

EDITH BLVD. (PUBLIC) N.E.

SCALE: 1" = 50'

Scanned 7-10-08

DRB ADMINISTRATIVE SITE PLAN AMENDMENT
 PROJECT NO. 100188
 ADDITION: *Wagon Garden*
 Planning Director: *[Signature]* DATE: *[Date]*

DRB ADMINISTRATIVE SITE PLAN AMENDMENT
 INTERSTATE
 Planning Director: *[Signature]* DATE: *[Date]*

ADMINISTRATIVE DEVELOPMENT PLAN AMENDMENT
 FILE NO. 7-584
 Planning Director: *[Signature]* DATE: *[Date]*

ADMINISTRATIVE DEVELOPMENT PLAN AMENDMENT
 FILE NO. 7-581
 SITE PLAN AS
 Planning Director: *[Signature]* DATE: *[Date]*

ADMINISTRATIVE DEVELOPMENT PLAN AMENDMENT
 FILE NO. AA-00013
 Addition:
 Planning Director: *[Signature]* DATE: *[Date]*

Scanned while not 7/10/06 O.S.

MAUSOLEUM ADDITION: WAGON GARDEN.

NO.	DATE	BY	REVISIONS
1	6/89	JGM	DELETE EVERGREEN DRIVE
2	12/90	CJC	ADD BOUNDARY INFORMATION
3	3/91	JGM	ADD FREEWAY CRYPTS
4	12/01	JGM	MAUSOLEUM ADDITION.

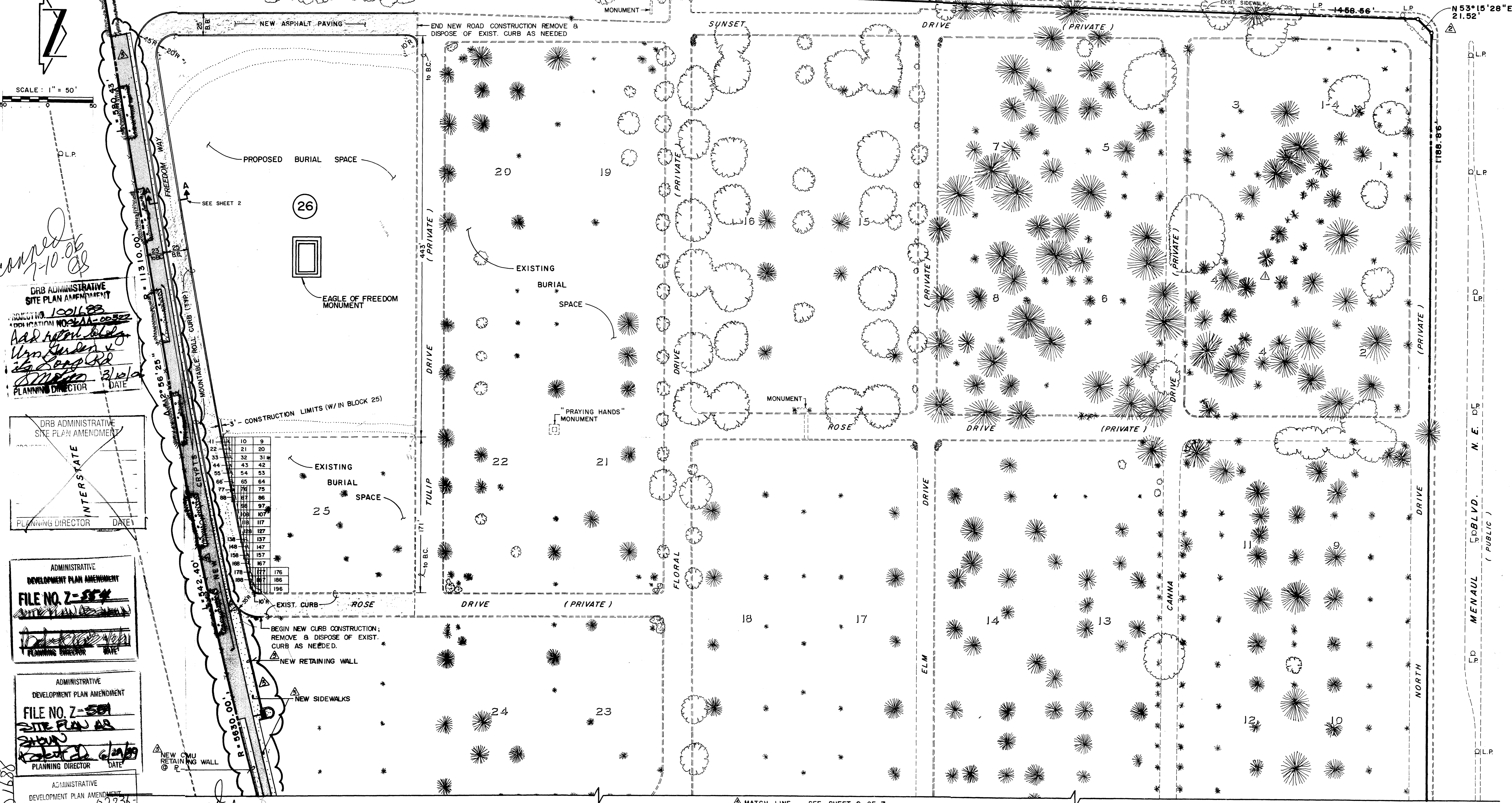
DESIGNED BY: J.G.M.
 DRAWN BY: C.V.M.
 APPROVED: J.G.M.
 JOB NO. 61911
 DATE 2-87

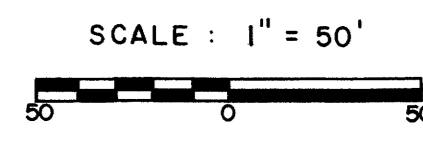
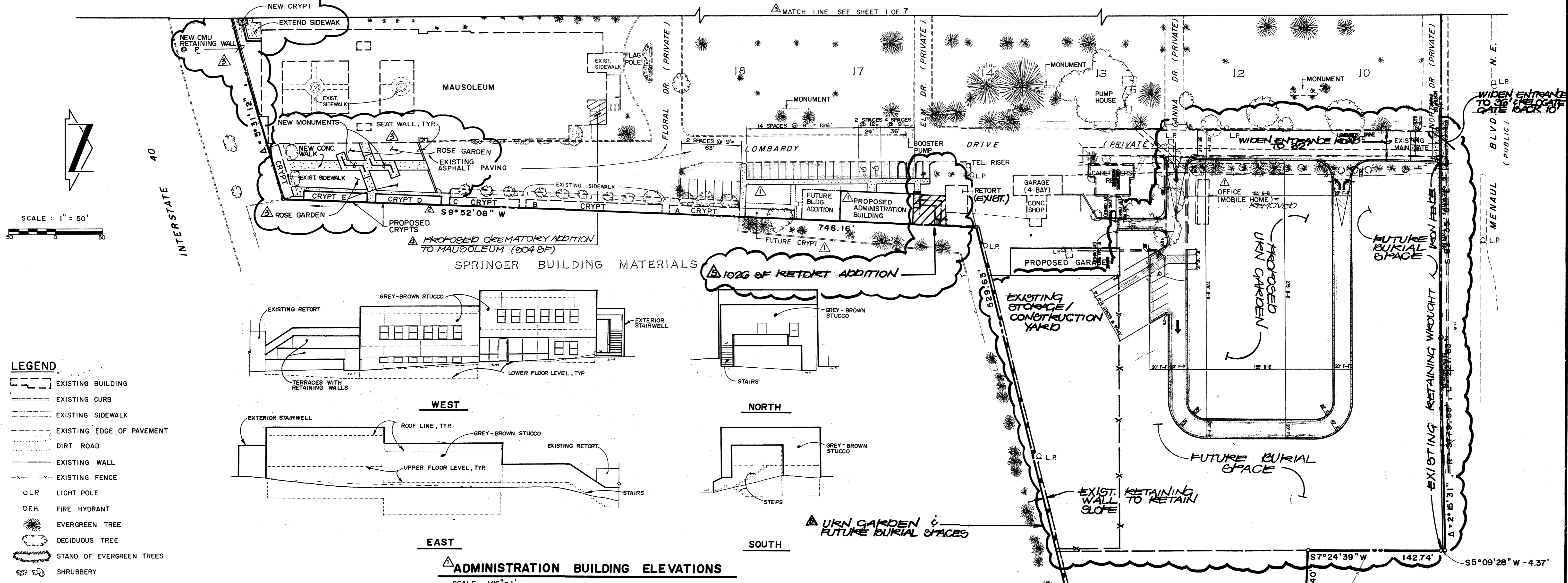
JMA JEFF MORTENDEN & ASSOCIATES, INC.
 6010-B MIDWAY PARK BLVD. N.E.
 ALBUQUERQUE, NEW MEXICO 87109
 ENGINEERS & SURVEYORS (505)345-4250

SITE DEVELOPMENT PLAN
 SUNSET MEMORIAL PARK CEMETERY

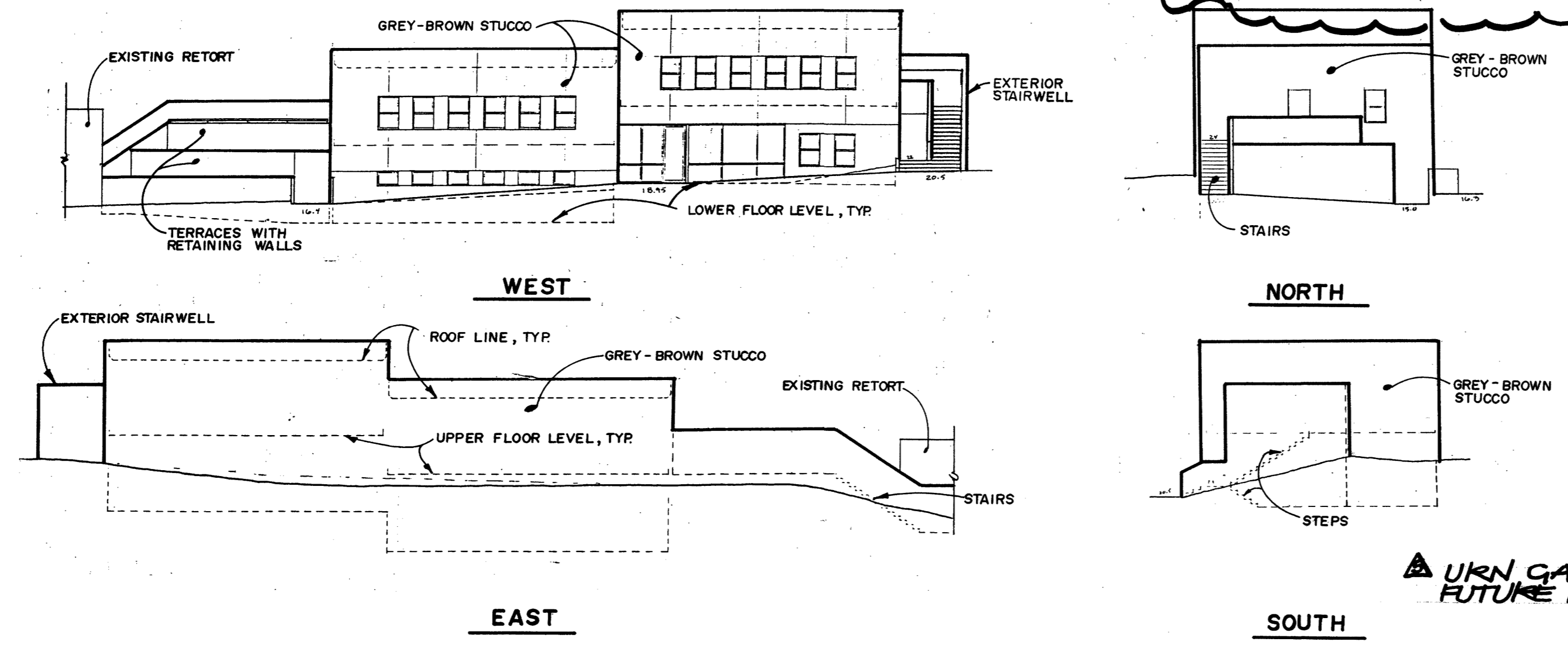
Professional Engineer Seal: JEFF G. MORTENDEN, No. 8547, State of New Mexico, License No. 20-8.

2005.019.4
 FILE NO. 910255
 SHEET 1 OF 9





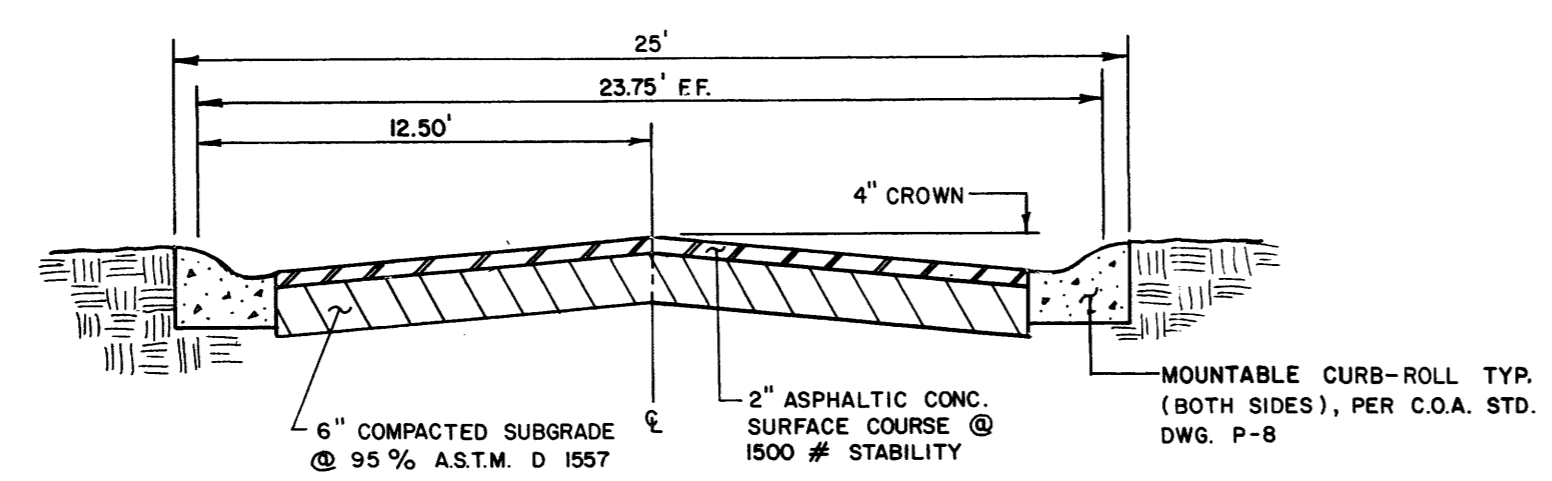
- LEGEND**
- EXISTING BUILDING
 - EXISTING CURB
 - EXISTING SIDEWALK
 - EXISTING EDGE OF PAVEMENT
 - DIRT ROAD
 - EXISTING WALL
 - EXISTING FENCE
 - Q.L.P. LIGHT POLE
 - F.H. FIRE HYDRANT
 - EVERGREEN TREE
 - DECIDUOUS TREE
 - STAND OF EVERGREEN TREES
 - SHRUBBERY



ADMINISTRATION BUILDING ELEVATIONS
SCALE: 1/16" = 1'

ADMINISTRATION BUILDING PARKING ANALYSIS

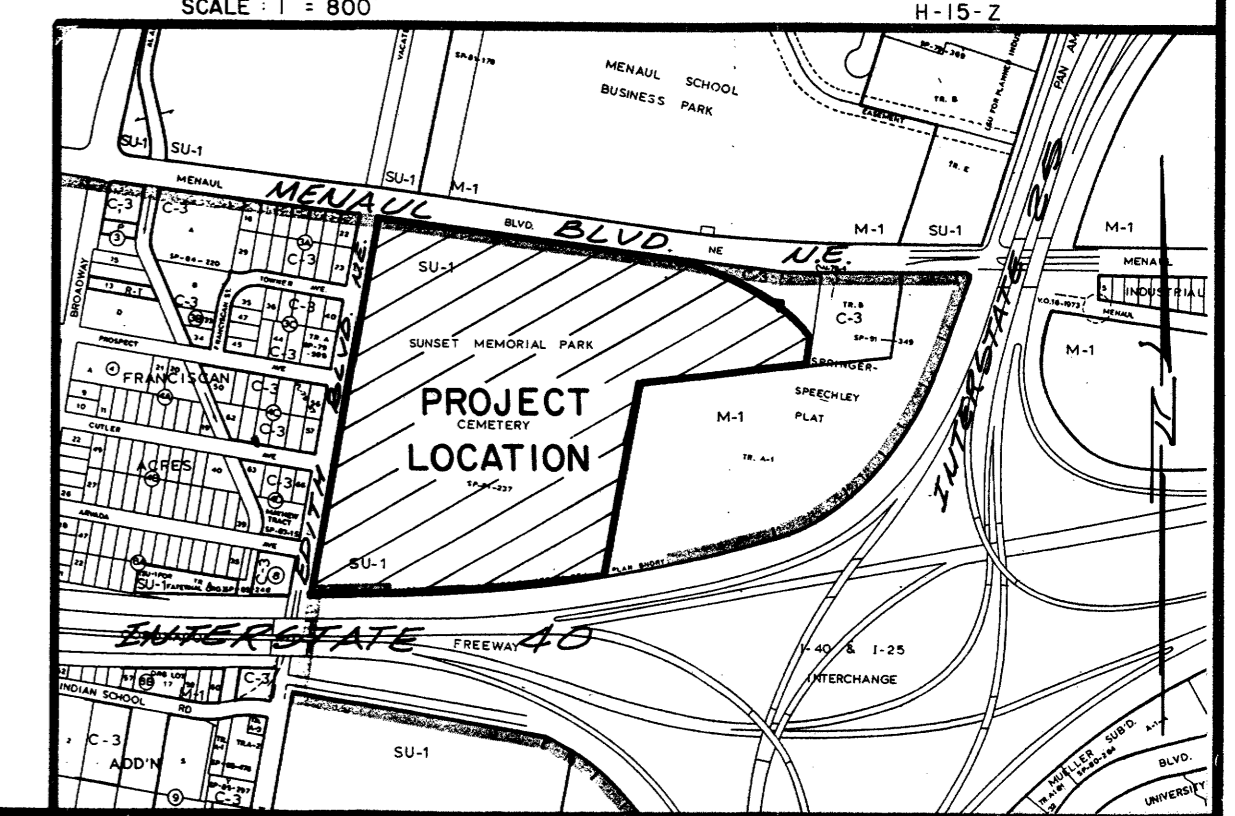
BUILDING AREA = 5000 S.F.
 REQUIRED PARKING = 5000 S.F. / 200 S.F. = 25 SPACES
 ADDITIONAL PARKING PROVIDED = 27 SPACES



SECTION A - A
HORIZONTAL SCALE: 1" = 5'
VERTICAL SCALE: 1" = 2'

- NOTES:**
1. ZONING IS SU-1; SITE AREA = 39 AC ±.
 2. AREAS: SEE TABLE SHEET 3
 CRYPTS - 660 SF/EA (1320 SF TOTAL)
 GARAGE - 2412 SF
 NEW CRYPTS - 13,000 SF
 3. NO TEMPORARY STRUCTURES PROPOSED.
 4. WALLS ARE EXISTING (NO NEW WALLS ARE PROPOSED).
 5. SIGNS ARE EXISTING (NO NEW SIGNS ARE PROPOSED).
 6. ALL SCREENING AND BUFFERING IS EXISTING (NO NEW SCREENING OR BUFFERING IS PROPOSED).
 7. ALL ROADS SHOWN HEREON ARE PRIVATE.
 8. NO NEW CURB CUTS ARE PROPOSED; ALL ENTRANCES ARE EXISTING.
 9. THERE WILL BE NO PHASING OF IMPROVEMENTS, ALTHOUGH SEPARATE PERMITS WILL BE OBTAINED FOR CRYPT ADDITIONS, GARAGE ADDITION AND BLOCK 26 IMPROVEMENTS.
 10. EXISTING LANDSCAPING SHALL BE PRESERVED, WHEREVER POSSIBLE.
 11. NEW LANDSCAPING SHALL BE WATERED BY AN IRRIGATION SYSTEM.
 12. ALL LANDSCAPING SHALL BE MAINTAINED BY THE SUNSET MEMORIAL PARK CEMETERY MANAGEMENT.
 13. THE PROPOSED GARAGE IMPROVEMENTS, CRYPT ADDITIONS AND BLOCK 26 BURIAL SPACE AND ROADWAY IMPROVEMENTS ARE SUBSTANTIALLY COMPLETE AND THEREFORE CAN BE CONSIDERED AS "EXISTING".
 14. THE PROPOSED ADMINISTRATION BUILDING IS NOW COMPLETE AND CAN BE CONSIDERED AS "EXISTING".
 15. THE 504 SF CREMATORY ADDITION TO THE MAUSOLEUM IS NOW "EXISTING".

03-10-2006
 J. MORTENSEN
 NEW MEXICO
 REGISTERED
 PROFESSIONAL ENGINEER
 8547
 06-07-01
 03-21-91
 12-18-2001
 VICINITY MAP



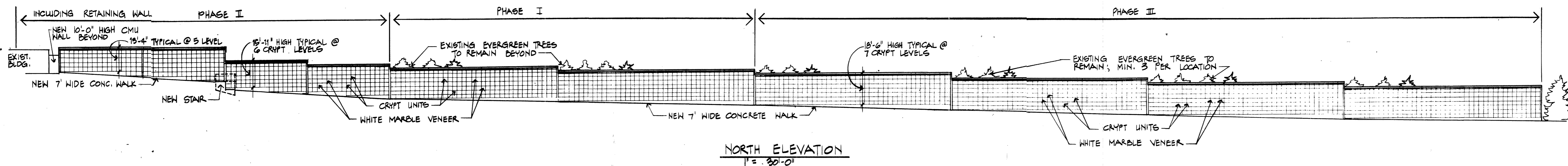
NO.	DATE	BY	REVISIONS
1	03/09/01	JGM	RETORT ADDITION & URN GARDEN.
2	12/01/01	JGM	MAUSOLEUM ADDITION.
3	05/09/01	JGM	ADD ADMINISTRATION BLDG; FUTURE CRYPT & ADDITIONS; NEW PAVING
4	12/20/00	CSC	ADD BOUNDARY INFORMATION
5	03/09/01	JGM	ADD FREEWAY CRYPTS & ROSE GARDEN

DESIGNED BY: J.G.M.	JOB NO. 61911
DRAWN BY: C.V.M.	DATE 2-87
APPROVED: J.G.M.	

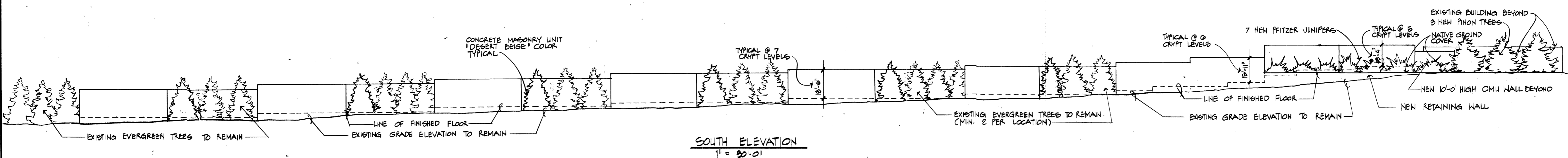
JMA JEFF MORTENSEN & ASSOCIATES, INC.
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SITE DEVELOPMENT PLAN
SUNSET MEMORIAL PARK CEMETERY

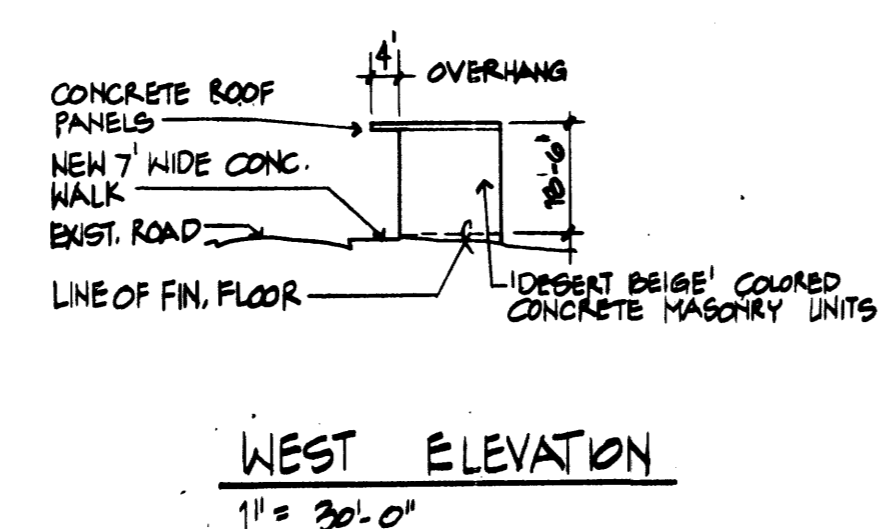
2005.019.4
 SHEET 2 OF 9



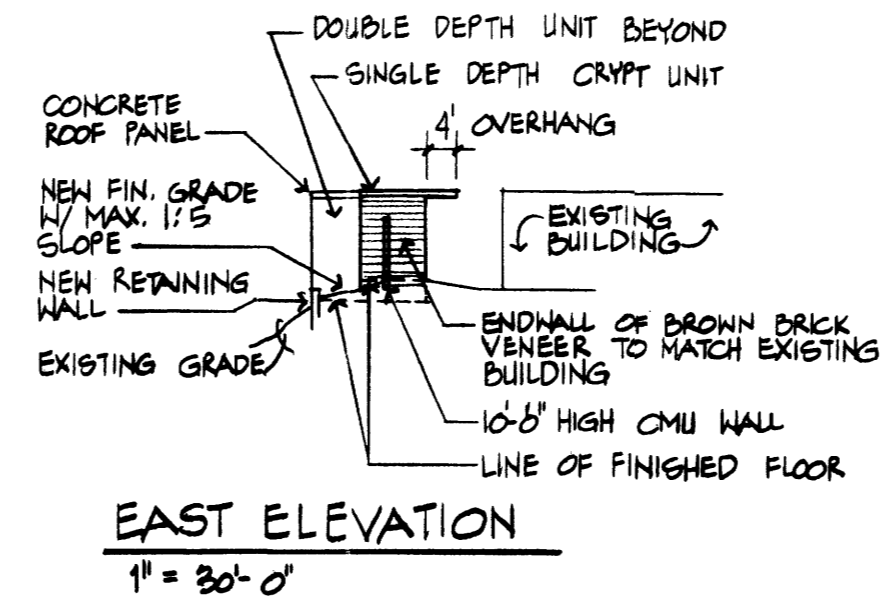
NORTH ELEVATION
1" = 30'-0"



SOUTH ELEVATION
1" = 30'-0"



WEST ELEVATION
1" = 30'-0"



EAST ELEVATION
1" = 30'-0"

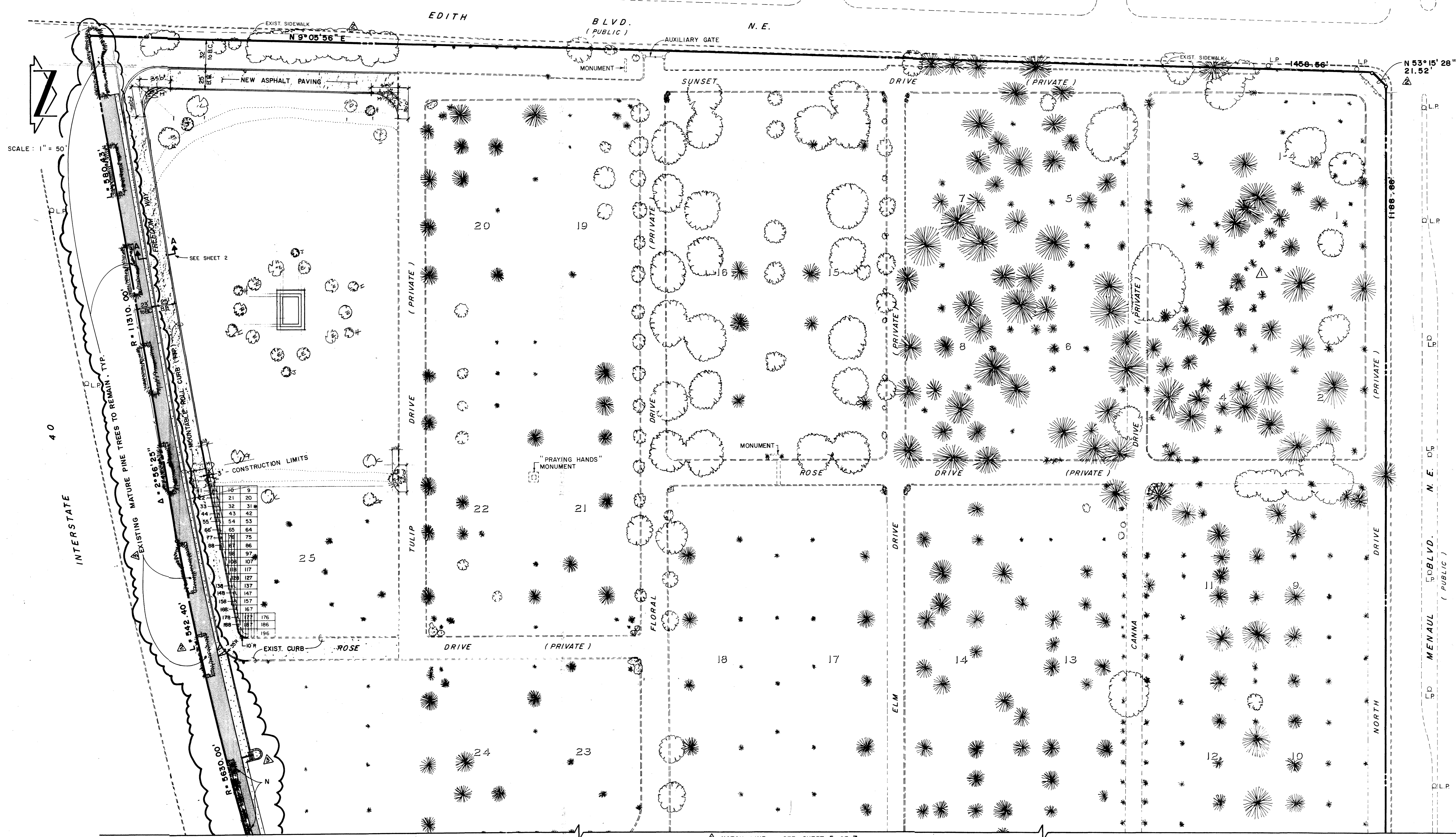
△ SUNSET MEMORIAL PARK CEMETERY BUILDING AREA SUMMARY

A. EXISTING

BUILDING NAME	AREA (FT ²)
CRYPT (SE CORNER)	708
CRYPT A	1496
CRYPT B	1617
CRYPT C	836
CRYPT D	792
CRYPT E	840
FREEWAY CRYPTS	13000
MAUSOLEUM	35036
ADMINISTRATION BUILDING	4235
RETORT	750
GARAGE (OLD)	1188
CONC. SHOP	126
CARETAKERS RES.	1491
GARAGE (NEW)	3540
CREMATORY ADDITION (MAUSOLEUM)	504
SUBTOTAL	66159

B. PROPOSED

BUILDING NAME	AREA (FT ²)
RETORT ADDITION	1026
TOTAL	67185
NET CHANGE:	1026 SF (1.55%)



16	9
21	20
32	31
43	42
54	53
65	64
76	75
87	86
98	97
109	108
120	119
131	130
142	141
153	152
164	163
175	174
186	185
197	196

NO CHANGE THIS SHEET.			
NO.	DATE	BY	REVISIONS
1	6/89	JGM	DELETE EVERGREEN DRIVE
2	12/90	EGC	ADD BOUNDARY INFORMATION
3	3/91	JGM	UPDATE FOR FREEWAY CRYPTS
4	12/01	JGM	No Change.

DESIGNED BY	J.G.M.
DRAWN BY	C.V.M.
APPROVED	J.G.M.
JOB NO.	61911
DATE	2-87

LANDSCAPING PLAN
SUNSET MEMORIAL PARK CEMETERY

2005.0104
FILE NO. 910255
SHEET 4 OF 9

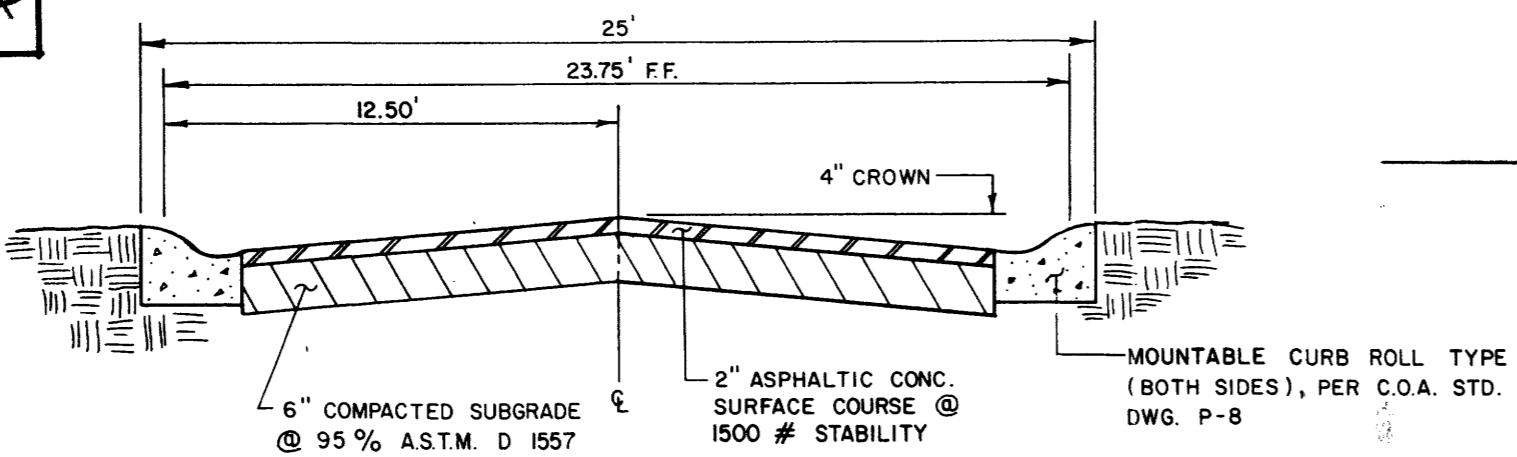
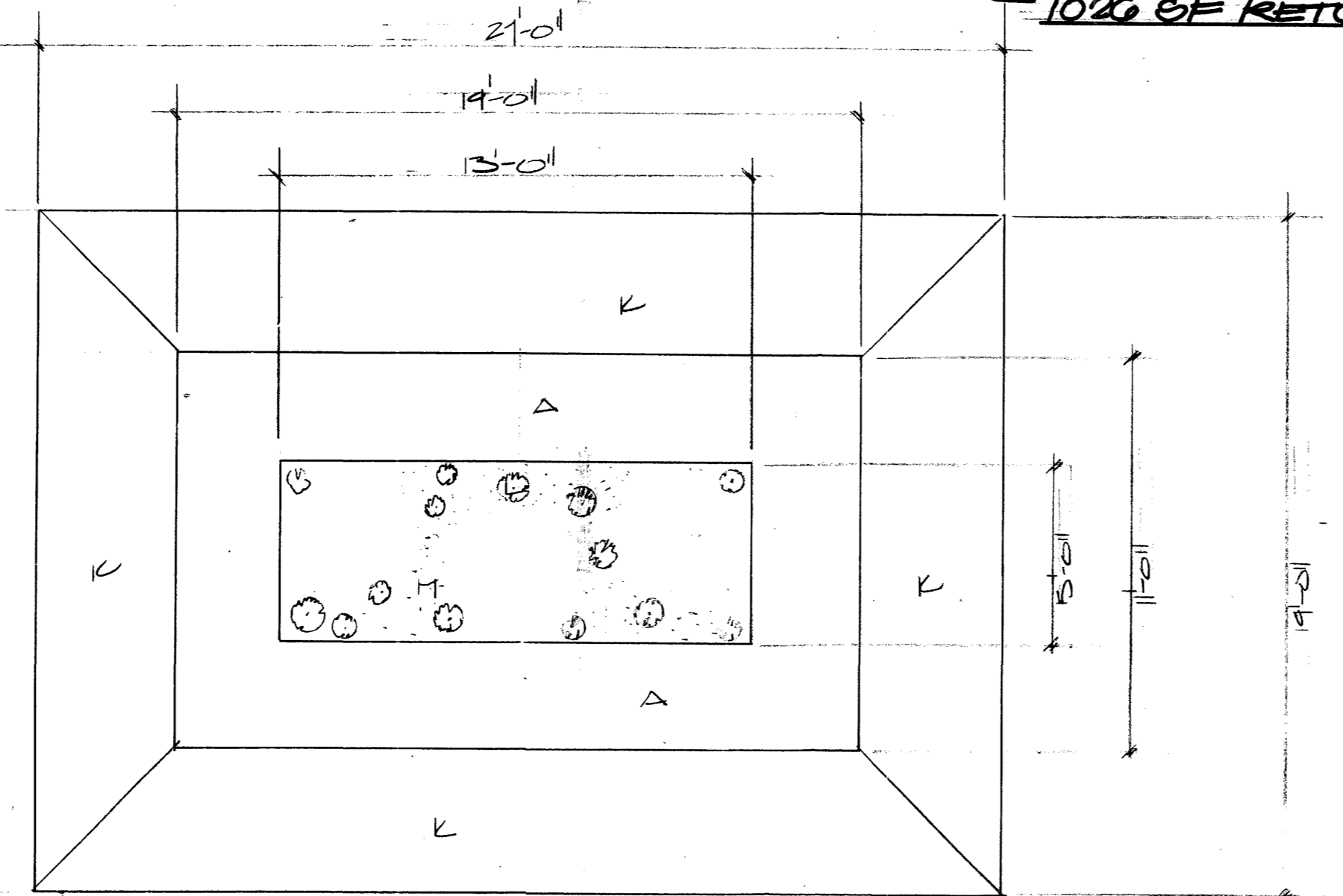
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SCALE: 1" = 50'

- LEGEND**
- EXISTING BUILDING
 - EXISTING CURB
 - EXISTING SIDEWALK
 - EXISTING EDGE OF PAVEMENT
 - DIRT ROAD
 - EXISTING WALL
 - EXISTING FENCE
 - Q.L.P. LIGHT POLE
 - U.F.H. FIRE HYDRANT
 - EVERGREEN TREE
 - DECIDUOUS TREE
 - STAND OF EVERGREEN TREES
 - SHRUBBERY

LANDSCAPE SCHEDULE CONT.

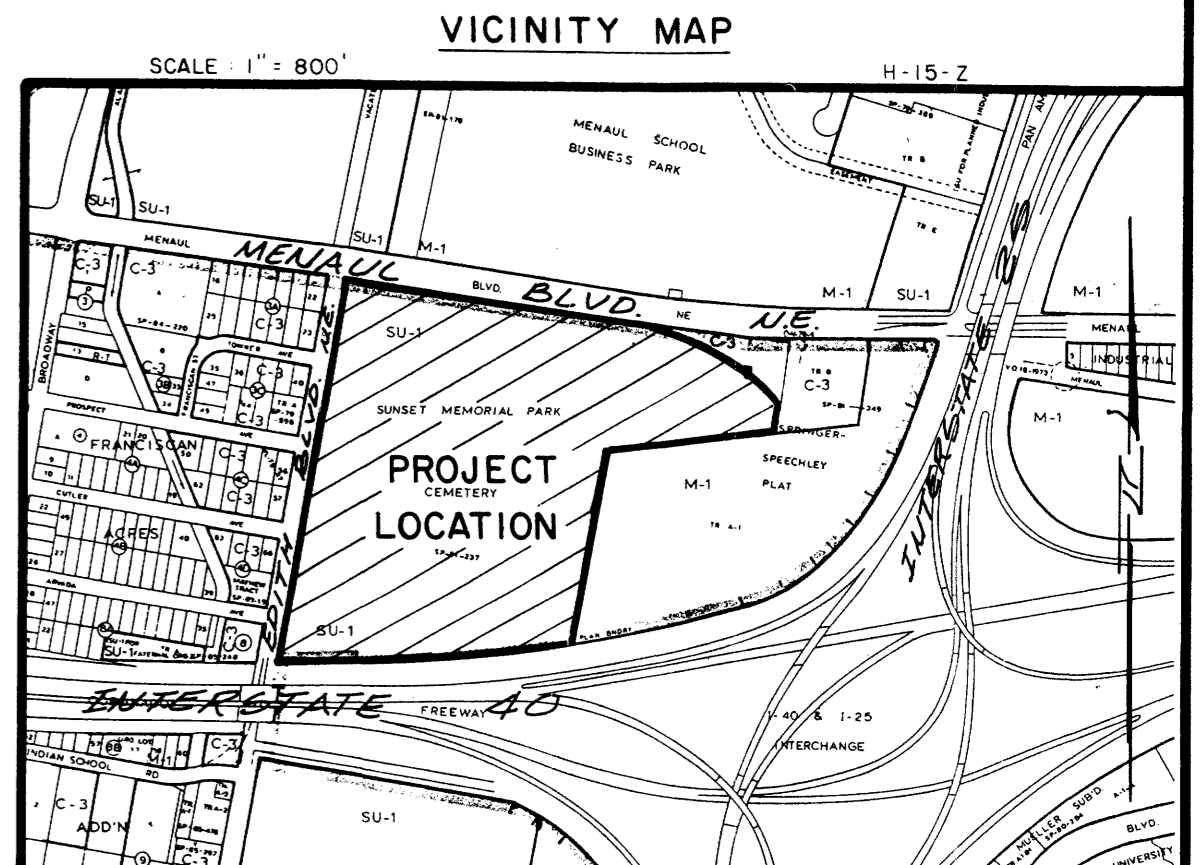
KEY	COMMON NAME	SIZE	REMARKS
N	PFITZER	5 GAL.	
O	PINON PINE	2" CAL.	
P	IVY	N/A	GROUND COVER



HORIZONTAL SCALE: 1" = 5'
VERTICAL SCALE: 1" = 2'

LANDSCAPE SCHEDULE

KEY	COMMON NAME	SIZE	REMARKS
A	ANILINUS + T. SPERDIAUS	2 CAL.	
B	SUBURBIA LOQUAT	1/2 CAL.	
C	CHILDRE HISTORIC	2 CAL.	
D	PONDRON FEAT.	2 CAL.	
E	WEEPING CHERM.	2 1/2 CAL.	
F	BED DATE CROPPAGE	2 CAL.	
G	SCAMPER	2 1/2 CAL.	
H	EDGED FINE	2 CAL.	
I	BLUE SPUCE	2 1/2 CAL.	
J	WHITE FIL.	2 1/2 CAL.	
K	SALTUNA	5 GAL.	
L	POTENTILLA	2 1/2 CAL.	
M	GROUNDS COVER		



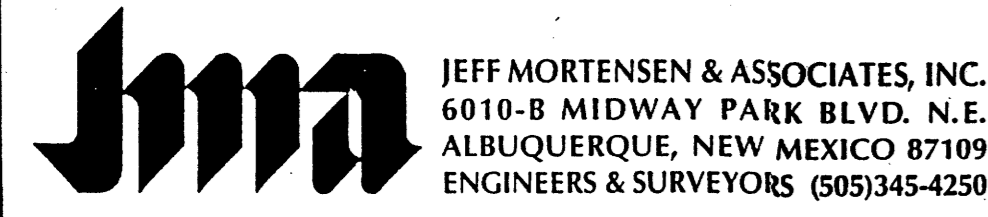
NO.	DATE	BY	REVISIONS
10/01	JGM		MAUSOLEUM ADDITION.
5/89	JGM		ADD ADMINISTRATION BLDG; FUTURE CRYPT & ADDITIONS; NEW PAVING
12/90	CBC		ADD BOUNDARY INFORMATION
3/91	JGM		UPDATE FOR FREEWAY CRYPTS & ROSE GARDEN

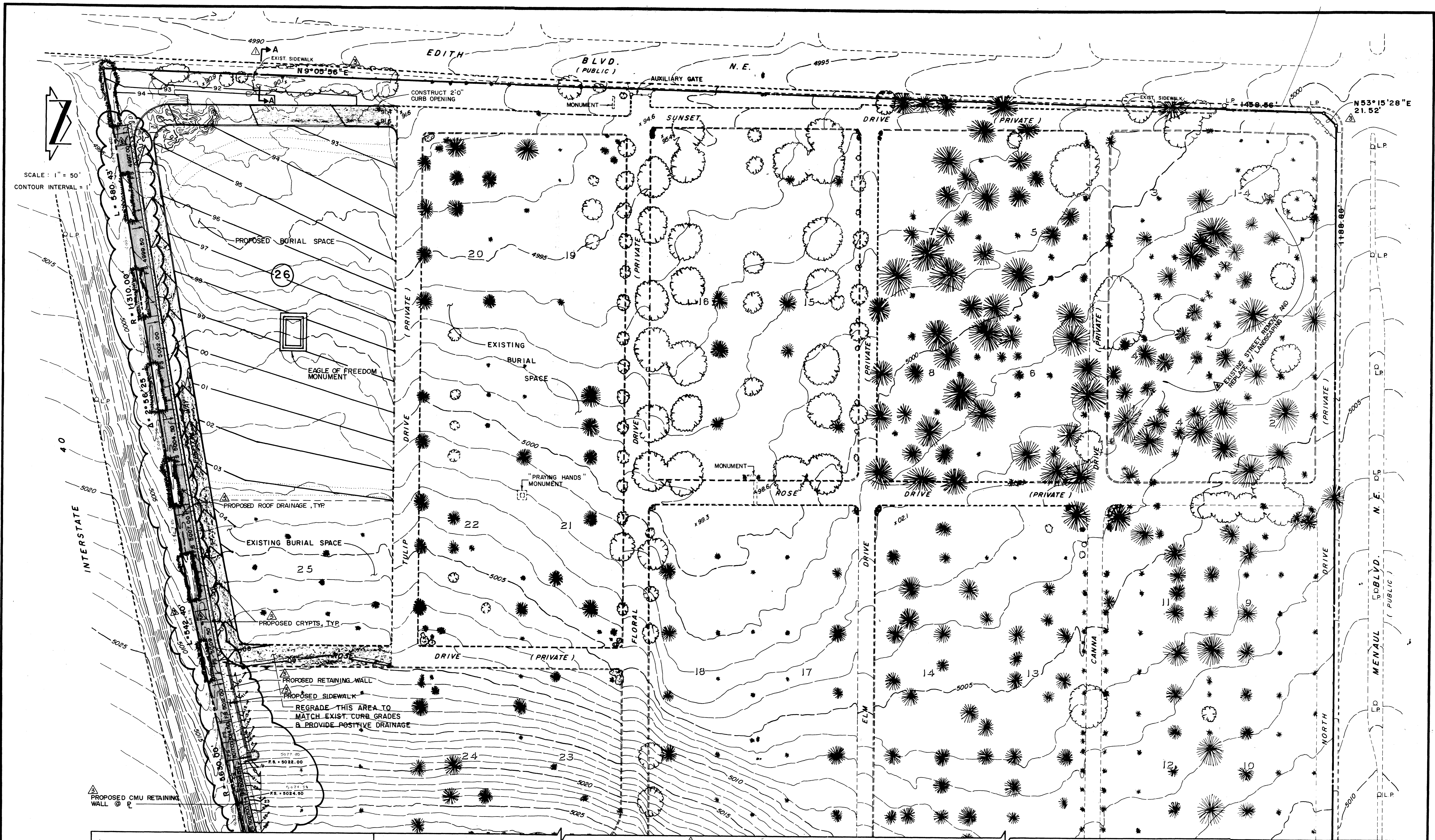
DESIGNED BY: J.G.M.
DRAWN BY: C.V.M.
APPROVED: J.G.M.

JOB NO. 61911
DATE 2-87

LANDSCAPING PLAN
SUNSET MEMORIAL PARK CEMETERY

2005.019.4
910255
SHEET 5 OF 9





SCALE: 1" = 50'
CONTOUR INTERVAL = 5'

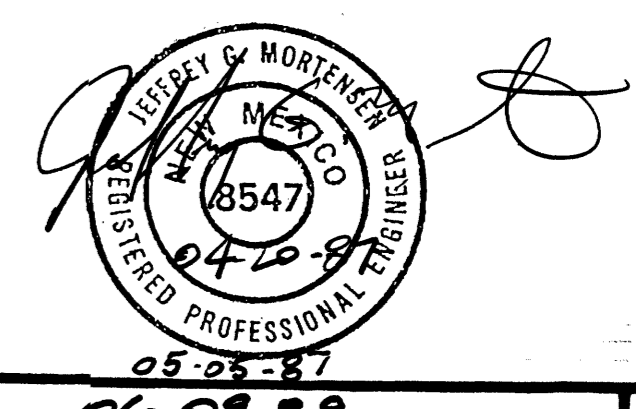
NOTE:
ALL "PROPOSED" GRADES ARE CONSIDERED AS "EXISTING" FOR PREVIOUSLY APPROVED PHASES OF WORK WHICH ARE NOW COMPLETE. AS-BUILT GRADES ARE NOT REFLECTED HEREON; REFER TO SITE SPECIFIC PLANS FOR AS-BUILT CONDITIONS.

NO.	DATE	BY	REVISIONS
3/66	1/21	JGM	No Change This Sheet.
12/01	1/21	JGM	No Change.
5/87	5/87	JGM	SECTION A-A
6/89	6/89	JGM	DELETE EVERGREEN DRIVE
12/90	12/90	JGM	ADD BOUNDARY INFORMATION
3/91	3/91	JGM	ADD CRYPTS

DESIGNED BY: J.G.M.
DRAWN BY: C.V.M.
APPROVED: J.G.M.

JOB NO.
61911
DATE
2-87

MASTER DRAINAGE PLAN
GRADING AND DRAINAGE PLAN
SUNSET MEMORIAL PARK CEMETERY

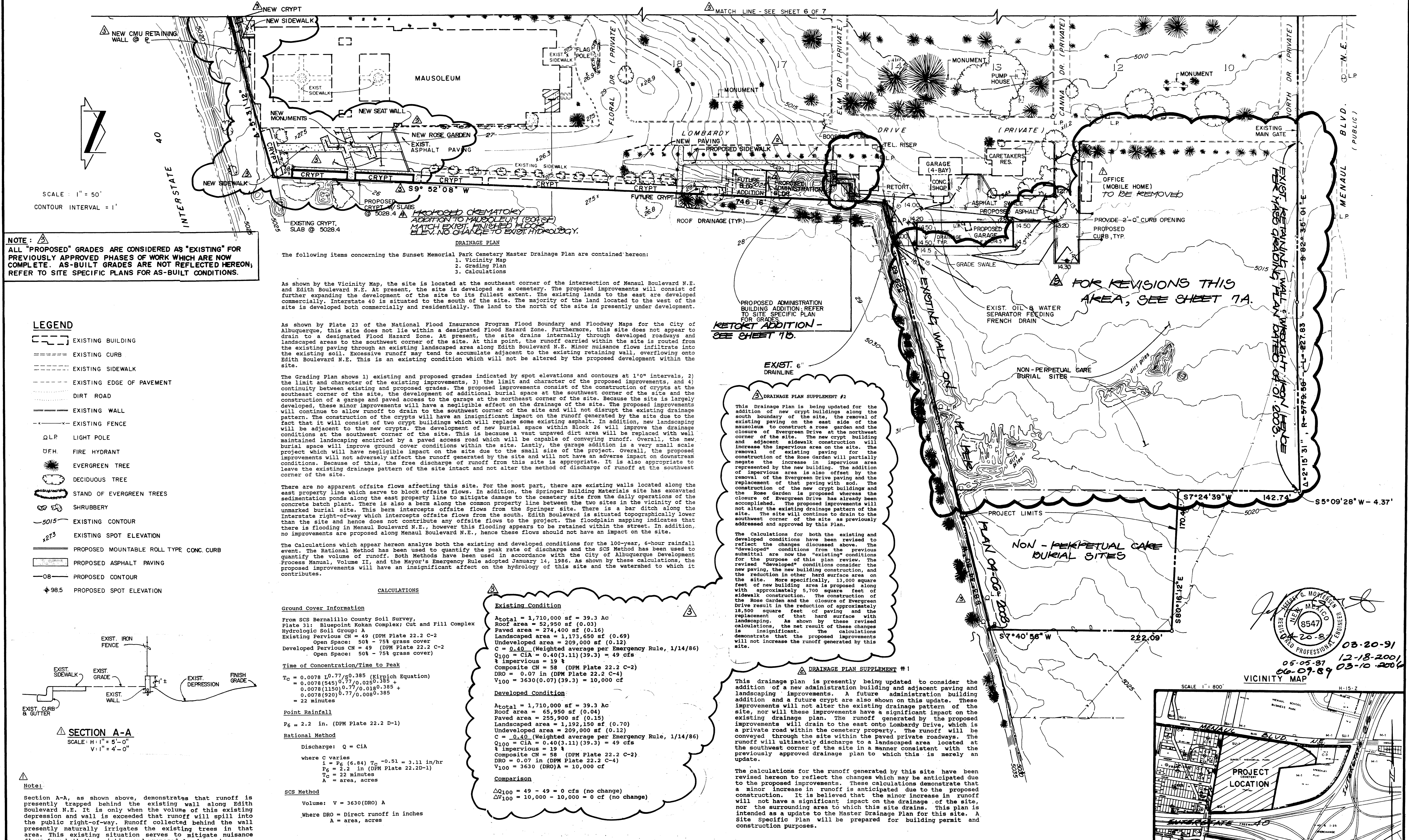


06-07-89
03-20-91
12-18-2001
03-10-2006

2005.0194
FILE NO.
910255
SHEET **6** OF **9**

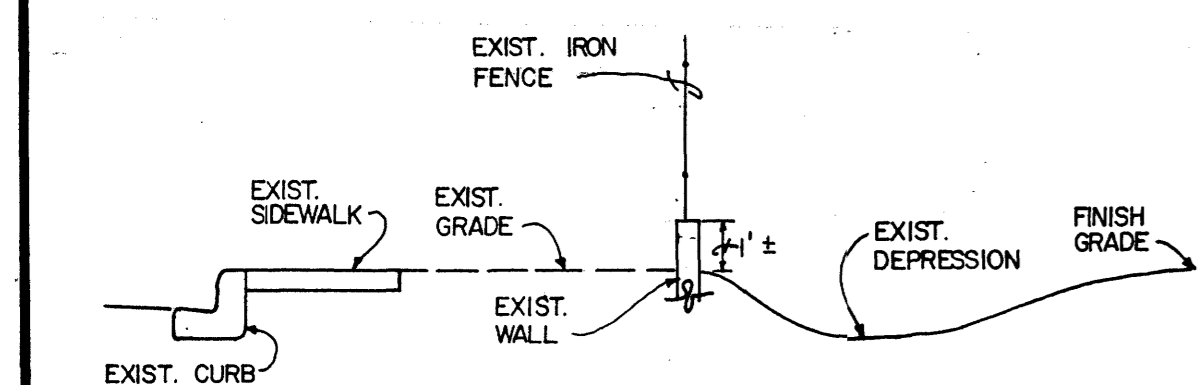


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NOTE: ALL "PROPOSED" GRADES ARE CONSIDERED AS "EXISTING" FOR PREVIOUSLY APPROVED PHASES OF WORK WHICH ARE NOW COMPLETE. AS-BUILT PHASES ARE NOT REFLECTED HEREON; REFER TO SITE SPECIFIC PLANS FOR AS-BUILT CONDITIONS.

- LEGEND**
- EXISTING BUILDING
 - ==== EXISTING CURB
 - EXISTING SIDEWALK
 - EXISTING EDGE OF PAVEMENT
 - DIRT ROAD
 - EXISTING WALL
 - EXISTING FENCE
 - Q.L.P. LIGHT POLE
 - DF.H. FIRE HYDRANT
 - EVERGREEN TREE
 - DECIDUOUS TREE
 - STAND OF EVERGREEN TREES
 - SHRUBBERY
 - 5015 EXISTING CONTOUR
 - 273 EXISTING SPOT ELEVATION
 - PROPOSED MOUNTABLE ROLL TYPE CONC. CURB
 - PROPOSED ASPHALT PAVING
 - 08 PROPOSED CONTOUR
 - 98.5 PROPOSED SPOT ELEVATION



SECTION A-A
SCALE: H: 1" = 5'-0"
V: 1" = 4'-0"

Note:
Section A-A, as shown above, demonstrates that runoff is presently trapped behind the existing wall along Edith Boulevard N.E. It is only when the volume of this existing depression and wall is exceeded that runoff will spill into the public right-of-way. Runoff collected behind the wall presently naturally irrigates the existing trees in that area. This existing situation serves to mitigate nuisance flows from both the existing and proposed developments.

The following items concerning the Sunset Memorial Park Cemetery Master Drainage Plan are contained herein:
1. Vicinity Map
2. Grading Plan
3. Calculations

As shown by the Vicinity Map, the site is located at the southeast corner of the intersection of Menaul Boulevard N.E. and Edith Boulevard N.E. At present, the site is developed as a cemetery. The proposed improvements will consist of further expanding the development of the site to its full extent. The existing lands to the east are developed commercially. Interstate 40 is situated to the south of the site. The majority of the land located to the west of the site is developed both commercially and residentially. The land to the north of the site is presently under development.

As shown by Plate 23 of the National Flood Insurance Program Flood Boundary and Floodway Maps for the City of Albuquerque, this site does not lie within a designated Flood Hazard Zone. Furthermore, this site does not appear to drain to a designated Flood Hazard Zone. At present, the site drains internally through developed roadways and landscaped areas to the southwest corner of the site. At this point, the runoff carried within the site is routed from the existing paving through an existing landscaped area along Edith Boulevard N.E. Minor nuisance flows infiltrate into the existing soil. Excessive runoff may tend to accumulate adjacent to the existing retaining wall, overflowing onto Edith Boulevard N.E. This is an existing condition which will not be altered by the proposed development within the site.

The Grading Plan shows 1) existing and proposed grades indicated by spot elevations and contours at 1'0" intervals, 2) the limit and character of the existing improvements, 3) the limit and character of the proposed improvements, and 4) continuity between existing and proposed grades. The proposed improvements consist of the construction of crypts at the southeast corner of the site, the development of additional burial space at the southwest corner of the site and the construction of a garage and paved access to the garage at the northeast corner of the site. Because the site is largely developed, these minor improvements will have a negligible effect on the drainage of the site. The proposed improvements will continue to allow runoff to drain to the southwest corner of the site and will not disrupt the existing drainage pattern. The construction of the crypts will have an insignificant impact on the runoff generated by the site due to the fact that it will consist of two crypt buildings which will replace some existing asphalt. In addition, new landscaping will be adjacent to the new crypts. The development of new burial space within Block 26 will improve the drainage conditions at the southwest corner of the site. This is because a vast unpaved dirt area will be replaced with well maintained landscaping encircled by a paved access road which will be capable of conveying runoff. Overall, the new burial space will improve ground cover conditions within the site. Lastly, the garage addition is a very small scale project which will have negligible impact on the site due to the small size of the project. Overall, the proposed improvements will not adversely affect the runoff generated by the site and will not have an adverse impact on downstream conditions. Because of this, the free discharge of runoff from this site is appropriate. It is also appropriate to leave the existing drainage pattern of the site intact and not alter the method of discharge of runoff at the southwest corner of the site.

There are no apparent offsite flows affecting this site. For the most part, there are existing walls located along the east property line which serve to block offsite flows. In addition, the Springer Building Materials site has excavated sedimentation ponds along the east property line to mitigate damage to the cemetery site from the daily operations of the concrete batch plant. There is also a berm along the common property line between the two sites in the vicinity of the unmarked burial site. This berm intercepts offsite flows from the Springer site, there is a bar ditch along the interstate right-of-way which intercepts offsite flows from the south. Edith Boulevard is situated topographically lower than the site and hence does not contribute any offsite flows to the project. The floodplain mapping indicates that there is flooding in Menaul Boulevard N.E., however this flooding appears to be retained within the street. In addition, no improvements are proposed along Menaul Boulevard N.E., hence these flows should not have an impact on the site.

The Calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. The Rational Method has been used to quantify the peak rate of discharge and the SCS Method has been used to quantify the volume of runoff. Both Methods have been used in accordance with the City of Albuquerque Development Process Manual, Volume II, and the Mayor's Emergency Rule adopted January 14, 1986. As shown by these calculations, the proposed improvements will have an insignificant affect on the hydrology of this site and the watershed to which it contributes.

CALCULATIONS

Ground Cover Information
From SCS Bernalillo County Soil Survey, Plate 31: Blueprint Kokan Complex; Cut and Fill Complex Hydrologic Soil Group: A
Existing Pervious CN = 49 (DPM Plate 22.2 C-2)
Open Space: 50% - 75% grass cover
Developed Pervious CN = 49 (DPM Plate 22.2 C-2)
Open Space: 50% - 75% grass cover

Time of Concentration/Time to Peak
 $T_c = 0.0078 (L^{0.77}) / (0.385 (R^{0.16}))$ (Kirpich Equation)
 $= 0.0078 (545)^{0.77} / (0.025^{0.16}) = 0.0078 (1150) / (0.77 / 0.018)^{0.16} + 0.0078 (920) / (0.77 / 0.008)^{0.16} = 22$ minutes

Point Rainfall
 $P_6 = 2.2$ in. (DPM Plate 22.2 D-1)

Rational Method
Discharge: $Q = CIA$
where C varies
 $i = P_6 (6.84) T_c^{-0.51} = 3.11$ in/hr
 $P_6 = 2.2$ in (DPM Plate 22.2D-1)
 $T_c = 22$ minutes
A = area, acres

SCS Method
Volume: $V = 3630(DRO)A$
Where DRO = Direct runoff in inches
A = area, acres

Existing Condition
A_{total} = 1,710,000 sf = 39.3 Ac
Roof area = 52,950 sf (0.03)
Paved area = 274,400 sf (0.16)
Landscaped area = 1,173,650 sf (0.69)
Undeveloped area = 209,000 sf (0.12)
 $C = 0.40$ (Weighted average per Emergency Rule, 1/14/86)
 $Q_{100} = CIA = 0.40(3.11)(39.3) = 49$ cfs
% Impervious = 19 %
Composite CN = 58 (DPM Plate 22.2 C-2)
DRO = 0.07 in (DPM Plate 22.2 C-4)
 $V_{100} = 3630(0.07)(39.3) = 10,000$ cf

Developed Condition
A_{total} = 1,710,000 sf = 39.3 Ac
Roof area = 65,950 sf (0.04)
Paved area = 255,900 sf (0.15)
Landscaped area = 1,192,150 sf (0.70)
Undeveloped area = 209,000 sf (0.12)
 $C = 0.40$ (Weighted average per Emergency Rule, 1/14/86)
 $Q_{100} = CIA = 0.40(3.11)(39.3) = 49$ cfs
% Impervious = 19 %
Composite CN = 58 (DPM Plate 22.2 C-2)
DRO = 0.07 in (DPM Plate 22.2 C-4)
 $V_{100} = 3630(DRO)A = 10,000$ cf

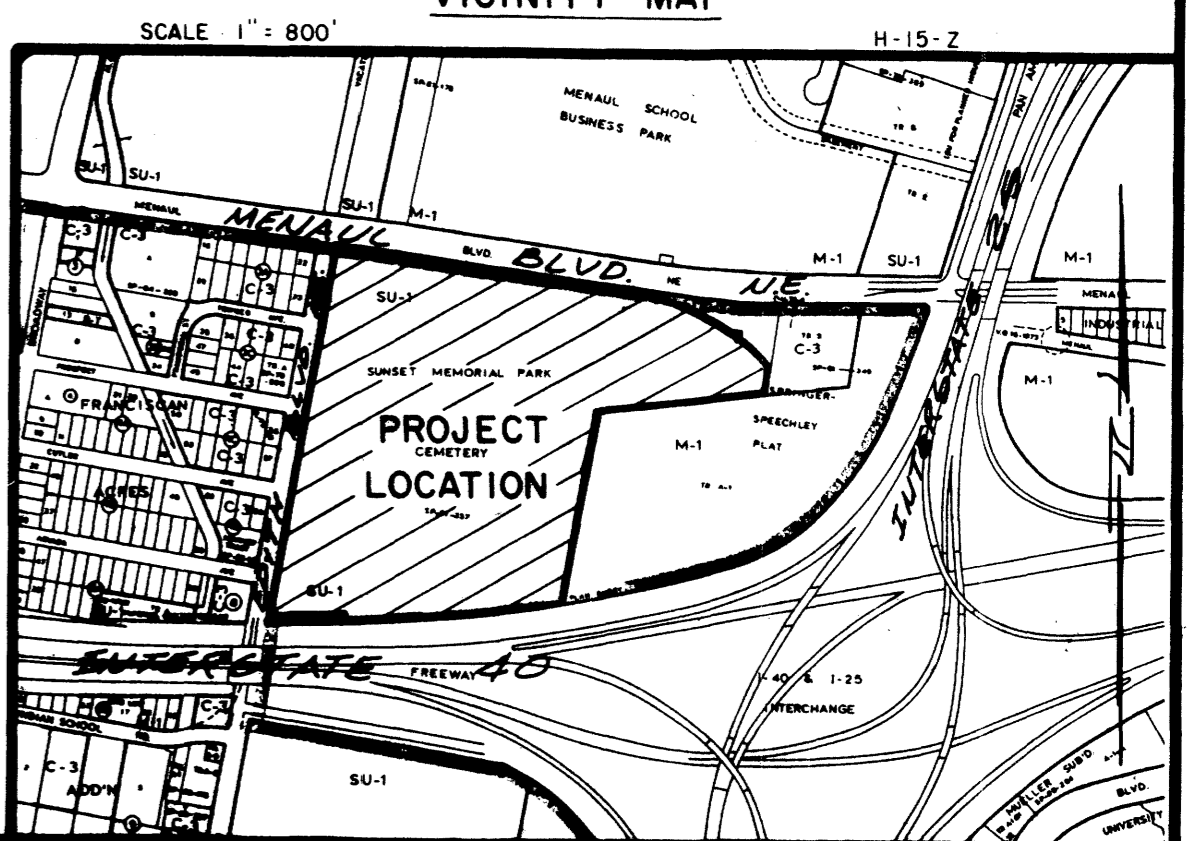
Comparison
 $\Delta Q_{100} = 49 - 49 = 0$ cfs (no change)
 $\Delta V_{100} = 10,000 - 10,000 = 0$ cf (no change)

DRAINAGE PLAN SUPPLEMENT #2
This Drainage Plan is being updated for the addition of new crypt buildings along the south boundary of the site, the removal of existing paving on the east side of the mausoleum to construct a rose garden and the closure of Evergreen Drive at the northeast corner of the site. The new crypt building and adjacent sidewalk construction will increase the impervious area on the site. The removal of existing paving for the construction of the Rose Garden will partially negate the increase in impervious area represented by the new building. The addition of impervious area is also offset by the removal of the Evergreen Drive paving and the replacement of the paving with sod. The construction of the new crypt buildings and the Rose Garden is proposed whereas the closure of Evergreen Drive has already been accomplished. The proposed improvements will not alter the existing drainage pattern of the site. The site will continue to drain to the southwest corner of the site as previously addressed and approved by this Plan.

The Calculations for both the existing and developed conditions have been revised to reflect the changes discussed above. The submittal area for the previous submittal are now the existing conditions for the purpose of this plan review. The revised "developed" conditions consider the new paving, the new building construction, and the reduction in other hard surface area on the site. Specifically, 11,000 square feet of new building area is proposed along with approximately 5,700 square feet of sidewalk construction. The construction of the Rose Garden and the closure of Evergreen Drive result in the reduction of approximately 18,500 square feet of paving and the replacement of that hard surface with landscaping. As shown by these revised calculations, the net result of these changes is insignificant. The calculations demonstrate that the proposed improvements will not increase the runoff generated by this site.

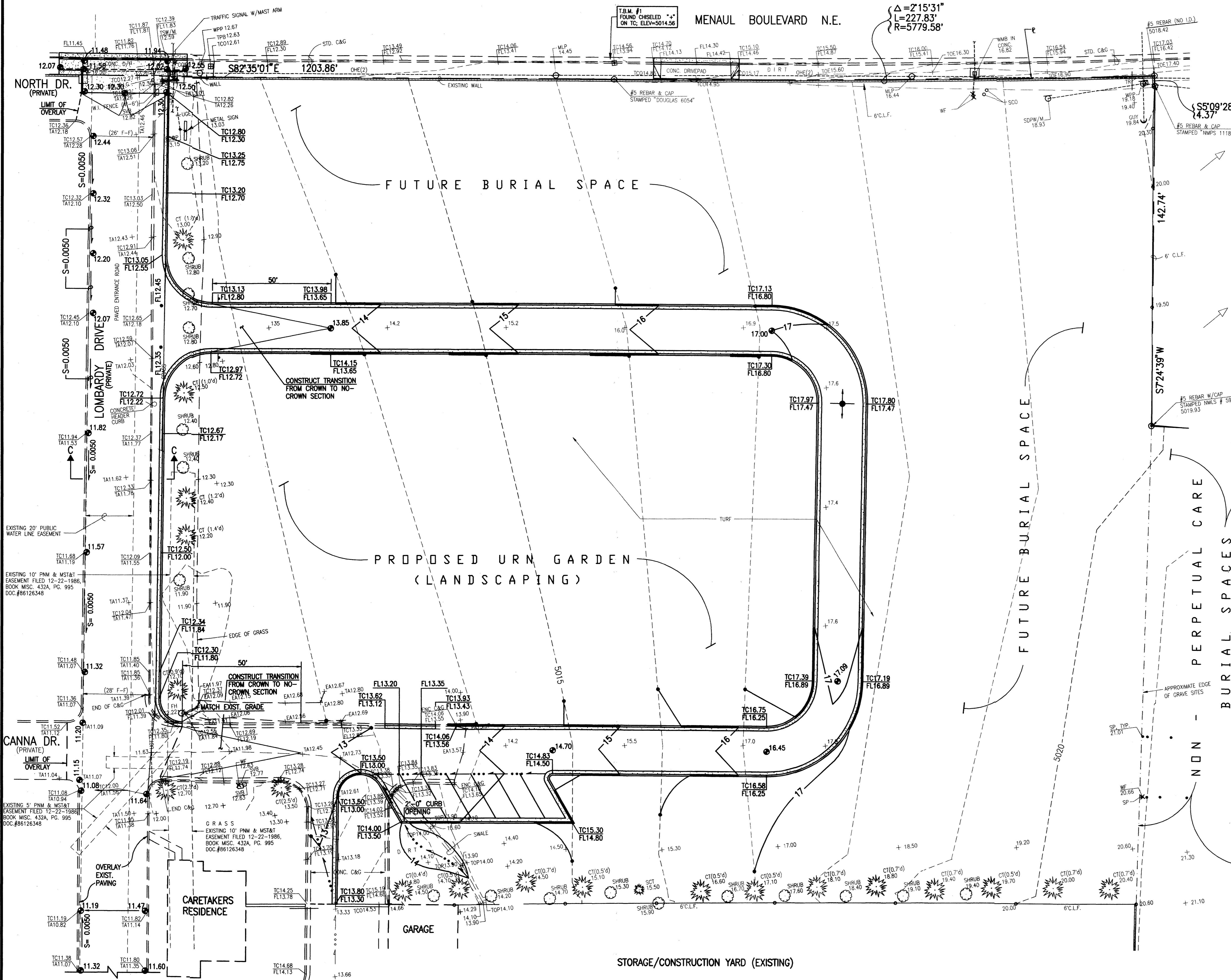
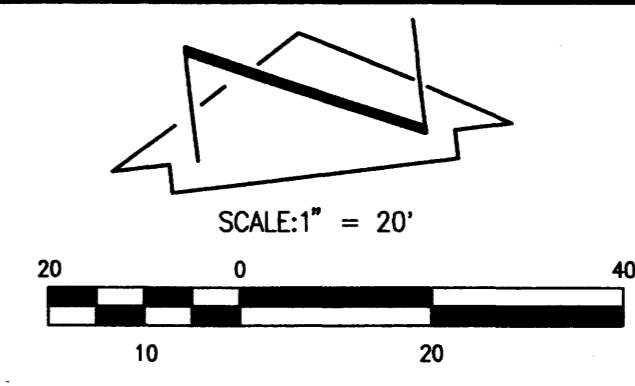
DRAINAGE PLAN SUPPLEMENT #1
This drainage plan is presently being updated to consider the addition of a new administration building and adjacent paving and landscaping improvements. A future administration building addition and a future crypt are also shown on this update. These improvements will not alter the existing drainage pattern of the site, nor will these improvements have a significant impact on the existing drainage plan. The runoff generated by the proposed improvements will drain to the east onto Lombardy Drive, which is a private road within the cemetery property. The runoff will be conveyed through the site within the paved private roadways. The runoff will ultimately discharge to a landscaped area located at the southwest corner of the site in a manner consistent with the previously approved drainage plan to which this is merely an update.

The calculations for the runoff generated by this site have been revised hereon to reflect the changes which may be anticipated due to the proposed improvements. These calculations demonstrate that a minor increase in runoff is anticipated due to the proposed construction. It is believed that the minor increase in runoff will not have a significant impact on the drainage of the site, nor the surrounding area to which this site drains. This plan is intended as an update to the Master Drainage Plan for this site. A Site Specific Plan will be prepared for building permit and construction purposes.



PROFESSIONAL ENGINEER
JEFF MORTENSEN & ASSOCIATES, INC.
REG. NO. 8547
03-20-91
05-05-91
06-07-89
12-18-2001
03-10-2004

JMA	JEFF MORTENSEN & ASSOCIATES, INC. 6010-B MIDWAY PARK BLVD. N.E. ALBUQUERQUE, NEW MEXICO 87109 ENGINEERS & SURVEYORS (505)345-4250		DESIGNED BY: J.G.M.	JOB NO. 61911	GRADING AND DRAINAGE PLAN SUNSET MEMORIAL PARK CEMETERY 2005.019.4	SHEET 7 OF 9
	NO. DATE BY	REVISIONS	DRAWN BY: C.V.M.	DATE 2-87		
	5/87 JGM	SECTION A-A				
	5/89 JGM	ADD ADMINISTRATION BLDG; FUTURE CRYPT & ADDITIONS; NEW PAVING				
12/90 JGM	ADD BOUNDARY INFORMATION					
3/91 JGM	ADD FREEWAY CRYPTS & ROSE GARDEN					



DRAINAGE PLAN

I. INTRODUCTION AND EXECUTIVE SUMMARY

THE SITE IS LOCATED AT THE SOUTHEAST CORNER OF THE INTERSECTION OF MENAUL BLVD NE AND LOMBARDY DRIVE, A PRIVATE STREET. THE PROJECT WILL CONSIST OF THE DEVELOPMENT OF A PRIVATE LOOP ROAD ENCLACING A NEW URN GARDEN WITHIN THE EASTERLY PORTION OF THE PROPERTY. THE SITE CURRENTLY CONSISTS OF A LARGE TURF AREA AS IDENTIFIED IN A PREVIOUS SUBMITTAL FOR THE SITE DATED 04-01-2003. THE URN GARDEN WILL BE A LANDSCAPED FEATURE OF THE PARK TO BE DEVELOPED IN PHASES. THE PRIVATE ROAD SHALL SERVE AS THE FRAME FOR THE FUTURE LANDSCAPE PROJECTS. THE DRAINAGE CONCEPT WILL BE THE CONTINUED FREE DISCHARGE OF RUNOFF VIA THE EXISTING INTERNAL PAVED PRIVATE STREETS TO EDITH BLVD NE. THIS SUBMITTAL IS AN AMENDMENT TO A PREVIOUSLY APPROVED PLAN AND MADE IN SUPPORT OF SITE DEVELOPMENT PLAN APPROVAL (ADMINISTRATIVE AMENDMENT).

II. PROJECT DESCRIPTION

AS SHOWN BY THE VICINITY MAP, THE SITE IS LOCATED AT THE SOUTHEAST CORNER OF THE INTERSECTION OF MENAUL BLVD NE AND LOMBARDY DRIVE (A PRIVATE ROAD). THE CURRENT LEGAL DESCRIPTION OF THE SITE IS THE EASTERLY PORTION OF TRACT 1, SUNSET MEMORIAL PARK; FILED JANUARY 8, 1991, BOOK 91C, PAGE 9. AS SHOWN BY PANEL 332 OF 825 OF THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAPS PUBLISHED BY FEMA FOR BERNALILLO COUNTY, NEW MEXICO, NOVEMBER 19, 2003, THIS SITE DOES NOT LIE WITHIN A DESIGNATED FLOOD HAZARD ZONE. FURTHERMORE, THE SITE DOES NOT APPEAR TO DRAIN TO A DESIGNATED FLOOD HAZARD ZONE. FLOODING IS IDENTIFIED WITHIN MENAUL BLVD, NE ADJACENT TO THE SITE, HOWEVER, IT IS BELIEVED THAT THE MENAUL DETENTION POND AND THE MORE RECENT BIG-1 CONSTRUCTION HAVE ALLEVIATED THIS FLOODING WITHOUT BENEFIT OF THE SUBMISSION OF A LOMR.

III. BACKGROUND DOCUMENTS & RESEARCH

THE FOLLOWING BACKGROUND DOCUMENTS WERE REVIEWED IN THE PREPARATION OF THIS SUBMITTAL:

A. MASTER DRAINAGE PLAN FOR SUNSET MEMORIAL PARK (H-15/D16), LAST UPDATED 12/18/2001, PREPARED BY JEFF MORTENSEN & ASSOCIATES, INC AND APPROVED BY THE CITY ENGINEERS OFFICE. THIS PLAN ALLOWS FOR THE FREE DISCHARGE OF RUNOFF FROM THE SUNSET MEMORIAL PARK SITE INTO EDITH BOULEVARD NE TO THE WEST DUE TO PREVIOUSLY CONSTRUCTED PUBLIC STORM DRAIN IMPROVEMENTS BY THE CITY.

B. GRADING AND DRAINAGE PLAN FOR SUNSET MEMORIAL PARK CEMETERY - EAST DATED 4/01/2003 PREPARED BY JEFF MORTENSEN & ASSOCIATES, INC. THIS PLAN MASS GRADED THE AREA OF THE SUBJECT PROJECT AND STABILIZED WITH TURF. THE PLAN CONTINUED FREE DISCHARGE CONCEPT.

IV. EXISTING CONDITIONS

AT PRESENT, THE SITE IS THAT PORTION OF THE CEMETERY EAST OF LOMBARDY DRIVE AND NORTH OF THE CARETAKER'S RESIDENCE AND GARAGE/WORK AREA. THE SITE DRAINS FROM EAST TO WEST INTO LOMBARDY DRIVE. FROM THIS POINT, RUNOFF GENERALLY FLOWS TO CANNA DRIVE, ANOTHER INTERNAL PRIVATE ROAD, CANNA DRIVE DRAINS WEST WITH RUNOFF EVENTUALLY REACHING EDITH BLVD NE. EDITH BLVD IS A FULLY IMPROVED CITY STREET COMPLETE WITH PUBLIC STORM DRAIN FACILITIES SIZED FOR THE FREE DISCHARGE OF CONTRIBUTING PROPERTIES. AS ESTABLISHED BY PREVIOUS SUBMITTAL, THERE ARE NO OFFSITE FLOWS AFFECTING THIS SITE.

V. DEVELOPED CONDITIONS

THE SCOPE OF THIS SITE CONSISTS OF THE WIDENING OF LOMBARDY DRIVE COMBINED WITH THE DEVELOPMENT OF A LOOPED PRIVATE ROAD WITHIN THE EXISTING TURF AREA. THE AREA ENCLOSED BY THE LOOP ROAD WILL LATER BE DEVELOPED AS AN URN GARDEN. FOR THE PURPOSES OF THIS SUBMITTAL, THE URN GARDEN IS ANTICIPATED TO BE 50% HARD SURFACE AND 50% IMPERVIOUS LANDSCAPING. THE LOOP ROAD WILL DRAIN FROM EAST TO WEST ONTO LOMBARDY DRIVE. FROM THAT POINT, THE RUNOFF WILL CONTINUE TO DRAIN WEST TO EDITH BLVD AS DESCRIBED ABOVE.

AS PART OF THE WIDENING OF LOMBARDY DRIVE, THE EXISTING MANTEL ENTRANCE WILL BE WIDENED AND REBUILT. THE EXISTING DRIVEWAY DOES NOT POSSESS THE STANDARD 0.85' WATERBLOCK. BASED UPON EXISTING CONDITIONS (IMPROVEMENTS) THAT MUST BE MATCHED, IT WILL NOT BE POSSIBLE TO RAISE THE WATERBLOCK TO CURRENT STANDARDS, HOWEVER, THE RECONSTRUCTION WILL NOT LOWER THE EXISTING WATERBLOCK AND WILL MAINTAIN OR IMPROVE THE STATUS QUO.

VI. GRADING PLAN

THE GRADING PLAN SHOWS 1.) EXISTING GRADES INDICATED BY SPOT ELEVATIONS AND CONTOURS AT 1'-0" INTERVALS AS TAKEN FROM THE ABOVE REFERENCED 2003 PLAN, 2.) PROPOSED GRADES INDICATED BY SPOT ELEVATIONS AND CONTOURS AT 1'-0" INTERVALS, 3.) THE LIMIT AND CHARACTER OF THE EXISTING IMPROVEMENTS AS TAKEN FROM THE ABOVE REFERENCED 2003 PLAN, 4.) THE LIMIT AND CHARACTER OF THE PROPOSED IMPROVEMENTS, AND 5.) CONTINUITY BETWEEN EXISTING AND PROPOSED GRADES. THE 2003 PLAN WAS BASED UPON A TOPOGRAPHIC SURVEY PREPARED BY THIS OFFICE UNDER THE DIRECTION OF CHARLES G. CALA, JR., N.M.P.S. 11184 AND DATED 2-19-2003. AS SHOWN BY THIS PLAN, THE PROPOSED IMPROVEMENTS CONSIST OF THE CONSTRUCTION OF A NEW PAVED PRIVATE ROAD WITH LIMITED PARKING AND FUTURE LANDSCAPING. RUNOFF GENERATED BY THE PROPOSED IMPROVEMENTS WILL CONTINUE TO DRAIN FROM EAST TO WEST IN ACCORDANCE WITH THE PREVIOUSLY APPROVED MASTER DRAINAGE PLAN. THE WATERBLOCK AT MENAUL BLVD. WILL NOT BE LOWERED AND WILL MAINTAIN OR IMPROVE THE STATUS QUO.

VII. CALCULATIONS

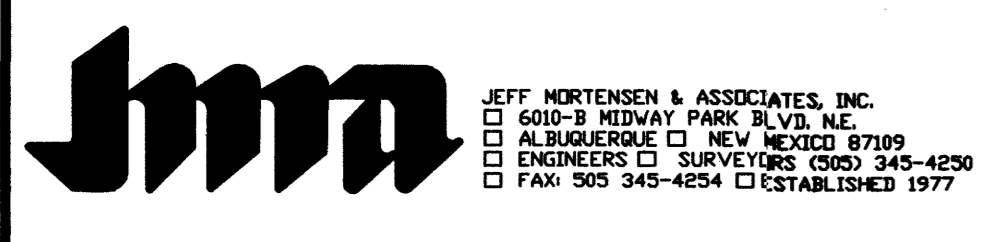
CALCULATIONS HAVE BEEN PREPARED AS PART OF A SITE SPECIFIC PLAN FOR GRADING AND PAVING PERMIT PREPARED BY THIS OFFICE AND DATED 02-22-2006, NMPE 8547.

VIII. CONCLUSIONS

THE CONTINUED FREE DISCHARGE OF RUNOFF FROM THIS SITE IS APPROPRIATE DUE TO THE FOLLOWING FACTORS:

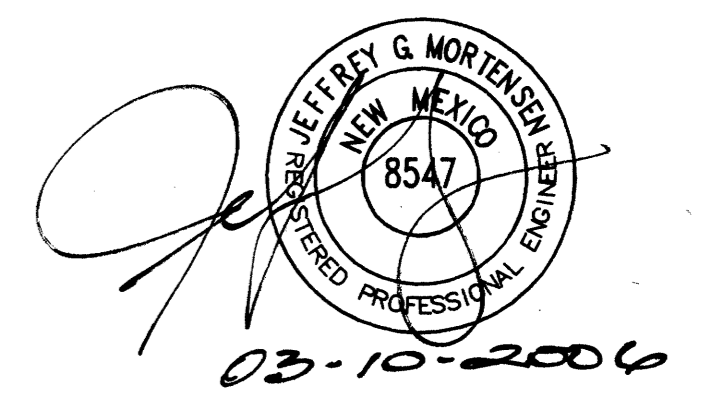
1. MODIFICATION TO AN EXISTING SITE WITHIN AN INFILL AREA
2. MINOR INCREASE IN DEVELOPED RUNOFF GENERATED BY THE PROPOSED SITE IMPROVEMENTS
3. APPARENT DOWNSTREAM CAPACITY
4. NO IMPACT ON ADJACENT OR DOWNSTREAM FLOOD ZONES
5. THE EXISTING DRAINAGE PATTERN (STATUS QUO) WILL NOT BE ALTERED AND HENCE MAINTAINED
6. CONFORMANCE TO THE PREVIOUSLY APPROVED MASTER DRAINAGE PLAN

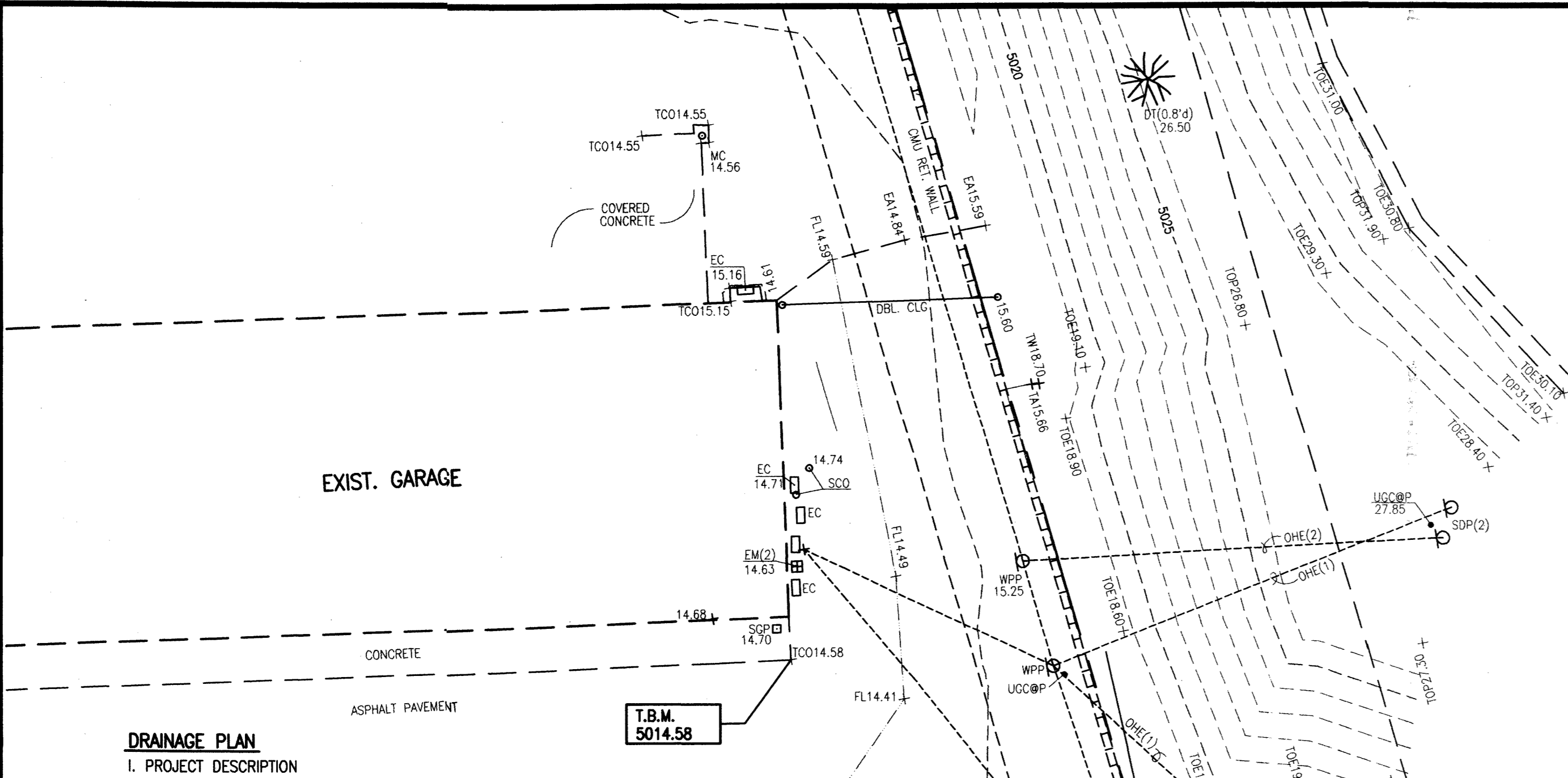
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 Plot Time: 5:15 pm



**MASTER DRAINAGE PLAN SUPPLEMENT / UPDATE
 URN GARDEN AND FUTURE BURIAL SPACE
 SUNSET MEMORIAL PARK**

DESIGNED BY	DATE	BY	REVISIONS	JOB NO.
JGM	03/06	JGM	ADD THIS SHEET	2005.019.4
DRAWN BY		JMA		DATE
APPROVED BY		JGM		7A OF 9





CALCULATIONS

SITE CHARACTERISTICS

- PRECIPITATION ZONE = 2
- $P_{6,100} = P_{360} = 2.35$
- TOTAL PROJECT AREA (A_T) = 9,890 SF / 0.23 AC
- EXISTING LAND TREATMENT

TREATMENT	AREA (SF/AC)	%
B	520 / 0.01	5
C	1,970 / 0.05	20
D	7,400 / 0.17	75

- DEVELOPED LAND TREATMENT

TREATMENT	AREA (SF/AC)	%
B	360 / 0.01	4
C	1,275 / 0.03	13
D	8,255 / 0.19	83

EXISTING CONDITION

- VOLUME

$$E_w = (E_{AA} + E_{AB} + E_{AC} + E_{AD}) / A_T$$

$$E_w = ((0.01 \times 0.78) + (0.05 \times 1.13) + (0.17 \times 2.12)) / 0.23 = 1.85 \text{ IN}$$

$$V_{100} = (E_w / 12) A_T = (1.85 / 12) 0.23 = 0.0350 \text{ AC-FIT } 1,527 \text{ CF}$$

- PEAK DISCHARGE

$$Q_p = Q_{pA} A_A + Q_{pB} A_B + Q_{pC} A_C + Q_{pD} A_D$$

$$Q_p = Q_{100} = (0.01 \times 2.28) + (0.05 \times 3.14) + (0.17 \times 4.7) = 1.0 \text{ CFS}$$

DEVELOPED CONDITION

- VOLUME

$$E_w = (E_{AA} + E_{AB} + E_{AC} + E_{AD}) / A_T$$

$$E_w = ((0.01 \times 0.78) + (0.03 \times 1.13) + (0.19 \times 2.12)) / 0.23 = 1.94 \text{ IN}$$

$$V_{100} = (E_w / 12) A_T = (1.94 / 12) 0.23 = 0.0368 \text{ AC-FIT } 1,602 \text{ CF}$$

- PEAK DISCHARGE

$$Q_p = Q_{pA} A_A + Q_{pB} A_B + Q_{pC} A_C + Q_{pD} A_D$$

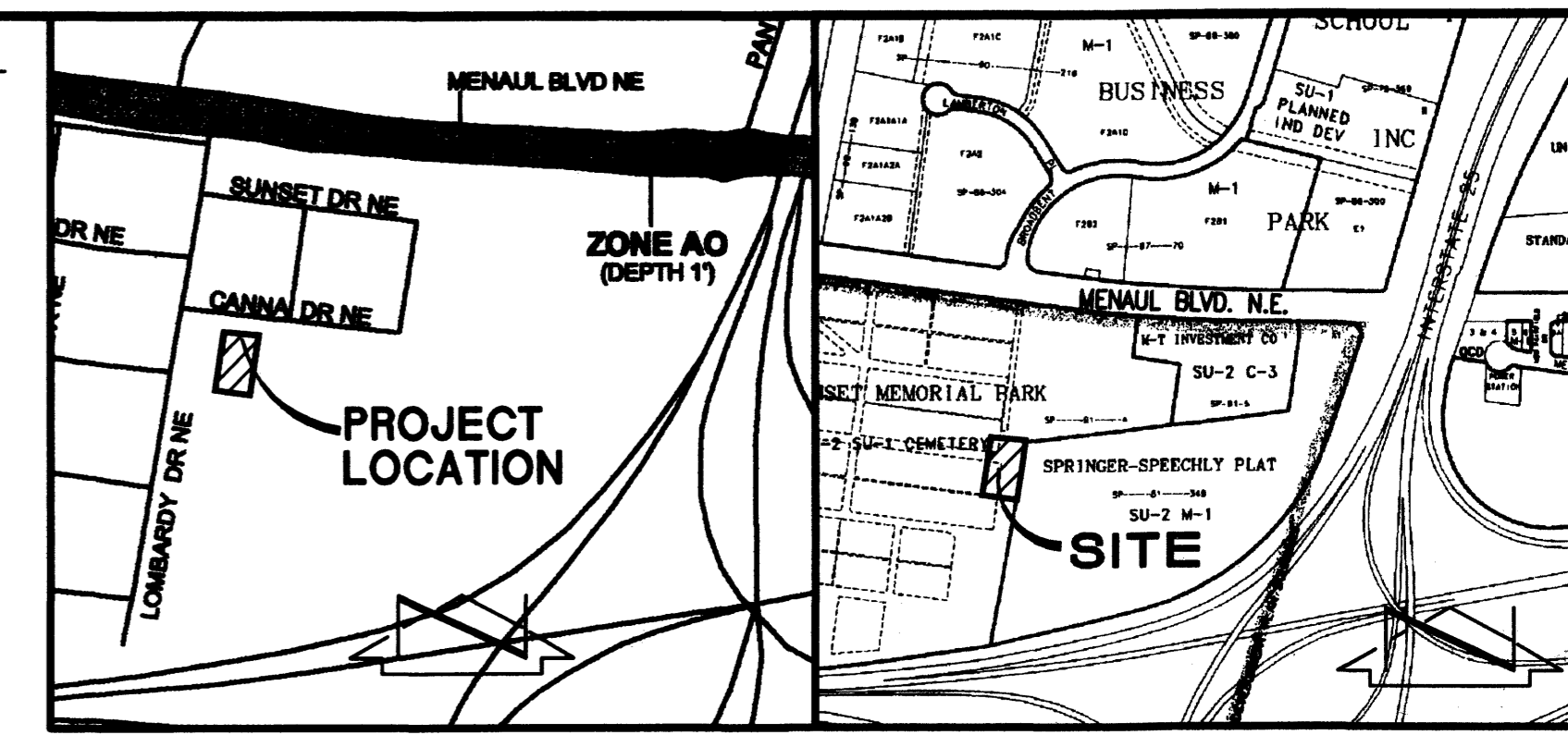
$$Q_p = Q_{100} = (0.01 \times 2.28) + (0.03 \times 3.14) + (0.19 \times 4.7) = 1.0 \text{ CFS}$$

COMPARISON

- VOLUME

$$\Delta V_{100} = 1,602 - 1,527 = 75 \text{ CF (INCREASE)}$$

- PEAK DISCHARGE

$$\Delta Q_{100} = 1.0 - 1.0 = 0.0 \text{ CFS (NO CHANGE)}$$


F.I.R.M. PANEL 332 OF 825 VICINITY MAP H-15
 SCALE: 1" = 500' SCALE: 1" = 750'

LEGAL DESCRIPTION
 PORTION OF TRACT 1, SUNSET MEMORIAL PARK FILED JANUARY 8, 1991, BOOK 91C, PAGE 9.

PROJECT BENCHMARK
 CITY OF ALBUQUERQUE BENCHMARK "11-H15" AN A.C.S. 1 3/4" ALUMINUM DIST STAMPED "A.C.S., B.M., 11-H15", SET IN TOP OF CONCRETE CURB LOCATED AT THE INTERSECTION OF MENAU BLVD. AND BROADBENT PARKWAY N.E. IN THE N.E. QUADRANT OF THE INTERSECTION. ELEVATION = 5012.82' (NGVD 1929)

T.B.M.
 T.B.M. CORNER OF EXISTING CONCRETE SLAB AT THE SOUTHWEST CORNER OF EXISTING GARAGE. ELEVATION = 5014.58 FEET

EROSION CONTROL NOTES

- THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY.
- THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET.
- WHEN APPLICABLE, CONTRACTOR SHALL SECURE "TOPSOIL DISTURBANCE PERMIT" FROM THE CITY AND/OR FILE A NOTICE OF INTENT (N.O.I.) WITH THE EPA PRIOR TO BEGINNING CONSTRUCTION.

LEGEND

CT(1.5'd)	CONIFEROUS TREE (DIA.)
DBL.CLG	DOUBLE CHAINLINK GATE
DBL.W.I.G.	DOUBLE WROUGHT IRON GATE
DT(1.5'd)	DECIDUOUS TREE (DIA.)
EC	ELECTRIC CABINET
ECOP	ELECTRIC CONDUIT @ POLE
FH	FIRE HYDRANT
FL	FLOW LINE
GW	GROUND WALL ELEVATION
MC	METAL COLUMN
MLP	METAL LIGHT POLE
OHE(1)	OVERHEAD ELECTRIC (# OF LINES)
SCT(0.5'd)	SMALL CONIFEROUS TREE
SDPW/M	SMALL DROP POLE W/METER
SCO	SINGLE CLEAN-OUT
SHRUB	SHRUB
SDPW/M	SMALL DROP POLE W/METER
SGP	STEEL GUARD POST
SP	STEEL POLE
SVB	SPRINKLER VALVE BOX
TA	TOP OF ASPHALT
TC	TOP OF CURB
TCO	TOP OF CONCRETE
TPB	TELEPHONE RISER
TR	TRAFFIC PULL BOX
TSW/M	TRAFFIC SIGNAL W/MAST
TSM/M	TRAFFIC SIGNAL W/MAST
UGCOP	UNDERGROUND CONDUIT @ POLE
UGE	UNDERGROUND ELECTRIC
UGG	UNDERGROUND GAS
UOT	UNDERGROUND TELEPHONE
WF	WATER FALCET
WLPP	WATER LINE PAVING PATCH
WMB	WATER METER BOX
WPP	WOOD POWER POLE
---	EXISTING RETAINING WALL
---	EXISTING CONTOUR
○	EXISTING SPOT ELEVATION
○	PROPOSED SPOT ELEVATION
■	PROPOSED CONCRETE
■	PROPOSED ASPHALT PAVING

DRAINAGE PLAN

I. PROJECT DESCRIPTION
 AS SHOWN BY THE VICINITY MAP, THE OVERALL SITE IS LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF MENAU BLVD NE AND EDITH BLVD NE. THE DEVELOPMENT WILL MODIFY A PORTION OF THE SITE PREVIOUSLY ADDRESSED BY THE 1989 ADMINISTRATION BUILDING AND EXISTING RETORT DRAINAGE PLAN. THIS PROJECT WILL DEMOLISH A PORTION OF THE EXISTING DECK AND SIDEWALKS BETWEEN THE EXISTING RETORT AND THE ADMINISTRATION BUILDING. THE PROPOSED CONSTRUCTION WILL BE AN ADDITION TO THE EXISTING RETORT PLUS ADDITIONAL PAVED PARKING AND LANDSCAPING. THE DRAINAGE CONCEPT FOR THIS DEVELOPMENT WILL NOT ALTER THE EXISTING DRAINAGE PATTERNS ALREADY ESTABLISHED FOR THIS SITE, AND WILL MAINTAIN FREE DISCHARGE FROM THE SITE IN COMPLIANCE WITH PREVIOUS SUBMITTALS.

THE CURRENT LEGAL DESCRIPTION OF THE SITE IS A PORTION OF TRACT 1, SUNSET MEMORIAL PARK. THE SITE IS CURRENTLY LOCATED IN PANEL 332 OF 825 OF THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAPS PUBLISHED BY FEMA FOR BERNALILLO COUNTY, NEW MEXICO, NOVEMBER 19, 2003, AS SHOWN BY THE FIRM MAP, THE SITE DOES NOT LIE WITHIN A DESIGNATED FLOOD HAZARD ZONE. FURTHERMORE, THE SITE DOES NOT APPEAR TO DRAIN TO A DESIGNATED FLOOD HAZARD ZONE.

II. BACKGROUND DOCUMENTS

THE FOLLOWING BACKGROUND DOCUMENTS WERE REVIEWED IN THE PREPARATION OF THIS SUBMITTAL:

- MASTER DRAINAGE PLAN (MDP) FOR SUNSET MEMORIAL PARK, DATED 4/20/87 (H-15/D16) WITH SUPPLEMENTAL REVISIONS DATED AS RECENTLY AS 12/18/01, PREPARED BY JEFF MORTENSEN & ASSOCIATES, INC. THIS PLAN ALLOWS FOR THE FREE DISCHARGE OF RUNOFF FROM THE OVERALL SITE ONTO EDITH BOULEVARD NE. THE PLANNED DEVELOPMENT FOR A PORTION OF THIS SITE WILL CAUSE A MARGINAL INCREASE IN RUNOFF THAT WILL NOT ADVERSELY AFFECT THE FREE DISCHARGE ALLOWED BY THE MASTER DRAINAGE PLAN.
- GRADING AND DRAINAGE PLAN FOR SUNSET MEMORIAL PARK CEMETERY ADMINISTRATION OFFICES DATED 7/26/89 PREPARED BY JMA INC. THIS PLAN IS FOR THE DEVELOPMENT THAT CURRENTLY EXISTS ON THE PROJECT SITE. THIS PLAN ALLOWS FOR FREE DISCHARGE OF RUNOFF FROM THIS SITE IN COMPLIANCE WITH THE APPROVED MASTER DRAINAGE PLAN MENTIONED ABOVE. THE PROPOSED DEVELOPMENT WILL NOT ALTER THE DRAINAGE PATTERN DETAILED IN THIS PRIOR PLAN.

III. CALCULATIONS

CALCULATIONS ANALYZING THE EXISTING AND DEVELOPED CONDITIONS FOR THE 100-YEAR, 6-HOUR RAINFALL EVENT HAVE BEEN PREPARED FOR THIS PROJECT. THE PROCEDURE FOR 40 ACRE AND SMALLER BASINS, AS SET FORTH IN THE REVISION OF SECTION 22.2, HYDROLOGY, OF THE DEVELOPMENT PROCESS MANUAL, VOLUME 2, DESIGN CRITERIA, DATED JANUARY, 1993, HAS BEEN USED TO QUANTIFY THE PEAK RATE OF DISCHARGE AND VOLUME OF RUNOFF GENERATED. AS SHOWN BY THE RESULTS PRESENTED HEREON, THERE WILL BE A NEGLIGIBLE INCREASE IN PEAK DISCHARGE AND RUNOFF VOLUME ASSOCIATED WITH THE PROPOSED CONSTRUCTION. THIS IS DUE TO THE FACT THAT A SMALL SECTION OF THE EXISTING PERVIOUS AREA WILL BE REPLACED WITH NEW IMPERVIOUS AREA.

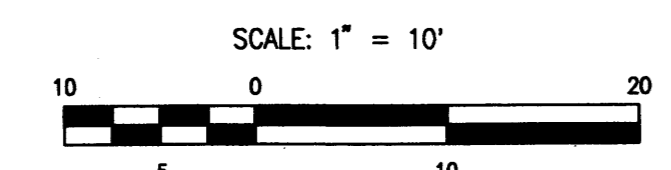
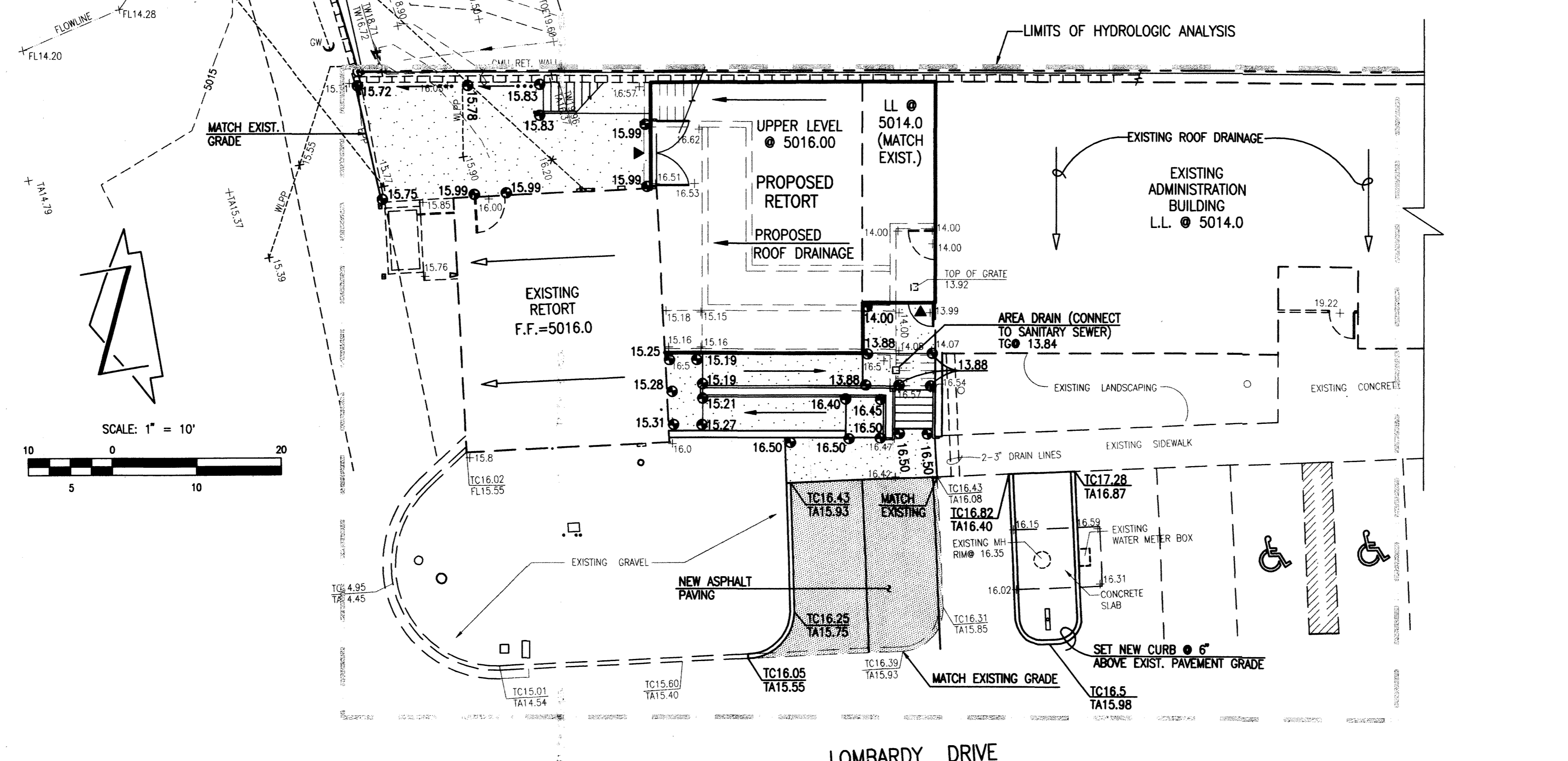
IV. GRADING PLAN

THE GRADING PLAN SHOWS 1.) EXISTING AND PROPOSED GRADES INDICATED BY SPOT ELEVATIONS AND CONTOURS AT 1'-0" INTERVALS, 2.) THE LIMIT AND CHARACTER OF THE EXISTING IMPROVEMENTS, 3.) THE LIMIT AND CHARACTER OF THE PROPOSED IMPROVEMENTS, AND 4.) CONTINUITY BETWEEN EXISTING AND PROPOSED GRADES. AS SHOWN BY THIS PLAN, THE PROPOSED IMPROVEMENTS CONSIST OF THE CONSTRUCTION OF A NEW RETORT ALONG WITH ADJACENT PAVING AND LANDSCAPING.

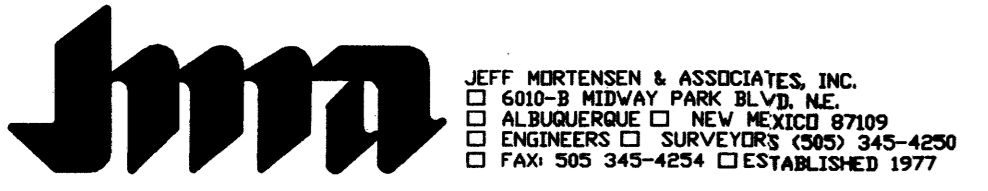
V. CONCLUSIONS

RUNOFF GENERATED BY THE PROPOSED IMPROVEMENTS WILL:

- CONTINUE TO DRAIN VIA THE EXISTING INTERNAL STREETS TO THE SOUTHWEST CORNER OF THE OVERALL SITE INTO EDITH BLVD
- THE INSIGNIFICANT INCREASE WILL NOT DISRUPT THE EXISTING DRAINAGE PATTERN AS DISCUSSED ABOVE AND WILL NOT HAVE AN ADVERSE IMPACT ON DOWNSTREAM CONDITIONS.
- BECAUSE OF THIS, THE FREE DISCHARGE OF RUNOFF FROM THIS SITE IS APPROPRIATE AND IN COMPLIANCE WITH THE APPROVED MASTER DRAINAGE PLAN FOR THIS SITE.
- THIS SUBMITTAL IS FOR MASTER DRAINAGE PLAN UPDATE AND SITE DEVELOPMENT PLAN (ADMINISTRATIVE AMENDMENT) APPROVALS



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 Plot Date: 03-09-2006
 Plot Time: 8:19 pm



**MASTER DRAINAGE PLAN SUPPLEMENT / UPDATE
 RETORT ADDITION
 SUNSET MEMORIAL PARK**

DESIGNED BY	DATE	BY	REVISIONS	JOB NO.
J.G.M.	03/06	J.G.M.	ADD THIS SHEET	2005.019.4
DRAWN BY				DATE
J.M.A.				03-2006
APPROVED BY				SHEET
J.G.M.				7B OF 9

