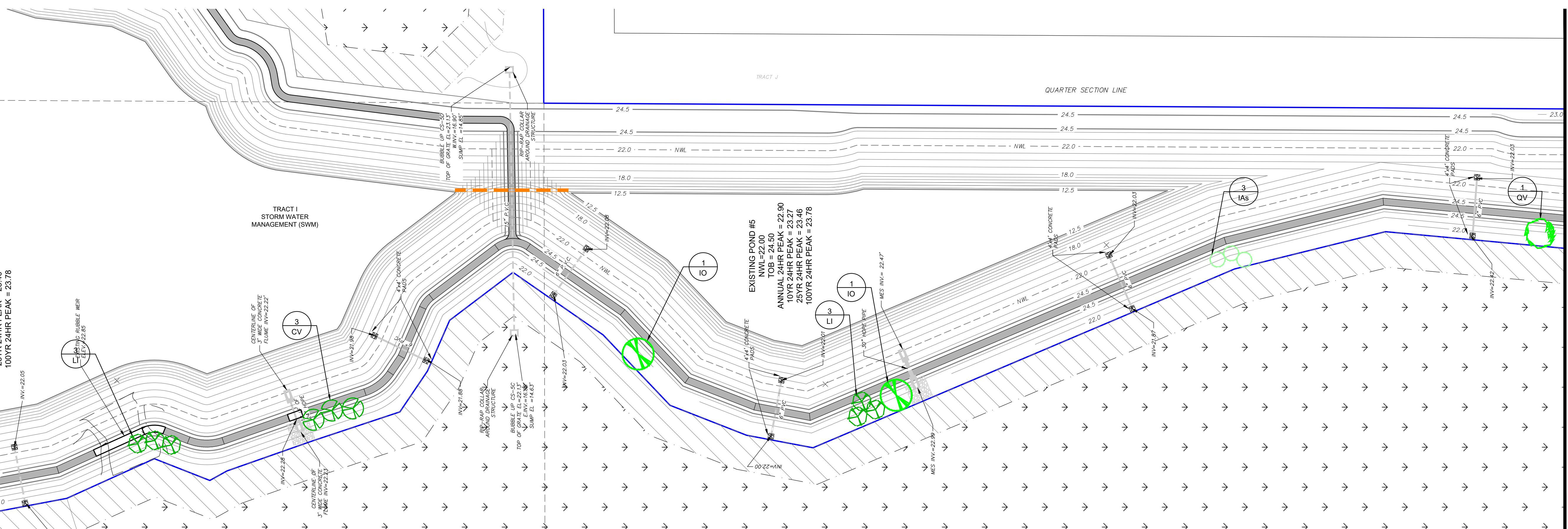


**B.S.E. CONSULTANTS, INC.**  
CONSULTING - ENGINEERING -  
LAND SURVEYING

312 SOUTH HARBOR CITY BOULEVARD, SUITE  
MELBOURNE, FLORIDA 32901  
PHONE: (321) 725-3674 FAX: (321) 723-1111

SCOTT M. GLAUBITZ, P.E. & P.L.S.  
STATE OF FLORIDA, No. 33659 No. 415

HASSAN A. KAMAL, P.E.  
STATE OF FLORIDA, No. 41951



**SEE CONTINUATION ON SHEET 4**

---

---

CITY COMMENTS 08/10/2020		08/13/2020
<b>DATE:</b>	07/31/2020	
<b>DESIGN/DRAWN:</b>	SMG/RM	
<b>PROJECT TITLE</b>		
<b>ADAMSON CREEK</b>		
<b>PHASE ONE C</b>		

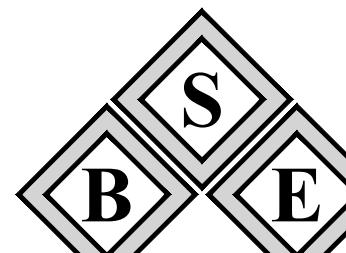
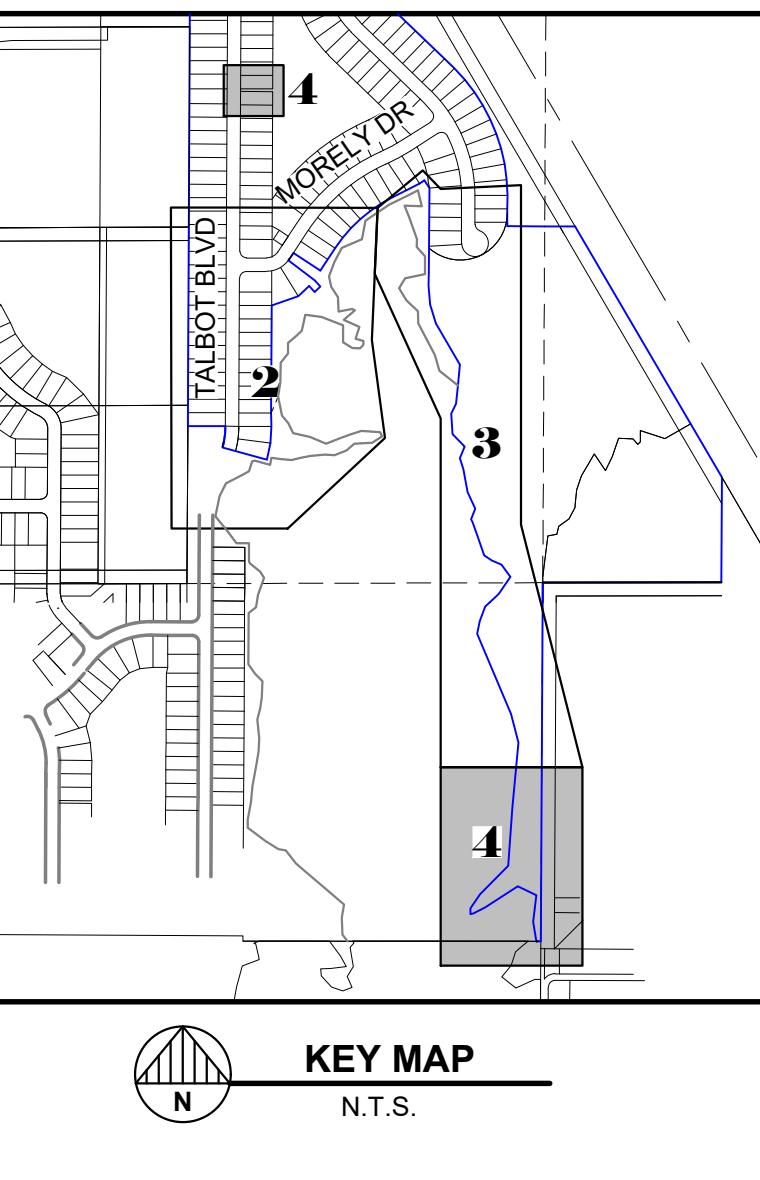
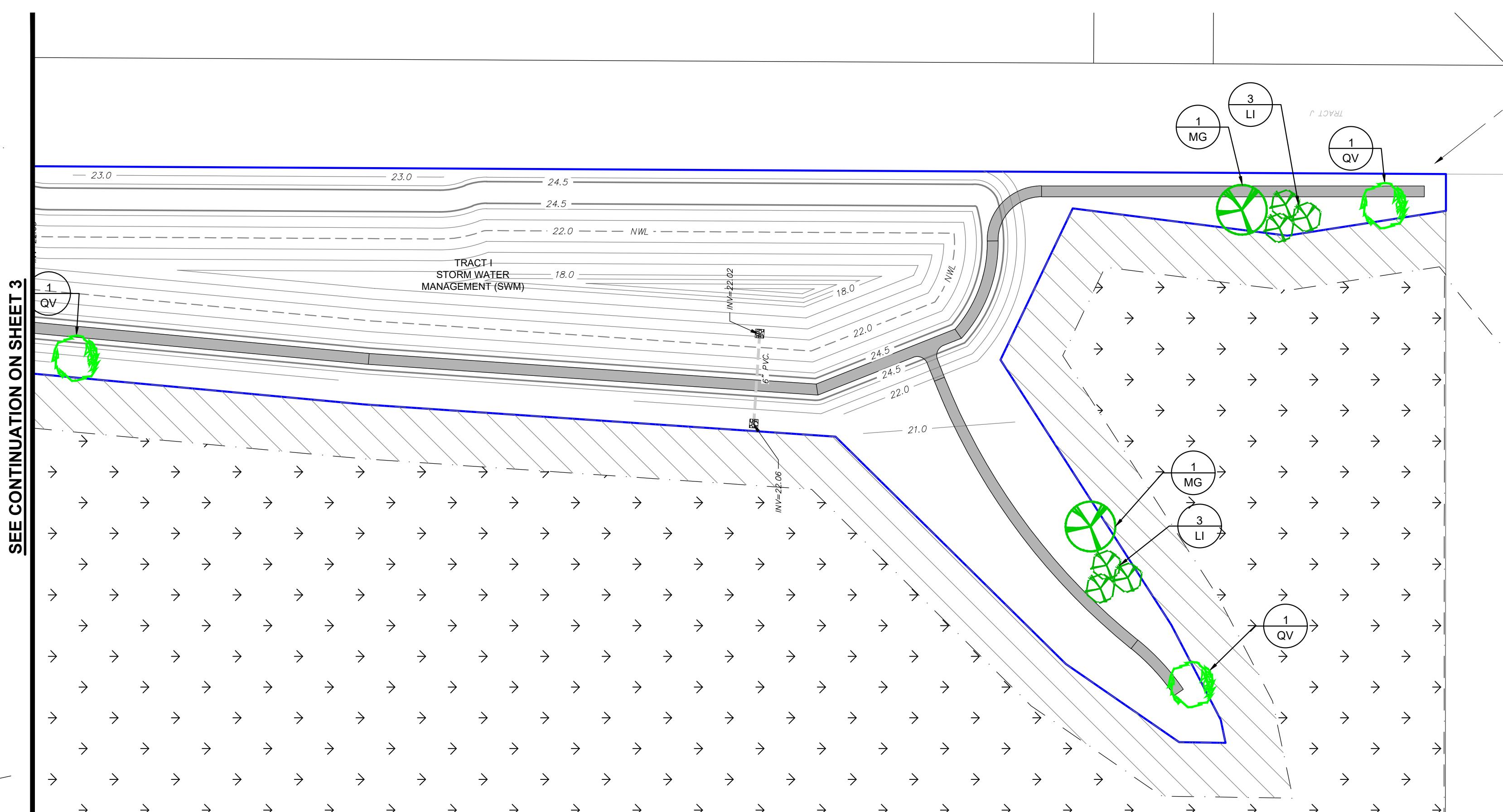
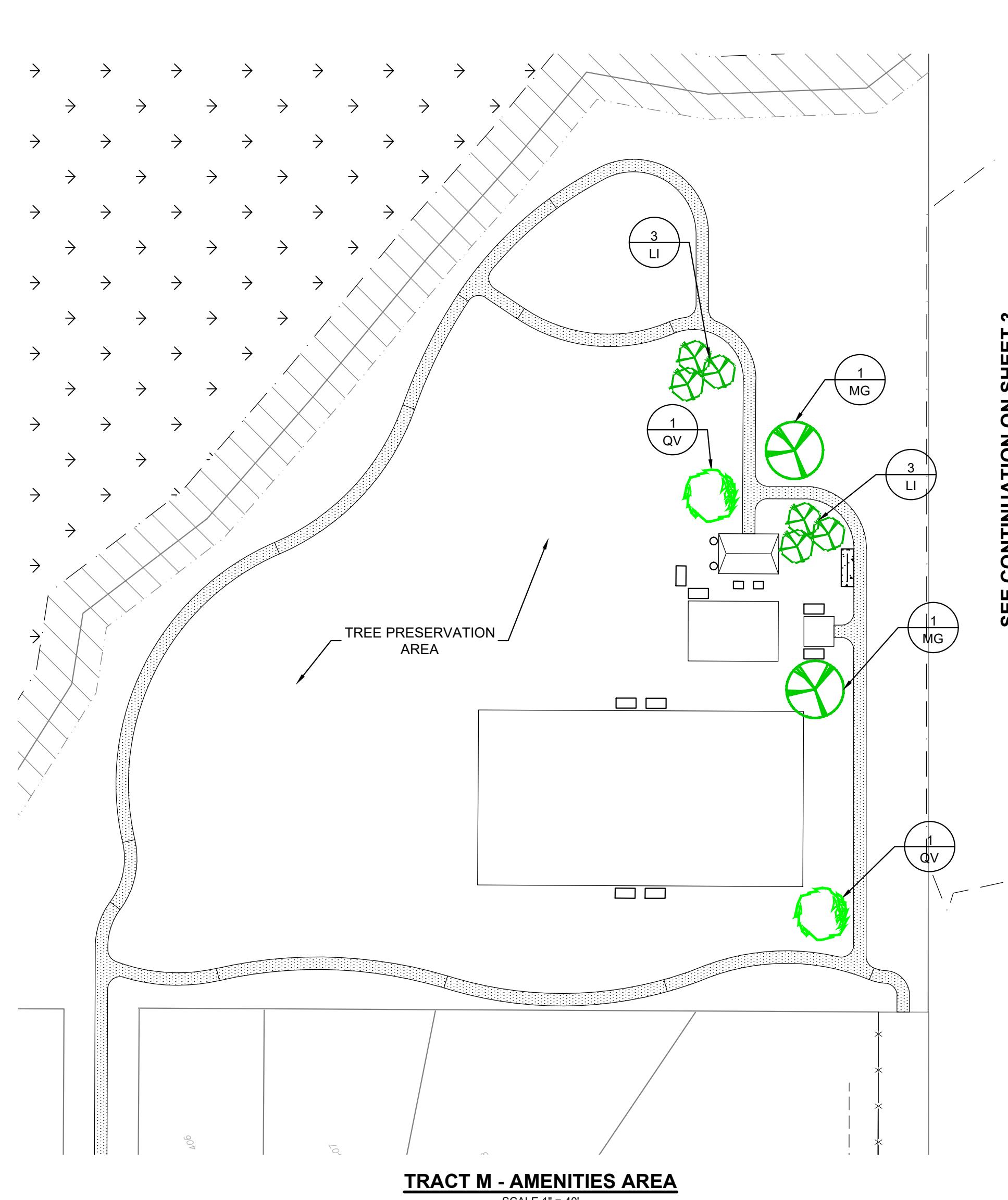
# SHEET TITLE

# GENERAL

# LANDSCAPE PLAN

PROJECT NO.

**DRAWING NO.**



**B.S.E. CONSULTANTS, INC.**  
CONSULTING - ENGINEERING -  
LAND SURVEYING

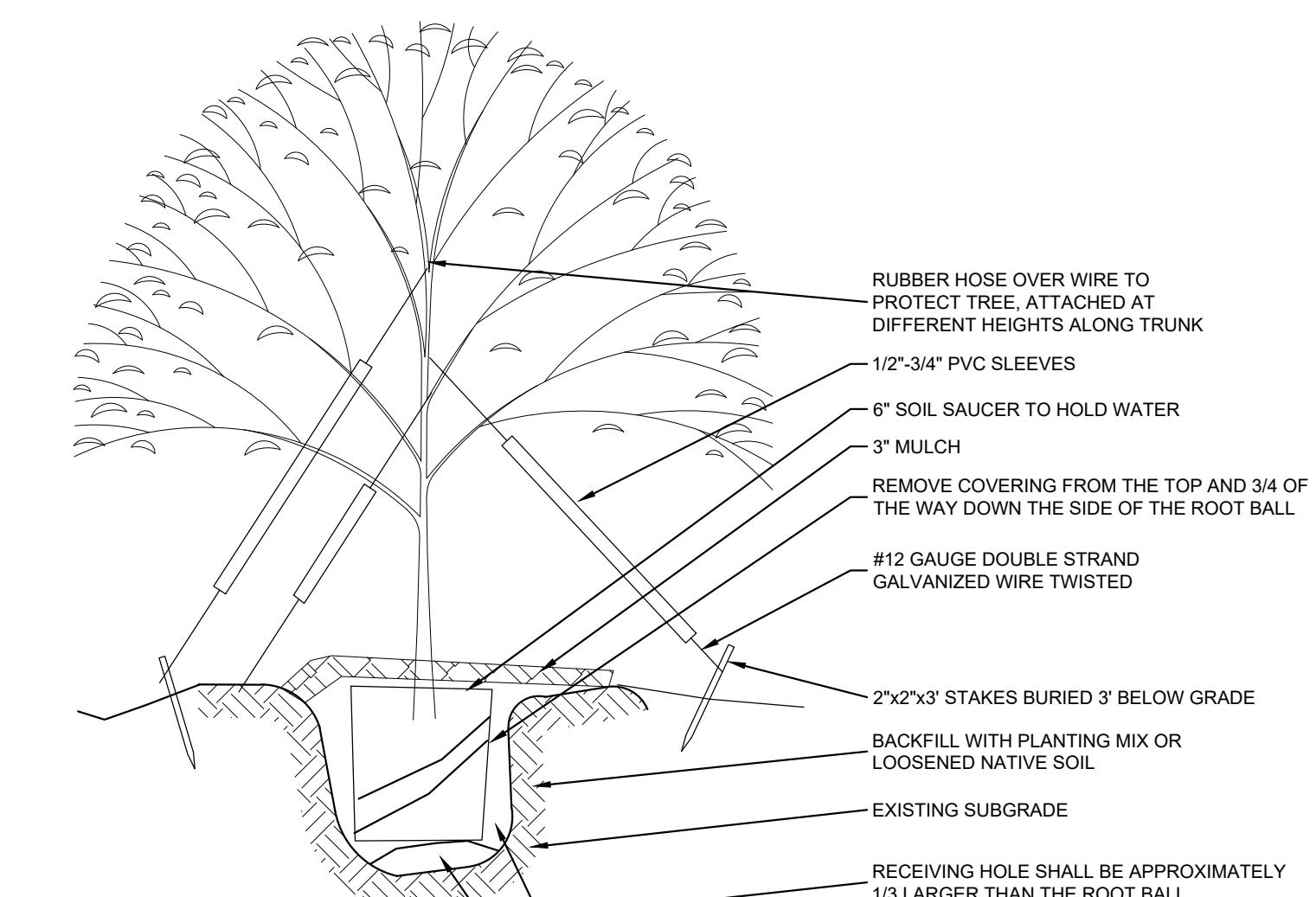
312 SOUTH HARBOR CITY BOULEVARD, SUITE 4  
MELBOURNE, FLORIDA 32901  
PHONE: (321) 725-3674 FAX: (321) 723-159

CERTIFICATE OF PROFESSIONAL ENGINEERS  
BUSINESS AUTHORIZATION: LBE00490  
CERTIFICATE OF LAND SURVEYING  
BUSINESS AUTHORIZATION: LB004905

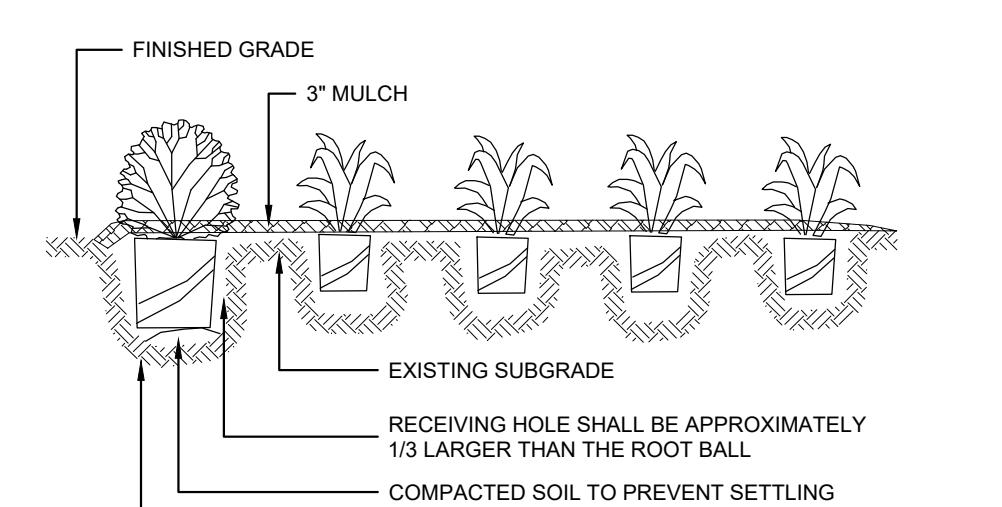
SCOTT M. GLAUBITZ, P.E. & P.L.S.  
STATE OF FLORIDA, No. 36659 No. 41951

HASSAN A. KAMAL, P.E.  
STATE OF FLORIDA, No. 41951

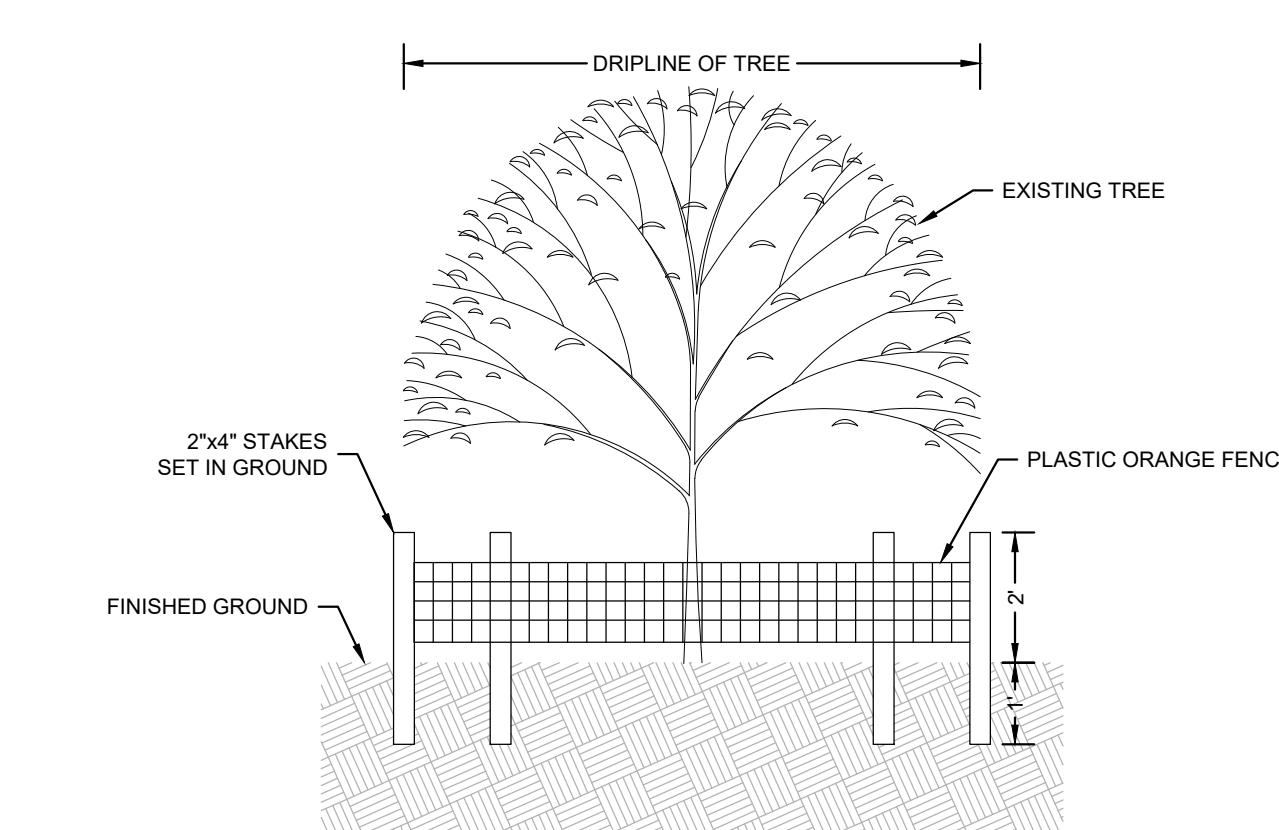
**PLAN VIEW**



**LARGE PLANTING AND STAKING DETAIL**  
N.T.S.

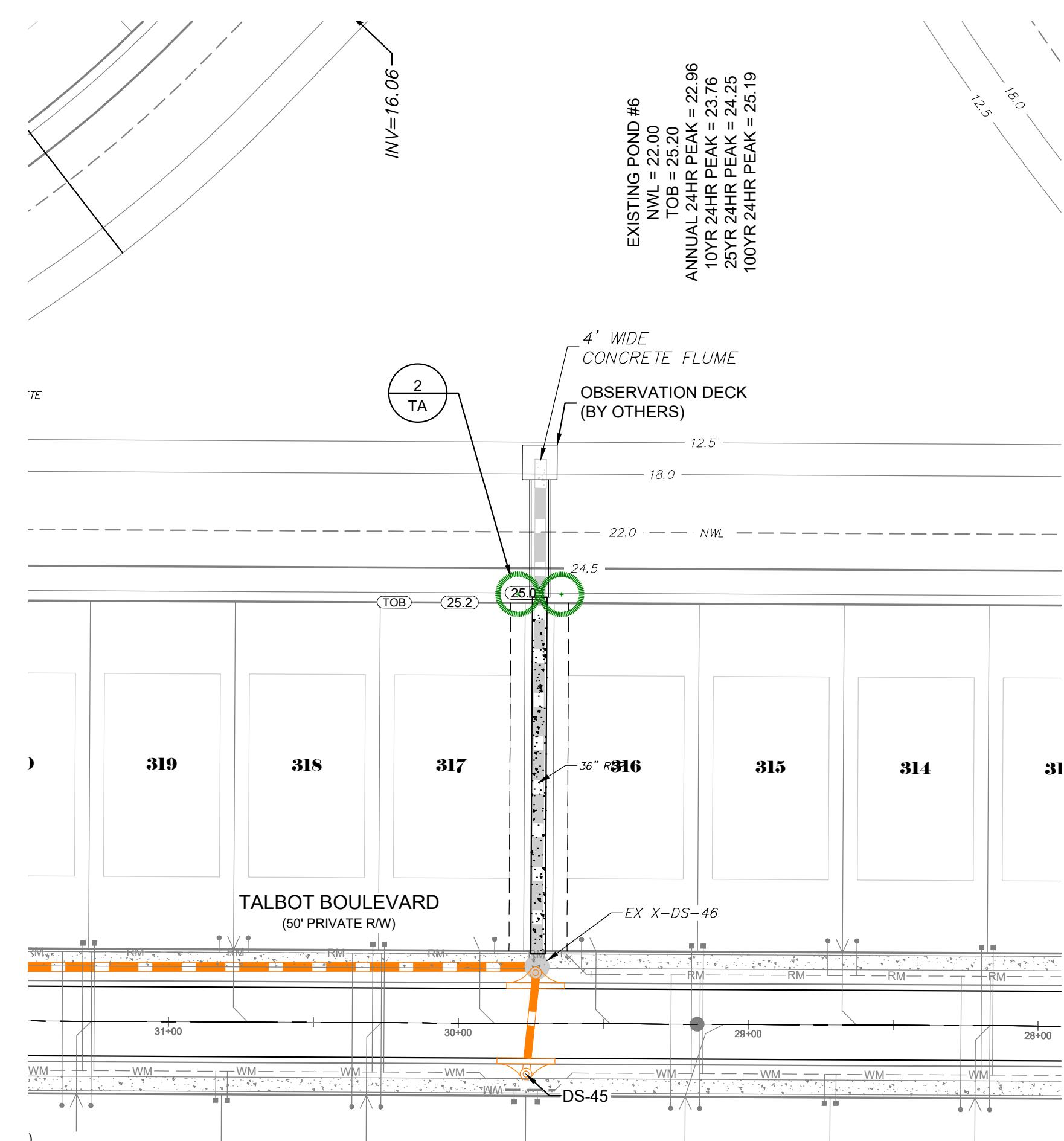


**SHRUB AND GROUND COVER PLANTING DETAIL**  
N.T.S.



**TREE PROTECTION DURING CONSTRUCTION**  
N.T.S.

EXISTING POND #6  
NWL=22.00  
TOB=25.20  
ANNUAL 24HR PEAK = 22.96  
10YR 24HR PEAK = 23.76  
25YR 24HR PEAK = 24.25  
100YR 24HR PEAK = 25.19  
( IN FEET )  
VERTICAL DATUM: NGVD29



**PROJECT TITLE**  
**ADAMSON CREEK**  
**PHASE ONE-C**

**SHEET TITLE**  
**GENERAL LANDSCAPE PLAN AND DETAILS**

**PROJECT NO.**  
11453.02

**DRAWING NO.**  
1145302\_401\_004

**SHEET**  
4 of 4