

TOPOGRAPHIC SURVEY  
LOT 2A AND 2 B  
BROADWAY INDUSTRIAL CENTER  
UNIT 2  
BERNALILLO COUNTY, NEW MEXICO  
JUNE 2013

DRAINAGE CERTIFICATION LOT 2-B

I, JAMES D. HUGHES, NMPE 11674, OF THE FIRM MARK GOODWIN AND ASSOC., HEREBY CERTIFY THAT THE GRADING OF LOT 2-B OF UNIT 2 OF BROADWAY INDUSTRIAL CENTER SUBDIVISION HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 9/14/1999 EXCEPT AS NOTED BELOW. THE RECORD INFORMATION IS THIS TOPOGRAPHIC SURVEY PREPARED 6-20-2013 BY DAVID R. VIGIL, NMPS 8911, OF THE FIRM CONSTRUCTION SURVEY TECHNOLOGIES, INC., AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN COMPLIANCE WITH A REQUEST FROM SHAHAB BAZAR, BUT IS NOT ASSOCIATED WITH ANY PERMIT REQUIREMENT SINCE THERE IS NOT ANY NEW GRADING OR BUILDING PERMITS BEING REQUESTED.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

*James D. Hughes* 7-8-2013  
JAMES D. HUGHES, NMPE 11674 DATE



Notes

1. FIELD SURVEY PERFORMED ON JUNE 2013
2. ALL BEARINGS ARE GRID BEARINGS; BASED ON GPS OBSERVATIONS
3. ALL DISTANCES ARE GRID DISTANCES; U.S. SURVEY FOOT.
4. PLAT REFERENCES:  
VOL 2000C, FOLIO 15
5. ELEVATION DATUM IS BASED ON ACS MONUMENT 7-M14 (NAD 1983 NAVD 1986)
6. LOCATION OF UNDERGROUND UTILITIES AND EASEMENTS NOT VERIFIED BY THIS PLAN. UNDERGROUND UTILITIES MAY EXIST WHERE NONE ARE SHOWN. UNDERGROUND UTILITY LOCATION IS BASED UPON INFORMATION PROVIDED BY OTHERS AND MAY BE INCOMPLETE OR OBSOLETE AT THE TIME OF CONSTRUCTION. THE OWNER SHOULD INFORM HIMSELF OF THE LOCATION OF ANY UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. THE OWNER IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES AND UNDERGROUND UTILITY LINES. THE OWNER IS URGED TO COMPLY WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES. IN PLANNING AND CONDUCTING EXCAVATION, THE OWNER SHOULD MAKE THEMSELVES AWARE OF REGULATIONS STARTED IN CHAPTER 62, ARTICLE 14, NMSA 1978 RELATING TO EXCAVATION DAMAGE TO PIPELINES AND UNDERGROUND UTILITY LINES.
7. THIS MAP HAS BEEN PRODUCED ACCORDING TO PROCEDURES THAT HAVE BEEN DEMONSTRATED TO PRODUCE DATA THAT MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR A TOPOGRAPHIC MAP COMPILED AT A SCALE OF 1"=20' WITH A CONTOUR INTERVAL OF ONE FOOT.

Surveyor's Certificate

I, DAVID R. VIGIL, A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF NEW MEXICO, LICENSE NUMBER 8911, DO HEREBY CERTIFY THAT THIS TOPOGRAPHIC SURVEY WAS PREPARED BY ME BY FIELD SURVEYS USING GLOBAL POSITIONING SYSTEMS MEASUREMENTS BASED ON DIFFERENTIAL LEVELS UTILIZING ACS CONTROL ELEVATIONS BASED ON GPS SOLUTIONS; NGS (NAD 83 NAVD 1986) THIS SURVEY MEETS THE MINIMUM STANDARDS FOR TOPOGRAPHIC SURVEYING IN NEW MEXICO AS ADOPTED BY THE NEW MEXICO BOARD OF LICENSURE FOR PROFESSIONAL ENGINEERS AND SURVEYORS THIS IS NOT A BOUNDARY SURVEY.

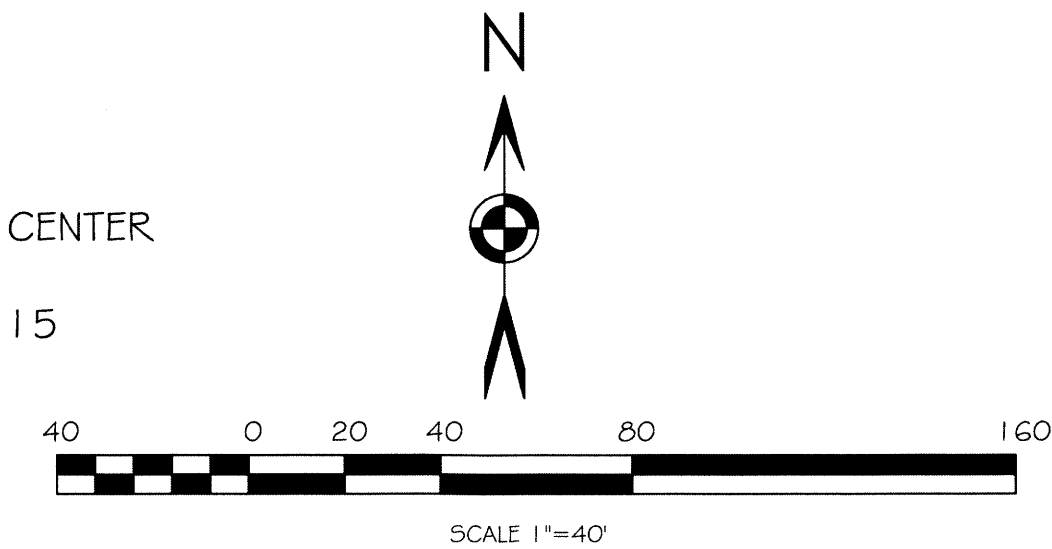
*David R. Vigil* JUNE 20, 2013  
DAVID R. VIGIL DATE  
N.M.P.S. No. 8911



CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	55.00'	119.43'	97.31'	S 70°26'58" E	124°24'58"
C2	55.00'	9.54'	9.53'	S 03°16'25" E	9°56'09"

1. EXISTING ACCESS EASEMENT VOL 97C FOLIO 97
2. 10' PRIVATE DRAINAGE EASEMENT VOL 2000C, FOLIO 15
3. 10' P.U.E. VOL 98C, FOLIO 280
4. 10' PUE VOL 2000C, FOLIO 15
5. 40' PRIVATE ACCESS AND WATER AND SANITARY EASEMENT VOL 200C, FOLIO 15

NOTE A: ACS CONTROL STATION "7-M14"  
N 1471713.601  
E 1521396.623  
Z 4945.90  
NAD 1983 NAVD 1986



DRAINAGE CERTIFICATION LOT 2-A

I, JAMES D. HUGHES, NMPE 11674, OF THE FIRM MARK GOODWIN AND ASSOC., HEREBY CERTIFY THAT THE POND ON LOT 2A OF UNIT 2 OF BROADWAY INDUSTRIAL CENTER SUBDIVISION HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 9/14/1999 EXCEPT AS NOTED BELOW. THE RECORD INFORMATION IS THIS TOPOGRAPHIC SURVEY PREPARED 6-20-2013 BY DAVID R. VIGIL, NMPS 8911, OF THE FIRM CONSTRUCTION SURVEY TECHNOLOGIES, INC., AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN COMPLIANCE WITH A REQUEST FROM SHAHAB BAZAR, BUT IS NOT ASSOCIATED WITH ANY PERMIT REQUIREMENT SINCE THERE IS NOT ANY NEW GRADING OR BUILDING PERMITS BEING REQUESTED.

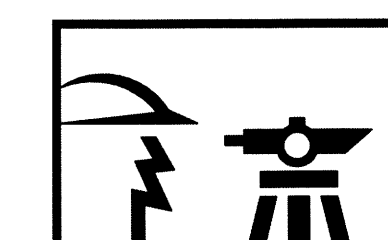
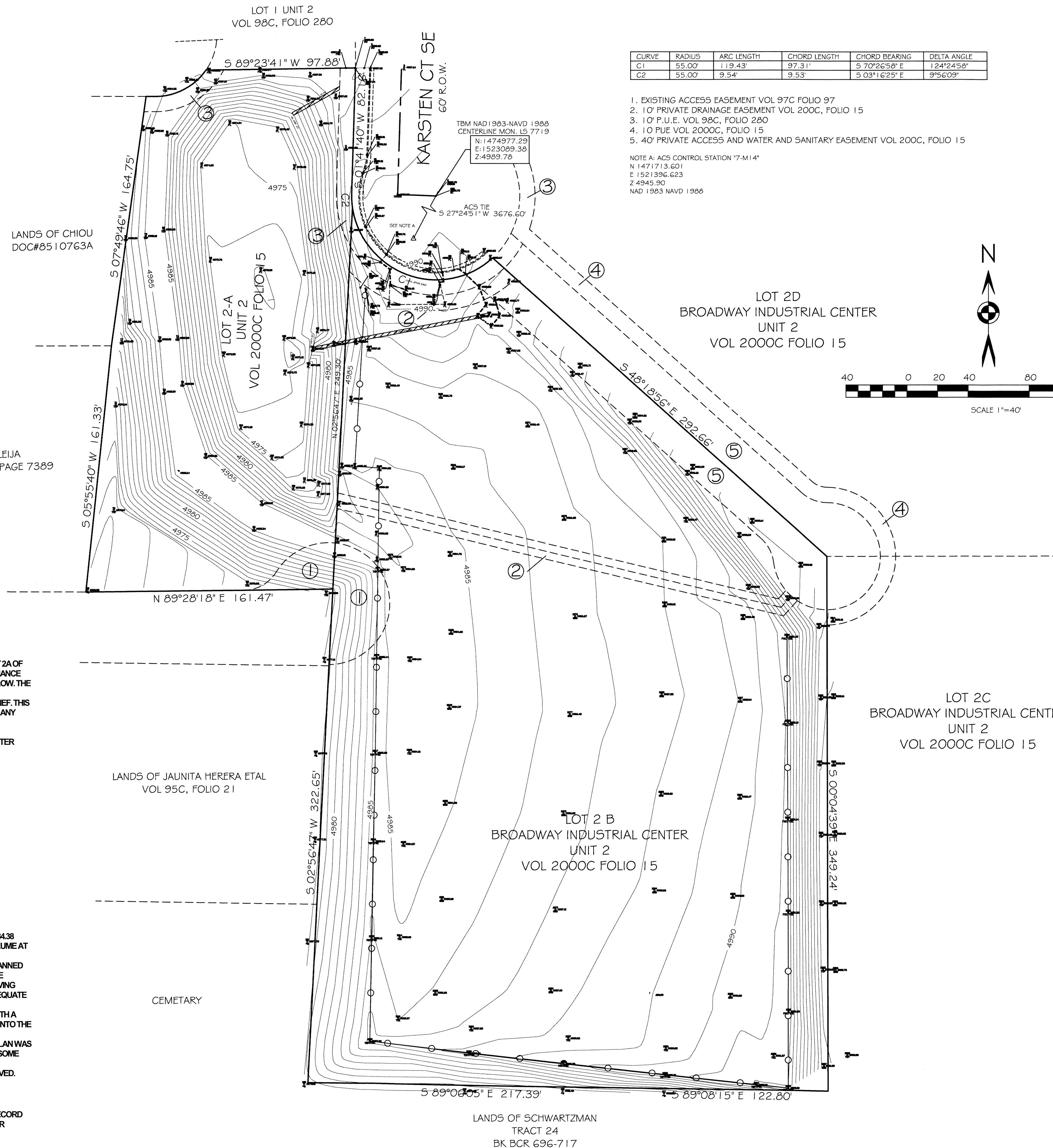
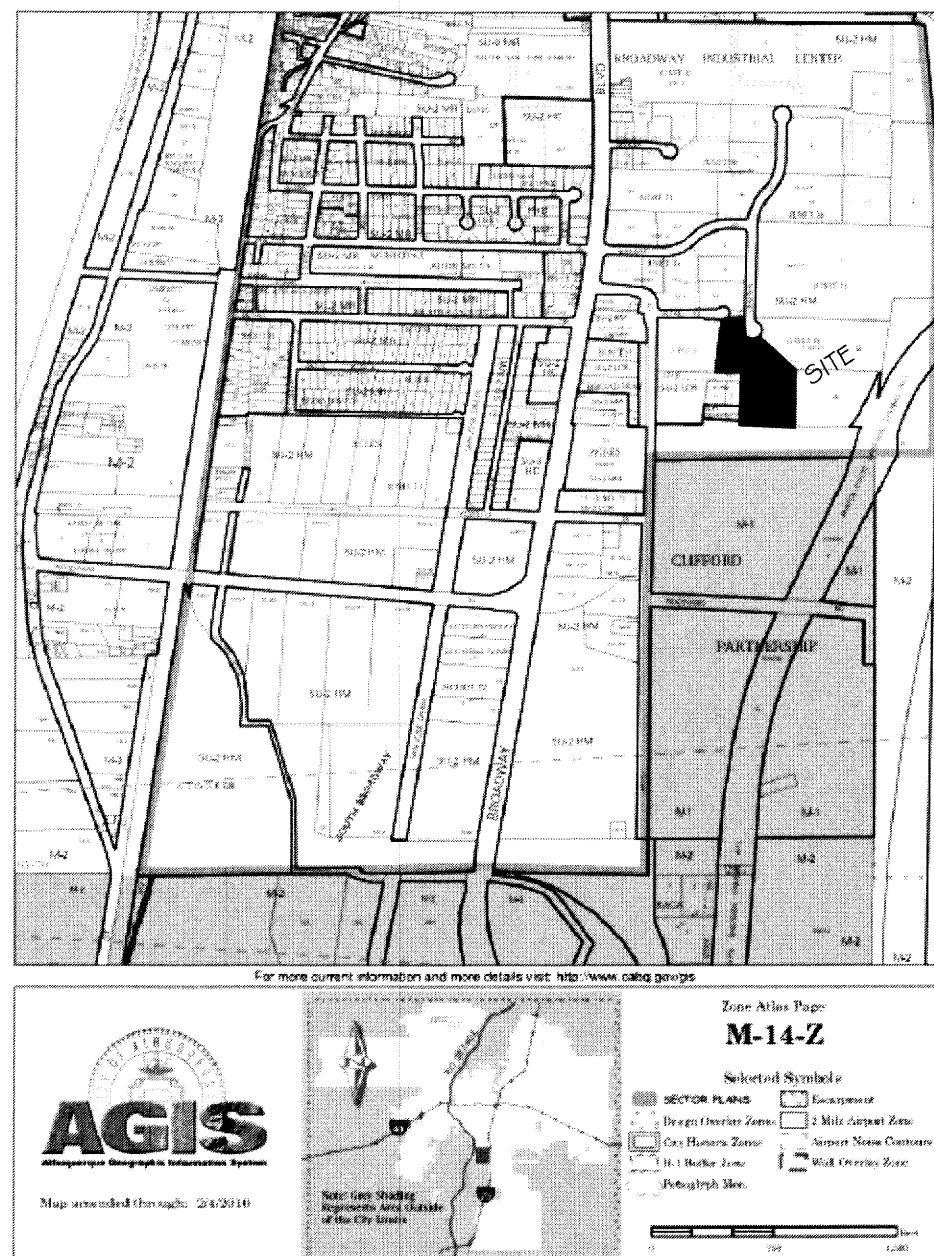
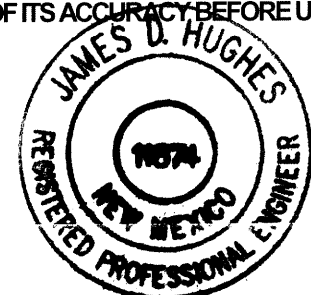
ACCORDING TO THE UNIT 3 REVISION TO THE GRADING & DRAINAGE MASTER PLAN FOR BROADWAY INDUSTRIAL CENTER SUBDIVISION DATED 1/26/99, THE DRAINAGE INTO THE POND ON LOT 2-A INCLUDES:

Description	Area Impervious (AC)	100-YR, 10-Day Volume (AC FT)
ROW for Karsten CT.	0.82	0.2155
Basin 109	3.37	0.3699
Basin 110	1.98	0.2173
Lot 2 Unit 2	13.02	3.4223
Total	19.19	4.225

1. USING THE TOPOGRAPHIC SURVEY, THE REQUIRED VOLUME OF 4.225 AC FT FILLS THE POND TO ELEVATION 4884.38 WHICH IS ABOUT 0.8' BELOW THE TOP OF DAM AND THE EMERGENCY OVERFLOW SPILLWAY. THE ASBUILT VOLUME AT ELEVATION 4885.0 IS 4.81 AC FT. THE POND STORAGE VOLUME IS ADEQUATE.
2. AFTER ADDING 2.7' TO THE 9/14/99 PLANNED ELEVATIONS TO CONVERT FROM NGVD 1929 TO NAVD 1988 THE PLANNED TOP OF DAM ELEVATION 4885.7 IS HIGHER THAN THE LOWEST SURVEYED TOP OF DAM ELEVATION, 4885.1. MORE IMPORTANTLY, THE LOWEST SURVEYED ELEVATION IN THE EMERGENCY OVERFLOW SPILLWAY IS 4884.96 LEAVING ONLY 0.14' BETWEEN THE SPILLWAY ELEVATION AND THE TOP OF DAM ELEVATION, THUS INDICATING AN INADEQUATE EMERGENCY OVERFLOW SPILLWAY. A NEW SPILLWAY PLAN NEEDS TO BE DEVELOPED AND CONSTRUCTED.
3. OTHER SUBSEQUENT DEVELOPMENTS, SPECIFICALLY BUILDING PERMITS FOR LOT 2C AND LOT 2D TOGETHER WITH A NEW STORM PIPE CONNECTED TO A PUBLIC INLET IN KARSTEN CT, CONVEY THE MAJORITY OF THE DRAINAGE INTO THE POND IN PIPES CONSTRUCTED BY THOSE SEPARATE DEVELOPMENTS. SCOUR HOLES AT BOTH OF THE PIPES THREATEN TO UNDERMINE THE ENDS OF THE PIPES. THE CONCRETE RUNDOWN SHOWN ON THE APPROVED PLAN WAS INSTEAD CONSTRUCTED AS A RIP-RAP RUNDOWN AND IS ALSO DAMAGED BY SCOUR. DUMPED RIP-RAP WITH SOME HAND PLACEMENT MAY BE A GOOD REMEDY TO ALL OF THESE SCOUR PROBLEMS.
4. TREES ARE GROWING IN THE DAM. THEY HAVE NOT CAUSED ANY DAMAGE YET BUT THEY SHOULD BE REMOVED.

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*James D. Hughes* 7-8-2013  
JAMES D. HUGHES, NMPE 11674 DATE



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