

CITY OF ALBUQUERQUE

PARKS AND RECREATION DEPARTMENT

LANDSCAPE ARCHITECTURE AND CONSTRUCTION SERVICES

# SUNRISE TERRACE PARK IMPROVEMENTS

850 102nd STREET SW

4.71 ACRES

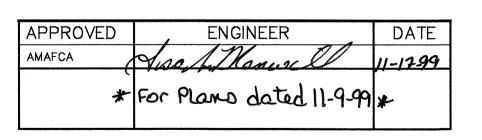
# INDEX TO DRAWINGS

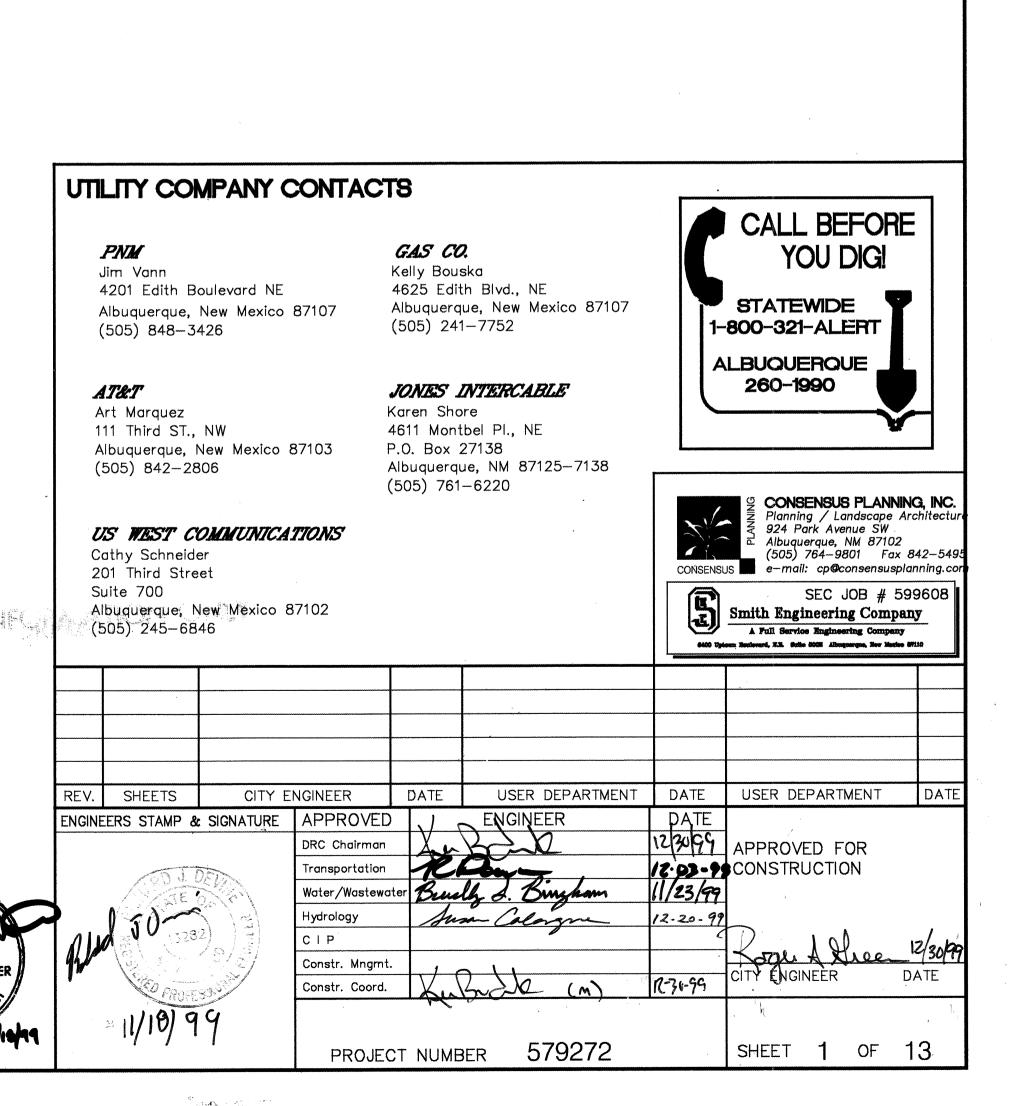
SHEET NO.	<u>TITLE</u>
1	TITLE SHEET, VICINITY MAP, INDEX TO DRAWINGS
2	GENERAL NOTES &: LEGEND
3	SITE PLAN
4	DRAINAGE & GRADING PLAN AND BASIN DEFINITIONS
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7	PLAY AREA LAYOUT AND SITE AMENITIES LEGEND
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FOR INFORMATION ONLY

VICINITY MAP

Paso Fino Pl.





PARK SITE

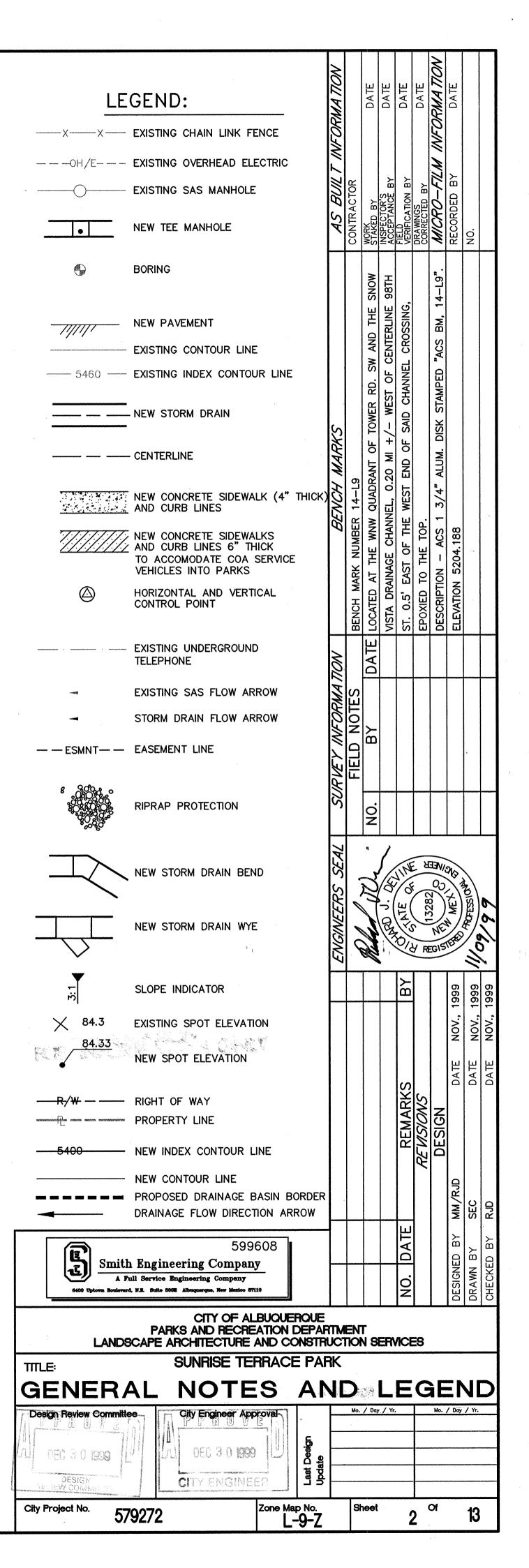
Tower Road

Sage Road

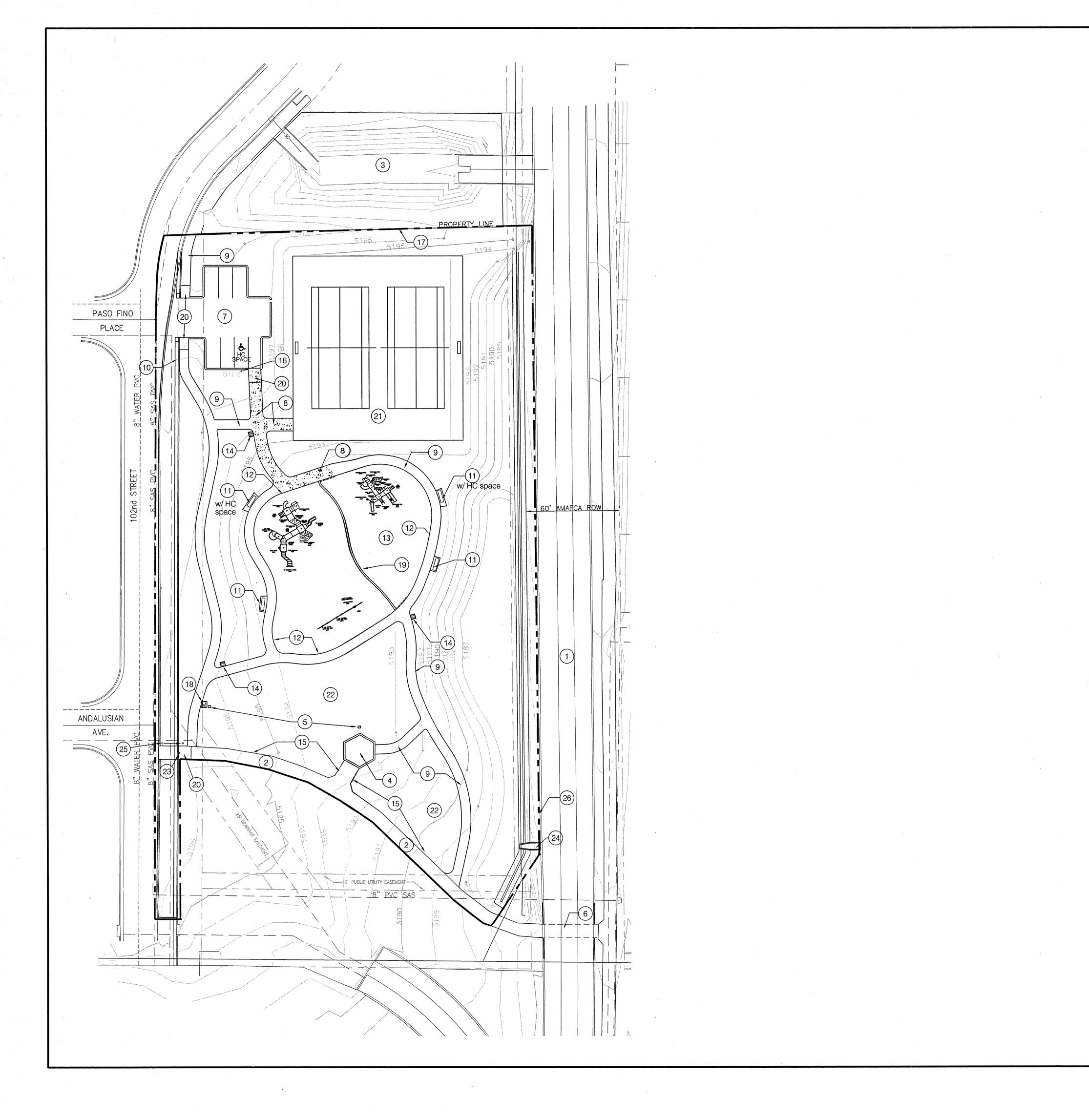
- FIVE (5) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR WILL SUBMIT A DETAILED CONSTRUCTION SCHEDULE TO THE CITY CONSTRUCTION COORDINATION DIVISION. TWO (2) DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR WILL OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION COORDINATION DIVISION. CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (768–2551) PRIOR TO OCCUPYING AN INTERSECTION. REFER TO SECTION 19 OF SPECIFICATIONS.
- THE CONTRACTOR WILL NOTIFY THE FIELD ENGINEER NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK, IN ORDER THAT THE FIELD ENGINEER MAY TAKE NECESSARY MEASURES TO INSURE THE PRESERVATION OF SURVEY MONUMENTS. THE CONTRACTOR WILL NOTIFY THE ENGINEER IF A MONUMENT IS DISTURBED. REPLACEMENT WILL BE DONE ONLY BY THE CITY SURVEYOR. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATION OF THE PAVEMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY MONUMENT IS LOCATED, CONTRACTOR WILL, AT HIS OWN EXPENSE, ADJUST THE MONUMENT COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED. REFER TO SECTION 4 OF SPECIFICATIONS.
- THE SPECIFICATIONS USED FOR THIS PROJECT ARE THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1994 EDITION, LIPDATE NO 6
- 4 ALL NEW MANHOLES SHALL BE TYPE "E" (COA DWG. 2102) UNLESS OTHERWISE
- THE CONTRACTOR WILL BE RESPONSIBLE FOR DISPOSING OF ALL DEBRIS, INCLUDING, BUT NOT LIMITED TO HAZARDOUS WASTE AT DISPOSAL SITES APPROVED BY GOVERNMENTAL AGENCIES REGULATING THE DISPOSAL OF SUCH MATERIALS.
- 6 ALL WATER VALVE BOXES AND MANHOLES IN THE STREET CONSTRUCTION ARE TO BE ADJUSTED TO FINISH GRADE AND WILL BE MEASURED AND PAID PER EACH.
- SUBGRADE PREPARATION UNDER SIDEWALKS AND DRIVE PADS, AND SUBGRADE AND SUBBASE PREPARATION UNDER CURB AND GUTTER IS CONSIDERED INCIDENTAL TO THE CONSTRUCTION OF SUCH, AND NO DIRECT PAYMENT SHALL BE MADE FOR THOSE ITEMS OF WORK.
- THE WATER SYSTEMS DIVISION (857-8200) WILL BE NOTIFIED BY THE CONTRACTOR FIVE (5) WORKING DAYS IN ADVANCE OF ANY WORK WHICH MAY AFFECT THE EXISTING PUBLIC WATER FACILITIES. REFER TO SECTION 18 OF SPECIFICATIONS.
- ALL EXCAVATION WILL BE GOVERNED BY FEDERAL, STATE AND LOCAL LAWS, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- ALL SIGNS AND CODING WILL BE IN ACCORDANCE WITH THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" CURRENT EDITION PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION.
- THE CONTRACTOR IS TO EXERCISE CARE TO AVOID DISTURBING ANY EXISTING UNDERGROUND UTILITIES. IT WILL BE HIS RESPONSIBILITY TO COORDINATE WITH THE UTILITY COMPANIES IN ORDER TO PREVENT ANY SERVICE DISRUPTION. SEE SECTION 18 "UTILITIES", CITY OF ALBUQUERQUE, STANDARD SPECIFICATIONS FOR CONTRACTOR REQUIREMENTS.
- WHEN ABUTTING NEW PAVEMENT TO EXISTING INTERSECTING STREETS, SAW CUT EXISTING PAVEMENT TO A STRAIGHT LINE AND AT RIGHT ANGLES AND REMOVE ANY BROKEN OR CRACKED PAVEMENT. NO DIRECT PAYMENT WILL BE MADE FOR SAW CUTTING.
- ALL GAS VALVES, GAS MANHOLES, ELECTRICAL MANHOLES, TELEPHONE MANHOLES, AND UTILITY POLES WILL BE ADJUSTED TO GRADE BY EACH UTILITY COMPANY. CONTRACTOR WILL COORDINATE THROUGH CITY UTILITY COORDINATOR.
- WHEN REMOVAL OF EXISTING CURB AND GUTTER OR SIDEWALK IS REQUIRED, REMOVE BACK TO NEAREST SUITABLE JOINT UNLESS OTHERWISE DIRECTED BY THE CITY FIELD ENGINEER.
- THE CONTRACTOR WILL NOTIFY THE UTILITY COMPANIES BY CALLING NEW MEXICO ONE CALL SYSTEM 260-1990 TWO (2) WORKING DAYS PRIOR TO COMMENCING WORK
- 16 CONTRACTOR WILL MAKE ALL WATER VALVES AND MANHOLES ACCESSIBLE TO THE CITY AT ALL TIMES.
- 17 CONTRACTOR WILL PLACE BITUMINOUS MATERIAL WITH THE USE OF A LAYDOWN MACHINE WHERE PAVEMENT IS 8 FEET IN WIDTH OR WIDER.
- ALL SUBGRADE AND SUBBASE MATERIAL ENCOUNTERED IN PAVEMENT REMOVAL AND REPLACEMENT THAT IS DETERMINED BY THE FIELD ENGINEER TO MEET THE SPECIFICATIONS, CAN BE REUSED. HOWEVER, THE MATERIAL WILL BE PROCESSED AND COMPACTED TO MEET MOISTURE CONTENT AND PERCENT COMPACTION REQUIRED BY THE SPECIFICATIONS.
- 19 CONTRACTOR WILL NOT PAVE OVER ANY SURFACE FEATURE, I.E., GAS VALVE, MANHOLE COVER, ETC. WITHOUT PRIOR APPROVAL FROM THE CITY FIELD ENGINEER.
- CONTRACTOR WILL CONFINE HIS WORK WITHIN THE CONSTRUCTION EASEMENT LIMITS AND/OR RIGHT-OF-WAY, OR PROVIDE COPIES OF AGREEMENTS WITH ADJACENT LANDOWNERS TO THE CITY OF ALBUQUERQUE.
- 21 ALL WATER VALVES AND FIRE HYDRANTS REMOVED TO BE SALVAGED AND RETURNED TO THE C.O.A.
- 22 MINIMUM BOTTOM WIDTH OF TRENCHES FOR RIGID PIPE SHALL BE EQUAL TO THE OUTSIDE DIAMETER PLUS 16 INCHES. BEDDING MATERIAL SHALL BE CLASS II, III, OR IV UNLESS OTHERWISE SPECIFICALLY NOTED ON THE PLANS.
- MINIMUM BOTTOM WIDTH OF TRENCHES FOR NON-RIGID PIPE SHALL BE EQUAL TO THE OUTSIDE DIAMETER PLUS 12 INCHES. BEDDING MATERIAL SHALL BE CLASS I, II, OR III.
- THE CONTRACTOR AGREES TO TAKE NECESSARY SAFETY PRECAUTIONS AS REQUIRED BY FEDERAL, STATE AND LOCAL AUTHORITIES TO PROTECT PEDESTRIAN AND VEHICULAR TRAFFIC IN THE CONSTRUCTION AREA, WHICH INCLUDE BUT ARE NOT LIMITED TO: MAINTAINING ADEQUATE WARNING SIGNS, BARRICADES, LIGHTS, GUARD FENCES, WALKS AND BRIDGES.
- 25 ALL STRUCTURAL CONCRETE TO BE 4000 PSI UNLESS OTHERWISE NOTED ON PLANS.
- 26 ALL REINFORCING STEEL TO BE GRADE 60.
- 27 ALL EXPOSED EDGES ON CAST—IN—PLACE CONCRETE STRUCTURES WILL HAVE A 1" CHAMFER UNLESS OTHERWISE NOTED.
- 8 ALL SPLICES IN REINFORCING STEEL TO BE 2—FOOT 6—INCH MINIMUM UNLESS OTHERWISE NOTED.

- PRIOR TO CONSTRUCTION, THE CONTRACTOR WILL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL POTENTIAL CONFLICTING UTILITIES. SHOULD A CONFLICT EXIST BETWEEN THE FIELD INFORMATION AND THE PLANS, THE CONTRACTOR WILL NOTIFY THE CITY FIELD ENGINEER SO THE CONFLICT CAN BE RESOLVED WITH MINIMUM AMOUNT OF DELAY.
- THE REPLACEMENT OF THE EXISTING UTILITIES AND THE INSTALLATION OF NEW UTILITY LINES WILL BE COMPLETED IN ADVANCE OF STARTING THE PAVEMENT WORK. TEMPORARY PAVEMENT WILL BE PLACED IN ALL TRENCHES REQUIRED FOR THE UTILITY REPLACEMENTS IN THOSE AREAS THAT MUST MAINTAIN TRAFFIC UNTIL THE FINAL PAVEMENT WORK STARTS IN EACH AREA. TEMPORARY STRIPING SHALL BE THE CONTRACTOR'S RESPONSIBILITY. MAINTENANCE OF THE TEMPORARY PAVING AND STRIPING WILL BE AT THE CONTRACTOR'S EXPENSE.
- TACK COAT FOR SURFACE COURSE REQUIREMENTS WILL BE DETERMINED BY THE CITY FIELD ENGINEER.
- THE CONTRACTOR WILL CONTACT THE CITY OF ALBUQUERQUE TRAFFIC DIVISION 764—1599, ONE (1) WEEK IN ADVANCE OF ANY CHANGES REQUIRED IN THE TRAFFIC SIGNALIZATION OF THIS PROJECT. ALL WORK ASSOCIATED WITH NEW TRAFFIC SIGNALIZATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 33 ALL NEW STREET PAVING, DRIVEWAYS, SIDEWALKS, AND CURB AND GUTTERS, ABUTTING EXISTING AREAS SHALL MATCH THE ELEVATION OF THOSE AREAS.
- PERMANENT PAVEMENT STRIPING AND MARKINGS WILL BE PLACED BY THE CONTRACTOR. ROAD SHALL NOT BE OPENED TO TRAFFIC UNTIL IT IS STRIPED. ALL STRIPING, PAVEMENT MARKINGS INCLUDING CROSSWALKS, ARROWS AND LINE MARKINGS ARE TO BE CONSTRUCTED OF HOT PLASTIC OR COLD PLASTIC IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- ALL EXCAVATED MATERIAL THAT IS NOT REQUIRED TO BE REUSED MUST BE REMOVED FROM THE PROJECT AREA WITHIN FOUR DAYS OF EXCAVATION. SPOIL PILES WILL BE ALLOWED ONLY AS DIRECTED BY THE CITY FIELD ENGINEER.
- THE CONTRACTOR WILL COORDINATE THE CONSTRUCTION ACTIVITIES WITH ALL OTHER CONTRACTORS AND UTILITY COMPANIES WORKING IN THE SAME AREA. THE CONTRACTOR MAY BE REQUIRED TO RESCHEDULE THEIR ACTIVITIES TO ALLOW UTILITY CREWS TO PERFORM THEIR REQUIRED WORK. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR DELAYS OR INCONVENIENCE CAUSED BY UTILITY COMPANY WORK CREWS. A CONTRACT EXTENSION MAY BE ALLOWED AS DELINEATED IN CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS.
- 37 ALL CONSTRUCTION EASEMENTS ON PRIVATE PROPERTY WILL BE OBTAINED BY THE CONTRACTOR PRIOR TO THE BEGINNING OF CONSTRUCTION.
- EXISTING MEDIAN CURB AND GUTTER AND STANDARD CURB AND GUTTER, NOT DISTURBED BY CONTRACTOR, BUT OUT OF ALIGNMENT, DISPLACED VERTICALLY, BADLY BROKEN AND/OR DETERIORATED, WILL BE REPLACED AS DIRECTED BY THE CITY FIELD ENGINEER AND PAID FOR AT CONTRACT UNIT PRICES.
- ALL TRAFFIC CONTROL DEVICES REQUIRED FOR DRIVEWAY CLOSURES, UTILITY CONSTRUCTION OR FOR OTHER REASONS AND NOT SHOWN ON THE SIGNING PLANS WILL BE FURNISHED BY THE CONTRACTOR AND WILL BE PAID AS SPECIFIED IN THE TECHNICAL SPECIFICATIONS AND BID PROPOSAL. PRIOR TO PLACING THE TRAFFIC CONTROL DEVICES, THE CONTRACTOR WILL NOTIFY THE AFFECTED OWNERS IN ACCORDANCE WITH THE SPECIFICATIONS. CONTRACTOR MUST MAKE PROVISIONS TO PROVIDE ACCESS TO PROPERTIES. REFER TO SECTION 19 OF THE SPECIFICATIONS.
- ALL UTILITY LINES WHICH ARE NOT SPECIFICALLY DESIGNATED TO BE REMOVED AND REPLACED ON THE PLANS, WILL BE MAINTAINED IN SERVICE. SHORING, SHEETING AND OTHER MEANS OF SUPPORT SHALL BE EMPLOYED BY THE CONTRACTOR TO PREVENT DAMAGE OR LOSS OF THESE EXISTING UTILITIES. BEAM AND CABLE OR OTHER ADEQUATE SUPPORTS WILL BE USED FOR TEMPORARY SUPPORT OF ALL UTILITY LINES WHICH CROSS THE TRENCH. ANY DAMAGE TO EXISTING UTILITIES WILL PROMPTLY BE REPAIRED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR WILL NOTIFY THE ENGINEER IMMEDIATELY OF ANY SIGNIFICANT DEVIATION OF EXPOSED UTILITIES FROM THE LOCATIONS SHOWN ON THE PLANS SO THAT CONFLICTS CAN BE RESOLVED IN A TIMELY MANNER.
- THE CONTRACTOR WILL ASSUME RESPONSIBILITY FOR ANY DAMAGE TO EXISTING COA INFRASTRUCTURE (C & G, PAVING, ETC.) DURING CONSTRUCTION, APART FROM THOSE SECTIONS INDICATED FOR REMOVAL ON THE PLANS, AND WILL REPAIR OR REPLACE SAME AT HIS OWN EXPENSE. HE WILL SUITABLY PROTECT THE CURB AND GUTTER FROM INCIDENTAL SPLASHING DURING THE TACK COAT APPLICATION AND WILL BE RESPONSIBLE FOR CLEANING SAME AT HIS OWN COST SHOULD SPLASHING OCCUR.
- 42 ALL INTERFERING PORTIONS OF ABANDONED UTILITY LINES WHICH ARE EXPOSED AS A RESULT OF CONSTRUCTION WILL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.
- 43 STATIONS OF STORM DRAIN INLETS ARE TO THE CENTER OF GRATE. ALL STORM DRAIN INLETS WILL BE TYPE "A" UNLESS OTHERWISE NOTED ON THE PLANS.
- SHORING COSTS WILL BE CONSIDERED INCIDENTAL TO THE TRENCH AND BACKFILL
- THE CONTRACTOR WILL BE RESPONSIBLE FOR SECURING NPDES PERMITS REQUIRED BY APPLICABLE CITY, STATE, AND FEDERAL REGULATIONS.
- 46 ALL STORM DRAIN AND CONNECTOR PIPE WILL BE CLASS IV REINFORCED
- CONCRETE PIPE UNLESS OTHERWISE NOTED ON THE PLANS.
- THE TERM REMOVE USED IN THIS PLAN SET INCLUDES THE DISPOSAL OF SAID MATERIAL IN ACCORDANCE WITH CITY OF ALBUQUERQUE SPECIFICATIONS, LATEST EDITION.
- CONTRACTOR WILL SURVEY AND LOG EXISTING ELEVATIONS OF CURB-AND-GUTTER, SIDEWALK, AND PAVEMENT WHICH WILL BE REMOVED FOR CONSTRUCTION OF IMPROVEMENTS. CONTRACTOR WILL REPLACE REMOVED CURB-AND-GUTTER, SIDEWALK, DRIVE PADS, AND PAVEMENT TO ELEVATIONS PRIOR TO REMOVAL UNLESS OTHERWISE INDICATED ON THE PLANS.
- CONTRACTOR WILL CONSTRUCT TEMPORARY ASPHALT PAVEMENT AS DIRECTED BY THE COA ENGINEER TO PROVIDE ACCESS TO LOCAL BUSINESS, ETC. TEMPORARY PAVEMENT SHALL BE REMOVED AND DISPOSED OF PRIOR TO PLACEMENT OF FULL WIDTH PAVEMENT SECTION. TEMPORARY PAVING SHALL BE PER COA STD. DWG. 2415 AND PAID FOR PER COA STD. SPECIFICATIONS.

- ALL CLASSES OF SEEDING SHALL BE DRY LAND MIX PLACED AT 1.5 LBS/1000 S.F. WITH FERTILIZER 21-12-12 PLACED AT 5 LBS/1000 S.F.
- PRE-WETTING OF THE EMBANKMENT FOUNDATION AND KEY TRENCH SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION OF THE EMBANKMENT. NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK.
- ALL ASPHALTIC CONCRETE SHALL BE MINIMUM 1800 LB. STABILITY AND COMPACTED TO 95% MODIFIED MARSHALL DENSITY UNLESS OTHERWISE NOTED ON THE PLANS.
- ALL RIP—RAP MATERIAL USED ON THIS PROJECT SHALL BE A NATURAL ROCK MATERIAL CONFORMING TO THE SIZE AND MATERIAL PROPERTY REQUIREMENTS SET FORTH IN THE COA STANDARD SPECIFICATIONS. NO BROKEN CONCRETE OR RUBBLE WILL BE ACCEPTED.

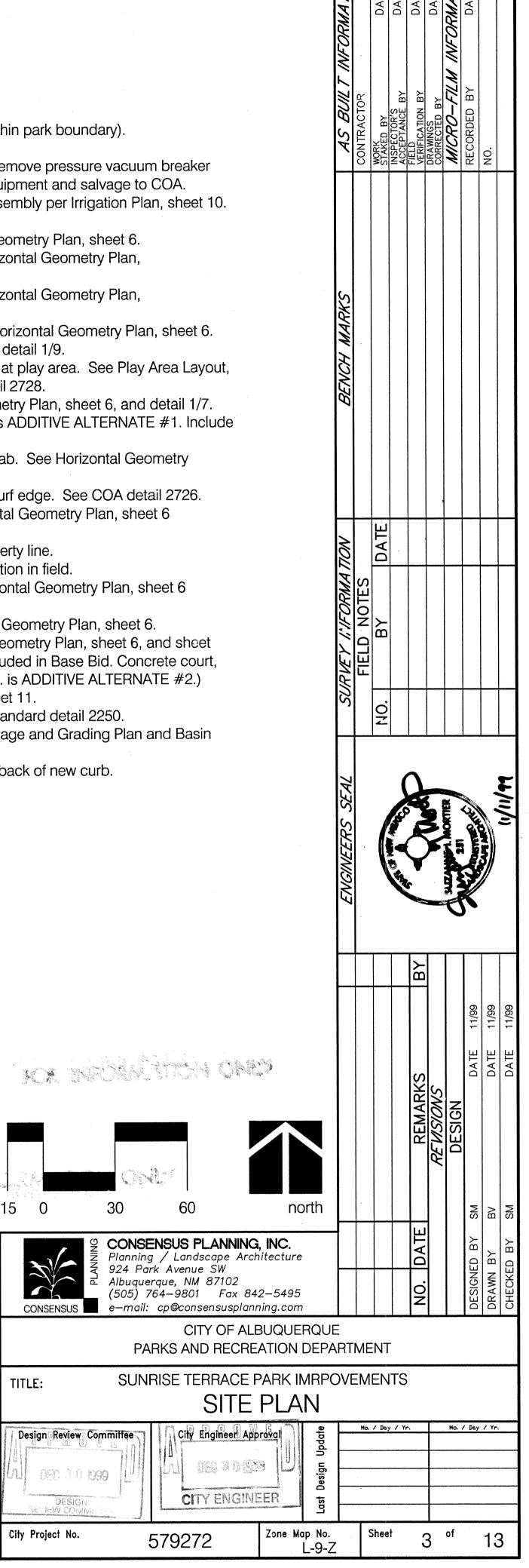


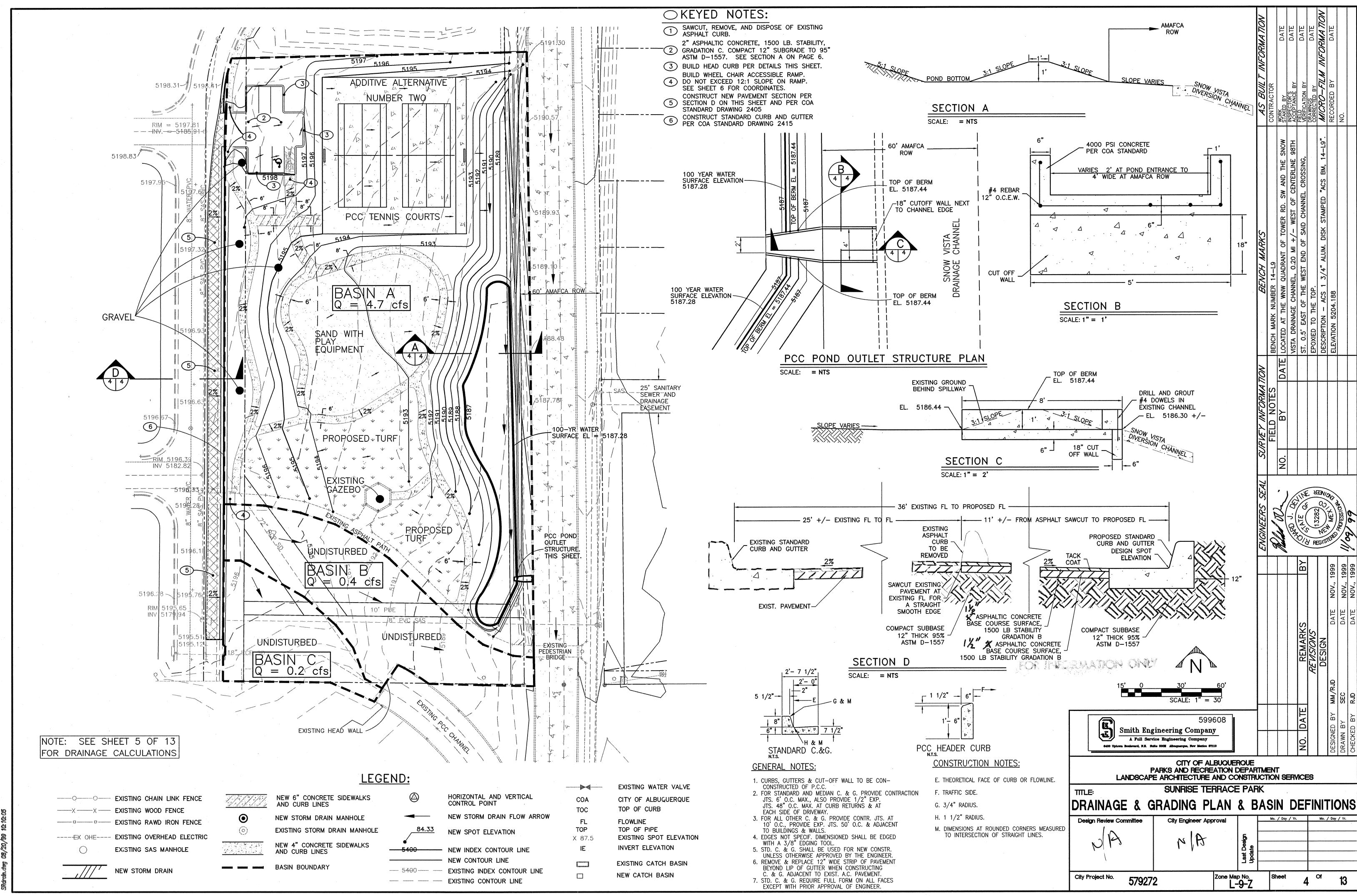
FOR INFORMATION ONLY



## **KEYED NOTES**

- 1) Existing drainage channel.
- Existing asphalt path.
- Existing detention pond, (not within park boundary).
- Existing shade structure.
- Existing irrigation equipment. Remove pressure vacuum breaker and miscellaneous irrigation equipment and salvage to COA. Relocate drip valve and filter assembly per Irrigation Plan, sheet 10.
- Existing pedestrian bridge.
- Parking Area. See Horizontal Geometry Plan, sheet 6.
- 8' wide concrete path. See Horizontal Geometry Plan, sheet 6, and detail 2/9.
- 6' wide concrete path. See Horizontal Geometry Plan, sheet 6, and detail 3/9.
- 10 Curb, gutter, and paving. See Horizontal Geometry Plan, sheet 6.
- 11 6' bench on concrete slab. See detail 1/9.
- 12 18" x 8" concrete turndown slab at play area. See Play Area Layout, sheet 7 and COA standard detail 2728.
- Play Area. See Horizontal Geometry Plan, sheet 6, and detail 1/7. (Play equipment for ages 5-12 is ADDITIVE ALTERNATE #1. Include sand in base bid.)
- 14 Trash receptacle on concrete slab. See Horizontal Geometry Plan, sheet 6, and detail 4/9.
- 15 Concrete mow strip at asphalt/turf edge. See COA detail 2726.
- HC parking space. See Horizontal Geometry Plan, sheet 6 and detail 5/9.
- 17 Existing chain link fence at property line.
- 18 Existing water meter. Verify location in field.
- 19 Concrete cut-off wall. See Horizontal Geometry Plan, sheet 6 and COA Standard Detail 2415.
- 20 Handicap ramp. See Horizontal Geometry Plan, sheet 6.
- Tennis courts. See Horizontal Geometry Plan, sheet 6, and sheet 8 for details. (Grading to be included in Base Bid. Concrete court, fence, equipment, benches, etc. is ADDITIVE ALTERNATE #2.)
- Turf area. See Planting Plan sheet 11.
- 23 Removable bollard. See COA standard detail 2250.
- Pond outlet structure. See Drainage and Grading Plan and Basin Definitions, sheet 4.
- 25 Existing sign to be relocated to back of new curb.
- 26 Limits of Construction.





#### DEVELOPED HYDROLOGIC ANALYSIS ALL TC'S ARE ASSUMED TO BE 12 MINUTES

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Basin & Condition or Analysis Point  A B B	Return Period 6-hr.  100 10 100	Weighte Total Ru Rainfall EaA 0.44 0.08	ed E (in.) = Inoff Volur Excess -E A (ac) 0.9632 0.9632 0.3100 0.3100	EaA*Aa+E ne (ac-ft) : per Land A (%) 47.7 47.7 101.3 101.3	aB*Ba+E = Weight Treatmer EaB  0.67 0.22  0.67 0.22	ed E (in.) * nt Type (inc B (ac) 0.2689 0.2689 0.0000 0.0000	(total area hes) and B (%) 13.3 13.3 0.0 0.0	0.99 0.44	2 in./ft) eatment Ty C (ac) 0.2010 0.2010 0.0000 0.0000	(%) 10.0 10.0 0.0	1.97 1.24 1.97 1.24	(ac) 0.5869 0.5869 0.0000	D (%) 29.1 29.1 0.0 0.0	Total Area (ac) 2.0200 2.0200 0.3060 0.3060	Weighted E (inches) 0.97 0.47	Volume (ac-ft) 0.1633 0.0794 0.0114 0.0021
Basin & Condition or Analysis Point  A B B C	Return Period 6-hr.  100 10 100 100	Veighte Total Ru Rainfall EaA  0.44 0.08  0.44 0.08	ed E (in.) = Inoff Volur Excess -E A (ac) 0.9632 0.9632 0.3100 0.3100	EaA*Aa+E ne (ac-ft): per Land A (%) 47.7 47.7 101.3 101.3	aB*Ba+E = Weight Treatmer EaB  0.67 0.22  0.67 0.22	ed E (in.) * nt Type (inc B (ac) 0.2689 0.2689 0.0000 0.0000	(total area hes) and B  (%) 13.3 13.3 0.0 0.0	0.99 0.44 0.99	2 in./ft) atment Ty C (ac) 0.2010 0.2010 0.0000 0.0000	C (%) 10.0 10.0 0.0 0.0	1.97 1.24 1.97 1.24	D (ac) 0.5869 0.5869 0.0000 0.0000	D (%) 29.1 29.1 0.0 0.0	Total Area (ac) 2.0200 2.0200 0.3060 0.3060 0.1600	Weighted E (inches) 0.97 0.47  0.45 0.08	Volume (ac-ft) 0.1633 0.0794  0.0114 0.0021
Basin & Condition or Analysis Point  A A B B C C C	Return Period 6-hr.  100 10  100 10  100 100 100	Veighte Total Ru Rainfall EaA  0.44 0.08  0.44 0.08	ed E (in.) = Inoff Volur Excess -E A (ac) 0.9632 0.9632 0.3100 0.1600 0.1600	EaA*Aa+E ne (ac-ft): per Land A (%) 47.7 47.7 101.3 101.3	aB*Ba+E = Weight Treatmer EaB  0.67 0.22  0.67 0.22	ed E (in.) * nt Type (inc B (ac) 0.2689 0.2689 0.0000 0.0000	(total area hes) and B  (%) 13.3 13.3 0.0 0.0	0.99 0.44 0.99	2 in./ft) atment Ty C (ac) 0.2010 0.2010 0.0000 0.0000 0.0000	C (%) 10.0 10.0 0.0 0.0	1.97 1.24 1.97 1.24	(ac) 0.5869 0.5869 0.0000 0.0000 0.0000	D (%) 29.1 29.1 0.0 0.0	Total Area (ac) 2.0200 2.0200 0.3060 0.3060 0.1600 0.1600	Weighted E (inches) 0.97 0.47  0.45 0.08	Volume (ac-ft) 0.1633 0.0794  0.0114 0.0021  0.0059 0.0011  0.1805
Basin & Condition or Analysis Point  A A B B C C C	Return Period 6-hr.  100 10  100 10  100 10	Veighte Total Ru Rainfall EaA  0.44 0.08  0.44 0.08	ed E (in.) = Inoff Volur Excess -E A (ac) 0.9632 0.9632 0.3100 0.3100 0.1600 1.4332	EaA*Aa+E ne (ac-ft): per Land A (%) 47.7 47.7 101.3 101.3	aB*Ba+E = Weight Treatmer EaB  0.67 0.22  0.67 0.22	ed E (in.) * nt Type (inc B (ac) 0.2689 0.2689 0.0000 0.0000 0.0000	(total area hes) and B  (%) 13.3 13.3 0.0 0.0	0.99 0.44 0.99	2 in./ft) eatment Ty C (ac) 0.2010 0.2010 0.0000 0.0000 0.0000	C (%) 10.0 10.0 0.0 0.0	1.97 1.24 1.97 1.24	(ac) 0.5869 0.5869 0.0000 0.0000 0.0000	D (%) 29.1 29.1 0.0 0.0	Total Area (ac) 2.0200 2.0200 0.3060 0.3060 0.1600 0.1600 2.4860	Weighted E (inches) 0.97 0.47  0.45 0.08	Volume (ac-ft) 0.1633 0.0794 0.0114 0.0021 0.0059 0.0011

# EXISTING HYDROLOGIC ANALYSIS

ALL	TC'S	ARE	ASSUMED	TO	BE	12	MINUTES	

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			OLOGIC										190.800 p. 100.800 p.			\$1.00 p. \$1.
	(for smal	l w atersi	neds < 40	acres (per	DPM Sec	ction 22)		C		**************************************			*********	****************	*****************	****************
Precipitation Zone =		1	a constant		****	*************	-	} } }	**************		***************************************	***************************************	*******		*******	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Table A-	9 (DPM)	Peak D	ischarge	(cfs/acre)	)										~~~~~	************
FORMULA:		Total Q	o (cfs) = Q	pA*Aa+Qr	B*Ba+Q	oC*Ca+Qp[	)*Da		N	lote - "a	" = area	in acres	**********		************	****************
Basin &	Return	Qp per	Land Treat	ment Type	(cfs/acr	e) and	Land	Treatmer	nt Type (a	cres)		TO ALLEGE				padalahannakanakanakanaka
Condition or	Period	QpA	Α	Α	QpB	В	В	QpC	С	С	QpD	D	D	Total	Total Qp	inania ila manta ila imania ila manta il
Analysis Point	6-hr.		(ac)	(%)		(ac)	(%)	\$	(ac)	(%)		(ac)	(%)	Area (ac.)	(cfs)	Martin Martin Martin de Martin
ENTIRE SITE	100	1.29	2.4220	97.4	2.03	0.0000	0.0	2.87	0.0000	0.0	4.37	0.0640	2.6	2.4860	3.4	****************
ENTIRE SITE	10	0.24	2.4220	97.4	0.76	0.0000	0.0	1.49	0.0000	0.0	2.89	0.0640	2.6	2.4860	0.8	
Precipitation Zone =		1	e de la constante de la consta										******			
Table A-8	(DPM) E	xcess P	recipitatio	n - E - (in	.)	***************************************	-	\$0000000000000000000000000000000000000	-	-	***************************************	-		and an annual contract of the		
FORMULAS:		Weighte	ed E (in.) =	EaA*Aa+E	aB*Ba+E	aC*Ca+Eal	DDa / (to	tal area "	<u>.</u> ∋")		and the second	No	te - "a" :	area in acr	es	
		Total Ru	ınoff Volur	ne (ac-ft)	= Weight	ed E (in.) * (	(total area	a "a") / (1	2 in./ft)				****************		ad ad minerior ad air ad air ad airinn airead air air ad airing airinn airinni	
Basin &	Return	Rainfall	Excess -E	per Land	Treatmer	nt Type (inc	hes) and	Land Tre	atment Ty	pe (ac	res)	-				
Condition or	Period	EaA	Α	Α	EaB	В	В	EaC	С	С	EaD	D	D	Total	Weighted	Runoff
Analysis Point	6-hr.					the first transfer to the court of the first transfer to the court of						de la constante de la constant		Area	E	Volume
			(ac)	(%)		(ac)	(%)		(ac)	(%)	**************************************	(ac)	(%)	(ac)	(inches)	(ac-ft)
ENTIRE SITE	100	0.44	2.4220	97.4	0.67	0.0000	0.0	0.99	0.0000	0.0	1.97	0.0640	2.6	2.4860	0.48	0.0993
ENTIRE SITE	10	0.08	2.4220	97.4	0.22	0.0000	0.0	0.44	0.0000	0.0	1.24	0.0640	2.6	2.4860	0.11	0.0228
TOTAL	100		2.4220			0.0000			0.0000			0.0640	***	2.4860		0.0993
***************************************	10	pipanenenenenenen	2.4220	accesos especiales		0.0000	hosonononononono.	ferenananananananan	0.0000	gaaraaanaanaa g	general and a series	0.0640	-	2.4860	*******************	0.0228

## POND VOLUME CALCULATIONS

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	and the second s			POND VO	LUME	and DISCH	ARGE CALC	ULATIO
Emergency	Spillw ay Eleva	ation =	0.00					nannannannannanan
Elevation	Incremental Volume	Cumulative volume	Emergency Equals	Spillw ay Primary	Dis .	charge	Total Discharge	
			Discharge Coefficient "C"	Length	Head (h)	Q= CL(h)^1.5		
(ft)	(ac-ft)	(ac-ft)	Parameter Company of the Company of	(ft)	(ft)	(cfs)	(cfs)	nennenne en e
(a)	(b)		(e)				en meneral est entre entre en en entre	
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0.20	0.01034	0.02009	1.50	2.00	0.20	0.27	0.268	~~~~
0.30	0.01094	0.03102	1.50	2.00	0.30	0.49	0.493	
0.40	0.01153	0.04255	1.50	2.00	0.40	0.76	0.759	**************
0.50	0.01212	0.05468	1.50	2.00	0.50	1.06	1.061	
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1.00	0.01509	0.12420	1.50	2.00	1.00	3.00	3.000	
1.10	0.01569	0.13989	1.50	2.00	1.10	3.46	3.461	********
1.20	0.01628	0.15617	1.50	2.00	1.20	3.94	3.944	************
1.30	0.01688	0.17304	1.50	2.00	1.30	4.45	4.447	
1.40	0.01747	0.19051	1.50	2.00	1.40	4.97	4.970	
1.50	0.01806	0.20858	1.50	2.00	1.50	5.51	5.511	ornaniya quadi a a a a a a a a a a a a a a a a a a
1.60	0.01866	0.22723	1.50	2.00	1.60	6.07	6.072	annan salaman ann an
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1000			deline					

## WIER EQUATION

WHERE C = DISCHARGE COEFICIENT L = LENTH OF WIER IN FT.H = DEPTH OF FLOW IN FT.

# BASIN A AHYMO SUMMARY FILE

AHYMO POND SUMMARY:

AHYMO PROGRAM SUMMARY TABLE (AHYMO 97) -

INPUT FILE = N:\599608\OPTION2\SUNRISE1.DAT

100-yr. 24-hr. storm

into the Snow Vista Channel

Rainfall Zone 1

FILE NAME: SUNRISE1.DAT

USE PROCEDURES FROM COA DPM 22.2

The following uses entire park as one basin

PEAK DISCHARGE = 2.228 CFS - PEAK OCCURS AT 1.70 HOURS MAXIMUM WATER SURFACE ELEVATION = 0.82 FT MAXIMUM STORAGE = 0.0975 AC-FT

FROM TO

HYDROGRAPH ID ID

IDENTIFICATION NO. NO.

THIS IS AN AHYMO HYDROLOGIC MODEL FOR: Project Name -SUNRISE TERRACE PARK

## SUNRISE TERRACE PARK DRAINAGE ANALYSIS

## SUNRISE TERRACE PARK

Sunrise Terrace Park is located on a 2.49 acre parcel of undeveloped land located in the southwest quadrant of Albuquerque. The west side of the park borders 102<sup>nd</sup>. Street. Snow Vista Diversion Channel runs along the east side of the Park, and an existing detention pond is located to the north. Access to the park will be off of 102<sup>nd</sup> Street. The site slopes vary from 3% to 4%. The climate in this area is considered semi-arid and is hot and dry with an average rainfall of 8 inches. The project is classified as zone x on the flood insurance rate map firm #35001c0336d.

#### **HYDROLOGIC ANALYSIS**

The City of Albuquerque's Development Process Manual (DPM) Section 22.2 was used to compute the 100-yr 6-hr peak flows and runoff volumes for the onsite basin. Precipitation is in zone 1. Tables A-8 and A-9 were used for these calculations. The park was divided into three basins based on developed runoff patterns. Basin A encompasses the northern portion of the site, everything north of the existing asphalt path. A 1 foot tall berm will be constructed on the east side of basin A to divert the flow to the southeast corner of basin A, then discharged to Snow Vista Diversion Channel at a rate less than historic. Basins B and C will remain unchanged from existing conditions and will freely discharge into the Snow Vista Diversion Channel. The existing condition flows were computed for comparison purposes only. There are no off-site flows entering the site for either existing or developed conditions.

## A. Existing Conditions - onsite

There is no off-site drainage entering the park site. The existing site is mostly undeveloped (there is an existing asphalt path and gazebo on the south end of the site) and is vegetated with native grasses and sage brush. The water naturally drains to the east of the lot where it is intercepted by a 6" deep swale. The swale then empties into the Snow Vista Diversion Channel. The runoff that does not drain into the swale (the southern portion of the lot) drains to an existing drainage structure on the south side of the site which connects to the Snow Vista Diversion Channel down stream. The average slope is between 3% and 4%. There is currently a detention pond on the north side of the site, a swale on the east side (along side Snow Vista Diversion Channel), and a concrete drainage channel on the south side of the site. Due to the relatively small area, the existing conditions were calculated using the entire area of the park. An estimated 3.4 cubic feet per second was calculated for the existing 100 year event. Land treatment "A" was used on the undeveloped park area. Land treatment "D" was used for the existing asphalt trail and the Gazebo. Two drainage studies both conducted by Leedshill-Herkenhoff Inc., the first titled "SNOW VISTA CHANNEL, PHASE III" date July, 1982, and the second titled "AMOLE DMP", 1996 state that the maximum allowable discharge into the Snow Vista Channel to be 1.3 cfs per acre of land. Both of the studies are in the library at AMAFCA.

#### B. Developed Conditions

The developed park will have paved impermeable areas including concrete sidewalks, tennis court, bench sites, and an asphalt parking lot. There will also be a drip irrigated landscaped areas for native shrubs and trees, irrigated grass areas and a sand area for a playground. The following is a summary of the site. As the above mentioned drainage study stated, the allowable peak discharge is 1.3 cfs per acre. The park site could release 2.49 acres x 1.3 cfs/acre = 3.24 cfs allowed to channel from the park site.

## For the developed conditions the park was divided into 3 sub-basins.

Basin A encompasses 2.02 acres with 47.7% of the site (0.96 ac) is either undisturbed or slightly modified (graded only) soil, or sand; land treatment A was used. 13.3% of the site (0.27 ac) is turf; land treatment B was used. 10% of the site (0.20 ac) is crushed fines on weed fabric; land treatment C was used. 29.1% of the site (0.59 ac) is concrete or asphalt; land treatment D was used. The sidewalks will have a 2% cross slope directed toward the turf area on the north, south, and west side and toward the pond on the east side of the sidewalk. Basin A will discharge an estimated 4.9 cfs in the 100 year storm.

Basins B encompasses 0.306 acres all of which is undisturbed; land treatment A was used. This area now drains to the Snow Vista Channel. An estimated 0.40 cfs discharge from Basin B in the 100 year storm.

Basin C encompasses 0.16 acres all of which is undisturbed; land treatment A was used. This area now drains to the tributary channel that drains to the Snow Vista Channel as shown on sheet 4 of 15 of this plan set. An estimated 0.2 cfs end up in the Snow Vista Channel in the 100 year storm.

The total developed peak discharge from the park is 4.81 cfs. 4.81 cfs exceeds the allowable 3.24 cfs (2.49 ac x 1.3 cfs/ac = 3.24 cfs) by 1.57 cfs. Basin B and C discharge a total of 0.6 cfs to the Snow Vista Channel. That leaves and allowable discharge of 3.24 cfs - 0.6 cfs = 2.64 cfs.

A proposed detention pond shall be constructed to intercept all of the Basin A discharge. A concrete rectangular weir section shall be constructed to release no more 2.64 cfs in the 100 year storm. This is approximately the maximum allowable peak discharge from this site. See pond and outlet structure details on sheet 4 of the plans set for details. An AHYMO run was routed through the pond to evaluate the weir section. The summary of this run is shown on this page. As you can see the peak entering the pond from Basin A is 4.9 cfs. The pond volume is 0.0975 ac-ft with a discharge through the outlet structure of 2.23 cfs.

## Summary

PAGE = 1

NOTATION

RAIN24= 2.660

The existing 100 year discharge from the park site is 3.4 cfs. The developed 100 year discharge from the park is 5.54 cfs. The proposed calculated discharge to the Snow Vista Diversion Channel is: 2.23 cfs from Basin A, 0.4 cfs from Basin B, and 0.2 cfs from Basin C, for a total discharge of 2.83 cfs. The allowable discharge to the channel is 3.24 cfs. The developed 100 year detainage volume needed in the park is 0.0975 ac-ft (4247 cubic feet) with an outlet Q of 2.23 cfs. The capacity of Snow Vista Diversion Channel is not exceeded by the additional volume that the developed park will produce.

FOR INFOR	MAT	ION	ONLY	٠,
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Smith Engineering Company A Full Service Engineering Company \$400 Uplanus Resdevard, M.R. Skille SOSS Albuquerque, New Messles S7110 CITY OF ALBUQUERQUE PARKS AND RECREATION DEPARTMENT LANDSCAPE ARCHITECTURE AND CONSTRUCTION SERVICES SUNRISE TERRACE PARK DRAINAGE CALCULATIONS AND ANALYSIS CITY ENGINEE

FINISH

START

LOCATION

RAINFALL TYPE= 2

ROUTE RESERVOIR

COMPUTE NM HYD

\*S Pond for basin ,xerascaped area 1.00 1 2

VERSION: 1997.02c

VOLUME

(AC-FT)

RUNOFF

(INCHES)

DISCHARGE

(CFS)

(SQ MI)

MODEL DESCRIPTION - MODLING 2.02 ACRE PARK FOR CONTROLED RELEASE

Development Condition - Can release up to 1.3 cfs per acre

BERNALILLO COUNTY

PREPARED BY SMITH ENGINEERING (Rick Devine)

1.500 2.381 PER IMP= 29.07 1.700 1.102 AC-FT= .097

RUN DATE (MON/DAY/YR) =11/05/1999

ACRE

TIME TO CFS

PEAK

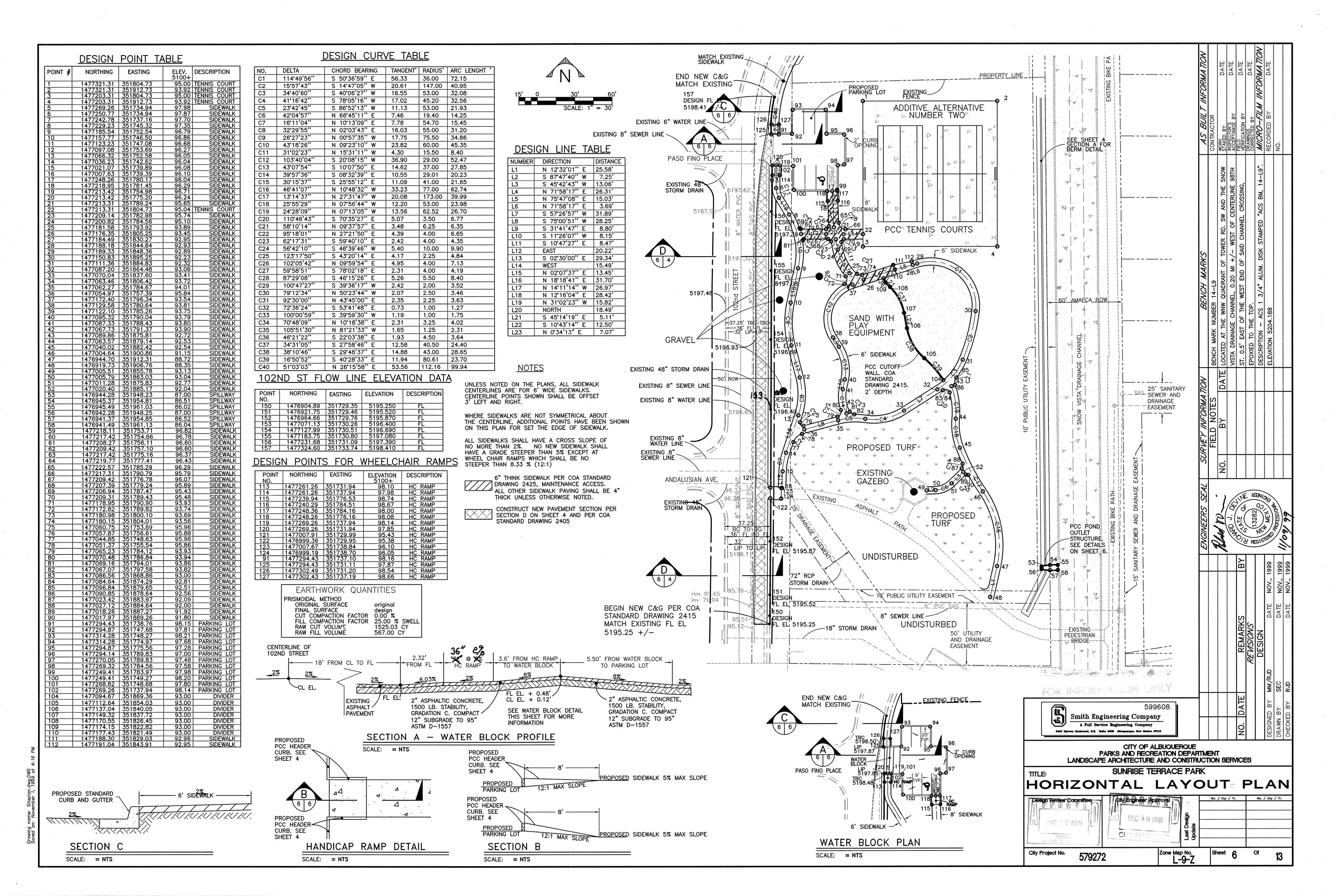
(HOURS)

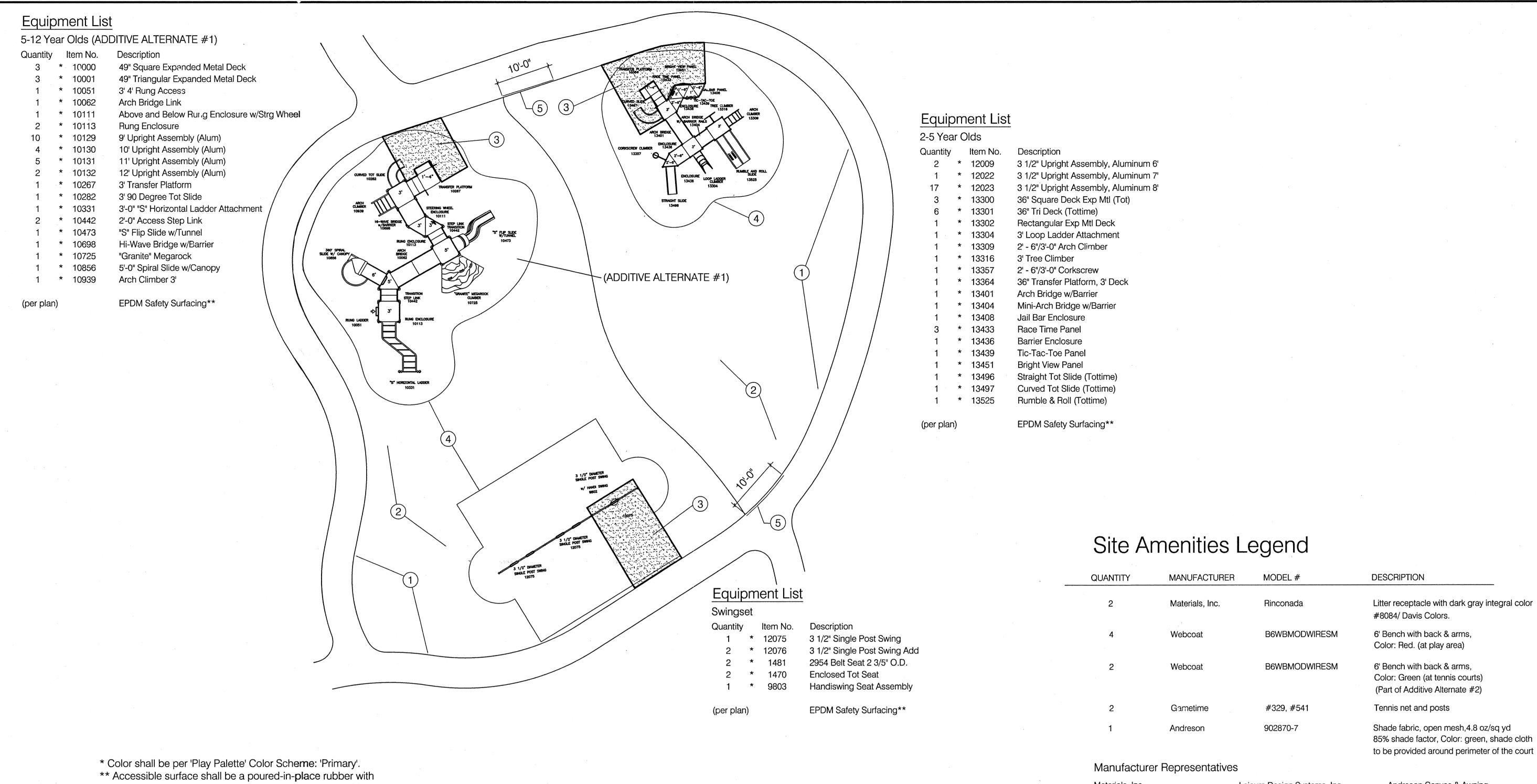
USER NO.= AHYMO-S-9702c01SEC01A-AH

579272

City Project No.

Zone Map No. L-9-Z





a 1/2" EPDM as the wear course. Thickness of surface shall comply with proper fall heights. Color will be 50% black and 50% tan. See Horizontal Geometry Plan, sheet 6, for location.

Note: Install all equipment per manufacturer's specifications. Play equipment shall be 'Gametime' or approved equal.

# CONSTRUCTION NOTES:

18" concrete turndown, see COA detail 2728.

12" depth brick sand.

- Poured accessible surface, see Equipment List.
- Manufacturer's specified fall zone.
- 5 Turndown edge of concrete to 24" depth.

PLAY AREA LAYOUT

Scale: 1" = 10'-0"

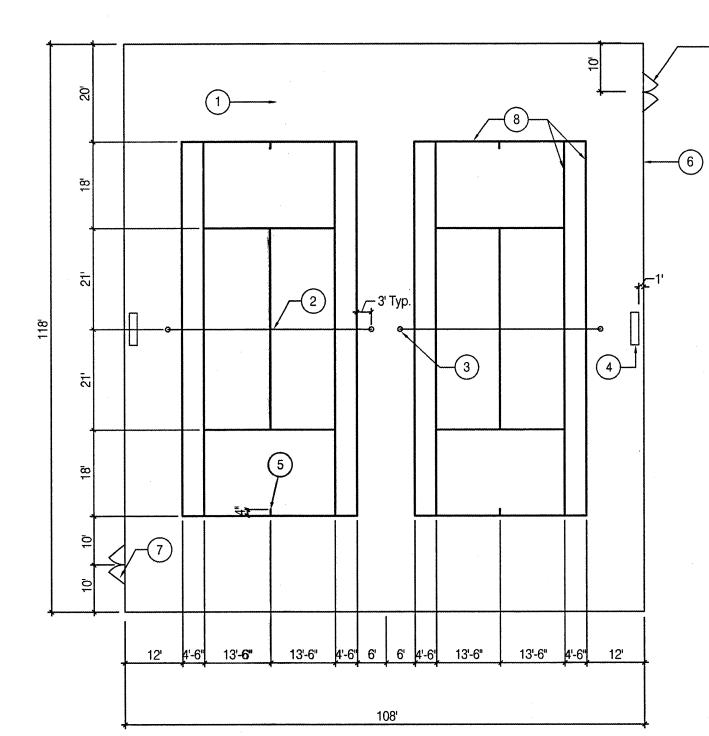
Inc. Rinconada  B6WBMOE	#8084/ Davis Colors.  DWIRESM 6' Bench with back & arms,  Color: Red. (at play area)
	Color: Red. (at play area)  DWIRESM 6' Bench with back & arms,  Color: Green (at tennis courts)
B6WBMO	Color: Green (at tennis courts)
	(1 ait of Additive Alternate 1/2)
#329, #54	Tennis net and posts
902870-7	Shade fabric, open mesh,4.8 oz/sq yd 85% shade factor, Color: green, shade cloth to be provided around perimeter of the court
tatives	
Leisure Design Sy	/stems, Inc. Andreson Canvas & Awning
1-800-543-2232	1-505-888-3103
Webcoat	

		 		S	Σ	
CONSENSUS PLANNING, INC.  Planning / Landscape Architecture  924 Park Avenue SW		DATE		ED BY	ВҮ	
Albuquerque, NM 87102 (505) 764-9801 Fax 842-5495 CONSENSUS e-mail: cp@consensusplanning.com		NO.		DESIGNED	DRAWN	
CITY OF ALBUQUERQUE						

PARKS AND RECREATION DEPARTMENT

SUNRISE TERRACE PARK IMPROVEMENTS PLAY AREA LAYOUT & AMENITIES LEGEND

Design Review Committee	CIP Engine AND	Design Upd	Mo. / Day / Yr.	Mo. / Day / Yr.
y Project No.	579272	Zone Map No.	Sheet -	7 <sup>of</sup> 13



## CONSTRUCTION NOTES

1) Tennis court. See details 2/8, 3/8, 4/8. Tennis net. See Site Amenities Legend, sheet 7.

3 Net post, typical of 4. See detail 2/8. 4 Bench, typical of 2. See detail 1/9 and site amenities legend, sheet 7.

5 Center mark, typical. 6 10' height chainlink fence with wind screen. See

detail 3/8 and Site Amenities Legend, sheet 7. 7 (2) 4' wide chainlink gates. See detail 4/8.

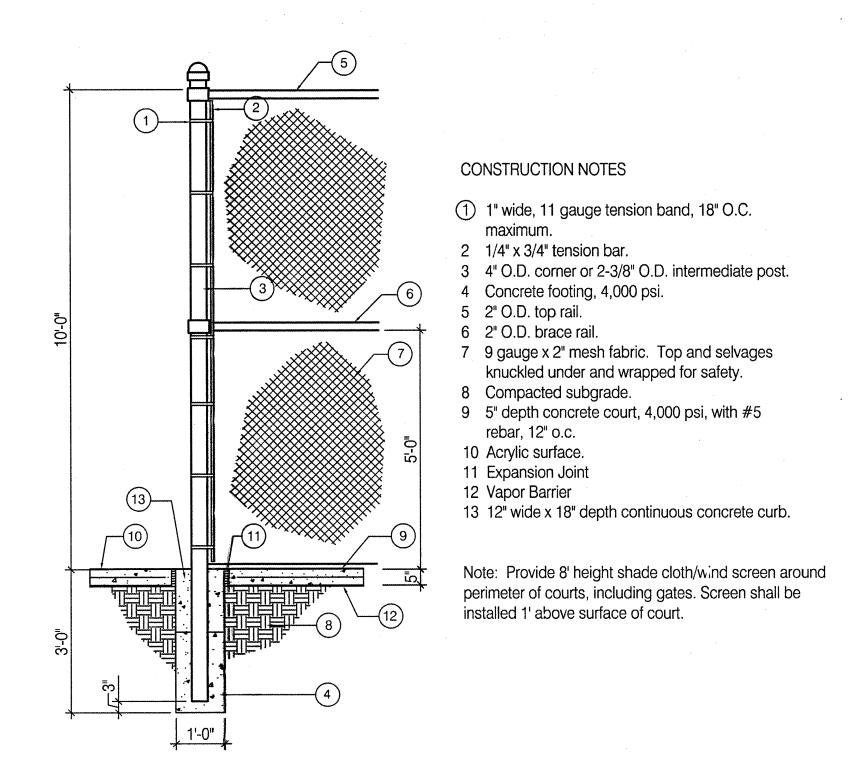
8 Typical stripe, 2" wide, acrylic latex paint.

Note: Tennis court finish to be TPS 5000 acrylic surface as available from Malott Peterson Renner, Inc. Clean court and fill cracks and joints prior to application of acrylic surface.

Color: Playing Area - Forest Green Perimeter - Brick Red Striping - White

TENNIS COURT LAYOUT

Scale: 1" = 20'-0"



Scale: 1/2" = 1'-0" CONSTRUCTION NOTES 1-7/8" O.D. gate frame. 2 4" O.D. swing post. 3 5" depth concrete court, 4,000 PSI with #5 rebar, 12" o.c. 4 Compacted subgrade. 5 Concrete footing, 4,000 psi. 6 Expansion joint.

CHAINLINK GATE Scale: 1/2" = 1'-0"

1'-0"

# CONSTRUCTION NOTES

1 Net post - see Site Amenities Legend, sheet 7.

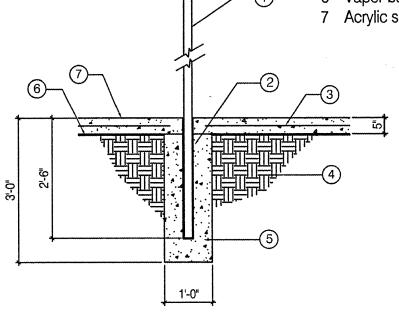
2 Net post sleeve. 3 Concrete court 4000 PSI, 5" depth with

#5 rebar, 12" o.c.

4 Compacted subgrade.5 4,000 psi concrete footing.

6 Vapor barrier.

7 Acrylic surface.



**NET POST** 

NOTE: TENNIS COURT, NET, FENCE AND BENCHES AF

RE ADDITIVE ALTERNATE #2				
CONSENSUS PLANNING, INC. Planning / Landscape Architecture 924 Park Avenue SW Albuquerque, NM 87102			  -  -	DAIE
Albuquerque, NM 87102 (505) 764–9801 Fax 842–5495 e-mail: cp@consensusplanning.com			9	o Z
CITY OF ALBUQUERQUE	:			

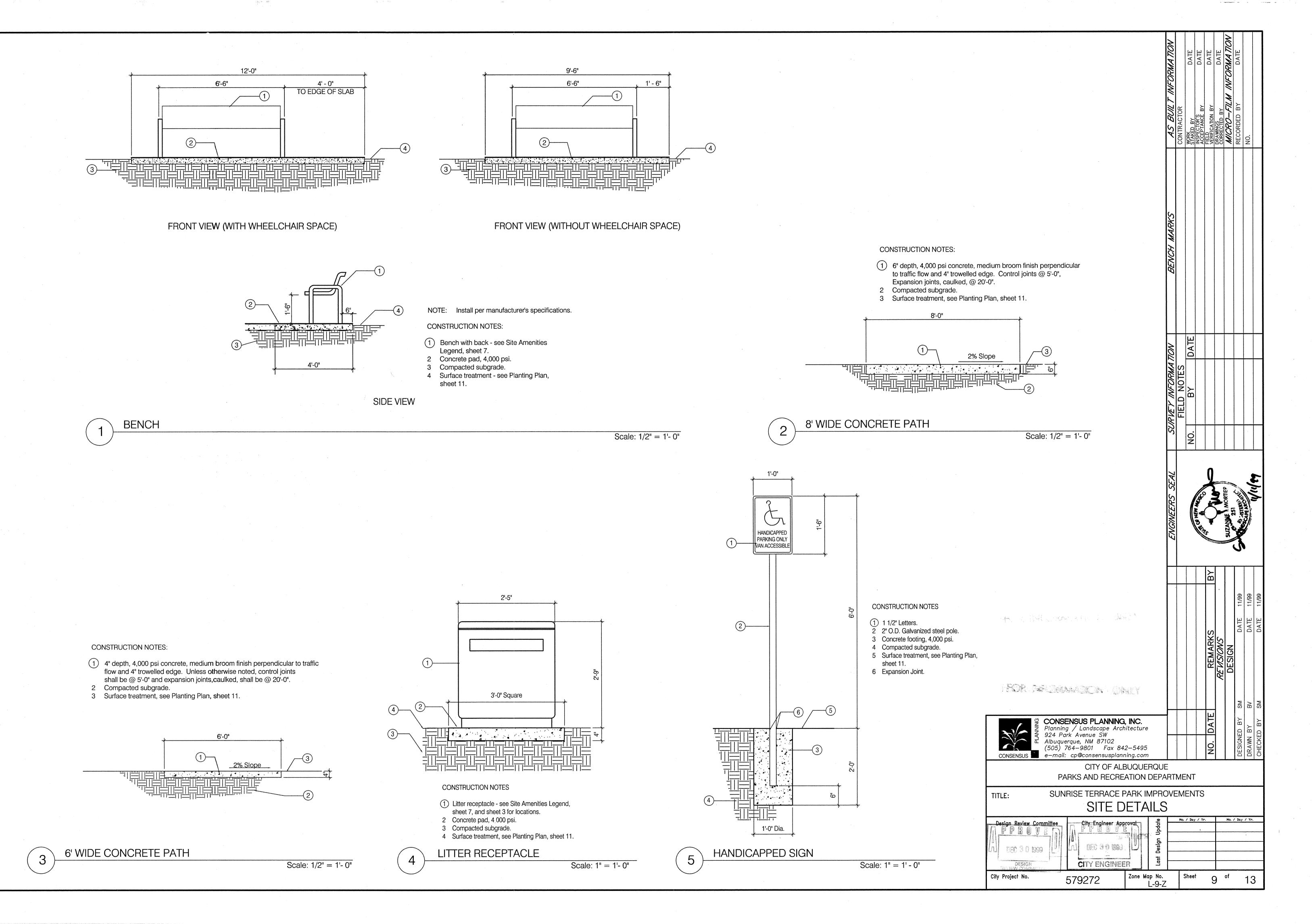
PARKS AND RECREATION DEPARTMENT

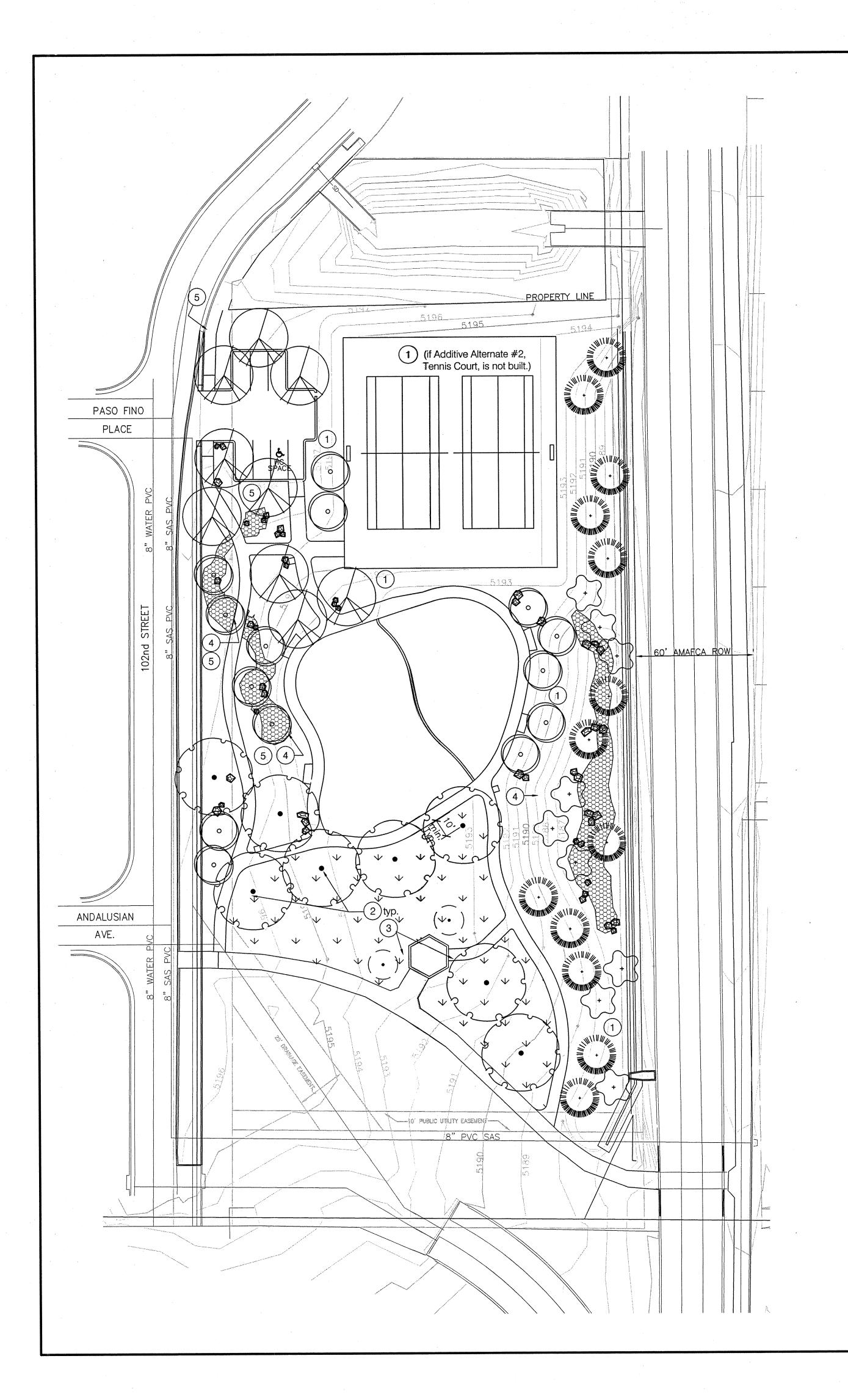
TITLE: SUNRISE TERRACE PARK IMPROVEMENTS TENNIS COURT DETAILS

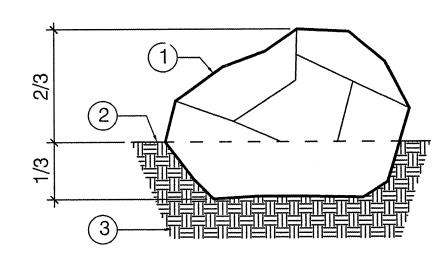
Design Review Committee OFC \* TEMORY DESIGN
REVIEW COMM CITY ENGINEER City Project No. 579272 Zone Map No. L-9-Z

CHAINLI**N**K FENCE

Scale: 1/2" = 1'-0"







## CONSTRUCTION NOTES

- 1 Landscape boulder, 3' min. dimension in each direction.
- 2 Surface treatment, see Planting Plan, sheet 11.
- 3 Compacted subgrade.

1 BOULDER DETAIL

N.T.S.

## GENERAL LANDSCAPE NOTES

- 1. Prior to beginning work on the project, the Landscape Contractor shall review the project in the field with the Owner's Representative.
- If discrepancies occur between the drawings and the site, the Landscape Contractor shall notify the Owner's Representative for clarification prior to proceeding on that portion of work.
- 3. All planting areas are to have weeds and competitive vegetation removed prior to preparation for planting.
- All existing plant materials noted to remain shall be protected during construction. Damaged materials shall be replaced in kind at the Contractor's expense.
- 5. Plant quantities are provided for Contractor's convenience only, plans shall take precedence.
- 6. The Owner's Representative shall approve all plant material prior to planting. In addition, the Owner's Representative reserves the right to refuse any plant material deemed unacceptable. The Owner's Representative is to approve any and all substitutions. Contact Jeff Hart, Park Management Division Urban Forester, at 857-8650 for plant inspections.
- 7. It is the Landscape Contractor's responsibility to locate all underground utilities prior to commencement of planting operations. Verify depth prior to construction.
- 8. Planting installation shall be in accordance with all City of Albuquerque standard specifications (Section 1005 Planting) and COA details 2713 and 2714. Mulch shall be as noted on plans, not as noted in COA details.

## LANDSCAPE CONSTRUCTION NOTES

- 1) Install 4" layer of Santa Fe Brown gravel (3/4") over Mirafi weed control fabric.
- 2 Install a 4" depth, 6' diameter bark mulch ring at all trees in turf areas.
- 3 Remove pinon tree, shrubs and gravel and salvage to COA. Remove drip lines prior to construction of new path and turf areas. Trees (2) to remain.
- Boulders and 6" depth of 2" 4" grey combles as shown.
- 5 Install 4" depth Santa Fe Brown crusher fines over Mirafi weed control fabric.

ANT LEGEND JANTITY SYMBOL	BOTANICAL / COMMON NAME	SIZE	REMARKS	WATER	3EAL	
ees 9 +	Chilopsis linearis / Desert Willow	15 gal.	multi-trunk w/ min. 1 1/4" on 1 stem	L	EERS 3	SSI SORTIER
9	Gleditsia triacanthos inermis 'Shademaster' / Shademaster Honey Locust	24" box	(plant min. 15' o.c.) 2 1/2" cal., 12'-14' ht., 3' min. sprd. (plant min. 25' o.c.)	M+	NSW.	THE STATE OF THE S
13	Pinus edulis / Pinon	24" box	min. 2 1/2" cal., 8' ht. (plant min. 20' o.c.)	M	7	
8 S	Platanus wrightii / Arizona Sycamore	24" box	2 1/2" cal., 12'-14' ht., 3' min. sprd. (plant min. 35' o.c.)	M+		
14	Pyrus calleryana 'Bradford' / Bradford Pear	24" box	2 1/2" cal., 10'-12' ht., 3' min. sprd. (plant min. 20' o.c.)	M+		BY
rf	Fescue Mix (Curtis & Curtis Football and Playground Mix)	11,850 S.F.	Seed, see COA spec section 1011	Н		11/99
50	Landscape boulders - 3' min.dimension any direction. Total 50. See Detail 1/11. Boulders shall be located in the field with Owner's Representative. Boulders shall be Moss Rock or approved equal.					EMARKS //S/ON/S SIGN DATE DATE
	Cobbles, 2"-4" grey	5,000 S.F.				R REVI
2 (•)	Existing Tree to Remain		15 0 30	60	north	MS SM
			Plannin 924 Po Albuqu (505)	ENSUS PLANNING, IN  Ig / Landscape Archited  ark Avenue SW  erque, NM 87102  764—9801 Fax 842—5  1: cp@consensusplanning	5495	NO. DATE DESIGNED BY DRAWN BY
				CITY OF ALBUC ARKS AND RECREATI	QUERQUE	
			11166	IRISE TERRACE PAF VG PLAN, NO		
			Design Review Committee  Design Review Committee  Design Review Committee	CITY ENGINEER	Last Design Update	Jay / Yr. Mo. / Day / Yr.
			The control of the co	579272 <sup>z</sup> °	ne Map No. She L-9-Z	eet 11 of 13

2. CONTRACTOR SHALL AT THE TIME OF PERMIT REQUEST, SUBMIT FOR APPROVAL BY CONSTRUCTION COORDINATION, A TRAFFIC CONTROL PLAN DETAILING ALL EXISTING TOPOGRAPHY SUCH AS LANE WIDTHS, DRIVEWAYS, AND BUSINESS/RESIDENTIAL ACCESSES. THE TRAFFIC CONTROL PLAN SHALL INCLUDE ALL PHASES OF WORK AND SCHEDULES INVOLVED IN THE CONSTRUCTION PROJECT. ANY SEPARATE PHASES OF A CONSTRUCTION PROJECT SHALL BE GIVEN AN INDIVIDUAL PERMIT EACH. BLANKET PERMITS WILL NOT BE ISSUED.

3. THESE TYPICAL TRAFFIC CONTROL PLANS DO NOT REFLECT THE EXISTING TOPOGRAPHY SUCH AS DRIVEWAYS, LANE WIDTHS, AND BUSINESS/RESIDENTIAL ACCESSES. EVERY LOCATION THAT REQUIRES CONSTRUCTION TRAFFIC CONTROL SHALL HAVE A DETAILED TRAFFIC CONTROL PLAN SHOWING ALL EXISTING TOPOGRAPHY.

4. CONSTRUCTION SHALL NOT BEGIN UNLESS A TRAFFIC CONTROL PLAN HAS BEEN APPROVED AND VERIFIED BY CONSTRUCTION COORDINATION.

5. CONSTRUCTION COORDINATION SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY TRAFFIC CONTROL CHANGES NEEDED BY CONTRACTOR, THAT WERE NOT PREVIOUSLY APPROVED. THESE TRAFFIC CONTROL CHANGES SHALL BE REQUESTED IN WRITING ACCOMPANIED WITH A TRAFFIC CONTROL PLAN REFLECTING SUCH CHANGES.

6. ALL CONSTRUCTION TRAFFIC CONTROL DEVICES SHALL COMPLY TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL, SERVICE AND MAINTAIN ALL TRAFFIC CONTROL DEVICES. TRAFFIC CONTROL DEVICES SHALL NOT BE REMOVED OR ALTERED IN ANY WAY WITHOUT THE APPROVAL OF CONSTRUCTION COORDINATION, PER SECTION 6A-4 OF THE MUTCD, LATEST EDITION.

7. THE CONSTRUCTION TRAFFIC CONTROL INITIAL SET—UP SHALL BE BY AN AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) CERTIFIED WORKSITE TRAFFIC SUPERVISOR. THE MAINTENANCE AND SERVICING SHALL ALSO BE DONE BY AN ATSSA CERTIFIED WORKSITE TRAFFIC SUPERVISOR OR EQUIVALENT.

8. CONTRACTOR IS RESPONSIBLE TO MAINTAIN AND SERVICE ALL TRAFFIC CONTROL DEVICES 24 HOURS A DAY, 7 DAYS A WEEK THROUGHOUT LENGTH OF PROJECT. CONTRACTOR IS RESPONSIBLE THAT ALL TRAFFIC CONTROL DEVICES COMPLY WITH THE MUTCD, LATEST EDITION.

9. ALL ADVANCE WARNING SIGNS SHALL BE DOUBLE INDICATED WHENEVER THERE ARE MULTI-LANE TRAFFIC IN ANY ONE GIVEN DIRECTION AND THERE IS SUFFICIENT MEDIAN SPACE.

10. ALL BARRICADES IN ALL TAPERS AND TANGENTS SHALL BE PLACED APART. A DISTANCE MEASURED IN FEET, EQUAL TO THAT OF THE POSTED SPEED LIMIT. NO EXCEPTIONS UNLESS APPROVED BY CONSTRUCTION COORDINATION PER MUTCD SECTION 6A-4.

11. ALL WORK IN ARTERIAL ROADWAYS SHALL BE ON A CONTINUOUS 24-HOUR PER DAY BASIS UNTIL COMPLETED.

12. CONTRACTOR IS RESPONSIBLE TO PROVIDE CONSTRUCTION COORDINATION, A WEEKLY LOG OF DAILY INSPECTIONS OF BARRICADE AND MAINTENANCE SCHEDULES ON PROJECTS THAT ARE OVER ONE WEEK DURATION.

13. EQUIPMENT OR MATERIALS SHALL NOT BE STORED WITHIN 15 FEET OF A TRAVELLED TRAFFIC LANE DURING NON-WORKING HOURS WITHOUT THE APPROVAL OF CONSTRUCTION COORDINATION.

14. CONTRACTOR SHALL PROVIDE AND MAINTAIN A SAFE AND ADEQUATE MEANS OF CHANNELIZING PEDESTRIAN TRAFFIC AROUND AND THROUGH THE CONSTRUCTION AREA.

15. CONTRACTOR IS RESPONSIBLE FOR OBLITERATION OF ANY CONFLICTING STRIPING AND RESPONSIBLE FOR ALL TEMPORARY STRIPING.

16. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL FACILITIES, BUSINESSES AND/OR RESIDENTS AT ALL TIMES.

17. CONTRACTOR SHALL PROVIDE ACCESS SIGNS FOR BUSINESSES LOCATED WITHIN THE CONSTRUCTION AREA UNDER THE SUPERVISION OF CONSTRUCTION COORDINATION. EACH ACCESS SIGN SHALL HAVE 5 INCH, WHITE OPAQUE LETTERING ON BLUE REFLECTORIZED BACKGROUND. ACCESS SIGNS SHALL BE CONSIDERED INCIDENTAL TO THE BID AND NOT PART OF THE CONTRACT UNLESS OTHERWISE STATED. NO MORE THAN 3 BUSINESSES SHALL BE LISTED ON A ACCESS SIGN. SHOPPING CENTERS AND MALLS SHALL BE LISTED AS SUCH.

18. ALL ADVANCE WARNING SIGNS SHALL MEET THE MINIMUM REFLECTIVE INTENSITY REQUIREMENTS SET FORTH BY THE CITY OF ALBUQUERQUE. CONSTRUCTION COORDINATION SHALL DETERMINE ALL REQUIREMENTS AND APPROVE OR DISAPPROVE ANY ADVANCE WARNING SIGN PER SECTION 6A-4 OF THE MUTCD, LATEST EDITION.

19. 48-HOURS PRIOR TO OCCUPYING OR CLOSING OF A RIGHT-OF-WAY. CONTRACTOR SHALL NOTIFY: POLICE, FIRE DEPARTMENT, SCHOOLS, HOSPITALS, TRANSIT AUTHORITY, BUSINESSES AND/OR RESIDENTS THAT WILL BE AFFECTED BY THE CONSTRUCTION.

20. ANY FIELD ADJUSTMENTS SHALL BE APPROVED BY CONSTRUCTION COORDINATION.

21. EXCAVATIONS SHALL BE PLATED, TEMPORARILY PATCHED OR RESURFACED PRIOR TO OPENING OF TRAFFIC. A MINIMUM OF 11 FEET SHALL BE PROVIDED FOR TRAFFIC IN ANY GIVEN DIRECTION. CONTRACTOR IS RESPONSIBLE FOR ANY WORK INVOLVED IN SATISFYING THESE REQUIREMENTS.

22. CONTRACTOR SHALL AT ALL TIMES COMPLY WITH THE FOLLOWING: 1. STANDARDS AND REQUIREMENTS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION 2. THE CITY OF ALBUQUERQUE TRAFFIC CODE, LATEST EDITION. SECTION 19 OF THE CITY OF ALBUQUERQUE'S STANDARD SPECIFICATIONS FOR PUBLIC WORK CONSTRUCTION, AS WELL AS OTHER

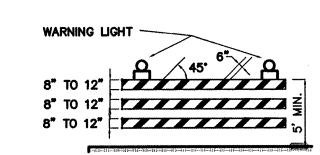
23. FAILURE TO COMPLY WITH ANY OF THE ABOVE MENTIONED, WILL BE ADEQUATE CAUSE TO CEASE ALL WORK ON ANY CONSTRUCTION PROJECT. WORK WILL NOT RESUME UNTIL ALL REQUIREMENTS ARE ADDRESSED AND APPROVED BY CONSTRUCTION COORDINATION.

24. ALL TRAFFIC CONTROL DEVICES SHALL BE KEPT IN NEW-CLEAN CONDITION. WASHING OF EQUIPMENT IS INCIDENTAL TO IT'S PLACEMENT AND MAINTENANCE.

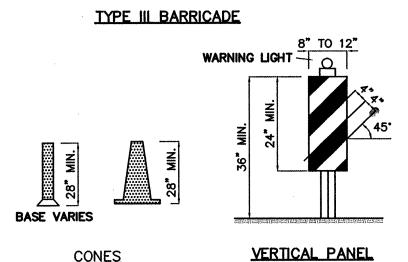
25. TRAFFIC CONTROL STANDARDS APPLY ONLY WHERE THE CONSTRUCTION TRAFFIC CONTROL PLANS ARE NOT SPECIFIC.

26. ADVANCE WARNING SIGNS SHALL BE 36"x36" WITH SUPER ENGINEERING GRADE SHEETING OR BETTER. MOUNTING HEIGHT AT TOP OF SIGN SHALL BE THE SAME AS FOR A 48-INCH SIGN AS INDICATED IN THE MUTCD.

27. CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORK SITE. CONTRACTOR SHALL PROMPTLY REMOVE ANY AND ALL GRAFFITI FROM ALL EQUIPMENT, WHETHER PERMANENT OR TEMPORARY.

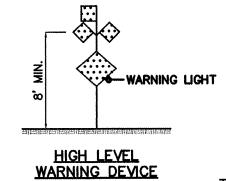


**CONES** 



8" TO 12"

TYPE I BARRICADE



# **LEGEND**

WORK AREA BARRICADE - TYPE I, TYPE II, OR BARREL

VERTICAL PANEL

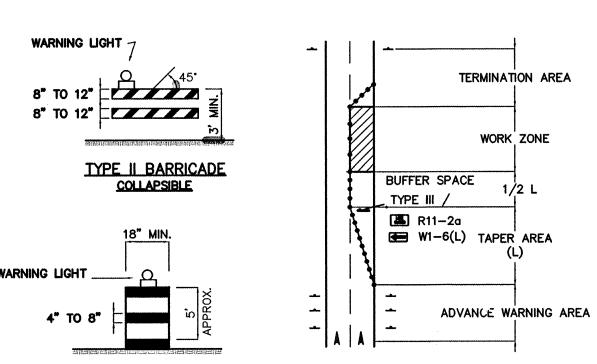
BARRICADE - TYPE Ⅲ

WARNING SIGN DISTANCE BETWEEN SIGNS - A DISTANCE MEASURED IN FEET EQUAL TO A VALUE OF TEN TIMES THE SPEED LIMIT OF THE STREET

FLAGMAN POSITION SPACING BETWEEN BARRICADES- A DISTANCE MEASURED IN FEET

EQUAL TO THE SPEED LIMIT OF THE STREET TAPER LENGHT - SEE CHART BELOW

THE TANGENT LENGTH IS EQUAL TO THE TAPER LENGTH FOR A GIVEN STREET.



## TRAFFIC CONTROL ELEMENTS

## TAPER REQUIREMENTS

SPEED LIMIT	TAP	ER LENGT (FEET)	H (L)	MINIMUM NUMBER	IBER   SPACING IN FEE				
(MPH)	10' LANE	11' LANE	12' LANE	OF DEVICES FOR TAPER	ALONG TAPER	AFTER TAPER			
20	70	75	80	5	20	_ 20			
25	105	115	125	6	25	25			
30	150	165	180	7	30	30			
35	205	225	245	8	35	35			
40	270	295	320	9	40	40			
45	450	495	540	13	45	45			
50	500	550	600	13	50	50			
55	550	605	660	13	55	55			

## RECOMMENDED SIGN SPACING(D) FOR ADVANCE WARNING SIGN SERIES

ADVANCE WAITING SIGN SEITES							
SPEED	MINIMUM DISTANCE IN FEET						
MILES PER HOUR	BETWEEN SIGNS	FROM LAST SIGN TO TAPER					
0-20	10 X SPEED LIMIT	10 X SPEED LIMIT					
25-30	10 X SPEED LIMIT	10 X SPEED LIMIT					
30-35	10 X SPEED LIMIT	10 X SPEED LIMIT					
40-45	10 X SPEED LIMIT	10 X SPEED LIMIT					
50-60	10 X SPEED LIMIT	10 X SPEED LIMIT					

## TAPER CRITERIA

#### TAPER LENGTH TYPE OF TAPER

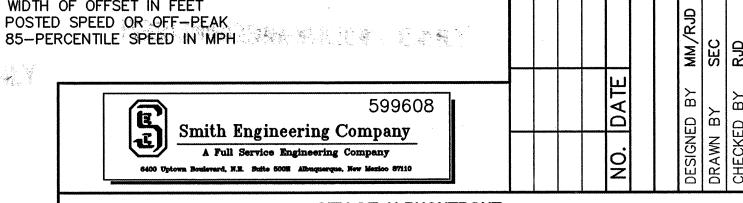
UPSTREAM TAPER:	
MERGING TAPER	L MINIMUM
SHIFTING TAPER SHOULDER TAPER	1/2 L MINIMUM 1/2 L MINIMUM
TWO-WAY TRAFFIC TAPER	100 FEET MAXIMUM
DOWNSTREAM TAPERS	100 FEET PER LANE

## TAPER LENGTH COMPUTATION

SPEED LIMIT	·
40 MPH OR LESS	$L = \frac{WS^2}{60}$
45 MPH OR GREATER	$L = W \times S$

L = TAPER LENGTHW = WIDTH OF OFFSET IN FEET

S = POSTED SPEED OR OFF-PEAK

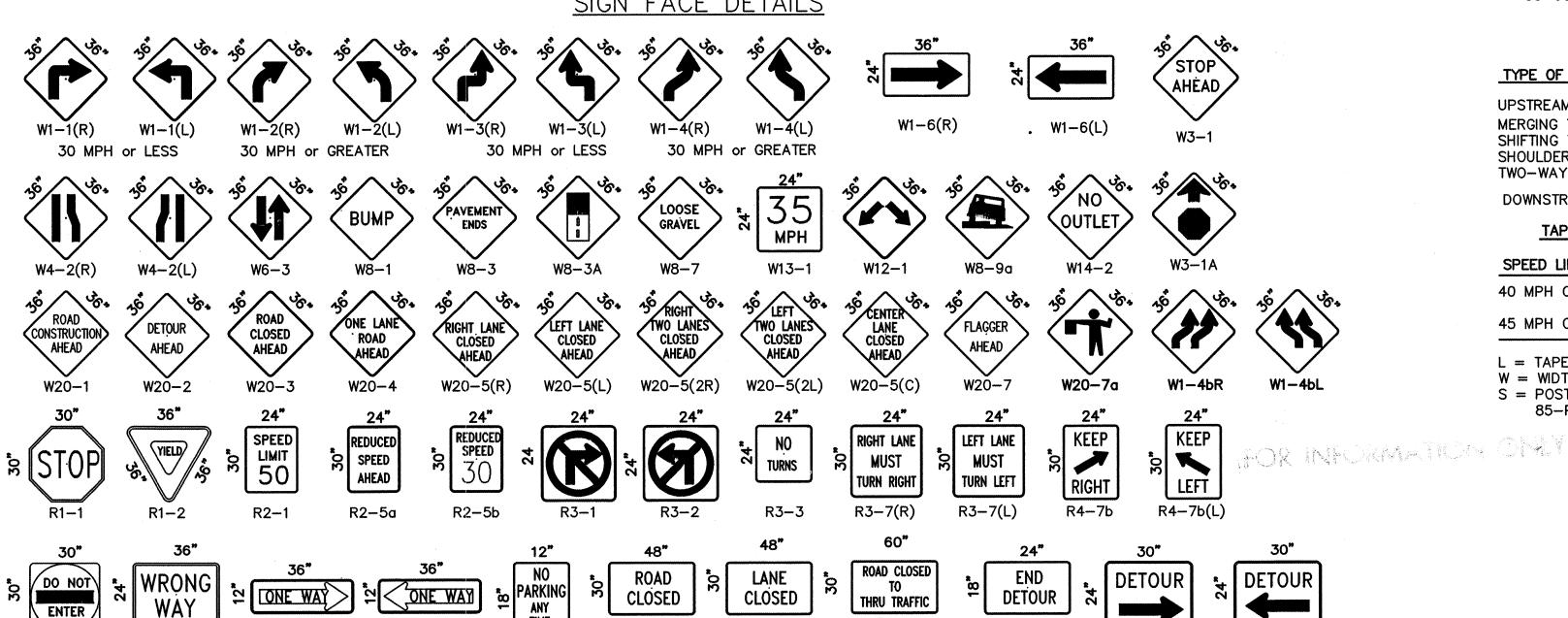


## CITY OF ALBUQUERQUE PARKS AND RECREATION DEPARTMENT LANDSCAPE ARCHITECTURE AND CONSTRUCTION SERVICES

# SUNRISE TERRACE PARK SIGNING AND CONSTRUCTION TRAFFIC CONTROL STANDARDS

	Design Review Committee	City Engineer Appro	oval	Mo. / Day / Yr.	Mo. /	Day / Yr.
5	COP	570	Last Design Update			
			Last De Update			
	City Project No. 57927	<b>2</b> z	one Map No. L-9-Z	Sheet 12	Of	13

# SIGN FACE DETAILS



ONE WAY R5-1a R6-1(R)

PREPARED TO

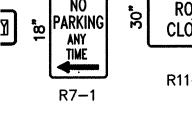
SPECIAL

THRU TRAFFIC KEEP LEFT

SPECIAL

ACCESS TO

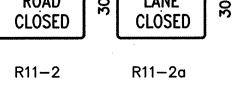
SPECIAL



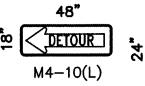
ORANGE BACKGROUND.

ALL CONSTRUCTION WARNING SIGNS

SHALL HAVE A BLACK LEGEND ON A







M4-9(R)

CONSTRUCTION

G20-2

M4-9(L)

M4-8a

