

LINE TABLE		
LINE	LENGTH	BEARING
L1	40.00'	N00°05'57"W
L2	20.00'	N89°54'03"E
L3	27.04'	S67°39'06"E
L4	43.28'	S00°06'27"E
L5	43.57'	N67°39'06"W
L6	20.00'	S89°54'03"W
L7	32.46'	N00°06'27"W
L8	32.70'	S01°05'48"E
L9	30.24'	S15°10'11"W

CURVE TABLE						
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD	BEARING
C1	91.85'	234.43'	22°26'51"	46.52'	91.26'	S78°52'31"E
C2	76.17'	194.43'	22°26'51"	38.58'	75.69'	N78°52'31"W

LEGAL DESCRIPTION: (PROPOSED INGRESS EASEMENT PREPARED BY BROOKS AND AMADEN, INC.)

A TRACT OF LAND BEING A PORTION OF THE SOUTHEAST 1/4 OF SECTION 20, TOWNSHIP 29 SOUTH, RANGE 20 EAST, HILLSBOROUGH COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF THE SOUTHEAST 1/4 OF SAID SECTION 20; RUN THENCE ALONG THE WEST BOUNDARY OF THE SOUTHEAST 1/4 OF SAID SECTION 20, NORTH 00°05'57" WEST, 518.50 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE ALONG SAID WEST BOUNDARY, NORTH 00°05'57" WEST, 40.00 FEET; THENCE DEPARTING SAID WEST BOUNDARY, NORTH 89°54'03" EAST, 20.00 FEET TO A POINT OF INTERSECTION WITH THE WEST BOUNDARY OF LOT 19, "ORANGELAND SUBDIVISION", AS RECORDED IN PLAT BOOK 10, PAGE 14, OF THE PUBLIC RECORDS OF HILLSBOROUGH COUNTY, FLORIDA, SAID POINT BEING A POINT OF CURVATURE; THENCE EASTERLY, 91.85 FEET ALONG THE ARC OF A CURVE TO THE RIGHT HAVING A RADIUS OF 234.43 FEET, A CENTRAL ANGLE OF 22°26'51", AND A CHORD OF 91.26 FEET WHICH BEARS SOUTH 78°52'31" EAST TO A POINT OF TANGENCY; THENCE SOUTH 67°39'06" EAST, 27.04 FEET TO A POINT OF INTERSECTION WITH THE WEST BOUNDARY OF THAT CERTAIN PARCEL OF LAND AS DESCRIBED IN OFFICIAL RECORDS BOOK 14054, PAGE 941 (PREVIOUSLY RECORDED IN OFFICIAL RECORDS BOOK 6623, PAGE 1852), OF THE PUBLIC RECORDS OF HILLSBOROUGH COUNTY, FLORIDA; THENCE ALONG SAID WEST BOUNDARY, SOUTH 00°06'27" EAST, 43.28 FEET; THENCE DEPARTING SAID WEST BOUNDARY, NORTH 67°39'06" WEST, 43.57 FEET TO A POINT OF CURVATURE; THENCE WESTERLY, 76.17 FEET ALONG THE ARC OF A CURVE TO THE LEFT HAVING A RADIUS OF 194.43 FEET, A CENTRAL ANGLE OF 22°26'51", AND A CHORD OF 75.69 FEET WHICH BEARS NORTH 78°52'31" WEST TO A POINT OF INTERSECTION WITH THE AFOREMENTIONED WEST BOUNDARY OF LOT 19, "ORANGELAND SUBDIVISION", SAID POINT BEING A POINT OF TANGENCY; AND THENCE SOUTH 89°54'03" WEST, 20.00 FEET TO THE POINT OF BEGINNING.

TRACT CONTAINS 5,573 SQUARE FEET OR 0.13 ACRES, MORE OR LESS.

TOGETHER WITH:

LEGAL DESCRIPTION: (PROPOSED INGRESS, EGRESS AND UTILITY EASEMENT AS PREVIOUSLY DESCRIBED BY KING ENGINEERING ASSOCIATES, INC.)

A PARCEL OF LAND LYING IN SECTION 20, TOWNSHIP 29 SOUTH, RANGE 20 EAST, HILLSBOROUGH COUNTY, FLORIDA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF THE SOUTHEAST 1/4 OF SAID SECTION 20; THENCE SOUTH 89°53'41" EAST ALONG THE SOUTH LINE OF SAID SOUTHEAST 1/4 FOR A DISTANCE OF 395.51 FEET, TO A POINT ON THE EAST LINE OF PARCEL "F"; THENCE DEPARTING SAID SOUTH LINE NORTH 00°06'19" EAST, FOR A DISTANCE OF 390.96 FEET TO THE POINT OF BEGINNING; THENCE NORTH 67°39'06" WEST FOR A DISTANCE OF 283.90 FEET TO THE EAST LINE OF A LANDSCAPE BUFFER AS RECORDED IN O.R. BOOK 7335, PAGE 848, HILLSBOROUGH COUNTY, FLORIDA AND THE WEST LINE OF PARCEL "F"; THENCE NORTH 00°06'27" WEST, ALONG SAID WEST LINE FOR A DISTANCE OF 32.46 FEET; THENCE SOUTH 67°39'06" EAST, FOR A DISTANCE OF 283.29 FEET TO SAID EAST LINE OF PARCEL "F" AS RECORDED IN O.R. BOOK 6623, PAGE 1852, HILLSBOROUGH COUNTY, FLORIDA; THENCE SOUTH 01°05'48" EAST, ALONG SAID EAST LINE FOR A DISTANCE OF 32.70 FEET TO THE POINT OF BEGINNING.

CONTAINING 8508 S.F. OR 0.195 ACRES, MORE OR LESS.

TOGETHER WITH:

LEGAL DESCRIPTION: (COMMON USE INGRESS-EGRESS EASEMENT AS DESCRIBED IN OFFICIAL RECORDS BOOK 6623, PAGE 1844)

THAT PART OF THE SOUTHEAST QUARTER OF SECTION 20, TOWNSHIP 29 SOUTH, RANGE 20 EAST, HILLSBOROUGH COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF THE SOUTHEAST QUARTER OF SAID SECTION 20; THENCE SOUTH 89°53'41" EAST ALONG THE SOUTH LINE OF SAID SOUTHEAST QUARTER A DISTANCE OF 395.51 FEET; THENCE NORTH 00°06'19" EAST A DISTANCE OF 390.96 FEET TO THE POINT OF BEGINNING; THENCE NORTH 01°05'48" WEST A DISTANCE OF 32.70 FEET; THENCE SOUTH 67°39'06" EAST A DISTANCE OF 353.81 FEET; THENCE SOUTH 15°10'11" WEST A DISTANCE OF 30.24 FEET; THENCE NORTH 67°39'06" WEST, A DISTANCE OF 344.58 FEET, MORE OR LESS TO THE POINT OF BEGINNING. THE ABOVE DESCRIBED EASEMENT CONTAINING 10,475.93 SQUARE FEET OR 0.240 ACRES MORE OR LESS.

PROPOSED AND EXISTING NORTH ACCESS EASEMENTS EXHIBIT

07/17/08

Date:

20-29-20

S-T-R:

Sheet No.:

Love Investment Company

1050 Crown Pointe Parkway

Atlanta, Georgia 30338-7701

CBV

By:

5021-01

Project No.:

CAREY FARM SITE AND WESTFIELD SHOPPING MALL

Hillsborough County, Florida

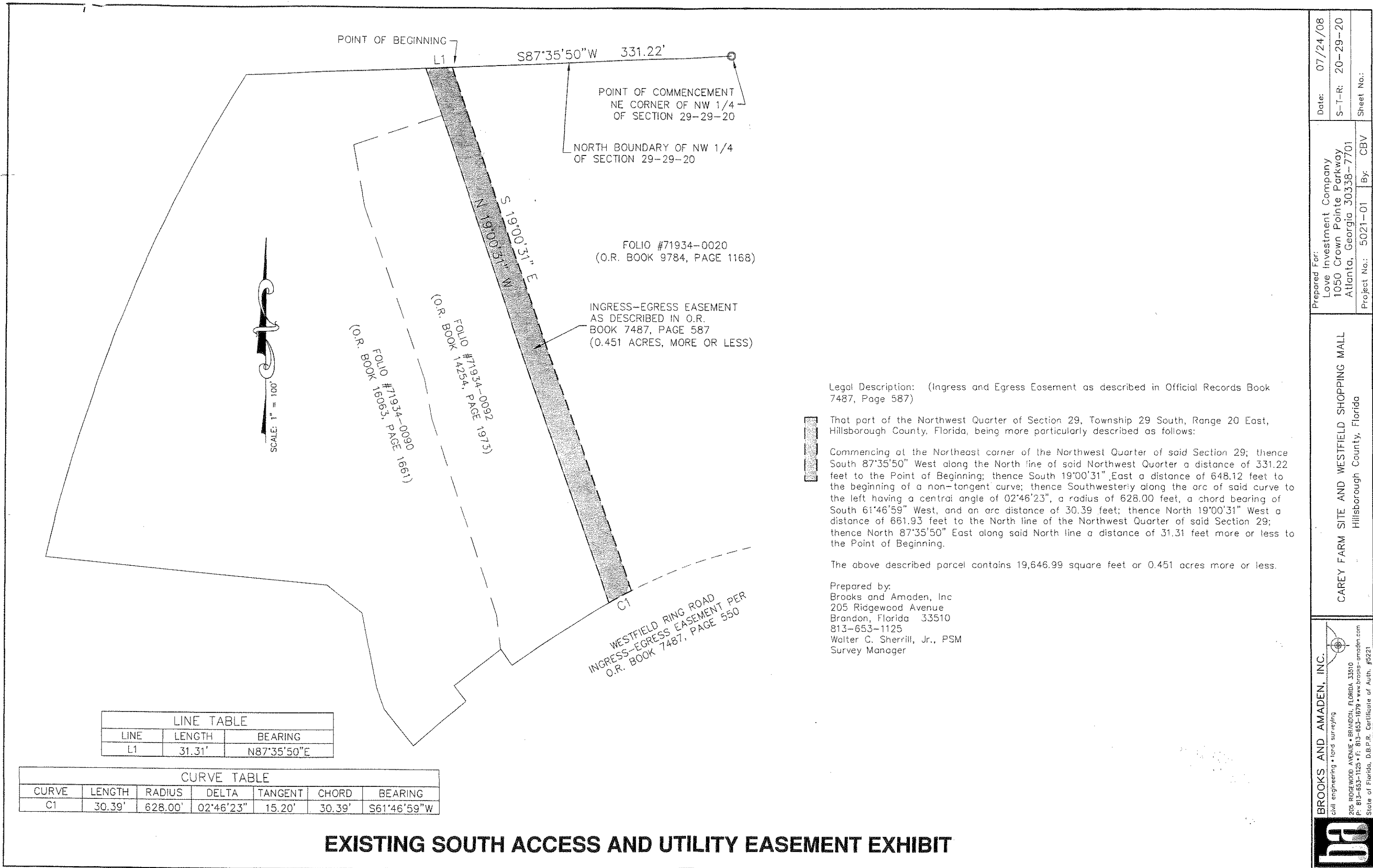
BROOKS AND AMADEN, INC.

civil engineering • land surveying

205 RIDGEWOOD AVENUE • BRANDON, FLORIDA 33510

P: 813-653-1125 • F: 813-653-1679 • www.brooks-amaden.com

State of Florida, D.B.P.R. Certificate of Auth. #5221



EXISTING SOUTH ACCESS AND UTILITY EASEMENT EXHIBIT

BROOKS AND AMADEN, INC.  
Civil engineering • land surveying  
205 RIDGEWOOD AVENUE • BRANDON, FLORIDA 33510  
P: 813-653-1125 • F: 813-653-1679 • www.brooks-amaden.com  
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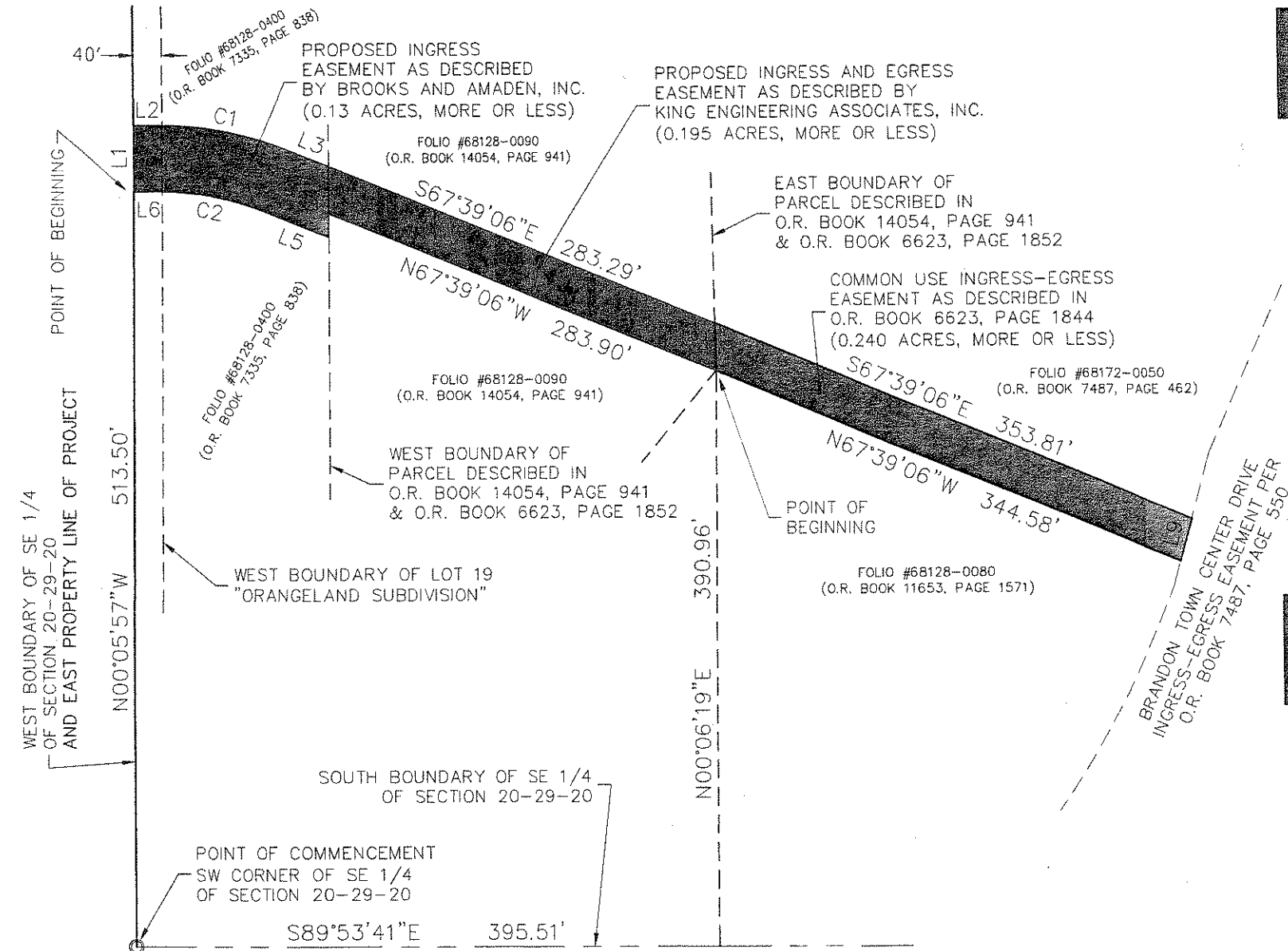
CAREY FARM SITE AND WESTFIELD SHOPPING MALL  
Hillsborough County, Florida

Prepared For:  
Love Investment Company  
1050 Crown Pointe Parkway  
Atlanta, Georgia 30338-7701  
Project No.: 5021-01 By: CBV

Date: 07/24/08  
S-T-R: 20-29-20  
Sheet No.:

**EXHIBIT C**

**BRINKER ACCESS ROAD EASEMENT PROPERTY**



LINE TABLE		
LINE	LENGTH	BEARING
L1	40.00'	N00°05'57"W
L2	20.00'	N89°54'03"E
L3	27.04'	S67°39'06"E
L4	43.28'	S00°06'27"E
L5	43.57'	N67°39'06"W
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L7	32.46'	N00°06'27"W
L8	32.70'	S01°05'48"E
L9	30.24'	S15°10'11"W

CURVE TABLE						
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD	BEARING
C1	91.85'	234.43'	22°26'51"	46.52'	91.26'	S78°52'31"E
C2	76.17'	194.43'	22°26'51"	38.58'	75.69'	N78°52'31"W

LEGAL DESCRIPTION: (PROPOSED INGRESS EASEMENT PREPARED BY BROOKS AND AMADEN, INC.)

A TRACT OF LAND BEING A PORTION OF THE SOUTHEAST 1/4 OF SECTION 20, TOWNSHIP 29 SOUTH, RANGE 20 EAST, HILLSBOROUGH COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF THE SOUTHEAST 1/4 OF SAID SECTION 20; RUN THENCE ALONG THE WEST BOUNDARY OF THE SOUTHEAST 1/4 OF SAID SECTION 20, NORTH 00°05'57" WEST, 518.50 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE ALONG SAID WEST BOUNDARY, NORTH 00°05'57" WEST, 40.00 FEET; THENCE DEPARTING SAID WEST BOUNDARY, NORTH 89°54'03" EAST, 20.00 FEET TO A POINT OF INTERSECTION WITH THE WEST BOUNDARY OF LOT 19, "ORANGELAND SUBDIVISION", AS RECORDED IN PLAT BOOK 10, PAGE 14, OF THE PUBLIC RECORDS OF HILLSBOROUGH COUNTY, FLORIDA, SAID POINT BEING A POINT OF CURVATURE; THENCE EASTERLY, 91.85 FEET ALONG THE ARC OF A CURVE TO THE RIGHT HAVING A RADIUS OF 234.43 FEET, A CENTRAL ANGLE OF 22°26'51", AND A CHORD OF 91.26 FEET WHICH BEARS SOUTH 78°52'31" EAST TO A POINT OF TANGENCY; THENCE SOUTH 67°39'06" EAST, 27.04 FEET TO A POINT OF INTERSECTION WITH THE WEST BOUNDARY OF THAT CERTAIN PARCEL OF LAND AS DESCRIBED IN OFFICIAL RECORDS BOOK 14054, PAGE 941 (PREVIOUSLY RECORDED IN OFFICIAL RECORDS BOOK 6623, PAGE 1852), OF THE PUBLIC RECORDS OF HILLSBOROUGH COUNTY, FLORIDA; THENCE ALONG SAID WEST BOUNDARY, SOUTH 00°06'27" EAST, 43.28 FEET; THENCE DEPARTING SAID WEST BOUNDARY, NORTH 67°39'06" WEST, 43.57 FEET TO A POINT OF CURVATURE; THENCE WESTERLY, 76.17 FEET ALONG THE ARC OF A CURVE TO THE LEFT HAVING A RADIUS OF 194.43 FEET, A CENTRAL ANGLE OF 22°26'51", AND A CHORD OF 75.69 FEET WHICH BEARS NORTH 78°52'31" WEST TO A POINT OF INTERSECTION WITH THE AFOREMENTIONED WEST BOUNDARY OF LOT 19, "ORANGELAND SUBDIVISION", SAID POINT BEING A POINT OF TANGENCY; AND THENCE SOUTH 89°54'03" WEST, 20.00 FEET TO THE POINT OF BEGINNING.

TRACT CONTAINS 5,573 SQUARE FEET OR 0.13 ACRES, MORE OR LESS.

TOGETHER WITH:

LEGAL DESCRIPTION: (PROPOSED INGRESS, EGRESS AND UTILITY EASEMENT AS PREVIOUSLY DESCRIBED BY KING ENGINEERING ASSOCIATES, INC.)

A PARCEL OF LAND LYING IN SECTION 20, TOWNSHIP 29 SOUTH, RANGE 20 EAST, HILLSBOROUGH COUNTY, FLORIDA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF THE SOUTHEAST 1/4 OF SAID SECTION 20; THENCE SOUTH 89°53'41" EAST ALONG THE SOUTH LINE OF SAID SOUTHEAST 1/4 FOR A DISTANCE OF 395.51 FEET, TO A POINT ON THE EAST LINE OF PARCEL "F"; THENCE DEPARTING SAID SOUTH LINE NORTH 00°06'19" EAST, FOR A DISTANCE OF 390.96 FEET TO THE POINT OF BEGINNING; THENCE NORTH 67°39'06" WEST FOR A DISTANCE OF 283.90 FEET TO THE EAST LINE OF A LANDSCAPE BUFFER AS RECORDED IN O.R. BOOK 7335, PAGE 848, HILLSBOROUGH COUNTY, FLORIDA AND THE WEST LINE OF PARCEL "F"; THENCE NORTH 00°06'27" WEST, ALONG SAID WEST LINE FOR A DISTANCE OF 32.46 FEET; THENCE SOUTH 67°39'06" EAST, FOR A DISTANCE OF 283.29 FEET TO SAID EAST LINE OF PARCEL "F" AS RECORDED IN O.R. BOOK 6623, PAGE 1852, HILLSBOROUGH COUNTY, FLORIDA; THENCE SOUTH 01°05'48" EAST, ALONG SAID EAST LINE FOR A DISTANCE OF 32.70 FEET TO THE POINT OF BEGINNING.

CONTAINING 8508 S.F. OR 0.195 ACRES, MORE OR LESS.

TOGETHER WITH:

LEGAL DESCRIPTION: (COMMON USE INGRESS-EGRESS EASEMENT AS DESCRIBED IN OFFICIAL RECORDS BOOK 6623, PAGE 1844)

THAT PART OF THE SOUTHEAST QUARTER OF SECTION 20, TOWNSHIP 29 SOUTH, RANGE 20 EAST, HILLSBOROUGH COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF THE SOUTHEAST QUARTER OF SAID SECTION 20; THENCE SOUTH 89°53'41" EAST ALONG THE SOUTH LINE OF SAID SOUTHEAST QUARTER A DISTANCE OF 395.51 FEET; THENCE NORTH 00°06'19" EAST A DISTANCE OF 390.96 FEET TO THE POINT OF BEGINNING; THENCE NORTH 01°05'48" WEST A DISTANCE OF 32.70 FEET; THENCE SOUTH 67°39'06" EAST A DISTANCE OF 353.81 FEET; THENCE SOUTH 15°10'11" WEST A DISTANCE OF 30.24 FEET; THENCE NORTH 67°39'06" WEST, A DISTANCE OF 344.58 FEET MORE OR LESS TO THE POINT OF BEGINNING. THE ABOVE DESCRIBED EASEMENT CONTAINING 10,475.93 SQUARE FEET OR 0.240 ACRES MORE OR LESS.

PROPOSED AND EXISTING NORTH ACCESS EASEMENTS EXHIBIT

Date: 07/17/08

S-T-R: 20-29-20

Sheet No.:

Prepared For: Love Investment Company

1050 Crown Pointe Parkway

Atlanta, Georgia 30338-7701

Project No.: 5021-01

By: CBV

CAREY FARM SITE AND WESTFIELD SHOPPING MALL

Hillsborough County, Florida

BROOKS AND AMADEN, INC.

civil engineering • land surveying

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State of Florida, D.B.P.R. Certificate of Auth. #5221

**EXHIBIT D**

**CAREY LEGAL DESCRIPTION**

**Exhibit "A"**

**PARCEL I:**

The East 110.53 feet of that part of the Southeast 1/4 of the Southwest 1/4 of Section 20, Township 29 South, Range 20 East, Hillsborough County, Florida, lying South of State Road No. 60.

**LESS AND EXCEPT THAT PART OF:**

(1) The East 110.53 feet of that part of the Southeast 1/4 of the Southwest 1/4 of Section 20, Township 29 South, Range 20 East, Hillsborough County, Florida, lying South of State Road No. 60.

(2) That part of the West 1/2 of the East 1/2 of the Southeast 1/4 of the Southwest 1/4 of Section 20, Township 29 South, Range 20 East, lying South of Palm River Road and State Road No. 60, according to the Public Records of Hillsborough County, Florida, AND the West 221.06 feet of the East 331.58 feet of that part of the Southeast 1/4 of the Southwest 1/4 of Section 20, Township 29 South, Range 20 East, lying South of State Road No. 60, LESS from the point of intersection of the East boundary of the West 1/2 of the East 1/2 of the Southeast 1/4 of the Southwest 1/4 of Section 20 with the South right of way line of State Road No. 60 run North 65°46' West along said South right of way line a distance of 200.00 feet; run thence South 24°14' West a distance of 200.00 feet; run thence South 24°14' West a distance of 200.00 feet; run thence South 65°46' East a distance of 200.00 feet; run thence North 24°14' East, a distance of 200.00 feet to the Point of Beginning.

**LYING WITHIN THE BOUNDARIES DESCRIBED AS FOLLOWS:**

Begin on the South line of Section 20, Township 29 South, Range 20 East at a point North 87°50'31" East 11.65 feet from the Southeast corner of the Southwest 1/4 of the Southwest 1/4 thereof said point being on a curve concave to the Westerly and having a radius of 7,545.44 feet; thence from a tangent bearing of North 02°46'21" East run Northerly along said curve 741.49 feet through a central angle of 05°37'50" to the end of said curve; thence North 02°51'29" West 492.97 feet to the beginning of a curve concave to the Southwesterly and having a radius of 406.00 feet; run thence 417.62 feet along said curve through a central angle of 58°56'10" to the end of said curve; thence North 61°47'39" West 628.25 feet; thence North 65°36'29" West 690.44 feet; thence North 24°23'31" East 170.00 feet to the centerline of State Road 60; thence along said centerline South 65°36'29" East 2,929.80 feet; thence leaving said centerline run South 00°05'19" West 377.23 feet to a point on a curve concave to the Southeasterly and having a radius of 336.00 feet; thence from a tangent bearing of South 57°34'02" West run Southwesterly 95.95 feet along said curve through a central angel of 16°21'42" to the end of said curve: thence South 41°12'21" West 357.66 feet; thence South 37°23'30" West 286.37 feet to the beginning of a curve concave to the Easterly and having a radius of 1,815.86 feet; thence along said curve 163.66 feet through a central angel of 05°09'13" to the end of this portion of said curve, being a point on the South line of said Section 20; thence South 87°50'31" West 741.92 feet along said South line to the Point of Beginning.

**PARCEL II:**

That part of the West 1/2 of the East 1/2 of the Southeast 1/4 of the Southwest 1/4 of Section 20, Township 29 South, Range 20 East, lying South of Palm River Road and State Road No. 60 according to the Public Records of Hillsborough County, Florida and the West 221.06 feet of the East 331.58 feet of that part of the Southeast 1/4 of the Southwest 1/4 of Section 20, Township 29 South, Range 20 East, lying South of State Road No. 60, LESS from the point of intersection of the East boundary of the West 1/2 of the East 1/2 of the Southeast 1/4 of the Southwest 1/4 of Section 20 with the South right of way line of State Road No. 60 run North 65°46' West along said South right of way line a distance of 200.00 feet; run thence South 24°14' West a distance of 200.00 feet; run thence South 65°46' East a distance of 200.00 feet; run thence North 24°14' East a distance of 200.00 feet to the Point of Beginning this exception being same property conveyed to Commodore H. Lambert and Elizabeth W. Lambert on march 30, 1956, recorded in Deed Book 1948, Page 196, the South right of way line of State Road No. 60 in this exception being the line as existed on date of said deed to the Lamberts.

LESS AND EXCEPT THAT PART OF:

(1) The East 110.53 feet of that part of the Southeast 1/4 of the Southwest 1/4 of Section 20, Township 29 South, Range 20 East, Hillsborough County, Florida, lying South of State Road No. 60

(2) That part of the West 1/2 of the East 1/2 of the Southeast 1/4 of the Southwest 1/4 of Section 20, Township 29 South, Range 20 East lying South of Palm River Road and State Road No. 60, according to the Public Records of Hillsborough County, Florida, AND the West 221.06 feet of the East 331.58 feet of that part of the Southeast 1/4 of the Southwest 1/4 of Section 20, Township 29 South, Range 20 East, lying South of State Road No. 60, LESS from the point of intersection of the East boundary of the West 1/2 of the East 1/2 of the Southeast 1/4 of the Southwest 1/4 of Section 20 with the South right of way line of State Road No. 60, run North 65°46' West along said South right of way line a distance of 200.00 feet; run thence South 24°14' West a distance of 200.00 feet; run thence South 65°46' East a distance of 200.00 feet; run thence North 24°14' East a distance of 200.00 feet to the Point of Beginning.

LYING WITHIN THE BOUNDARIES DESCRIBED AS FOLLOWS:

Begin on the South line of Section 20, Township 29 South, Range 20 East at a point North 87°50'31" East 11.65 feet from the Southeast corner of the Southwest 1/4 of the Southwest 1/4 thereof, said point being on a curve concave to the Westerly and having a radius of 7,545.44 feet; thence from a tangent bearing of North 02°46'21" East run Northerly along said curve 741.49 feet through a central angel of 05°37'50" to the end of said curve; thence North 02°51'29" West, 492.97 feet to the beginning of a curve concave to the Southwesterly and having a radius of 406.00 feet; run thence 417.62 feet along said curve through a central angle of 58°56'10" to the end of said curve; thence North 61°47'39" West 628.25 feet; thence North 65°36'29" West 690.44 feet; thence North 24°23'31" East 170.00 feet to the centerline of State Road 60; thence along said centerline South 65°36'29" East 2,929.80 feet; Thence leaving said centerline run South 00°05'19" West 377.23 feet to a point on a curve concave to the Southeasterly and having a radius of 336.00 feet; thence from a tangent bearing of South 57°34'02" West run Southwesterly 95.95 feet along said curve through a central angle of 16°21'42" to the end of said curve; thence South 41°12'21" West 357.66 feet; thence South 37°23'30" West 286.37 feet to the beginning of a curve concave to the Easterly and having a radius of 1,815.86 feet; thence along said curve 163.33 feet through a central angle of 05°09'13" to the end of this portion of said curve being a point on the South line of said Section 20; thence South 87°50'31" West 741.92 feet along said South line to the Point of Beginning.

PARCEL III:

Non-exclusive Easement between Brandon Shopping Center Partners, Ltd. and Carey Farms, Ltd. recorded in Official Records Book \_\_\_\_\_, page \_\_\_\_\_.

PARCEL IV:

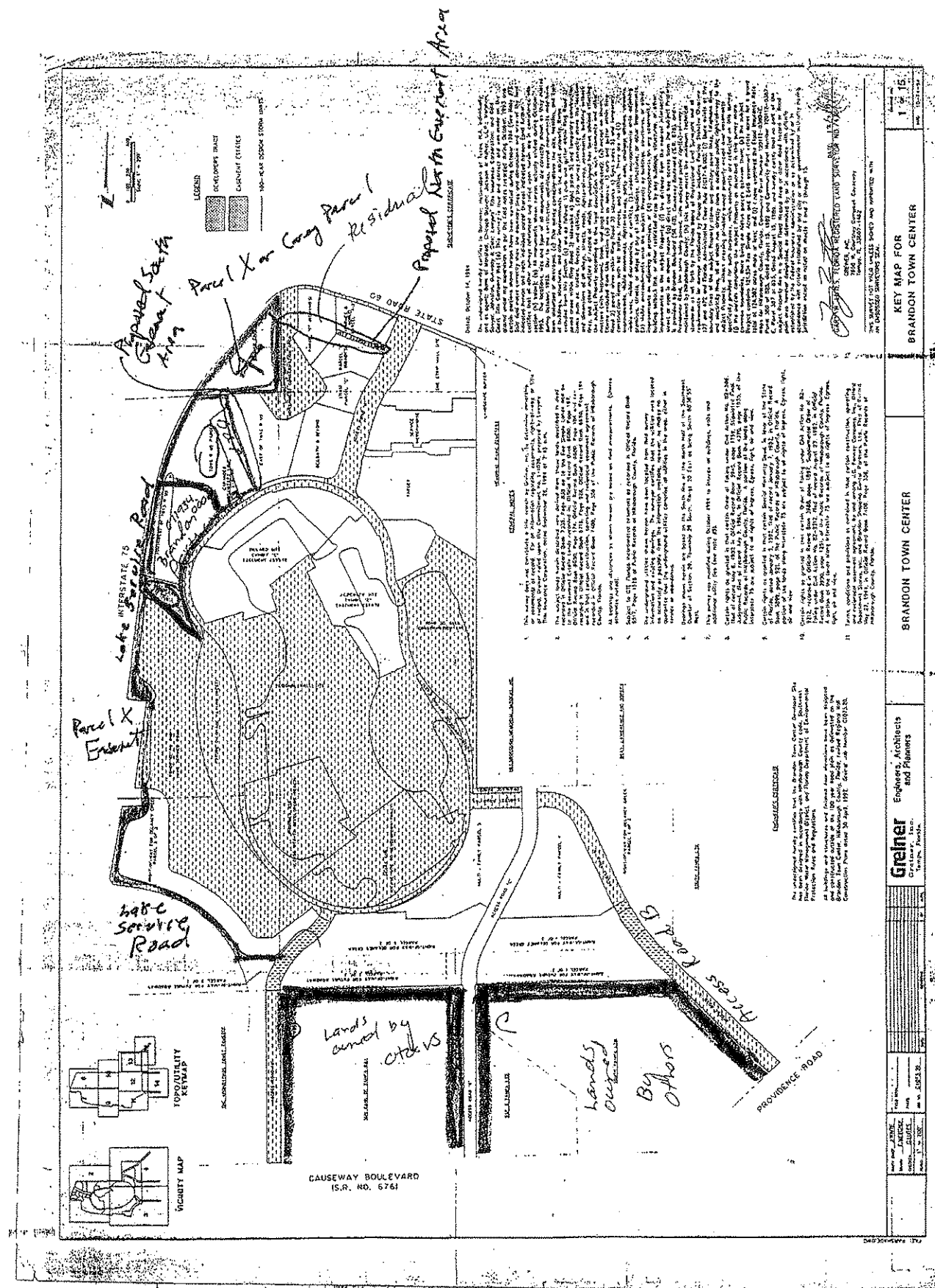
Non-exclusive Easement between Love Investment Company and those parties as yet to be named (i.e. the Macaroni Grill Property) recorded in Official Records Book \_\_\_\_\_, page \_\_\_\_\_.

THE DESCRIPTIONS FOR PARCELS III AND IV ABOVE ARE FOR REFERENCE ONLY AND THE INCLUSION OF SAID PARCELS IN THE FINAL POLICY ARE SUBJECT TO COMPLETION OF THE REQUIREMENTS SET FORTH AS ITEMS 10 AND 11 HERE. THE COMPANY RESERVES THE RIGHT TO AMEND THE DESCRIPTION UPON RECEIPT AND REVIEW OF THE DRAFTS OF THE EASEMENTS.

**EXHIBIT E**

**LAKE SERVICE ROAD COPY**





KEY MAP FOR BRANDON TOWN CENTER		1 of 15
DATE: 1991	PROJECT: BRANDON TOWN CENTER	SCALE: 1" = 100'
DESIGNED BY: GREINER ENGINEERS, ARCHITECTS AND PLANNERS	PREPARED BY: GREINER ENGINEERS, ARCHITECTS AND PLANNERS	DATE: 1991
PROJECT NO. 91-001	PROJECT NAME: BRANDON TOWN CENTER	PROJECT LOCATION: BRANDON TOWN CENTER
PROJECT DESCRIPTION: BRANDON TOWN CENTER	PROJECT LOCATION: BRANDON TOWN CENTER	PROJECT LOCATION: BRANDON TOWN CENTER

**EXHIBIT F**

**ACCESS ROAD EASEMENT MAP**



NORTH BOUNDARY OF NW 1/4  
OF SECTION 29-29-20

POINT OF BEGINNING  
POINT OF BEGINNING  
S87°45'02"W  
L7

278.44' L1

POINT OF COMMENCEMENT  
NE CORNER OF NW 1/4  
OF SECTION 29-29-20

PROPOSED DRAINAGE EASEMENT  
(404 SQUARE FEET, MORE OR LESS)  
(FOR CONNECTION TO  
EXISTING DRAINAGE FACILITIES)

FOLIO #71934-0020  
(O.R. BOOK 9784, PAGE 1168)

PROPOSED UTILITY EASEMENT (FOR  
DRAINAGE AND WATER  
AND SEWER FACILITIES)

WESTFIELD RING ROAD  
INGRESS-EGRESS EASEMENT PER  
O.R. BOOK 7487, PAGE 550

LINE TABLE		
LINE	LENGTH	BEARING
L1	161.08'	S87°45'02"W
L2	10.00'	S02°14'58"E
L3	10.70'	S87°45'02"W
L4	14.17'	S02°14'58"E
L5	12.30'	S87°45'02"W
L6	24.17'	N02°14'58"W
L7	23.00'	N87°45'02"E

LEGAL DESCRIPTION: (PROPOSED DRAINAGE EASEMENT)

A TRACT OF LAND BEING A PORTION OF THE NORTHWEST 1/4 OF SAID SECTION 29, TOWNSHIP 29 SOUTH, RANGE 20 EAST, HILLSBOROUGH COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF THE NORTHWEST 1/4 OF SAID SECTION 29; RUN THENCE ALONG THE NORTH BOUNDARY OF THE NORTHWEST 1/4 OF SAID SECTION 29, SOUTH 87°45'02" WEST, 161.08 FEET TO THE POINT OF BEGINNING; THENCE DEPARTING SAID NORTH BOUNDARY, SOUTH 02°14'58" EAST, 10.00 FEET; THENCE SOUTH 87°45'02" WEST, 10.70 FEET; THENCE SOUTH 02°14'58" EAST, 14.17 FEET; THENCE SOUTH 87°45'02" WEST, 12.30 FEET; THENCE NORTH 02°14'58" WEST, 24.17 FEET TO A POINT OF INTERSECTION WITH THE AFOREMENTIONED NORTH BOUNDARY OF THE NORTHWEST 1/4 OF SAID SECTION 29; THENCE ALONG SAID NORTH BOUNDARY, NORTH 87°45'02" EAST, 23.00 FEET TO THE POINT OF BEGINNING.

TRACT CONTAINS 404 SQUARE FEET, MORE OR LESS.

LEGAL DESCRIPTION: (PROPOSED UTILITY EASEMENT)

A TRACT OF LAND BEING A PORTION OF THE NORTHWEST 1/4 OF SECTION 29, TOWNSHIP 29 SOUTH, RANGE 20 EAST, HILLSBOROUGH COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF THE NORTHWEST 1/4 OF SAID SECTION 29; RUN THENCE ALONG THE NORTH BOUNDARY OF THE NORTHWEST 1/4 OF SAID SECTION 29, SOUTH 87°45'02" WEST, 278.44 FEET TO THE POINT OF BEGINNING; THENCE DEPARTING SAID NORTH BOUNDARY, SOUTH 02°14'58" EAST, 15.00 FEET; THENCE SOUTH 87°45'02" WEST, 48.31 FEET; THENCE SOUTH 18°51'19" EAST, 632.47 FEET TO THE BEGINNING OF A NON-TANGENT CURVE; THENCE SOUTHWESTERLY, 30.39 FEET ALONG THE ARC OF A CURVE TO THE LEFT HAVING A RADIUS OF 628.00 FEET, A CENTRAL ANGLE OF 02°46'23", AND A CHORD OF 30.39 FEET WHICH BEARS SOUTH 61°56'11" WEST TO THE END OF SAID CURVE AND THE BEGINNING OF A NON-TANGENT LINE; THENCE NORTH 18°51'19" WEST, 646.28 FEET; THENCE SOUTH 87°45'02" WEST, 28.85 FEET; THENCE NORTH 02°14'58" WEST, 15.00 FEET TO A POINT OF INTERSECTION WITH THE AFOREMENTIONED NORTH BOUNDARY OF THE NORTHWEST 1/4 OF SAID SECTION 29; AND THENCE ALONG SAID NORTH BOUNDARY, NORTH 87°45'02" EAST, 108.47 FEET TO THE POINT OF BEGINNING.

TRACT CONTAINS 0.48 ACRE, MORE OR LESS.

LINE TABLE		
LINE	LENGTH	BEARING
L1	15.00'	S02°14'58"E
L2	48.31'	S87°45'02"W
L3	28.85'	S87°45'02"W
L4	15.00'	N02°14'58"W
L5	108.47'	N87°45'02"E

CURVE TABLE						
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD	BEARING
C1	30.39'	628.00'	02°46'23"	15.20'	30.39'	S61°56'11"W

PROPOSED DRAINAGE AND UTILITIES EASEMENTS EXHIBIT

Date: 07/24/08

S-T-R: 20-29-20

Sheet No.:

Prepared For:

Love Investment Company

1050 Crown Pointe Parkway

Atlanta, Georgia 30338-7701

Project No.: 5021-01

By: CBV

CAREY FARM SITE AND WESTFIELD SHOPPING MALL

Hillsborough County, Florida

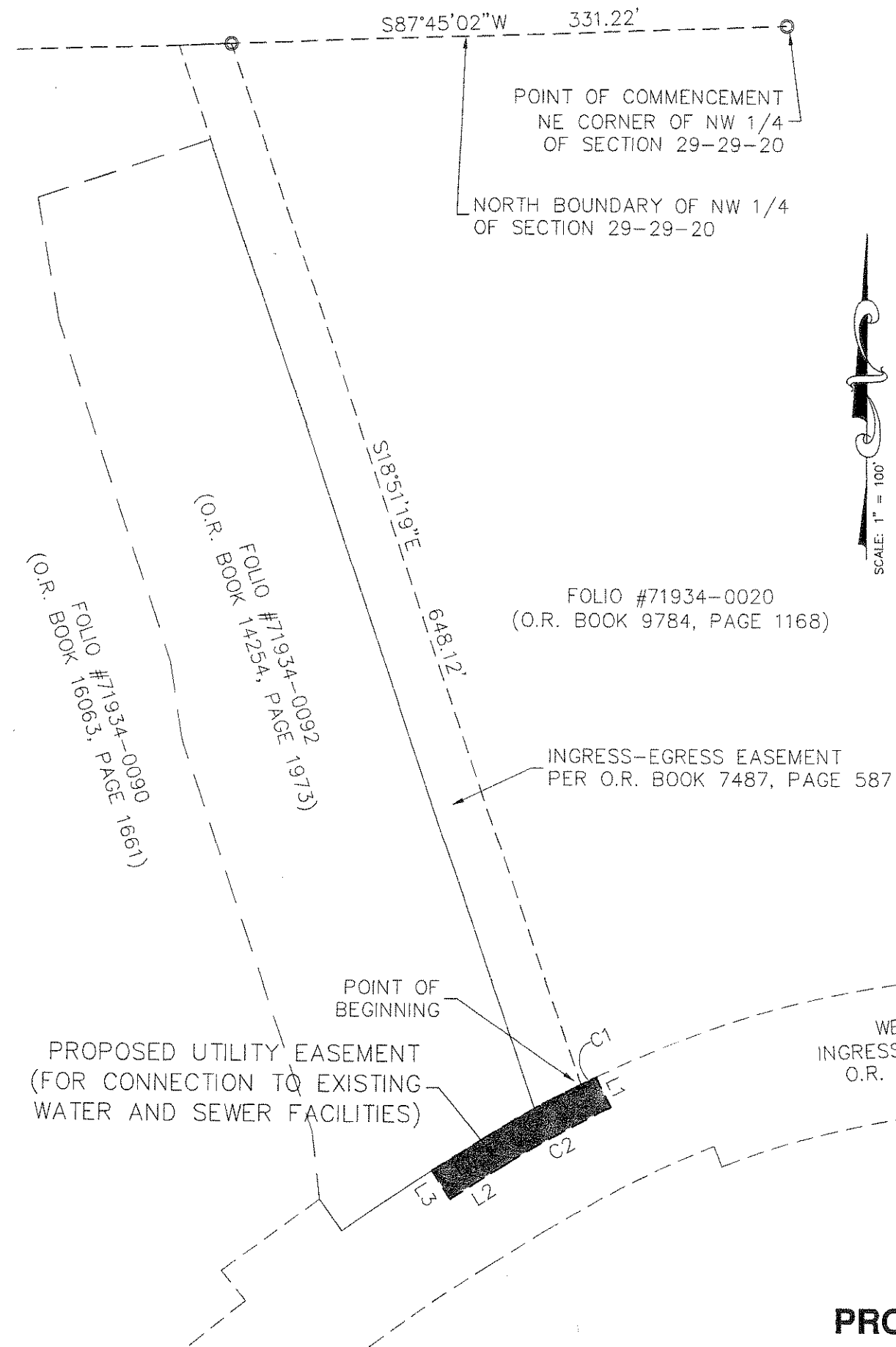
BROOKS AND AMADEN, INC.

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LEGAL DESCRIPTION: (PROPOSED UTILITY EASEMENT)

A TRACT OF LAND BEING A PORTION OF THE NORTHWEST 1/4 OF SECTION 29, TOWNSHIP 29 SOUTH, RANGE 20 EAST, HILLSBOROUGH COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF THE NORTHWEST 1/4 OF SAID SECTION 29; RUN THENCE ALONG THE NORTH BOUNDARY OF THE NORTHWEST 1/4 OF SAID SECTION 29, SOUTH 87°45'02" WEST, 331.22 FEET; THENCE DEPARTING SAID NORTH BOUNDARY, SOUTH 18°51'19" EAST, 648.12 FEET TO THE POINT OF BEGINNING, SAID POINT ALSO BEING THE BEGINNING OF A NON-TANGENT CURVE; THENCE NORTHEASTERLY, 10.15 FEET ALONG THE ARC OF A CURVE TO THE RIGHT HAVING A RADIUS OF 628.00 FEET, A CENTRAL ANGLE OF 00°55'33", AND A CHORD OF 10.15 FEET WHICH BEARS NORTH 63°47'09" EAST TO THE END OF SAID CURVE AND THE BEGINNING OF A NON-TANGENT LINE; THENCE SOUTH 25°45'05" EAST, 20.00 FEET TO THE BEGINNING OF A NON-TANGENT CURVE; THENCE SOUTHWESTERLY, 71.50 FEET ALONG THE ARC OF A CURVE TO THE LEFT HAVING A RADIUS OF 608.00 FEET, A CENTRAL ANGLE OF 06°44'18", AND A CHORD OF 71.46 FEET WHICH BEARS SOUTH 60°52'46" WEST TO A POINT OF TANGENCY; THENCE SOUTH 57°30'37" WEST, 37.33 FEET; THENCE NORTH 32°29'23" WEST, 20.00 FEET; THENCE NORTH 57°30'37" EAST, 37.33 FEET TO A POINT OF CURVATURE; AND THENCE NORTHEASTERLY, 63.71 FEET ALONG THE ARC OF A CURVE TO THE RIGHT HAVING A RADIUS OF 628.00 FEET, A CENTRAL ANGLE OF 05°48'45", AND A CHORD OF 63.68 FEET WHICH BEARS NORTH 60°25'00" EAST TO THE POINT OF BEGINNING.

TRACT CONTAINS 2,200 SQUARE FEET (0.05 ACRE), MORE OR LESS.

LINE TABLE		
LINE	LENGTH	BEARING
L1	20.00'	S25°45'05"E
L2	37.33'	S57°30'37"W
L3	20.00'	N32°29'23"W
L4	37.33'	N57°30'37"E

CURVE TABLE						
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD	BEARING
C1	10.15'	628.00'	00°55'33"	5.07'	10.15'	N63°47'09"E
C2	71.50'	608.00'	06°44'18"	35.79'	71.46'	S60°52'46"W
C3	63.71'	628.00'	05°48'45"	31.88'	63.68'	N60°25'00"E

PROPOSED UTILITY EASEMENT EXHIBIT

Date: 07/24/08

S-T-R: 20-29-20

Sheet No:

Prepared For:

Love Investment Company  
1050 Crown Pointe Parkway  
Atlanta, Georgia 30338-7701

Project No:

5021-01

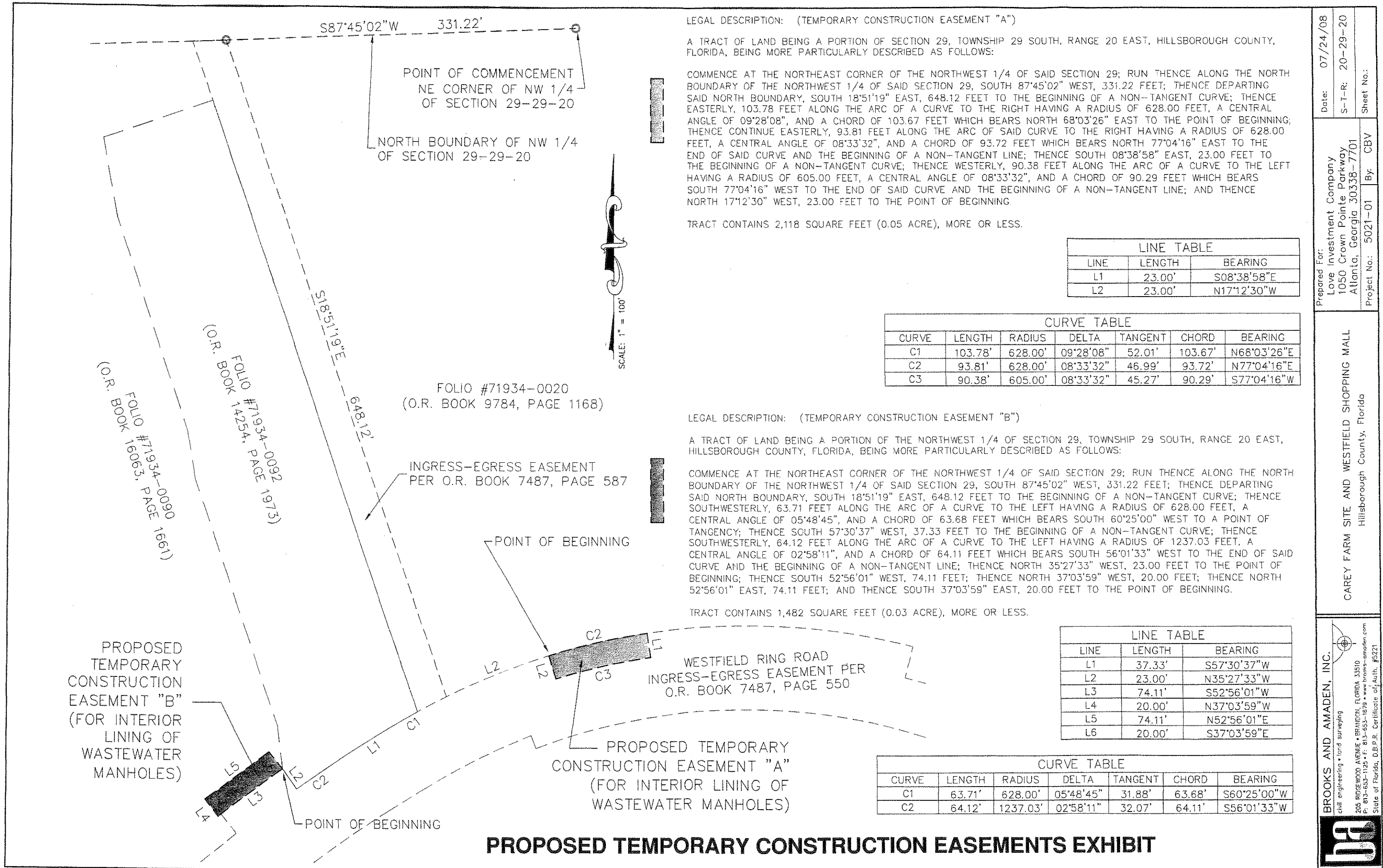
By:

CBV

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LEGAL DESCRIPTION: (TEMPORARY CONSTRUCTION EASEMENT "A")

A TRACT OF LAND BEING A PORTION OF SECTION 29, TOWNSHIP 29 SOUTH, RANGE 20 EAST, HILLSBOROUGH COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF THE NORTHWEST 1/4 OF SAID SECTION 29; RUN THENCE ALONG THE NORTH BOUNDARY OF THE NORTHWEST 1/4 OF SAID SECTION 29, SOUTH 87°45'02" WEST, 331.22 FEET; THENCE DEPARTING SAID NORTH BOUNDARY, SOUTH 18°51'19" EAST, 648.12 FEET TO THE BEGINNING OF A NON-TANGENT CURVE; THENCE EASTERLY, 103.78 FEET ALONG THE ARC OF A CURVE TO THE RIGHT HAVING A RADIUS OF 628.00 FEET, A CENTRAL ANGLE OF 09°28'08", AND A CHORD OF 103.67 FEET WHICH BEARS NORTH 68°03'26" EAST TO THE POINT OF BEGINNING; THENCE CONTINUE EASTERLY, 93.81 FEET ALONG THE ARC OF SAID CURVE TO THE RIGHT HAVING A RADIUS OF 628.00 FEET, A CENTRAL ANGLE OF 08°33'32", AND A CHORD OF 93.72 FEET WHICH BEARS NORTH 77°04'16" EAST TO THE END OF SAID CURVE AND THE BEGINNING OF A NON-TANGENT LINE; THENCE SOUTH 08°38'58" EAST, 23.00 FEET TO THE BEGINNING OF A NON-TANGENT CURVE; THENCE WESTERLY, 90.38 FEET ALONG THE ARC OF A CURVE TO THE LEFT HAVING A RADIUS OF 605.00 FEET, A CENTRAL ANGLE OF 08°33'32", AND A CHORD OF 90.29 FEET WHICH BEARS SOUTH 77°04'16" WEST TO THE END OF SAID CURVE AND THE BEGINNING OF A NON-TANGENT LINE; AND THENCE NORTH 17°12'30" WEST, 23.00 FEET TO THE POINT OF BEGINNING.

TRACT CONTAINS 2,118 SQUARE FEET (0.05 ACRE), MORE OR LESS.

LINE TABLE		
LINE	LENGTH	BEARING
L1	23.00'	S08°38'58"E
L2	23.00'	N17°12'30"W

CURVE TABLE						
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD	BEARING
C1	103.78'	628.00'	09°28'08"	52.01'	103.67'	N68°03'26"E
C2	93.81'	628.00'	08°33'32"	46.99'	93.72'	N77°04'16"E
C3	90.38'	605.00'	08°33'32"	45.27'	90.29'	S77°04'16"W

LEGAL DESCRIPTION: (TEMPORARY CONSTRUCTION EASEMENT "B")

A TRACT OF LAND BEING A PORTION OF THE NORTHWEST 1/4 OF SECTION 29, TOWNSHIP 29 SOUTH, RANGE 20 EAST, HILLSBOROUGH COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF THE NORTHWEST 1/4 OF SAID SECTION 29; RUN THENCE ALONG THE NORTH BOUNDARY OF THE NORTHWEST 1/4 OF SAID SECTION 29, SOUTH 87°45'02" WEST, 331.22 FEET; THENCE DEPARTING SAID NORTH BOUNDARY, SOUTH 18°51'19" EAST, 648.12 FEET TO THE BEGINNING OF A NON-TANGENT CURVE; THENCE SOUTHWESTERLY, 63.71 FEET ALONG THE ARC OF A CURVE TO THE LEFT HAVING A RADIUS OF 628.00 FEET, A CENTRAL ANGLE OF 05°48'45", AND A CHORD OF 63.68 FEET WHICH BEARS SOUTH 60°25'00" WEST TO A POINT OF TANGENCY; THENCE SOUTH 57°30'37" WEST, 37.33 FEET TO THE BEGINNING OF A NON-TANGENT CURVE; THENCE SOUTHWESTERLY, 64.12 FEET ALONG THE ARC OF A CURVE TO THE LEFT HAVING A RADIUS OF 1237.03 FEET, A CENTRAL ANGLE OF 02°58'11", AND A CHORD OF 64.11 FEET WHICH BEARS SOUTH 56°01'33" WEST TO THE END OF SAID CURVE AND THE BEGINNING OF A NON-TANGENT LINE; THENCE NORTH 35°27'33" WEST, 23.00 FEET TO THE POINT OF BEGINNING; THENCE SOUTH 52°56'01" WEST, 74.11 FEET; THENCE NORTH 37°03'59" WEST, 20.00 FEET; THENCE NORTH 52°56'01" EAST, 74.11 FEET; AND THENCE SOUTH 37°03'59" EAST, 20.00 FEET TO THE POINT OF BEGINNING.

TRACT CONTAINS 1,482 SQUARE FEET (0.03 ACRE), MORE OR LESS.

LINE TABLE		
LINE	LENGTH	BEARING
L1	37.33'	S57°30'37"W
L2	23.00'	N35°27'33"W
L3	74.11'	S52°56'01"W
L4	20.00'	N37°03'59"W
L5	74.11'	N52°56'01"E
L6	20.00'	S37°03'59"E

CURVE TABLE						
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD	BEARING
C1	63.71'	628.00'	05°48'45"	31.88'	63.68'	S60°25'00"W
C2	64.12'	1237.03'	02°58'11"	32.07'	64.11'	S56°01'33"W

PROPOSED TEMPORARY CONSTRUCTION EASEMENTS EXHIBIT

Date: 07/24/08  
S-T-R: 20-29-20  
Sheet No.: CBV

Prepared For: Love Investment Company  
1050 Crown Pointe Parkway  
Atlanta, Georgia 30338-7701  
Project No.: 5021-01  
By: CBV

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**EXHIBIT G**

**THE PLANS**

# BRANDON HYATT HOTEL

HILLSBOROUGH COUNTY, FL.

## SITE CONSTRUCTION PLANS PREPARED FOR: LOVE INVESTMENT COMPANY

1050 CROWN POINTE PARKWAY  
ATLANTA, GEORGIA 30338-7701

### GENERAL NOTES: (FROM APPROVED PRELIMINARY SITE DEVELOPMENT PLAN)

1. THE PROJECT SITE IS ZONED MM 07-0159 (PD 01-0718) AND HAS A LAND USE DESIGNATION OF RMU-35.
2. THIS PLAN PROPOSES A HOTEL AND A RESTAURANT.
3. THE PROJECT SITE IS WITHIN THE URBAN SERVICE AREA. POTABLE WATER AND WASTEWATER SERVICE WILL BE BY HILLSBOROUGH COUNTY. FIRE PROTECTION WILL BE PROVIDED BY BUILDING SPRINKLERS IN ACCORDANCE WITH N.F.P.A. 13.
4. THERE ARE NO PLATTED AREAS WITHIN THE PROJECT SITE OR WITHIN 150 FEET OF THE PROJECT BOUNDARIES.
5. THERE ARE NO RIGHTS-OF-WAY WITHIN THE PROJECT BOUNDARIES. A 20-FOOT PLATTED RIGHT-OF-WAY IS ADJACENT TO THE EAST PROPERTY BOUNDARY LINE.
6. THERE ARE NO EASEMENTS WITHIN THE PROJECT SITE. AN INGRESS-EGRESS AND UTILITY EASEMENT IS ADJACENT TO THE SOUTH PROPERTY BOUNDARY.
7. THERE ARE EXISTING AGRICULTURAL BUILDINGS ON THE PROJECT SITE, ALL OF WHICH WILL BE REMOVED.
8. THE PROJECT SITE IS EXPECTED TO BE DEVELOPED IN ONE PHASE.
9. INTERIM AGRICULTURAL USES SHALL BE PERMITTED ON THE SITE IN ACCORDANCE WITH THE ASC-1 ZONING DISTRICT STANDARDS.
10. DRAINAGE INFORMATION:
  - A. F.E.M.A. DESIGNATION IS ZONE "C" PER FLOOD INSURANCE RATE MAP PANEL NUMBER 120112 0380 E, DATED AUGUST 15, 1989 (N.G.V.D. 1929).
  - B. THERE ARE NO OFF-SITE BASINS CONTRIBUTING TO THE SITE.
  - C. THE PREDOMINANT SOIL TYPE IS MYAKKA (23), AND MALABAR (27). THESE SOILS ARE CLASSIFIED AS "B/D", ACCORDING TO THE SCS/NRCS. THESE SOILS TYPICALLY HAVE A DEPTH TO GROUNDWATER OF 0-1.0 FEET.
  - D. THERE ARE EXISTING BUILDING STRUCTURES (13,355 S.F.) AND IMPERVIOUS PAVEMENT (7,901 S.F.).
  - E. THE SITE IS PASTURE LAND WHICH INDICATES A PRE-DEVELOPED CURVE NUMBER BASED ON S.C.S. SOIL TYPE OF 84.
11. PROJECT SIGNAGE SHALL BE AS SET FORTH IN PART 7.03.00 OF THE LAND DEVELOPMENT CODE, EXCEPT THAT GROUND SIGNS SHALL BE LIMITED TO MONUMENT SIGNS.
12. EXISTING BUILDINGS AND PAVEMENT AREAS OUTSIDE OF THE PROJECT LIMITS SHOWN HEREON WERE DELINEATED FROM HILLSBOROUGH COUNTY AERIALS, DATED 2006.
13. BOUNDARY, OCCUPATION, TOPOGRAPHIC AND TREE LOCATION INFORMATION SHOWN HEREON IS BY A SURVEY PREPARED BY BROOKS AND AMADEN, DATED 9/1/06. ELEVATIONS SHOWN HEREON ARE IN FEET AND REFER TO N.A.V.D. 1988. (ADD 0.86 FEET TO N.A.V.D. 1988 ELEVATIONS TO CONVERT TO N.G.V.D. 1929 ELEVATIONS.)

### DEVELOPMENT STANDARDS

THE PROJECT SHALL BE DEVELOPED ACCORDING TO C1 (COMMERCIAL-INTENSIVE) ZONING DISTRICT STANDARDS, WITH THE EXCEPTION OF FINAL CONDITIONS OF ZONING APPROVAL, NUMBERS 2.1, 2.2, AND 2.3.

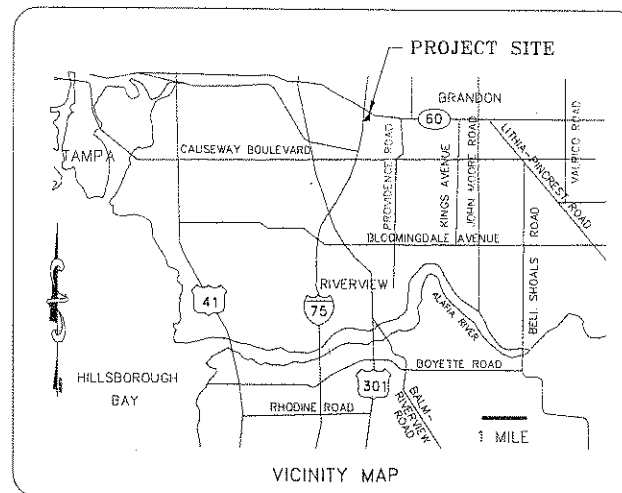
HOTEL - 151 ROOMS  
[ MAXIMUM FLOOR AREA ALLOWED = 89,800 S.F. - 89,241 S.F. SHOWN ]

FRONT SETBACK - 30'  
REAR/SIDE SETBACK - 0'  
MAXIMUM BUILDING HEIGHT - 63'  
- 6 FLOORS

RESTAURANT - 5,000 S.F. GROSS FLOOR AREA

FRONT SETBACK - 30'  
REAR/SIDE SETBACK - 0'  
MAXIMUM BUILDING HEIGHT - 35'

MAX. FLOOR AREA RATIO - 2.0 PER LAND USE DESIGNATION (0.454 SHOWN)  
MAX. BLDG. COVERAGE - 30% (16.41% SHOWN)  
MAX. IMPERVIOUS SURFACE - 80% (49.06% SHOWN)  
MIN. LOT SIZE - 20,000 S.F.  
MIN. LOT WIDTH - 100'



### LEGAL DESCRIPTION:

THAT PART OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 29 SOUTH, RANGE 20 EAST, HILLSBOROUGH COUNTY, FLORIDA, LYING SOUTH AND EAST OF STATE ROAD 93-A (I-75) AS SHOWN ON THE RIGHT-OF-WAY MAP FOR SECTION 10075-2407, LESS THE EAST 110.53 FEET THEREOF.  
AND  
THAT PART OF THE EAST 110.53 FEET OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 29 SOUTH, RANGE 20 EAST, HILLSBOROUGH COUNTY, FLORIDA, LYING SOUTH AND EAST OF STATE ROAD 93-A (I-75), AS SHOWN ON THE RIGHT-OF-WAY MAP FOR SECTION 10075-2407.

### LAND USE SUMMARY

PROJECT SITE	=	4.77 ACRES (207,868 S.F.)
[Totals # 088101.0000 and # 088100.0000]		
- existing zoning	=	MM 07-0159 BR (PD 01-0718 BR)
- future land use	=	RMU-35 (2.0 F.A.R.)
EXISTING IMPROVEMENTS	- AGRICULTURAL BARN AND FRAME BUILDINGS [TO BE REMOVED]	
PROPOSED IMPROVEMENTS		
PARCEL A	=	3.31 ACRES
- 151-ROOM HOTEL		
FIRST FLOOR AREA	=	16,626 S.F.
FLOOR AREA	=	89,241 S.F.
PARKING	=	1.1 PER ROOM x 151 ROOMS = 166 SPACES REQ'D. 166 SPACES SHOWN [ 6 HANDICAP SPACES REQ'D - 6 SHOWN ] [ 33 COMPACT SPACES ALLOWED AND SHOWN ]
PARCEL B	=	1.46 ACRES
- RESTAURANT	=	5,000 S.F.
TOTAL FLOOR AREA	=	94,241 S.F.
PARKING	=	15 PER 1,000 S.F. G.F.A. = 75 SPACES REQ'D. 75 SPACES SHOWN [ 3 HANDICAP SPACES REQ'D - 3 SHOWN ] [ 15 COMPACT SPACES ALLOWED AND SHOWN ]
FIRST FLOOR COVERAGE (21,626 S.F.)	=	0.50 ACRES
IMPERVIOUS AREA	=	2.34 ACRES
WETLAND CONSERVATION AREA (20,473 S.F.)	=	0.47 ACRES
OPEN SPACE	=	1.46 ACRES

CONSTRUCTION SHALL CONFORM TO THE HILLSBOROUGH COUNTY STANDARD INDEXES AND SITE DEVELOPMENT REGULATIONS OF THE LAND DEVELOPMENT CODE.

### INDEX

1	DESIGN SURVEY
2	SITE CLEARING AND DEMOLITION PLAN
3	CONSTRUCTION SURFACE WATER MANAGEMENT PLAN
4	SITE PLAN
5	GRADING AND DRAINAGE PLAN
6	GRADING AND DRAINAGE DETAILS
7	TYPICAL CROSS SECTIONS
8	WATER AND WASTEWATER PLAN
8A	OFFSITE WATER AND WASTEWATER PLAN
9 & 10	WATER AND WASTEWATER DETAILS
11 & 12	OFFSITE FORCEMAIN PLAN AND PROFILE
13	PRIVATE PUMP STATION DETAIL
14	PRIVATE PUMP STATION DESIGN

ISSUED: MAY 1, 2008

### PLAN REVISIONS

DATE	SHEET(S)

### PLAN SUBMITTALS

DATE	AGENCY
5-1-08	SWFWMD INITIAL SUBMITTAL
5-5-08	INITIAL SUBMITTAL TO COUNTY PGMD
0-0-08	RESUBMITTAL TO SWFWMD
0-0-08	RESUBMITTAL TO COUNTY PGMD

**BROOKS AND AMADEN, INC.**  
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PROJECT NO. 5021-01

CERTIFIED BY:

NICHOLAS J. MESSINA, P.E. #57542

DATE: \_\_\_\_\_

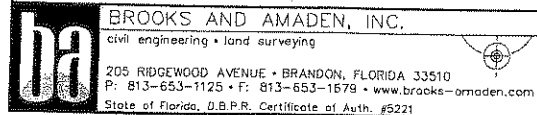


1. PRIOR TO THE INITIATION OF SITE CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, COMMUNICATION, CABLE TV, SANITARY AND STORM SEWERS BOTH ON AND ADJACENT TO THE SITE.
2. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL DEMOLITION AND CONSTRUCTION DEBRIS AT AN OFF-SITE LOCATION IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS OF HILLSBOROUGH CO. AND THE STATE OF FLORIDA.
3. CONTRACTOR TO COORDINATE WITH TECO TO DISCONNECT POWER AND DETERMINE EXTENT OF EXISTING POLES & LINES TO BE REMOVED PRIOR TO ANY DEMOLITION.
4. SITE SPECIFIC EROSION AND SEDIMENT CONTROL DEVICES SHALL BE PLACED IN SERVICE PRIOR TO BEGINNING DEMOLITION AND REMAIN IN PLACE UNTIL PERMANENT GROUND COVER IS ESTABLISHED AT THE END OF CONSTRUCTION/DEMOLITION.
5. FUGITIVE DUST EMISSIONS DURING DEMOLITION SHALL BE MAINTAINED BY THE CONTRACTOR AT ACCEPTABLE LEVELS, IN ACCORDANCE WITH HILLSBOROUGH COUNTY STANDARDS.
6. REMOVE OR CAP ALL UTILITIES TO EXISTING STRUCTURES WHICH ARE TO BE REMOVED.
7. CONTRACTOR TO REMOVE ONLY DESIGNATED TREES CALLED OUT ON DEMOLITION PLAN.
8. THE NATIONAL EMISSIONS STANDARDS FOR AIR POLLUTANTS (NESHAPS) REQUIRES THE INSPECTION FOR ASBESTOS CONTAINING MATERIAL PRIOR TO THE RENOVATION OR DEMOLITION OF FACILITIES. THIS FACILITY HAS BEEN INSPECTED AND FOUND TO CONTAIN NO ASBESTOS MATERIALS. REFER TO THE ENVIRONMENTAL REPORT PREPARED BY PSI, INC.
9. THE CONTRACTOR SHALL ULTIMATELY BE RESPONSIBLE FOR DETERMINING THE SEQUENCE OF DEMOLITION AND CONSTRUCTION BASED ON PROJECT REQUIREMENTS, CONSTRUCTION MEANS AND METHODS, AND SITE SPECIFIC CONDITIONS.
10. ALL EXISTING FENCE NOT LABELED AS REMAINING SHALL BE REMOVED.
11. CONTRACTOR SHALL LOCATE AND REMOVE SITE SEPTIC SYSTEM.

1. NO GRADE CHANGES SHALL OCCUR WITHIN THE DRILLPILE OF THOSE TREES TO REMAIN, UNLESS SPECIFIC DESIGN TECHNIQUES ARE APPROVED.
2. NO ATTACHMENTS OTHER THAN FLAGGING OR SIMILAR MATERIAL IDENTIFYING PROTECTED TREES SHALL BE ATTACHED TO TREES DESIGNATED TO REMAIN ON SITE.
3. IT SHALL BE UNLAWFUL TO UNDERTAKE THE FOLLOWING ACTIVITIES WITHIN THE DRILLPILE OF A TREE TO REMAIN ON THE SITE, UNLESS OTHERWISE APPROVED BY THE ADMINISTRATOR:  
REMOVE VEGETATION, EXCEPT BY HAND, OR PLACE SOIL DEPOSITS, DEBRIS, SOLVENTS, CONSTRUCTION MATERIAL, MACHINERY OR OTHER EQUIPMENT OF ANY KIND, OR UNDERTAKE ANY OTHER LAND ALTERATION OR CONSTRUCTION ACTIVITY WHICH WOULD CAUSE THE TREE TO DIE WITHIN A PERIOD OF TWO YEARS.
4. THE COMPACTION, FILLING OR REMOVAL OF SOIL OR THE USE OF CONCRETE, ASPHALT OR OTHER PAVING MATERIAL SHALL BE PROHIBITED WITHIN THE DRILLPILE OF A TREE THAT IS TO REMAIN ON THE SITE, UNLESS OTHERWISE APPROVED BY THE ADMINISTRATOR.
5. ALL TREE ROOTS EXISTING WITHIN APPROVED IMPROVEMENT AREAS AND ORIGINATING FROM A PROTECTED TREE SHALL BE SEVERED CLEAN AT THE BOUNDARY OF THE AREA TO BE PRESERVED AROUND THE TREE; HOWEVER, WHERE CONSTRUCTION OF UTILITY LINES ARE NECESSARY WITHIN THE DESIGNATED AREAS OF BARRICADED PRESERVED TREES, SPECIAL CONSIDERATIONS AND ACTIONS MUST BE TAKEN. ALL TRENCHES MUST BE DUG BY HAND AND ONLY THOSE ROOTS THAT DIRECTLY INTERFERE WITH THE UTILITY FLOW LINE SHALL BE SEVERED CLEAN AT THE TRENCH WALL.
6. TRIMMING OF PROTECTED TREES SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) A-300 PRUNING STANDARDS.
7. ROOT PRUNING SHALL BE SPECIFICALLY UNDERTAKEN IN AREAS WHERE THE CONSTRUCTION OF UTILITIES WILL IMPACT EXISTING TREES TO REMAIN IN PLACE. PRIOR TO DIGGING THE TRENCH BY MECHANICAL MEANS, ALL TREE ROOTS WITHIN THE AREAS INDICATED ON THESE PLANS SHALL BE SEVERED CLEAN AT THE TRENCH WALL IN ACCORDANCE WITH THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) A-300 PRUNING STANDARDS.
8. PROTECTIVE BARRIERS MEETING HILLSBOROUGH COUNTY STANDARDS SHALL BE PLACED AROUND THOSE TREES SHOWN ON THIS PLAN DURING SITE CLEARING, AND SHALL REMAIN IN PLACE UNTIL LAND ALTERATION, SITE CLEARING AND CONSTRUCTION ACTIVITIES ARE COMPLETE.

35.0  
35.0  
EXISTING TREE  
EXISTING TREE TO BE REMOVED  
TREE BARRICADE LOCATION (TYPICAL INSTALLATION AT FULLEST EXTENT OF TREE DISPLACEMENT WHENEVER POSSIBLE, OR TO THE MAXIMUM LIMIT OF IMPROVEMENTS AS POSSIBLE.  
\*\* STAKED SILT FENCE  
\*\* DOUBLE ROW STAKED SILT FENCE  
--- SAWCUT LIMITS  
PLACED HAY BALES

O	OAK TREE
BC	BLACK CHERRY TREE
SG	SWEET GUM TREE
QP	QUEEN PALM TREE
PM	PALM TREE
MG	MAGNOLIA TREE
11.O	11" OAK TREE
o	TREE
⊙	OAK TREES 24"-33"
⊙	OAK TREES 34" & LARGER

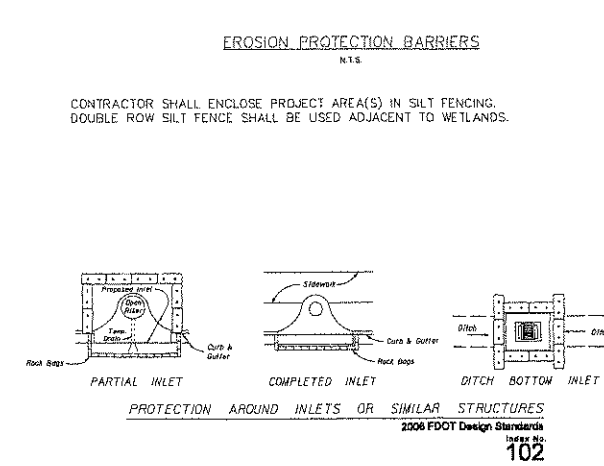


PREPARED FOR:

LOVE INVESTMENT COMPANY  
1050 CROWN POINTE PARKWAY  
ATLANTA, GEORGIA 30338-7701

(770) 551-5663

CERTIFIED BY:	PROJECT NUMBER
NICHOLAS J. WESSINA, P.E. #57542	5021-01
DATE:	DATE
	4-16-08
	S-T-R
	20-29-20
DATE:	SHEET NUMBER
	2



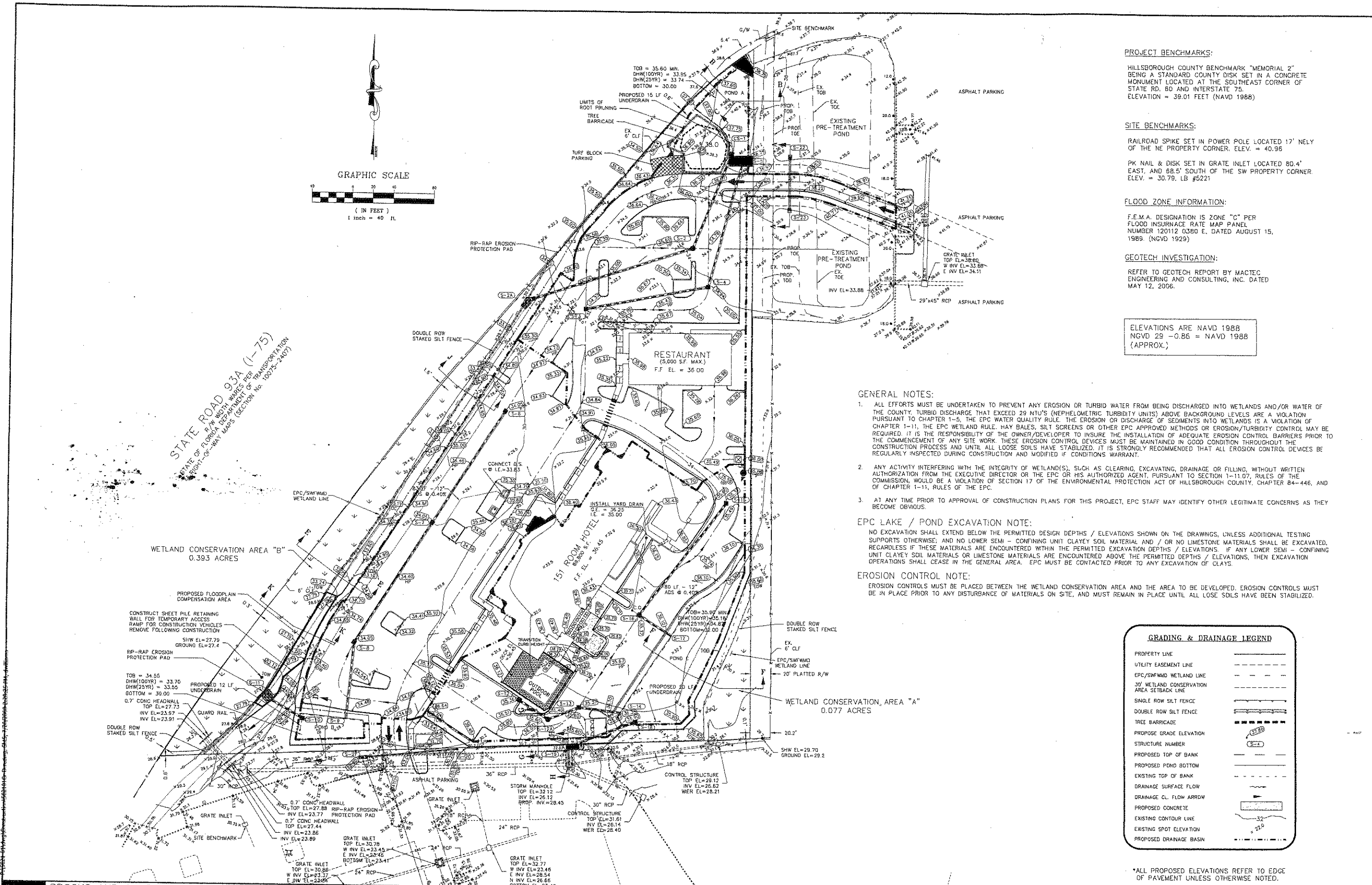
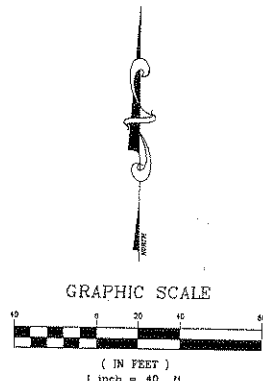
- NOTES:
1. CONSTRUCTION ACTIVITIES ON THIS PROJECT SHALL NOT ADVERSELY AFFECT THE QUALITY OF DOWNSTREAM WATERS. IN ORDER TO PREVENT THIS, THE PERMITEE GRADING OF BERMS AND SWALES SHALL BE CONSTRUCTED EARLY IN THE CONSTRUCTION PROCESS. AREAS RE-VEGETATED AS SOON AS POSSIBLE WITH A MULCH COVER TO PREVENT BOTH WIND AND WATER EROSION. TEMPORARY CHECK DAMS SHALL BE CONSTRUCTED TO PREVENT THE FLOW OF ALL TYPES OF POLLUTANTS AND PONDS WHERE INFLOW IS TO BE BY SHEET FLOW UNTIL SUCH TIME AS THE RE-VEGETATED SOIL SURFACES ARE SUFFICIENTLY STABILIZED WITH GRASS COVER. IN SOME INSTANCES RE-VEGETATION MAY REQUIRE THE PLACEMENT OF SAND.
  2. CONSTRUCTION ENTRANCES PROVIDE AN AREA WHERE MUD CAN BE REMOVED FROM A CONSTRUCTION VEHICLE TRAILS BEFORE THEY ENTER A PUBLIC ROAD. A TEMPORARY GRAVEL CONSTRUCTION ENTRANCE AND GRADY CAN BE PROVIDED TO PREVENT MUD FROM ENTERING THE ROAD. GRAVEL PAD IS NOT SUFFICIENT TO REMOVE MOST OF THE MUD, THEN THE TRAILS MUST BE WASHED BEFORE THE VEHICLE ENTERS A PUBLIC ROAD. WASHING CAN BE PROVIDED BY A WASH PIT OR WASH TRAP. THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF-SITE. CONSTRUCTION ENTRANCES SHOULD BE USES IN CONJUNCTION WITH MUD TRAP OR SEDIMENTATION BASINS TO REDUCE THE AMOUNT OF MUD PICKED UP BY CONSTRUCTION VEHICLES. FOR DESIGN CRITERIA, CONSTRUCTION SPECIFICATIONS AND MAINTENANCE REQUIREMENTS PLEASE REFER TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S FLORIDA STORMWATER, EROSION, AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL (LATEST EDITION), CHAPTER 4 - BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL, SECTION 4.01.

THIS SHEET DESCRIBES THE CONSTRUCTION SURFACE WATER MANAGEMENT PLAN (CSWMP) TO BE PUT INTO PLACE BY THE CONTRACTOR.

PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL INSTALL SILT FENCE ALONG BOUNDARIES SHOWN BY THIS SHEET. SEE GRADING AND CROSS SECTION SHEETS FOR ADJUSTMENTS TO SILT FENCE LOCATION AS WORK PROGRESSES.

CSWMP ACKNOWLEDGEMENT	
PROPERTY OWNER:	LOVE INVESTMENT COMPANY
SIGNATURE:	DATE:
PRINT NAME:	TITLE:
CERTIFIED BY:	
NICHOLAS J. MESSINA, P.E. #57542	
DATE:	
PROJECT NUMBER	5021-01
DATE	4-10-08
S-T-N	20-29-20
SHEET NUMBER	3





**PROJECT BENCHMARKS:**  
HILLSBOROUGH COUNTY BENCHMARK "MEMORIAL 2" BEING A STANDARD COUNTY DISK SET IN A CONCRETE MONUMENT LOCATED AT THE SOUTHEAST CORNER OF STATE RD. 60 AND INTERSTATE 75. ELEVATION = 39.01 FEET (NAVD 1988)

**SITE BENCHMARKS:**  
RAILROAD SPIKE SET IN POWER POLE LOCATED 17' NELY OF THE NE PROPERTY CORNER. ELEV. = 40.96  
PK NAIL & DISK SET IN GRATE INLET LOCATED 80.4' EAST, AND 88.5' SOUTH OF THE SW PROPERTY CORNER. ELEV. = 30.79, LB #5221

**FLOOD ZONE INFORMATION:**  
F.E.M.A. DESIGNATION IS ZONE "C" PER FLOOD INSURANCE RATE MAP PANEL NUMBER 120112 0360 E, DATED AUGUST 15, 1989. (NGVD 1929)

**GEOTECH INVESTIGATION:**  
REFER TO GEOTECH REPORT BY MACIET ENGINEERING AND CONSULTING, INC. DATED MAY 12, 2006.

ELEVATIONS ARE NAVD 1988  
NGVD 29 -0.86 = NAVD 1988  
(APPROX.)

- GENERAL NOTES:**
- ALL EFFORTS MUST BE UNDERTAKEN TO PREVENT ANY EROSION OR TURBID WATER FROM BEING DISCHARGED INTO WETLANDS AND/OR WATER OF THE COUNTY. TURBID DISCHARGE THAT EXCEED 20 NTU'S (NEPHELOMETRIC TURBIDITY UNITS) ABOVE BACKGROUND LEVELS ARE A VIOLATION PURSUANT TO CHAPTER 1-5, THE EPC WATER QUALITY RULE. THE EROSION OR DISCHARGE OF SEDIMENTS INTO WETLANDS IS A VIOLATION OF CHAPTER 1-11, THE EPC WETLAND RULE. HAY BALES, SILT SCREENS OR OTHER EPC APPROVED METHODS OR EROSION/TURBIDITY CONTROL MAY BE REQUIRED. IT IS THE RESPONSIBILITY OF THE OWNER/DEVELOPER TO INSURE THE INSTALLATION OF ADEQUATE EROSION CONTROL BARRIERS PRIOR TO THE COMMENCEMENT OF ANY SITE WORK. THESE EROSION CONTROL DEVICES MUST BE MAINTAINED IN GOOD CONDITION THROUGHOUT THE CONSTRUCTION PROCESS AND UNTIL ALL LOOSE SOILS HAVE STABILIZED. IT IS STRONGLY RECOMMENDED THAT ALL EROSION CONTROL DEVICES BE REGULARLY INSPECTED DURING CONSTRUCTION AND MODIFIED IF CONDITIONS WARRANT.
  - ANY ACTIVITY INTERFERING WITH THE INTEGRITY OF WETLAND(S), SUCH AS CLEARING, EXCAVATING, DRAINAGE OR FILLING, WITHOUT WRITTEN AUTHORIZATION FROM THE EXECUTIVE DIRECTOR OR THE EPC OR HIS AUTHORIZED AGENT, PURSUANT TO SECTION 1-11.07, RULES OF THE COMMISSION, WOULD BE A VIOLATION OF SECTION 17 OF THE ENVIRONMENTAL PROTECTION ACT OF HILLSBOROUGH COUNTY, CHAPTER 84-446, AND OF CHAPTER 1-11, RULES OF THE EPC.
  - AT ANY TIME PRIOR TO APPROVAL OF CONSTRUCTION PLANS FOR THIS PROJECT, EPC STAFF MAY IDENTIFY OTHER LEGITIMATE CONCERNS AS THEY BECOME OBVIOUS.

**EPC LAKE / POND EXCAVATION NOTE:**  
NO EXCAVATION SHALL EXTEND BELOW THE PERMITTED DESIGN DEPTHS / ELEVATIONS SHOWN ON THE DRAWINGS, UNLESS ADDITIONAL TESTING SUPPORTS OTHERWISE, AND NO LOWER SEMI - CONFINING UNIT CLAYEY SOIL MATERIAL AND / OR NO LIMESTONE MATERIALS SHALL BE EXCAVATED, REGARDLESS IF THESE MATERIALS ARE ENCOUNTERED WITHIN THE PERMITTED EXCAVATION DEPTHS / ELEVATIONS. IF ANY LOWER SEMI - CONFINING UNIT CLAYEY SOIL MATERIALS OR LIMESTONE MATERIALS ARE ENCOUNTERED ABOVE THE PERMITTED DEPTHS / ELEVATIONS, THEN EXCAVATION OPERATIONS SHALL CEASE IN THE GENERAL AREA. EPC MUST BE CONTACTED PRIOR TO ANY EXCAVATION OF CLAYS.

**EROSION CONTROL NOTE:**  
EROSION CONTROLS MUST BE PLACED BETWEEN THE WETLAND CONSERVATION AREA AND THE AREA TO BE DEVELOPED. EROSION CONTROLS MUST BE IN PLACE PRIOR TO ANY DISTURBANCE OF MATERIALS ON SITE, AND MUST REMAIN IN PLACE UNTIL ALL LOSE SOILS HAVE BEEN STABILIZED.

GRADING & DRAINAGE LEGEND	
PROPERTY LINE	---
UTILITY EASEMENT LINE	---
EPC/SWFWMD WETLAND LINE	---
30' WETLAND CONSERVATION AREA SETBACK LINE	---
SINGLE ROW SILT FENCE	---
DOUBLE ROW SILT FENCE	---
TREE BARRICADE	---
PROPOSED GRADE ELEVATION	37.00
STRUCTURE NUMBER	S-1
PROPOSED TOP OF BANK	---
PROPOSED POND BOTTOM	---
EXISTING TOP OF BANK	---
DRAINAGE SURFACE FLOW	---
DRAINAGE CL. FLOW ARROW	---
PROPOSED CONCRETE	---
EXISTING CONTOUR LINE	32
EXISTING SPOT ELEVATION	29.0
PROPOSED DRAINAGE BASIN	---

\*ALL PROPOSED ELEVATIONS REFER TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.

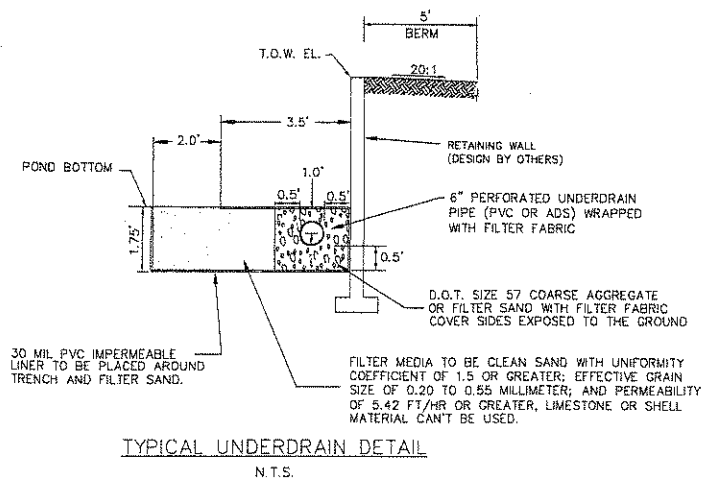
**BROOKS AND AMADEN, INC.**  
civil engineering • land surveying  
205 RIDGEWOOD AVENUE • BRANDON, FLORIDA 33510  
P: 813-653-1125 • F: 813-653-1679 • www.brooks-amaden.com  
State of Florida, D.B.P.R. Certificate of Auth. #5221

DESIGNED BY	NJM
DRAWN BY	NJM
CHECKED BY	
DATE	8-30-08
REVISION	

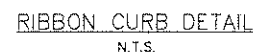
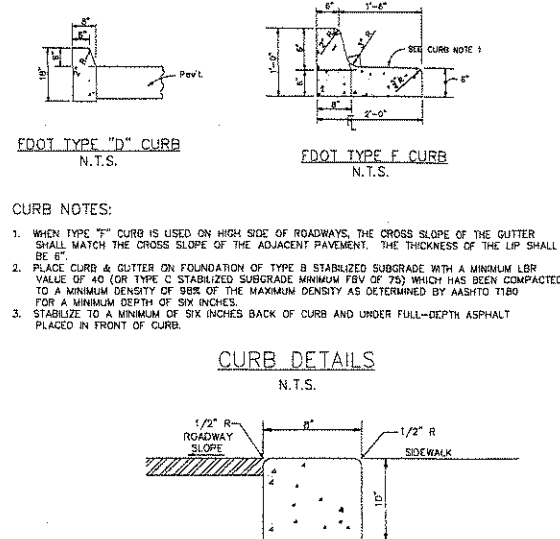
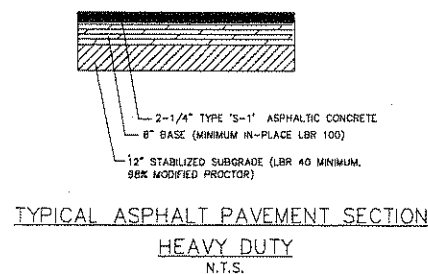
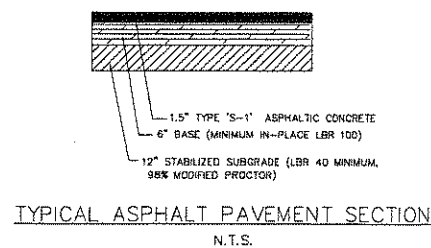
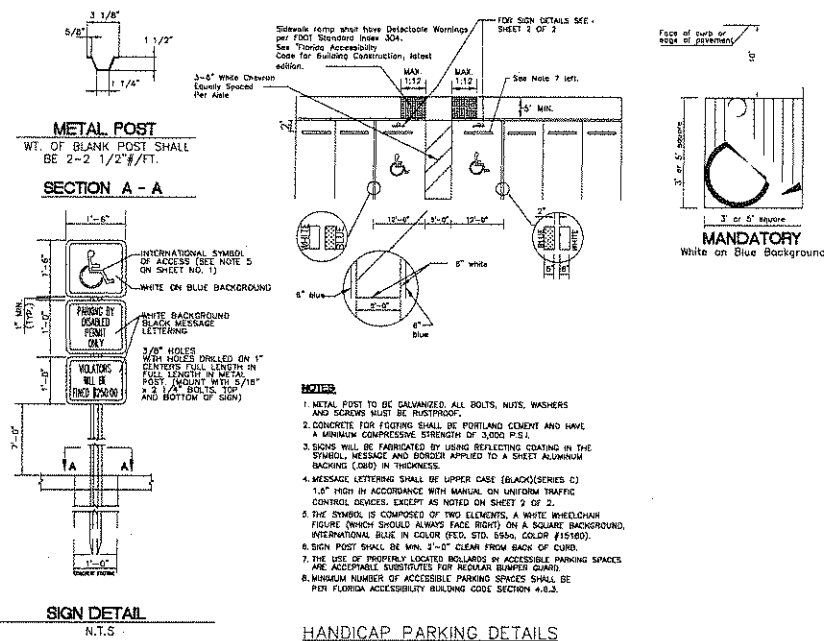
PREPARED FOR:  
**LOVE INVESTMENT COMPANY**  
1050 CROWN POINTE PARKWAY  
ATLANTA, GEORGIA 30338-7701  
(770) 561-6688

**BRANDON HYATT HOTEL**  
HILLSBOROUGH COUNTY, FLORIDA  
**GRADING & DRAINAGE PLAN**

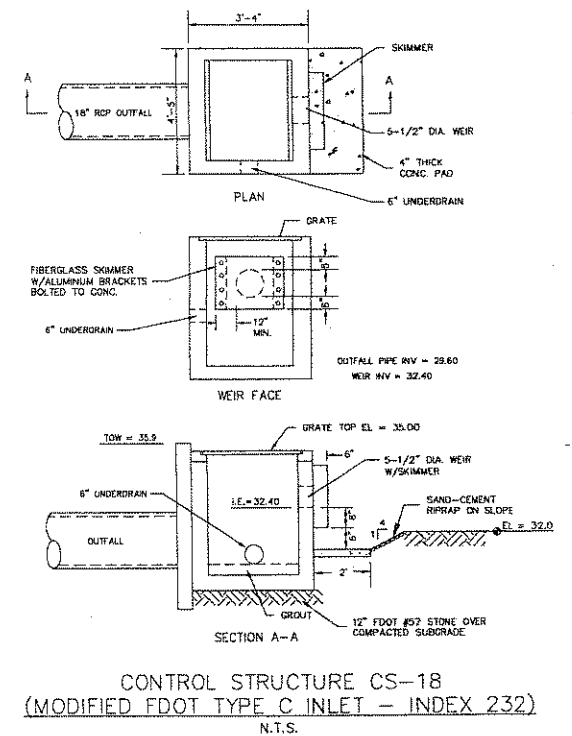
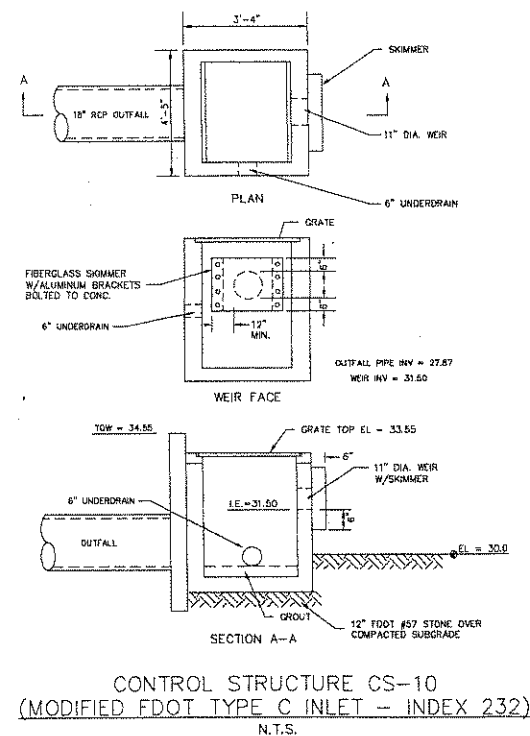
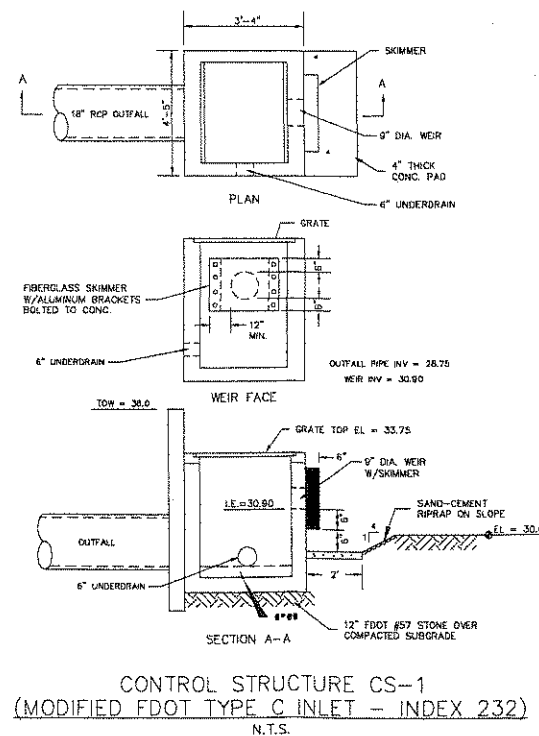
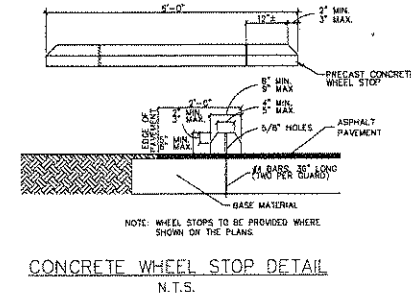
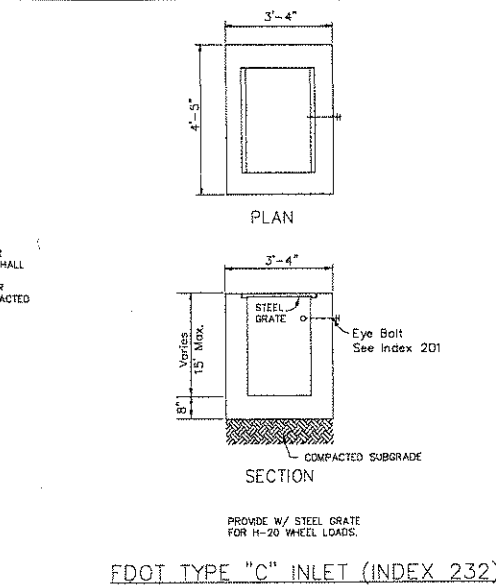
CERTIFIED BY:	PROJECT NUMBER
NICHOLAS J. MESSINA, P.E. #57542	6021-01
DATE:	DATE
	03-20-08
	SHEET NUMBER
	20-28-20
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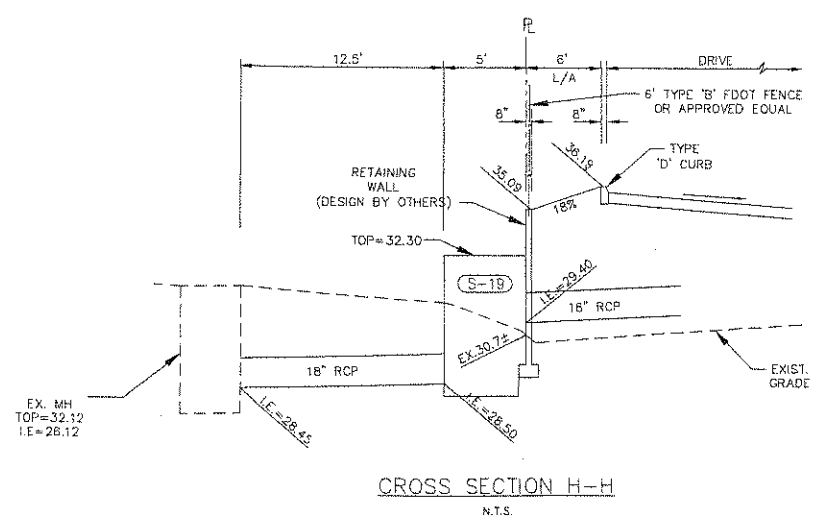
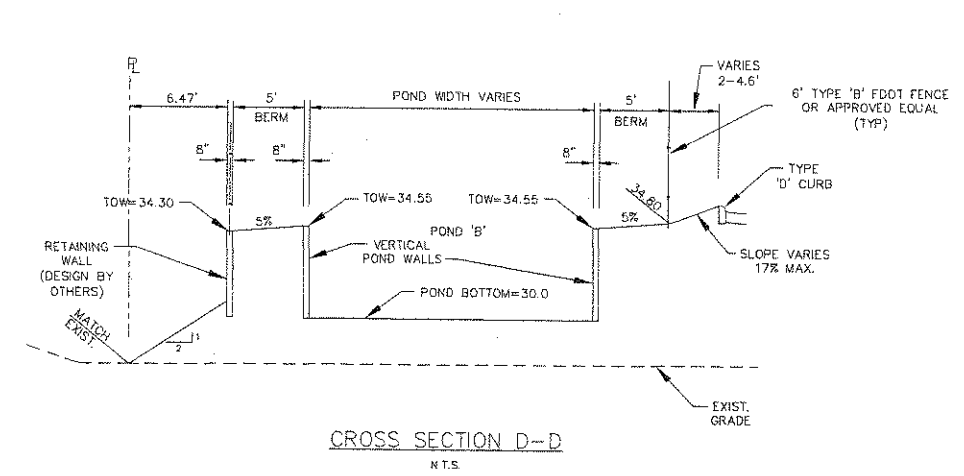
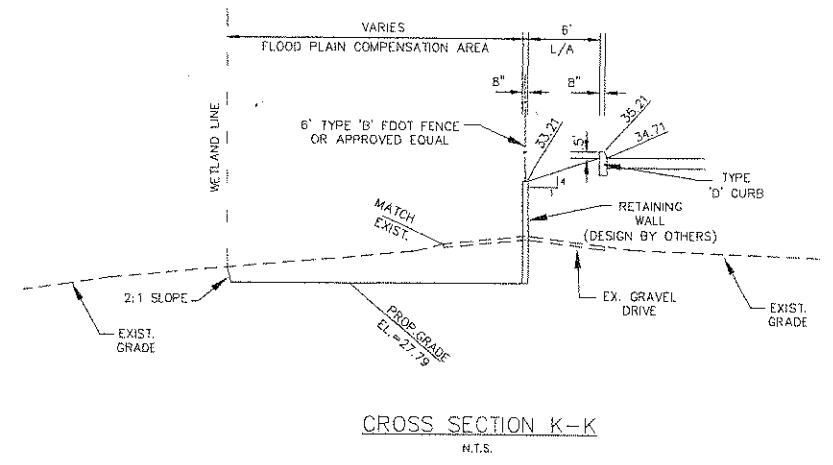
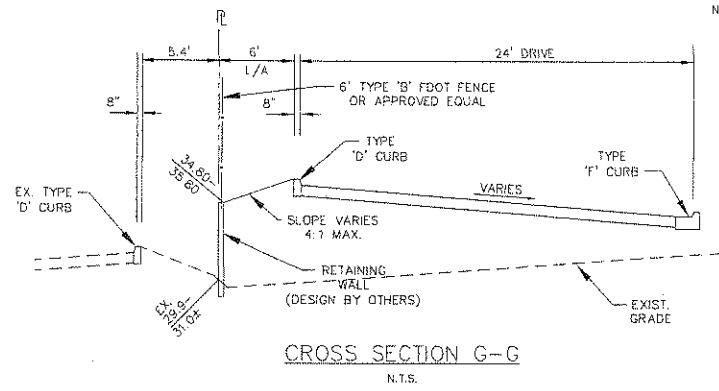
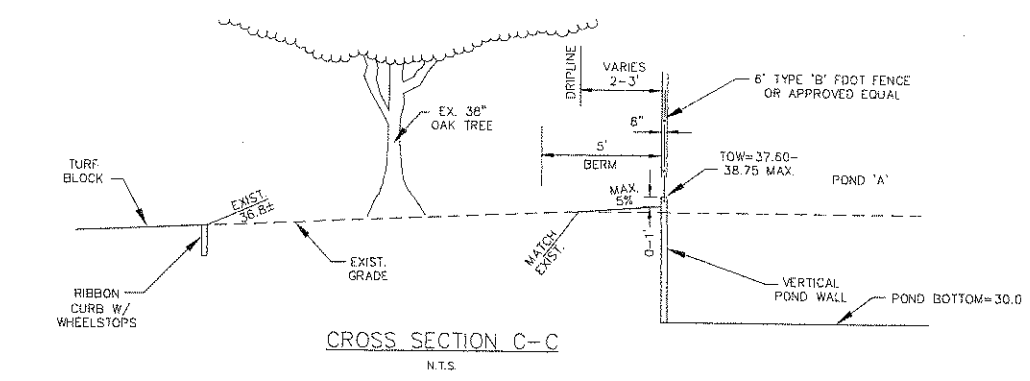
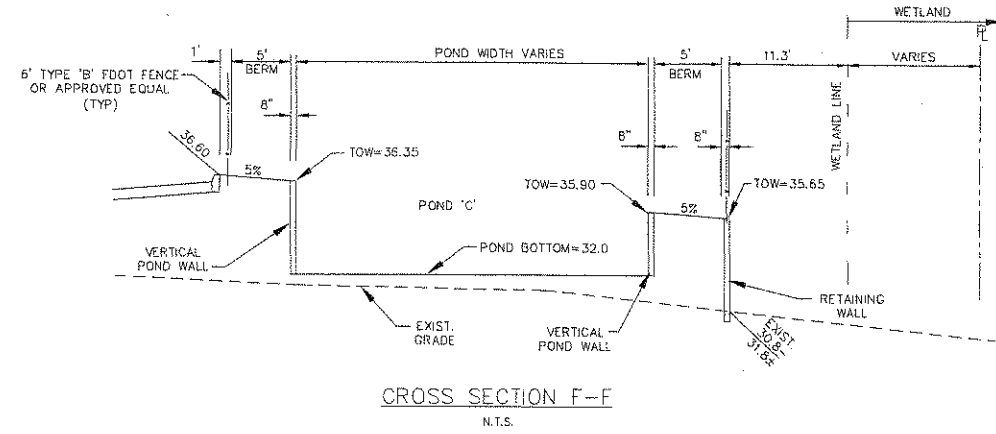
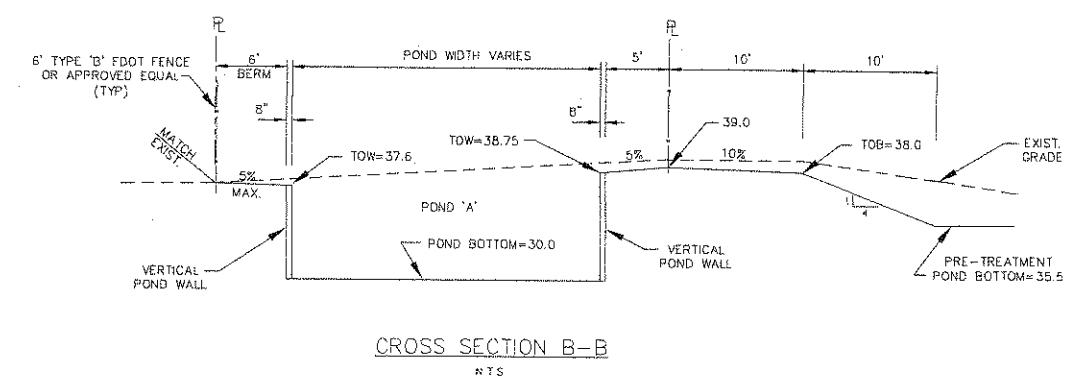
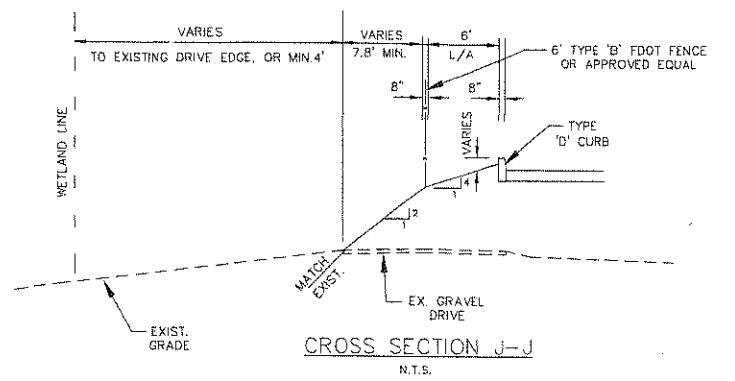
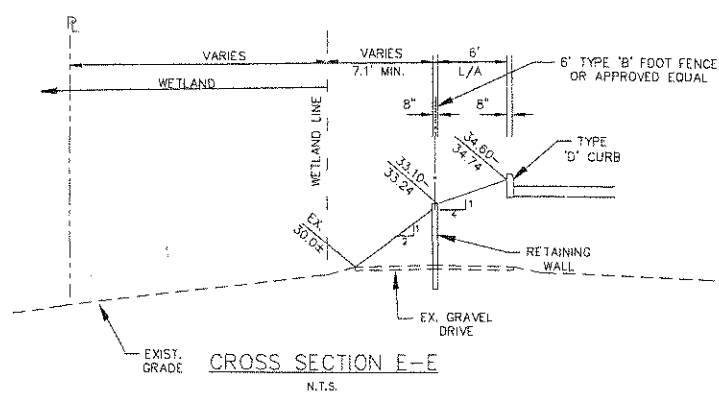
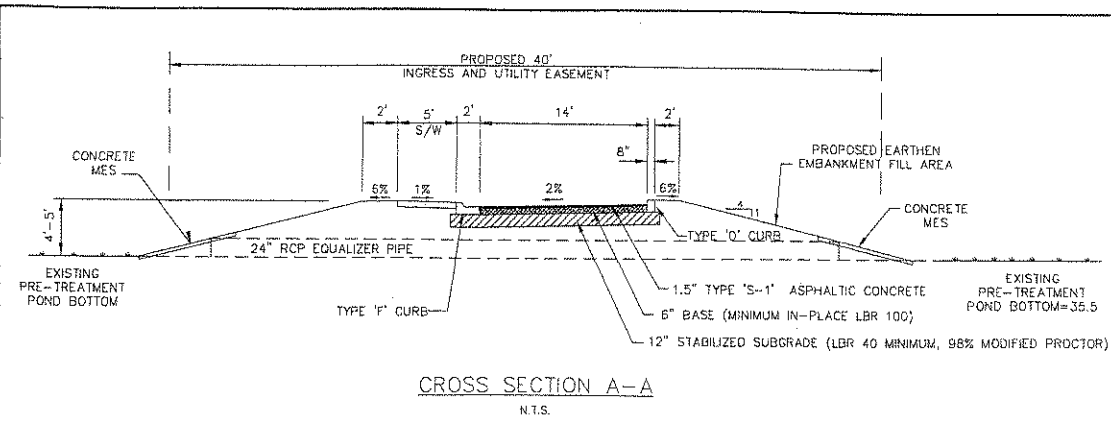
POND	6\" PIPE DIAMETER PIPE LENGTH	ELEVATIONS		
		TOP OF WALL	POND BOTTOM	6\" UNDERDRAIN
A	15 LF	37.6 TO 38.75	30.0	28.0
B	12 LF	34.55	30.0	28.0
C	20 LF	35.9 TO 36.33	32.0	31.0



- CURB NOTES:
1. WHEN PAVEMENT SLOPES AWAY FROM CURB, FINISH PAVEMENT SURFACE TO BE FLUSH WITH LIP OF CURB.
  2. WHEN PAVEMENT SLOPES TOWARD CURB, FINISH PAVEMENT SURFACE 1/4\" ABOVE LIP OF CURB.
  3. INSTALL EXPANSION JOINTS AT 50' INTERVALS STRIKE CONSTRUCTION JOINTS AT 10' INTERVALS.

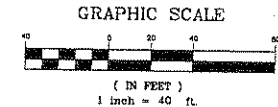
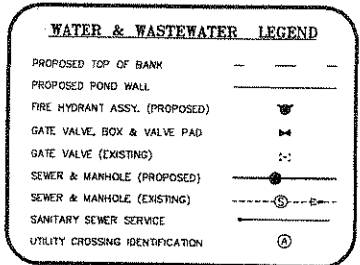


I.D.	DESCRIPTION	PIPING (OUTFALL)	GRATE/TOP	ELEVATIONS			
				WEIR INVERT	INVERT(N)	INVERT(S)	INVERT(W)
CS-1	TYPE \"C\" CONTROL STRUCTURE 9\" DIA. WEIR W/ SKIMMER	98 L.F. 18\" RCP @ 0.224%	33.75	30.90		28.75(18\")	
S-2	MANHOLE	160 L.F. 18\" RCP @ 0.219%	35.00		28.55(18\")	28.55(18\")	
S-2A	M.E.S.				28.20(18\")		
S-3	TYPE \"C\" INLET	121 L.F. 18\" RCP @ 0.20%	34.37				30.80(18\")
S-4	TYPE \"C\" INLET	128 L.F. 18\" RCP @ 0.20%	34.24		30.26(18\")		
S-5	HEADWALL				30.00(18\")		
S-6	TYPE \"C\" INLET	130 L.F. 18\" RCP @ 0.20%	34.05		30.90(18\")		
S-7	TYPE \"C\" INLET	140 L.F. 18\" RCP @ 0.20%	34.05		30.54(18\")	30.54(18\")	31.50(12\")
S-8	TYPE \"C\" INLET	80 L.F. 18\" RCP @ 0.20%	34.05		30.26(18\")	30.16(18\")	
S-9	HEADWALL				30.00(18\")		
CS-10	TYPE \"C\" CONTROL STRUCTURE 11\" DIA. WEIR W/ SKIMMER	33 L.F. 18\" RCP @ 0.21%	33.55	31.50		27.87(18\")	
S-11	HEADWALL		35.37			27.80(18\")	
S-12	TYPE \"C\" INLET	34 L.F. 18\" RCP @ 0.20%	35.36			32.41(18\")	
S-12A	MANHOLE	32 L.F. 18\" RCP @ 0.20%	35.43			32.34(18\")	34.24(18\")
S-13	TYPE \"C\" INLET	42 L.F. 18\" RCP @ 0.20%	35.37			32.18(18\")	32.08(18\")
S-14	HEADWALL				32.00(18\")		
S-15	TYPE \"C\" INLET	137 L.F. 18\" RCP @ 0.20%	35.37		32.46(18\")		
S-16	TYPE \"C\" INLET	38 L.F. 18\" RCP @ 0.20%			32.18(18\")	32.68(12\")	32.08(18\")
S-17	HEADWALL				32.00(18\")		
CS-18	TYPE \"C\" CONTROL STRUCTURE 5-1/2\" DIA. WEIR W/ SKIMMER	88 L.F. 18\" RCP @ 0.294%	35.00	32.40		28.80(18\")	
S-19	JUNCTION BOX	12 L.F. 18\" RCP @ 0.833%	32.30		28.40(18\")	28.50(18\")	
S-20	YARD DRAIN	91 L.F. 12\" ADS @ 0.198%	30.20			28.78(12\")	
S-21	M.E.S.				35.00		28.60(12\")
S-22	M.E.S.	56 L.F. 24\" RCP @ 0.179%					
S-23	M.E.S.			34.90			



- NOTES:**
1. STRUCTURE S-19 SHALL BE A MODIFIED TYPE 'J' STRUCTURE BOTTOM AND SHALL CAST IN PLACE TO ACCOMMODATE THE WALL FOOTER.
  2. CONTRACTOR SHALL COORDINATE CONNECTING S-19 TO WALL COMPONENTS WITH THE STRUCTURAL ENGINEER.
  3. S-19 SHALL HAVE OUTSIDE DIMENSIONS OF 13 FT. BY 5 FT. AND BE FITTED WITH A MANHOLE LID IN IT'S TOP FOR MAINTENANCE ACCESS.
  4. STRUCTURE WALL SHALL BE 10 INCH THICK, RE-INFORCING SHALL BE PER FOOT INDEX NO. 200.





**WATER & WASTEWATER CONSTRUCTION NOTES:**

1. WATERMAINS, FORCEMAINS AND SANITARY SEWERS TO BE CONSTRUCTED AND TESTED IN ACCORDANCE WITH HILLSBOROUGH COUNTY DEPARTMENT OF WATER AND WASTEWATER UTILITIES DESIGN AND CONSTRUCTION STANDARDS.
2. FORCEMAINS SHALL BE ASTM 2241 SDR 21 PVC RATED AT 200 PSI. FITTINGS SHALL BE PVC. FORCEMAINS SHALL BE SPIRAL WRAPPED WITH 2" DARK GREEN VINYL TAPE.
3. GRAVITY SEWERS SHALL BE GREEN SDR-35 OR SDR-26 PVC, ASTM D-3034.
4. WATERMAINS SHALL MEET THE REQUIREMENTS OF AWWA C-900, CLASS 150 PVC SDR 15. FITTINGS SHALL BE M.J. DUCTILE IRON. D.I.P. WATERMAIN WHERE REQUIRED SHALL BE ANSI A21.51, CLASS 50 OR HIGHER.
5. RESTRAINED JOINTS TO BE PLACED AT ALL BENDS IN FORCEMAIN & WATER MAINS (SEE SCHEDULE, WATER SYSTEM DETAIL W-7A, SHEET 9). THRUST BLOCKS MAY NOT BE SUBSTITUTED.
6. ALL TAPS AND CONNECTIONS TO EXISTING COUNTY MAINS SHALL BE MADE UNDER COUNTY SUPERVISION. CONTRACTOR SHALL FURNISH ALL NECESSARY LABOR & MATERIALS TO PERFORM NECESSARY EXCAVATION, BACKFILL AND SITE RESTORATION.
7. CONTRACTOR SHALL TEST WATERMAINS, FORCEMAINS AND GRAVITY SEWERS IN ACCORDANCE WITH HILLSBOROUGH COUNTY CONSTRUCTION STANDARDS. CONTRACTOR SHALL NOTIFY ENGINEER AND COUNTY AT LEAST 48 HOURS PRIOR TO THE START OF ANY TEST. THE CONTRACTOR SHALL MAKE ALL NECESSARY APPLICATIONS AND ARRANGEMENTS, AND PAY ALL FEES AND CHARGES FOR WATER NECESSARY FOR TESTING. COMPLETED GRAVITY SEWER LINES SHALL BE TELEVIEWED BY THE CONTRACTOR.
8. MINIMUM COVER OVER WATER MAINS, FORCE MAINS, AND SANITARY SEWER MAINS AND LATERALS SHALL BE 36 INCHES.
9. CONTRACTOR TO COORDINATE WITH PLUMBING DRAWINGS FOR CONNECTION OF SANITARY AND WATER SERVICES.
10. CONTRACTOR TO COORDINATE WITH MIKE BUTKUS @ 671-7804 OF THE HILLSBOROUGH COUNTY WATER RESOURCE SERVICES PRIOR TO THE SELECTION AND ORDERING OF THE WATER METER AND/OR BACKFLOW PREVENTION DEVICE ASSEMBLIES.
11. THE MASTER METER ASSEMBLY WILL BE DIRECTLY ACCESSIBLE BY BOOM TRUCK OFF OF THE COUNTY RIGHT-OF-WAY OR BY AN INTERIOR ROAD THAT IS NOT BLOCKED BY A WALL, FENCE, OR GATE. THE ELEVATION OF THE CONCRETE SLAB WILL BE HIGHER THAN THE IMMEDIATE SURROUNDING AREA. DO NOT MULCH AREA AROUND SLAB. DO NOT PLANT ANY LANDSCAPE THAT WILL HINDER DIRECT ACCESS IN THE FUTURE TO THE METER ASSEMBLY.
12. THE CONTRACTOR WILL FURNISH AND INSTALL THE TAPPING SLAVE AND VALVE. HILLSBOROUGH COUNTY WATER RESOURCE SERVICES WILL PERFORM THE TAPPING OPERATION.
13. ALL NON-METALLIC PIPE WILL BE INSTALLED WITH 2 PAIR, 10 GAUGE, COPPER TRACER WIRE.
14. THE LOCATION OF ALL NEWLY INSTALLED FIRE HYDRANTS SHALL BE IDENTIFIED WITH A BLUE REFLECTIVE PAVEMENT MARKER INSTALLED ON THE ROADWAY, PERPENDICULAR TO THE FIRE HYDRANT. THE REFLECTIVE MARKER WILL BE LOCATED IN THE CENTER OF THE LANE CLOSEST TO THE HYDRANT.
15. THE CONTRACTOR/ENGINEER OF RECORD MUST CONTACT THE HILLSBOROUGH COUNTY WATER RESOURCE SERVICE UTILITY INSPECTION SECTION AND LINE MAINTENANCE TO SET UP THE PRE-CONSTRUCTION MEETING. CONTACT WILLIE LAVANDERIA @ 307-8373 FOR INSPECTIONS AND THE SOUTH/CENTRAL LINE MAINTENANCE UNIT AT 671-7804.
16. THE ENGINEER OF RECORD AND/OR CONTRACTOR WILL BE RESPONSIBLE FOR THE FLOW TESTING AND COLOR CODING OF ALL NEWLY INSTALLED FIRE HYDRANTS IN THE EXISTING OR PROPOSED HILLSBOROUGH COUNTY RIGHT-OF-WAY AND UTILITY EASEMENTS THAT ARE TO BE DEDICATED TO HILLSBOROUGH COUNTY PRIOR TO THE FINAL INSPECTION OF THE PROJECT. THE ENGINEER OF RECORD AND/OR CONTRACTOR SHALL REFER TO NFPA STANDARD 291 FOR FLOW TESTING AND COLOR CODING METHODS AND PROCEDURES.

**STANDARD SEPARATION STATEMENT:**

1. SANITARY SEWERS, FORCE MAINS AND STORM SEWERS CROSSING WATER MAINS SHALL BE CONSTRUCTED TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE. WHENEVER POSSIBLE, WHERE THE SEWER AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING, (DIP IS NOT REQUIRED FOR STORM SEWERS IF IT IS NOT AVAILABLE IN THE SIZE PROPOSED). SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM FREE AND MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT THE CROSSING. ALL CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND THE WATER PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (PIPES CENTERED ON THE CROSSING). WHERE A NEW PIPE CONFLICTS WITH AN EXISTING PIPE, THE NEW PIPE SHALL BE CONSTRUCTED OF DIP AND THE CROSSING SHALL BE ARRANGED TO MEET THE REQUIREMENTS ABOVE.
2. A MINIMUM OF 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF SEWER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE. IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10-FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE LAID IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELVE LOCATED ON ONE SIDE OF THE SEWER OR FORCE MAIN AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER. WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 18 INCHES IN PARALLEL INSTALLATIONS, THE WATER MAIN SHALL BE CONSTRUCTED OF DIP AND THE SEWER OR FORCE MAIN SHALL BE CONSTRUCTED OF DIP (IF AVAILABLE IN THE SIZE PROPOSED) WITH A MINIMUM VERTICAL DISTANCE OF 6 INCHES. THE WATER MAIN SHOULD ALWAYS BE ABOVE THE SEWER. JOINTS ON THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM THE JOINTS ON THE SEWER OR FORCE MAIN (STAGGERED JOINTS).
3. WHERE D.I.P. IS NOT ALLOWED FOR SANITARY SEWERS OR FORCEMAINS, STEEL ENCASUREMENT SHALL BE PROVIDED.

**BACTERIOLOGICAL TESTING NOTES:**

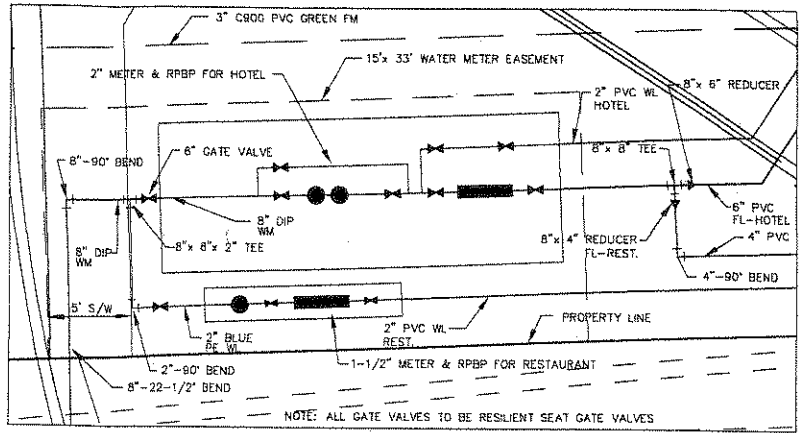
- 1) CONTRACTOR SHALL COMPLETE BACTERIOLOGICAL SAMPLING IN ACCORDANCE WITH THE PROVISIONS OF AWWA C 651-89 AND SHALL REFER TO HILLSBOROUGH COUNTY'S PUBLISHED GUIDELINES FOR CLEANING, DISINFECTING, AND TESTING OF WATER MAINS.
- 2) FOLLOWING INSTALLATION AND PRESSURE TESTING OF THE WATER MAIN, THE CONTRACTOR SHALL INSTALL TAPS AT THE LOCATIONS SHOWN FOR THE PURPOSE OF TAKING SAMPLES.
- 3) SAMPLE TAPS SHALL BE LOCATED A MAXIMUM OF 1200 FT APART. RESIDENTIAL SERVICE TAPS MAY BE USED AS SAMPLE LOCATIONS.
- 4) BASED ON HIS CONSTRUCTION METHOD, THE CONTRACTOR SHALL INJECT CHLORINE AT ONE END OF THE NEW WATER MAIN AND FLUSH AT THE OTHER.
- 5) FOLLOWING SUCCESSFUL COMPLETION OF BACTI TESTING, THE CONTRACTOR SHALL REMOVE ANY SAMPLE PIPES & HOSE BIBS TEMPORARILY INSTALLED FOR TESTING.

**CROSSING TABLE**

- (A) BOTTOM OF 4" WATER = 33.92  
TOP OF 6" SANITARY = 32.73  
CLEARANCE = 1.19'
- (B) BOTTOM OF 18" STORM = 34.23  
TOP OF 4" FIRE & 2" WATER = 32.73  
CLEARANCE = 1.5'
- (C) BOTTOM OF 18" STORM = 33.83  
TOP OF 4" FIRE & 2" WATER = 32.32  
CLEARANCE = 1.51'
- (D) BOTTOM OF 18" STORM = 33.82  
TOP OF 4" FIRE & 2" WATER = 32.32  
CLEARANCE = 1.5'

**METER DETAIL**

SCALE: 1" = 5'



WETLAND CONSERVATION AREA "B"  
0.393 ACRES

WETLAND CONSERVATION AREA "A"  
0.077 ACRES

**NOTE:**

THE ENGINEER OF RECORD SHALL PROVIDE THE COUNTY REAL ESTATE DEPARTMENT WITH ALL REQUIRED DOCUMENTATION FOR RECORDING A 15' x 25' WATER METER EASEMENT DEDICATED TO HILLSBOROUGH COUNTY. THIS DOCUMENTATION MUST BE SUBMITTED TO PLANNING AND GROWTH MANAGEMENT NO LATER THAN THE AS-BUILT PACKAGE SUBMITTAL. THE DOCUMENTS WILL BE VERIFIED FOR SIZE AND LOCATION OF THE WATER METER EASEMENT BASED ON THE APPROVED CONSTRUCTION PLANS AND THEN FORWARDED TO THE REAL ESTATE DEPARTMENT. CONTACT THE REAL ESTATE DEPARTMENT AT 272-5810 FOR DETAILS ON THE WATER METER EASEMENT DOCUMENTATION REQUIREMENTS.



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State of Florida, D.B.P.R. Certificate of Asst. #5221

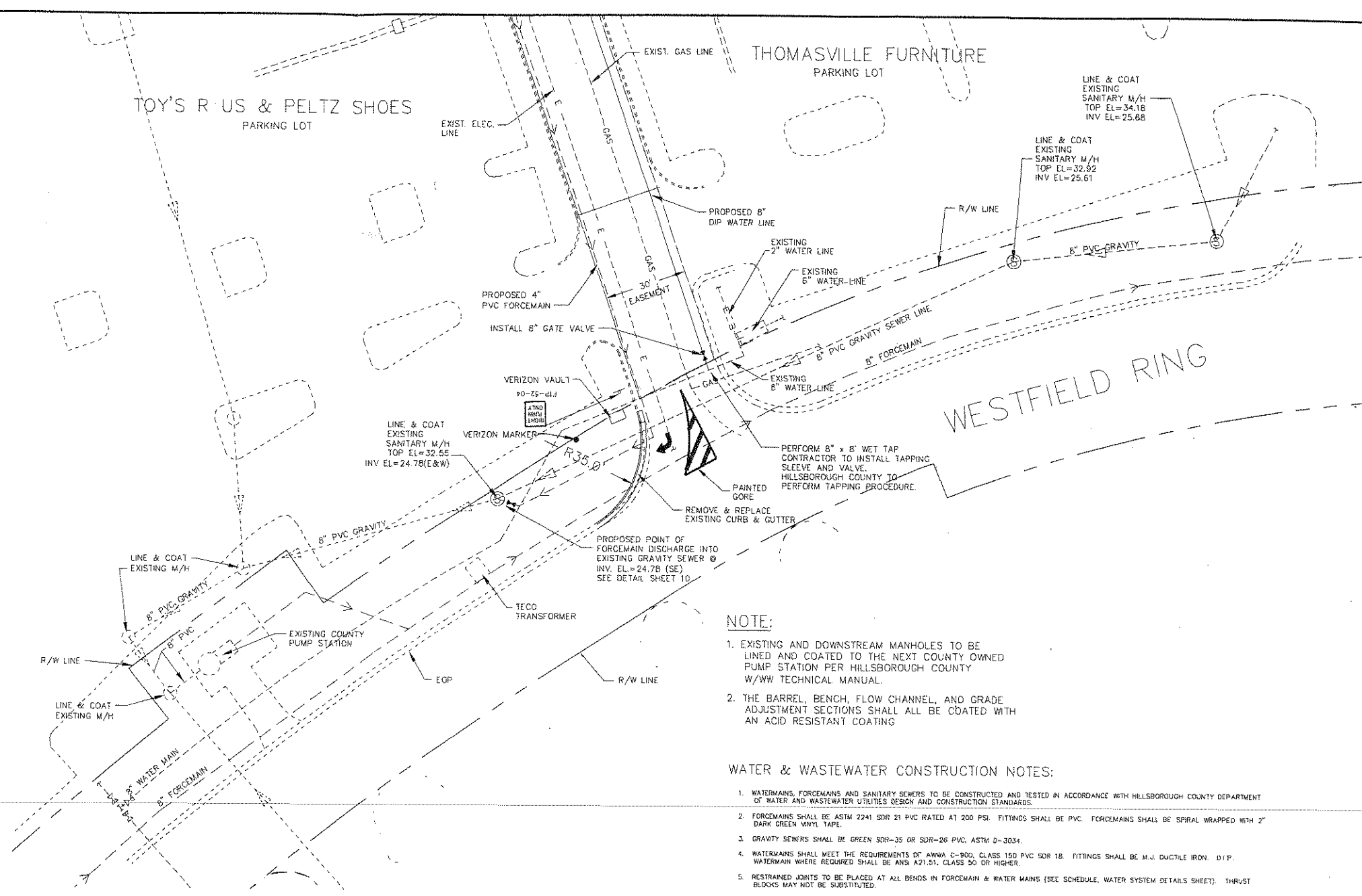
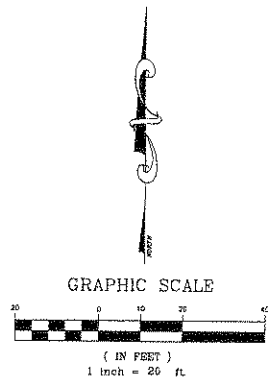

PREPARED FOR:  
**LOVE INVESTMENT COMPANY**  
1050 CROWN POINTE PARKWAY  
ATLANTA, GEORGIA 30338-7701  
(770) 661-5663

**BRANDON HYATT HOTEL**  
HILLSBOROUGH COUNTY, FLORIDA

**WATER & WASTEWATER PLAN**

CERTIFIED BY:  
NICHOLAS J. WESSHA, P.E. #57542  
DATE:

PROJECT NUMBER 5021-01  
DATE 4-30-08  
SHEET NUMBER 20-20-20  
SHEET NUMBER 8



NOTE:

1. EXISTING AND DOWNSTREAM MANHOLES TO BE LINED AND COATED TO THE NEXT COUNTY OWNED PUMP STATION PER HILLSBOROUGH COUNTY W/WW TECHNICAL MANUAL.
2. THE BARREL, BENCH, FLOW CHANNEL, AND GRADE ADJUSTMENT SECTIONS SHALL ALL BE COATED WITH AN ACID RESISTANT COATING

WATER & WASTEWATER CONSTRUCTION NOTES:

1. WATERMAINS, FORCEMAINS AND SANITARY SEWERS TO BE CONSTRUCTED AND TESTED IN ACCORDANCE WITH HILLSBOROUGH COUNTY DEPARTMENT OF WATER AND WASTEWATER UTILITIES DESIGN AND CONSTRUCTION STANDARDS.
2. FORCEMAINS SHALL BE ASTM 2241 SDR 21 PVC RATED AT 200 PSI. FITTINGS SHALL BE PVC. FORCEMAINS SHALL BE SPIRAL WRAPPED WITH 2\"/>
3. GRAVITY SEWERS SHALL BE GREEN SDR-35 OR SDR-26 PVC, ASTM D-3034.
4. WATERMAINS SHALL MEET THE REQUIREMENTS OF AWWA C-900, CLASS 150 PVC SDR 18. FITTINGS SHALL BE M.J. DUCTILE IRON. D.I.P. WATERMAIN WHERE REQUIRED SHALL BE ANSI A21.51, CLASS 50 OR HIGHER.
5. RESTRAINED JOINTS TO BE PLACED AT ALL BENDS IN FORCEMAIN & WATER MAINS (SEE SCHEDULE, WATER SYSTEM DETAILS SHEET). THRUST BLOCKS MAY NOT BE SUBSTITUTED.
6. ALL TAPS AND CONNECTIONS TO EXISTING COUNTY MAINS SHALL BE MADE UNDER COUNTY SUPERVISION. CONTRACTOR SHALL FURNISH ALL NECESSARY LABOR & MATERIALS TO PERFORM NECESSARY EXCAVATION, BACKFILL AND SITE RESTORATION.
7. CONTRACTOR SHALL TEST WATERMAINS, FORCEMAINS AND GRAVITY SEWERS IN ACCORDANCE WITH HILLSBOROUGH COUNTY CONSTRUCTION STANDARDS. CONTRACTOR SHALL NOTIFY ENGINEER AND COUNTY AT LEAST 48 HOURS PRIOR TO THE START OF ANY TEST. THE CONTRACTOR SHALL MAKE ALL NECESSARY APPLICATIONS AND ARRANGEMENTS, AND PAY ALL FEES AND CHARGES FOR WATER NECESSARY FOR TESTING COMPLETED GRAVITY SEWER LINES SHALL BE TELEVIEWED BY THE CONTRACTOR.
8. MINIMUM COVER OVER WATER MAINS, FORCE MAINS, AND SANITARY SEWER MAINS AND LATERALS SHALL BE 36 INCHES.
9. CONTRACTOR TO COORDINATE WITH PLUMBING DRAWINGS FOR CONNECTION OF SANITARY AND WATER SERVICES.
10. CONTRACTOR TO COORDINATE WITH MIKE BUTKUS @ 671-7804 OF THE HILLSBOROUGH COUNTY WATER RESOURCE SERVICES PRIOR TO THE SELECTION AND ORDERING OF THE WATER METER AND/OR BACKFLOW PREVENTION DEVICE ASSEMBLIES.
11. THE MASTER METER ASSEMBLY WILL BE DIRECTLY ACCESSIBLE BY BOOM TRUCK OFF OF THE COUNTY RIGHT-OF-WAY OR BY AN INTERIOR ROAD THAT IS NOT BLOCKED BY A WALL, FENCE, OR GATE. THE ELEVATION OF THE CONCRETE SLAB WILL BE HIGHER THAN THE IMMEDIATE SURROUNDING AREA. DO NOT MARCH AREA AROUND SLAB. DO NOT PLANT ANY LANDSCAPE THAT WILL HINDER DIRECT ACCESS IN THE FUTURE TO THE METER ASSEMBLY.
12. THE CONTRACTOR WILL FURNISH AND INSTALL THE TAPPING SLEEVE AND VALVE. HILLSBOROUGH COUNTY WATER RESOURCE SERVICES WILL PERFORM THE TAPPING OPERATION.
13. ALL NON-METALLIC PIPE WILL BE INSTALLED WITH 2 PAIR, 10 GAUGE, COPPER TRACER WIRE.
14. THE LOCATION OF ALL NEWLY INSTALLED FIRE HYDRANTS SHALL BE IDENTIFIED WITH A BLUE REFLECTIVE PAVEMENT MARKER INSTALLED ON THE ROADWAY, PERPENDICULAR TO THE FIRE HYDRANT. THE REFLECTIVE MARKER WILL BE LOCATED IN THE CENTER OF THE LANE CLOSEST TO THE HYDRANT.
15. THE CONTRACTOR/ENGINEER OF RECORD MUST CONTACT THE HILLSBOROUGH COUNTY WATER RESOURCE SERVICE UTILITY INSPECTION SECTION AND LINE MAINTENANCE TO SET UP THE PRE-CONSTRUCTION MEETING. CONTACT WALLIE LAVANDERIA @ 307-8373 FOR INSPECTIONS AND THE SOUTH/CENTRAL LINE MAINTENANCE UNIT AT 671-7804.
16. THE ENGINEER OF RECORD AND/OR CONTRACTOR WILL BE RESPONSIBLE FOR THE FLOW TESTING AND COLOR CODING OF ALL NEWLY INSTALLED FIRE HYDRANTS IN THE EXISTING OR PROPOSED HILLSBOROUGH COUNTY RIGHT-OF-WAY AND UTILITY EASEMENTS THAT ARE TO BE DEDICATED TO HILLSBOROUGH COUNTY PRIOR TO THE FINAL INSPECTION OF THE PROJECT. THE ENGINEER OF RECORD AND/OR CONTRACTOR SHALL REFER TO NFPA STANDARD 291 FOR FLOW TESTING AND COLOR CODING METHODS AND PROCEDURES.

STANDARD SEPARATION STATEMENT:

1. SANITARY SEWERS, FORCE MAINS AND STORM SEWERS CROSSING WATER MAINS SHALL BE CONSTRUCTED TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE WHENEVER POSSIBLE. WHERE SANITARY SEWERS, FORCE MAINS OR STORM SEWERS MUST CROSS A WATER MAIN WITH LESS THAN 18 INCHES VERTICAL DISTANCE, BOTH THE SEWER AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING. (DIP IS NOT REQUIRED FOR STORM SEWERS IF IT IS NOT AVAILABLE IN THE SIZE PROPOSED). SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10- FEET BETWEEN ANY TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE LEAK FREE AND MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT THE CROSSING. ALL CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND THE WATER PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (PIPES CENTERED ON THE CROSSING). WHERE A NEW PIPE CONFLICTS WITH AN EXISTING PIPE, THE NEW PIPE SHALL BE CONSTRUCTED OF DIP AND THE CROSSING SHALL BE ARRANGED TO MEET THE REQUIREMENTS ABOVE.
2. A MINIMUM OF 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF SEWER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE. IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10-FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE LAID IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELVE LOCATED ON ONE SIDE OF THE SEWER OR FORCE MAIN AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER. WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 18 INCHES IN PARALLEL INSTALLATIONS, THE WATER MAIN SHALL BE CONSTRUCTED OF DIP AND THE SEWER OR THE FORCE MAIN SHALL BE CONSTRUCTED OF DIP (IF AVAILABLE IN THE SIZE PROPOSED) WITH A MINIMUM VERTICAL DISTANCE OF 6 INCHES. THE WATER MAIN SHOULD ALWAYS BE ABOVE THE SEWER. JOINTS ON THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM THE JOINTS ON THE SEWER OR FORCE MAIN (STAGGERED JOINTS).
3. WHERE D.I.P. IS NOT ALLOWED FOR SANITARY SEWERS OR FORCEMAINS, STEEL ENCASEMENT SHALL BE PROVIDED.

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DESIGNED BY	NJM
DRAWN BY	DBW
CHECKED BY	
DATE	6-5-08
NO.	
REVISION	REVISED PER COUNTY COMMENTS

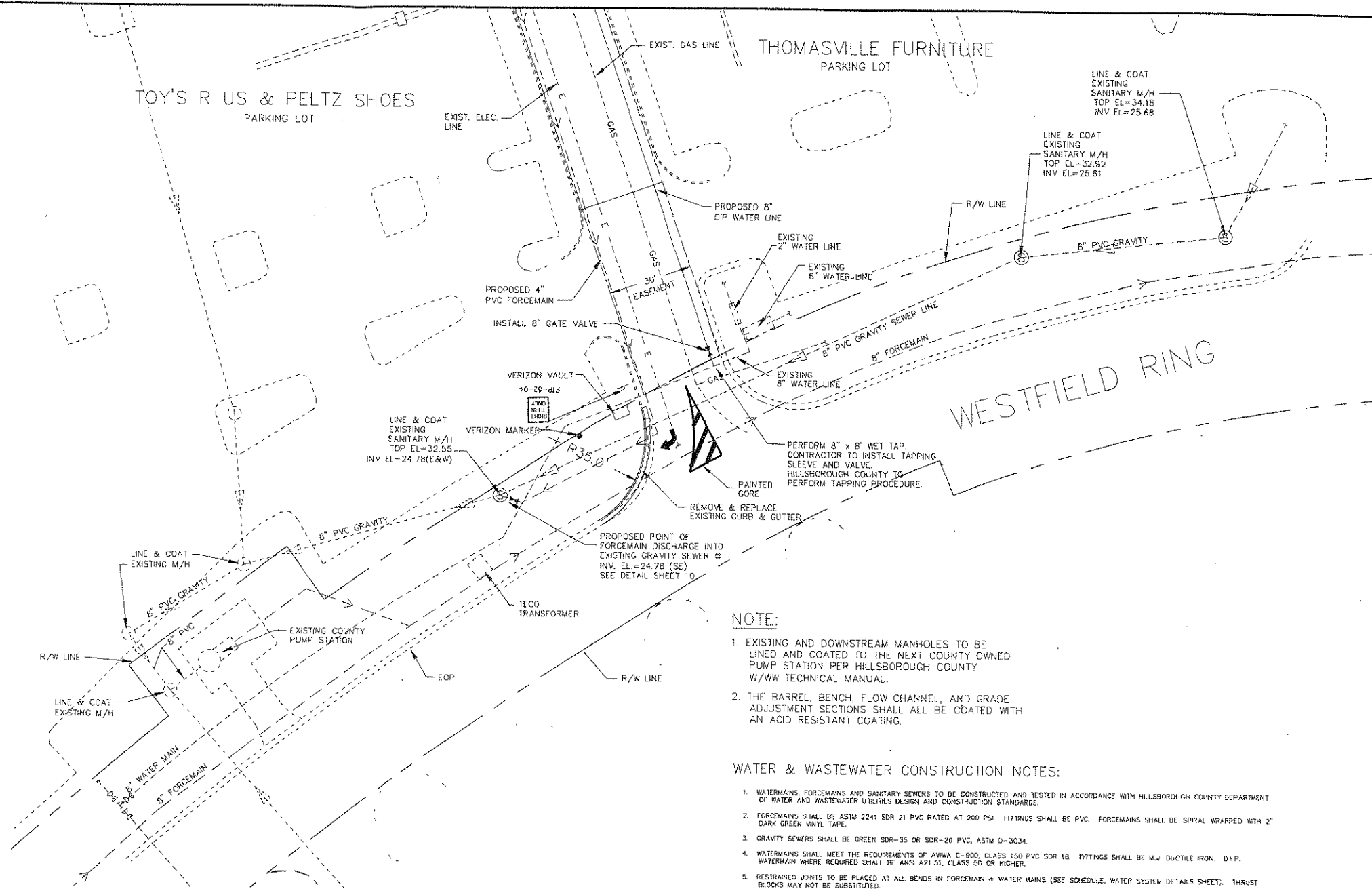
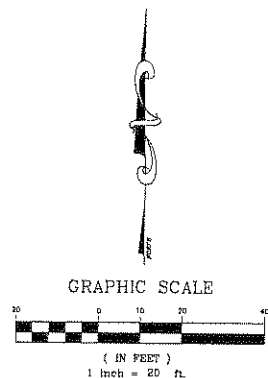
SCALE  
1" = 20'

PREPARED FOR:  
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(770) 861-6665

**BRANDON HYATT HOTEL**  
HILLSBOROUGH COUNTY, FLORIDA  
**OFFSITE WATER & WASTEWATER PLAN**

CERTIFIED BY:	PROJECT NUMBER
NICHOLAS J. MESSINA, P.E. #57542	5021-01
DATE:	DATE
	05-18-08
	S-T-R
	20-29-20
	SHEET NUMBER
	8A





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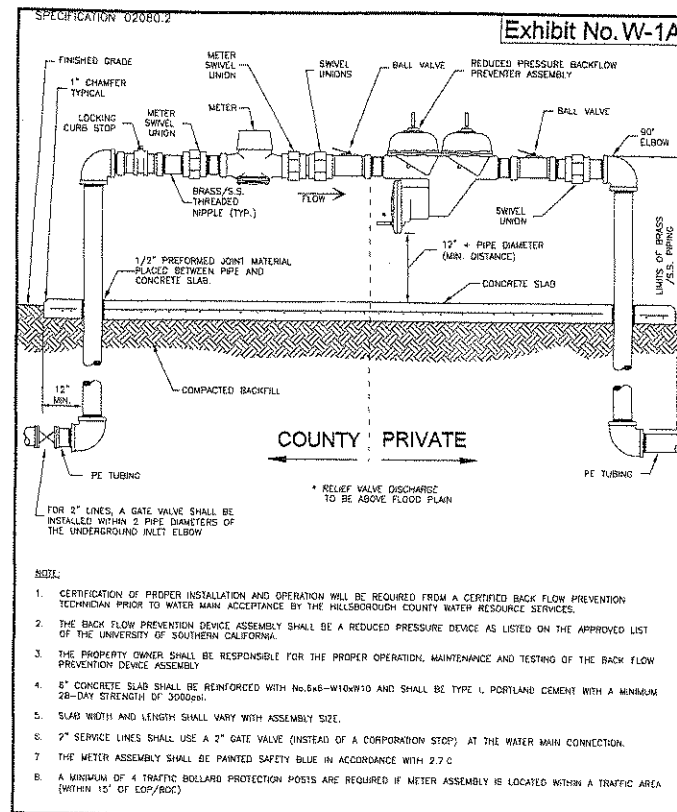
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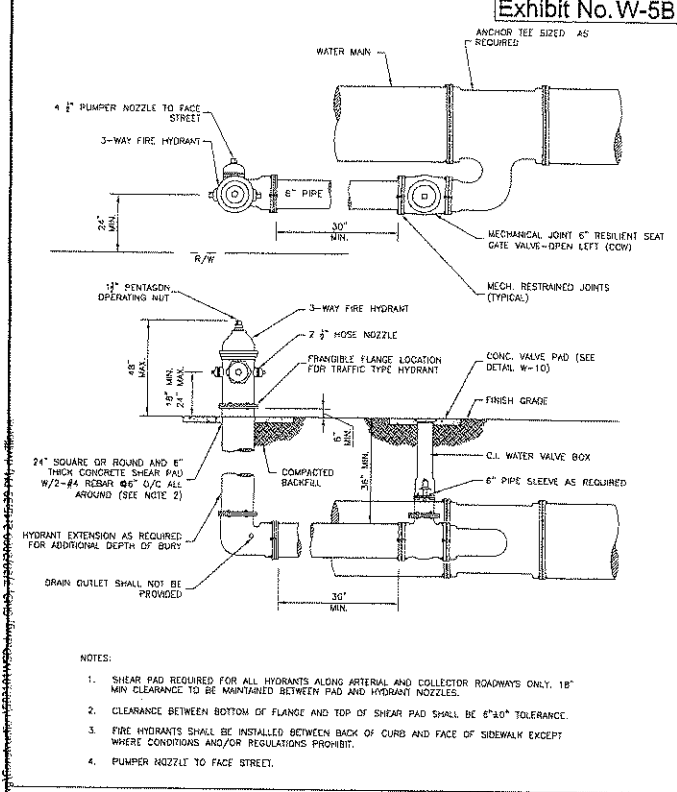
OFFSITE WATER & WASTEWATER PLAN

CERTIFIED BY:	PROJECT NUMBER
NICHOLAS J. MESSINA, P.E. #57542	5021-01
DATE:	DATE
	05-19-08
	S-T-R
	20-29-20
	SHEET NUMBER
	BA



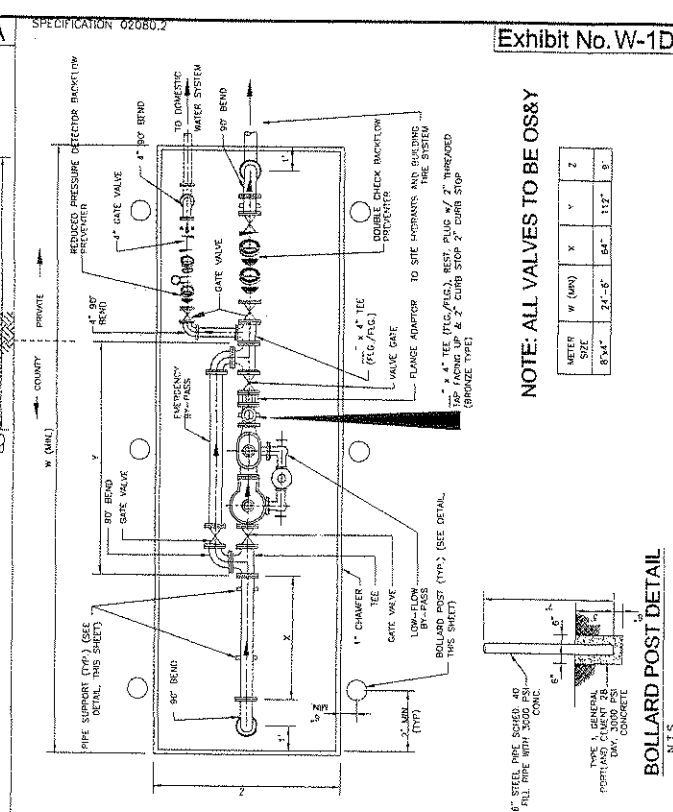
**WATER METER ASSEMBLY  
COMMERCIAL-2 OR SMALLER  
HILLSBOROUGH COUNTY, FLORIDA**

08/07  
SCALE: N.T.S.



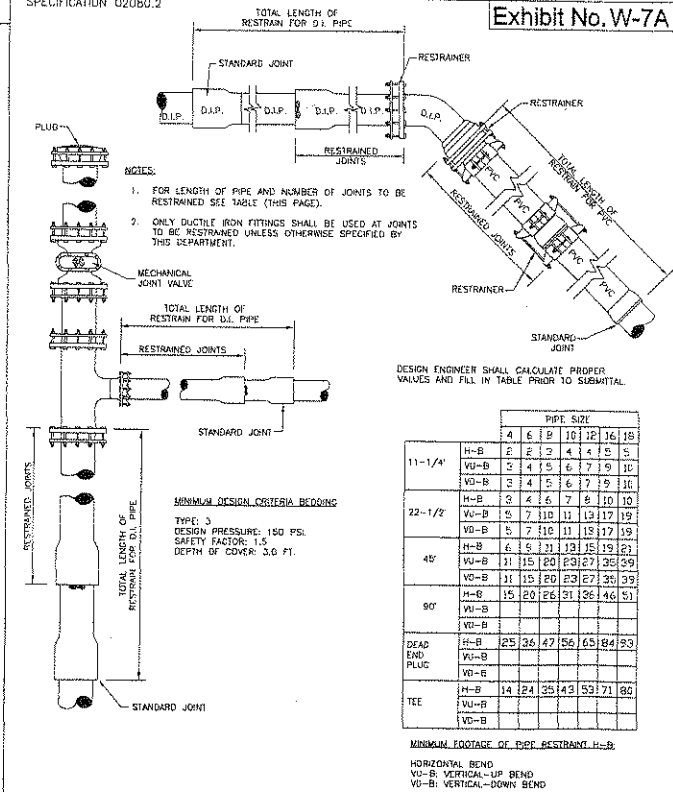
**FIRE HYDRANT FOR LIMITED SPACE  
(RESTRAINED)  
HILLSBOROUGH COUNTY, FLORIDA**

08/07  
SCALE: N.T.S.



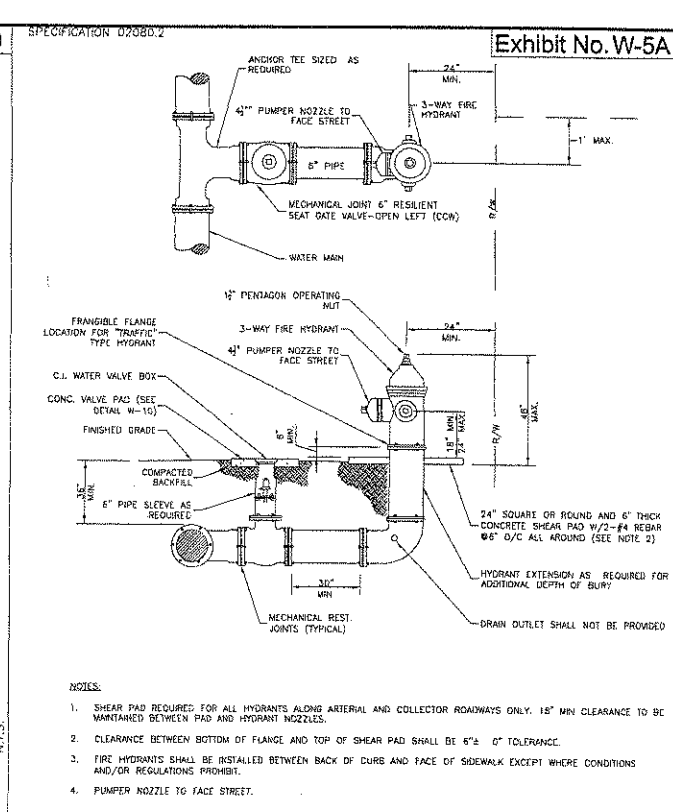
**WATER METER ASSEMBLY FOR  
COMMERCIAL DEVELOPMENT 6" AND LARGER  
HILLSBOROUGH COUNTY, FLORIDA**

08/07  
SCALE: N.T.S.



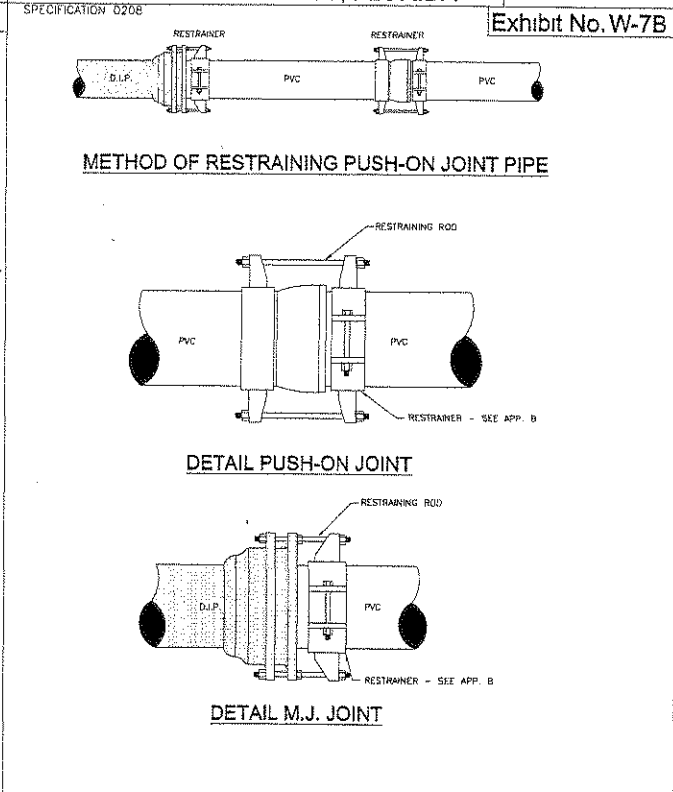
**RESTRAINED JOINT-STANDARD  
HILLSBOROUGH COUNTY, FLORIDA**

08/07  
SCALE: N.T.S.



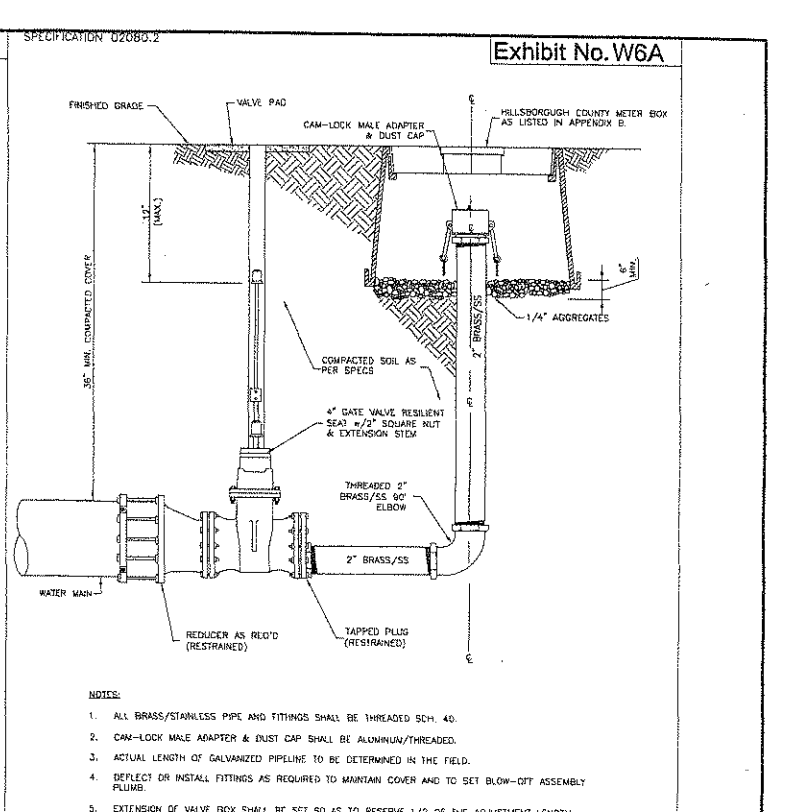
**FIRE HYDRANT  
(RESTRAINED)  
HILLSBOROUGH COUNTY, FLORIDA**

08/07  
SCALE: N.T.S.



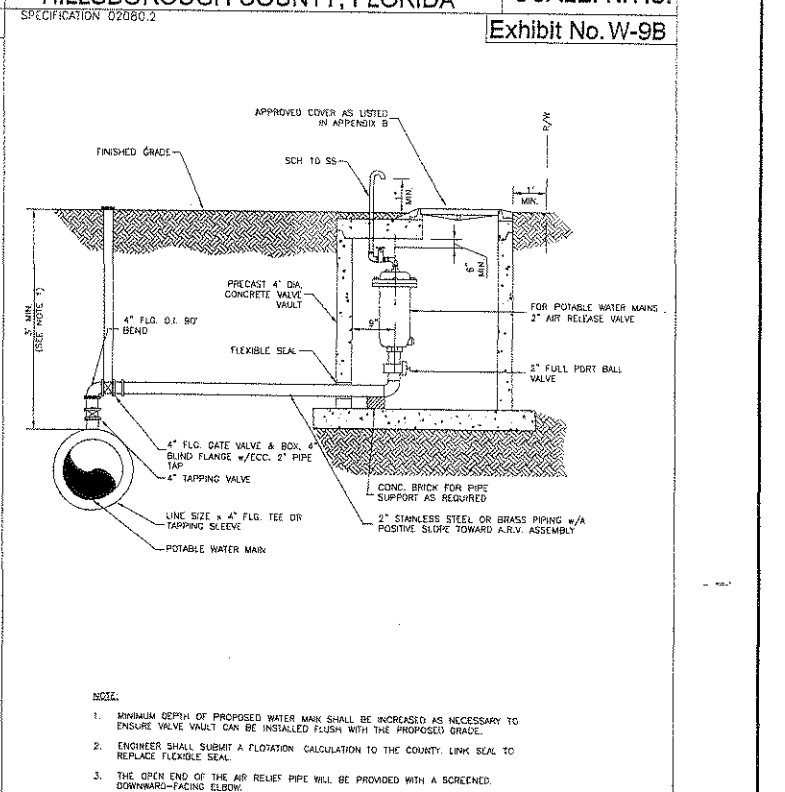
**RESTRAINED JOINT  
FOR PVC C-900 PIPE (4" TO 12")  
HILLSBOROUGH COUNTY, FLORIDA**

08/07  
SCALE: N.T.S.



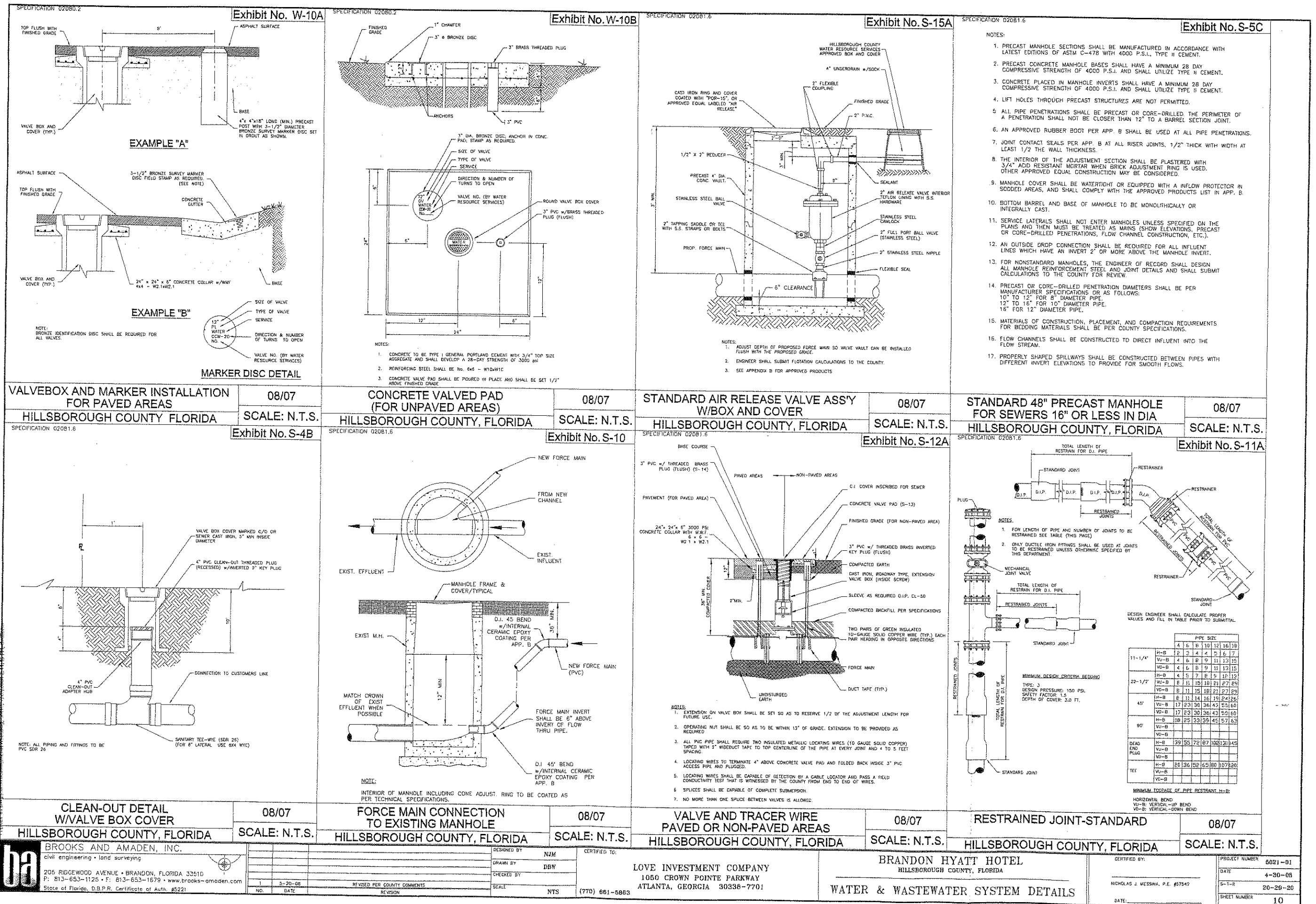
**PERMANENT 2" BLOWOFF ASSEMBLY  
HILLSBOROUGH COUNTY, FLORIDA**

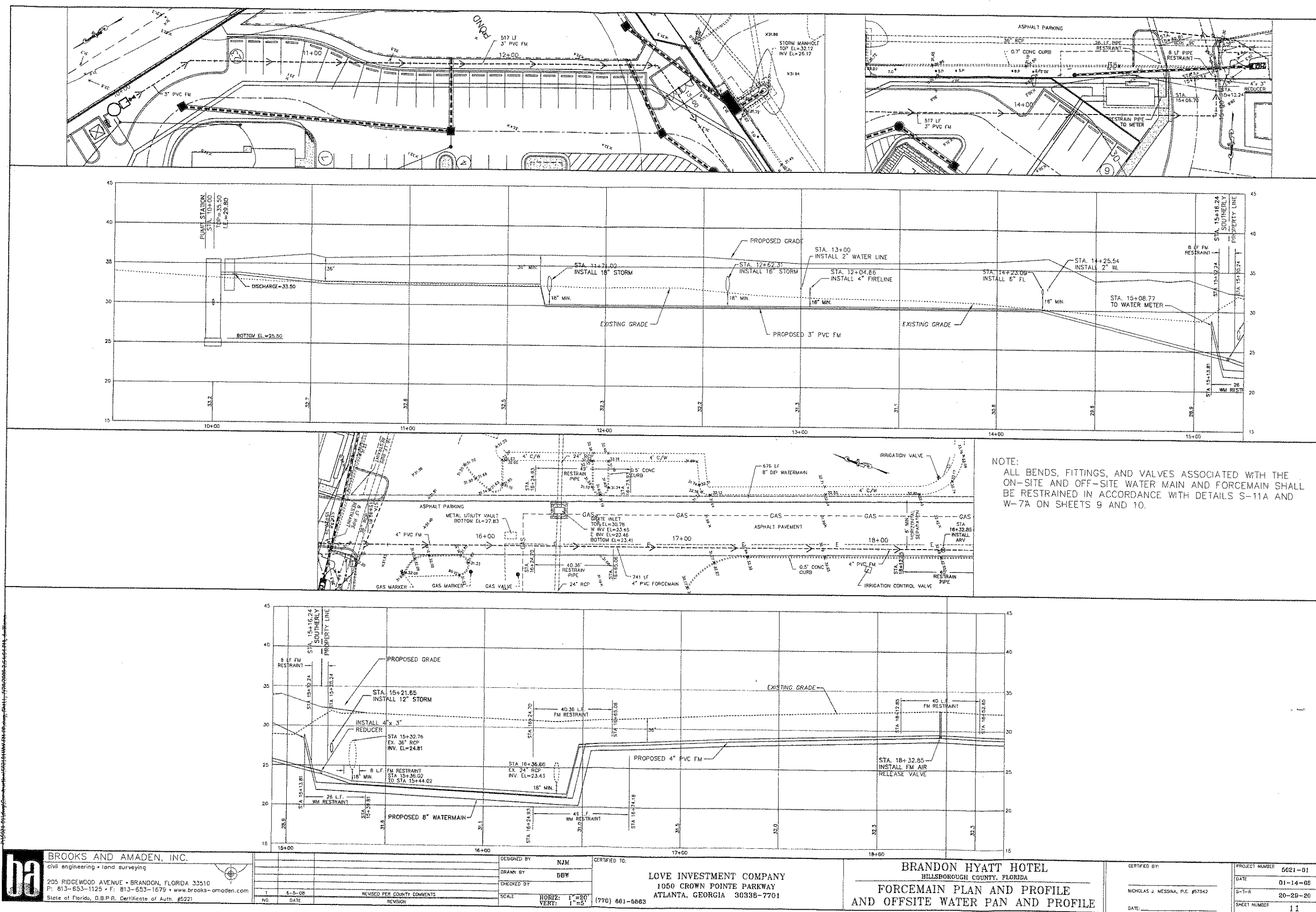
08/07  
SCALE: N.T.S.

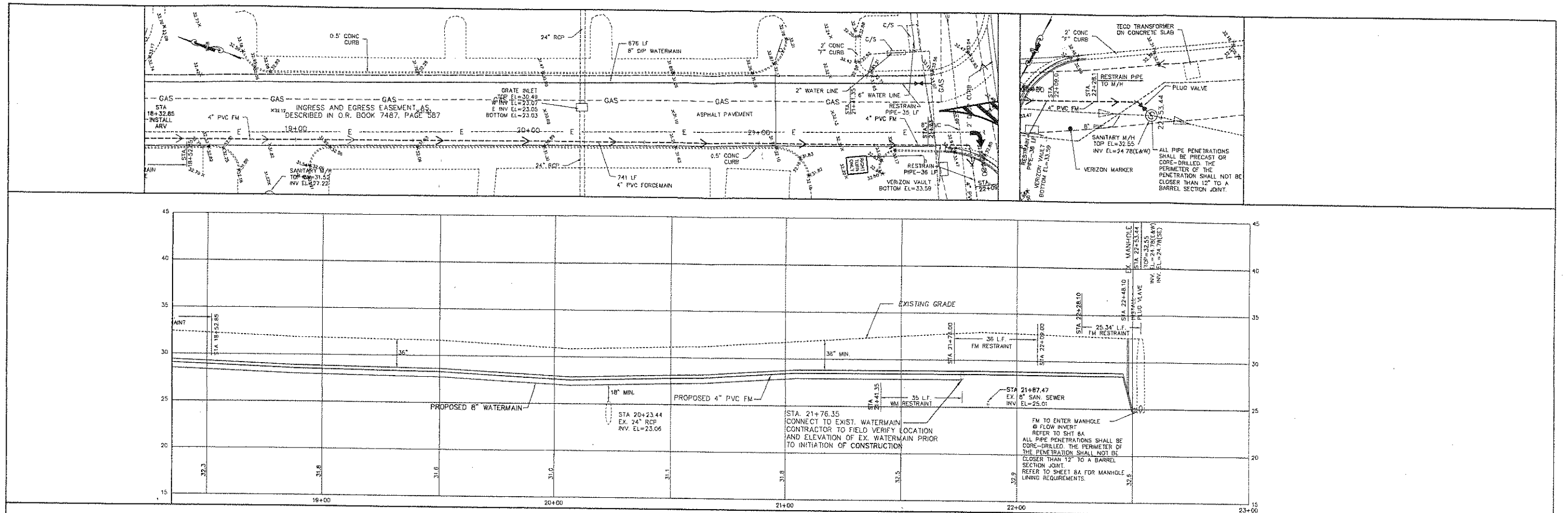


**AIR RELEASE VALVE  
ASSEMBLY-OFFSET  
HILLSBOROUGH COUNTY, FLORIDA**

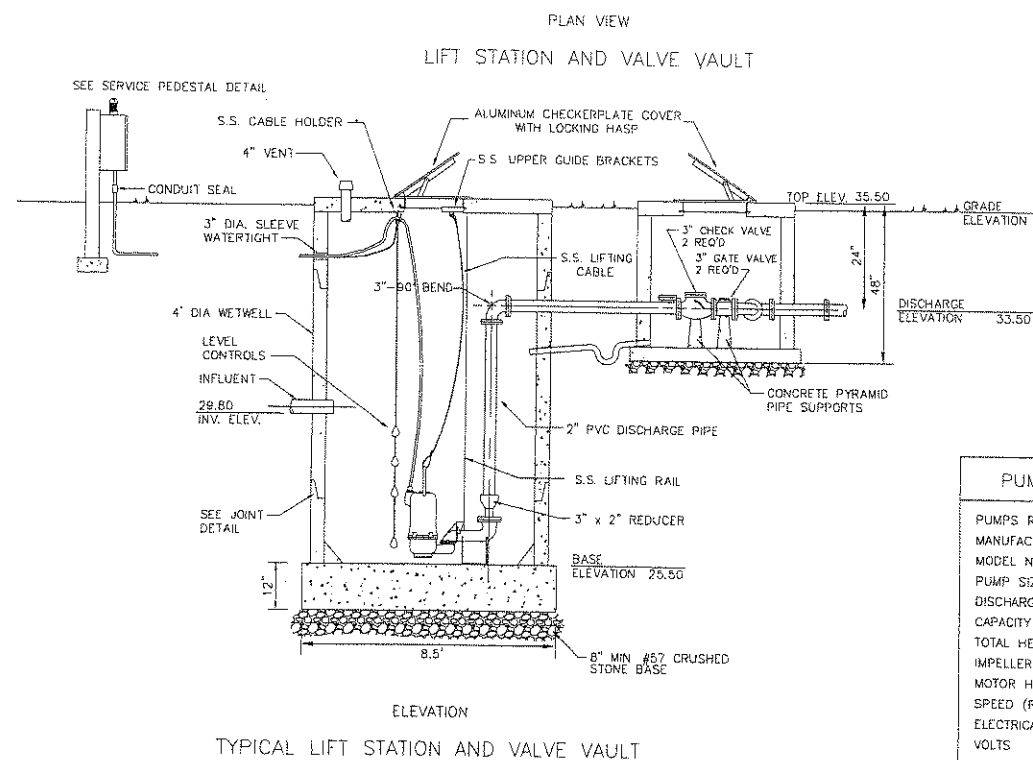
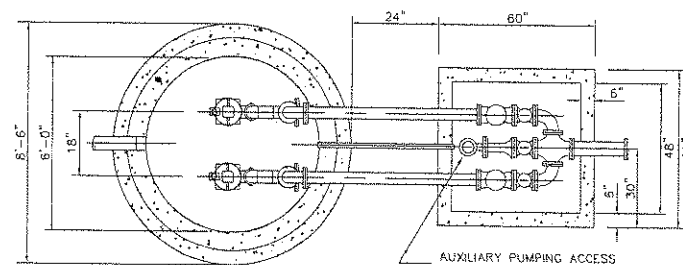
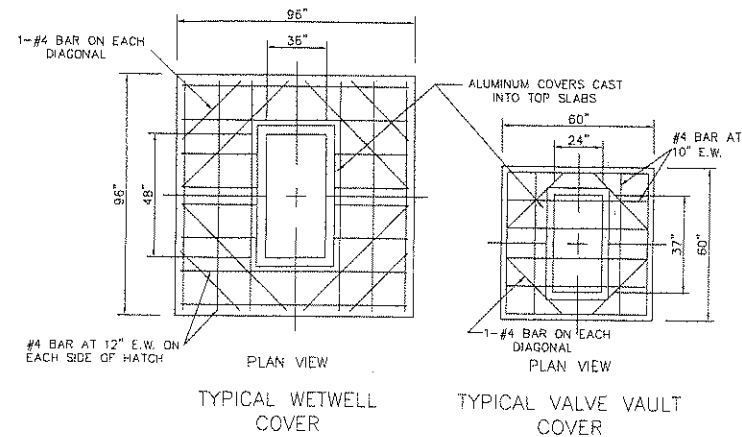
08/07  
SCALE: N.T.S.





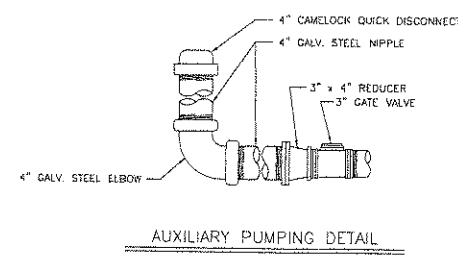
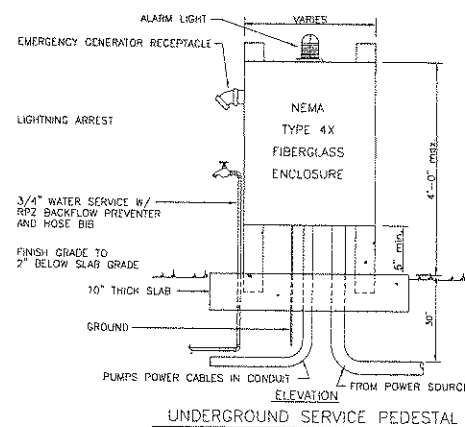
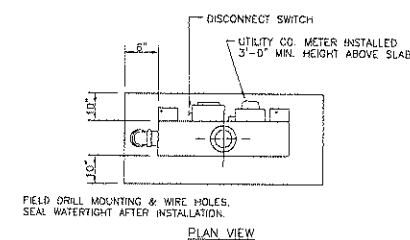
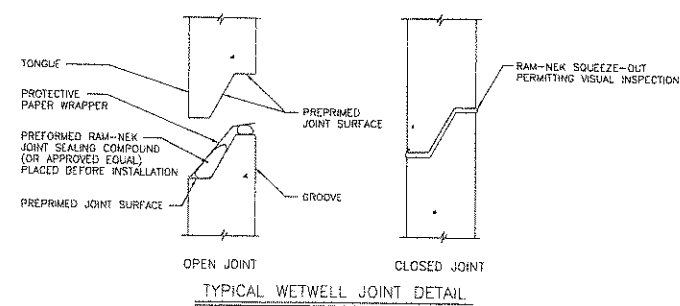


NOTE:  
ALL BENDS, FITTINGS, AND VALVES ASSOCIATED WITH THE  
ON-SITE AND OFF-SITE WATER MAIN AND FORCEMAIN SHALL  
BE RESTRAINED IN ACCORDANCE WITH DETAILS S-11A AND  
W-7A ON SHEETS 9 AND 10.



PUMP SPECIFICATIONS	
PUMPS REQUIRED	2
MANUFACTURER	HYDROMATIC
MODEL NUMBER	MPGF
PUMP SIZE/TYPE	GRINDER
DISCHARGE PIPE SIZE	2"
CAPACITY EACH (GPM)	70.5
TOTAL HEAD (FEET)	22.1
IMPELLER DIAMETER	7.0"
MOTOR HP REQUIRED	3
SPEED (RPM)	1750
ELECTRICAL	3 PHASE
VOLTS	200/208
AMPS	10.9

POINT OF OPERATION : 70.5 GPM @ 22.1' TDH



ELEVATIONS:

ALARM	<u>29.30</u>
BOTH PUMPS ON	<u>29.05</u>
LEAD PUMP ON	<u>28.55</u>
BOTH PUMPS OFF	<u>28.05</u>

1. Wellseil shall be a minimum 5.0' inside diameter precast concrete meeting Standard Specifications for Precast Concrete Manhole, A.S.T.M. C-487-68, latest revision. Concrete shall be made with Type 2 acid resistant cement and shall attain a compressive strength of 4000 psi at 28 days. Joint shall be sealed with Rom-nek (or approved equal) flexible sealer conforming to Federal Specification SS-S-00210. Valve vault and lift station shall be constructed on a minimum 6" crushed stone.
  2. Pumps shall be Pump Model Hydromatic Grier 60 Hz with 2 discharge, 1 H.P. 200/200 volts, 3 phase, 1750 rpm, with 7 inch impeller, to meet conditions of 20.0 gpm at 22.1 ftm and shall include 2 stainless steel guide rails and a BPI Front Load Duplex Rail System. Each pump must be furnished with a spare upper and lower mechanical seal.
  3. Level controls shall be Model 3900 mercury switch liquid level regulators each provided with 30 ft. electric cable and weights as manufactured by Hydramatic.
  4. Wellseil access cover shall have a clear opening of 36" x 48" (minimum) and double door access as manufactured by Holliday Products (or approved equal). Access frames and covers shall be fabricated of aluminum. Frame shall support guide rails and cable holder to electrical wiring. Cable holder shall be constructed of stainless steel. Covers shall be provided with lifting handle and safety latch to hold cover in the open position. Lacking hasps shall be furnished with each cover. Stainless steel hardware shall be used throughout. All surfaces in contact with concrete shall have a shop coat of zinc chromatic primer, approved alkali resistant paint, or other approved protective coating. Cover must be compatible with pumps.
  5. Valve vault access cover shall have a clear opening of 24" x 37" as manufactured by Holliday Products (or approved equal). Door leaf shall be  $\frac{1}{2}$ " aluminum diamond pattern plate, to withstand a live load 150 psf. Channel frame shall be  $\frac{1}{2}$ " aluminum with an anchor flange around the perimeter. Cover shall be provided with a lifting handle and safety latch to hold cover in the open position. A locking hasp shall be furnished with each cover. Stainless steel hardware shall be used throughout. All surfaces in contact with concrete shall have a shop coat of zinc chromatic primer, approved alkali resistant paint or other approved protective coating.
  6. Electrical service entrance shall be provided with meter socket and main disconnect meeting applicable electric codes and requirements of power company. Lightning and voltage surge protection shall be provided.
  7. Control panel shall be equipped with individual disconnects, across the line magnetic starters, three pole overload protection, electrical alternator, automatic transfer to non-operating pump, overload resets, H-O-A pump operating selector switch, elapsed time meters for each pump and terminal board with connections for high level alarms. All components shall be housed in a Nemo 4x fiberglass enclosure with aluminum dead front inner door design. Provisions for padlocking panel shall be provided.
  8. Ductile iron discharge pipe shall be minimum Class 52
- OPTIONAL EQUIPMENT
9. Paint: Inside of wellseil shall be painted with two coats of "Povitor" (or approved equal) applied per manufacturer's recommendation.
  10. Valve Vault shall be precast concrete 60" x 80" outside dimension.
  11. Steel placed in bottom slab is identical to top slab except that diagonal bars and openings are eliminated, steel is continuous and slab is solid.
  12. Contractor to confirm service arrangements with power company before commencing work. Contractor to run underground wiring to nearest transformer or handhole.
  13. Force main piping from outside valve vault on is as specified on plans.

GENERAL NOTES

1. All fasteners on flanges, etc. inside wetwell shall be stainless steel.
2. Dimensions between centerline of pipes are standard for pipe sizes specified.
3. Shop drawings for entire installation must be approved by the Engineer prior to placement of materials order.

DUPLEX CONTROL PANEL - FLOAT CONTROL TYPE

BASIC PANEL INCLUDES THE FOLLOWING:

- 1 - Nemo-4x Hoffman fiberglass enclosure
- 1 - Dead front aluminum inner door
- 2 - Motor circuit breakers
- 1 - Control circuit breaker
- 2 - FVNR Nemo motor starters
- 6 - Overload heaters
- 2 - Overload reset buttons
- 2 - H-O-A selector switches
- 1 - Motor run lights
- 1 - alternator relay
- 1 - Lot assorted terminals, wiring, conduit and fasteners as required
- 1 - Ground lug
- 1 - Neutral block
- 1 - Main and emergency generator receptacle - generator receptacle to be 100 amp Russell and Stoll Model No. JRSB1044FR
- 1 - High level alarm light and horn with silencing switch
- 2 - Elapsed time meters, non-resettable type to record accumulated running time
- 1 - GFI convenience receptacle, plug-in 120 volt with ground fault protection
- 1 - Lightning arrester
- 1 - Voltage surge protection device

All circuit breakers and overload resets mounted through inner door. H-O-A switches, run lights, elapsed time meters, and convenience receptacle mounted on inner door.

NOTE:  
THIS IS A PRIVATELY OWNED AND MAINTAINED PUMP STATION.



# WASTEWATER PUMP STATION DESIGN PARAMETERS

## BRANDON HYATT HOTEL & RESTAURANT

WASTEWATER PUMPING STATION

### I. SERVICE AREA

151 ROOM HOTEL AND 3,000 S.F. RESTAURANT

### II. DESIGN CAPACITY

A. AVERAGE DAILY FLOW		
15,100 HOTEL FLOWS	=	15,100 GPD
8,000 RESTAURANT FLOWS	=	8,000 GPD
TOTAL	=	23,100 GPD
B. PEAK HOUR FLOW (PEAK FACTOR = 4.39)		
23,100 GPD x 4.39	=	70.5 GPM
1440		
C. DESIGN MINIMUM FLOW		
23,100 GPD x 0.20	=	3.2 GPM
1440		
MINIMUM REQUIRED PUMP CAPACITY	=	70.5 GPM

### III. WETWELL DESIGN (DUPLEX SYSTEM)

#### A. DESIGN CRITERIA

1. MAXIMUM PUMP MOTOR CYCLE RATE = 6 STARTS PER HOUR
2. MAXIMUM DETENTION TIME AT MINIMUM FLOW = 85 MINUTES

#### B. PUMP CONTROL LEVEL SETTINGS

1. PUMP CYCLING RATES ARE AT A MAXIMUM WHEN INFLOW EQUALS ONE-HALF THE DESIGN PUMPING RATE OF 70.5 GPM.
2. WETWELL VOLUME REQUIRED BETWEEN LEAD PUMP START AND PUMP SHUT OFF LEVEL =  

$$V = \frac{\text{CYCLE PERIOD} \times 1/2 \text{ PUMP RATE}}{4}$$

$$V = \frac{10 \text{ MIN.} \times 35.25 \text{ GPM}}{4} = 80.2 \text{ GALLONS}$$
3. WETWELL DIAMETER = 6 FEET  
WETWELL VOLUME = 211 GALLONS/FOOT DEPTH
4. WETWELL LEVEL CHANGE BETWEEN PUMP STOP AND LEAD PUMP START =  

$$\frac{80.2}{211} = 0.42 \text{ FT. DESIGN FOR } 6 \text{ INCHES}$$

#### 5. CONTROL ELEVATIONS

BOTTOM	EL. 25.50
ALL PUMPS OFF	EL. 26.05
LEAD PUMP ON	EL. 26.55
LAG PUMP ON	EL. 29.05
HIGH WATER ALARM	EL. 29.30
INFLUENT INVERT	EL. 29.80
TOP OF SLAB	EL. 35.50

### IV. SYSTEM CURVE CALCULATIONS

#### A. FRICTION LOSS:

##### 1. PUMPING STATION PIPING (INCLUDES ON-SITE 3" TO THE PL)

ITEM	SIZE (INCHES)	QUANTITY	FRICTION LOSS (eq.)	TOTAL
a. TEE	3"	3	0.1	0.3
b. 90° ELBOW	3"	1	20.0	20.0
c. CHECK VALVE	3"	1	1.7	1.7
d. GATE VALVE	3"	1	17.0	17.0
e. SIDE OUTLET CROSS	3"	1	3.6	3.6
f. WYE	3"	1	44.3	44.3
g. OTHER: 45° ELBOW	3"	3	3.6	11.4
TOTAL				74.4
PIPE LENGTH				518.1
TOTAL EQUIVALENT LENGTH				590.5

##### 2. FORCE MAIN PIPING: (OFF-SITE 4")

ITEM	SIZE (INCHES)	QUANTITY	FRICTION LOSS (eq.)	TOTAL
a. TEE	4"	2	11.0	22.0
b. 90° ELBOW	4"	1	2.3	2.3
c. CHECK VALVE	4"	1	5.0	5.0
d. GATE VALVE	4"	1	44.3	44.3
e. SIDE OUTLET CROSS	4"	1	3.6	3.6
f. WYE	4"	1	44.3	44.3
g. OTHER: 45° ELBOW	4"	4	3.6	14.4
TOTAL				74.0
PIPE LENGTH				740.7
TOTAL EQUIVALENT LENGTH				785.0

#### B. STATIC HEAD:

1. PIPE CENTER LINE AT DISCHARGE POINT = ELEV. 33.50 FT. \* GRAVITY DISCHARGE AT ELE. 26.1
2. LOW WATER LEVEL (ALL PUMPS OFF) = ELEV. 26.05 FT.
3. TOTAL STATIC HEAD (B1-B2) = 5.45 FT.

#### C. PRESSURE AT POINT OF CONNECTION:

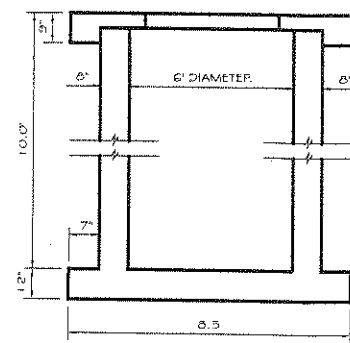
\*GRAVITY DISCHARGE TO EXISTING COUNTY MANHOLE

D. C = 120

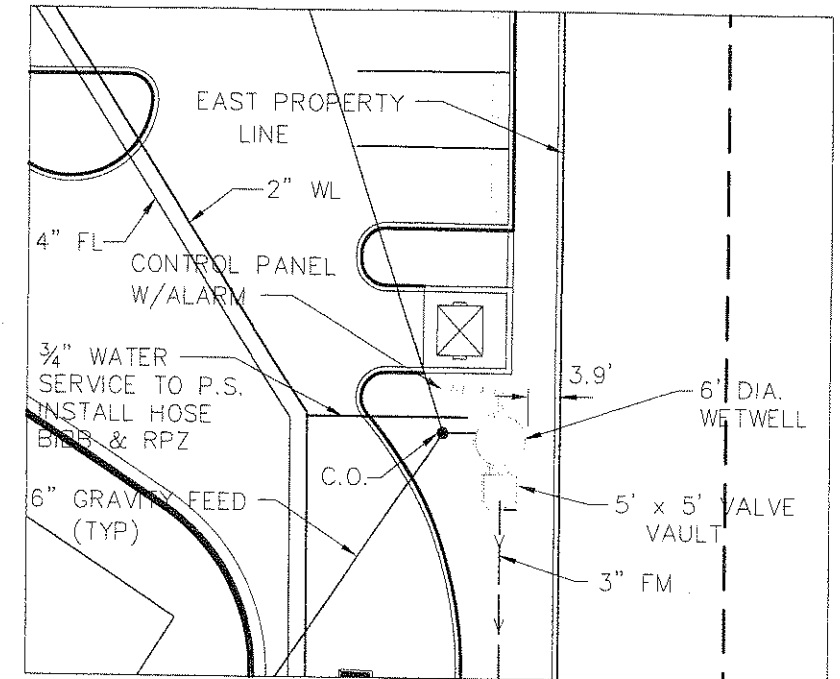
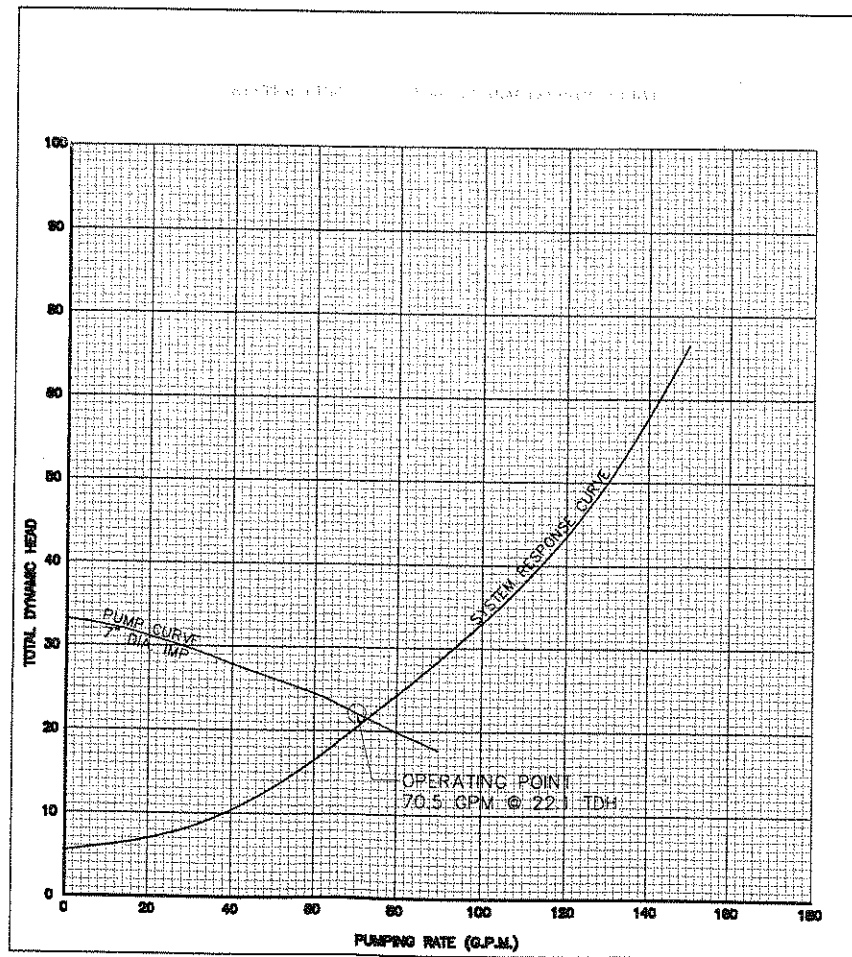
### SYSTEMS HEAD COMPUTATIONS - TOTAL FRICTION LOSSES IN FEET

Flow (GPM)	0	25	50	75	100	125	150
Static Head (ft.)	5.45	5.45	5.45	5.45	5.45	5.45	5.45
Friction Loss (ft.)	0.00	0.10	0.40	0.90	1.60	2.50	3.60
Total Head (ft.)	5.45	5.55	5.85	6.35	7.05	7.95	9.05

## FLOTATION CALCULATIONS CONCRETE WETWELL



7.33	6	10.0	=	20.667.7	↓
0.5	7.33	10.0	=	0.511.8	↓
0.5	7.33	10.0	=	0.7.86	↓
0.5	7.33	10.0	=	29.487.4	↓
0.5	7.33	10.0	=	29.672.6	↓



## SITE PLAN

SCALE: 1"=10'

NOTE:

SYSTEM HEAD VERSUS PUMP CAPACITY CURVES ARE TO BE SHOWN TO DETERMINE THE SYSTEM OPERATING CAPABILITY AT THE FOLLOWING CONDITIONS:

#### A. CONVENTIONAL PUMP STATION - FORCE MAIN (NON-MANIFOLDED)

1. ONE PUMP RUNNING, IF DUPLEX STATION
2. ONE PUMP AND TWO PUMPS RUNNING, IF TRIPLEX STATION, ETC.
3. IF FORCE MAIN PROFILE RESULTS IN SIPHON, CURVES SHALL SHOW OPERATION AT START-UP (TO HIGH POINT ONLY) AS WELL AS FULL FLOW CONDITIONS.

#### B. MANIFOLD PUMP STATIONS

ALL CONDITIONS OUTLINED UNDER (A) ABOVE, AND THE FOLLOWING ADDITIONAL CONDITIONS:

1. SIMULTANEOUS OPERATION OF ALL PUMP STATIONS ON SYSTEM
2. OPERATION WHILE ALL REMAINING STATIONS ARE OFF.

#### C. VARIABLE SPEED PUMP STATIONS

ALL APPLICABLE CONDITIONS UNDER (A) AND (B) ABOVE AND IN ADDITION:

1. OPERATION POINT, INCLUDING SPEED, AT PEAK, AVERAGE, AND MINIMUM FLOWS.

NOTE:

THIS IS A PRIVATELY OWNED AND MAINTAINED PUMP STATION.

## PUMP DATA

MAKE/MODEL: HYDROMAT-CHIEF GRINDER 200  
PUMP HP: 3 PHASE: 3  
PUMP IMP. NO.: 7" DIA.  
PUMP VOLTS: 200/205  
PUMP SPEED: 1750 RPM

DESIGNED BY:

REVIEWED BY: J. HENNING, P.E., (P)002  
DATE:

PROJECT NUMBER: 0001-01

DATE: 8-11-08

DATE: 08-08-08

DATE: 14

MAP OF SURVEY  
SECTION 20, TOWNSHIP 29 SOUTH, RANGE 20 EAST, HILLSBOROUGH COUNTY, FLORIDA

CURVE TABLE						
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD	BEARING
C1(C)	163.06'	1815.86'	5°08'42"	81.58'	163.06'	N34°47'16"E
C2(C)	95.93'	336.00'	16°21'28"	48.29'	95.60'	N49°21'11"E

LEGEND

FD	FOUND
IR	IRON ROD
IP	IRON PIPE
PIP	PINCHED IRON PIPE
P	PLAT
M	MEASURED
C	CALCULATED
R/W	RIGHT-OF-WAY
LB	LICENSED BUSINESS
TBM	TEMPORARY BENCHMARK
WDF	WOOD FENCE
CLF	CHAIN LINK FENCE
BWF	BARBED WIRE FENCE
CONC	CONCRETE
C/S	CONC SLAB
C/P	CONC PORCH
C/W	CONC WALK
A/C	AIR CONDITIONER
MP	METAL PIPE
G/W	GUY WIRE
CMP	CORRUGATED METAL PIPE
EOP	EDGE OF PAVEMENT
RCP	REINFORCED CONC PIPE
TYP	TYPICAL
TOB	APPROXIMATE TOP OF BANK
EL	ELEVATION
IR	IRRIGATION BOX
INV	INVERT
X 45.4	EXISTING ELEVATION
U	UTILITY POLE
SW	STORMWATER MANHOLE
SWWD	SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
SHW	SEASONAL HIGH WATER
A	WETLAND POINT

WETLAND AREA TABLE

WETLAND	AREA(S.F./MOL)	LINEAR FEET
A	3,359	140.31
B	17,139	584.25
TOTALS	20,498	724.56

TREE LEGEND

O	OAK TREE
P	PINE TREE
OP	QUEEN PALM
BC	BLACK CHERRY TREE
DIS	DISTRESSED TREE
11.0	11" OAK TREE
o	TREE
o	OAK TREES 24"-33"
o	OAK TREES 34" & LARGER

LEGAL DESCRIPTION:

THAT PART OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 29 SOUTH, RANGE 20 EAST, HILLSBOROUGH COUNTY, FLORIDA, LYING SOUTH AND EAST OF STATE ROAD 93-A (I-75) AS SHOWN ON THE RIGHT-OF-WAY MAP FOR SECTION 10075-2407, LESS THE EAST 110.53 FEET THEREOF.

AND

THAT PART OF THE EAST 110.53 FEET OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 29 SOUTH, RANGE 20 EAST, HILLSBOROUGH COUNTY, FLORIDA, LYING SOUTH AND EAST OF STATE ROAD 93-A (I-75), AS SHOWN ON THE RIGHT-OF-WAY MAP FOR SECTION 10075-2407.

SURVEYOR'S NOTES:

- NO UNDERGROUND INSTALLATIONS OR IMPROVEMENTS HAVE BEEN LOCATED, EXCEPT AS SHOWN.
- NO INSTRUMENTS OF RECORD REFLECTING EASEMENTS, RIGHTS-OF-WAY, AND/OR OWNERSHIP WERE FURNISHED THIS SURVEYOR, EXCEPT AS SHOWN. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT OR OWNERSHIP AND ENCUMBRANCE REPORT.
- LEGAL DESCRIPTION SHOWN HEREON WAS OBTAINED FROM CLIENT AND BASED ON A PREVIOUS SURVEY PREPARED BY G.H. INC., DATED SEPTEMBER 8, 1997.
- BEARINGS SHOWN HEREON ARE BASED ON THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY MAPS (SECTION No. 10075-2407) HAVING A BEARING OF SOUTH 00°05'19" WEST FOR THE EAST BOUNDARY OF SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 29 SOUTH, RANGE 20 EAST, HILLSBOROUGH COUNTY, FLORIDA.
- TRACT SURVEYED HEREON CONTAINS 4.77 ACRES, MORE OR LESS.
- ELEVATIONS SHOWN HEREON ARE IN FEET AND REFER TO N.A.V.D. OF 1988.
- BENCHMARK: HILLSBOROUGH COUNTY BENCHMARK "MEMORIAL 2" BEING A STANDARD DISK SET IN A CONCRETE MONUMENT LOCATED AT THE SOUTHEAST CORNER OF STATE ROAD 60 AND INTERSTATE 75. ELEVATION = 39.01 FEET (N.A.V.D. OF 1988).
- ADD 0.85 FEET TO N.A.V.D. 1988 ELEVATIONS TO CONVERT TO N.G.V.D. 1929 ELEVATIONS.

F.I.R.M. CERTIFICATION:

THE PROPERTY SURVEYED HEREON IS SITUATED IN ZONE "C" AS DELINEATED ON FLOOD INSURANCE RATE MAP PANEL NO. 120112 0360 E, DATED AUGUST 15, 1989.

SURVEYOR'S CERTIFICATE:

THIS CERTIFIES THAT A SURVEY OF THE PROPERTY DESCRIBED HEREON WAS MADE UNDER MY SUPERVISION AND THAT THE DRAWING HEREON IS A TRUE AND ACCURATE REPRESENTATION THEREOF AND MEETS THE MINIMUM TECHNICAL STANDARDS FOR SURVEYS SET FORTH BY THE FLORIDA BOARD OF LAND SURVEYORS PURSUANT TO SECTION 472.027, FLORIDA STATE STATUTES.

WALTER C. SHERRILL, JR.  
P.S.M. No. 4803

THIS SURVEY NOT VALID UNLESS IMPRINTED WITH AN EMBOSSED SURVEYOR'S SEAL

PATH: P:\0021-01\Draw\Survey\502101\Svy-Design.dwg, PLOT DATE: 9-5-08

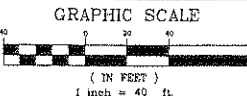
**ba** BROOKS AND AMADEN, INC.  
civil engineering • land surveying  
205 RIDGEWOOD AVENUE • BRANDON, FLORIDA 33510  
P: 813-653-1125 • F: 813-653-1679 • www.brooks-amaden.com  
State of Florida, D.B.P.R. Certificate of Auth. #5221

NO.	DATE	REVISION
1	9-1-08	ADDED WETLAND INFORMATION

PARTY CHIEF	DL
DRAWN BY	JHK
CHECKED BY	
SCALE	1" = 40'

LOVE FUNDING CORPORATION  
1050 CROWN POINTE PARKWAY  
ATLANTA, GA 30338-7701

BOUNDARY, OCCUPATION, TOPOGRAPHIC  
AND TREE LOCATION SURVEY



PROJECT NUMBER	5021-01
DATE	5-26-08
S-T-R	20-29-20
SHEET NUMBER	1 OF 1