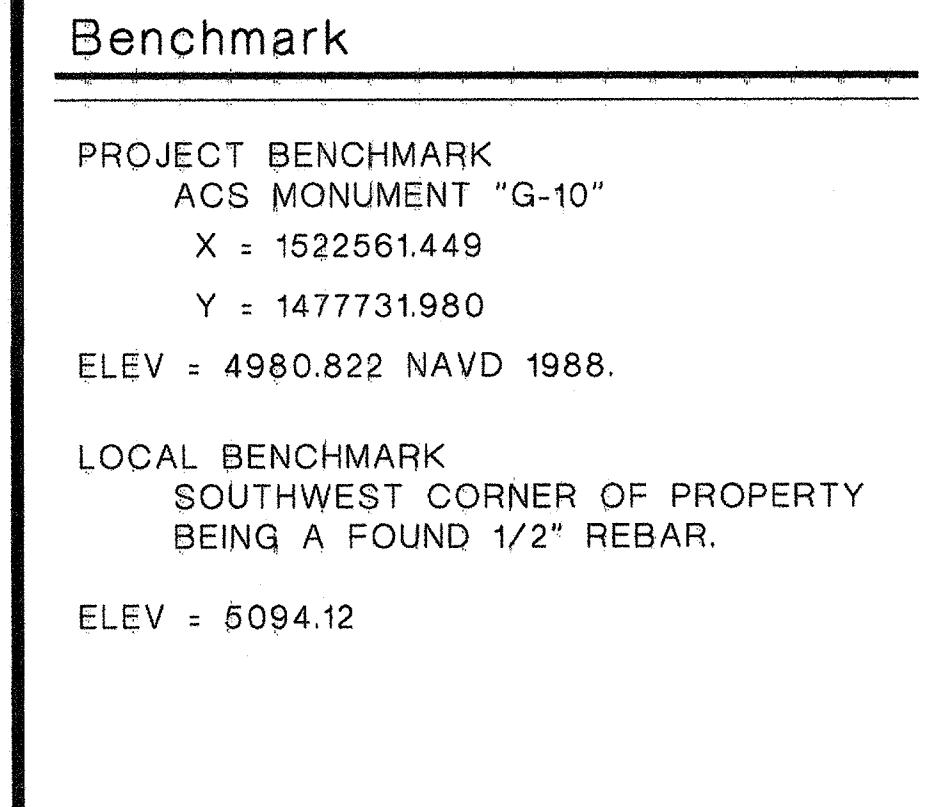




Drainage Calculations

University Plaza - Basin A

Hydrology Calculations

DPM - Section 22.2

Volume 2, January 1993

Precipitation Zone

2

100 Year Storm Depth, P (360)

2.35

Treatment Area	A	B	C	D
Excess Precipitation Factors	0.53	0.78	1.13	2.12
Peak Discharge Factors	1.56	2.28	3.14	4.70

Land Treatment Area	Acres	Existing	Allowable	Proposed
Type "D" (Roof)		0.00	0.10	0.46
Type "C" (Unpaved Roadway)		0.00	0.12	0.00
Type "B" (Irrigated Lawns)		0.00	0.12	0.13
Type "A" (Undeveloped)		0.59	0.25	0.00
Total (Acres)		0.59	0.59	0.59
Excess Precipitation(in)		0.53	0.99	1.82
Volume (100), cf		1135.10	2110.43	3908.06
Volume (10),cf		760.52	1413.99	2618.40
Q (100), cfs		0.92	1.50	2.46
Q (10), cfs		0.62	1.01	1.65

University Plaza - Basin B

Hydrology Calculations

DPM - Section 22.2

Volume 2, January 1993

Precipitation Zone

2

100 Year Storm Depth, P (360)

2.35

Treatment Area	A	B	C	D
Excess Precipitation Factors	0.53	0.78	1.13	2.12
Peak Discharge Factors	1.56	2.28	3.14	4.70

Land Treatment Area	Acres	Existing	Allowable	Proposed
Type "D" (Roof)		0.00	0.21	0.90
Type "C" (Unpaved Roadway)		0.00	0.24	0.00
Type "B" (Irrigated Lawns)		0.00	0.24	0.32
Type "A" (Undeveloped)		1.22	0.52	0.00
Total (Acres)		1.22	1.22	1.22
Excess Precipitation(in)		0.53	0.99	1.77
Volume (100), cf		2347.16	4363.94	7832.09
Volume (10),cf		1572.60	2923.84	5247.50
Q (100), cfs		1.90	3.11	4.96
Q (10), cfs		1.28	2.08	3.32

University Plaza - Basin C

Hydrology Calculations

DPM - Section 22.2

Volume 2, January 1993

Precipitation Zone

2

100 Year Storm Depth, P (360)

2.35

Treatment Area	A	B	C	D
Excess Precipitation Factors	0.53	0.78	1.13	2.12
Peak Discharge Factors	1.56	2.28	3.14	4.70

Land Treatment Area	Acres	Existing	Allowable	Proposed
Type "D" (Roof)		0.00	0.22	0.96
Type "C" (Unpaved Roadway)		0.00	0.26	0.00
Type "B" (Irrigated Lawns)		0.00	0.26	0.35
Type "A" (Undeveloped)		1.31	0.56	0.00
Total (Acres)		1.31	1.31	1.31
Excess Precipitation(in)		0.53	0.99	1.76
Volume (100), cf		2520.31	4685.87	8378.77
Volume (10),cf		1688.61	3139.53	5613.77
Q (100), cfs		2.04	3.34	5.31
Q (10), cfs		1.37	2.24	3.56

University Plaza - Basin D

Hydrology Calculations

DPM - Section 22.2

Volume 2, January 1993

Precipitation Zone

2

100 Year Storm Depth, P (360)

2.35

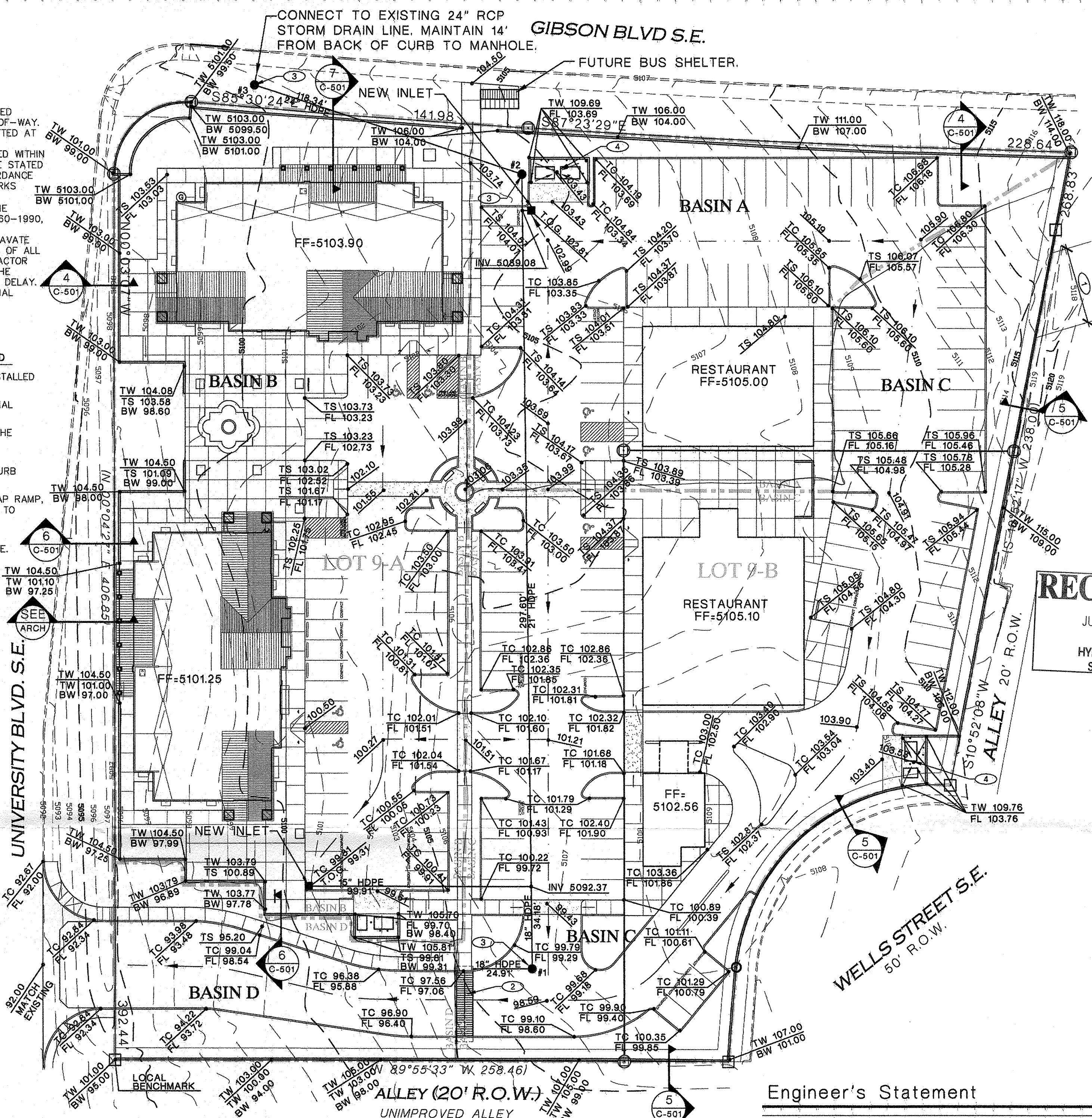
Treatment Area	A	B	C	D
Excess Precipitation Factors	0.53	0.78	1.13	2.12
Peak Discharge Factors	1.56	2.28	3.14	4.70

Land Treatment Area	Acres	Existing	Allowable	Proposed
Type "D" (Roof)		0.00	0.04	0.13
Type "C" (Unpaved Roadway)		0.00	0.04	0.00
Type "B" (Irrigated Lawns)		0.00	0.04	0.09
Type "A" (Undeveloped)		0.22	0.09	0.00
Total (Acres)		0.22	0.22	0.22
Excess Precipitation(in)		0.53	0.99	1.56
Volume (100), cf		423.26	786.94	1216.78
Volume (10),cf		283.58	527.25	815.24
Q (100), cfs		0.34	0.56	0.79
Q (10), cfs		0.23	0.38	0.53

NOTICE TO CONTRACTOR

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN THE CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT.
 2. ALL WORK INSTALLED ON THESE PLANS TO BE PERFORMED WITHIN THE CITY RIGHT-OF-WAY SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH C.O.A. STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION 1986.
 3. THE (2) DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 260-1990, FOR LOCATION OF EXISTING UTILITIES.
 4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR SURVEYOR SO THAT THE CONFLICT CAN BE RESOLVED WITH MINIMUM AMOUNT OF DELAY.
 5. BACKFILL COMPACTION SHALL BE ACCORDING TO ARTERIAL STREET USE.
 6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER SERVED.
- THE FOLLOWING NOTES ALSO APPLY WHEN CHECKED
- ☐ ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED PRIOR TO PAVING.
 - ☒ BACKFILL COMPACTION SHALL BE ACCORDING TO ARTERIAL STREET USE.
 - ☒ TACK COAT REQUIREMENTS SHALL BE DETERMINED BY THE CITY ENGINEER.
 - ☒ SIDEWALKS AND WHEELCHAIR RAMPS WITHIN THE CURB RETURNS SHALL BE CONSTRUCTED WHEREVER A NEW CURB RETURN IS CONSTRUCTED.
 - ☐ IF CURB IS DEPRESSIONED FOR A DRIVEPAD OR A HANDICAP RAMP, THE DRIVEPAD OR RAMP SHALL BE CONSTRUCTED PRIOR TO ADEQUACY OF THE CURB AND GUTTER.
 - ☒ ALL STORM DRAINAGE FACILITIES SHALL BE COMPLETED, INSPECTED AND APPROVED PRIOR TO FINAL ACCEPTANCE.

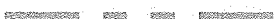
APPROVALS	ENGINEERS	DATE	
A.C.E./DESIGN			
INSPECTOR			
A.C.E./FIELD			



GRADING AND DRAINAGE PLAN

SCALE: 1" = 30'

Legend

- | | |
|---|---------------------------------------|
|  | EXISTING CONTOUR |
|  | NEW SPOT ELEVATION |
|  | TOP OF WALL |
|  | BOTTOM OF WALL |
|  | FINISH FLOOR ELEVATION |
|  | TOP OF CURB |
|  | TOP OF SIDEWALK |
|  | FLOW LINE |
|  | DIRECTION OF FLOW |
|  | BASIN BOUNDARY |
|  | NEW STORM DRAIN MANHOLE
AND NUMBER |

○ Keyed Notes

1. PRIVATE ACCESS EASEMENT TO SERVE LOT 9, BLOCK A, KIRTLAND ADDITION, UNIT 2.
2. NEW CATTLE GUARD TYPE STORM DRAIN INLET, INSTALL PER C.O.A. STD DWGS. 2271.
3. NEW TYPE "E" STORM DRAIN MANHOLE PER C.O.A. STD DWG 2102.
4. DUMPSTER ENCLOSURE TO DRAIN TO SANITARY SEWER, SEE F-101.

Engineer's Statement

I, THE ENGINEER OF RECORD CERTIFY THAT I
HAVE PERSONALLY VISITED THE SITE AND THE
EXISTING GRADES AND CONTOURS DEPICTED
ON THIS PLAN MATCH WHAT PRESENTLY
EXISTS AT THIS LOCATION

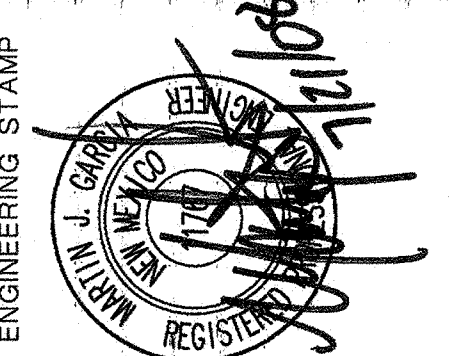
MARTIN J. GARCIA, NMPE #11767

STORM DRAIN MANHOLE TABLE				
MANHOLE No.	RIM ELEV.	INV. IN ELEV.	INV. OUT ELEV.	
1	5098.84	5092.88	5092.78	
2	5103.31	5088.90	5088.80	
3	5100.50	5087.39	5087.29	
STORM DRAIN INLET TABLE				
INLET TYPE	T.O.G. ELEV.	INV. ELEV.	PIPE SIZE	
3'x3' NORTH	5102.81	5099.81	18" HDPE	
3'x3' SOUTH	5099.31	5096.31	15" HDPE	
CATTLE GUARD STORM DRAIN INLET TABLE				
T.O.G. ELEV. SOUTH	T.O.G. ELEV. NORTH	INV. ELEV. SOUTH	INV. ELEV. NORTH	PIPE SIZE
5097.13	5097.06	5095.13	5093.19	18" HDPE

ABQ
ENGINEERING, INC.

6739 Academy Rd., NE
Suite 130
Albuquerque, NM 87109
505-256-7802

• Engineers • Planners
• Construction Services



DO NOT SCALE DRAWINGS
CONTRACTOR TO VERIFY ALL
EXISTING CONDITIONS AND
DIMENSIONS- NOTIFY
ENGINEER/ARCHITECT OF ANY
DISCREPANCIES PRIOR TO
BEGINNING CONSTRUCTION

THESE DRAWINGS AS
INSTRUMENTS OF SERVICE
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PUBLICATION OR UNAUTHORIZED
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ENGINEER.

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2009

HYDROLOGY

SECTION

UNIVERSITY PLAZA
ALBUQUERQUE, NEW MEXICO

[illegible]

SHEET TITLE

GRADING AND DRAINAGE PLAN

C-102

SHEET 1