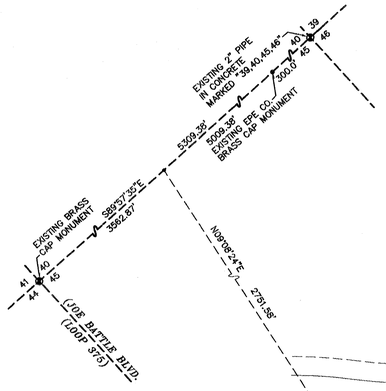
SOMBRAS DEL SOL UNIT TWO

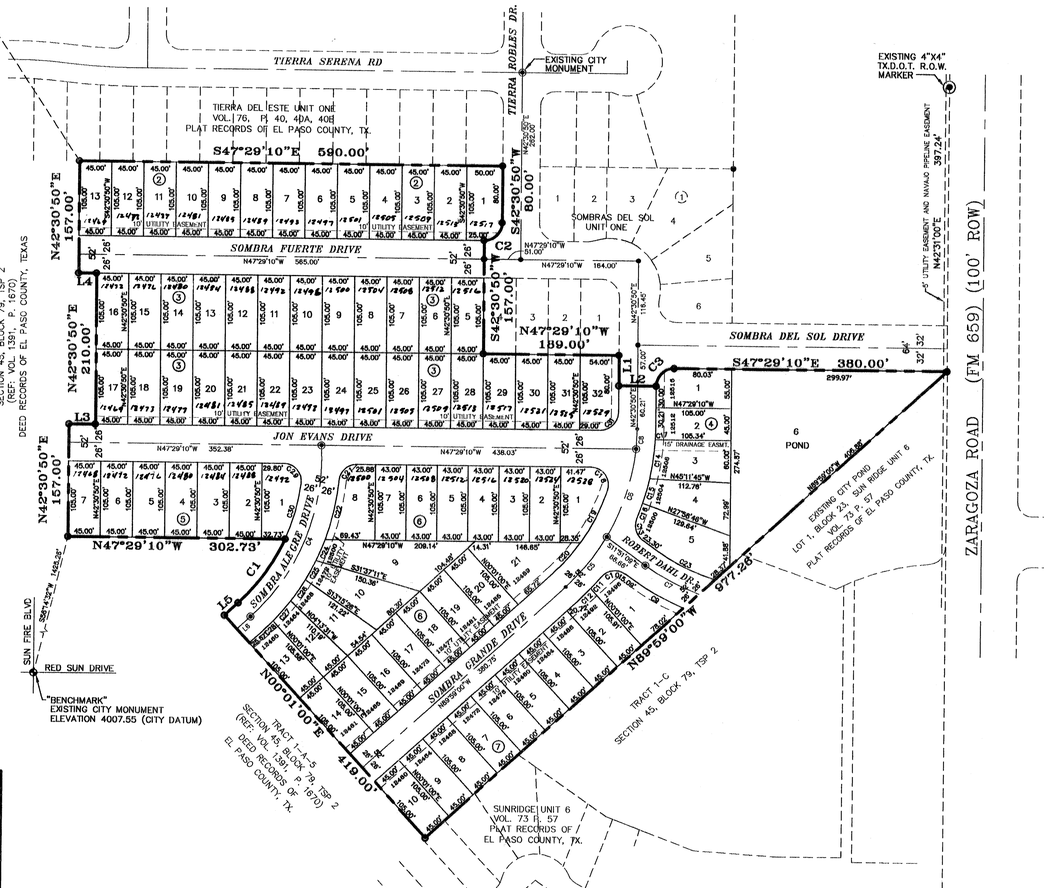
BEING A PORTION OUT OF TRACT 1A5, SECTION 45, BLOCK 79 TOWNSHIP 2, TEXAS AND PACIFIC RAILROAD SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS, CONTAINING 13.44 ACRES ±

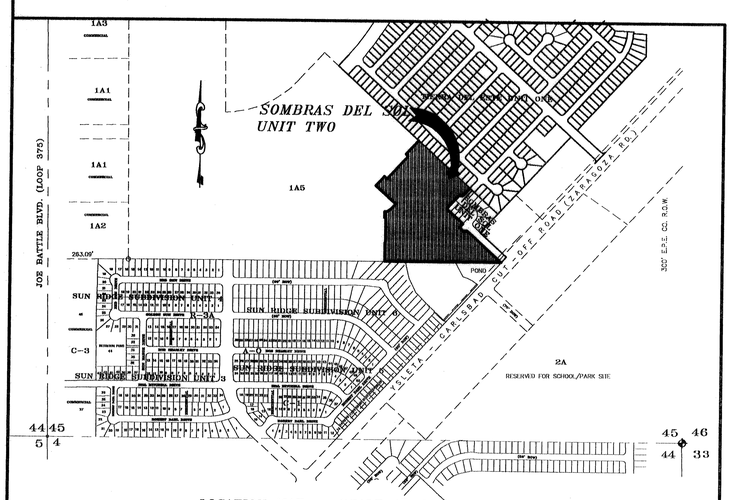
SCALE: 1" = 100'



CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	274.00	111.16	56.35	110.40	N78°24'28"E	23°14'39"
C2	25.00	39.27	25.00	35.36	N87°30'50"E	90°00'00"
C3	25.00	39.27	25.00	35.36	S87°30'50"W	90°00'00"
C4	300.00	267.04	143.09	258.31	N64°30'14"E	51°00'02"
C5	300.00	90.31	45.50	89.97	N81°23'33"E	17°14'55"
C6	300.00	130.03	66.05	129.02	N60°21'04"E	24°50'03"
C7	300.00	84.59	42.58	84.31	S19°55'50"E	16°09'22"
C8	300.00	28.38	14.20	28.37	N45°13'26"E	5°25'12"
C9	326.00	78.23	39.31	78.05	S18°43'39"E	13°45'00"
C10	25.00	37.64	23.42	34.18	N54°59'03"W	86°15'48"
C11	326.00	21.97	10.99	21.97	N83°48'53"E	3°51'40"
C12	326.00	24.30	12.16	24.30	N87°52'52"E	4°16'17"
C13	25.00	33.59	19.88	31.12	S26°38'00"W	76°58'19"
C14	326.00	56.05	28.09	55.98	N50°02'19"E	9°51'01"
C15	326.00	35.53	17.78	35.51	N58°05'11"E	6°14'42"
C16	326.00	22.25	11.13	22.25	N63°09'51"E	3°54'38"
C17	326.00	14.79	7.40	14.79	N43°48'50"E	2°35'59"
C18	25.00	47.38	34.78	40.60	N06°48'13"E	108°34'47"
C19	274.00	81.19	40.90	80.90	N69°34'57"E	16°58'41"
C20	274.00	57.12	28.67	57.02	N84°02'39"E	11°56'42"
C21	25.00	36.94	22.77	33.67	N89°49'08"W	84°39'56"
C22	326.00	84.65	42.56	84.41	N55°17'14"E	14°52'40"
C23	274.00	91.30	46.08	90.88	S21°23'53"E	19°05'28"
C24	326.00	32.04	16.03	32.02	N65°32'28"E	5°37'49"
C25	326.00	30.94	15.48	30.93	N71°04'32"E	5°26'19"
C26	326.00	30.97	15.50	30.96	N76°30'58"E	5°26'33"
C27	326.00	37.12	18.58	37.10	N83°20'55"E	6°31'27"
C28	326.00	19.31	9.66	19.31	N88°18'27"E	3°23'36"
C29	25.00	42.56	28.52	37.60	N01°16'45"E	97°31'49"
C30	274.00	80.06	40.32	79.78	N58°24'54"E	16°44'29"
C31	25.00	39.27	25.00	35.36	N87°30'50"E	90°00'00"

LINE TABLE		
LINE	BEARING	LENGTH
L1	S42°30'50"W	42.45
L2	S47°29'10"E	52.00
L3	S47°29'10"E	36.75
L4	N47°29'10"W	25.00
L5	S89°59'00"E	25.57
L6	N89°59'00"W	25.57





LOCATION MAP SCALE 1"=600

This is to certify that water and sewer services will be provided to SOMBRAS DEL SOL UNIT TWO by the El Paso Water Utilities/Public Service Board in accordance with their Rules and Regulations and with Chapter 16.343 of the El Paso Municipal Code. Water and sewer services will be extended to the subdivision from existing facilities located on TIERRA ROBLES DR. and ROBERT DAHL DR. and will be constructed to serve the subdivision on U.P. 2002

Restrictive covenants for this subdivion are filed in the office of the County Clerk, Deed and Record Section, instrument No. 20020074734
Book No. _____, Page No. _____, Date 9-19-2002.

Tax Cerificate(s) for this subdivision are filed in the office of the County Clerk, Deed and Record Section, instrument No. 20020074735
Book No. _____, Page No. _____, Date 9-19-2002.

NOTES:

1. THIS PROPERTY LIES WITHIN SOCORRO INDEPENDENT SCHOOL DISTRICT.
2. THIS PROPERTY LIES IN ZONE "X", AS DESIGNATED BY F.I.A, CITY OF SEPTEMBER 4, 1991, COMMUNITY PANEL NO. 480212-0175B
3. "U.S. POSTAL SERVICE DELIVERY WILL BE PROVIDED THROUGH NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS"
4. LOT CORNERS WILL BE SET UPON COMPLETION OF CONSTRUCTION OF ROADWAYS AND UTILITIES.

◉ DENOTES PROPOSED CITY MONUMENT

D E D I C A T I O N

STATE OF TEXAS
COUNTY OF EL PASO

I JNC LAND CO. INC. property owner of this land, hereby presents this plat and dedicates to the use of the public the street rights-of-way, the pond, utility and drainage easements, as hereon laid down and designated, including easements for overhang of service wires for pole type utilities, and buried service wires, conduits and pipes for underground utilities, and the right to ingress and egress for service and construction and the right to trim interfering trees and shrubs.

FOR DAVID BOMBACH, PRESIDENT
By: Carlos D. Bombach, Vice President

A C K N O W L E D G E M E N T

STATE OF TEXAS }
COUNTY OF EL PASO }

Before me, the undersigned Authority, on this day personally appeared DAVID BOMBACH, President of JNC LAND CO. INC. known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein stated.

This instrument was acknowledge before me this 19th day of Aug., 2002 by Carlos D. Bombach

Notary Public in and for the State of Texas.
My Commission expires 9-15-2004

LAUREL R. SANTEE
NOTARY PUBLIC
In and for the State of Texas
My commission expires 09-15-2004

C I T Y P L A N C O M M I S S I O N

This subdivision is hereby approved as to the platting and as to the conditions of dedication in accordance with Chapter 212 of the Local Government Code of Texas this 14 day of FEB, 2002 A.D.

for Executive Secretary — Chairperson

Approved for filing this 26TH day of AUGUST, 2002 A.D.

Deputy Director for Building Services

F I L I N G

Filed and recorded in the office of the County Clerk of El Paso County, Texas, this 19 day of SEPT., 2002 A.D.

in Volume 77 of the Plat Records, Page 95, File No. 20020074733.

COUNTY CLERK — BY DEPUTY

This plat represents a survey made on the ground by me or under my supervision and complies with the current Texas Board of Professional Land Survey Professional and Technical Standards.

Prepared by and under the supervision of Andres A. Telles. P.E., R.P.L.S. Registered Professional Engineer, Texas No. 44140, Registered Professional Land Surveyor, Texas No. 3595

Andres A. Telles

STATE OF TEXAS — A. A. TELLES — 44140 — REGISTERED PROFESSIONAL ENGINEER
STATE OF TEXAS — ANDRES A. TELLES — 3595 — PROFESSIONAL LAND SURVEYOR

267-S

ATCON
Engineering & Surveying
2112 TRAWOOD SUITE B-1, EL PASO, TEXAS 79935. PHONE (195)-592-9878

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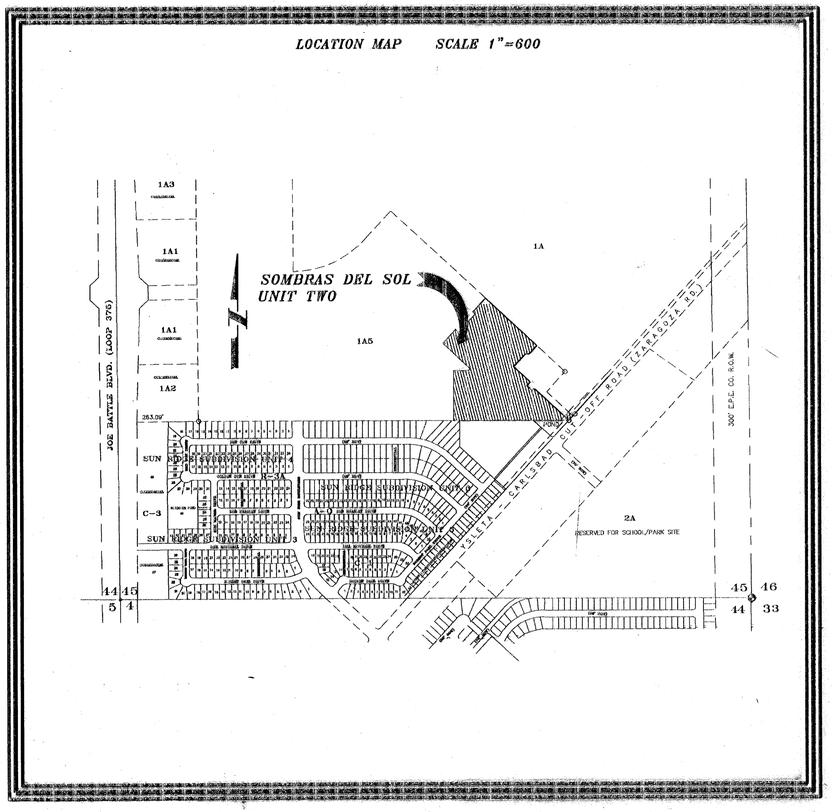
SOMBRAS DEL SOL
UNIT TWO
SUBDIVISION IMPROVEMENT PLANS

LOCATION MAP



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DRAINAGE PLAN	4
GRADING PLAN	5
POND DETAILS	6
DRAINAGE STRUCTURES	7
STORM WATER POLLUTION PREVENTION PLAN	8
CONSTRUCTION POLLUTION PREVENTION PLAN SITE INFORMATION AND SPECIFICATIONS	9
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ATCON ENGINEERING
ENGINEERING & SURVEYING
2112 TRAWOOD DRIVE, SUITE B – 1, EL PASO TEXAS, (915) 592-9878

STATE OF TEXAS
A. A. TELLES
44140
REGISTERED PROFESSIONAL ENGINEER

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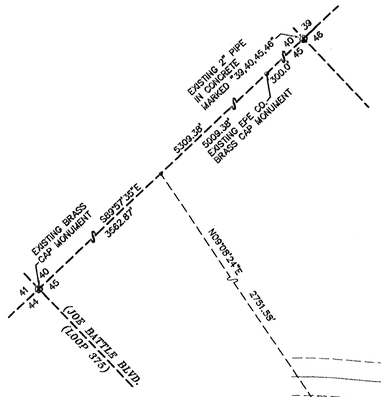
SOMBRAS DEL SOL UNIT TWO

BEING A PORTION OUT OF TRACT 1A5, SECTION 45, BLOCK 79 TOWNSHIP 2, TEXAS AND PACIFIC RAILROAD SURVEYS, CITY OF EL PASO, EL PASO COUNTY, TEXAS, CONTAINING 13.44 ACRES ±

SCALE: 1" = 100'



CURVE TABLE						
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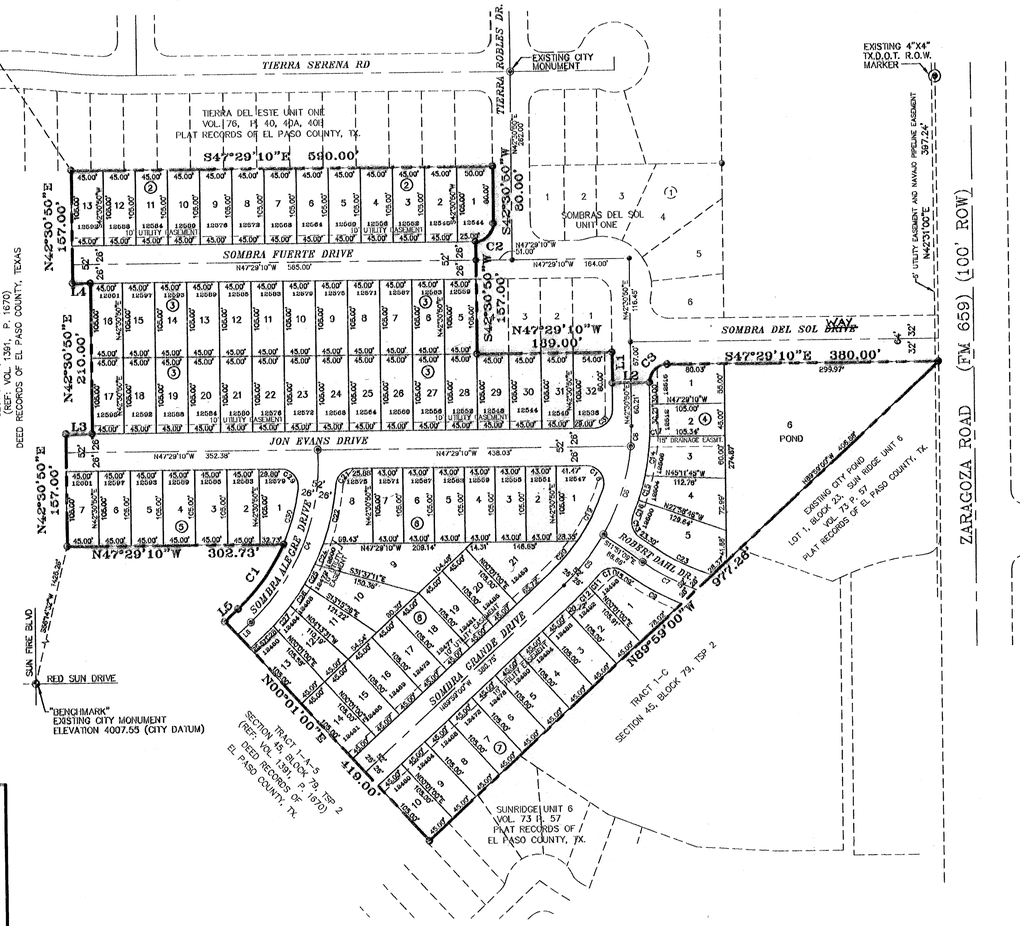
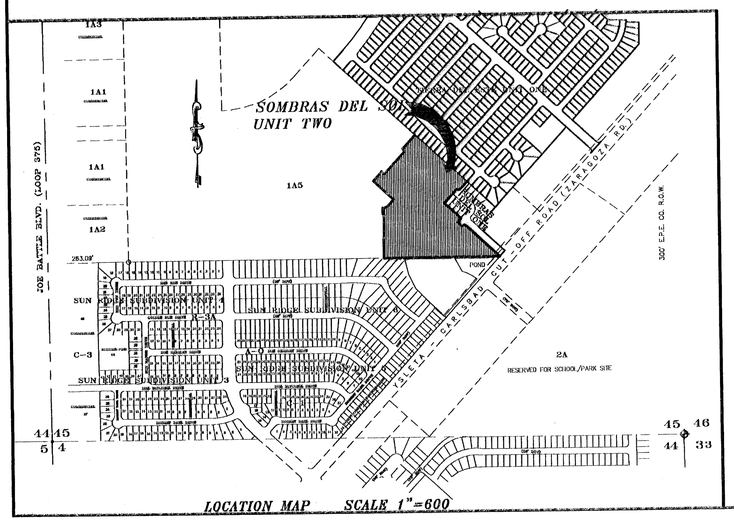
L6	N89°59'00"W	25.57





LOCATION MAP SCALE 1"=600

DEDICATION

STATE OF TEXAS
COUNTY OF EL PASO

I JNC LAND CO. INC. property owner of this land, hereby presents this plat and dedicates to the use of the public the street rights-of-way, the pond, utility and drainage easements, as hereon laid down and designated, including easements for overhang of service wires for pole type utilities, and buried service wires, conduits and pipes for underground utilities, and the right to ingress and egress for service and construction and the right to trim interfering trees and shrubs.

DAVID BOMBACH, PRESIDENT

ACKNOWLEDGEMENT

STATE OF TEXAS }
COUNTY OF EL PASO }

Before me, the undersigned Authority, on this day personally appeared DAVID BOMBACH, President of JNC LAND CO. INC. known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein stated.

This instrument was acknowledge before me this____day of _____, 20____ by _____.

Notary Public in and for the State of Texas.

My Commission expires _____

CITY PLAN COMMISSION

This subdivision is hereby approved as to the platting and as to the conditions of dedication in accordance with Chapter 212 of the Local Government Code of Texas this ____day of _____ 20____A.D.

Executive Secretary — Chairperson

Approved for filing this ____ day of _____, 20___ A.D.

Deputy Director for Building Services

FILING

Filed and recorded in the office of the County Clerk of El Paso County, Texas, this ____day of _____, _____A.D.

in Volume _____ of the Plat Records, Page _____, File No. _____.

COUNTY CLERK — BY DEPUTY

This plat represents a survey made on the ground by me or under my supervision and complies with the current Texas Board of Professional Land Survey Professional and Technical Standards.

Prepared by and under the supervision of Andres A. Telles. P.E., R.P.L.S. Registered Professional Engineer, Texas No. 44140, Registered Professional Land Surveyor, Texas No. 3595

Andres A. Telles

STATE OF TEXAS — A. A. TELLES — 44140 — REGISTERED PROFESSIONAL ENGINEER

This is to certify that water and sewer services will be provided to SOMBRAS DEL SOL UNIT TWO by the El Paso Water Utilities/Public Service Board in accordance with their Rules and Regulations and with Chapter 16.343 of the El Paso Municipal Code. Water and sewer services will be extended to the subdivision from existing facilities located on TIERRA ROBLES DR. and ROBERT DAHL DR. and will be constructed to serve the subdivision on _____

Restrictive covenants for this subdivion are filed in the office of the County Clerk, Deed and Record Section, Instrument No. _____ Book No. _____, Page No. _____, Date _____.

Tax Cerificate(s) for this subdivision are filed in the office of the County Clerk, Deed and Record Section, Instrument No. _____ Book No. _____, Page No. _____, Date _____.

NOTES:

1. THIS PROPERTY LIES WITHIN SOCORRO INDEPENDENT SCHOOL DISTRICT.
2. THIS PROPERTY LIES IN ZONE "X", AS DESIGNATED BY F.I.A, CITY OF SEPTEMBER 4, 1991, COMMUNITY PANEL NO. 480212-0175B
3. "U.S. POSTAL SERVICE DELIVERY WILL BE PROVIDED THROUGH NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS"
4. LOT CORNERS WILL BE SET UPON COMPLETION OF CONSTRUCTION OF ROADWAYS AND UTILITIES.

◎ DENOTES PROPOSED CITY MONUMENT

ATCON
Engineering & Surveying
2112 TIRAWOOD SUITE B-1, EL PASO, TEXAS 79935. PHONE (195)-592-9878

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600611

NORTH

REVISIONS		
DATE	DESCRIPTION	BY

BENCHMARK

EXISTING CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF SUNFIRE DRIVE AND RED SUN DRIVE.
ELEVATION: 4007.55 (CITY DATUM)

PROJECT NAME

SOMBRAS DEL SOL UNIT TWO

ATCON
Engineering & Surveying
2112 TRAWOOD SUITE B-1, EL PASO, TEXAS 79935.

SEAL

STATE OF TEXAS
A. A. TELLES
44140
REGISTERED
PROFESSIONAL ENGINEER

SCALE
1" = 100'

SHEET TITLE

LOT AREA PLAN

SHT 3 OF 17

DATE: 1-23-2002

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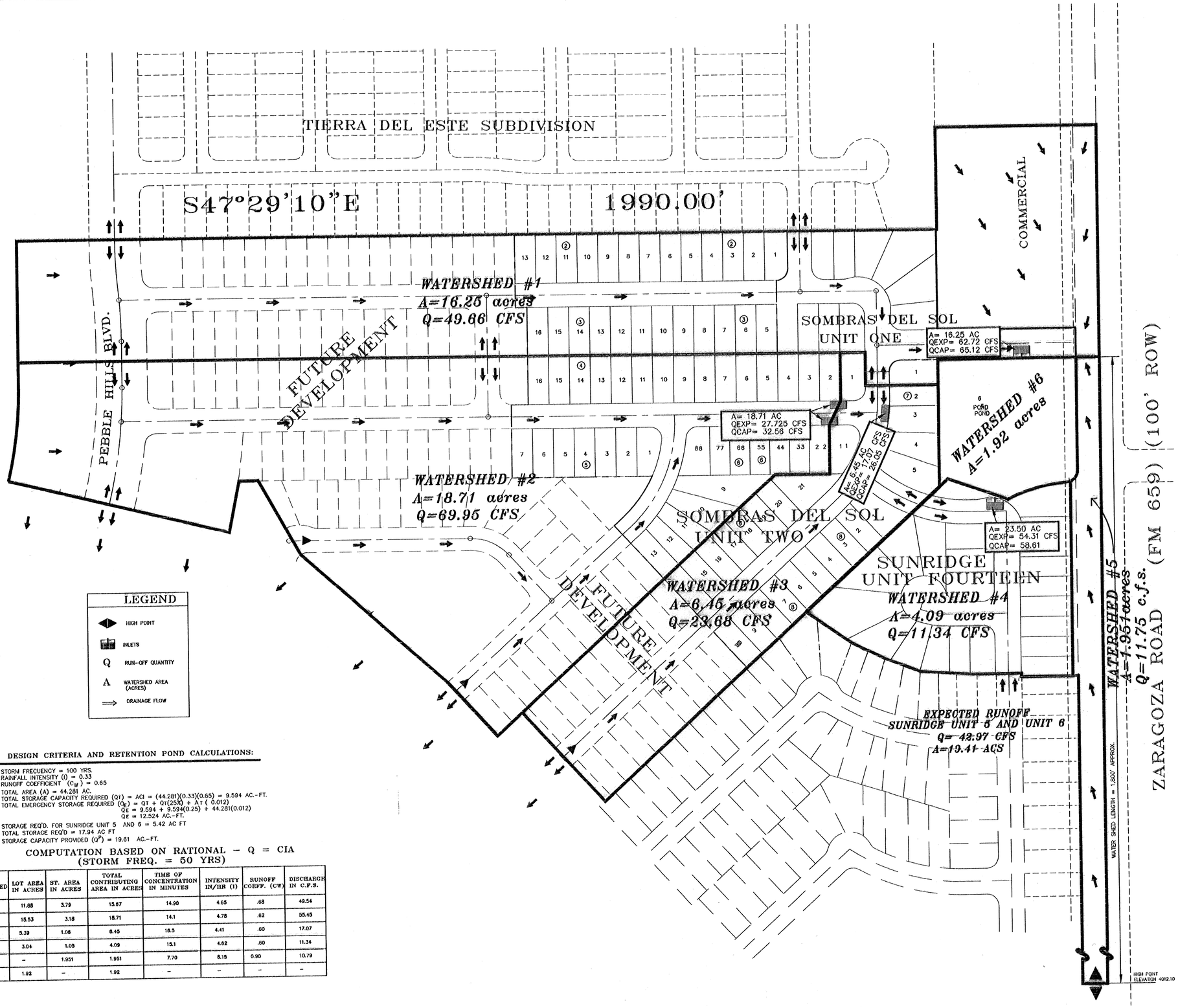

LEGEND

- HIGH POINT
- INLETS
- Q — RUN-OFF QUANTITY
- A — WATERSHED AREA (ACRES)
- DRAINAGE FLOW

DESIGN CRITERIA AND RETENTION POND CALCULATIONS:

STORM FREQUENCY = 100 YRS.
RAINFALL INTENSITY (I) = 0.33
RUNOFF COEFFICIENT (C_W) = 0.65
TOTAL AREA (A) = 44.281 AC.
TOTAL STORAGE CAPACITY REQUIRED (Q_T) = ACI = (44.281)(0.33)(0.65) = 9.594 AC.-FT.
TOTAL EMERGENCY STORAGE REQUIRED (Q_E) = QT + QT(25%) + AT (0.012)
Q_E = 9.594 + 9.594(0.25) + 44.281(0.012)
Q_E = 12.524 AC.-FT.

STORAGE REQ'D. FOR SUNRIDGE UNIT 5 AND 6 = 5.42 AC FT
TOTAL STORAGE REQ'D = 17.94 AC FT
STORAGE CAPACITY PROVIDED (Q^P) = 19.61 AC.-FT.

COMPUTATION BASED ON RATIONAL – Q = CIA
(STORM FREQ. = 50 YRS)

WATERSHED	LOT AREA IN ACRES	ST. AREA IN ACRES	TOTAL CONTRIBUTING AREA IN ACRES	TIME OF CONCENTRATION IN MINUTES	INTENSITY IN/HR (I)	RUNOFF COEFF. (CW)	DISCHARGE IN C.F.S.
1	11.88	3.79	15.67	14.90	4.65	.68	49.54
2	15.53	3.18	18.71	14.1	4.78	.62	55.45
3	5.39	1.06	6.45	16.5	4.41	.60	17.07
4	3.04	1.05	4.09	15.1	4.62	.60	11.34
5	–	1.951	1.951	7.70	8.15	0.90	10.79
6	1.92	–	1.92	–	–	–	–

REVISIONS		
DATE	DESCRIPTION	BY
5-22-02	FIRST CITY REDLINES	GR
8-02-02	SECOND CITY REDLINES	GR
8-12-02	THIRD CORRECTIONS	GR

BENCHMARK
EXISTING CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF RED SUN DRIVE AND SUN FIRE BLVD.
ELEVATION: 4007.55 (CITY DATUM)

PROJECT NAME
SOMBRAS DEL SOL UNIT TWO

ATCON
Engineering & Surveying
2112 TRAWOOD SUITE B-1, EL PASO, TEXAS 79935.

SEAL
STATE OF TEXAS
A. A. TELLES
44140
REGISTERED PROFESSIONAL ENGINEER

SCALES
HOR. AS SHOWN
VER. AS SHOWN

SHEET TITLE
DRAINAGE PLAN

SHT 4 OF 17

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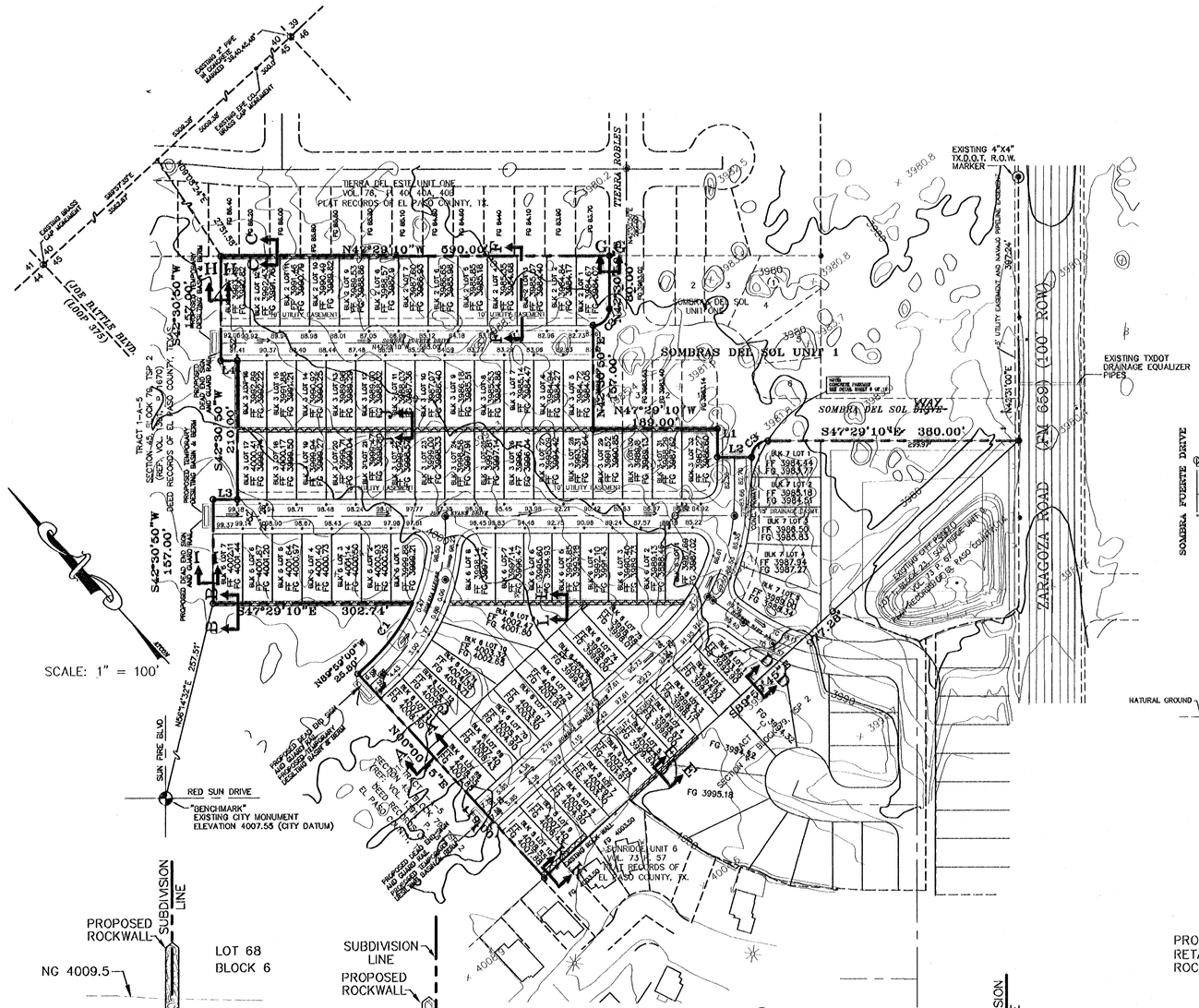
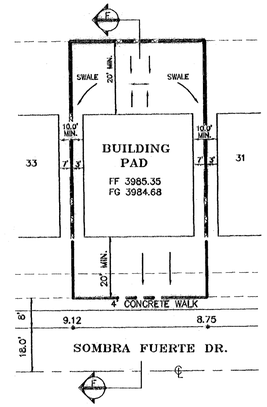
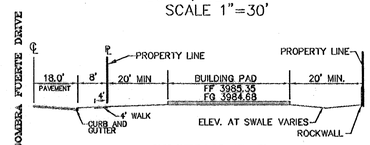




TYPICAL LOT DETAIL
LOT 3, BLOCK 2
SCALE 1"=30'



SECTION F–F
LOT 3, BLOCK 2
SCALE 1"=30'

GENERAL NOTES

1. LOCATIONS OF ALL UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO CONTACT ALL UTILITY COMPANIES FOR THE EXACT LOCATION OF UNDERGROUND AND OVERHEAD UTILITIES INCLUDING UTILITIES NOT SHOWN ON PLANS. THE CONTRACTOR SHALL PROTECT ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES AND ANY UTILITIES NOT SHOWN ON THIS PLAN DURING CONSTRUCTION. THE CONTRACTOR WILL PERFORM ALL UTILITY INSTALLATION, RE,OVAL AND RELOCATIONS AS PER LOCAL UTILITY CONSTRUCTION SPECIFICATIONS. ANY UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.

2. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND ELEVATIONS ON SITE AND SHALL CONTACT THE DESIGN ENGINEER AND REPORT ANY DISCREPANCIES, OMISSIONS AND/OR ERRORS ON PLANS PRIOR TO COMMENCING WORK.

3. ALL CONSTRUCTION TO BE COMPLETED IN ACCORDANCE WITH THE CITY OF EL PASO STANDARD SPECIFICATIONS AND DETAILS.

4. CONTRACTOR SHALL PERFORM ALL EARTHWORK REQUIREMENTS AS PER GEOTECHNICAL STUDY REPORT.

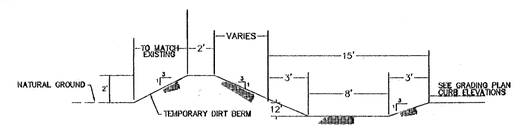
5. INSTALL A TRENCH SAFETY SYSTEM FOR ALL TRENCHES EXCEEDING A DEPTH OF FIVE FEET (5') AS PER OSHA STANDARDS.

6. SLOPES WHICH ARE TO RECEIVE FILL MUST BE CLEARED OF ALL VEGETATION.

7. POSITIVE DRAINAGE SHALL BE PROVIDED BY CONTRACTOR DURING ALL PHASES OF CONSTRUCTION AND GRADING LOTS SHOULD DRAIN TOWARD THE STREET.

8. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREPARATION AND SUBMITTAL OF ALL PERMITTING NECESSARY FOR EARTHWORK OPERATIONS AND STORM WATER POLLUTION CONTROL.

9. NOTE TO BUILDERS: RETAINING WALLS MUST BE PROVIDED WHENEVER THE GRADE DIFFERENTIAL BETWEEN LOT GRADES IS GREATER THA 2.0 FEET. WALLS MUST BE DESIGNED AND CERTIFIED BY A CIVIL ENGINEER (FOR APPROVAL) WHEN APPLYING FOR A BUILDING PERMIT.

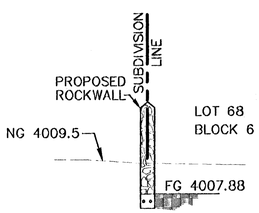


TYPICAL DESILTING BASIN
SCALE 1" = 4'

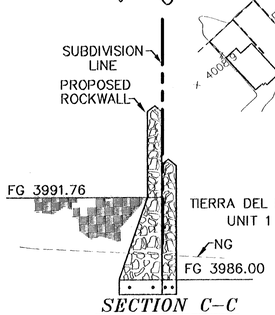
NOTE: SEE OTHER SHEETS FOR ALL INLET AND DRAINAGE STRUCTURES

LEGEND

—OE—	=	OVERHEAD ELECTRIC
FF	=	FINISH FLOOR
FG	=	FINISH GRADE
●	=	POWER/UTILITY POLE
◉	=	PROPOSED CITY MONUMENT
*	=	TOP OF CURB ELEVATION
➡	=	WATER FLOW
	=	PROPOSED RETAINING WALL
◁▷	=	HIGH POINT



SECTION A–A
SCALE 1"=5'



SECTION C–C
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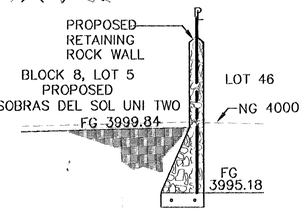

SECTION E–E
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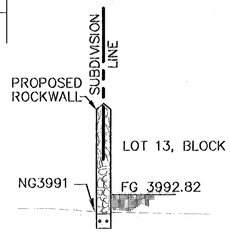

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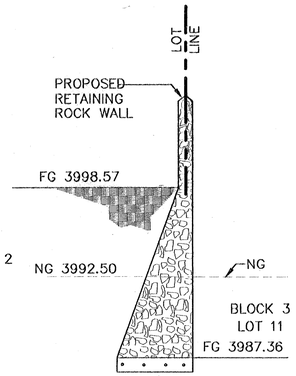

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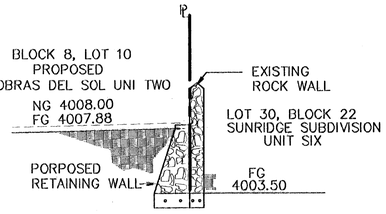

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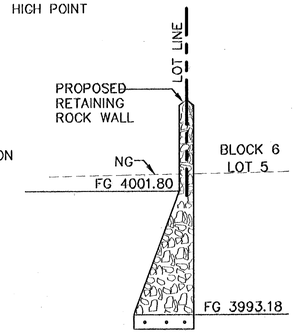

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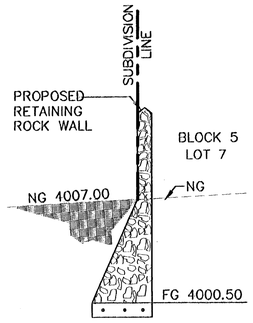

SECTION B–B
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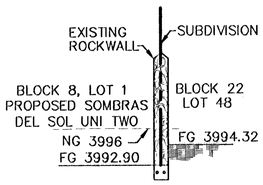

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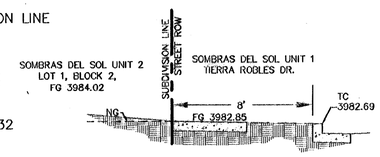

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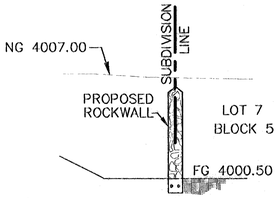


SECTION I–I
SCALE 1"=5'

REVISIONS		
DATE	DESCRIPTION	BY
5-29-02	FIRST CITY REQUIRES	CR
8-2-02	SECOND CITY REQUIRES	CR
8-12-02	THIRD CORRECTIONS	CR
8-19-02	CORRECT BLOCK NUMBERING	CR

BENCHMARK

EXISTING CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF SUNFIRE DRIVE AND RED SUN DRIVE
ELEVATION: 4007.55 (CITY DATUM)

PROJECT NAME

SOMBRAS DEL SOL UNIT TWO

ATCON
Engineering & Surveying
2112 TRAWOOD SUITE B-1, EL PASO, TEXAS 79935.

SEAL

STATE OF TEXAS — A. A. TELLES — 44140 — REGISTERED PROFESSIONAL ENGINEER

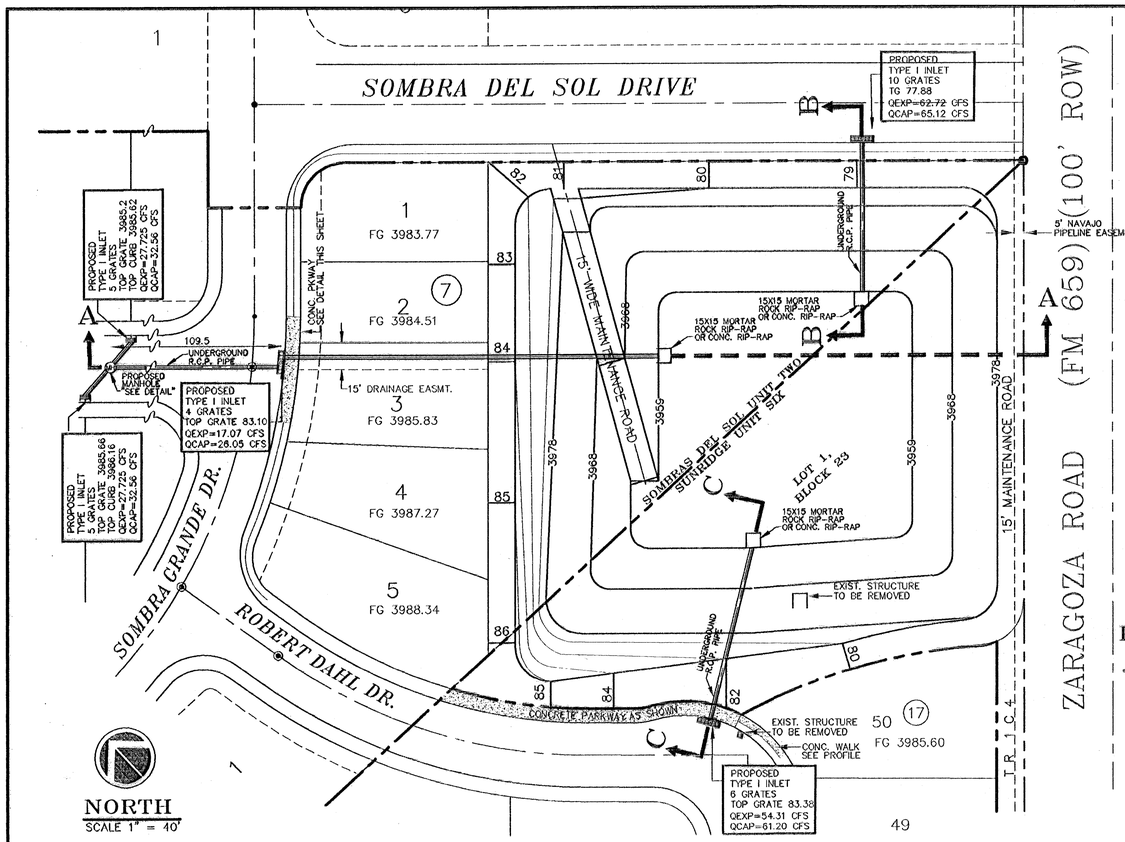
SCALES
HOR. AS SHOWN
VER. AS SHOWN

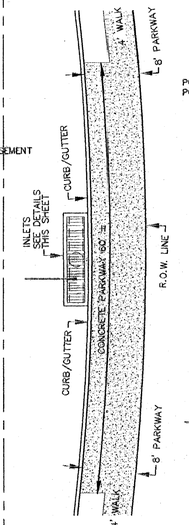
SHEET TITLE

GRADING PLAN

SHT 5 OF 17

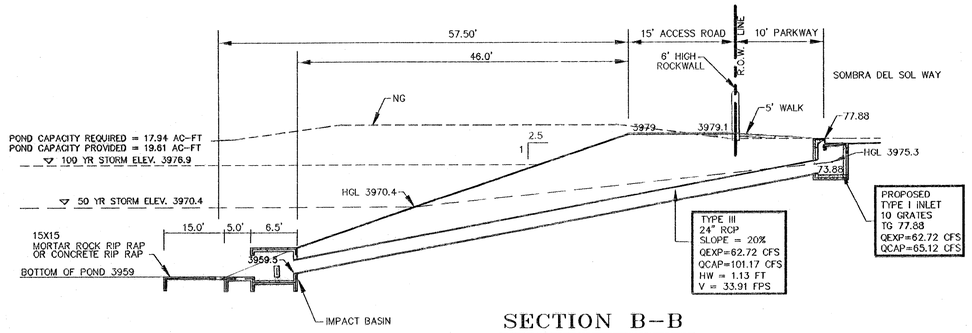
600611





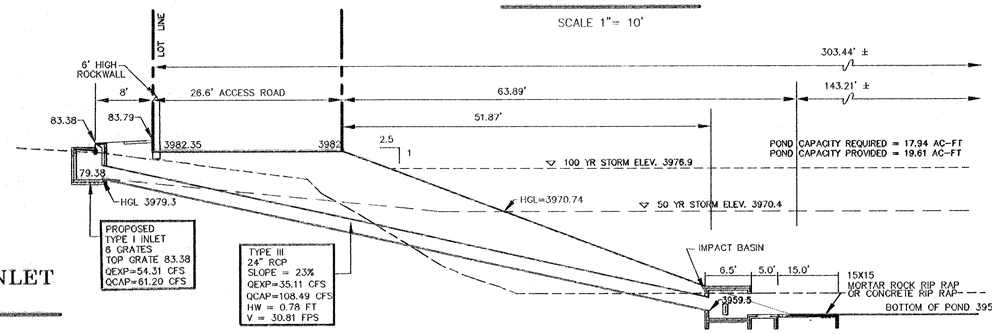
PARKWAY/INLET DETAIL

NTS



SECTION B–B

SCALE 1"= 10'



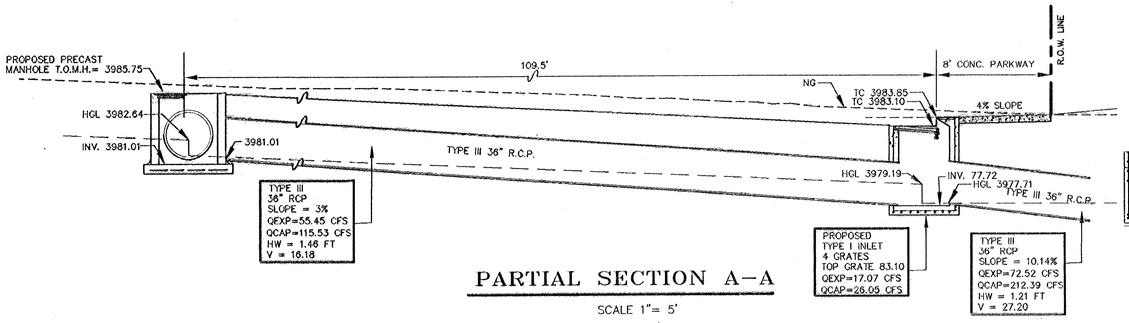
SECTION C–C

SCALE 1"= 10'

POND CALCULATIONS

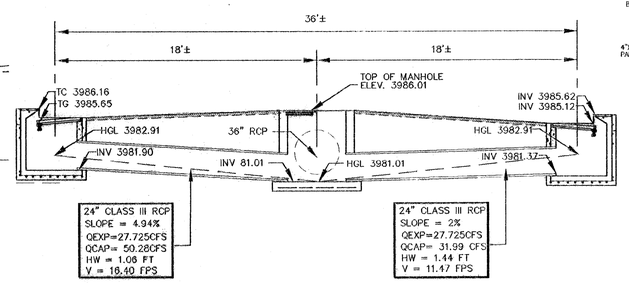
STORM FRECUENCY = 100 YRS.
RAINFALL INTENSITY (I) = 0.33
RUNOFF COEFFICIENT (C_W) = 0.65
TOTAL AREA (A) = 44.281 AC.
TOTAL STORAGE CAPACITY REQUIRED (Q^T) = ACI = (44.281)(0.33)(0.65) = 9.594 AC.–FT.
TOTAL EMERGENCY STORAGE REQUIRED (Q^E) = Q^T + Q (25%) + A (0.012)
Q^E = 9.594 + 9.594(0.25) + 44.281(0.012)
Q^E = 12.524 AC.–FT.
STORAGE REQ'D. FOR SUNRIDGE UNIT 6 AND 8 = 5.42 AC FT
TOTAL STORAGE REQ'D = 17.94 AC FT
STORAGE CAPACITY PROVIDED (Q^P) = 19.61 AC.–FT.

POND VOLUMES	
ELEVATION (FT)	VOLUME (AC–FT)
3959	0.00
3960	0.61
3961	1.25
3962	1.93
3963	2.66
3964	3.42
3965	4.26
3966	5.11
3967	6.04
3968	6.97
3969	8.00
3970	9.07
3971	10.20
3972	11.37
3973	12.60
3974	13.87
3975	15.20
3976	16.66
3977	18.09
3978	19.66



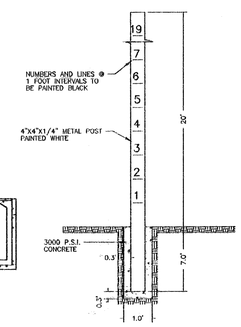
PARTIAL SECTION A–A

SCALE 1"= 5'



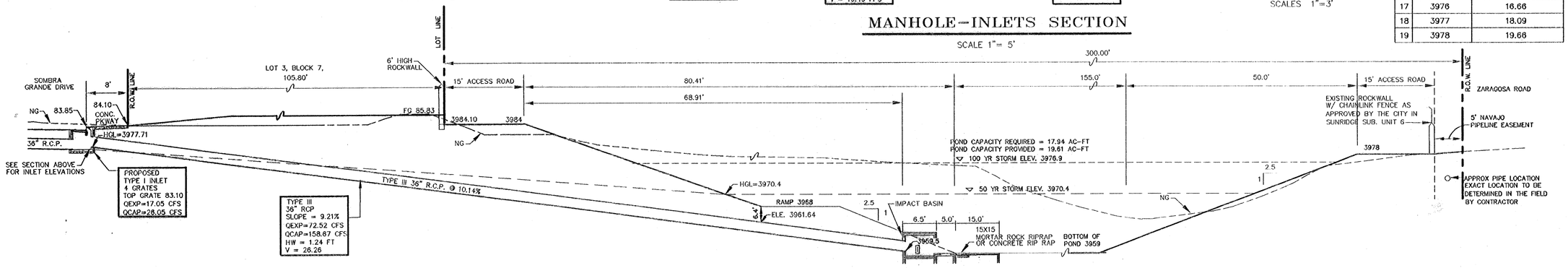
MANHOLE–INLETS SECTION

SCALE 1"= 5'



DEPTH GAUGE

SCALES 1"=3'



PARTIAL SECTION A–A

SCALE 1"= 10'

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D:\Land Projects R2\SUMBRAS\dwg\SDM2_PND.dwg 08/05/02 08:49:22 AM PDT

REVISIONS		
DATE	DESCRIPTION	BY
5-23-02	FIRST CITY REDLINES	CR
6-02-02	SECOND CITY REDLINES	CR
3-11-03	INLET MODIFICATION	

BENCHMARK

EXISTING CITY MONUMENT LOCATED AT THE AND TEXAS IN DRIVE AND ROBERT DAHL DRIVE ELEVATION: 4007.55 (CITY DATUM)

PROJECT NAME

SOMBRAS DEL SOL UNIT TWO

ATCON
Engineering & Surveying
2112 TRAWOOD SUITE B-1, EL PASO, TEXAS 79935.

SEAL

STATE OF TEXAS A. A. TELLES 14140 REGISTERED PROFESSIONAL ENGINEER

SCALES
HOR. AS SHOWN
VER. AS SHOWN

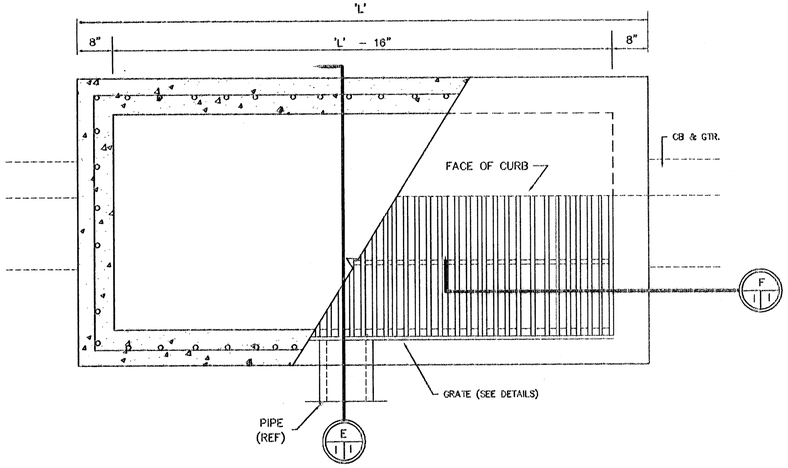
SHEET TITLE

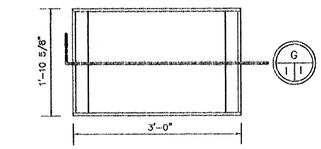
POND DETAILS

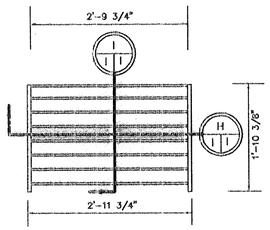
SHT 6 OF 17

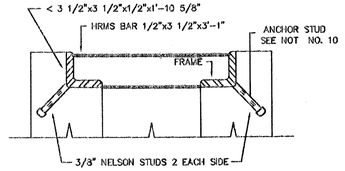
600611

TYPE I



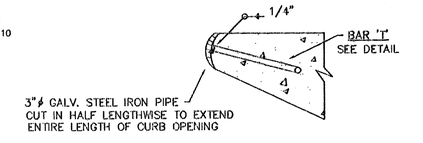


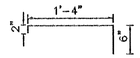




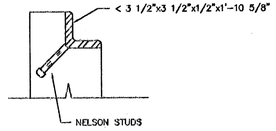
STUD DETAIL

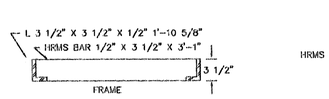
SCALE: 1 1/2" = 1" - 0"



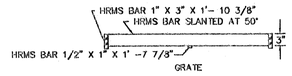


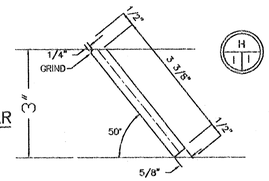
BAR 'T' DETAIL
#4 AT 12" C.C.





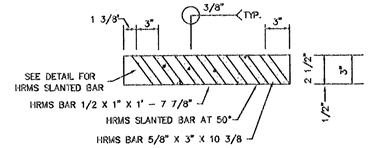
SECTION G





SLANTED BAR DETAIL

SECTION H

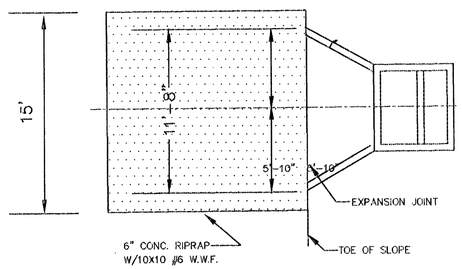


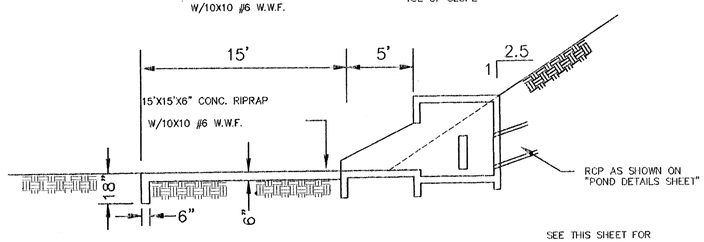
SECTION I

NOTES:

1. H=20' MAXIMOM
2. CONCRETE TO B3 3000 psi MIN. CORE TEST @ 28 DAYS.
3. GRATE TO BE PERPENDICULAR TO TRAFFIC.

NUMBER OF GRATES	'L'	- BEAM -	
		LENGTH	MINIMUM SIZES
1	3'-10"	3'-4"	W6x12, M4x13, C6x8.2
2	8'-4"	5'-10"	W6x12, S6x12.5, MC6x15.1
3	8'-10"	8"-4"	W8x15, S7x15.3, MC7x17.8
4	11'-4"	10'-10"	W8x18, S8x18.4, C10x21.9
5	13'-10"	13'-4"	W12x16, S8x21, MC10x21.9

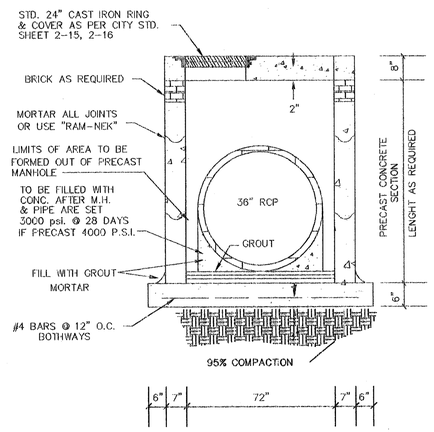




SEE THIS SHEET FOR IMPACT BASIN DETAIL

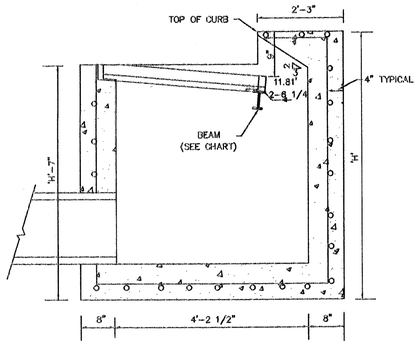
OUTLET DETAILS

NTS



PRECAST MANHOLE

NTS



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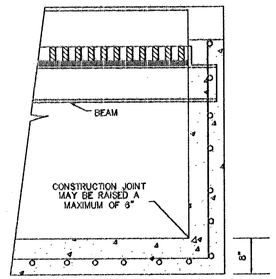
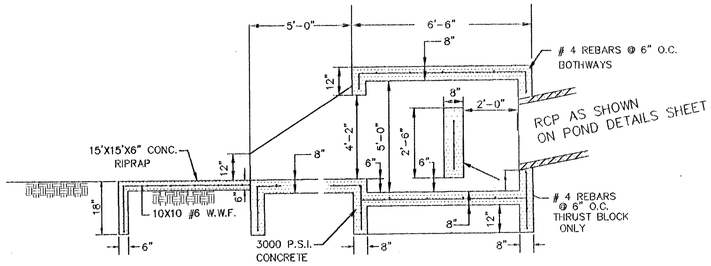
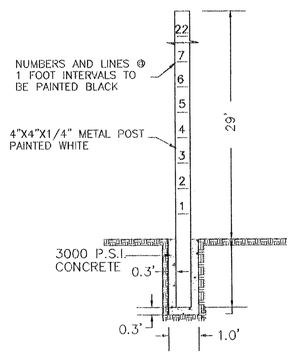


SECTION F



IMPACT BASIN DETAIL

NTS



DEPTH GAUGE

NTS

NOTES:

1. ALL CONCRETE TO BE CLASS 'A' (3000 P.S.I.) CHAMFER ALL EXPOSED EDGES 3/4". ALL DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS.
2. MINIMUM CONCRETE COVER SHALL BE 1 1/2" FOR STEEL REINFORCEMENT.
3. EXPANSION MATERIAL TO BE 1/2" BITUMINUS FIBER AND BE PLACED WHERE PROP. CONCRETE COMES IN CONTACT WITH ANY EXIST. OR PROP. CONCRETE OR MASONRY STRUCTURE.
4. STRUCTURAL STEEL SHALL BE SHOP PAINTED IN ACCORDANCE WITH TEXAS HIGHWAY DEPARTMENT ITEM 446 "PAINT AND PAINTING".
5. SURFACE OF ALL EXPOSED CONCRETE SHALL CONFORM IN SLOPE AND GRADE TO EXISTING OR PROPOSED CURB AND WALK ADJACENT TO INLETS.
6. GRATE WILL BE DEPRESSED 1" BELOW PROPOSED OR EXIST. GRADE (TYPE II & III)
7. ALL BARS TO BE #4 BARS AT 6" C.C. BEND BARS AROUND PIPE OPENINGS.
8. INLETS TO BE DESIGNATED IN PLANS BY NUMBER OF GRATES REQUIRED (EXAMPLE, 4 GRATES-TYPE I)
9. LOCATION OF SEWER PIPES SHOWN ELSEWHERE IN PLANS.
10. 2-4" CONCRETE ANCHOR STUDS REQUIRED FOR EACH SIDE OF FRAME, WHERE RESTING ON CONCRETE, USE NELSON STUDS OR EQUAL (SEE DETAIL)
11. THE GRATES OF ALL INLETS WITHIN THE STREET PAVEMENT MUST BE CONSTRUCTED WITH THE GRATE BARS PERPENDICULAR TO THE CURB.

REVISIONS		
DATE	DESCRIPTION	BY

PROJECT NAME

SOMBRAS DEL SOL SUBDIVISION UNIT TWO

ATCON
Engineering & Surveying
2112 TRAWOOD SUITE B-1
EL PASO, TEXAS 79935
PHONE (915) 592-9878 FAX (915) 592-2134

SEAL

STATE OF TEXAS
A. A. TELLES
44140
REGISTERED PROFESSIONAL ENGINEER

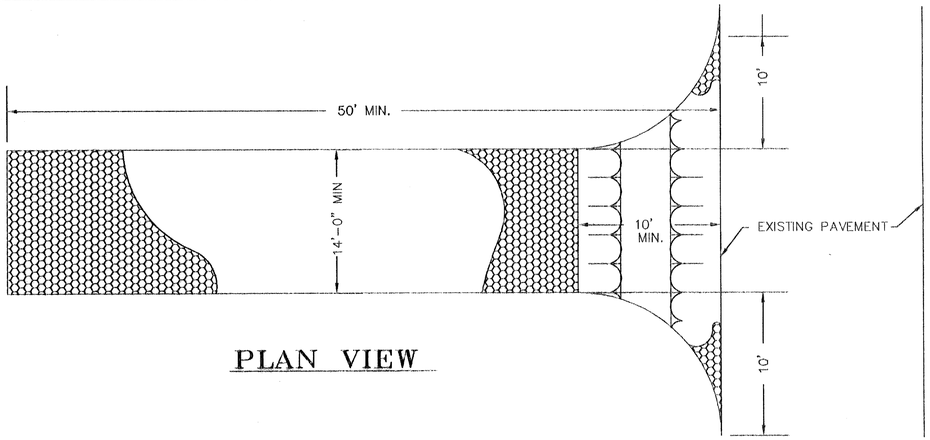
SCALES

AS SHOWN

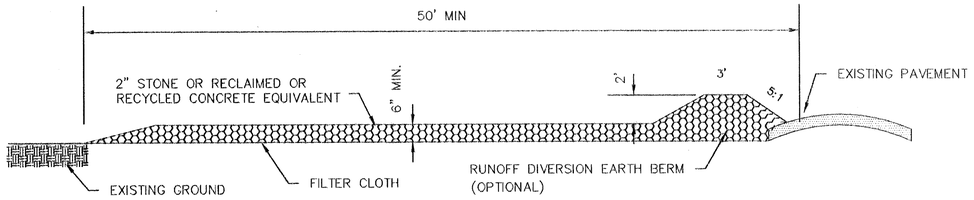
SHEET TITLE

DRAINAGE STRUCTURES

600611



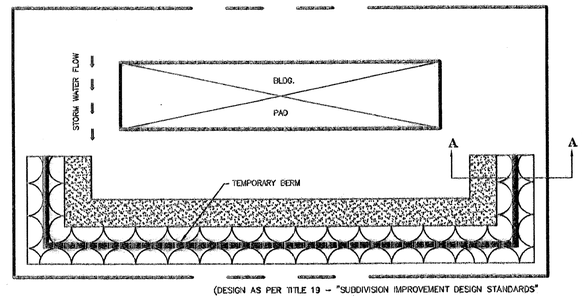
PLAN VIEW



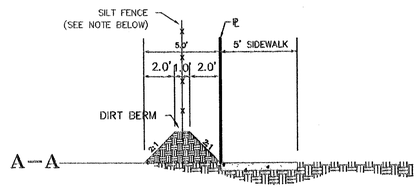
PROFILE

TEMPORARY STABILIZED CONSTRUCTION ENTRANCE

SCALE: – 1" = 5'



TYPICAL LOT LAYOUT FOR EROSION CONTROL

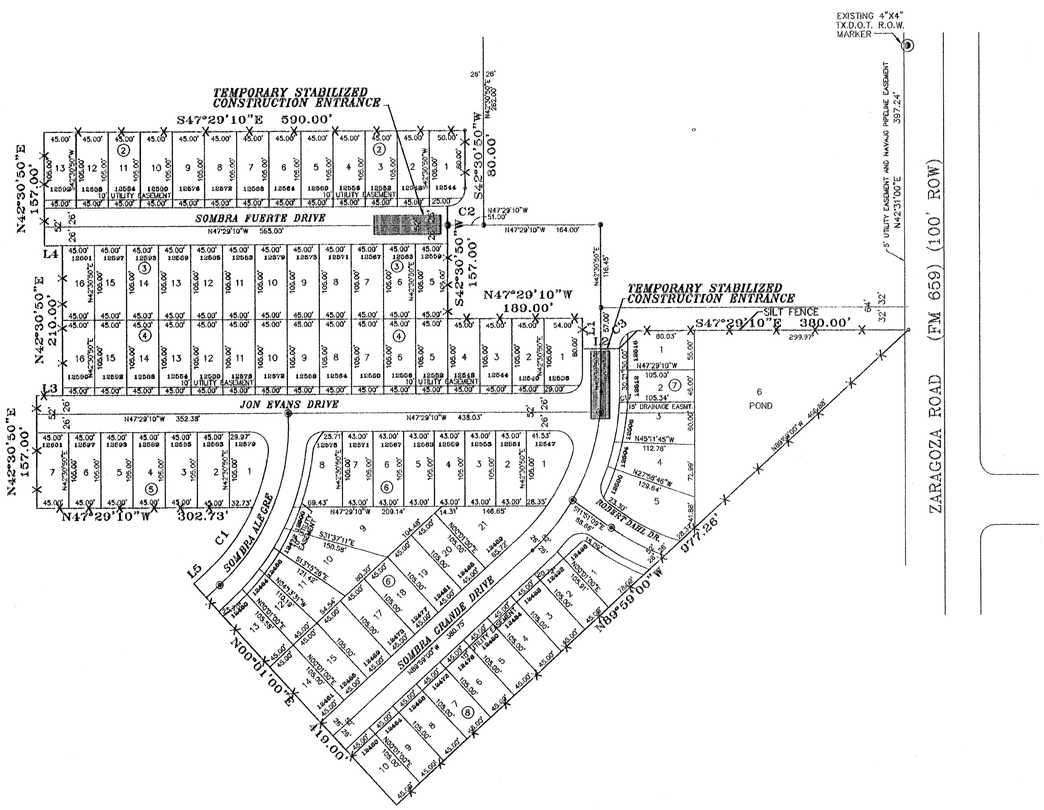


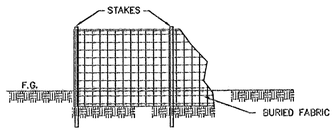
SILT FENCE WITH BERM WITHIN BOUNDARY

SCALE 1"=3'

NOTE:

1. SILT FENCE SHALL BE PROVIDED IF BUILDING CONSTRUCTION DOES NOT START WITHIN 6 MONTHS AFTER GRADING OF SITE IS COMPLETED, AND THE SITE HAS SANDY SOIL CONDITIONS.





TYPICAL SILT FENCE

SCALE 1"=3'

EROSION AND DUST CONTROL

1. SITE MUST BE PROTECTED FROM WIND AND WATER EROSION DURING AND AFTER GRADING. EROSION CONTROL MEASURES MUST BE PROVIDED AND MUST BE IN ACCORDANCE WITH GRADING ORDINANCE.

2. OFFSITE VEHICULAR TRACKING: A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROVIDED TO HELP REDUCE VEHICULAR TRACKING OF SEDIMENT. THE PAVED STREET ADJACENT TO SITE ENTRANCE WILL BE SWEPT DAILY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE.

REVISIONS		
DATE	DESCRIPTION	BY

BENCHMARK

EXISTING CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF SUNFIRE DRIVE AND RED SUN DRIVE
ELEVATION: 4007.55 (CITY DATUM)

PROJECT NAME

SOMBRAS DEL SOL UNIT TWO

ATCON
Engineering & Surveying
2112 TRAWOOD SUITE B-1, EL PASO, TEXAS 79935.

SEAL

STATE OF TEXAS
A. A. TELLES
44140
REGISTERED PROFESSIONAL ENGINEER

SCALES

HOR. AS SHOWN
VER. AS SHOWN

SHEET TITLE

STORM WATER POLLUTION PREVENTION PLAN DETAILS

SHT 8 OF 17

600611

PROJECT NAME:

SOMBRAS DEL SOL
UNIT TWO

OWNER NAME AND ADDRESS:

JNC LAND CO. INC.
12300 MONTWOOD DRIVE
EL PASO TX, 79938
(915) 855-1005

TYPES OF SOILS DISTURBANCES:

MAJOR SOIL DISTURBING ACTIVITIES WILL CONSIST OF CLEARING AND GRUBDING; LOT GRADING FOR PROPER SITE DRAINAGE AND CONSTRUCTION; AND EXCAVATION FOR DESIGNATED OR OPTIONAL UTILITY TRENCHES OR OTHER DRAINAGE FACILITIES.

EXISTING CONDITIONS:

THE PROJECT IS BORDERED BY SUNRIDGE UNIT 6 TO THE SOUTH THE SITE IMPROVEMENTS ARE DEPICTED ON THE SITE PLAN IN CONJUNCTION WITH THE NATURAL SURROUNDINGS.

PHYSIOGRAPHIC & HYDROLOGIC CONDITIONS:

THE CLIMATE OF THE REGION IS TYPICAL OF AN ARID TO SEMIARID DESERT ENVIRONMENT WITH HOT DAYS AND COOL NIGHTS IN THE SUMMER AND COOL DAYS AND COLD NIGHTS IN THE WINTER. IN LATE WINTER AND SPRING, HIGH WINDS AND BLOWING SAND ARE COMMON. IT IS ALSO CHARACTERIZED BY SMALL AMOUNTS OF PRECIPITATION AND VERY LOW HUMIDITY; CONSEQUENTLY, EVAPORATION IS HIGH. RAINFALL OCCURS PRIMARILY IN JULY, AUGUST, AND SEPTEMBER AND IS INSUFFICIENT FOR ANY GROWTH EXCEPT DESERT VEGETATION; THEREFORE, FARMING IN THE AREA IS COMPLETELY DEPENDENT UPON IRRIGATION WATER FROM EITHER SURFACE-WATER OR GROUND-WATER SUPPLIES.

PHYSIOGRAPHICALLY, THE AREA INCLUDES THREE DISTINCT DIVISIONS. THEY ARE (1) THE RUGGED AND PROMINENT FRANKLIN MOUNTAINS WHICH REACH 7,172 FEET ABOVE MEAN SEA LEVEL, (2) THE BENCH LANDS ADJACENT TO THE RIVER VALLEY WHICH ARE LOCALLY REFERRED TO AS "THE MESA" AND ARE ABOUT 4,000 FEET ABOVE MEAN SEA LEVEL, AND (3) THE RIVER VALLEY WHICH CONSISTS OF THE RECENT FLOOD PLAIN OF THE RIO GRANDE AND IS RELATIVELY LEVEL WITH A SLIGHT GRADIENT OF 2.8 FEET PER MILE TO THE SOUTHEAST. THE RIVER VALLEY VARIES IN ELEVATION FROM 3,790 FEET ABOVE MEAN SEA LEVEL AT THE UPPER END NEAR ANTHONY TO 3,450 FEET ABOVE MEAN SEA LEVEL AT THE LOWER END NEAR FORT QUIT MAN IN HUDSPETH COUNTY.

FLOW CONDITIONS IN THE ARROYOS IN THE NORTHWEST AREA OF EL PASO ARE IN THE UNSTABLE RANGE AND OFTEN VARY FROM THE SUBCRITICAL TO THE SUPERCRITICAL RANGE. THESE CONDITIONS ARE TYPIFIED BY STANDING WAVES, HYDRAULIC JUMPS AND VARIABLE VELOCITIES. CHANNELS ARE NATURAL, NONUNIFORM AND OFTEN CROSS ALLUVIAL FANS. MANNING'S ("N" VALUES) ROUGHNESS FACTORS USED IN THE NORTHWEST AREA RANGED FROM 0.025 TO 0.040 FOR CHANNEL FLOW AND FROM 0.040 TO 0.050 FOR THE OVERBANK AREAS.

THE CENTRAL PART OF EL PASO INCLUDES CHANNEL AND STREET FLOW WHICH EXHIBIT A TENDENCY TOWARDS CRITICAL FLOW. MANNING'S ("N" VALUES) ROUGHNESS FACTORS USED IN THE CENTRAL AREA RANGED FROM 0.060 FOR STREET FLOW TO 0.035 FOR CHANNEL FLOW.

THE SOUTHEAST REGION OF EL PASO CAN BE BROKEN DOWN INTO THREE DISTINCTIVELY DIFFERENT GEOGRAPHICAL-HYDRAULIC SUB-AREAS: CLOSED BASINS, BLUFFLINE, ANDS VALLEY. FLOODS GENERATED IN THE CLOSED BASINS DO NOT ENTER ANY SURFACE WATER SYSTEM. FLOW FROM THE BLUFFLINE SYSTEM ORIGINATES NORTH OF INTERSTATE HIGHWAY 10 AND INTERSECTS THE FREEWAY ALONG SOUTHWESTERLY ORIENTED COURSES. THE STREAMS LOSE DEFINITION AFTER LEAVING THE ESCARPMENT AND ENTERING THE VALLEY. SOME INTERMEDIATE STORAGE BASINS ARE LOCATED THROUGHOUT THE STREAM SYSTEM. THE VALLEY AREA IS LOCATED BELOW THE ESCARPMENT AND NORTH OF THE RIO GRANDE. IT CONTAINS WELL-DEFINED DRAINS WHICH DIRECT COMBINED LOCAL FLOW AND FLOW FROM THE ESCARPMENT TO THE SOUTH-SOUTHEAST. MANNING'S ("N" VALUES) ROUGHNESS FACTORS GENERALLY RANGE FROM 0.05 TO 0.07 IN UNDEVELOPED AREAS. CHANNEL VALUES AVERAGE 0.035. STREETS AND YARDS COMBINED WERE ASSIGNED VALUES VARYING FROM 0.025 TO 0.40, DEPENDENT ON THE PROPORTIONATE WIDTHS OF PAVING AND DEGREE OF VEGETATION AND OBSTRUCTIONS.

SOIL DATA:

THE PROJECT IS LOCATED IN THE VICINITY OF THE SOIL CLASSIFICATION KNOWN AS THE BLUEPOINT ASSOCIATION: THE SOILS IN THIS AREA CONSISTS MAINLY OF GENTLY SLOPING TO STRONGLY SLOPING SOILS THAT LIE ABOVE THE FLOOD PLAIN OF THE RIO GRANDE AND BELOW THE ESCARPMENT OF THE HUECO BOLSON. THE ASSOCIATION OCCUPIES ABOUT 101,300 ACRES, OR 15 PERCENT OF THE COUNTY. THE BLUEPOINT SOILS ACCOUNT FOR 98 PERCENT OF THE ASSOCIATION, AND MINOR SOILS 2 PERCENT. ON ABOUT 89 PERCENT OF THE TOTAL ACREAGE, THE BLUEPOINT SOILS HAVE A LOAMY FINE SAND SURFACE LAYER ABOUT 6 INCHES THICK. THIS IS UNDERLAIN BY VERY PALE BROWN, MODERATELY ALKALINE, LOOSE MATERIAL OF SANDY TEXTURE THAT IS SEVERAL FEET THICK. BLUEPOINT SOILS HAVING A GRAVELLY SAND SURFACE LAYER OCCUR AT HIGHER ELEVATIONS AND MAKE UP ABOUT 9 PERCENT OF THE ASSOCIATION. THE PAJARITO SOILS AND BADLANDS OCCUPY SMALL AREAS. PAJARITO SOILS ARE IN LOW-LYING PLACES JUST ABOVE THE RIO GRANDE FLOOD PLAIN. BADLANDS OCCUR AS OUTCROP OR AREAS OF EXPOSED CLAY.

FUTURE CONDITIONS:

SITE IMPROVEMENTS WILL INCLUDE PAVED PARKING, CONCRETE DRIVEWAYS, FINISHED LOT GRADING WITH PROPER COMPACTION.
BUILDING CONSTRUCTION WILL CONSIST OF A WOOD FRAME STRUCTURE WITH OPTIONAL HARD/SOFT LANDSCAPING FEATURES. ESTIMATED RUNOFF COEFFICIENT AFTER DEVELOPMENT OF THE PROJECT IS 0.6.

DRAINAGE PLAN:

THE RUNOFF WILL BE MANAGED BY SURFACE FLOWS WHICH DISCHARGE INTO THE STREET CHANNELS, THENCE INTO DROP INLETS AND RCP PIPES, THENCE RUNOFF FLOWS INTO A RETENTION POND.

CONSTRUCTION PHASING:

1. INSTALL TEMPORARY EROSION AND SEDIMENT CONTROLS (e.g. SILT FENCE AND/OR EARTHEN BERM, AND STABILIZED CONSTRUCTION ENTRANCE).
2. PERFORM CLEARING AND GRUBBING.
3. EXCAVATION FOR UTILITIES AND REQUIRED DRAINAGE FACILITIES.
4. COMPLETE LOT GRADING.
5. CONSTRUCTION OF IMPROVEMENTS.
6. WHEN ALL CONSTRUCTION ACTIVITY RELATED TO DEVELOPMENT OF THE SITE IS COMPLETE, REMOVE TEMPORARY CONTROLS IN 1, ABOVE.

SOIL STABILIZATION PRACTICES:

- [ ] TEMPORARY SEEDING
- [ ] PERMANENT PLANTING, SODDEN OR SEEDING (OPTIONAL)
- [ ] MULCHING
- [ ] SOIL RETENTION BLANKET AND/OR COMPACTION.
- [ ] PRESERVATION OF NATURAL RESOURCES OTHER
- [ ] OTHER – SEE ATTACHED GRADING PLAN

STRUCTURAL CONTROL PRACTICES:

- [X] SILT FENCES
- [ ] HAY BALES
- [ ] ROCK BERMS
- [X] EARTH DIKE/BERM
- [ ] SEDIMENT TRAP
- [ ] PAVED FLUMES
- [ ] CHANNEL LINERS
- [ ] EARTHEN SWALES
- [ ] DRAINAGE SWALES
- [ ] PIPE SLOPE DRAINS
- [X] STABILIZED CONSTRUCTION ENTRANCE
- [ ] OTHER – SEE ATTACHED SITE PLAN

STORM WATER MANAGEMENT CONTROLS:

- [X] RETENTION POND
- [ ] DETENTION POND
- [ ] INFILTRATION MEASURES
- [ ] VEGETATED SWALES & NATURAL DEPRESSIONS
- [ ] DRAINAGE CHANNEL
- [X] LOT GRADING
- [ ] CATCH BASINS
- [X] CURB & GUTTER
- [X] STORM SEWER
- [X] DESILTING BASIN
- [ ] RIP-RAP OUTLET APRON
- [ ] OTHER – SEE ATTACHED SITE PLAN

BEST MANAGEMENT PRACTICES CONTROLS:

WASTE MATERIALS:

ALL WASTE MATERIALS, INCLUDING CONSTRUCTION DEBRIS, SHALL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. NO CONSTRUCTION WASTE MATERIAL SHALL BE BURIED ON SITE, THE TRANSIT DUMPSTER SHALL COMPLY WITH APPLICABLE STATE AND LOCAL SOLID WASTE MANAGEMENT REGULATIONS. THE DUMPSTER SHALL BE EMPTIED AS NECESSARY OR AS REQUIRED BY LOCAL REGULATION AND THE TRASH SHALL BE HAULED TO A LICENSED LANDFILL.

HAZARDOUS WASTE:

AT A MINIMUM, ANY PRODUCTS IN THE FOLLOWING CATEGORIES SHALL BE CONSIDERED HAZARDOUS: PAINT, ACIDS FOR CLEANING MASONRY SURFACES, CLEANING SOLVENTS, ASPHALT PRODUCTS, CHEMICAL ADDITIVES FOR SPILL STABILIZATION, CURING COMPOUNDS AND ADDITIVES. IN THE EVENT OF A SPILL WHICH MAY BE HAZARDOUS, THE CONTRACTOR SHALL TAKE IMMEDIATE ACTION AND CONTACT THE APPROPRIATE AUTHORITIES.

SANITARY WASTE:

ALL SANITARY WASTE SHALL BE COLLECTED FROM THE CONSTRUCTION PORTABLE UNITS AS NECESSARY OR AS REQUIRED BY LOCAL REGULATION BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR. ALL WASTE MATERIAL SHALL BE RESPONSIBILITY OF THE CONTRACTOR.

OFF--SITE VEHICLE TRACKING:

IN ADDITION TO THE STABILIZED CONSTRUCTION ENTRANCE(S), THE FOLLOWING MEASURES SHALL BE OBSERVED DURING CONSTRUCTION:
HAUL ROADS SHALL BE DAMPENED FOR DUST CONTROL
LOADED HAUL TRUCKS SHALL BE COVERED WITH TARPAULINS
EXCESS DIRT ON ROAD SHALL BE REMOVED DAILY

SPILL PREVENTION:

THE FOLLOWING PRACTICES SHALL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURES OF MATERIALS TO STORM WATER RUNOFF.

GOOD HOUSEKEEPING:

- STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.
- NEATLY STORE MATERIALS ON-SITE IN A ORDERLY MANNER.
- KEEP PRODUCTS IN THEIR ORIGINAL CONTAINER.
- DO NOT MIX SUBSTANCES WITH ONE ANOTHER, UNLESS OTHERWISE RECOMMENDED BY THE MANUFACTURER.
- USE ENTIRE CONTENTS OF A PRODUCT BEFORE DISPOSING THE CONTAINER.
- FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL.

HAZARDOUS PRODUCTS:

PRACTICES USED TO REDUCE RISKS:

- KEEP PRODUCTS IN THEIR ORIGINAL CONTAINER IF AT ALL POSSIBLE.
- RETAIN ORIGINAL LABELS, PRODUCT INFORMATION AND MATERIAL SAFETY SHEETS
- DISPOSE SURPLUS PRODUCT IN ACCORDANCE WITH MANUFACTURER'S OR LOCAL AND STATE RECOMMENDED METHODS.

PETROLEUM PRODUCTS:

ALL ON-SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE LEAKAGE. PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ON-SITE SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATION.

SPILL CONTROL PRACTICES:

MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE CLEARLY POSTED AND SITE PERSONNEL SHALL BE MADE AWARE OF

THE PROCEDURES;
MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP SHALL BE KEPT IN THE MATERIAL STORAGE AREA ON-SITE;
ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY;
SPILL AREA SHALL BE WELL VENTILATED AND APPROPRIATE CLOTHING WILL BE WORN
ANY SPILL SHALL BE REPORTED TO THE APPROPRIATE GOVERNMENTAL AGENCY
MEASURES SHALL BE TAKEN TO PREVENT A SPILL TO REOCCUR.

MAINTENANCE AND INSPECTION PROCEDURES:

ALL POLLUTION PREVENTION MEASURES SHALL BE INSPECTED AT LEAST ONCE A WEEK OR WITHIN 24-HOURS FOLLOWING A STORM EVENT OF 0.5 INCHES OR MORE. INSPECTION WILL BE CONDUCTED IN FINAL STABILIZED AREAS OR DURING ARID PERIODS MONTHLY. BEST MANAGEMENT PRACTICES AND POLLUTION CONTROL PROCEDURES SHALL BE INSPECTED FOR ADEQUACY.

REMARKS:

DISPOSAL AREAS, STOCKPILES, AND HAUL ROADS SHALL BE CONSTRUCTED IN A MANNER THAT WILL MINIMIZE AND CONTROL THE AMOUNT OF SEDIMENT THAT MAY ENTER RECEIVING WATERS. DISPOSAL AREAS SHALL NOT BE LOCATED IN ANY WETLAND, WATER BODY OR STREAMBED. CONSTRUCTION STAGING AREAS AND VEHICLE MAINTENANCE AREAS SHALL BE CONSTRUCTED BY THE CONTRACTOR IN A MANNER TO MINIMIZE THE RUNOFF OF POLLUTANTS. ALL WATERWAYS SHALL BE CLEANED AS SOON AS PRACTICABLE OF TEMPORARY EMBANKMENT, TEMPORARY BRIDGES, MATTING, FALSE WORK, PILING, DEBRIS OR OTHER OBSTRUCTIONS PLACED DURING CONSTRUCTION OPERATIONS THAT ARE NOT A PART OF THE FINISHED WORK.

OWNER CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED AND ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLY FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

OWNER-SIGNED _____ DATE _____

OWNER-NAME (PRINTED) _____

TITLE _____

GENERAL CONTRACTOR CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT THAT AUTHORIZESSTORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

SIGNED: _____	SIGNED: _____
NAME: _____	NAME: _____
TITLE: _____	TITLE: _____
DATE: _____	DATE: _____

REVISIONS		
DATE	DESCRIPTION	BY

BENCHMARK
EXISTING CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF SUNRISE DRIVE AND RED SUN DRIVE
ELEVATION: 4007.55 (CITY DATUM)

PROJECT NAME
SOMBRAS DEL SOL
UNIT TWO

ATCON
Engineering & Surveying
2112 TRAWOOD SUITE B-1, EL PASO, TEXAS 79935.

SEAL
STATE OF TEXAS
J. A. TELLES
44140
REGISTERED
PROFESSIONAL ENGINEER

SCALES

SHEET TITLE
CONSTRUCTION POLLUTION PREVENTION PLAN
SITE INFORMATION AND SPECIFICATIONS
SHT 9 OF 17

600611

DATE	REVISIONS DESCRIPTION	BY

BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF SUNFIRE DRIVE AND RED SUN DRIVE
ELEVATION: 4007.55 (CITY DATUM)

PROJECT NAME

SOMBRAS DEL SOL UNIT TWO

Engineering & Surveying
2112 TRAWOOD SUITE B-1

SEAL

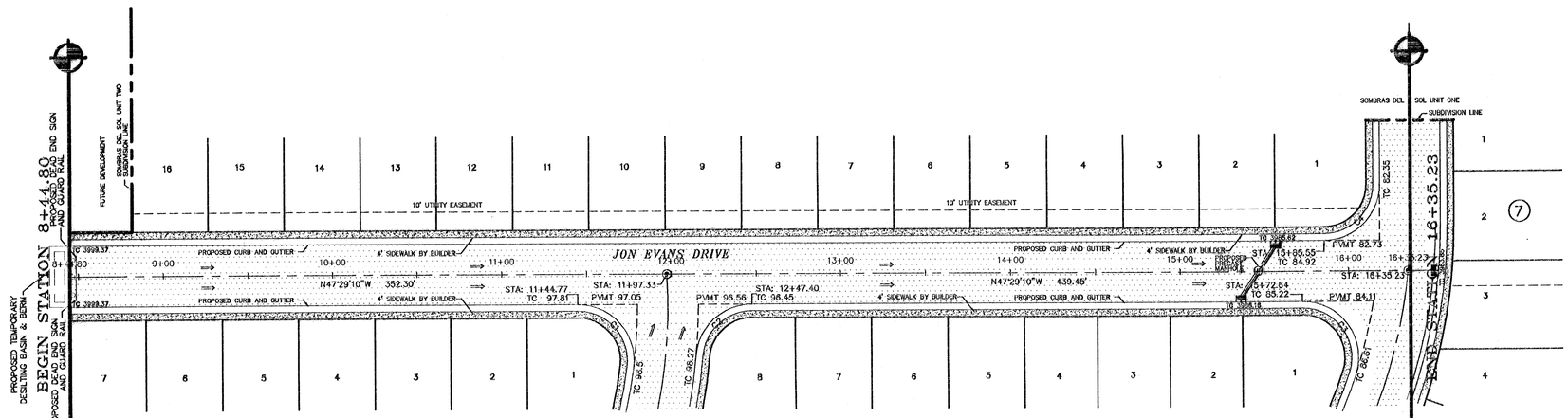
STATE OF TEXAS
A. A. TELLES
44140
REGISTERED PROFESSIONAL ENGINEER

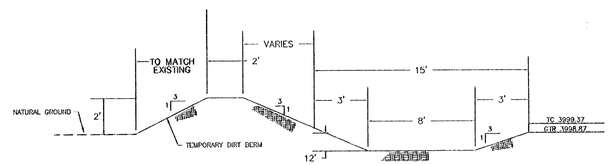
SCALES
HOR. 1"=40'
VER. 1"=5'

SHEET TITLE
SOMBRA FUERTE DRIVE

SHT 10 OF 17

600611

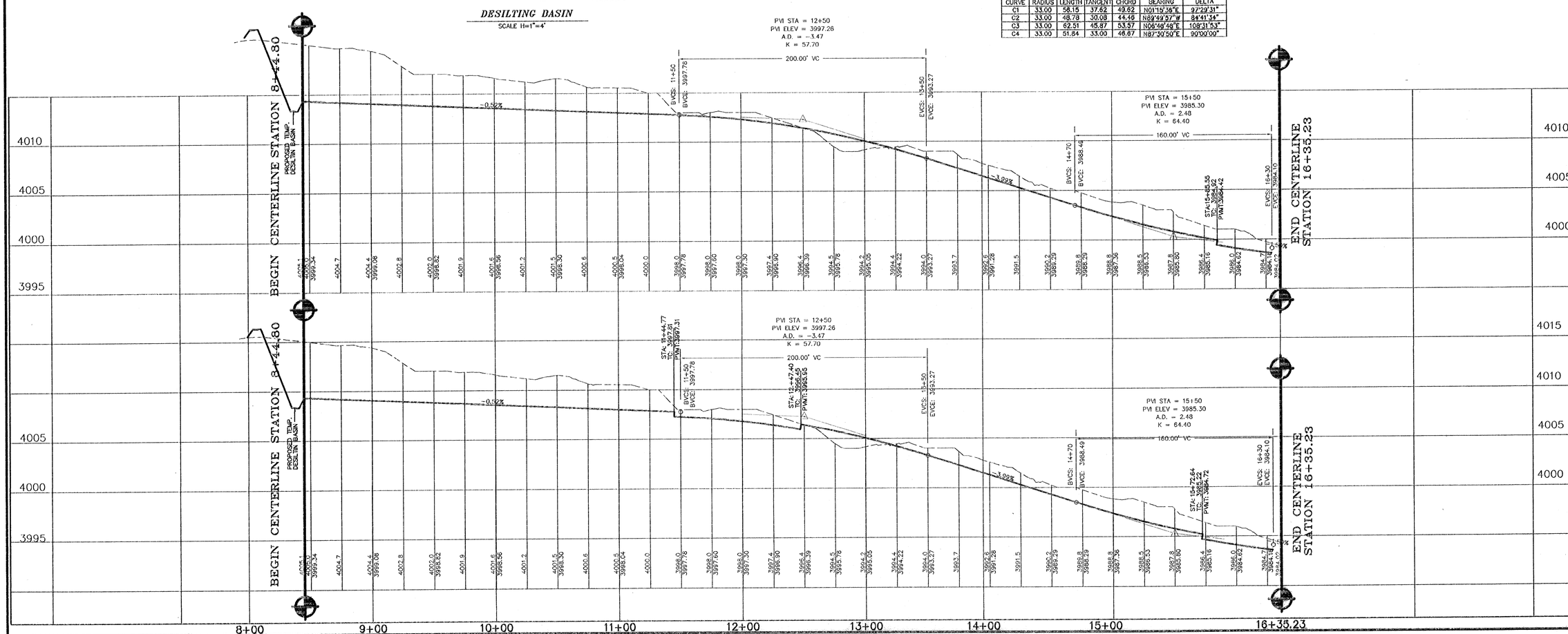




DESILTING BASIN

SCALE H=1"=4'

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	33.00	56.15	37.62	49.62	N01°15'38"E	97°29'31"
C2	33.00	48.78	30.08	44.46	N89°49'57"W	84°41'34"
C3	33.00	62.51	45.87	53.57	N06°46'46"E	108°31'53"
C4	33.00	51.84	33.00	46.67	N87°30'50"E	90°00'00"



REVISIONS		
DATE	DESCRIPTION	BY
5-29-02	FIRST CITY REDLINES	CR

BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF SUNFIRE DRIVE AND RED SUN DRIVE.
ELEVATION: 4007.55 (CITY DATUM)

PROJECT NAME

SOMBRAS DEL SOL UNIT TWO

Engineering & Surveying
2112 TRAWOOD SUITE B-1

SEAL

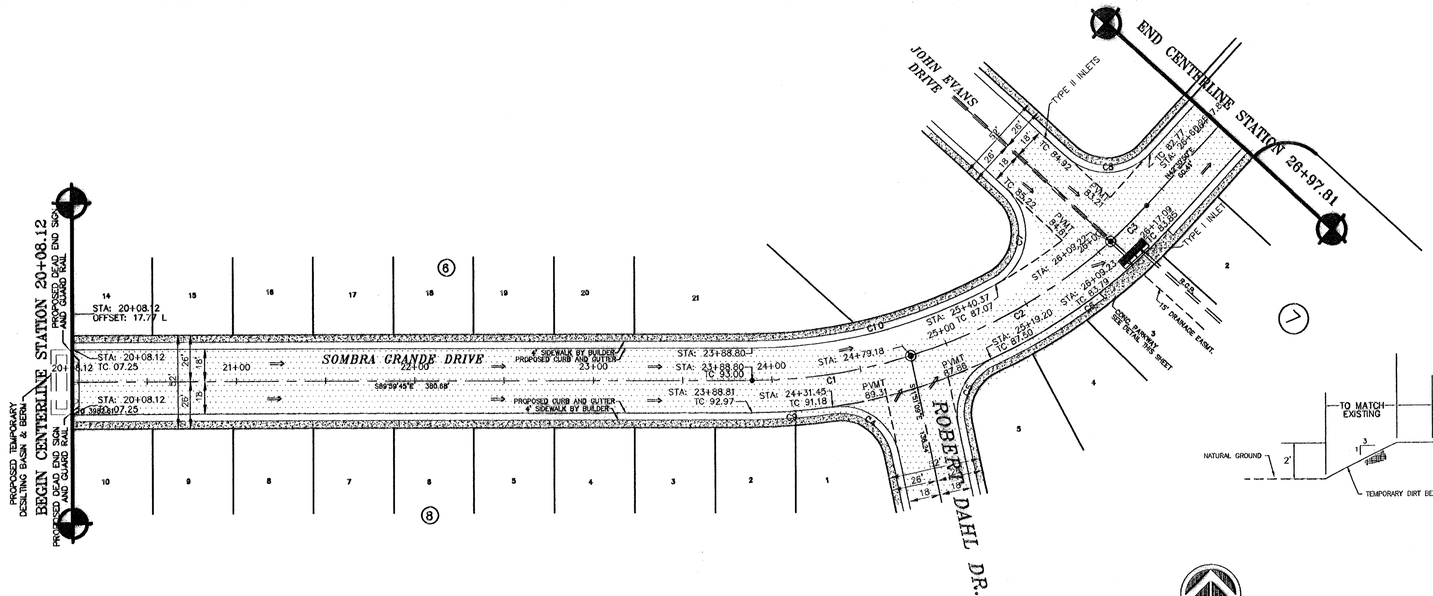
STATE OF TEXAS — A.A. TELLES — 44140 — REGISTERED PROFESSIONAL ENGINEER

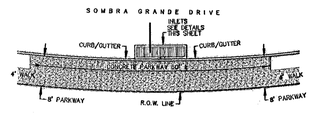
SCALES
HOR. 1"=40'
VER. 1"=5'

SHEET TITLE
JOHN EVANS DRIVE

SHT 11 OF 17

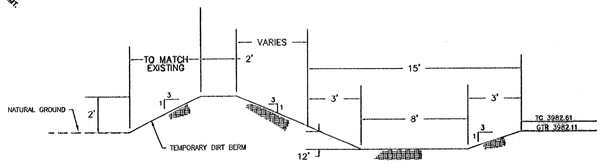
600611





CONC. PARKWAY DETAIL

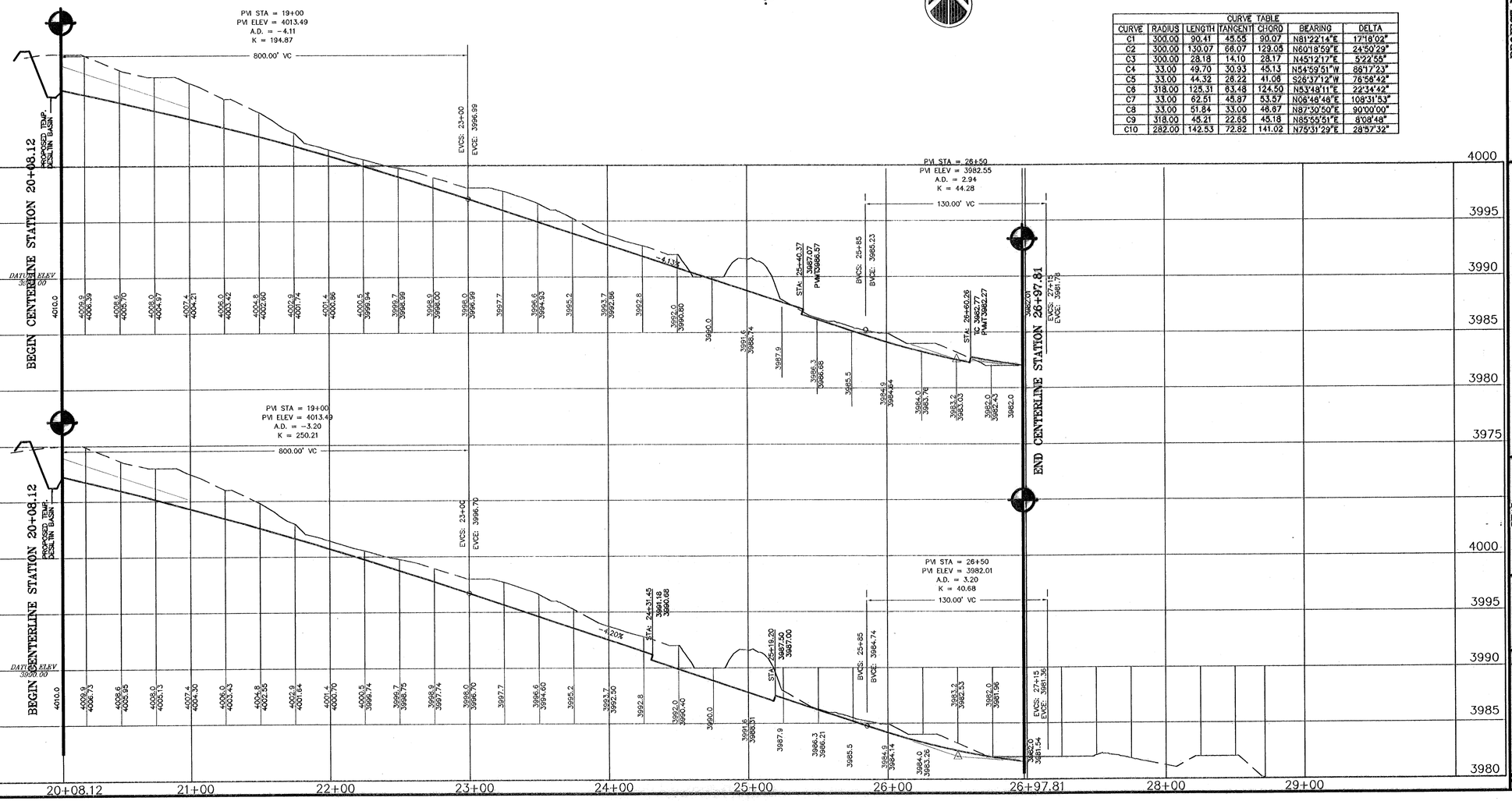
NTS



DESILTING BASIN

SCALE H=1"=4'

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	300.00	90.41	45.55	90.07	N81°22'14"E	17°18'02"
C2	300.00	130.07	66.07	129.05	N60°18'59"E	24°50'29"
C3	300.00	28.18	14.10	28.17	N45°12'17"E	5°22'55"
C4	33.00	49.70	30.93	45.13	N54°59'51"W	86°17'23"
C5	33.00	44.32	26.22	41.06	S26°37'12"W	76°58'42"
C6	318.00	125.31	63.48	124.50	N53°48'11"E	22°34'42"
C7	33.00	62.51	45.87	53.57	N06°46'46"E	108°31'53"
C8	33.00	51.84	33.00	46.67	N87°30'50"E	90°00'00"
C9	318.00	45.21	22.65	45.18	N85°55'51"E	8°08'48"
C10	282.00	142.53	72.82	141.02	N75°31'29"E	28°57'32"



REVISIONS		
DATE	DESCRIPTION	BY
8-02-02	SECOND CITY REDLINES	CR

BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF SUNFIRE DRIVE AND RED SUN DRIVE.
ELEVATION: 4407.55 (CITY DATUM)

PROJECT NAME

SOMBRAS DEL SOL UNIT TWO

Engineering & Surveying
2112 TRAWOOD SUITE B-1

SEAL: STATE OF TEXAS — A. A. TELLES — 44140 — REGISTERED PROFESSIONAL ENGINEER

SCALES

HOR. 1"=40'
VER. 1"=5'

SHEET TITLE

SOMBRA GRANDE DRIVE

SHT 12 OF 17

600611

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	33.00	48.78	30.08	44.45	N68°24'05"W	84°39'56"
C2	33.00	56.17	37.65	49.63	N22°41'47"E	97°31'49"

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	33.00	49.68	30.92	45.12	N54°59'03"W	86°15'48"
C2	33.00	44.33	26.24	41.07	S26°38'01"W	76°53'19"

DESILTING BASIN

SCALE H=1"=4'

JANUARY 14, 2002.

REVISIONS		
DATE	DESCRIPTION	BY

BENCHMARK

CITY MONUMENT AT THE CENTERLINE INTERSECTION OF SUNFIRE DRIVE AND RED SUN DRIVE.
ELEVATION: 4007.59 (CITY DATUM)

PROJECT NAME

SOMBRAS DEL SOL UNIT TWO

Engineering & Surveying
2112 TRAWOOD SUITE B-1

SEAL

STATE OF TEXAS
A. A. TELLES
44140
REGISTERED PROFESSIONAL ENGINEER

SCALES

HOR. 1"=40'
VER. 1"=5'

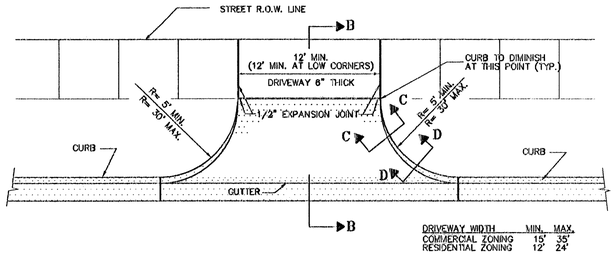
SHEET TITLE

SOMBRA ALEGRE DRIVE AND ROBERT DAHL DRIVE

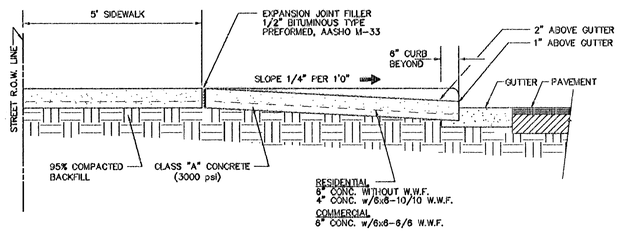
SHT 13 OF 17

600611

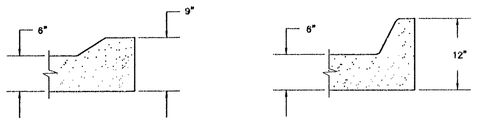
TYPICAL SECTIONS AND DETAILS



PLAN VIEW
SCALE : 1" = 6'



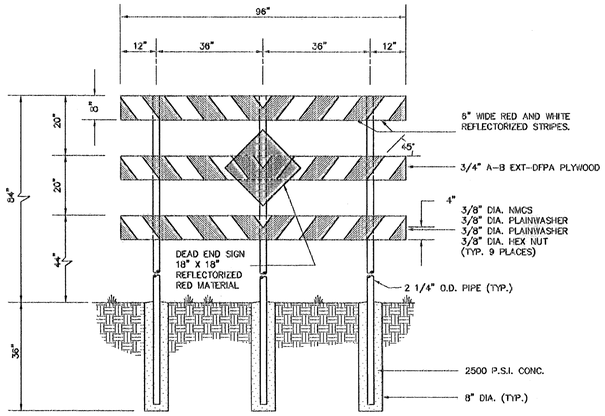
SECTION B – B
SCALE : 1" = 2'



SECTION C – C
SCALE : 1" = 1'

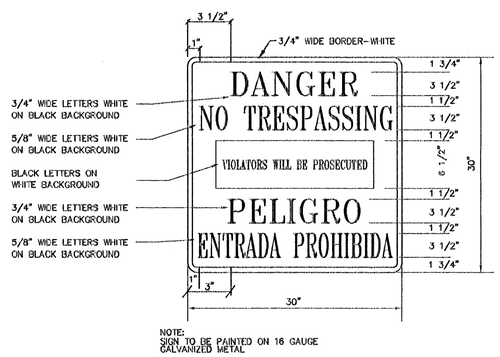
SECTION D – D
SCALE : 1" = 1'

TYPICAL CONCRETE DRIVEWAY



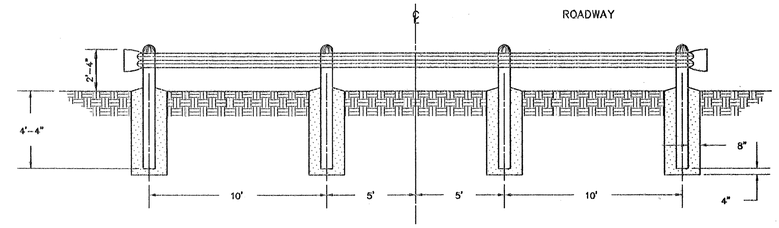
NOTES: DEAD END SIGN TO BE USED WITH GUARDRAILS. RED AND WHITE PORTIONS TO BE REFLECTIVE SHEETING. DEAD END SIGN MUST COMPLY WITH WITH THE CITY OF EL PASO SUBDIVISION DESIGN STANDARDS.

DEAD END SIGN
SCALE : 1" = 2'

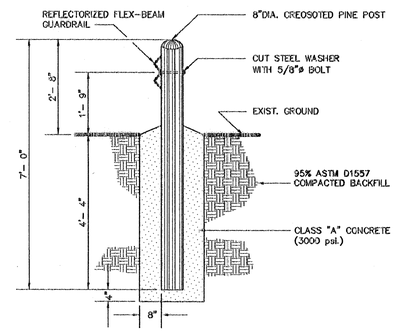


NOTE:
SIGN TO BE PAINTED ON 16 GAUGE GALVANIZED METAL

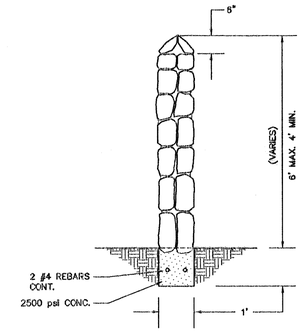
WARNING SIGN DETAIL
SCALE : 1" = 1'



GUARD RAIL DETAIL
SCALE : 1" = 4'

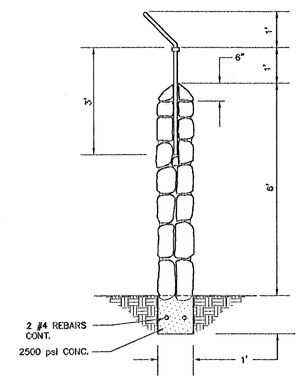


GUARD RAIL POST DETAIL
SCALE : 1" = 2'



ADJACENT TO RESIDENTIAL LOTS

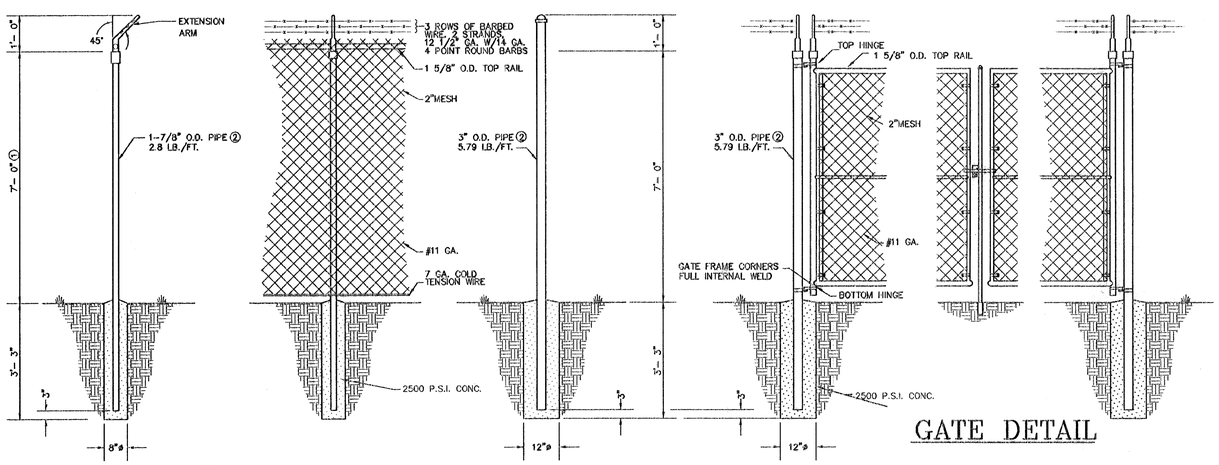
NOTES:
1. STONE FOR ROCKWALLS SHALL BE AS NEARLY UNIFORM IN SECTION AS IS PRACTICABLE. THE STONE SHALL BE DENSE AND RESISTANT TO THE ACTION OF AIR AND WATER.
2. MORTAR FOR ROCKWALL SHALL BE A.S.T.M. TYPE "S". USE ONE PART PORTLAND CEMENT, 1/4 TO 1/2 PARTS HYDRATED LIME AND 3 PARTS SAND (2–1/4 TO 3 TIMES THE SUM OF THE VOLUMES OF CEMENT AND LIME COMBINED). SEE CITY BUILDING CODE.
3. IF ROCKWALL IS FREQUENTLY EXPOSED TO WATER, LIME SHALL NOT BE USED, AND THE PROPORTIONS SHALL BE ONE PART PORTLAND CEMENT AND THREE PARTS SAND.
4. WALLS ADJACENT TO PONDING AREAS OR DRAINAGE DITCHES MAY BE CONSTRUCTED OF BRICK OR CINDER BLOCK.



ADJACENT TO PONDING AREA

5. MASONRY WALLS OVER (6) FEET IN HEIGHT AND THOSE USED IN WHOLE OR IN PART FOR EARTH RETENTION, REGARDLESS OF HEIGHT, SHALL BE DESIGNED AS STRUCTURAL WALLS AND PROVIDED WITH ADEQUATE FOOTINGS OF REINFORCED CONCRETE. SUCH DESIGN OF WALL AND FOOTINGS SHALL BE PRESENTED TO THE BUILDING OFFICIAL FOR APPROVAL PRIOR TO ERECTION.

ROCKWALL DETAIL
SCALE : 1" = 2'



LINE POST

NOTE:
THIS DESIGN TO BE USED FOR PONDING AREAS WHERE REQUIRED.
(1) WHEN BARBED WIRE IS USED THE MINIMUM HEIGHT SHALL BE 7 FEET.
(2) PIPE, OR SQUARE TUBE POSTS MAY BE USED IN ACCORDANCE TO MANUFACTURERS SPECIFICATIONS.

END POST & GATE POST

GATE DETAIL

CHAIN LINK FENCE
SCALE : 1" = 2'

REVISIONS		
DATE	DESCRIPTION	BY

BENCHMARK

EXISTING CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF SUNFIRE DRIVE AND RED SUN DRIVE
ELEVATION: 4007.55 (CITY DATUM)

PROJECT NAME

SOMBRAS DEL SOL UNIT TWO

ATCON
Engineering & Surveying
2112 TRAWOOD SUITE B-1, EL PASO, TEXAS 79935.

SEAL
STATE OF TEXAS
A. A. TELLES
44140
REGISTERED PROFESSIONAL ENGINEER

SCALES
HOR. AS SHOWN
VER. AS SHOWN

SHEET TITLE

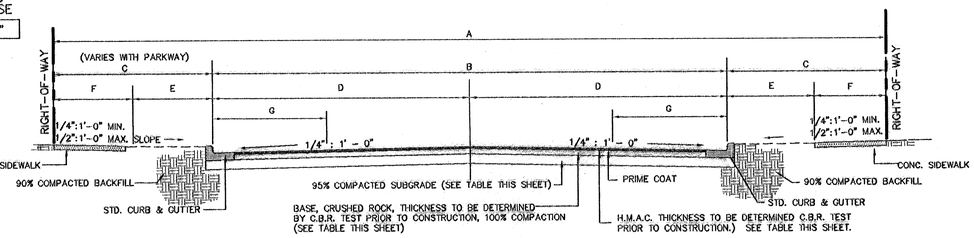
GENERAL DETAILS

SHT 14 OF 17

600611

	A	B	C	D	E	***F	G	H	I		HMAC	BASE	SUB-BASE
52' R.O.W.	52'	36'	8'	18'	4.0'	4.0'	8'	N/A	N/A	RESIDENTIAL SUBCOLLECTOR ST.	1 1/2"	6"	8"

*** ON-STREET PARKING PERMITTED ON ONE SIDE OF THE STREET ONLY.
V = VARIABLE
+ NOTE: THE VARIABLE R.O.W. WILL DETERMINE "B" (40' ROADWAY MIN. PLUS RAISED MEDIAN).



TYPICAL R.O.W. SECTION

CROWN SECTION SCALE 1" = 5'

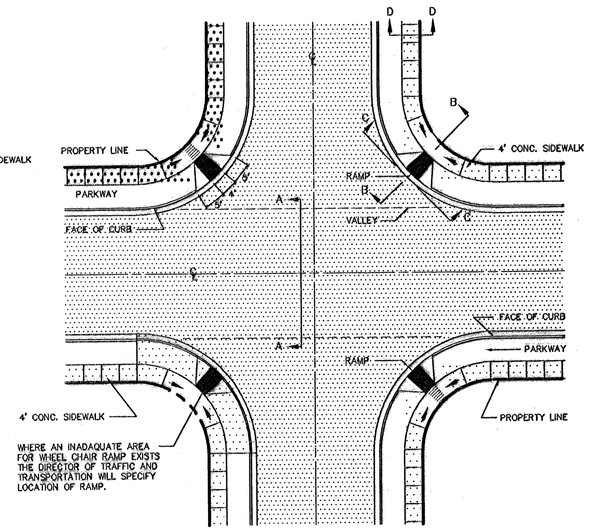
NOTES FOR STREETS

1. BASE TO BE COMPACTED TO 100% COMPACTION BY A.S.T.M. D1557
2. H.M.A.C., BASE AND SUBGRADE WILL BE IN STRICT ACCORDANCE WITH THE LATEST CITY OF EL PASO SPECIFICATIONS
3. SUBGRADE TO BE COMPACTED TO 95% COMPACTION BY A.S.T.M. D1557
4. PRIME COAT TO BE 0.25 GALLON PER SQUARE YARD (MIN. COVERAGE).
5. ALL ELEVATIONS ON PLANS BASED ON CITY DATUM.
6. SUBGRADE UNDER CURB MUST BE FORMED AND COMPACTED AS SHOWN OR EXCESS CUT MUST BE BACKFILLED WITH CONCRETE.
7. COMPACTION BEHIND CURB A. ONE FOOT MIN. ON CUTS B. TWO FOOT MIN. ON FILLS
8. C.B.R. TEST TO BE APPROVED BY THE CITY ENGINEER PRIOR TO PAVING.
9. COMPACTION TEST WHERE REQUIRED BY THE CITY ENGINEER MUST BE PAID FOR BY THE DEVELOPER. THIS INCLUDES BUT NOT LIMITED TO SUB GRADE AND BASE COARSE.
10. ALL PLANS MUST BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CITY OF EL PASO SUBDIVISION DESIGN AND IMPROVEMENT STANDARDS.
11. C.B.R. TEST REQUIRED AT EVERY 500' AFTER SUBGRADE IS IN PLACE OR A MIN. OF TWO TEST IF STREET IS LESS THAN 500'
12. STREET VERTICAL CONTROL OF ALL CURB AND GUTTER ELEVATIONS WILL BE MAINTAINED. (BLUE TOPPING REQUIRED THROUGHOUT)

NOTE:
WHERE SIDEWALKS ARE NOT REQUIRED OR ARE PERMITTED TO BE LOCATED ADJACENT TO AND PARALLEL WITH THE CURBLINE, THE TOTAL STREET RIGHT-OF-WAY SHALL BE REDUCE BY DEDUCTING 3'-0" FROM THE PARKWAY ON EACH AFFECTED SIDE OF THE LOCAL STREET.

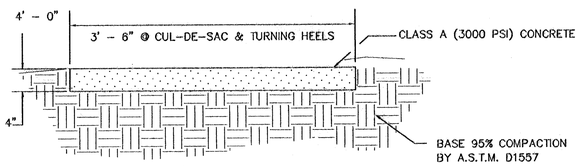
WITHIN A DIVIDED RESIDENTIAL STREET, THE MEDIAN MAY BE DESIGNED TO PERMIT A SWALE FOR DRAINAGE PURPOSES.

*****WHERE REQUIRED SIDEWALKS ARE PERMITTED TO BE LOCATED ADJECENT TO AND PARALLEL WITH THE CURBLINE, THE SIDEWALK SHALL BE A MINIMUM OF SEVEN (7) FEET WIDE AND NO REDUCTION TO THE PARKWAY SHALL BE PERMITTED.**



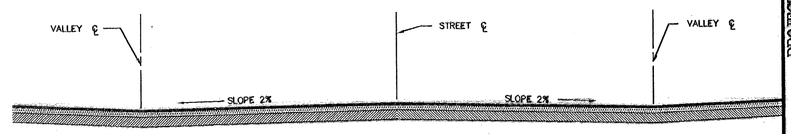
PLAN VIEW DETAIL

SCALE 1" = 20'



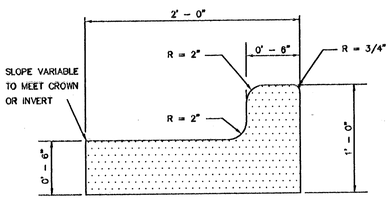
SECTION D - D

SIDEWALK DETAIL SCALE: 1" = 1'



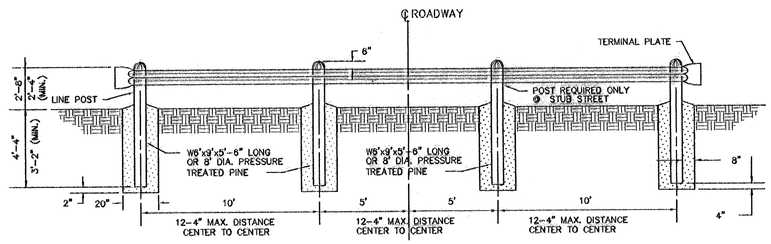
SECTION A - A

VALLEY DETAIL SCALE: 1" = 4'



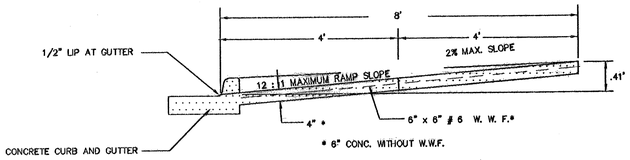
STANDARD CURB AND GUTTER DETAIL

SCALE 1 1/2" = 1'



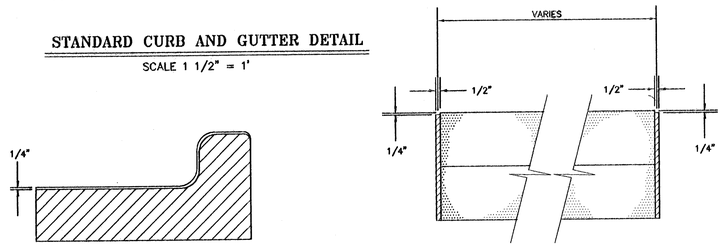
GUARD RAIL DETAIL

SCALE : 1" = 4'



SECTION B - B

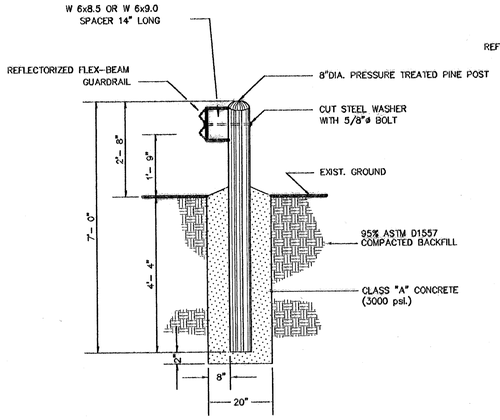
HANDICAP RAMP SCALE: 1" = 2'



CURB AND GUTTER EXPANSION JOINT DETAIL

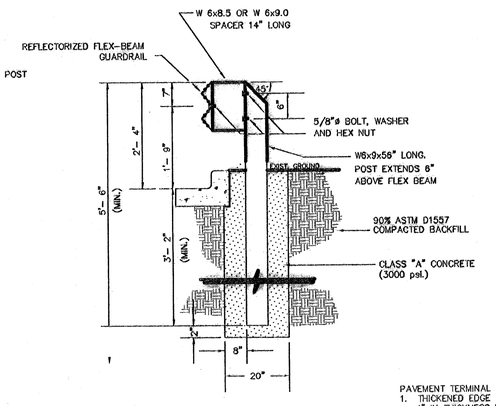
SCALE 1 1/2" = 1'

END ELEVATION SIDE ELEVATION



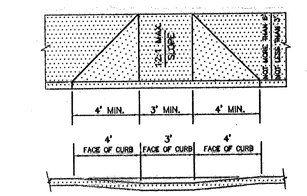
GUARD RAIL POST DETAIL

SCALE : 1" = 2'



LINE POST DETAIL

SCALE : 1" = 2'

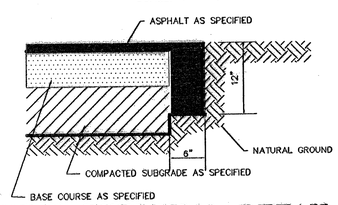


NOTE: ALL CONCRETE TO BE 3000 p.s.i. (MIN.) BROOM FINISHED

SECTION C - C

SCALE: 1" = 4'

PAVEMENT TERMINAL NOTE:
1. THICKENED EDGE SHALL BE CONSTRUCTED IN COURSES NOT OVER 4" IN THICKNESS EACH COURSE THROUGHLY COMPACTED BEFORE PLACING NEXT COURSE. FINAL COURSE TO BE PLACED MONOLITHIC WITH PAVEMENT AT END OF STREET ONLY.



PAVEMENT TERMINAL DETAIL

SCALE 1" = 1'

REVISIONS

DATE	DESCRIPTION	BY
5-29-02	FIRST CITY REDLINES	CR
8-02-02	SECOND CITY REDLINES	CR
8-02-02	THIRD TIME CORRECTIONS	CR

C:\Autoed Projects\ELECROAD\Acad\Dwg\ 05/05/02 08:08:46 AM PDT

BENCHMARK

EXISTING CITY MONUMENT AT THE INTERSECTION OF MONTANA AVE. & PLAZA DEL SOL DRIVE
ELEVATION: 3666.43 (CITY DATUM)

PROJECT NAME

SOMBRAS DEL SOL SUBDIVISION UNIT TWO

ATCON
Engineering & Surveying
2112 TRAWOOD SUITE B-1, EL PASO, TEXAS 79935.

SEAL

STATE OF TEXAS
A. A. TELLES
44140
REGISTERED PROFESSIONAL ENGINEER

SCALES
HOR. 1"=1'
VER. AS SHOWN

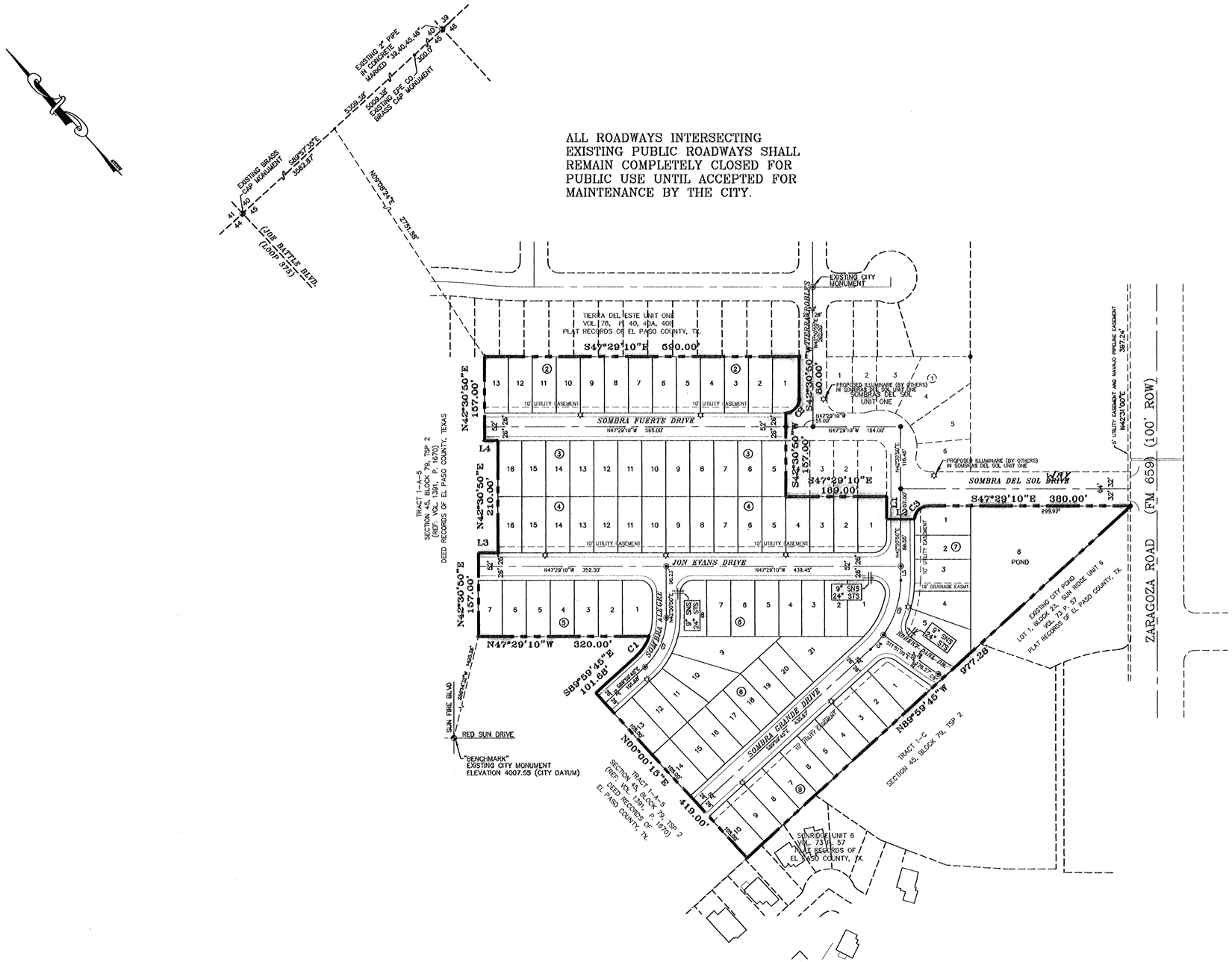
SHEET TITLE

TYPICAL DETAILS

SHT 15 OF 17

600611

ALL ROADWAYS INTERSECTING EXISTING PUBLIC ROADWAYS SHALL REMAIN COMPLETELY CLOSED FOR PUBLIC USE UNTIL ACCEPTED FOR MAINTENANCE BY THE CITY.



☼ DENOTES ILLUMINARE

CONTACT:
DANNY SANCHEZ OR JANET CASTLE,
EL PASO ELECTRIC COMPANY, (915) 543-2225
TO VERIFY LOCATION OF POWER SOURCES FOR THESE LIGHTS.

SEE SHEET 17 OF 17
FOR ILLUMINATION DETAILS

REVISIONS		
DATE	DESCRIPTION	BY

BENCHMARK

EXISTING CITY MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF SUNFIRE DRIVE AND RED SUN DRIVE
ELEVATION: 4007.55 (CITY DATUM)

PROJECT NAME

SOMBRAS DEL SOL UNIT TWO

ATCON
Engineering & Surveying
2112 TRAWOOD SUITE B-1, EL PASO, TEXAS 79935.

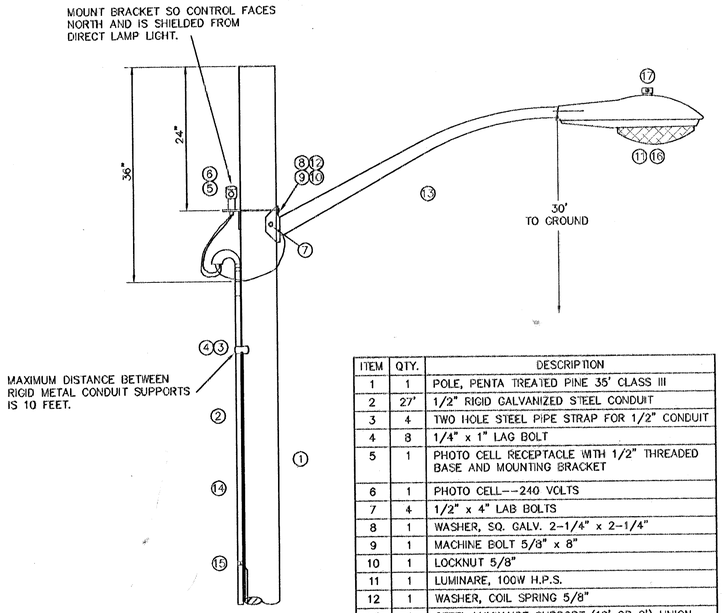
SEAL

STATE OF TEXAS
A. A. TELLES
44140
REGISTERED PROFESSIONAL ENGINEER

SCALES
1" = 100'

SHEET TITLE
ILLUMINATION PLAN

600611



ITEM	QTY.	DESCRIPTION
1	1	POLE, PENTA TREATED PINE 35' CLASS III
2	27'	1/2" RIGID GALVANIZED STEEL CONDUIT
3	4	TWO HOLE STEEL PIPE STRAP FOR 1/2" CONDUIT
4	8	1/4" x 1" LAG BOLT
5	1	PHOTO CELL RECEPTACLE WITH 1/2" THREADED BASE AND MOUNTING BRACKET
6	1	PHOTO CELL--240 VOLTS
7	4	1/2" x 4" LAB BOLTS
8	1	WASHER, SQ. GALV. 2-1/4" x 2-1/4"
9	1	MACHINE BOLT 5/8" x 8"
10	1	LOCKNUT 5/8"
11	1	LUMINARE, 100W H.P.S.
12	1	WASHER, COIL SPRING 5/8"
13	1	STEEL LUMINAIRE SUPPORT (10' OR 8') UNION METAL MANUF. CO. DESIGN 34B OR EQUIVALENT
14	1	2-#12 COPPER WIRES WITH THW INSULATION
15	1	GROUND CLAMP FOR 1/2" RIGID CONDUIT
16	1	H.P.S. LAMP, 100W
17	1	*PHOTOCELL, 240V

*MOUNT PHOTOCELL SO THAT CONTROL FACES NORTH

EXHIBIT " A "

SCALE 1" = 1' - 0"

NOTES

1 THE DEPTH OF THE 35' CLASS III STREET LIGHT POLE SHALL BE 8'.
2 THE HOLE SHALL BE DRILLED WITH A 12" DIAMETER AUGER.
3 COMPACTION OF HOLE AND TRENCH WORK SHALL COMPLY WITH DSU 14-1.
4 DISTRIBUTION BUTT GROUNDING (SEE DSO 6-13) SHALL BE USED.

ITEM	QTY.	DESCRIPTION
1	1	1/2" SCHEDULE 40 PVC COUPLING
2	1	1/2" SCHEDULE 40 PVC 18" RADIAL BEND
3	1	1/2" SCHEDULE 40 PVC FEMALE ADAPTER
*4	1	1/2" x 6" PVC COATED RIGID STEEL CONDUIT NIPPLE
*5	1	1/2" PVC COATED RIGID STEEL COUPLING

* = MUST MEET OCCIDENTAL COATING CO. SPECIFICATIONS.

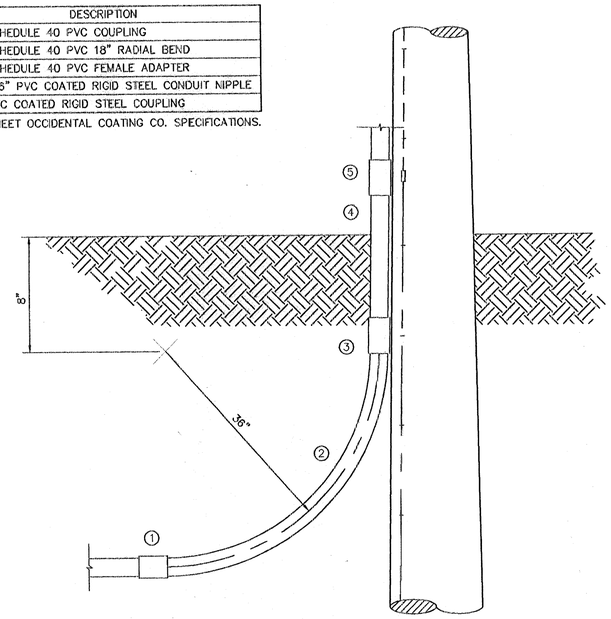
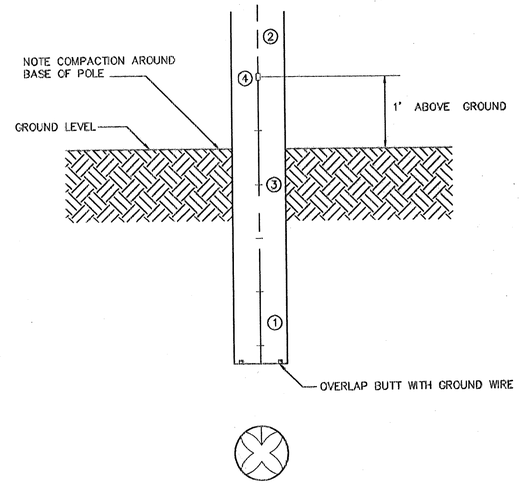


EXHIBIT " B "

SCALE 1" = 2' - 0"



ITEM	QTY.	DESCRIPTION
1		COPPER WIRE, #6 BARE SOLID HARD DRAWN
2		ALUMINUM WIRE, #4 BARE SOLID HARD DRAWN
3	1/2 #	STAPLE, GALVINIZED 1-1/2" NO. 9
4	1	SPLICE, #4 SOLID ALUMINUM TO #6 SOLID COPPER

EXHIBIT " C "

SCALE 1" = 1'-0"

STREET LIGHT LOCATION

THE FOLLOWING GENERAL STANDARDS SHALL GOVERN THE INSTALLATION OF STREET LIGHT IN RESIDENTIAL SUBDIVISIONS.

THE CENTER OF THE INTERSECTION AND THE CENTER OF THE CURVE'S ARC SHALL HAVE A MINIMUM ILLUMINATION OF 0.2 FOOTCANDLES. ILLUMINATION MAY DERIVE FROM MORE THAN ONE SOURCE. A CITY OF EL PASO STANDARD 30-FOOT HIGH, 100-WATT, HIGH PRESSURE, SODIUM RESIDENTIAL STREET LIGHT HAS AN ILLUMINATION OF 0.2 FOOTCANDLES AT A DISTANCE OF APPROXIMATELY 185 FEET FROM THE LIGHT.

EXHIBIT " E "

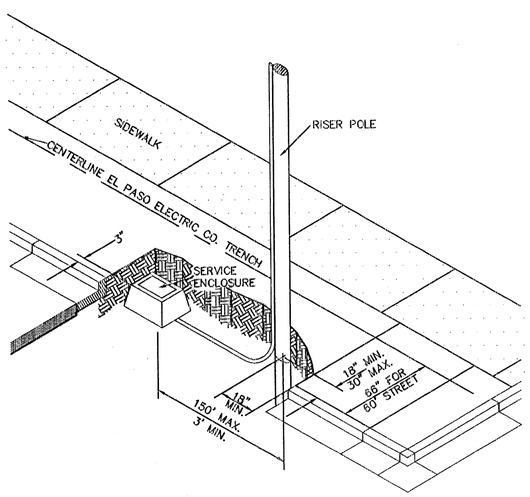


EXHIBIT " D "

SCALE 1" = 4' - 0"

SEE SHEET 16 OF 17
FOR ILLUMINATION PLAN

REVISIONS		
DATE	DESCRIPTION	BY

BENCHMARK

EXISTING CITY MONUMENT AT THE INTERSECTION OF ROBERT DANIEL DR. AND RED SUN DRIVE
ELEVATION: 3999.43 (CITY DATUM)

PROJECT NAME

SOMBRAS DEL SOL
UNIT TWO

ATCON
Engineering & Surveying
2112 TRAWOOD SUITE B-1, EL PASO, TEXAS 79935.

SEAL

STATE OF TEXAS
A. A. TELLES
44140
REGISTERED PROFESSIONAL ENGINEER

SCALES

AS SHOWN

SHEET TITLE

ILLUMINATION DETAILS

SHT 17 OF 17

600611