



CITY OF ALBUQUERQUE
CAPITAL IMPLEMENTATION PROGRAM
LANDSCAPE ARCHITECTURE AND CONSTRUCTION SERVICES
PARKWEST PARK
IMPROVEMENTS

2401 PARKWEST DRIVE NW 2.59 ACRES

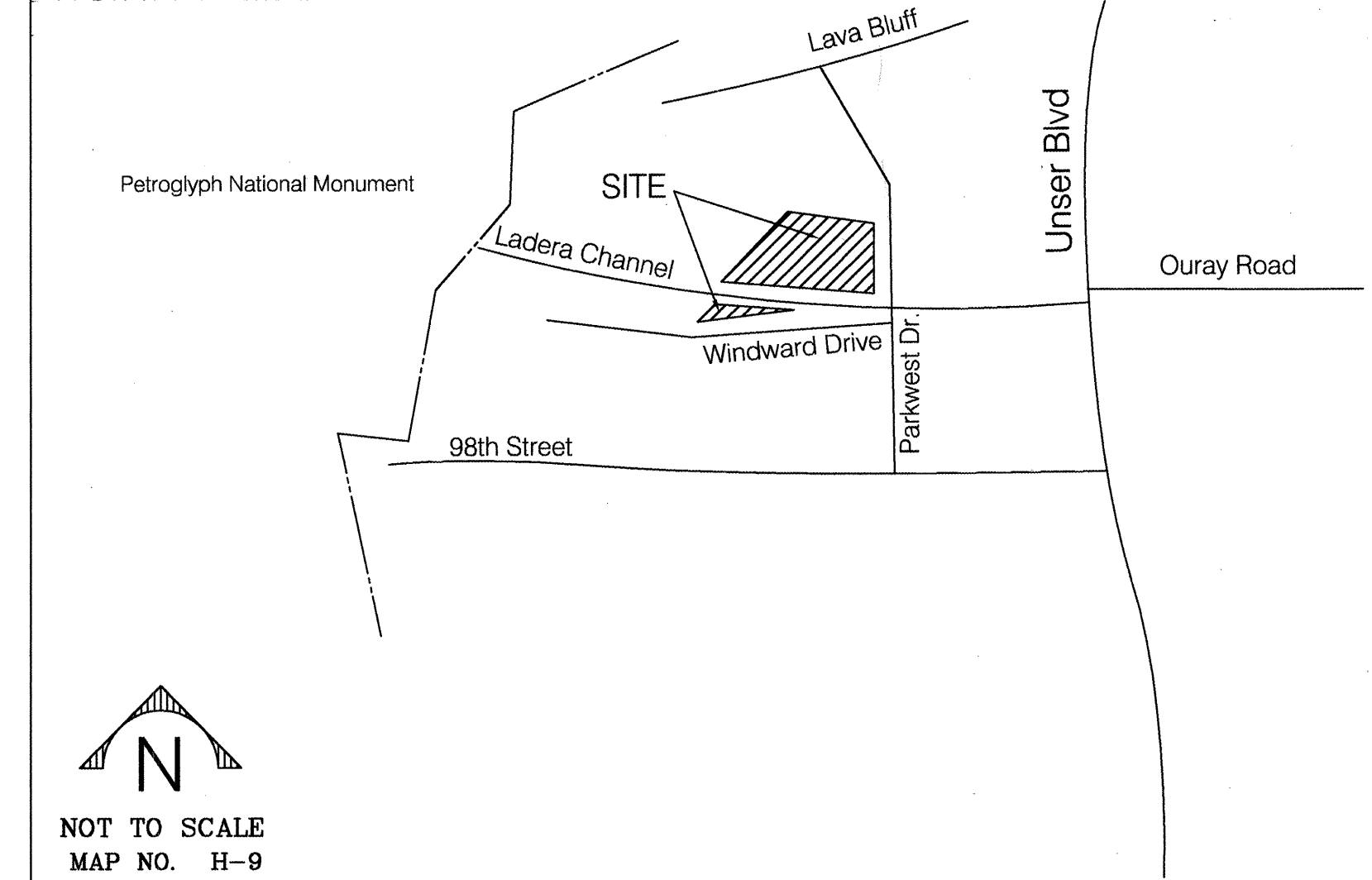
INDEX TO DRAWINGS

SHEET NO.	TITLE
1	TITLE SHEET, VICINITY MAP, INDEX TO DRAWINGS
2	GENERAL NOTES & LEGEND
3	SITE PLAN
4	GENERAL GRADING AND DRAINAGE PLAN
5	DRAINAGE CALCULATIONS AND ANALYSIS
6	GRADING AND DRAINAGE PLAN
7	HORIZONTAL LAYOUT PLAN
8	SITE DETAILS - BASKETBALL/VOLLEYBALL
9	SITE DETAILS - PLAY AREA LAYOUT
10	SITE DETAILS - MISCELLANEOUS
11	SITE DETAILS - MISCELLANEOUS
12	IRRIGATION PLAN, NOTES & LEGEND
13	IRRIGATION NOTES/DETAILS
14	PLANTING PLAN/NOTES
15	TRAFFIC CONTROL
16	TRAFFIC CONTROL

FOR INFORMATION ONLY

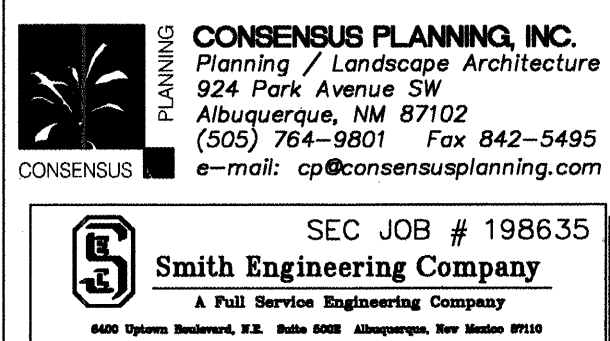
APPROVED	ENGINEER	DATE
AMAFCA	<i>[Signature]</i>	June 30, 1999

VICINITY MAP



UTILITY COMPANY CONTACTS

PNM Jim Vann 4201 Edith Boulevard, NE Albuquerque, New Mexico 87107 (505) 848-3426	GAS CO. Kelly Bouska 4625 Edith Blvd., NE Albuquerque, New Mexico 87107 (505) 241-7752
A&T Art Marquez 111 Third St., NW Albuquerque, New Mexico 87103 (505) 842-2806	JONES INTERCABLE Karen Shore 4611 Montbel Pl., NE P.O. Box 27138 Albuquerque, NM 87125-7138 (505) 761-6220
US WEST COMMUNICATIONS Cathy Schneider 201 Third Street Suite 700 Albuquerque, New Mexico 87102 (505) 245-6846	



REV.	SHEETS	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE
ENGINEERS STAMP & SIGNATURE		APPROVED	ENGINEER	DATE	APPROVED FOR CONSTRUCTION		
		DRC Chairman	<i>[Signature]</i>	7-22-99	<i>[Signature]</i> 7/26/99		
		Transportation	<i>[Signature]</i>	7-20-99			
		Water/Wastewater	<i>[Signature]</i>	7-20-99			
		Hydrology	<i>[Signature]</i>	7/20/99			
		PARKS	<i>[Signature]</i>	7-22-99			
		Constr. Mngmt.			CITY ENGINEER		
		Constr. Coord.			DATE		
PROJECT NUMBER 573592						SHEET 1 OF 16	

Drawing name: N:\198635\OPTIONAL\0NOTES.DWG
Saved on: February 8, 1999 at 11:52 AM

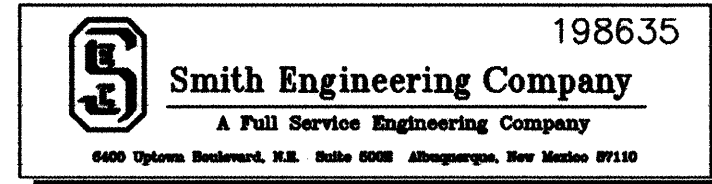
- 1 FIVE (5) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR WILL SUBMIT A DETAILED CONSTRUCTION SCHEDULE TO THE CITY CONSTRUCTION COORDINATION DIVISION. TWO (2) DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR WILL OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION COORDINATION DIVISION. CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (768-2551) PRIOR TO OCCUPYING AN INTERSECTION. REFER TO SECTION 19 OF SPECIFICATIONS.
- 2 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.
- 3 THE SPECIFICATIONS USED FOR THIS PROJECT ARE THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1994 EDITION, UPDATE NO.6.
- 4 ALL NEW MANHOLES SHALL BE TYPE "E" (COA DWG. 2102) UNLESS OTHERWISE NOTED ON THE PLANS.
- 5 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.
- 7 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.
- 8 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.
- 9 ALL EXCAVATION WILL BE GOVERNED BY FEDERAL, STATE AND LOCAL LAWS, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- 10 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.
- 11 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.
- 12 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.
- 13 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.
- 14 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.
- 15 THE CONTRACTOR WILL NOTIFY THE UTILITY COMPANIES BY CALLING NEW MEXICO ONE CALL SYSTEM 260-1990 TWO (2) WORKING DAYS PRIOR TO COMMENCING WORK IN NEW AREAS.
- 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.
- 18 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.
- 20 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.
- 23 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.
- 24 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.
- 28 ALL SPLICES IN REINFORCING STEEL TO BE 2-FOOT 6-INCH MINIMUM UNLESS OTHERWISE NOTED.

- 29 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.
- 30 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.
- 31 TACK COAT FOR SURFACE COURSE REQUIREMENTS WILL BE DETERMINED BY THE CITY FIELD ENGINEER.
- 32 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.
- 34 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.
- 35 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.
- 36 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.
- 38 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.
- 39 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.
- 40 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.
- 41 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.
- 44 SHORING COSTS WILL BE CONSIDERED INCIDENTAL TO THE TRENCH AND BACKFILL COSTS.
- 45 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.
- 47 THE TERM REMOVE USED IN THIS PLAN SET INCLUDES THE DISPOSAL OF SAID MATERIAL IN ACCORDANCE WITH CITY OF ALBUQUERQUE SPECIFICATIONS, LATEST EDITION.
- 48 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.
- 49 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.

- 50 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.
- 51 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.
- 52 ALL ASPHALTIC CONCRETE SHALL BE MINIMUM 1800 LB. STABILITY AND COMPACTED TO 95% MODIFIED MARSHALL DENSITY UNLESS OTHERWISE NOTED ON THE PLANS.
- 53 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

- LEGEND:**
- X—X— EXISTING CHAIN LINK FENCE
- OH/E— EXISTING OVERHEAD ELECTRIC
- EXISTING SAS MANHOLE
- NEW TEE MANHOLE
- BORING
- //— NEW PAVEMENT
- EXISTING CONTOUR LINE
- 5460— EXISTING INDEX CONTOUR LINE
- — — NEW STORM DRAIN
- — — CENTERLINE
- NEW CONCRETE SIDEWALK (4" THICK) AND CURB LINES
- NEW CONCRETE SIDEWALKS AND CURB LINES 6" THICK TO ACCOMMODATE COA SERVICE VEHICLES INTO PARKS
- △— HORIZONTAL AND VERTICAL CONTROL POINT
- — — EXISTING UNDERGROUND TELEPHONE
- — — EXISTING SAS FLOW ARROW
- — — STORM DRAIN FLOW ARROW
- — ESMNT — EASEMENT LINE
- RIPRAP PROTECTION
- — — NEW STORM DRAIN BEND
- — — NEW STORM DRAIN WYE
- — — SLOPE INDICATOR
- X— 84.3 EXISTING SPOT ELEVATION
- 84.33 NEW SPOT ELEVATION
- R/W— RIGHT OF WAY
- P— PROPERTY LINE
- 5400— NEW INDEX CONTOUR LINE
- — — NEW CONTOUR LINE
- — — PROPOSED DRAINAGE BASIN BORDER
- — — DRAINAGE FLOW DIRECTION ARROW



CITY OF ALBUQUERQUE CAPITAL IMPLEMENTATION PROGRAM LANDSCAPE ARCHITECTURE AND CONSTRUCTION SERVICES	
TITLE: PARKWEST PARK IMPROVEMENTS	
GENERAL NOTES AND LEGEND	
Design Review Committee APPROVED JUL 22 1999 DESIGN REVIEW COMMITTEE	City Engineer APPROVED JUL 26 1999 CITY ENGINEER
City Project No. 573592	Zone Map No. H-9-Z
Sheet 2	Of 16

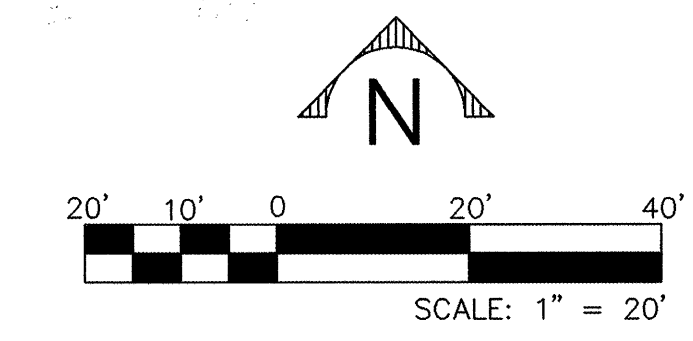
Drawing name: N:\98635\OPTION\PM\DRAWING
Saved on: February 6, 1999 at 10:54 AM



LEGEND:

- EXISTING CHAIN LINK FENCE
- EXISTING WOOD FENCE
- EXISTING RAWD IRON FENCE
- EXISTING OVERHEAD ELECTRIC
- EXISTING SAS MANHOLE
- NEW STORM DRAIN
- EXISTING STORM DRAIN
- NEW STORM DRAIN MANHOLE
- EXISTING STORM DRAIN MANHOLE
- EXISTING CONCRETE SIDEWALKS AND CURB LINES
- NEW CONCRETE SIDEWALKS AND CURB LINES
- HORIZONTAL AND VERTICAL CONTROL POINT
- NEW STORM DRAIN FLOW ARROW
- NEW SPOT ELEVATION
- NEW INDEX CONTOUR LINE
- NEW CONTOUR LINE
- EXISTING INDEX CONTOUR LINE
- EXISTING CONTOUR LINE
- EXISTING WATER VALVE
- COA
- TOC
- FL
- TOP
- X 87.5
- IE
- EXISTING FIRE HYDRANT
- EXISTING FIBER-OPTIC MANHOLE
- EXISTING CATCH BASIN
- NEW CATCH BASIN

FOR INFORMATION ONLY



198635
Smith Engineering Company
A Full Service Engineering Company
6400 Uptown Boulevard, N.E. Suite 500E Albuquerque, New Mexico 87110

CITY OF ALBUQUERQUE CAPITAL IMPLEMENTATION PROGRAM LANDSCAPE ARCHITECTURE AND CONSTRUCTION SERVICES	
TITLE: PARKWEST PARK IMPROVEMENTS DRAINAGE & GRADING PLAN & BASIN DEFINITION	
Design Review Committee	City Engineer Approval
NO. DATE	REMARKS REVISIONS DESIGN
DESIGNED BY: RJD	DATE: JULY, 1999
DRAWN BY: SEC	DATE: JULY, 1999
CHECKED BY: PJC	DATE: JULY, 1999
City Project No. 573592	Zone Map No. H-9-Z
Sheet 4	of 16

NOTE: SEE SHEET 5 OF 16 FOR DRAINAGE CALCULATIONS

NOTE: SEE SHEET 6 OF 16 FOR PIPE SIZES, AND ELEVATIONS

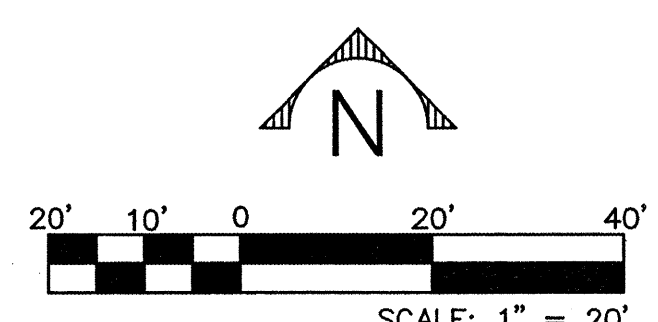
ENGINEERS SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	

Drawing Name: N:\198635\OPTIONAL\VP\DRAIN.DWG
Saved on: February 6, 1999 at 10:34 AM



LEGEND:

- EXISTING CHAIN LINK FENCE
- EXISTING WOOD FENCE
- EXISTING RAWD IRON FENCE
- EXISTING OVERHEAD ELECTRIC
- EXISTING SAS MANHOLE
- NEW STORM DRAIN
- EXISTING STORM DRAIN
- NEW STORM DRAIN MANHOLE
- EXISTING STORM DRAIN MANHOLE
- EXISTING CONCRETE SIDEWALKS AND CURB LINES
- NEW CONCRETE SIDEWALKS AND CURB LINES
- HORIZONTAL AND VERTICAL CONTROL POINT
- NEW STORM DRAIN FLOW ARROW
- NEW SPOT ELEVATION
- NEW INDEX CONTOUR LINE
- NEW CONTOUR LINE
- EXISTING INDEX CONTOUR LINE
- EXISTING CONTOUR LINE
- EXISTING WATER VALVE
- COA CITY OF ALBUQUERQUE
- TOC TOP OF CURB
- FL FLOWLINE
- TOP TOP OF PIPE
- X 87.5 EXISTING SPOT ELEVATION
- IE INVERT ELEVATION
- EXISTING FIRE HYDRANT
- EXISTING FIBER-OPTIC MANHOLE
- EXISTING CATCH BASIN
- NEW CATCH BASIN



NOTE: SEE SHEET 5 OF 16 FOR DRAINAGE CALCULATIONS

NOTE: SEE SHEET 6 OF 16 FOR PIPE SIZES, AND ELEVATIONS

198635
Smith Engineering Company
A Full Service Engineering Company
6400 Dylans Boulevard, N.E. Suite 008 Albuquerque, New Mexico 87110

CITY OF ALBUQUERQUE
CAPITAL IMPLEMENTATION PROGRAM
LANDSCAPE ARCHITECTURE AND CONSTRUCTION SERVICES

TITLE: **PARKWEST PARK IMPROVEMENTS
DRAINAGE & GRADING PLAN & BASIN DEFINITION**

Design Review Committee
APPROVED
JUL 26 1999
DESIGN REVIEW COMMITTEE

City Engineer Approval
APPROVED
JUL 26 1999
CITY ENGINEER

Last Design Update

City Project No.	573592
Zone Map No.	H-0-2
Sheet	4 of 16

ENGINEERS SEAL		SURVEY INFORMATION		BENCH MARKS		AS-BUILT INFORMATION	
NO.	BY	DATE	DATE	TEMPORARY BENCHMARK: SAS MH NO. 4, LOCATED AT THE INTERSECTION OF WINDWARD DRIVE AND PARK WEST DRIVE	CONTRACTOR	WORK STARTED BY	DATE
				RIM ELEVATION = 5221.73		FIELD ACCEPTANCE BY	DATE
						DRAWINGS CORRECTED BY	DATE
						RECORDED BY	DATE

HYDROLOGIC ANALYSIS

ALL TC'S ARE ASSUMED TO BE 12 MINUTES

PROJECT NAME = PARKWEST PARK PROJECT NO 198635														
HYDROLOGIC CALCULATIONS														
(for small watersheds < 40 acres (per DPM Section 22))														
Precipitation Zone = 1														
Table A-9 (DPM) Peak Discharge (cfs/acre)														
FORMULA : Total Qp (cfs) = QpA*Aa+QpB*Ba+QpC*Ca+QpD*Da -- Note - "a" = area in acres														
EXISTING CONDITIONS														
Basin & Condition or Analysis Point	Return Period	Qp per Land Treatment Type (cfs/acre)			and		Land Treatment Type (acres)					D	Total	Total Qp (cfs)
	6-hr.	QpA	A	(%)	QpB	B	B	QpC	C	C	QpD	D	(%)	Area (ac)
ENTIRE SITE	100	1.29	2.4688	98.0	2.03	0.0000	0.0	2.87	0.0000	0.0	4.37	0.0515	2.0	2.5203
ENTIRE SITE	10	0.24	2.4688	98.0	0.76	0.0000	0.0	1.49	0.0000	0.0	2.89	0.0515	2.0	2.5203
DEVELOPED CONDITIONS														
Basin & Condition or Analysis Point	Return Period	Qp per Land Treatment Type (cfs/acre)			and		Land Treatment Type (acres)					D	Total	Total Qp (cfs)
	6-hr.	QpA	A	(%)	QpB	B	B	QpC	C	C	QpD	D	(%)	Area (ac)
A	100	1.29	0.3617	100.0%	2.03	0.0000	0.0	2.87	0.0000	0.0	4.37	0.0000	0.0	0.3617
A	10	0.24	0.3617	100.0%	0.76	0.0000	0.0	1.49	0.0000	0.0	2.89	0.0000	0.0	0.3617
B	100	1.29	0.0000	0.0	2.03	0.3480	90.5	2.87	0.0000	0.0	4.37	0.0363	9.5	0.3844
B	10	0.24	0.0000	0.0	0.76	0.3480	90.5	1.49	0.0000	0.0	2.89	0.0363	9.5	0.3844
C	100	1.29	0.2875	100.0	2.03	0.0000	0.0	2.87	0.0000	0.0	4.37	0.0000	0.0	0.2875
C	10	0.24	0.2875	100.0	0.76	0.0000	0.0	1.49	0.0000	0.0	2.89	0.0000	0.0	0.2875
D	100	1.29	0.0000	0.0	2.03	0.1864	88.8	2.87	0.0000	0.0	4.37	0.0234	11.2	0.2098
D	10	0.24	0.0000	0.0	0.76	0.1864	88.8	1.49	0.0000	0.0	2.89	0.0234	11.2	0.2098
E	100	1.29	0.1663	38.8	2.03	0.0000	0.0	2.87	0.0000	0.0	4.37	0.2629	61.2	0.4292
E	10	0.24	0.1663	38.8	0.76	0.0000	0.0	1.49	0.0000	0.0	2.89	0.2629	61.2	0.4292
F	100	1.29	0.0379	7.0	2.03	0.3226	59.4	2.87	0.0000	0.0	4.37	0.1828	33.7	0.5432
F	10	0.24	0.0379	7.0	0.76	0.3226	59.4	1.49	0.0000	0.0	2.89	0.1828	33.7	0.5432
G	100	1.29	0.0000	0.0	2.03	0.1901	78.7	2.87	0.0000	0.0	4.37	0.0515	21.3	0.2416
G	10	0.24	0.0000	0.0	0.76	0.1901	78.7	1.49	0.0000	0.0	2.89	0.0515	21.3	0.2416
H	100	1.29	0.0379	60.2	2.03	0.0000	0.0	2.87	0.0000	0.0	4.37	0.0250	39.8	0.0629
H	10	0.24	0.0379	60.2	0.76	0.0000	0.0	1.49	0.0000	0.0	2.89	0.0250	39.8	0.0629
TOTAL 100 YEAR													2.52	5.8
TOTAL 10 YEAR													2.52	2.7

PARKWEST PARK DRAINAGE ANALYSIS

SITE LOCATION AND DESCRIPTION

The Parkwest Park site is located on a 3 acre parcel of undeveloped land located in the northwest section of Albuquerque in the general vicinity of Unser Blvd & 98th Street. The south side of the park borders 5240 Ladera Channel. The west side of the park borders Parkwest Drive. Access to this park will be along Parkwest Drive. The soils at this site are classified as BCC (Bluepoint Series.) This soil is a loamy fine sand found on slopes from 1 to 9%. The local climate in this area is considered semi-arid and is not a dry with an average annual rainfall of 8". The project is site is classified as zone X on the flood insurance Rate map firm (#35001c0326d). The City of Albuquerque water well College Well site #2 is located on the site.

At the time of this analysis, the City of Albuquerque could not locate their file that contains the master drainage plan for the Parkwest Subdivision. A copy of the Grading and Erosion Control Plan for PARKWEST Subdivision unit 5, sheet 5 of 39, designed by Community Sciences Corporation states that "Future Park Grading Shall Limit Discharge to Parkwest Drive to 5.7 CFS". A letter written by AMAFCA to Consensus Planning dated October 16, 1998 states that drainage from the park should be directed to the existing concrete rundown on the Ladera Channel.

HYDROLOGIC ANALYSIS

The City of Albuquerque's Development Process Manual (DPM) Section 22.2 was used to compute the 100-year 6-hour peak flows and runoff volumes for the onsite basins. Precipitation is in zone 1 along with tables A-8 and A-9 were used for these calculations. The park was divided into 8 sub-basins based on developed runoff patterns. The existing condition flows were computed for comparison purposes only. There are no offsite flows entering the site for either existing or developed conditions.

A Existing Conditions - Onsite

The existing site is undeveloped and is vegetated with native plants and grasses. The majority of existing storm runoff goes to Parkwest Drive. The Southern portion of the park drains to the Ladera Channel. The average slope across the park is about 2% and flows are generally directed to Parkwest Drive. The existing 100 year flows were calculated to be 3.4 cfs. The existing drainage infrastructure in the park. Runoff that reaches Parkwest Drive flows south to the existing concrete rundown on the Lader Channel.

The Ladera Channel is a Concrete lined channel that flows from east to west by the Park. As stated in the opening paragraph, AMAFCA would like to see developed flows drain to the existing concrete rundown on the Ladera Channel as shown of the Grading and Drainage plans.

B DEVELOPED CONDITIONS

The developed park will included paved impermeable areas including concrete sidewalks and courts, landscaped areas for native shrubs and trees, irrigated turf areas and sand area for children's playgrounds.

Basin A and Basin C will remain essentially undisturbed. Native shrubs and grasses will be planted in these areas. Land treatment type A was used to calculated both the existing and developed conditions. Basin A will sheet flow to the Ladera Channel. Basin C will continue to flow to Parkwest Drive.

Basin B is 90.5% irrigated turf and 9.5 percent concrete sidewalk. Land treatment B was used for the turf and land treatment D for the sidewalk. All the proposed sidewalks around the perimeter to the park will have a 2% cross slope directed to towards the interior of the park. This will eliminate developed impermeable surface flows from eroding the existing slopes along the Ladera Channel. A storm inlet is proposed to take the 100 year runoff down to an outlet structure at the existing concrete rundown on the Ladera Channel. An estimated 0.9 cfs will drain from this basin to the channel. Basin D is similar to Basin B with 88.8% of the area in irrigated turf and 11.2 % in concrete sidewalk. All sidewalks in this basin will slope towards the center to minimize erosion on the undeveloped areas outside of the sidewalk. An estimated 0.5 cfs will be drained via a storm inlet and 12" PVC drain pipe to the outlet structure mentioned above.

Basin E encompasses a sand play area, concrete sidewalks, and the concrete basketball court and play area. 61.2% of the area is concrete and classified as land treatment D. 38.8% of the area is sand and classified as land treatment A. An estimated 1.4 cfs of runoff will be drained via a type "D" storm inlet and 12" pvc drain pipe to the proposed outlet structure at the existing concrete rundown on the Ladera Channel.

Basin F area is composed of 59.4% turf--land treatment B--7% sand playground--land treatment A-- and 33.7% concrete--land treatment D. An estimated 1.5 cfs will be drain to the Ladera Channel rundown via a storm inlet and 12" PVC drain pipe.

Basin G is the College Well site #2. There will be no changes in the existing drainage patterns. An estimated 0.6 cfs drains to Parkwest Drive.

The Basin H area consists of 60.2% land treatment A and 39.8% land treatment D. and estimated 0.2 cfs will drain to Parkwest Drive.

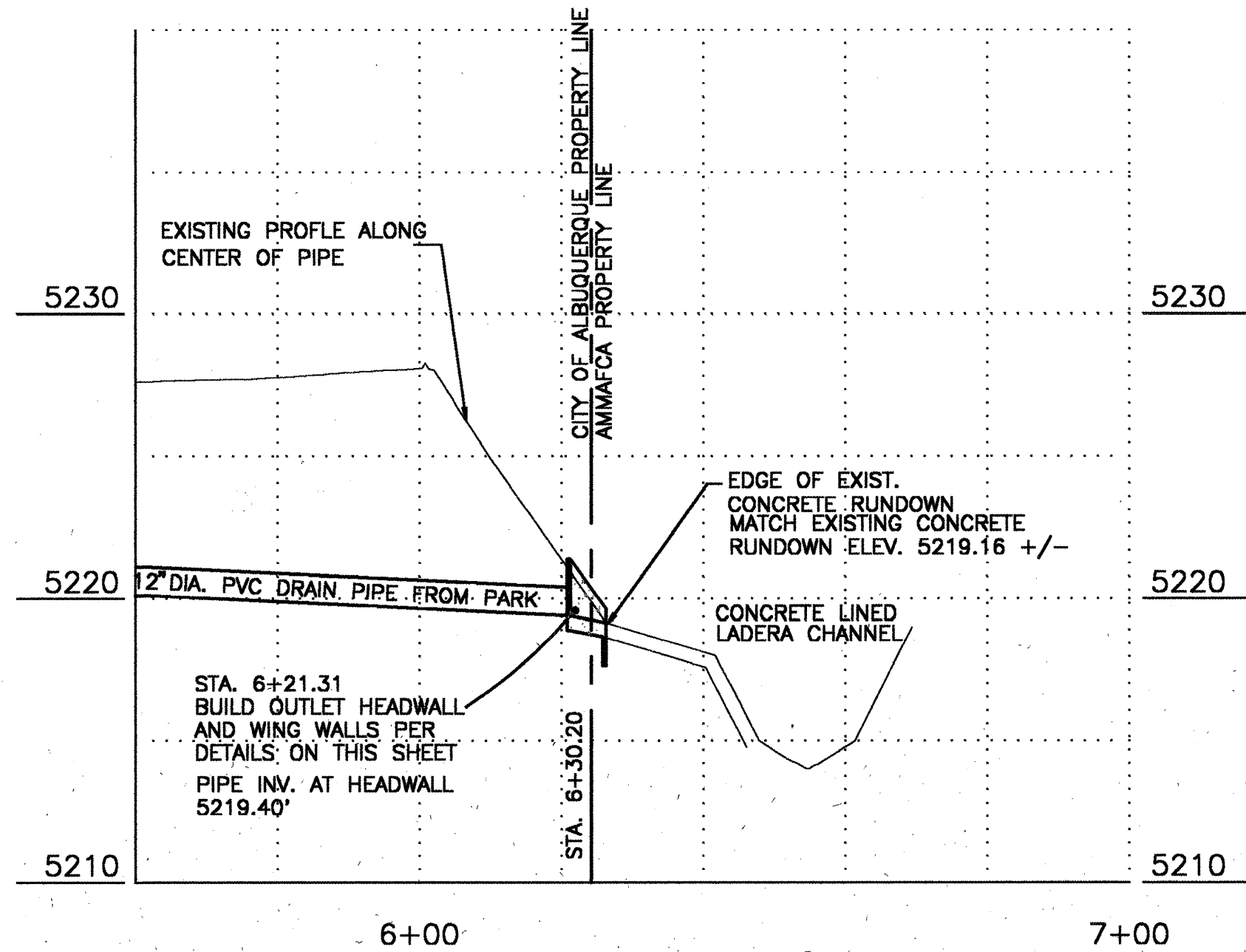
Due to the small discharges from the park, the hydraulic analysis on the inlets and pipes are not shown. There is more than adequate capacity for the Q's involved.

SUMMARY

The allowable drainage from the proposed park is 5.7 cfs. Basins C, G, and H will drain 1.2 cfs into Parkwest Drive and ultimately end up in the Ladera Channel. That leaves 4.5 cfs that can be released from the outlet structure on the Ladera Channel. A total of 4.3 cfs will drain from basins B, D, E, and F. No detention is required.

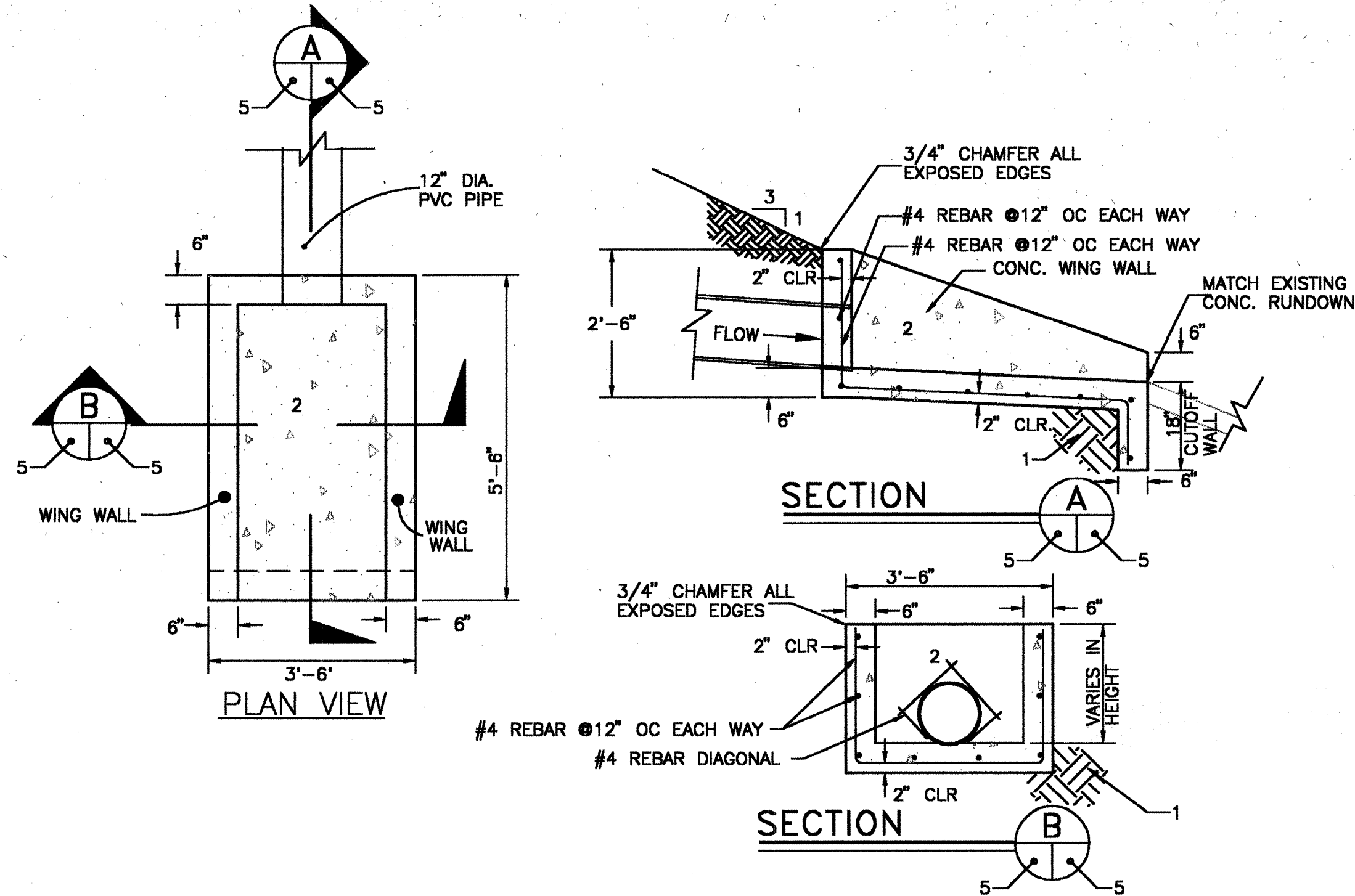
Storm Drain - Pipe Size Calculation

Pipe	Upstream Node	Downstream Node	Length (ft)	Inlet Discharge (cfs)	Section Size (in)	Capacity (cfs)	Average Velocity (ft/s)	Invert Up (ft)	Invert Down (ft)	Slope (ft/ft)
Pipe #1	DI #1	DI #2	98.00	0.50	12	5.16	1.92	5226.00	5225.02	0.0100
Pipe #2	DI #2	JB #1	155.00	1.40	12	5.16	4.33	5225.02	5222.68	0.0151
Pipe #3	DI #3	JB #1	125.00	1.40	12	5.16	4.33	5223.00	5221.75	0.0100
Pipe #4	DI #4	JB #1	74.00	1.50	12	5.16	2.90	5221.60	5220.86	0.0100
Pipe #5	JB #1	Outlet	123.00	4.30	12	5.16	6.21	5220.76	5219.20	0.0127



PROFILE - 12" PVC DRAIN PIPE TO THE LADERA CHANNEL

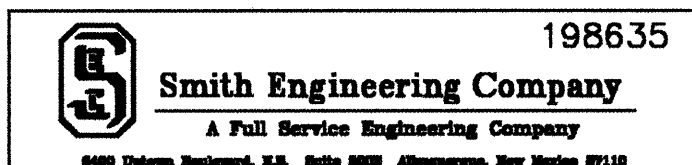
SCALE: 1" = 20' HOR.
1" = 5' VERT.



CONSTRUCTION NOTES

- 1 COMPACTED 6" SOIL TO 95% PER ASTM D-1557
- 2 ALL REINFORCED CONCRETE SHALL BE 4000 PSI @28 DAYS PER CITY OF ALBUQUERQUE STANDARDS

FOR INFORMATION ONLY



CITY OF ALBUQUERQUE CAPITAL IMPLEMENTATION PROGRAM LANDSCAPE ARCHITECTURE AND CONSTRUCTION SERVICES	
TITLE: PARKWEST PARK IMPROVEMENTS	
DRAINAGE CALCULATIONS AND ANALYSIS	
Design Review Committee JUL 22 1999 DESIGN REVIEW COMMITTEE	City Engineer Approval JUL 26 1999 CITY ENGINEER
City Project No. 573592	Zone Map No. H-9-Z
Sheet 5	Of 16

LEGEND:

- EXISTING CHAIN LINK FENCE
- X—X— EXISTING WOOD FENCE
- EXISTING RAWD IRON FENCE
- EX OHE--- EXISTING OVERHEAD ELECTRIC
- EXISTING SAS MANHOLE
- NEW STORM DRAIN
- EXISTING STORM DRAIN
- NEW STORM DRAIN MANHOLE
- EXISTING STORM DRAIN MANHOLE
- EXISTING CONCRETE SIDEWALKS AND CURB LINES
- NEW CONCRETE SIDEWALKS AND CURB LINES
- HORIZONTAL AND VERTICAL CONTROL POINT
- NEW STORM DRAIN FLOW ARROW
- 84.33 NEW SPOT ELEVATION
- 5400 NEW INDEX CONTOUR LINE
- NEW CONTOUR LINE
- 5400 EXISTING INDEX CONTOUR LINE
- EXISTING CONTOUR LINE
- EXISTING WATER VALVE
- CITY OF ALBUQUERQUE
- TOC TOP OF CURB
- FL FLOWLINE
- TOP TOP OF PIPE
- X 87.5 EXISTING SPOT ELEVATION
- IE INVERT ELEVATION
- EXISTING FIRE HYDRANT
- EXISTING FIBER-OPTIC MANHOLE
- EXISTING CATCH BASIN
- NEW CATCH BASIN

HORIZONTAL DRAINAGE LAYOUT

POINT NO.	NORTHING	EASTING	DESCRIPTION
82	1497208.69	355384.82	CENTER OF INLET
85	1497112.32	355366.13	CENTER OF INLET
86	1497071.62	355516.92	CENTER OF 4" MH
88	1497191.10	355524.57	CENTER OF INLET
89	1497081.12	355589.82	CENTER OF INLET
91	1496945.32	355518.79	CEN OF OUTLET @ RUN DOWN
92	1496949.43	355518.79	CEN OF HEADWALL

KEYED NOTES:

- INSTALL NEW CATCH BASIN. USE 18"x18" NDS SQUARE GRATE (PART NUMBER 1812 - GREEN) OR APPROVED EQUAL. INSTALL PER MANUFACTURER INSTRUCTIONS. SEE GENERAL NOTE 3.
- INSTALL NEW CATCH BASIN - TYPE "D" PER CITY OF ALBUQUERQUE SPECIFICATIONS.
- INSTALL 98 LF OF 12" DIA. PVC DRAIN PIPE @S = 0.0100 ft/ft (PIPE #1).
- INSTALL 155 LF OF 12" DIA. PVC DRAIN PIPE @S = 0.0145 ft/ft (PIPE #2).
- INSTALL 125 LF OF 12" DIA. PVC DRAIN PIPE @S = 0.0100 ft/ft (PIPE #3).
- INSTALL 74 LF OF 12" DIA. PVC DRAIN PIPE @S = 0.0100 ft/ft (PIPE #4).
- INSTALL 4" I.D. JUNCTION BOX PER COA STANDARD DETAIL 2101 (TYPE "C" MANHOLE).
- INSTALL PCC OUTLET STRUCTURE PER DETAILS ON SHEET 5.
- INSTALL 123 LF OF 12" DIA. PVC DRAIN PIPE @S = 0.0127 ft/ft (PIPE #5).

GENERAL NOTES

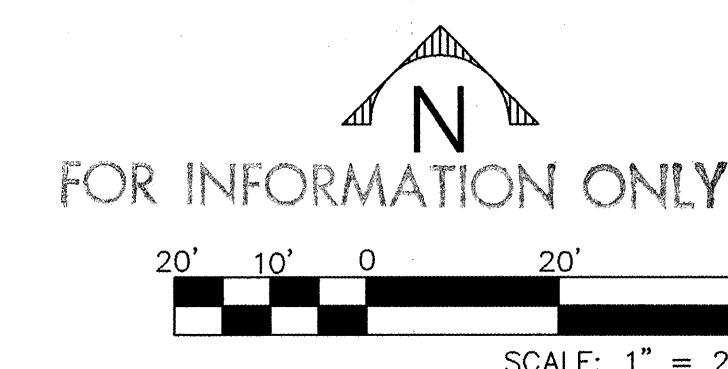
- PCC SIDE WALKS SHALL BE PLACED 0.1' HIGHER THAN TURF AREA.
- ALL SIDEWALKS SHALL HAVE A CROSS SLOPE OF NO MORE THAN 2%. NO NEW SIDEWALK SHALL HAVE A GRADE STEEPER THAN 5% EXCEPT AT WHEEL CHAIR RAMPS WHICH SHALL BE NO STEEPER THAN 8.33% (12:1).
- GRATE CAPACITY CALCULATIONS
 $Q = 0.6A\sqrt{2gh}$
 WHERE:
 A = FREE OPEN AREA OF ORIFICE
 g = 32.2 (feet per sec/sec)
 h = Head in feet
DROP INLET #1
 $A = 0.72$ sf
 $h = 0.50$ ft
 $Q = 0.6(0.72)\sqrt{2(32.2)(0.5)}$
 $Q = (2.45$ cfs) * 0.70
 (30% CLOGGING FACTOR APPLIED)
 Q (REQUIRED) = 0.50 cfs
 Q (AVAILABLE) = 1.72 cfs
SOUTHWEST RUNDOWN
 $A = 0.72$ sf
 $h = 0.30$ ft
 $Q = 0.6(0.72)\sqrt{2(32.2)(0.30)}$
 $Q = (1.90$ cfs) * 0.70
 (30% CLOGGING FACTOR APPLIED)
 Q (REQUIRED) = 0.90 cfs
 Q (AVAILABLE) = 1.33 cfs

ESTIMATED EARTHWORK VOLUMES PRISMOIDAL METHOD

ORIGINAL SURFACE	VOID	EXIST
FINAL SURFACE	design1	
CUT COMPACTION FACTOR	0.00 %	
FILL COMPACTION FACTOR	30.00 % SWELL	
RAW CUT VOLUME	1428.48 CY	
RAW FILL VOLUME	796.14 CY	
CMP FILL VOLUME	1034.98 CY	

REVISED 8/31/99

PRISMOIDAL METHOD	EXIST
ORIGINAL SURFACE	design3
FINAL SURFACE	
CUT COMPACTION FACTOR	0.00 %
FILL COMPACTION FACTOR	30.00 % SWELL
RAW CUT VOLUME	2020.89 CY
RAW FILL VOLUME	636.74 CY
CMP FILL VOLUME	445.72 CY



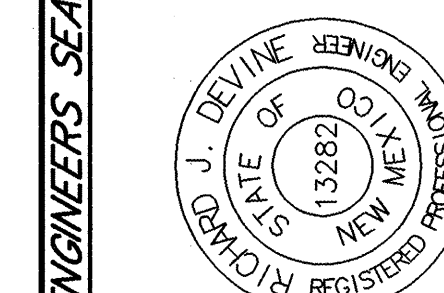
198635
Smith Engineering Company
 A Full Service Engineering Company
 6400 Uptown Boulevard, N.E. Suite 500E Albuquerque, New Mexico 87130

CITY OF ALBUQUERQUE
 CAPITAL IMPLEMENTATION PROGRAM
 LANDSCAPE ARCHITECTURE AND CONSTRUCTION SERVICES

TITLE: PARKWEST PARK IMPROVEMENTS GRADING & DRAINAGE PLAN

Design Review Committee	City Engineer Approval	Last Design Update

City Project No. **573592** Zone Map No. **H-9-Z** Sheet **6** of **16**



REVISIONS	DATE	BY
DESIGN	JULY, 1999	
	JULY, 1999	
	JULY, 1999	

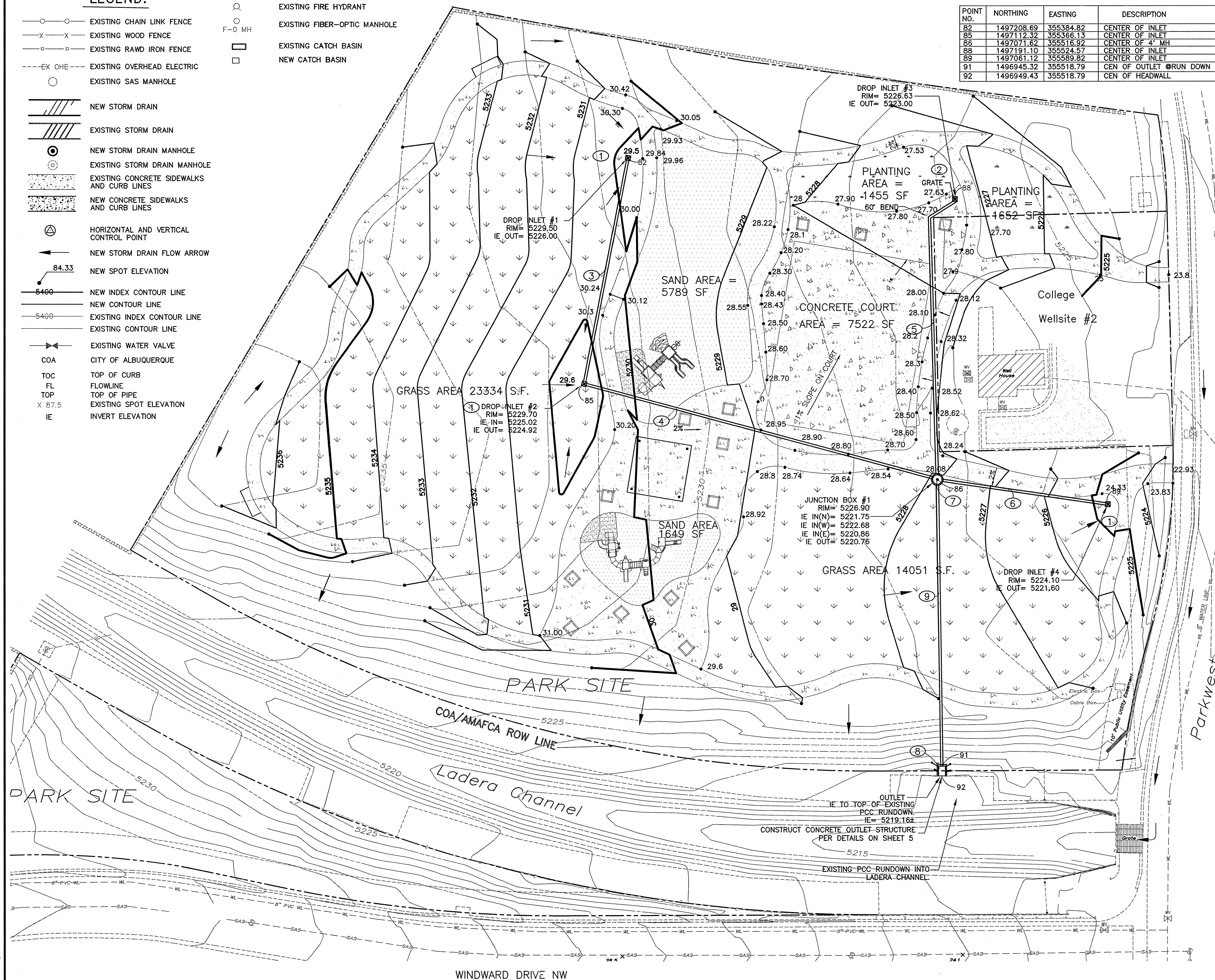
AS BUILT INFORMATION	CONTRACTOR	DATE
SURVEY INFORMATION	DATE	BY
ENGINEERS SEAL	DATE	BY

LEGEND:

	EXISTING CHAIN LINK FENCE
	EXISTING WOOD FENCE
	EXISTING RAWD IRON FENCE
	EXISTING OVERHEAD ELECTRIC
	EXISTING SAS MANHOLE
	NEW STORM DRAIN
	EXISTING STORM DRAIN
	NEW STORM DRAIN MANHOLE
	EXISTING STORM DRAIN MANHOLE
	EXISTING CONCRETE SIDEWALKS AND CURB LINES
	NEW CONCRETE SIDEWALKS AND CURB LINES
	HORIZONTAL AND VERTICAL CONTROL POINT
	NEW STORM DRAIN FLOW ARROW
	NEW SPOT ELEVATION
	NEW INDEX CONTOUR LINE
	NEW CONTOUR LINE
	EXISTING INDEX CONTOUR LINE
	EXISTING CONTOUR LINE
	EXISTING WATER VALVE
	COA
	TOC
	FL
	TOP
	X 87.5
	IE
	EXISTING FIRE HYDRANT
	EXISTING FIBER-OPTIC MANHOLE
	EXISTING CATCH BASIN
	NEW CATCH BASIN

HORIZONTAL DRAINAGE LAYOUT

POINT NO.	NORTHING	EASTING	DESCRIPTION
87	1497208.69	355384.82	CENTER OF INLET
88	1497112.32	355366.13	CENTER OF INLET
89	1497071.62	355516.92	CENTER OF 4" MH
90	1497191.10	355524.57	CENTER OF INLET
91	1497061.12	355589.82	CENTER OF INLET
92	1496945.32	355518.79	CEN OF OUTLET @ RUN DOWN
93	1496949.43	355518.79	CEN OF HEADWALL



KEYED NOTES:

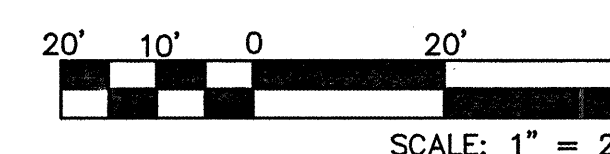
- INSTALL NEW CATCH BASIN. USE 18"x18" NDS SQUARE GRATE (PART NUMBER 1812 - GREEN) OR APPROVED EQUAL. INSTALL PER MANUFACTURER INSTRUCTIONS. SEE GENERAL NOTE 3.
- INSTALL NEW CATCH BASIN - TYPE "D" PER CITY OF ALBUQUERQUE SPECIFICATIONS.
- INSTALL 98 LF OF 12" DIA. PVC DRAIN PIPE @S = 0.0100 ft/ft (PIPE #1).
- INSTALL 155 LF OF 12" DIA. PVC DRAIN PIPE @S = 0.0145 ft/ft (PIPE #2).
- INSTALL 125 LF OF 12" DIA. PVC DRAIN PIPE @S = 0.0100 ft/ft (PIPE #3).
- INSTALL 74 LF OF 12" DIA. PVC DRAIN PIPE @S = 0.0100 ft/ft (PIPE #4).
- INSTALL 4" I.D. JUNCTION BOX PER COA STANDARD DETAIL 2101 (TYPE "C" MANHOLE).
- INSTALL PCC OUTLET STRUCTURE PER DETAILS ON SHEET 5.
- INSTALL 123 LF OF 12" DIA. PVC DRAIN PIPE @S = 0.0127 ft/ft (PIPE #5).

GENERAL NOTES

- PCC SIDE WALKS SHALL BE PLACED 0.1' HIGHER THAN TURF AREA.
- ALL SIDEWALKS SHALL HAVE A CROSS SLOPE OF NO MORE THAN 2%. NO NEW SIDEWALK SHALL HAVE A GRADE STEEPER THAN 5% EXCEPT AT WHEEL CHAIR RAMPS WHICH SHALL BE NO STEEPER THAN 8.33 % (12:1).
- GRATE CAPACITY CALCULATIONS
 $Q = 0.6A\sqrt{2gh}$
 WHERE:
 A = FREE OPEN AREA OF ORIFICE
 $g = 32.2$ (feet per sec/sec)
 h = Head in feet
 DROP INLET #1
 $A = 0.72$ sf
 $h = 0.50$ ft
 $Q = 0.6(0.72)\sqrt{2(32.2)(0.5)}$
 $Q = (2.45 \text{ cfs}) \times 0.70$
 $Q \text{ (REQUIRED)} = 0.50 \text{ cfs}$
 $Q \text{ (AVAILABLE)} = 1.72 \text{ cfs}$
 SOUTHWEST RUNDOWN
 $A = 0.72$ sf
 $h = 0.30$ ft
 $Q = 0.6(0.72)\sqrt{2(32.2)(0.30)}$
 $Q = (1.90 \text{ cfs}) \times 0.70$
 $Q \text{ (REQUIRED)} = 0.90 \text{ cfs}$
 $Q \text{ (AVAILABLE)} = 1.33 \text{ cfs}$

ESTIMATED EARTHWORK VOLUMES PRISMOIDAL METHOD

ORIGINAL SURFACE	exist
FINAL SURFACE	design1
CUT COMPACTION FACTOR	0.00 %
FILL COMPACTION FACTOR	30.00 % SWELL
RAW CUT VOLUME	1128.48 CY
FILL VOLUME	796.14 CY
CMP FILL VOLUME	1034.98 CY



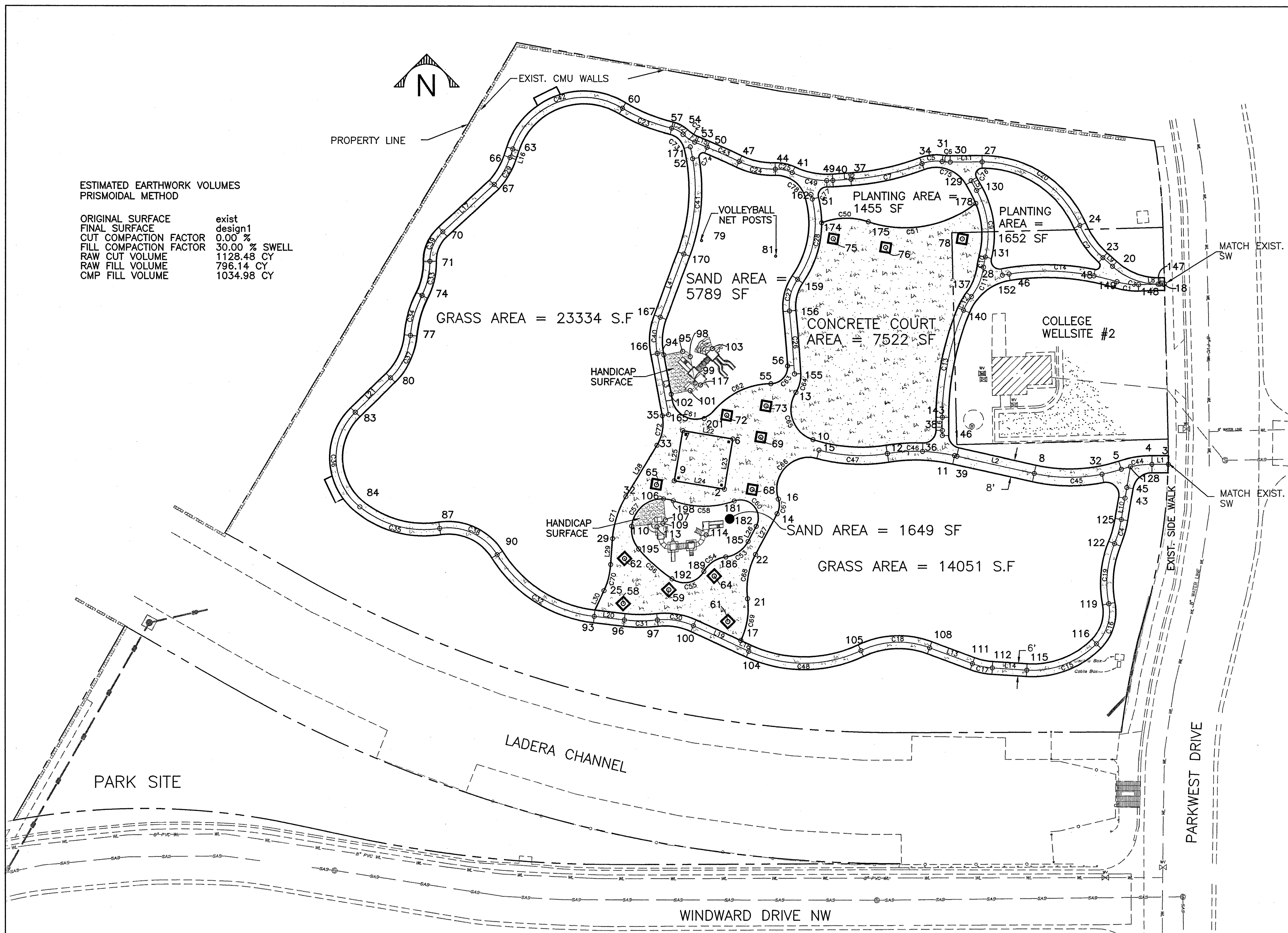
198635
Smith Engineering Company
 A Full Service Engineering Company
 6400 Olympe Boulevard, N.E., Suite 2000 Albuquerque, New Mexico 87110

CITY OF ALBUQUERQUE
 CAPITAL IMPLEMENTATION PROGRAM
 LANDSCAPE ARCHITECTURE AND CONSTRUCTION SERVICES

TITLE: PARKWEST PARK IMPROVEMENTS GRADING & DRAINAGE PLAN

Design Review Committee	City Engineer Approval	Mo. / Day / Yr.	Mo. / Day / Yr.
APPROVED JUL 22 1999	APPROVED JUL 26 1999		
DESIGN REVIEW COMMITTEE	CITY ENGINEER	Last Design Update	

City Project No. **573592** Zone Map No. **H-9-Z** Sheet **6** of **16**



ESTIMATED EARTHWORK VOLUMES
PRISMOIDAL METHOD

ORIGINAL SURFACE
FINAL SURFACE
CUT COMPACTION FACTOR
FILL COMPACTION FACTOR
RAW CUT VOLUME
RAW FILL VOLUME
CMP FILL VOLUME

exist
design1
0.00 %
30.00 % SWELL
1128.48 CY
796.14 CY
1034.98 CY

DESIGN POINT TABLE

POINT NO.	NORTHING	EASTING	ELEV.	DESCRIPTION
2	1497062.33	355408.05	5229.55	PI
3	1497074.20	355617.83	5223.44	PI
4	1497074.20	355610.08	5223.96	PC
5	1497071.89	355595.68	5224.55	PRC
6	1497086.00	355412.00	5229.52	PI
7	1497089.95	355388.33	5230.00	PI
8	1497089.81	355354.41	5228.54	PI
9	1497066.27	355384.38	5230.06	PI
10	1497085.68	355449.94	5228.86	PCR
11	1497078.15	355166.73	5228.07	PC
12	1497079.09	355484.98	5228.44	PRC
13	1497108.00	355441.88	5228.77	PRC
14	1497050.58	355433.08	5228.97	PC
15	1497080.69	355452.76	5228.82	PT
16	1497057.62	355333.67	5228.97	PRC
17	1496990.76	355415.88	5228.89	PC
18	1497159.01	355616.02	5223.80	PI
19	1497158.93	355613.02	5223.87	PC
20	1497167.29	355591.52	5224.73	PI
21	1497010.43	355419.06	5229.38	PRC
22	1497031.31	355422.86	5229.14	PI
23	1497171.42	355587.00	5225.00	PC
24	1497186.79	355510.93	5225.63	PRC
25	1497014.14	355351.27	5230.84	PC
26	1497026.45	355354.46	5230.77	PRC
27	1497217.00	355529.72	5227.14	PI
28	1497166.84	355530.31	5227.37	RP
29	1497038.79	355355.34	5230.73	PC
30	1497216.91	355514.70	5227.43	PC
31	1497217.97	355510.93	5227.60	PRC
32	1497058.73	355361.64	5230.55	PC
33	1497082.98	355376.19	5230.26	PC
34	1497216.12	355501.39	5227.59	PRC
35	1497096.96	355378.70	5230.17	PI
36	1497080.10	355501.62	5228.22	POC
37	1497208.69	355467.79	5228.41	PI
38	1497090.09	355511.00	5228.65	POT
39	1497078.15	355376.03	5228.83	POT
40	1497208.10	355459.34	5228.73	PC
41	1497211.80	355440.14	5229.17	PRC
42	1497069.49	355586.58	5225.00	POC
43	1497058.18	355597.41	5224.79	POT
44	1497213.49	355432.22	5229.39	PRC
45	1497063.21	355598.27	5224.67	POT
46	1497163.62	355542.48	5227.12	POC
47	1497217.10	355515.09	5229.72	PRC
48	1497162.82	355582.65	5225.19	POC
49	1497208.01	355456.44	5228.69	POC
50	1497223.92	355399.83	5230.14	PI
51	1497199.29	355449.60	5228.67	POC
52	1497218.46	355392.99	5229.99	POC
53	1497226.35	355393.96	5230.32	PC
54	1497229.90	355388.50	5230.44	PRC
55	1497232.83	355383.12	5230.67	PRC
56	1497242.23	355360.04	5231.61	PRC
57	1497222.95	355308.15	5233.65	PI
58	1497218.90	355306.81	5233.77	PC
59	1497206.06	355299.39	5234.08	PI
60	1497183.55	355275.10	5234.63	PC
61	1497169.37	355269.01	5234.79	PRC
62	1497153.35	355257.32	5234.74	PRC
63	1497134.59	355259.96	5235.44	PRC
64	1497114.68	355250.52	5235.71	PI
65	1497098.41	355233.96	5236.06	PC
66	1497053.67	355236.11	5235.95	POC
67	1497043.55	355273.70	5234.50	PRC
68	1497031.08	355300.80	5233.00	PRC
69	1497002.02	355346.66	5231.10	PI
70	1497000.39	355360.93	5230.80	PC
71	1497000.40	355376.42	5230.46	PRC

DESIGN POINT TABLE

POINT NO.	NORTHING	EASTING	ELEV.	DESCRIPTION
100	1496997.73	355393.36	5230.21	PT
104	1496985.75	355419.64	5229.68	PC
105	1496986.05	355472.56	5228.66	PRC
108	1496987.43	355505.00	5228.08	PT
111	1496979.96	355525.20	5227.76	PC
112	1496977.97	355534.58	5227.57	PT
115	1496976.89	355550.89	5227.34	PC
116	1496989.39	355583.91	5226.78	POC
119	1497008.17	355589.73	5226.31	PRC
122	1497036.51	355592.46	5225.53	PRC
125	1497048.05	355595.70	5225.07	PI
128	1497073.07	355599.94	5224.42	PI
129	1497208.07	355524.52	5227.13	PI
130	1497203.46	355527.10	5227.09	PC
131	1497171.70	355531.22	5227.97	PRC
137	1497153.08	355524.68	5227.91	PRC
140	1497146.64	355520.97	5228.10	POC
143	1497096.31	355511.00	5228.59	PI
146	1497087.67	355511.00	5228.67	PI
147	1497158.92	355613.02	5223.85	PI
148	1497158.68	355603.80	5224.13	PC
149	1497160.06	355618.63	5224.65	PC
152	1497163.07	355638.29	5227.25	PI
155	1497116.72	355441.20	5228.74	PC
156	1497146.22	355438.84	5228.49	PRC
159	1497161.06	355442.66	5228.36	PRC
162	1497201.45	355449.00	5228.74	PI
165	1497097.51	355381.64	5230.11	PI
166	1497126.25	355376.26	5230.46	PC
167	1497143.27	355377.70	5230.25	PC
170	1497173.06	355388.75	5230.00	PC
171	1497224.11	355391.83	5230.28	PI
174	1497188.00	355454.04	5228.10	PC
175	1497188.50	355476.00	5227.84	PRC
178	1497197.29	355526.73	5227.12	PI
181	1497056.69	355412.74	5229.49	PC
182	1497044.72	355423.18	5229.16	PI
185	1497149.48	355419.48	5229.16	PC
186	1497030.15	355408.70	5229.59	PRC
189	1497023.22	355398.29	5229.91	PRC
192	1497019.76	355383.29	5230.17	POC
195	1497033.92	355367.66	5230.51	POC
198	1497056.77	355383.90	5230.07	PRC
201	1497095.64	355398.44	5229.79	RP

TREE WELL POINTS

POINT NO.	NORTHING	EASTING	ELEV.	DESCRIPTION
58	1497008.16	355360.40	NA	PLANTER
59	1497014.62	355381.81	NA	PLANTER
61	1496999.67	355409.67	NA	PLANTER
62	1497029.37	355361.01	NA	PLANTER
64	1497021.08	355403.21	NA	PLANTER
65	1497064.38	355375.96	NA	PLANTER
68	1497062.16	355421.21	NA	PLANTER
69	1497086.82	355425.32	NA	PLANTER
72	1497097.22	355408.12	NA	PLANTER
73	1497101.62	355427.78	NA	PLANTER
75	1497180.36	355459.53	NA	PLANTER
76	1497176.25	355484.19	NA	PLANTER
78	1497180.36	355520.36	NA	PLANTER
79	1497179.49	355397.12	NA	NET POST
81	1497172.03	355432.34	NA	NET POST

NOTES

UNLESS NOTED ON THE PLANS, ALL SIDEWALK CENTERLINE SHALL BE FOR 6' WIDE SIDEWALKS. CENTERLINE POINTS SHOWN SHALL BE OFFSET

WHERE SIDEWALKS ARE NOT SYMMETRICAL ABOUT THE CENTERLINE, ADDITIONAL POINTS HAVE BEEN SHOWN ON THIS PLAN FOR SET THE EDGE OF SIDEWALK.

ALL SIDEWALKS SHALL HAVE A CROSS SLOPE OF NO MORE THAN 2%. NO NEW SIDEWALK SHALL HAVE A GRADE STEEPER THAN 5% EXCEPT AT WHEEL CHAIR RAMPS WHICH SHALL BE NO STEEPER THAN 8.33 % (12:1)

6" THICK SIDEWALK FOR COA MAINTENANCE ACCESS. ALL OTHER SIDEWALK PAVING SHALL BE 4" THICK UNLESS OTHERWISE NOTED.

DESIGN POINTS FOR HANDICAP SURFACE

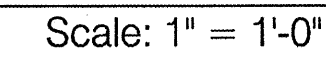
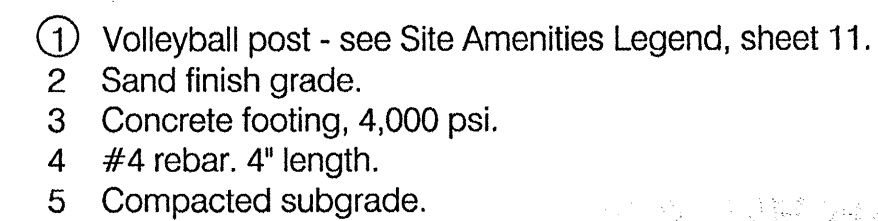
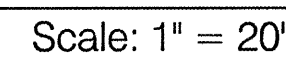
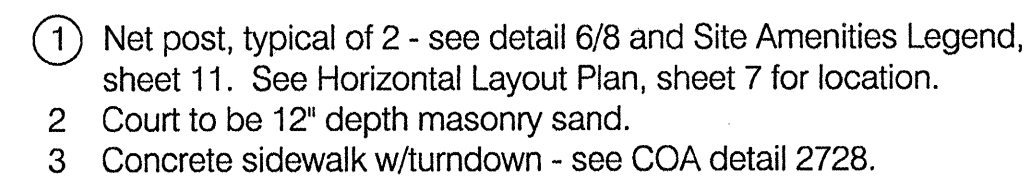
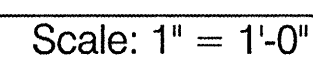
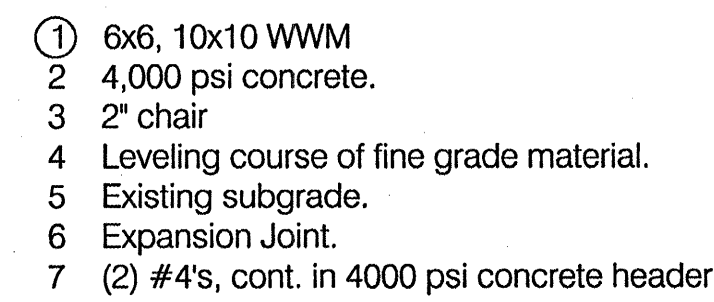
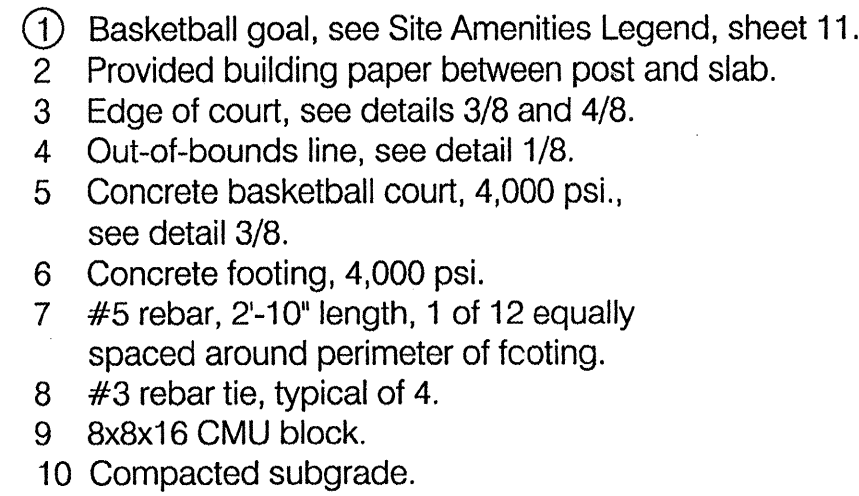
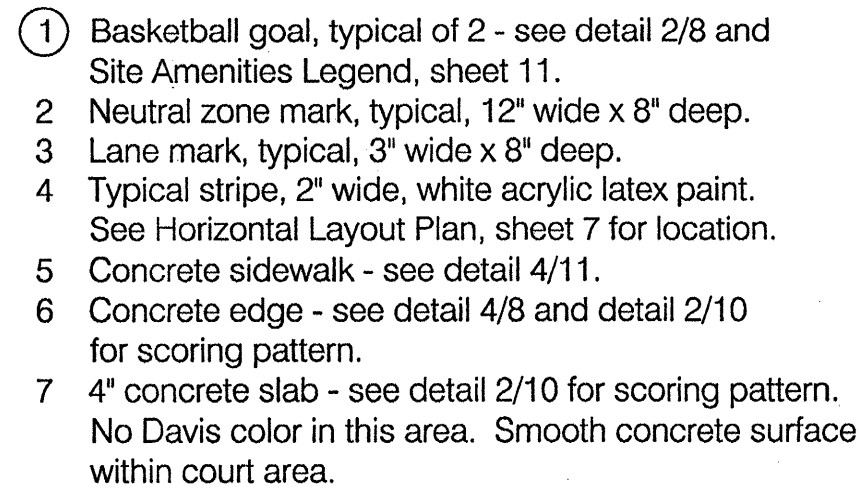
POINT NO.	NORTHING	EASTING	ELEV.	DESCRIPTION
94	1497125.62	355379.42	NA	HCEDGE
95	1497127.29	355388.28	NA	HCEDGE
98	1497124.83	355391.80	NA	HCEDGE
99	1497112.33	355394.14	NA	HCEDGE
101	1497108.82	355391.73	NA	HCEDGE
102	1497107.16	355382.87	NA	HCEDGE
103	1497128.64	355402.24	NA	POST
106	1497057.69	355379.30	NA	HCEDGE
107	1497047.71	355380.22	NA	HCEDGE
108	1497046.14	355379.02	NA	HCEDGE
110	1497044.78	355364.39	NA	HCEDGE
113	1497044.44	355376.23	NA	POST
114	1497040.67	355399.37	NA	POST
117	1497111.42	355396.62	NA	POST

DESIGN LINE TABLE

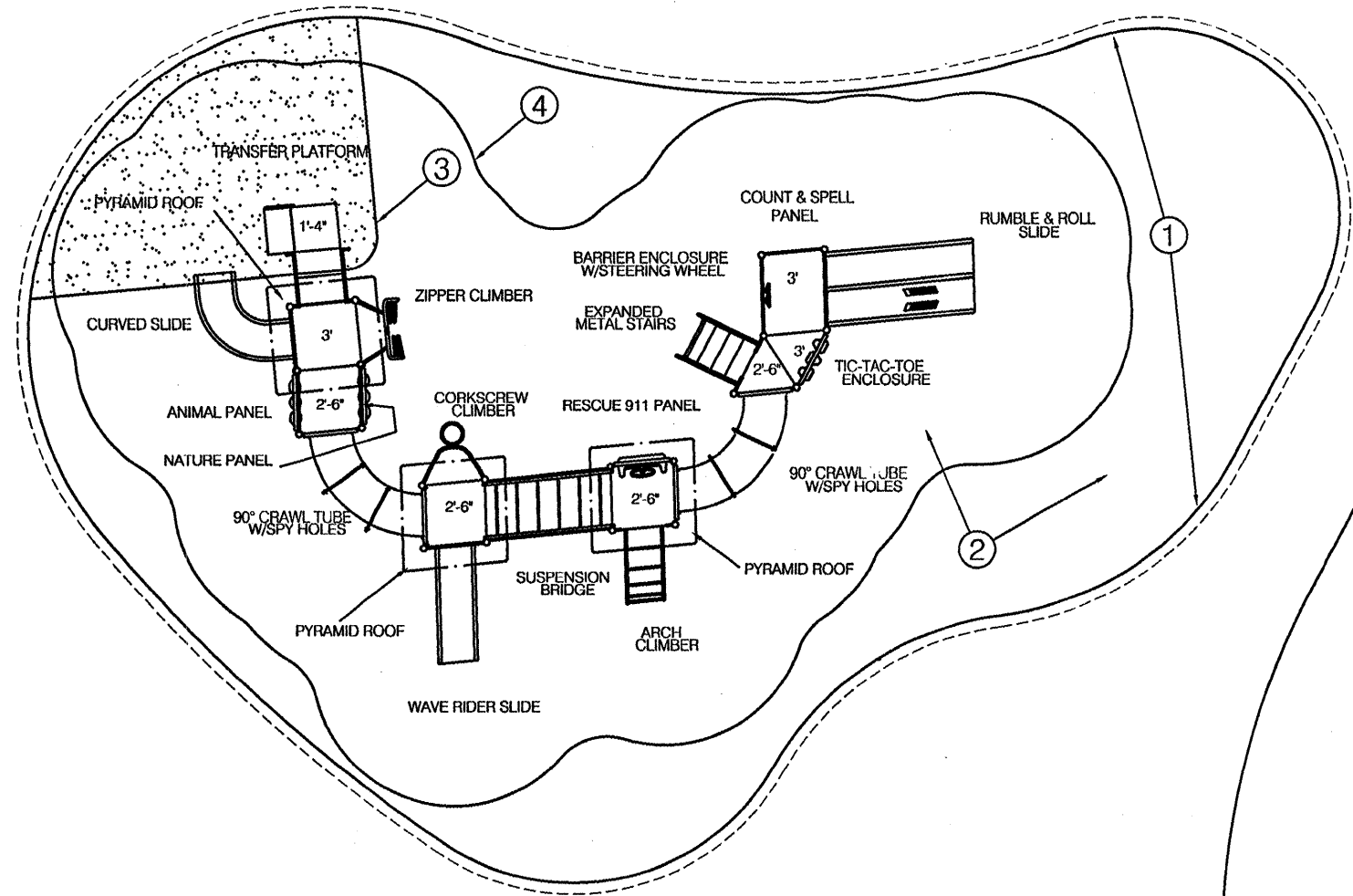
NUMBER	DIRECTION	DISTANCE
L1	S 90°00'00" W	7.75 FT
L2	N 77°31'13" W	38.59 FT
L3	N 10°37'11" W	29.24 FT
L4	N 20°20'41" E	31.77 FT
L5	S 29°14'56" E	5.29 FT
L6	S 00°00'00" E	8.64 FT
L8	S 88°29'19" W	12.22 FT
L9	N 47°37'58" W	6.12 FT
L10	N 09°37'31" E	25.37 FT
L11	S 89°38'46" W	15.02 FT
L12	S 85°59'45" W	8.47 FT
L13	S 69°41'44" E	21.53 FT
L14	S 86°24'04" E	16.35 FT
L15	N 67°29'58" W	6.36 FT
L16	S 18°26'17" W	4.27 FT
L17	S 47°10'45" W	33.12 FT
L18	S 65°29'33" E	5.49 FT
L19	S 65°29'33" E	23.39 FT
L20	S 83°29'48" E	14.36 FT
L21	S 45°30'17" W	23.22 FT
L22	N 80°32'16" W	24.00 FT
L23	S 09°27'44" W	24.00 FT
L24	S 80°32'16" E	24.00 FT
L25	N 09°27'44" E	24.00 FT
L26	S 27°56'22" W	8.20 FT
L27	N 27°56'22" E	21.81 FT
L28	N 30°57'50" E	28.28 FT
L29	S 04°05'08" W	12.37 FT
L30	N 25°01'01" E	10.09 FT

DESIGN CURVE TABLE

NUMBER	DELTA	RADIUS	TANGENT	ARC LENGTH	CHORD BEARING
C1	18°28'07"	32.00	5.20	10.31	S 82°16'37" E
C2	24°13'38"	45.00	9.66	19.03	S 35°31'09" E
C3	42°14'32"	32.00	12.36	23.59	S 68°45'14" E
C4	12°04'26"	57.00	6.03	12.01	N 15°39'44" E
C5	29°14'43"	19.00	4.96	9.70	S 83°42'20" W
C6	08°40'55"	25.00	1.90	3.79	S 86°00'46" E
C7	16°54'47"	117.00	17.39	34.54	N 77°32'22" E
C9	43°43'14"	43.00	17.25	32.81	S 07°23'19" E
C10	07°39'59"	37.00	2.48	4.95	S 10°38'18" W
C11	30°49'23"	28.00	7.72	15.06	S 22°13'01" W
C12	15°12'53"	28.00	3.74	7.44	S 30°01'16" W
C13	22°24'49"	132.00	26.15	51.64	S 11°12'25" W
C14	27°34'08"	114.20	28.02	54.95	N 86°49'37" W
C15	48°26'24"	43.00	19.34	36.35	N 69°22'44" E
C16	55°52'30"	21.00	11.14	20.48	N 17°13'17" E
C17	16°42'20"	33.00	4.85	9.62	S 78°02'54" E
C18	45°28'25"	42.00	17.60	33.33	S 87°34'04" W
C19	32°24'55"	51.00	14.82	28.85	S 05°29'30" W
C20	66°56'54"	50.12	33.14	58.57	N 56°52'47" W
C21	21°06'10"	17.79	3.31	6.55	S 56°56'53" E
C22	30°04'33"	11.79	3.17	6.19	N 61°26'04" W
C23	17°16'11"	83.00	12.60	25.02	S 67°50'15" E
C24	27°21'45"	37.00	9.01	17.67	S 78°04'36" E
C25	27°34'04"	17.00	4.17	8.18	N 77°58'27" W
C26	02°42'09"	627.64	14.81	29.61	N 04°34'44" W
C27	40°44'21"	22.00	8.17	15.64	N 14°26'22" E
C28	51°45'52"	46.84	22.73	42.32	N 08°55'37" E
C29	23°07'34"	37.00	7.57	14.93	N 30°00'04" E
C30	31°04'51"	32.00	8.90	17.36	N 81°01'58" W



City Project No.	573592	Zone Map No.	Sheet	8	of	16
------------------	--------	--------------	-------	---	----	----



NOTE: Install all equipment per manufacturer's specifications.

CONSTRUCTION NOTES

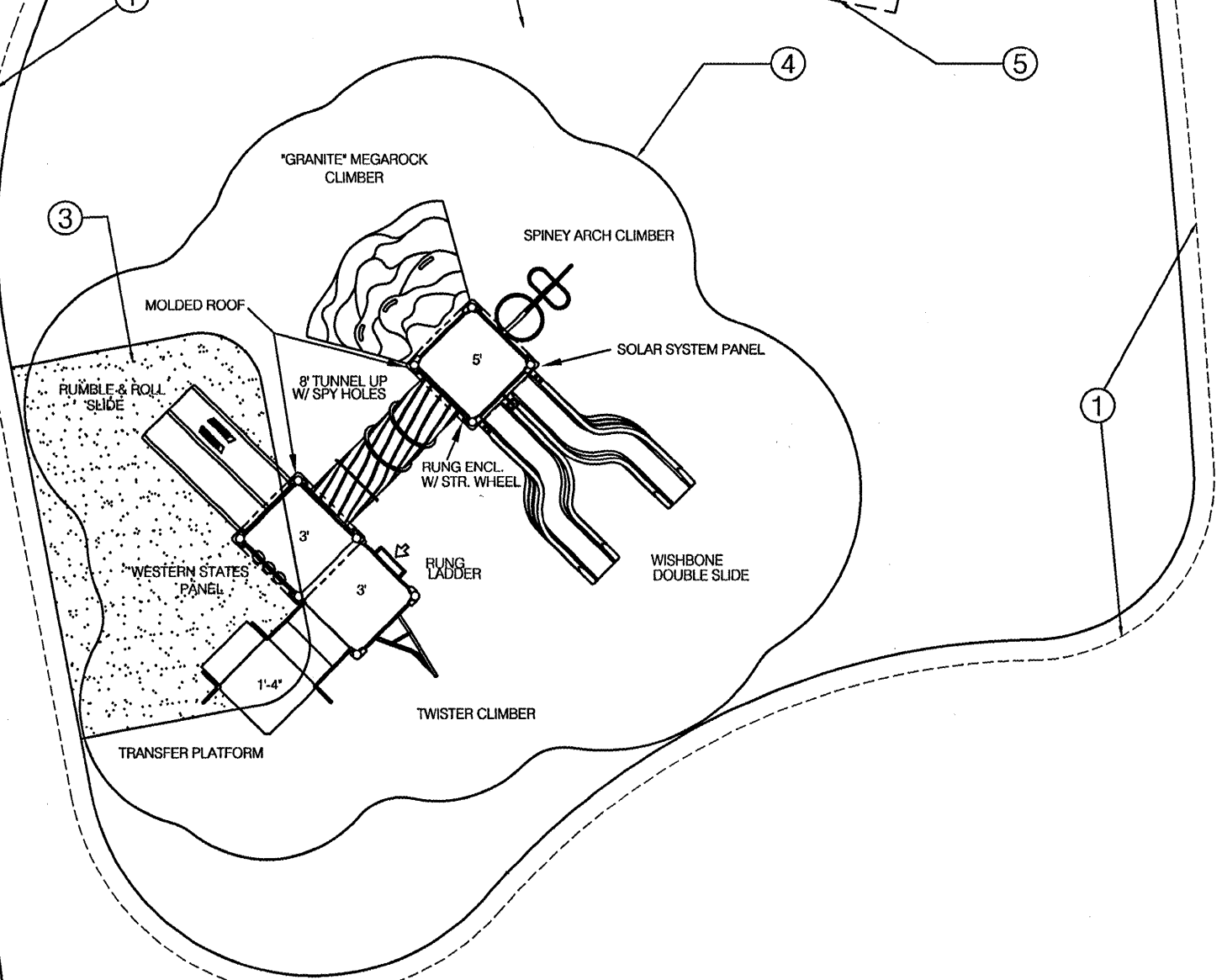
- ① 18" concrete turnaround, see COA Detail 2728.
- ② 12" depth brick sand.
- ③ Poured accessible surface, see Equipment List.
- ④ Manufacturer's specified fall zone.



Equipment List

Quantity	Item No.	Description
4 *	13300	36" Square Expanded Metal Deck (Tot)
2 *	13301	36" Tri Deck (Tot Time)
1 *	13302	Rectangular Expanded Metal Deck
20 *	13323	3 1/2" Upright Assembly Aluminium 8"
1 *	13364	36" Transfer Platform 3' Deck
1 *	13377	3' - 0" Zipper Attachment
1 *	13376	2' - 6" / 3' - 0" Corkscrew
1 *	13435	Rescue 911 Panel
1 *	13352	2' - 6" Stairs
1 *	13462	Barrier Enclosure with Steering Wheel
1 *	13426	Count and Spell Panel (Tot)
1 *	13525	Rumble and Roll (Tot Time)
1 *	13439	Tic-Tac-Toe Enclosure (Tot Time)
2 *	13417	90 Degree Crawl Tube with Ports
3 *	13330	Roof Package (Tot Time)
1 *	13371	2' - 6" / 3' - 0" Arch Climber
1 *	13402	Suspension Bridge
1 *	13496	Straight Tot Slide (Tot Time)
1 *	13449	Nature Panel
1 *	13448	Animal Panel
1 *	13497	Curved Tot Slide (Tot Time)
1 *	13477	6" Barrier
(per plan)		EPDM Safety Surfacing**

* Color shall be per 'Play Palette' Color Scheme: 'Primary'.
 ** Accessible surface shall be a poured-in-place rubber with 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 7, for location.



NOTE: Install all equipment per manufacturer's specifications.

CONSTRUCTION NOTES

- ① 18" concrete turnaround, see COA Detail 2728.
- ② 12" depth brick sand.
- ③ Poured accessible surface, see Equipment List.
- ④ Manufacturer's specified fall zone.
- ⑤ Volleyball court limits.



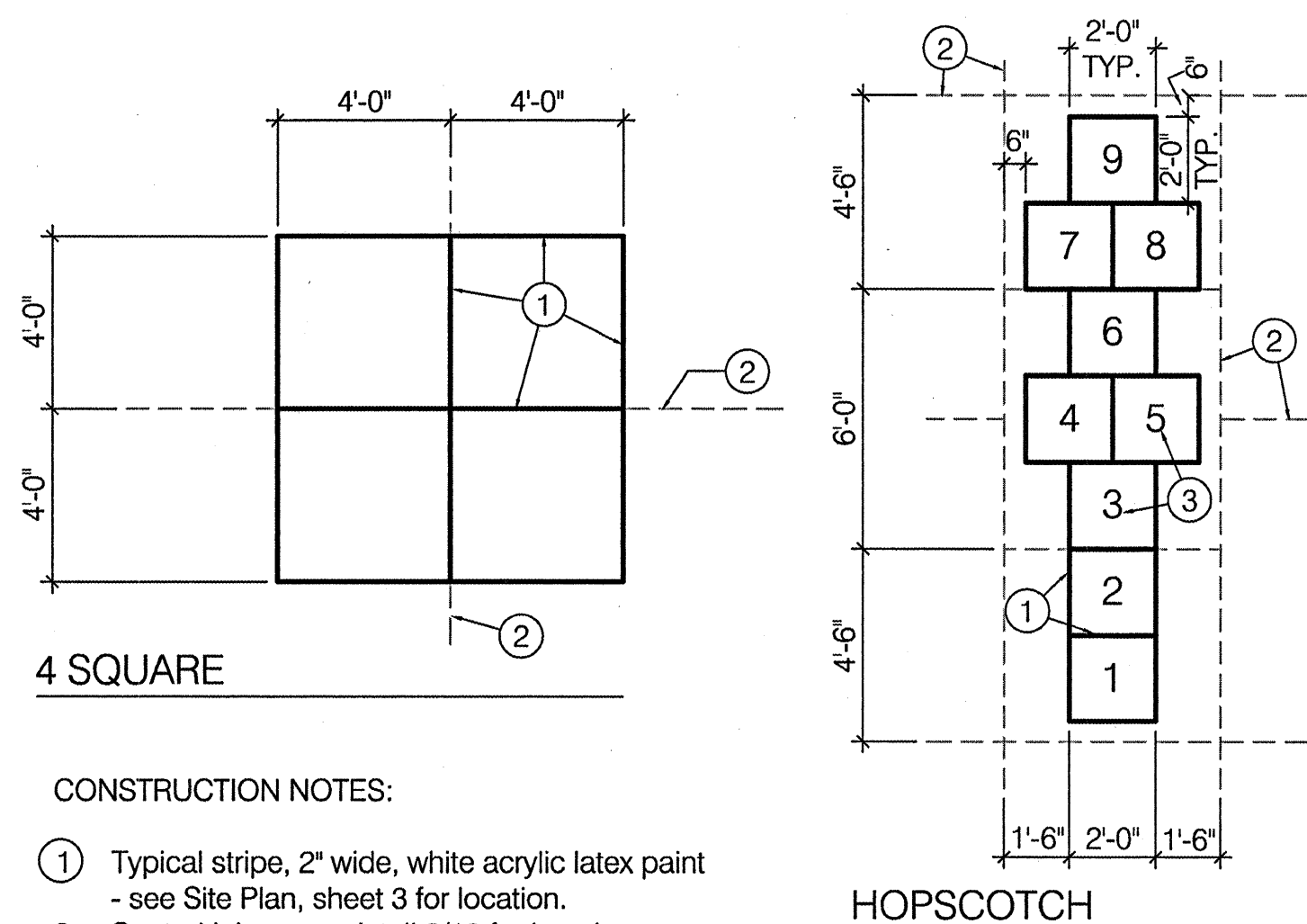
Equipment List

Quantity	Item No.	Description
3 *	10000	49" Square Expanded Metal Deck
4 *	10131	11" Upright Assembly (Aluminium)
3 *	10129	9" Upright Assembly (Aluminium)
1 *	10267	3' Transfer Platform
1 *	10406	Western States Panel
1 *	10203	3' Rumble and Roll Slide
2 *	10003	Molded Dome Roof
1 *	10598	8' - 0" Tunnel-Up 30"
1 *	10725	"Granite" Megarock
1 *	10663	5' - 0" Spiney Arch Climber
1 *	10417	Solar System Panel
1 *	10498	Wishbone Double Slide
1 *	10111	Above and Below Rung Enclosure
1 *	10051	3' / 4' Rung Access
1 *	10688	3' - 0" / 3' - 6" Twister Climber
(per plan)		EPDM Safety Surfacing**

* Color shall be per 'Play Palette' Color Scheme: 'Primary'.
 ** Accessible surface shall be a poured-in-place rubber with 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 7, for location.

1 CHILDREN'S PLAY AREA (2-5)

Scale: 1/8" = 1' - 0"



CONSTRUCTION NOTES:

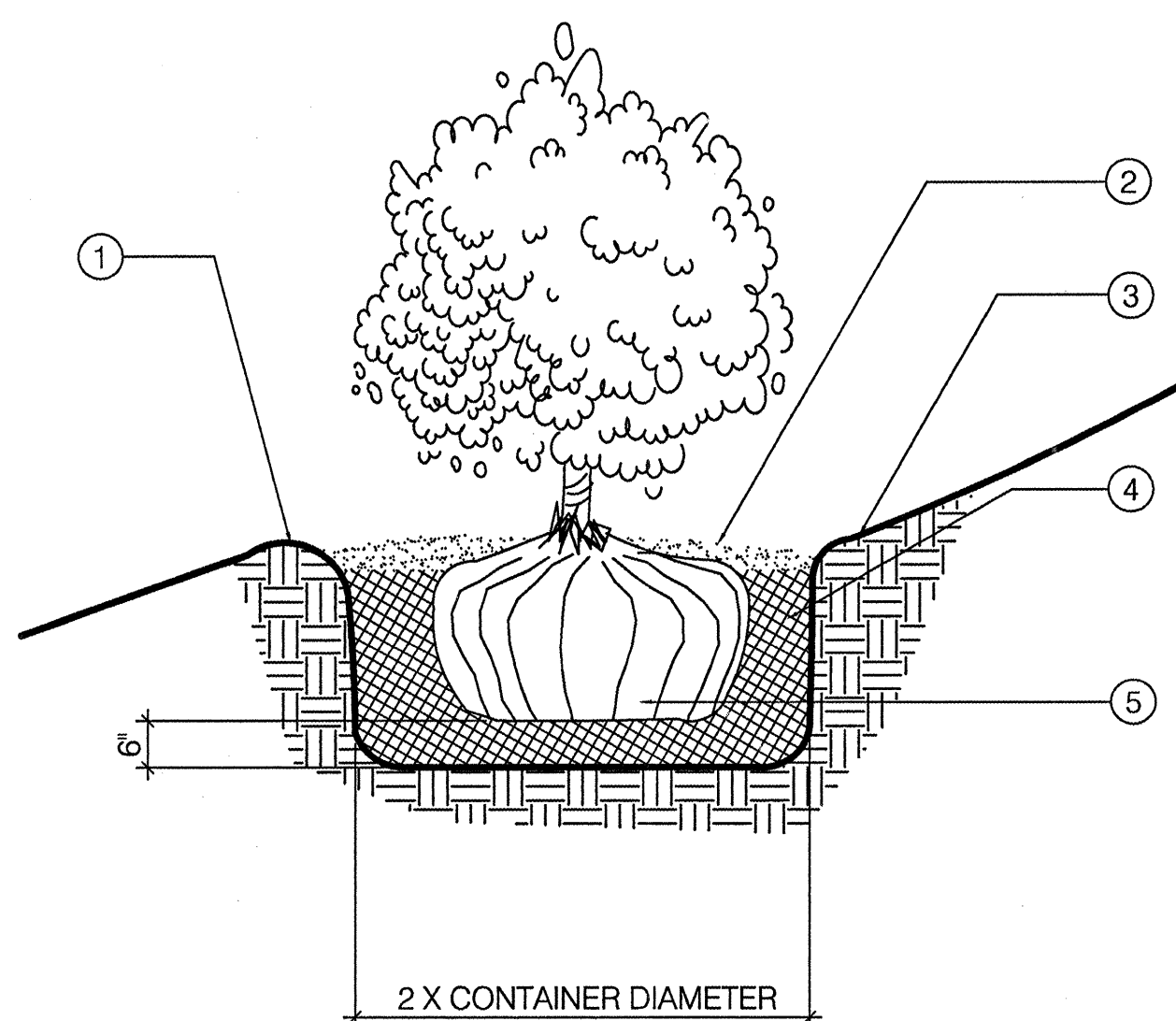
- ① Typical stripe, 2" wide, white acrylic latex paint - see Site Plan, sheet 3 for location.
- ② Control joint - see detail 2/10 for location.
- ③ White acrylic latex painted numbers, 8" height.

3 4 SQUARE/HOPSCOTCH STRIPING PLAN

Scale: 1/4" = 1' - 0"

2 CHILDREN'S PLAY AREA (5-12)

Scale: 1/8" = 1' - 0"



Notes: A. The water retention basin shall be twice the planting pit diameter.
 B. The edges of the water retention basin shall be smoothly formed with no obtrusive edges.

CONSTRUCTION NOTES:

- ① 4" deep water detention basin.
- ② Mulch per Planting Plan, sheet 14.
- ③ Original grade of slope.
- ④ Specified planting mix - water and tamp to remove air pockets.
- ⑤ Rootball.

4 SHRUB PLANTING ON SLOPE

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

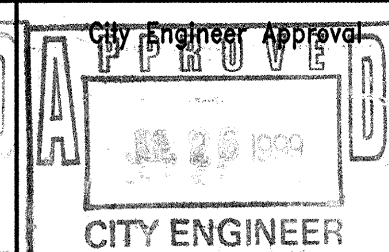
AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEERS SEAL													
CONTRACTOR	DATE	NO.	BY	NO.	BY														
WORKED BY	DATE	NO.	BY	NO.	BY	<table border="1"> <tr> <th>REVISIONS</th> <th>DATE</th> <th>BY</th> </tr> <tr> <td>DESIGN</td> <td>6/99</td> <td>SM</td> </tr> <tr> <td>DRAWN BY</td> <td>6/99</td> <td>SM</td> </tr> <tr> <td>CHECKED BY</td> <td>6/99</td> <td>SM</td> </tr> </table>		REVISIONS	DATE	BY	DESIGN	6/99	SM	DRAWN BY	6/99	SM	CHECKED BY	6/99	SM
REVISIONS	DATE	BY																	
DESIGN	6/99	SM																	
DRAWN BY	6/99	SM																	
CHECKED BY	6/99	SM																	
ACCEPTED BY	DATE																		
VERIFICATION BY	DATE																		
DRAMING BY	DATE																		
MICRO-FILM INFORMATION																			
RECORDED BY	DATE																		
NO.																			



CONSENSUS PLANNING, INC.
 Planning / Landscape Architecture
 924 Park Avenue SW
 Albuquerque, NM 87102
 (505) 764-9801 Fax 842-5495
 e-mail: cp@consensusplanning.com

CITY OF ALBUQUERQUE
 CAPITAL IMPLEMENTATION PROGRAM
 LANDSCAPE ARCHITECTURE & CONSTRUCTION SERVICES

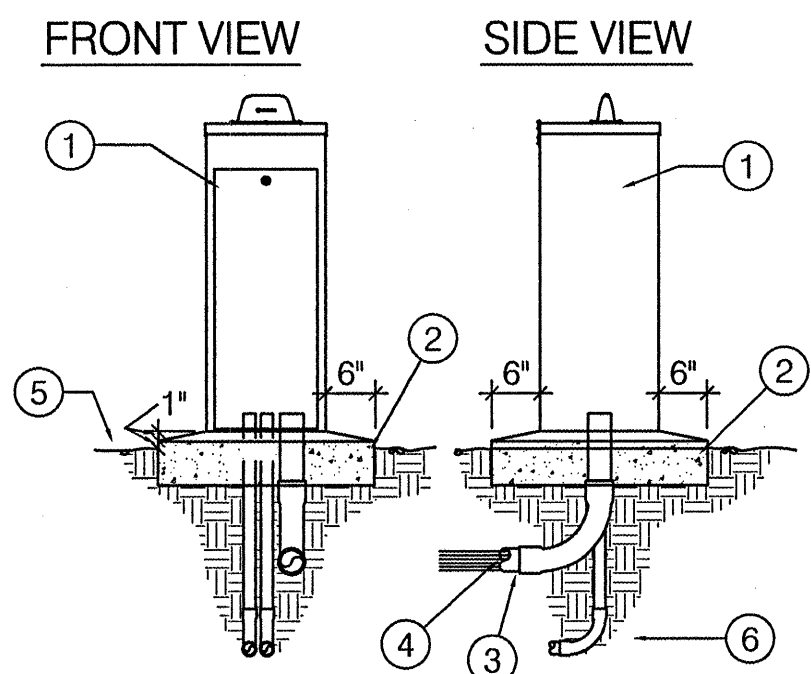
TITLE: PARKWEST PARK IMPROVEMENTS
 SITE DETAILS - PLAY AREA LAYOUT



No. / Day / Yr.	No. / Day / Yr.

City Project No. 573592 Zone Map No. H-9 Sheet 9 of 16

 CONSENSUS PLANNING	PLANNING <i>Planning / Landscape Architecture</i> 924 Park Avenue SW Albuquerque, NM 87102 (505) 764-9801 Fax 842-5495 e-mail: cp@consensusplanning.com									NO. DATE 	DESIGNED BY 	DRAWN BY 	CHECKED BY 	
	CITY OF ALBUQUERQUE CAPITAL IMPLEMENTATION PROGRAM LANDSCAPE ARCHITECTURE & CONSTRUCTION SERVICES													
	TITLE: PARKWEST PARK IMPROVEMENTS													
	SITE DETAILS - MISCELLANEOUS													
Design Review Committee APPROVED JUL 22 1999 DESIGN REVIEW COMMITTEE		City Engineer Approval APPROVED JUL 26 1999 CITY ENGINEER		Last Design Update	Mo. / Day / Yr. 		Mo. / Day / Yr. 							
City Project No. 573592		Zone Map No. H-9		Sheet 10 of 16										

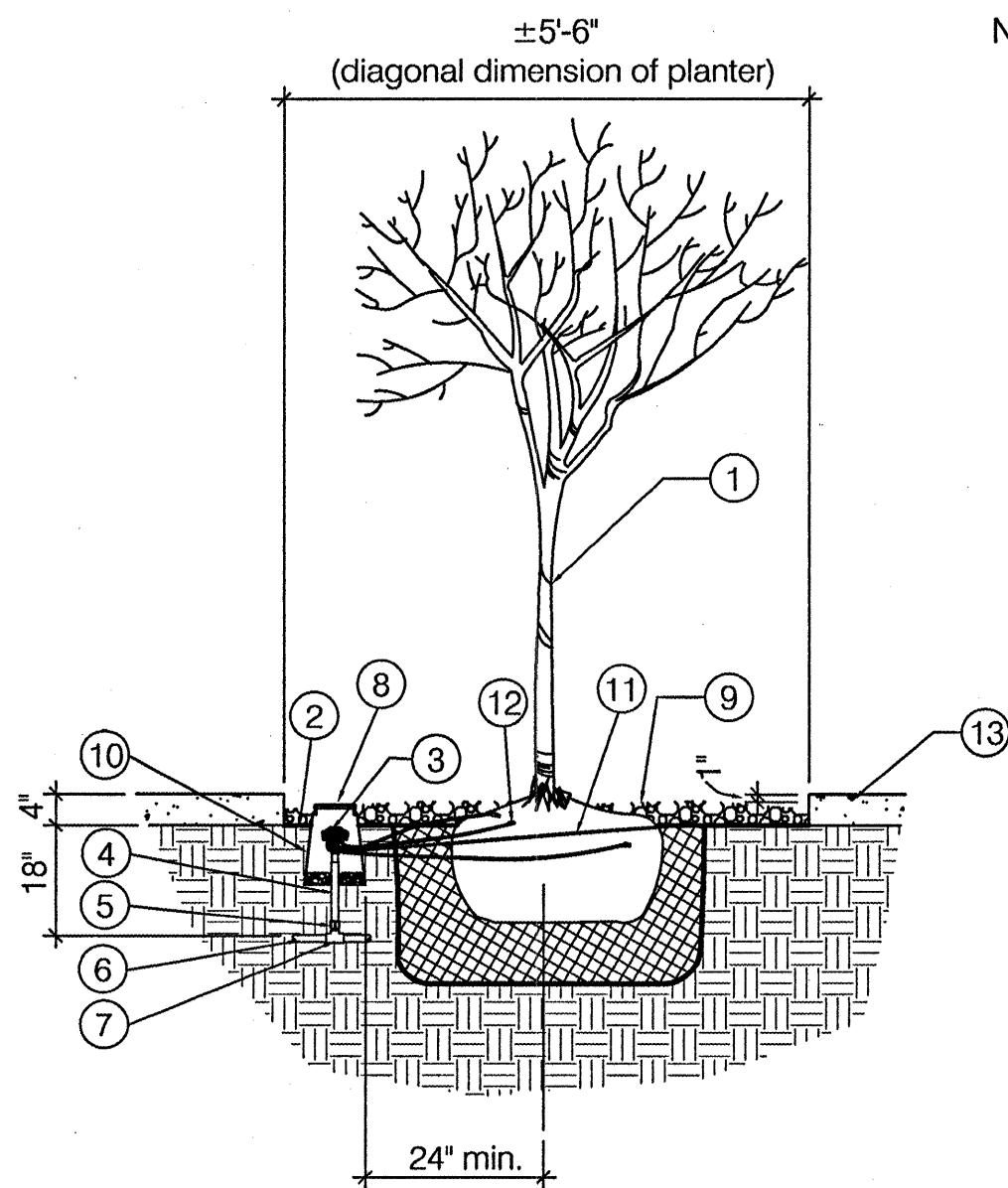


CONSTRUCTION NOTES:

- 1 Irrigation controller with pedestal. See Irrigation Legend, sheet 12. Install per manufacturer's standards.
- 2 4,000 psi concrete base. 6" minimum thickness. All edges shall be tooled with 1/2" radius.
- 3 4" rigid PVC long sweep ell extend 12" beyond concrete base.
- 4 24-volt wires from controller to automatic valves. See specifications.
- 5 Finish grade.
- 6 120 volt service in conduit, per N.E.C.

1 PEDESTAL CONTROLLER

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



- Notes:
- A. Lateral line pressure testing shall be completed prior to installation of flex pipe assembly. Lateral line testing shall be accomplished by installing a plug in the outlet of lateral line tees and ells.
 - B. Tree shall be planted in center of planter.

CONSTRUCTION NOTES:

- 1 Tree.
- 2 Finish grade.
- 3 Xeri-bird 8 multi-outlet emitter, see Irrigation Plan, sheet 12.
- 4 Schedule 40 PVC nipple.
- 5 Schedule 40 PVC threaded coupler.
- 6 Schedule 40 PVC lateral pipe, see Irrigation Plan, sheet 12.
- 7 Schedule 40 PVC tee or ell.
- 8 Top of emitter box lid level with top of mulch or max. 1" above top of mulch. See detail 1/11 for type of mulch.
- 9 Mulch - see detail 1/11 for type of mulch.
- 10 Xeri-bird subterranean emitter box, model # SEB-6X.
- 11 1/4" vinyl distribution tubing to be placed, 4 around tree.
- 12 Xeri-bird diffuser bug cap model # DBC-025.
- 13 Concrete planter - see detail 1/11.

2 MULTI-OUTLET EMITTER DETAIL

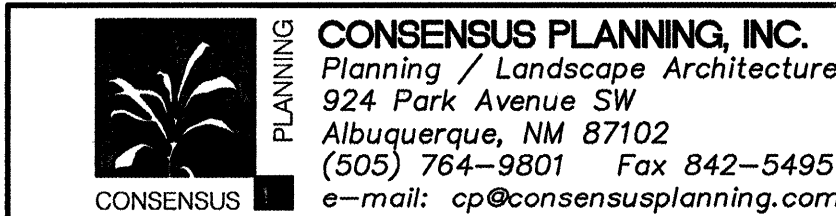
SCALE: 1/2" = 1' - 0"

Valve Legend

Valve #	Head Type	Nozzle	Valve Size	GPM
C1	I-20	#2, #4	1.5"	29
C2	I-20	#2, #4	1.5"	29
C3	I-20	#2, #4	1.5"	31
C4	xeri-bird	XB-10/20	1"	10
C5	xeri-bird	XB-10/20	1"	12
C6	I-20	#2, #4	1.5"	29
C7	I-20	#2, #4	1.5"	33
C8	xeri-bird	XB-10/20	1"	3
C9	Master Valve	N/A	1.5"	-

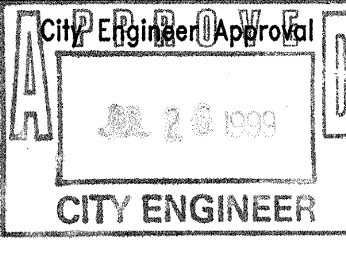
Irrigation Schedule

Program	Valves	PR Calc.	Run Time	Cycles	Total GPM	Remarks
1	C4, C5, C8	-	120 min.	1	25	drip valves
2	C1	.42"/hr.	72 min.	1	29	-
3	C2	.42"/hr.	72 min.	1	29	-
4	C3	.42"/hr.	72 min.	1	31	-
5	C6	.42"/hr.	72 min.	1	29	-
6	C7	.42"/hr.	72 min.	1	33	-



CITY OF ALBUQUERQUE
CAPITAL IMPLEMENTATION PROGRAM
LANDSCAPE ARCHITECTURE & CONSTRUCTION SERVICES

TITLE: PARKWEST PARK IMPROVEMENTS
IRRIGATION NOTES/DETAILS



Last Design Update

No. / Day / Yr.	No. / Day / Yr.

City Project No. 573592 Zone Map No. H-9 Sheet 13 of 16

AS BUILT INFORMATION	
CONTRACTOR	
WORK STARTED BY	DATE
ACCEPTANCE BY	DATE
FIELD ACTION BY	DATE
REVISIONS BY	DATE
CORRECTED BY	DATE
MICRO-FILM INFORMATION	
RECORDED BY	DATE
NO.	

BENCH MARKS

SURVEY INFORMATION

ENGINEER'S SEAL



REVISIONS

DESIGN

NO. DATE

DESIGNED BY

DRAWN BY

CHECKED BY

CONSTRUCTION TRAFFIC CONTROL GENERAL NOTES

1. CONTRACTOR MUST OBTAIN FROM CONSTRUCTION COORDINATION AN EXCAVATION/BARRICADING PERMIT BEFORE ENGAGING IN ANY CONSTRUCTION, MAINTENANCE OR REPAIR WORK IN ANY OF THE CITY OF ALBUQUERQUE'S RIGHTS-OF-WAY. EMERGENCY WORK THAT WOULD PRESERVE LIFE OR PROPERTY IS EXCLUDED WITH THE UNDERSTANDING, THAT A PERMIT SHALL BE OBTAINED WITHIN 24 TO 48 HOURS.

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 OCCUPANCY 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.
3. SECTION 19 OF THE CITY OF ALBUQUERQUE'S STANDARD SPECIFICATIONS FOR PUBLIC WORK CONSTRUCTION, AS WELL AS OTHER SECTIONS.

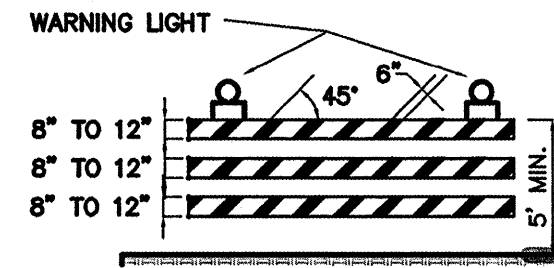
23. FAILURE TO COMPLY WITH ANY OF THE ABOVE MENTIONED, WILL BE ADEQUATE CAUSE TO CEASE ALL WORK ON ANY CONSTRUCTION PROJECT. WORK WILL NOT RESUME UNTIL ALL REQUIREMENTS ARE ADDRESSED AND APPROVED BY CONSTRUCTION COORDINATION.

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

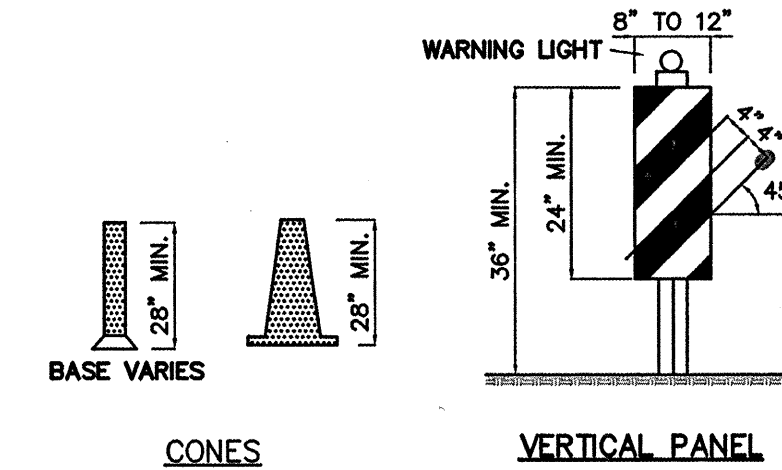
25. TRAFFIC CONTROL STANDARDS APPLY ONLY WHERE THE CONSTRUCTION TRAFFIC CONTROL PLANS ARE NOT SPECIFIC.

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.



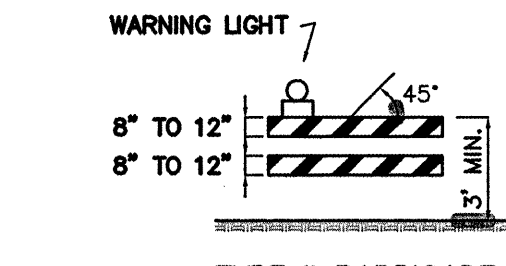
TYPE III BARRICADE



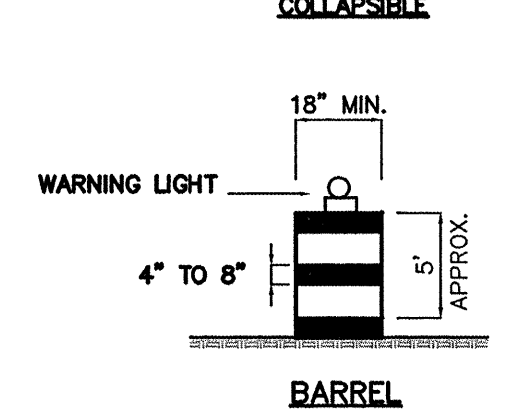
CONES

VERTICAL PANEL

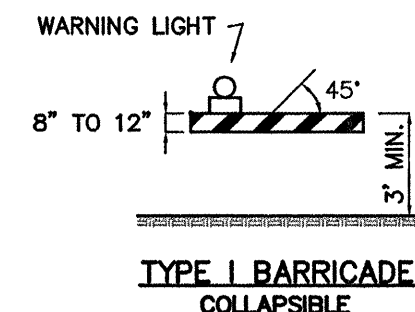
HIGH LEVEL WARNING DEVICE



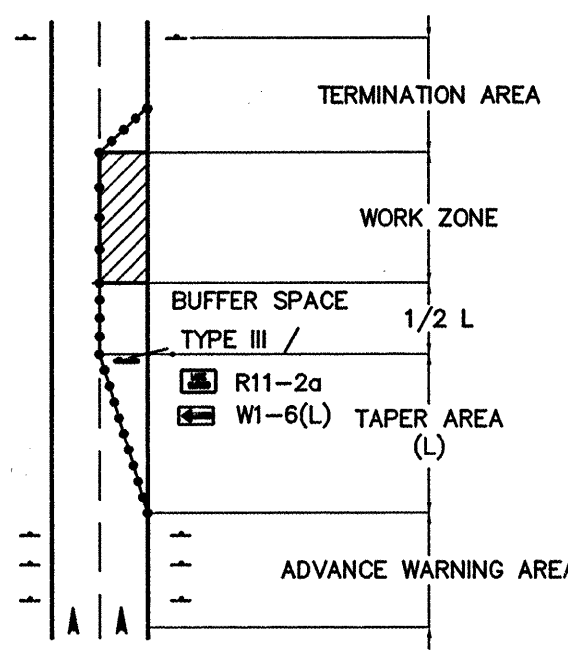
TYPE II BARRICADE COLLAPSIBLE



BARREL



TYPE I BARRICADE COLLAPSIBLE



TRAFFIC CONTROL ELEMENTS

LEGEND

WORK AREA
BARRICADE - TYPE I, TYPE II, OR BARREL
BARRICADE - TYPE III
VERTICAL PANEL
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 LENGTH - SEE CHART BELOW
THE TANGENT LENGTH IS EQUAL TO THE TAPER LENGTH FOR A GIVEN STREET.

TAPER REQUIREMENTS

SPEED LIMIT (MPH)	TAPER LENGTH (L) (FEET)			MINIMUM NUMBER OF DEVICES FOR TAPER	MAXIMUM DEVICE SPACING IN FEET	
	10' LANE	11' LANE	12' LANE		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

SPEED MILES PER HOUR	MINIMUM DISTANCE IN FEET	
	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

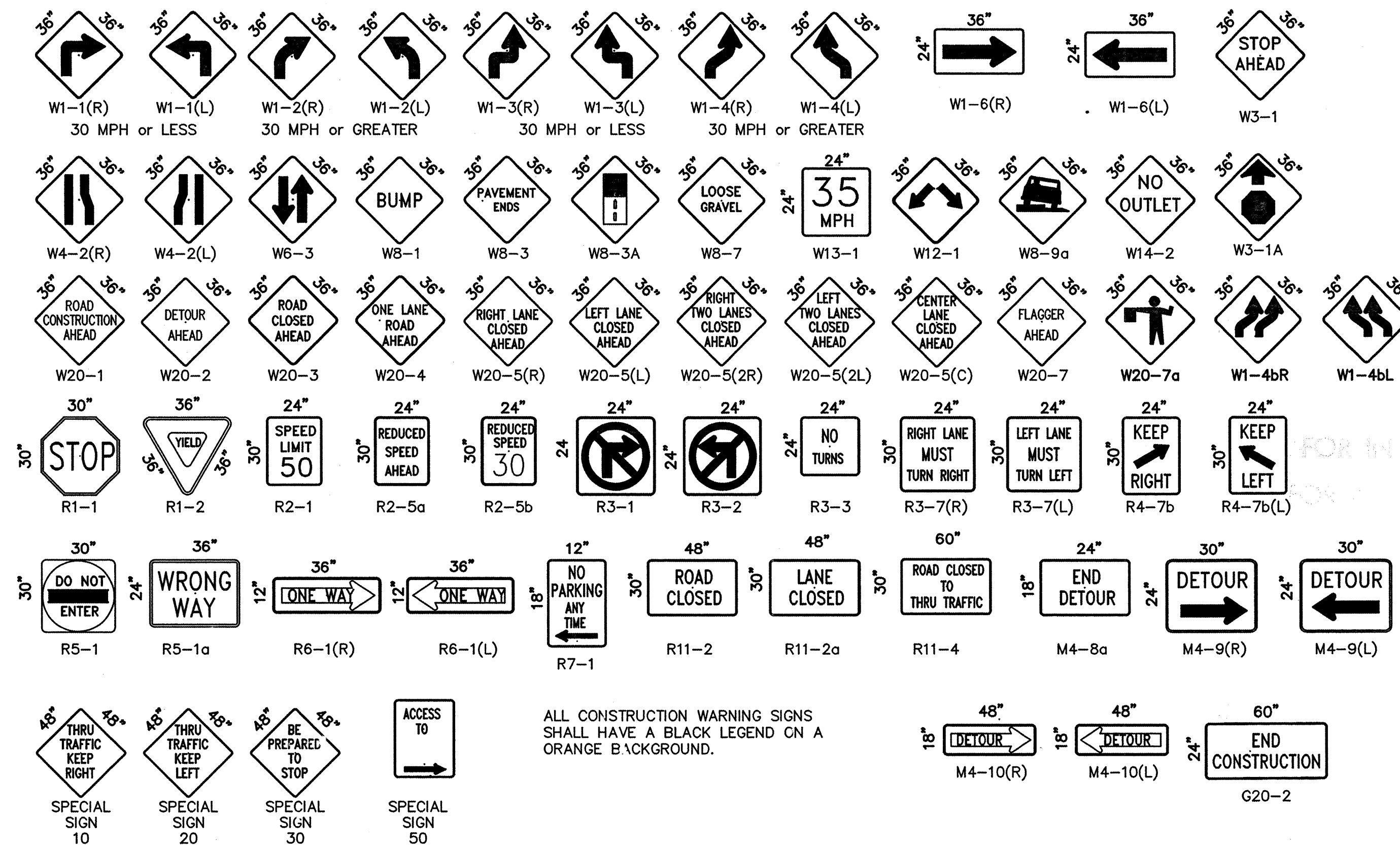
TYPE OF TAPER	TAPER LENGTH
UPSTREAM TAPER:	
MERGING TAPER	L MINIMUM
SHIFTING TAPER	1/2 L MINIMUM
SHOULDER TAPER	1/2 L MINIMUM
TWO-WAY TRAFFIC TAPER	100 FEET MAXIMUM
DOWNSTREAM TAPERS	100 FEET PER LANE

TAPER LENGTH COMPUTATION

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

L = TAPER LENGTH
W = WIDTH OF OFFSET IN FEET
S = POSTED SPEED OR OFF-PEAK 85-PERCENTILE SPEED IN MPH

SIGN FACE DETAILS



ALL CONSTRUCTION WARNING SIGNS SHALL HAVE A BLACK LEGEND ON A ORANGE BACKGROUND.

198635 Smith Engineering Company A Full Service Engineering Company 6400 Optima Boulevard, N.E. Suite 5008 Albuquerque, New Mexico 87110	
CITY OF ALBUQUERQUE CAPITAL IMPLEMENTATION PROGRAM LANDSCAPE ARCHITECTURE AND CONSTRUCTION SERVICES	
TITLE: PARKWEST PARK IMPROVEMENTS SIGNING AND CONSTRUCTION TRAFFIC CONTROL STANDARDS	
Design Review Committee APPROVED JUL 22 1999 DESIGN REVIEW COMMITTEE	City Engineer Approval APPROVED JUL 26 1999 CITY ENGINEER
City Project No. 573592	Zone Map No. H-9-Z
Sheet 15	Of 16

