

A REPORT  
OF THE SANDIA PUEBLO EAST BOUNDARY  
ON SANDIA MOUNTAIN

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## INTRODUCTION

While most historians, along with the people of the Pueblo of Sandia and their attorneys, agree that the Pueblo has a legitimate grant document issued by and recognized by the United States, they have disagreed about how it was translated, interpreted, and surveyed. The most obvious manifestation of the problem is the omission of the lands from the lower ridge line to the top of the main ridge of Sandia Mountain. The root of the problem lies in the failure of Government surveyors to follow the descriptions contained in the original grant document.

The purpose of this report is to review and address past surveys of the Pueblo grant boundaries, focusing on the east boundary. Specifically, the report considers these two questions: what did the Deputy Surveyor survey, and is the east boundary survey a result of private oral instruction given to the surveyor and not preserved in the documents? Since those who believe that the boundary should have been along "the Main Ridge of Sandia Mountain," the problem is to decide, if possible, where those translations, interpretations, instructions, and surveys went astray and for what apparent reasons.

Study of documents on the east boundary of Sandia Mountain provides definite answers as to the location of the true east boundary. Documents on file with the Surveyor General, whether or not they were altered, all support Sandia Pueblo's claim, insisting that the east boundary is "the Sierra Madre called Sandia," or "the Main Ridge called Sandia."

## HISTORICAL BACKGROUND

William Pelham became the first Surveyor General of New Mexico in 1854 to establish the United States Public Survey System and to hear grant claims arising out of the Treaty of Guadalupe-Hidalgo.<sup>1</sup> Pelham was instructed by the Commissioner of the General Land Office, John Wilson, on August 31, 1854, to investigate Pueblo land rights in the following fashion:

It will be your business to collect data from the records and other authentic sources relative to these Pueblos, so that you will enable Congress to understand the matter fully and to legislate in such a manner as will do justice to all concerned . . . it is obligatory on the Government to deal with the private land titles, and the 'Pueblos' precisely as Mexico would have done if sovereignty had not changed.<sup>2</sup>

The Indian agent for New Mexico for the Pueblos, A.G. Mayers, wrote to Pelham, in his letter of May 8, 1856, informing him of the frequent requests by Pueblos for boundary surveys and the consequences of the land remaining unsurveyed: "The Mexican people have on many instances set up claims to lands clearly within their limits, in some instances almost in the center of Pueblos." He further stated that, if these "different Pueblos were surveyed, the Indians would know their rights while the agent could protect them against encroachment from others."<sup>3</sup>

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<sup>1</sup> Ralph Emerson Twitchell, The Spanish Archives of New Mexico, (Cedar Rapids, The Torch Press, 1914), I, 476.

<sup>2</sup> Instructions to the Surveyor General of New Mexico, August 31, 1854, Senate Mis. Doc. No. 12, 42d Congress, 1st Session, pp. 1-7. Letter from Commissioner John Wilson, General Land Office, to William Pelham, United States Surveyor General for New Mexico.

On July 9, 1856, Mayers again wrote to Pelham regarding the survey of Pueblos "who had placed their titles to the land in your office through this agency," and reminded him of the continuous complaints of encroachments and his difficulties in obtaining title documents. He stated, "I am satisfied that many of the Pueblo lands are held and occupied by Mexicans which clearly belong to the Pueblo Indians, in many instances Indians are deprived of their best lands by Mexican citizens. I see no prospect of the Indians receiving justice until their lands are surveyed and their boundaries marked."<sup>4</sup>

Sandia's grant documents did arrive in Santa Fe to Surveyor General Pelham for approval in the fall of 1856. The Surveyor General's official file contains three documents. One is the Pueblo's retained, certified copy of the 1748 grant documents. The second document is translator David V. Whiting's handwritten draft of a translation, not of the certified grant documents, but of a different, somewhat altered grant document. The third document is the original order by Governor Tomas Velez Cachupin in 1762, relieving the Sandias from outside labor until the construction of their pueblo was completed. Whiting's transcriptions and translations were sent to Washington and were printed in the Congressional document upon which the Sandia Pueblo Grant was confirmed on December 22, 1858.<sup>5</sup> On April 23, 1859, Thomas A. Hendricks, Land Commissioner, wrote to Pelham regarding confirmation of Pueblo grants and appropriation of funds for survey of the confirmed Pueblo grants and authorization to make contracts with "the most scientific and efficient surveyor."

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<sup>3</sup> Mayers to Pelham, May 3, 1856, NA, RG 49, GLO, Div. E.

<sup>4</sup> Mayers to Pelham, July 9, 1856, NA, RG 49, GLO, Div. E.

<sup>5</sup> George Minot and George P. Sanger, eds., The Statutes at Large and Treaties of the United States of America, (Boston: Little, Brown and Company, 1859), X, 374.

Let your instructions, founded upon the original title as confirmed, and the date of fixing the locality of the confirmed claims, be drawn with such particularity and care that each survey shall embrace the precise tract included in the confirmation . . . .

In the case of the survey of each of such confirmed claims, you must transmit to this office a particular approved plat of survey as the basis of a patent: that plat should be accompanied by the field notes giving the length of the boundary lines, courses and distances showing such a complete and perfect description of the tract, its area, township and range in which situated and date of confirmation—so that it may be embraced in the patent.<sup>6</sup>

Congress finally appropriated funds for surveying services on March 3, 1859, and Hendricks communicated this fact to Pelham. On June 10, 1859, Pelham wrote to James Collins, Superintendent of Indian Affairs, that his office had entered into a contract with John W. Garretson for the survey of the Pueblo grants confirmed by Congress. Pelham stated,

It is believed by this office to be a matter of great importance that an agent of your department shall accompany the deputy surveyor in order to explain to the Indians the object of the survey as well as to protect their rights while the boundaries are being run and established. I therefore request that one man may be detailed by you for that purpose.<sup>7</sup>

Acting on Pelham's request, Collins, the Superintendent of Indian Affairs, wrote to Don Diego Archuleta, the Indian agent, on June 11, 1859, asking him to meet with Deputy Surveyor Garretson and

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<sup>6</sup> Hendricks to Pelham, April 23, 1859, NA, RG 49, GLO, Div. E., I, pp. 217-221.

<sup>7</sup> Pelham to Collins, June 10, 1859, NA, RG 49, GLO, Div. E, I, p. 192.



. . . to be present with the surveying party to settle, explain, and adjust all questions of difficulties that may arise with the Indians . . .

The Indians in most cases understand the object of these surveys, but where they do not, it will be your duty to explain to them fully the intention of the Government and that as soon as the surveys are made and the plats forwarded to Washington, a patent will be issued from the General Land Office, signed by the President of the United States, and by virtue of this patent the Indians will be able to have removed, all persons found illegally occupying any portion of the land covered by the respective grants.<sup>8</sup>

Archuleta was to cooperate with Garretson in placing permanent stone monuments at all corners and points along the lines. He was further instructed to advise illegal occupants of Indian lands, "the intention of the Government to have all such persons rewarded as soon as the patents are issued,"<sup>9</sup> and to make periodical progress reports on the survey. Pelham's intent in having an Indian agent accompany the surveyor in the field in order to explain the object of the surveys and to protect the rights of the Indians was laudable but was, unfortunately in the case of Sandia, not carried out. No Indian agent accompanied the surveyor while the boundaries were being run and established. This may be one reason for the erroneous survey.

#### Pelham's Instructions to Garretson.

In a letter on June 13, 1859, Pelham sent Garretson copies of a memorandum book containing the boundaries to be surveyed, translations of relevant Mexican ordinances, and a notation that the Spanish vara was to be considered equivalent to 33

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<sup>8</sup> Collins to Archuleta, June 11, 1859, NA, RG 49, GLO., Div. E., I, p. 228.

<sup>9</sup> Ibid., p. 229.

American inches. Garretson was further instructed that the boundaries contained in the books were taken from "original grant files" and that they "are to be surveyed in such a manner as to embrace in each survey the precise tract included in the confirmation."<sup>10</sup> In surveying those Pueblo grants that called for one league from the corner of the church, he was to run his line from the corner of the church and then add the length of the church so as not to deprive the village of the additional land. He was also to connect his survey to the nearest public survey. He was instructed that his field notes were to be complete, giving length, courses and distances of the boundaries, and to note "any objects of interest, including any overlaps with other grants."<sup>11</sup> Any overlaps of grants were to be reported with pertinent effects and to await further instructions before such surveys were to be continued. "Whenever natural objects mentioned in the grant as boundaries could not be pointed out to your entire satisfaction or should there be any doubt in identifying the particular locality . . . ,"<sup>12</sup> Garretson was instructed to report the fact to the Surveyor General and to await further instructions before proceeding further. In a letter on July 9 to the Commissioner of the General Land Office, Pelham asked if one of his clerks could be detailed to take testimony on the ground during the survey.<sup>13</sup> Acting Commissioner Joseph S. Wilson replied firmly on September 16 that it was the duty of the Deputy Surveyor himself to have claimants point out boundary calls on the ground,

Thus fortified, in repairing to the field, it is their  
business, when on the spot, to call upon the claimants to

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<sup>10</sup> Pelham to Garretson, June 13, 1859, NA, RG 49, GLO Div. E., I, pp. 193-195.

<sup>11</sup> Ibid., p. 193.

<sup>12</sup> Ibid., p. 194.

<sup>13</sup> Pelham to Wilson, July 9, 1859, NA, RG 49, GLO Div. E., I, pp. 302-304.

point out and establish by satisfactory showing the calls, which they claim of their confirmed grant and to see that the official data and such evidence agree, and unmistakably fix the true boundaries of the title as confirmed.<sup>14</sup>

Unfortunately, this was not part of the instructions which had been given to Garretson by Pelham.

By late August, Garretson had completed surveys of fourteen Pueblos and plats and notes were approved by Pelham and forwarded to the Commissioner of the General Land Office. However, Commissioner Wilson was very critical of the returns and notified Pelham of this on September 26th.

Many irregularities have been discovered in the returns and to correct, which it is deemed necessary to send the papers back to you so soon as the requisite samples are prepared; in the meantime you are informed that there is no necessity whatever for the meandering of streams passing through the Pueblos and no payment can be made for any charges made by the Surveyor for that kind of work.<sup>15</sup>

In the meantime, Garretson on September 20 had asked to be allowed to relinquish the surveys for the communities of Santo Domingo, San Felipe, Sandia, and the Town of Chilili, stating,

as it now appears evident that I shall not be able to finish my contract (entered into June 10, 1859) before winter sets in.<sup>16</sup>

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<sup>14</sup> Wilson to Pelham, September 16, 1859, NA, RG 49, GLO, Div. E, LS to Surveyor General, New Mexico, p. 153; also in SG, LR, SRCA, vol. 1, p. 259.

<sup>15</sup> Wilson to Pelham, September 16, 1859, NA, RG 49, GLO, Div. E., LS, p. 165; SG, LR, SRCA, vol. 1, p. 259.

<sup>16</sup> Garretson to Pelham, September 20, 1859, SG, LR, vol. 1, p. 258, and Pelham to Hendricks, October 15, 1859, SG, LS, vol. 1, pp. 219-220, SRCA.

The very next day, without consulting or informing the General Land Office of Garretson's action, Pelham issued Contract #20 to Ruben E. Clements to complete the remaining surveys.<sup>17</sup> No correspondence or instructions to Clements have been found in the records of the Commissioner of the General Land Office or of the Surveyor General though a search has been made for them at various times from the 1920's to the present. However, internal evidence suggests that Clements received some type of instructions under which he was to proceed in the survey. Clements' field notes contain the final oaths of the Deputy Surveyor and his assistants. A portion of the oath of the Deputy Surveyor states, "... in strict conformity to the lands of the United States and instructions of said Surveyor General ..." and further under the oath of assistants, "... the boundary monuments planted according to the instructions furnished by the Surveyor General."<sup>18</sup>

Garretson's instructions called for him to tie his lines to the nearest public survey. Clearly Clements was aware of this requirement, for his field notes state

... from the fourth mile corner on the north boundary I run a connecting line N. 61-1/2 degrees E. 22 chs to the one-half mile corner on the third correction line on the north boundary of Section 5, Township 12 North, Range 4 East.<sup>19</sup>

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17 NA, RG 49, GLO, Div. E. Contracts and Bonds Files, New Mexico.

18 R.E. Clement, Field Notes, November 8, 1859, Surveying and Relating Records, National Archives, pp. 635-647.

19 Ibid., p. 644.

Evidence from Clements' field notes also indicates that he was utilizing the erroneous Whiting translation of the 1748 Grant. Compare from Whiting's translation,

. . . on the North an old tower opposite the point of a canon commonly called 'De la Agua' and on the South the Maygua hill opposite the spring of the Carrisito.<sup>20</sup>

With Clements field notes,

. . . in a canon commonly called de la agua in the canon near the Carrisito springs.<sup>21</sup>

#### Discussion.

It is clear that even before the actual field survey of Sandia had commenced that there were a number of irregularities and factors that would have a tremendous impact on how the boundary lines were to be determined.

First, although Sandia was the only Pueblo with fully legitimate written grant documents, for obscure reasons, the actual grant document, though it was in the files of the Surveyor General, was not utilized. Instead of the translation of the legitimate grant document, a translation of an erroneous document formed the basis for the instructions originally given to Garretson, although in fact this makes no difference to the statement of the east boundary but rather to the north and south boundaries. "It is obligatory upon the Government to deal with the private land titles and the 'Pueblos' precisely as Mexico would have had the sovereignty not been changed." Clearly this was not done in Sandia's case. Pelham was clearly instructed to utilize the original grant documents and, instead,

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20 David V. Whiting, Translation of Sandia's 1748 Grant, October 28, 1856, NA, RG 49, Div. D.

21 Clements, p. 643.

an erroneous document was used as the basis for the translation, whose source is somewhat mysterious.

Next, Pelham had made arrangements for an Indian agent to accompany the surveyor to explain the purpose of the survey and for the claimants to the land to point out boundaries, monuments, and markers of the grant in the field. Neither of these occurred with respect to the Sandia Pueblo survey. *we do not know?*

Next is the extremely rapid replacement of Garretson as the surveyor by Clements without notification to the General Land Office until almost a month later.

Finally, there is the total lack of documentary evidence as to the instructions that were given to Clements, in completing the survey, though there is clearly internal evidence that Clements did have some instructions, though the exact nature of these cannot be ascertained. It is clear that Clements did not follow the written instructions of the Surveyor General for beginning at the church, and perhaps this is an indication that he did not have the instructions Garretson originally received.

## THE SANDIA PUEBLO GRANT AND BOUNDARY SURVEYS

### The 1748 Sandia Grant.

As indicated earlier, the Surveyor General was in possession of the true and certified copy of the Sandia Pueblo Grant, based on the written documents in the April 5th Codalloa y Rabal Order. The version of the remaining grant documents, specifically the Act of Possession sent to Washington and translated by Whiting, differs from the original copy in the Surveyor General's files and the duplicate Pueblo copy, although the remaining documents translated by Whiting are quite similar to the original. The original 1748 grant documents and the version translated by Whiting and sent to Washington differ primarily in the boundary calls. The original certified copy of the 1748 grant states

The leagues conceded for a formal pueblo were measured and the cordels extended to the west wind as far as the Rio del Norte, having no more than 2 cordels of 120 Castillian varas each one, which consisted of 1,440 varas, and in order to complete those which were lacking in this direction it was necessary to increase the leagues which pertain to the north and south winds equally so that the Spanish settler grantees would not be injured, some more than others. The land which is encompassed in these three winds /directions/ is all for raising wheat with the conveniences of water for the purpose of the land. And in order to perpetuate the memories and the designations I ordered them to place monument markers, mounds of mud and stone of the height of a man, with wooden crosses on top, these being to the north, facing the point of the canada which is commonly called "del Agua," on the south facing the mouth of the Canada de Juan Tabo, and on the east the sierra madre called Sandia, within which limits are the conveniences of pastures, woods, waters and watering places . . .<sup>22</sup>

In contrast, the Whiting translation markedly alters the boundary calls from the original.

. . . the leagues granted to a formal pueblo were measured, and the lines being drawn toward the West to the Del Norte river, which is the boundary, there were only two lines of fifty and twenty Castillian varas each, amounting in all to two hundred and forty varas; and in order to complete what was lacking on the western side, I thought it necessary to add to or increase the leagues towards the north and south equally, in order that the adjoining Spanish grantees should not be damaged—said two boundaries amounting to seven thousand three hundred and eighty Castillian varas, the league towards the West being four thousand six hundred and sixty varas less; the land within the said two boundaries all adapted to the raising of wheat, and the water being convenient to the surface of the ground. And in order to perpetuate their boundaries, I directed them to establish landmarks, or mounds of mud and stones of the height of a man, with wooden crosses on their summits, the boundaries being on the north an old tower opposite the point of a canon commonly called "de Agua," and on the south the Maygua hill opposite the spring of the Carrisito, and on the east the main ridge called Sandia . . . ." <sup>23</sup>

Clearly, the boundary calls on the north, west, and south are substantially different from the calls in the original certified copies of the grant document. However, it is significant that the east boundary, the Sandia mountain range, is consistent in all of the documents. The original grant and certified copy state "the sierra madre called Sandia." The Whiting translation reads "the main ridge called Sandia."

The majority of the Pueblos did not have written grants to present for clarification of land claims. Some villages presented the so-called Cruzate grants, which it was later determined were fraudulent grants. Sandia did not submit the Cruzate,

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22 NA, RG 49, GLO, Div. D.

23 NA, RG 49, GLO, Div. D, House of Representatives, Ex. Doc. 36, 34th Congress, 3d Session, pp. 15-16.



though in fact the Pueblo still has a Cruzate grant in its possession. Even the Cruzate grant, referring to the east boundary, states, ". . . to the east, the mountain there (sesa)." <sup>24</sup> The discrepancies in the translation by Whiting which form the basis for the documentation given initially to Garretson and, presumably, to Clements since some of the landmarks are mentioned in his field notes, such as spring of Carrisito, have no practical effect upon the east boundary. They all clearly state that the east boundary is the mountain.

The neighboring Elena Gallegos grant, based on even more fragmentary information, suggests that the language used in the Sandia grant referring to the main ridge of the mountain was not at all unusual. The original grant was bestowed in 1694 and then reissued in 1712. The Elena Gallegos grant is immediately to the south of the Sandia Pueblo grant. The translation of the documents of the 1712 materials reads "on the east the Sandia mountain," <sup>25</sup> and then proceeds to make the other boundary calls. The east boundary as stated in the Spanish documents for both grants reads the same "Sierra Madre de Sandia." The Elena Gallegos claim was brought before the Court of Private Claims in November 1893. In this case the claimants contended that the eastern boundary of the grant ran along the summit of the Sandia mountain range while the United States Attorney insisted that the boundary ran along the foot of the mountain. After a careful review of Spanish terminology, the Court concluded in its opinion,

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<sup>24</sup> Ward Alan Minge, "The Pueblo of Sandia Grant Boundary Issues and Encroachments," June 1983, Vol. 1, p. 115.

<sup>25</sup> Clarence Key, "Translation of Elena Gallegos Grant, Claim 51, January 3, 1890," NA, LM 45.

The boundary usually ran through the middle of a natural object named, except in the case of a range of mountains, when it goes to the comb or dividing line of the ridge.<sup>26</sup>

As a result of this decision, the boundaries of the Elena Gallegos grant were confirmed at the main ridge or crest of the Sandia Mountains.

*oral testimony*

The Clements Survey of the Sandia Pueblo Grant.

Ruben E. Clements began the field survey of the Sandia Pueblo Grant on November 8, 1859, and completed it four days later on November 12, 1859. Although we are somewhat unclear about the nature of the instructions that he had received from Pelham, it is clear from his field notes that he did in fact have at least the Whiting translation of the 1748 grant. What is less clear, however, is whether he had the remaining instructions from Pelham. He begins his survey, "Commencing at a rock about fifty feet in height, and marked with a large cross near the top, in a canon commonly called de la Agua, it being the northeast corner of the grant."<sup>27</sup> Pelham's instructions clearly stated that the surveys were to begin from the corner of the church, measuring to the north one league, then to the south one league, and then adding to the two leagues the length of the church. In the case of the Sandia grant in the Act of Possession, Governor General Bustamante had specified that the equivalent of a league for the three directions be given. However, since the west boundary was the Rio Grande river which was less than a league from the ruins of the Pueblo church, Bustamante specified that

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<sup>26</sup> Final Decree, U.S. Court of Private Land Claims, Donaciano Gurule, et al. v. U.S., No. 51, December 1, 1893, Santa Fe, New Mexico, NA, LM 45.

<sup>27</sup> Clements, p. 639.

the difference was to be compensated for by extending the north and south leagues equally. The Spanish league under the measurement of 33 inches to the vara which Pelham had specified would be essentially 2.67 miles. Clements' plat and his field notes show neither Sandia village nor the ruins of the church, which should have been his starting point, according to the instructions Pelham had given for the surveys. Instead, Clements begins in the northeast corner. While the original boundaries should have been calculated with a cardinal line running from the ruins of the church, Clements begins with an apparently already-established northeast corner, although it is unclear how this corner could have been established. Further, the rock he notes in this corner is already marked. The field notes do not indicate if Clements himself incised the cross into the rock. The vertical part of the cross had an arrow at the top. In addition, later measurements of this rock indicate that, rather than being essentially fifty feet in height as stated in both Clements' and Harrington's field notes, it is in fact closer to twenty-five feet.

#### The Harrington Resurvey of the Sandia Grant.

In January of 1915 Earl J. Harrington was commissioned to resurvey the north boundary of the Sandia Pueblo grant and a portion of the lines in Township 12 North, Range 4 East, within the Sandia Pueblo grant.<sup>28</sup> By comparing the Harrington field notes with the Clements field notes and those of later surveys, we can begin to estimate the competence of Clements work. From the northeast corner, Clements surveyed to the

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Earl G. Harrington, "Field Notes and Survey, January 22, 1915," NA, GR 75, Entry 313, Vol. 271.

west. In contrasting Clements' fields notes with Harrington's field notes, we find that the first and second mile markers do not match. In addition, there are no marks on these mile markers and the sizes of stones for the one mile corner do not match. In our investigation we found that the first one mile marker was in fact marked "1M." Thus, there is a discrepancy between the Clements and the Harrington field notes that persists even today. This can be clearly seen in the quotes below:

Clements' field notes:

80.00      Thence North  $57^{\circ}$  W.  
Set a stone 24x18x8 with stone mound for 1 mile corner.

Harrington's field notes:

79.70      Fall 2 lks. to the left of the 1 mile corner.  
Returning to the true point for the NE. corner.  
Thence I run  
N.  $56^{\circ}59'$  W. on a true line on the 1st mile.  
The 1 mile corner, which is a granite stone, 16x8x8 inches, set in a scattered mound of stone. Nothing marked.<sup>29</sup>

Clements' field notes:

160.00      Set a stone 28x16x5 with stone mound for 2 mile corner.<sup>30</sup>

Harrington's field notes:

80.06      Fall 4 lks. to the left of the 2 mile corner.  
The 2 mile corner which is a scattered mound of stone. Nothing marked.

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29      Harrington, NA, GR 135, pp. 125-129.

30      Clements, p. 639.

In the middle of scattered mound, set an iron post  
3" diameter for the 2 mile corner, with brass cap  
stamped.<sup>31</sup>

In a further discrepancy, note that Harrington's field notes state a fall of 2 links to the left of the one mile corner, that is, a discrepancy of 13.2 feet. By the second mile, this discrepancy between the Clements line and the Harrington line has increased to four links, or 26.4 feet. Such discrepancies continue throughout if the field notes of the two surveyors are compared. The Clements survey continued west until it intersected the river, then meandered along the river "to the corner on the bank of the Rio Grande at the mouth of a large acequia, where it crosses the road and the road crosses the Rio Grande."<sup>32</sup>

For the southern boundary of the grant, Clements goes "to an established corner of grant on top of hill." It is clear from the field notes that Clements must have known the position of this hill and that it was considered an established corner, though it is not clear at all from the notes where he gained this information. He then goes southeast to the southeast corner of the grant, "to a rock 100 feet height marked with a large cross,"<sup>33</sup> also with the arrow on top of it, as shown in a drawing in his field notes the southeast corner of the grant. "This rock stands in the canon near the Carrisito spring in the mountains of Sandia."<sup>34</sup> It is clear from this description in Clements' notes

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31 Harrington, pp. 125-129.

32 Clements, p. 641.

33 Ibid., p. 643.

34 Ibid., p. 643.

that he had access to the faulty Whiting translation. Harrington's notes indicate that he was unable to find a stone answering the description of that listed by Clements in his field notes. He did, in fact, find the large surface rock about 30 x 15 x 15 marked with a cross (+) about 12 inches long on the west face.<sup>35</sup> He states, "this rock stands on a low ridge which forms a canyon to the east. Bottom of canyon about 3.00 chains distance, and there is a small spring of water in this canyon."<sup>36</sup> Harrington accepted this rock as the southeast corner of the grant, although it did not meet the description found in the Clements field notes. In addition, at this point in the notes there is a fall of 62 links to the left of the southeast corner as measured by Harrington. From this rock, marking the southeast corner, Clements states "Meanders of the Sandia mountains being the east boundary of the Sandia grant, from southeast corner of grant."<sup>37</sup> From this statement it appears clear that Clements understood that the Sandia mountains were the east boundary of the grant. In fact, all of the grant documents, including the altered grant documents translated by Whiting, agree that the mountains are the east boundary line. Inexplicably, Clements meanders the lower ridge rather than the summit of the Sandia mountains, contradictory to the Whiting translation which clearly states that the boundary was "on the east the main ridge called Sandia." Harrington's resurvey indicates that in the meanders of the east boundary, Clements has an error of closure of "N. 82° E., 30.35 chains," or 2,003.10 feet.<sup>38</sup> The comparison between the Clements survey and

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35 Harrington, GR 135, pp. 97-99.

36 Ibid.

37 Clements, p. 643.

the Harrington resurvey show a large margin of error and misplaced and inadequate monumentation in the Clements survey.

The Forest Service commissioned John D. Childers, Land Surveyor for the Cibola National Forest, to prepare a report on the east boundary of the Pueblo of Sandia. This report focused on a field examination and mathematical and technical evaluations of both the 1859 and the 1914 surveys by Clements and Harrington on the east boundary of Sandia. The Childers report states that the major discrepancies are:

1. A difference in size of the boulders (100 feet high in the 1859 and 30 feet high in the 1914),
2. Misclosure of over 30 chains when Harrington retraced the original survey, and
3. Difference of 7.97 chains along the south boundary of the grant.

In addition, this report states "the intent of the 1748 grant controls the limit and extent of the Indian ownership, regardless of the physical limitations imposed by the General Land Office surveys of 1859 and 1914."<sup>39</sup> Therefore, in the Forest Service's own view, there is considerable question about the location of the southeast corner, and hence the south boundary line, as well as the position of the east boundary.

#### The Sketch of Public Surveys

The Sketch of Public Surveys in New Mexico is a compilation of maps from survey plats submitted to the General Land Office by various deputy surveyors under

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<sup>38</sup> Harrington, pp. 113-117.

<sup>39</sup> John P. Childers, "East Boundary of the Pueblo of Sandia, December 27, 1984," Cibola NF, Albuquerque, NM, pp. 4-6.

contract with the department.<sup>40</sup> The Sketch of Public Survey maps in New Mexico from 1859 and 1860 shows Sandia's grant outline to the top of the mountain, thus indicating the acceptance of the location of the boundaries by the Commissioners. (See map, page 21.) On January 12, 1860, Clements signed the affidavit and his field notes, notarized by David V. Whiting. Pelham, also notarized by Whiting, appended his approval to the footnotes which stated:

The foregoing field notes of the survey of the Indian Pueblo of Sandia, being in Township 11. 12. 13. North of the Baseline and Ranges 3 and 4 East of the Principal Meridian in New Mexico, executed by R.E. Clements, under his contract bearing date 20th of September 1859, in the month of November 1859, having been critically examined, the necessary corrections and explanations made, the said field notes and the survey they describe are hereby approved.

W.M. Pelham, Surveyor  
General 122<sup>41</sup>

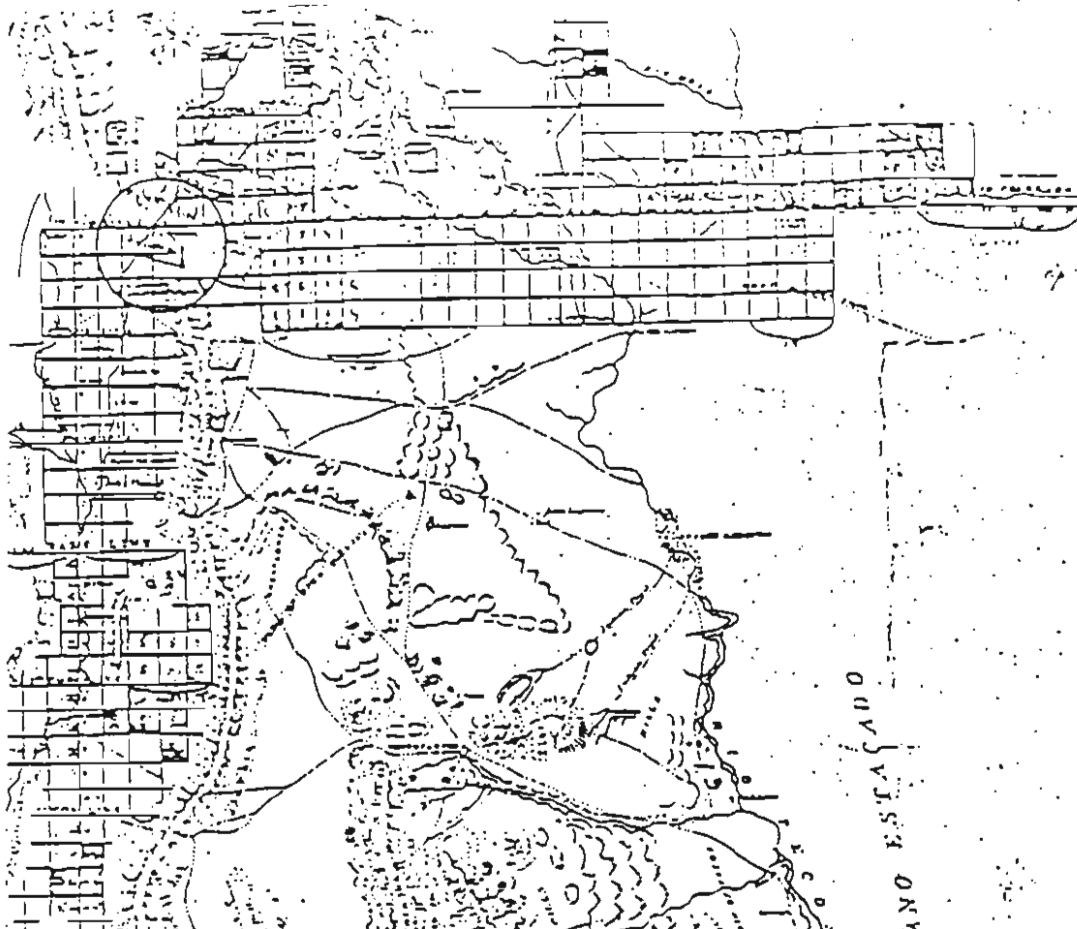
Unless this affidavit is pro forma in all of its wording, this suggests that there may have been in fact corrections and explanations made, though there is no record of these to indicate any changes made in the original Clements field notes which might bear on the issue of why the apex of the lower ridge was surveyed rather than that of the main ridge of the Sandia mountains. After 1860 Public Survey sketch maps show the configuration according to the Clements plat. (See maps, pp. 22 and 23.) It is on the basis of the erroneous Clements survey that the patent for the Pueblo of Sandia grant was issued for 24,187.29 acres on November 1, 1864.<sup>42</sup>

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<sup>40</sup> "Sketch of Public Surveys in New Mexico, 1859, 1860, 1862, 1863," University of New Mexico Library, Map Room.

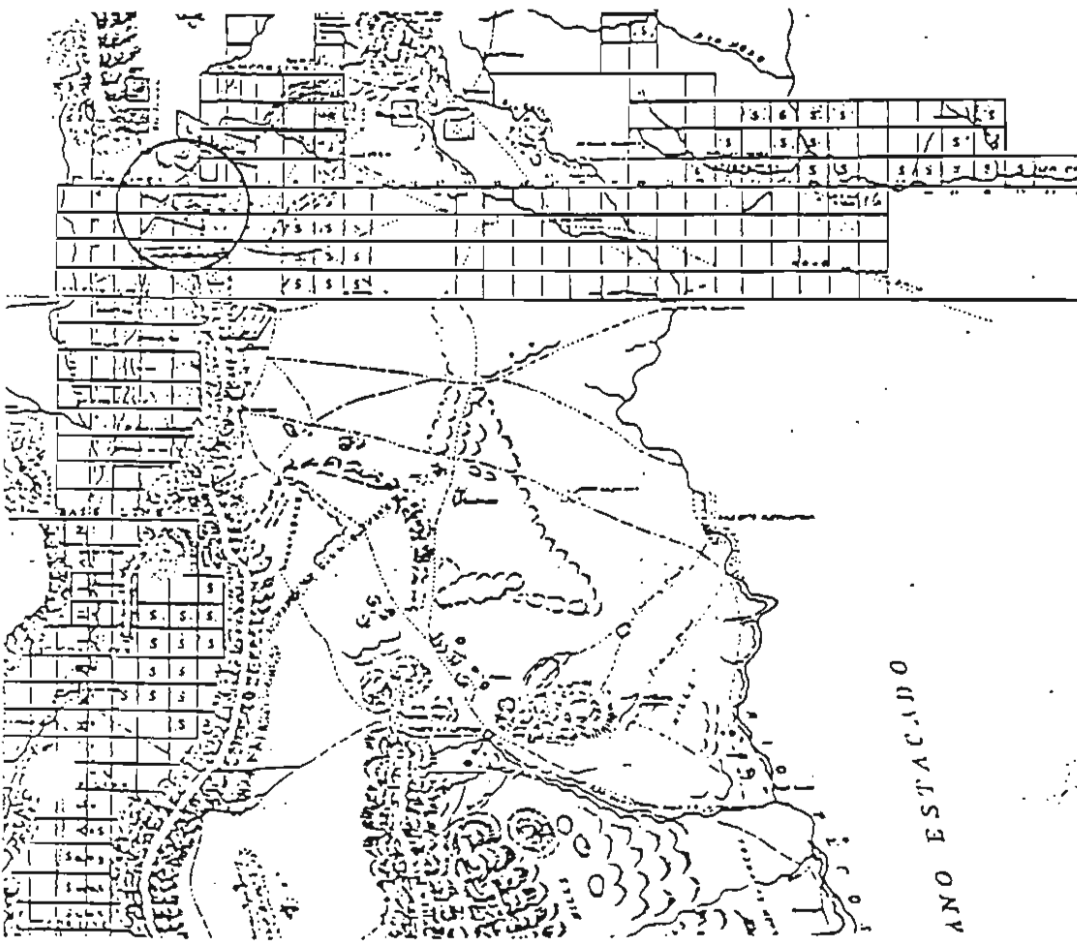
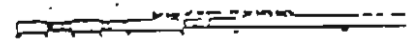
<sup>41</sup> Clements, p. 646.





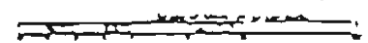
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 SKETCH  
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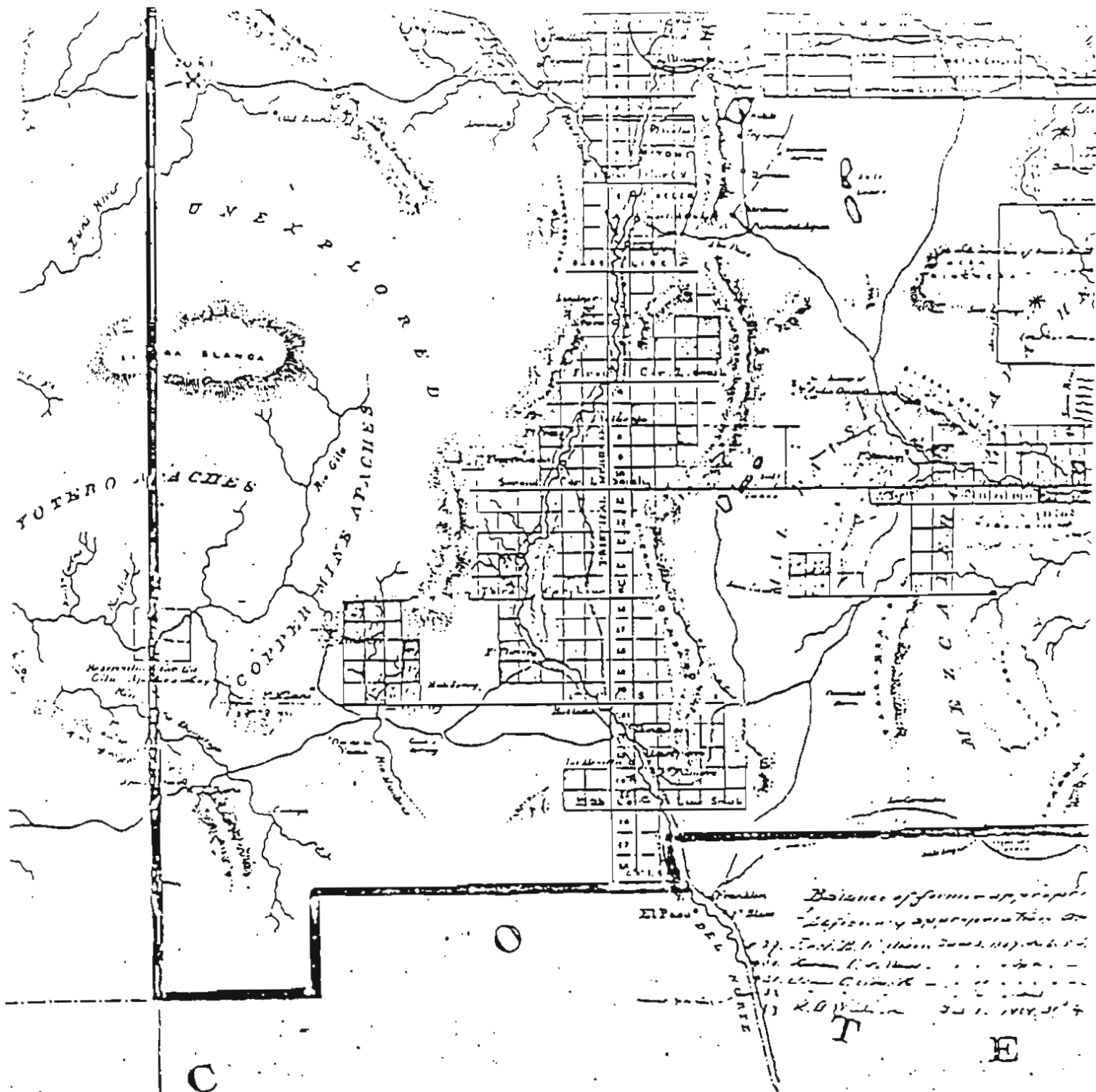
Compiled from Maps on File in this Office.



SKETCH  
 OF  
 PUBLIC SURVEY  
 IN  
 NEW MEXICO  
 1860.

Compiled from Maps on File in this Office.





C  
SKETCH  
OF  
PUBLIC SURVEYS  
IN  
NEW MEXICO

TO ACCOMPANY THE ANNUAL REPORT OF THE  
SURVEYOR GENERAL

FOR  
1862.

United States  
San Francisco  
John



### Discussion.

The Clements field survey was poorly executed. Clements did not follow surveying procedures as outlined by the Manual of Surveying Instructions of 1855. Specifically, mile monuments were not properly marked and identified, there are missing monuments, and the size of the monuments was incorrectly recorded, and he did not begin at the Pueblo church. The total recorded measurements on the south boundary appear to be in error when compared with the Harrington survey. There is a significant error of closure with the meanders of the east boundary of 2,003.10 feet. The survey was not begun by following the instructions Pelham had given to the earlier surveyor, and it appears that Clements was not accompanied by either a representative of the Indian office, as accompanied the surveyor on other Pueblo land surveys, nor were members of the Pueblo present to point out the boundaries of the Pueblo as the instructions given to Garretson stated should be done.

The resurvey by Harrington in 1914 pointed out many of the errors in the Clements survey, but was not a complete resurvey of the 1748 grant. Both of these surveys relied upon the translation by Whiting in which the north and south boundary calls for the Pueblo grant had been significantly altered to the Pueblo's detriment. The 1934 report by Childers concludes that there are significant discrepancies in both the Clements and the Harrington surveys in that the position of the southeast corner and of the east boundary is still in some doubt. The original grant documents, the erroneous

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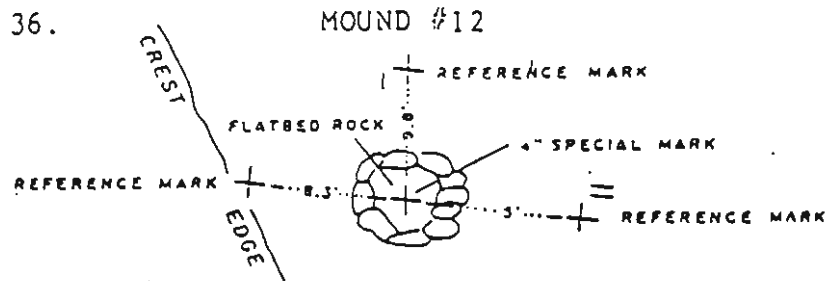
<sup>42</sup>

President Abraham Lincoln, "Patent of Pueblo of Sandia Grant, November 1, 1864, RG 21, U.S. District Court of New Mexico, Case 1839, Denver Federal Records Center."

Whiting translation, and the Elena Gallegos grant decision all clearly specify the main ridge of Sandia as the east boundary rather than the lower ridge. This was the accepted boundary as shown in the Public Sketch Maps for 1859 and 1860. The east boundary was altered as a result of the Clements survey, but documentary evidence has not been preserved which indicates if this were due to incompetent surveying, faulty or incomplete instructions, or some other reason.

## FIELD INVESTIGATION AND SURVEY OF THE SANDIA EAST BOUNDARY

In July, 1985, the stone mound on Sandia Crest which aligned fairly closely with the current south boundary of the Pueblo was located. This mound was given the number twelve (#12). Figure 1 shows the orientation and marks found surrounding this mound.



Large mound at Crest Edge disassembled and special marking found. Additional reference markers were found to the east, north, and west. This particular mound was pointed out to me by Sandia officials. Used as a boundary marker on this survey.

Figure 1

Under the stone mound was an equilateral cross. In three cardinal directions additional, what appear to be equilateral reference crosses were found, about two inches in length. These crosses were incised into bedrock. On some of the reference crosses, between as little as five feet and as much as almost ten feet away, were either a single line or a double parallel line, as indicated in the diagram above. While the marks are similar to designations previously used by the General Land Office for designating section and township corners, these do not coincide with any section and township corners on the public surveys. General Land Office monumentation would mark section and township corners on the east and south faces of an upright stone monument and not on the

reference points away from the main monument, as in the case of mound #12. Mound #12 is located 230.16 feet north of the brass cap marking the northeast corner of the Elena Gallegos Grant. There are two additional monuments to the south of this one which are similar in appearance. (See Figures 2 and 3). There may be further monuments beyond this, but this area was not investigated. The remaining two monuments are south of the northeast corner of the Elena Gallegos Grant.

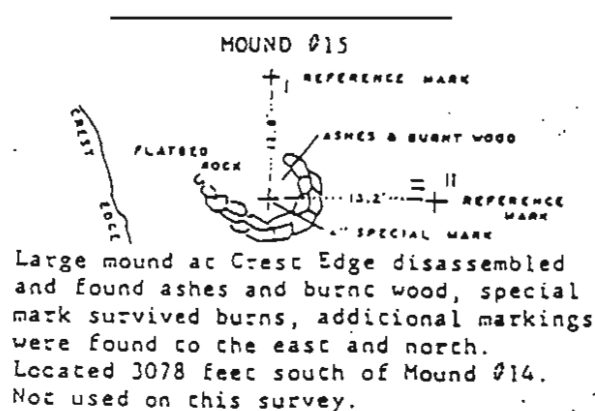


Figure 2

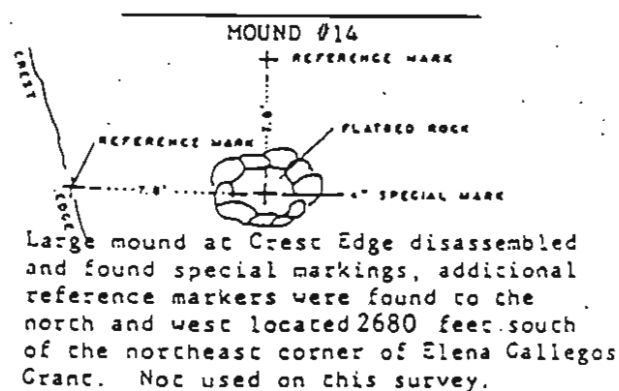
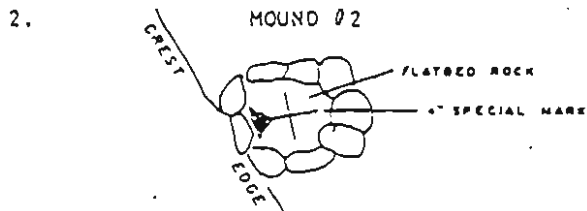


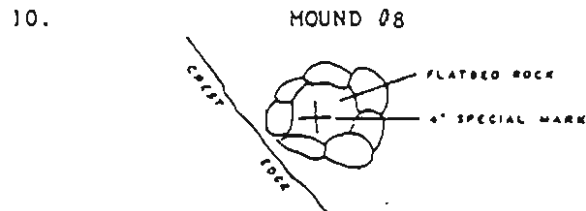
Figure 3

During August and September of 1985, a search was made for stone mounds and markings along the crest of Sandia Mountain. Numerous stone mounds of various sizes were found all along the crest. Some of these mounds were campfires made by hikers, and others may have been trail markers, a suggestion made by an employee of the Forest Service. However, other mounds definitely had the characteristics and appearances of boundary monumentation due to their large size and markings found underneath the mounds. In some cases mounds such as Mound #15 had been disassembled and had been used as fire rings by campers or hikers. Two additional mounds on the north side, #2 and #3 were found that had markings similar to those found in Mound #12. (See Figures 4 and 5).



Large mound at Crest Edge disassembled and found special marking used as boundary marker on this survey.

Figure 4



Large mound at Crest Edge disassembled and found special marking used as boundary marker on this survey.

Figure 5

Underneath mound #2 we found the mark of an equilateral cross. One end of the cross suggested an arrow point, which pointed toward the village of Sandia. The equilateral cross measured three and one-half inches; grooves were about 1/4" deep and about 1/2" in width. The mark was made on the smooth surface of hard rock and appeared to have been made by a steel tempered chisel. The grooves on the equilateral crosses found on and underneath these mounds are very dissimilar to the mark found marking the northeast corner of the Sandia Pueblo grant in the Clements survey, refound by Harrington and also by later surveyors, including the writer. First, the marks on bedrock under the mounds are quite small, being only a couple inches in length; second, they appear to be made with a steel tempered chisel, incised into bedrock, whereas the boundary marker on the northeast corner appears to have been scratched on the stone. The cross marking the northeast corner is also quite large, essentially one foot long by roughly 5 inches across. (See Figure 6).



Mound #8 had a USDA brass cap embedded into flatbed rock, which suggested that it might previously have been marked this way, but evidences of marking had been destroyed by the placement of the brass cap. (See Figure 7). This was located at Section 30, Township 12 North, Range 5 East. This brass cap was surrounded by large amounts of stone in the same amount and configuration as was found at mound #15 (See Figure 2).

1. NORTHEAST CORNER SANDIA PUEBLO GRANT

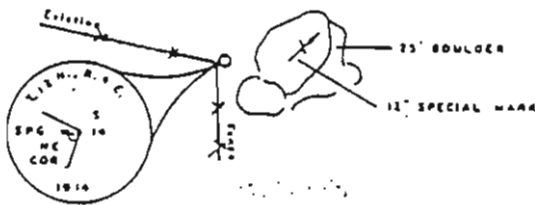


Figure 6

13. MOUND #9 & BRASS CAP



Large mound at Crest Edge found Forest Service Brass Cap embedded in smooth flat bed rock, used as boundary marker on this survey.

Figure 7

No clearcut explanation of the mounds on the Crest suggests itself at the present time. The Acts of Possession of the Sandia Pueblo Grant and the Elena Gallegos Grant both mention the raising of mounds to mark the boundaries of the grants. While marks under the mounds bear superficial resemblance to the General Land Office marking systems for section and township corners, these markings do not coincide. At the northeast corner of the Elena Gallegos grant there was both an upright stone monument marked on the side facing the grant and a mound with a brass cap. These are both U.S. survey markers. Another possibility is that the mounds could be portions of an aboriginal boundary marking system. There is ethnographic evidence of an aboriginal boundary marking system. Boundaries between pueblo communities were sometimes marked by shrines, which are in themselves a form of monumentation. Dr. Florence H.

Ellis reports that, during her work with Zia Pueblo on their land claims, she was shown a stone found in the wall of the Pueblo church by Zia Pueblo officials.

"The block we examined was of black porous basalt, approximately rectangular in shape. It was 14 inches long, 9 inches wide, and 5-5/8" thick at one side, tapering to 5-1/8" at the other. In the center a "Z", representing Zia (Spanish spelling as seen in old documents: see Morfi's description; Thomas, 1932: 99) had been cut at somewhat of an angle. (Fig. 1). An equilateral cross about 3-1/2" across placed diagonally marked each corner. All the surfaces of the stone had been smoothed neatly. The sharp bottoms of the grooves suggested that they had been cut with a steel implement.

This stone, they said, represented a patent of land, a grant, from the "Governor of Mexico" to the Zias.<sup>43</sup> (See Figure 8).

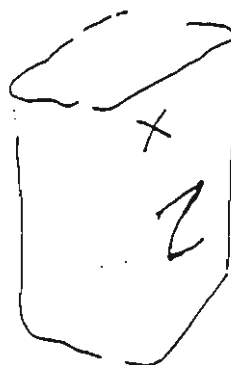


Figure 8

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Florence Hawley Ellis, "Pueblo Boundaries and Their Markers," *Platzam*, University of New Mexico, 1966, Vol. 38, No. 4, p. 97.

There are two items of significance here, the first that an equilateral cross is used to mark the boundaries, and, second, that we have a boundary marking system for a grant.

A second example of boundary marking on stones was reported by Arthur Bibo and Alfred Dittert, Jr., in their report, "Topographic Features of the Acoma Land Claim," 1952, prepared for Acoma Pueblo on their boundaries preparatory to a claim before the Indian Claims Commission. The Acomas reported that this boundary marker was the one surveyed and given to the Acoma tribe by the government of Spain. This was located in an area which they had always occupied and which Spain recognized. The boundary marker was located near section corner common to Sections 3, 4, 9, and 10, T. 11 N., R. 10 W. Approximately one-half mile northeast of this point was a large stone with the Acoma brand pecked into it, as shown on Figure 9. This brand was essentially two inverted "v's" making the A for Acoma and was used commonly in the past on Acoma livestock.<sup>44</sup>

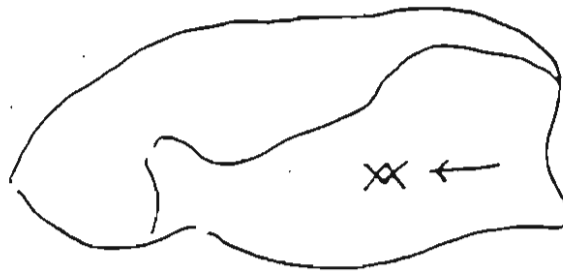


Figure 9

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<sup>44</sup>

Arthur Bibo and Alfred Dittert, Jr., "Topographic Features of the Acoma Land Claim, 1952, Palamita," Point A, Quad. 173.

A similar case of marking on stone to indicate grant boundaries comes from Cochiti Pueblo. As part of the investigation of the El Ojo de Santa Cruz tract which I investigated in February 1981, I was taken by Cochiti officials to a place where a particular marked stone was located. The marking was described to me as "an upside down horseshoe with a cross on top," this being the church steeple with its cross. The letter "C," representing Cochiti, was also used to brand their livestock and is still in use today. They stated that this particular monument marked the east boundary of the El Ojo de Santa Cruz tract, 1744 deed. The letter "E" marked on top, along with the stone mounds, gives the indication and appearance of being a boundary line.<sup>45</sup> (See Figure 10). The mounds used to mark this line are similar to the ones found on Sandia Crest. Similar mounds marking boundaries are also found at Acoma and are of similar size.

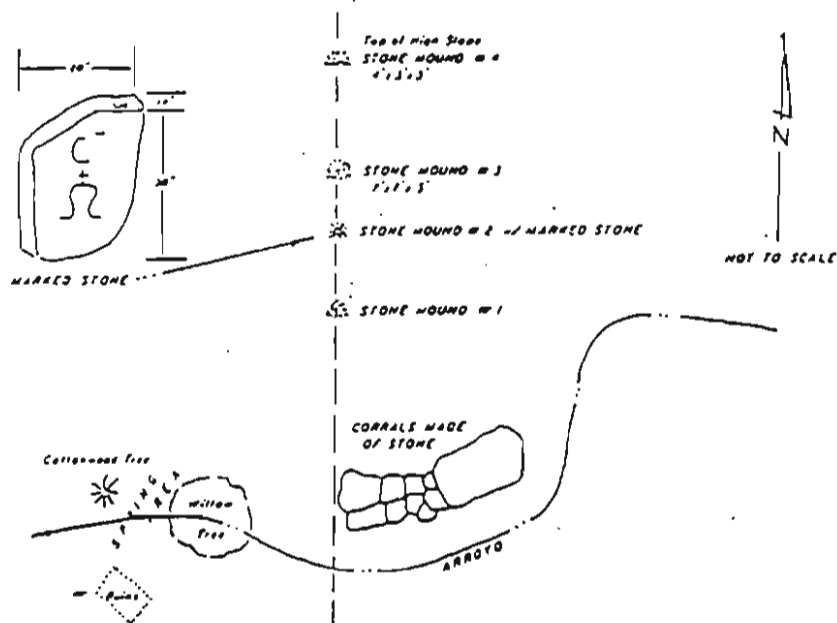


Figure 10

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Milford T. Keene, "El Ojo de Santa Cruz," Southern Pueblos Agency, Bureau of Indian Affairs, Albuquerque, NM, 1981.

## CONCLUSION

Sandia Pueblo was in a unique position with respect to other Pueblos since it had written grant documents dating from 1748. The original of the grant documents and the certified copy were presented to the Surveyor General for confirmation by the United States. The Surveyor General of New Mexico, Pelham, was given explicit instructions from the General Land Commissioner on how Pueblo claims should be recognized and surveyed. What should have been a simple matter of execution of clear instructions in Sandia's case became a story of failure to follow correct procedures. First, although Pelham had in his office a true copy of the 1748 grant, in fact an altered translated version of the 1748 grant was transmitted to Congress and thus became the basis for instructions to the surveyors. Although this altered copy of the grant document does not affect the east boundary, it does in fact affect the north and south boundaries of the Sandia Pueblo grant.

Next came the rapid replacement of Garretson by Clements as the surveyor for Sandia Pueblo. Pelham, the Surveyor General, apparently failed to follow correct department procedures, causing incomplete transmittal of important documentation and instructions to Clements so that Clements apparently did not receive all those given to the original surveyor.

Next, Clements failed to follow proper surveying procedures, as can be demonstrated by the analysis of his field notes and comparison with Harrington's field notes. He failed to monument correctly, mismeasured stones, and failed to follow surveying instructions that had been given to Garretson, such as beginning his survey at the Northeast corner rather than from the church as Garretson had been instructed by Pelham. There is no indication in his field notes as to how he located the northeast

corner in which he began, though it appears clear from the evidence of his field notes that he did have access to the Whiting translation of the 1748 grant. There are additional errors in Clements' execution of his field survey particularly in the placement of the south boundary line, the southeast corner, and the meander line of the east boundary. The most important point against Clements is that he ignores the natural monument description as called for in the 1748 grant document, thus failing to survey the Main Ridge of Sandia Mountain. Instead, Clements meandered a line on the apex of a lower ridge line. It is possible that Clements did in fact survey the main ridge line of Sandia Pueblo, but that his field notes were altered at a later date. This is suggested by the affidavit of Pelham, dated January 12, 1860, which states "the necessary corrections and explanations made, the said field notes, and the survey they described, are hereby approved." The Public Sketch Maps from 1859 and 1860 show the apparent boundary of the Sandia Pueblo grant at the top of the main ridge also suggesting this interpretation. Only after the Clements survey were the maps revised to show the east boundary as the lower apex (see maps for 1862 and 1863).

All of these factors worked together to misdirect the original intent of the Government to provide a true and accurate survey of the Grant boundaries of Sandia Pueblo.

Ethnographic evidence shows that there were aboriginal land boundary marking systems. Some of these marking systems utilized large stone mounds, stone mounds with special markings or names of natural monuments such as those found at Cochiti, Acoma, and Zia. On Sandia Crest, both to the north as well as to the south, near the Elena Gallegos Grant, and, in fact, on the Elena Gallegos Grant, a number of stone mounds were found, with equilateral crosses and incised grooves. While the identity and meaning

of these mounds cannot be definitely determined, they may represent General Land Office survey markers, Spanish monumentation, Indian monumentation, or some yet-undiscovered fourth explanation.

From an examination of the documents and the Harrington field notes, a description of the Sandia Crest Tract was prepared. All the extant documents, even those documents that have been altered or clearly fraudulent, such as the Sandia Cruzate grant, agree that the east boundary of the Sandia Pueblo Grant is the main ridge of Sandia Mountain. Comparison with the Elena Gallegos Grant description and the opinion of the Court which granted title to the Elena Gallegos heirs indicates that a similar grant description resulted in the top of the main ridge of the Sandia Mountains being considered the east boundary of that grant. If the 1748 grant boundaries of the Sandia Pueblo grant were utilized, this would result in more land being added on the north boundary. All reviews of the physical evidence and documents, the 1748 deed, reports, and maps have led me to the conclusion that the Sandia east boundary should have been surveyed to "the main ridge called Sandia." The following description of the Sandia Crest tract incorporates that view. The exhibit map of the Sandia Crest tract was prepared by taking the west boundary of the Sandia Crest tract as being the same as the east boundary of the Sandia Pueblo grant, as surveyed by Harrington, and on the south, the line being the north boundary of the Elena Gallegos Grant. On the east, the line follows the Sandia Crest, and on the north, the line is from Mound #2 to the northeast corner of the Sandia Pueblo Grant.

## SANDIA CREST TRACT

### Legal Description

A tract of land being Sandia Crest Tract situated within Townships and Ranges of: T.12N., R.4E., and T.12N., R.5E., New Mexico Principal Meridian, Sandoval County, and T.11N., R.4E., and T.11N., R.5E., New Mexico Principal Meridian, Bernalillo County, all within the State of New Mexico, being more particularly described as follows:

Beginning at the Northwest corner of the tract herein described (Corner numbered 1), Said Northwest corner being common to the Northeast corner of the Sandia Pueblo Grant, as the same is shown and designated on the B.L.M. Survey plat of "Sandia Pueblo Grant," as resurveyed by Earl Harrington, dated 1915 (a large boulder in place marked with a cross (+) etched almost at the top (12" long), and being witnessed by a B.L.M. brass cap, which bears N.  $56^{\circ} 59' W.$ , 11.88 feet distance); thence, leaving said beginning point, S.  $60^{\circ} 18' 30'' E$ , 12,015.78 feet distance (calculated) to cor. no. 2, the northeast corner of the tract herein described, (Said northeast corner being a point on the Crest Edge identified with a large stone mound marked with an equilateral cross (x) chiseled on the smooth surface of a flat rock located at the base of said mound), thence S.  $07^{\circ} 49' 54'' E$ , 544.81 feet distance to cor. no. 3, found small mound of stone at the Crest Edge; thence, S.  $22^{\circ} 12' 53'' E$ , 167.53 feet distance to cor. no. 4, found small mound of stone at the Crest Edge; thence, S.  $13^{\circ} 25' 06'' E$ , 206.98 feet distance to cor. no. 5, found stone mound; thence, S.  $21^{\circ} 19' 35'' E$ , 79.97 feet distance to cor. no. 6, (set  $5/8''$  rebar with yellow survey cap, land survey no. 8489 on the Crest Edge on the projection of the northerly boundary line of Sandia Pueblo Grant); thence, S.  $12^{\circ} 04' 58'' E$ , 259.93 feet distance to cor. no. 7, said corner numbered 7 is a projected corner located at the Crest Edge; thence, S.  $36^{\circ} 02' 36'' W$ , 2,056.56 feet distance to cor. no. 8, found small stone mound; thence S.  $03^{\circ} 57' 02'' W$ , 619.60 feet distance to cor. no. 9, found stone mound at the Crest Edge; thence, S.  $22^{\circ} 58' 07'' E$ , 824.63 feet distance to cor. no. 10 found stone mound at the Crest Edge with cross (+) chisled on the smooth surface of a flat rock located at the base of said mound, thence S.  $23^{\circ} 04' 31'' E$ , 2,119.85 feet distance to cor. no. 11, said cor. no. 11 is a projected corner located at the Crest Edge; thence, S.  $51^{\circ} 02' 39'' W$ , 1,324.00 feet distance to cor. no. 12, said cor. no. 12 is a projected corner located at the Crest Edge; thence, S.  $77^{\circ} 03' 31'' W$ , 1,124.62 feet distance to cor. no. 13, (found U.S. Department of Agriculture Forest Service Brass Cap embedded in smooth surface of a flat bed rock); thence, S.  $59^{\circ} 32' 16'' E$ , 927.24 feet distance to cor. no. 14, said cor. no. 14 is a projected corner located at the Crest Edge; thence, S.  $17^{\circ} 42' 44'' E$ , 1,996.62 feet distance to cor. no. 15, said cor. no. 15 is a projected

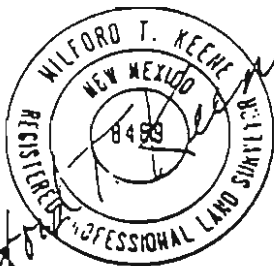


corner located at the Crest Edge; thence, S.  $31^{\circ} 32' 26''$  W, 1,119.72 feet distance to cor. no. 16, set nail for angle point at Crest Edge; thence, S.  $52^{\circ} 16' 07''$  E, 816.51 feet distance to cor. no. 17, said cor. no. 17 is a projected corner located at the Crest Edge; thence, S.  $00^{\circ} 01' 06''$  W, 2,147.43 feet distance to cor. no. 18, a U.S. Department of Agriculture Forest Service Brass Cap in place;  $48^{\circ} 47'$ ; thence, S.  $26^{\circ} 31' 20''$  W, 255.94 feet distance to cor. no. 19 (the point of intersection of the south line of T.12N., R.5E., N.M.P.M., also being a point on the New Mexico County line common to Sandoval and Bernalillo Counties); thence, S.  $26^{\circ} 31' 20''$  W, 381.46 feet distance to cor. no. 20, set nail at the angle point at Crest Edge; thence, S.  $31^{\circ} 29' 30''$  E, 1,350.63 feet distance to cor. no. 21, said cor. no. 21 is a projected corner located at the Crest Edge; thence, S.  $00^{\circ} 58' 25''$  E, 559.23 feet distance to cor. no. 22, said cor. no. 22 is a projected corner located at the Crest Edge; whence, for a tie, from said cor. no. 22, a U.S. Department of Agriculture Forest Service Brass Cap in place, bears S.  $69^{\circ} 31' 22''$  E, 39.0 feet distance; thence, S.  $15^{\circ} 43' 28''$  W, 111.46 feet distance to cor. no. 23, said cor. no. 23 is a projected corner located at the Crest Edge; thence S.  $11^{\circ} 31' 57''$  E, 665.46 feet distance to cor. no. 24, said cor. no. 24 is a projected corner located at the Crest Edge; whence, for a tie from said cor. no. 24 a U.S. Department Coast and Geodetic Survey Brass Cap "CREST" in place, bears N.  $74^{\circ} 05' 30''$  E, 75.0 feet distance; thence, S.  $37^{\circ} 47' 21''$  E, 2,040.21 feet distance to cor. no. 25, set nail at the angle point of Crest Edge; thence, S.  $41^{\circ} 15' 13''$  E, 1,097.40 feet distance to cor. no. 26, said cor. no. 26 is a projected corner located at the Crest Edge; thence, N.  $79^{\circ} 44' 42''$  E, 974.49 feet distance to cor. no. 27, said cor. no. 27 is a projected corner located at the Crest Edge; thence, S.  $27^{\circ} 18' 27''$  E, 1,659.04 feet distance to cor. no. 28, said cor. no. 28 is a projected corner located at the Crest Edge; thence, S.  $60^{\circ} 31' 35''$  E, 314.98 feet distance to cor. no. 29, said cor. no. 29 is a projected corner located at the Crest Edge; thence, S.  $30^{\circ} 16' 45''$  E, 1,623.32 feet distance to cor. no. 30, said cor. no. 30 is a projected corner located at the Crest Edge; thence, S.  $35^{\circ} 35' 17''$  E, 2,009.34 feet distance to cor. no. 31, set nail at angle point of the Crest Edge; thence, S.  $64^{\circ} 59' 31''$  E, 1,802.43 feet distance to cor. no. 32, found small stone mound; thence, S.  $38^{\circ} 03' 27''$  E, 1,875.01 feet distance to cor. no. 33, said cor. no. 33 is a projected corner located at the Crest Edge; thence, N.  $87^{\circ} 00' 54''$  E, 549.80 feet distance to cor. no. 34, said cor. no. 34 is a projected corner located at the Crest Edge; thence, S.  $44^{\circ} 58' 28''$  E, 1,074.95 feet distance to cor. no. 35, said cor. no. 35 is a projected corner located at the Crest Edge; thence, S.  $18^{\circ} 21' 36''$  E, 850.76 feet distance to cor. no. 36, found stone mound at the Crest Edge with cross (+) chiseled on the smooth surface of a flat rock located at the base of said mound with additional marking to the west, north, and east; thence, S.  $01^{\circ} 57' 18''$  W, 230.16 feet distance to cor. no. 37, the southeast corner of the tract herein described, said southeast corner being common to the northeast

corner of the Elena Gallegos Grant, (a stone monument in place, identified as N.E. EGG, next to B.L.M. Brass Cap, also identified as EGG N.E. corner, dated 1972); thence, N.  $81^{\circ} 43' 45''$  W, 16,954.09 feet distance (calculated) along the northerly boundary line of said Elena Gallegos Grant to cor. no. 38, (said cor. no. 38 being and/or common to the southeast corner of aforementioned Sandia Pueblo Grant, a B.L.M. Brass Cap in place, established by Earl Harrington, dated 1914); thence, N.  $60^{\circ} 07'$  W, 11,371.80 feet distance along said resurvey line to cor. no. 39, (A.P. 1); thence N.  $03^{\circ} 56'$  W, 2,381.94 feet distance along said resurvey line to cor. no. 40 (A.P. 2); thence N.  $11^{\circ} 53'$  E, 3,342.90 feet distance to corner no. 41 (the point of intersection of the north line T.11N., R.4E., N.M.P.M., and also being a point on the New Mexico County line common to Bernalillo and Sandoval Counties); thence, N.  $11^{\circ} 53'$  E, 8,404.44 feet distance continuing along said resurvey line to cor. no. 42, (A.P. 3); thence, N.  $13^{\circ} 50'$  E, 8,403.78 feet distance along said resurvey line to cor. no. 43 (A.P. 4); thence, N.  $28^{\circ} 00'$  E, 3,469.62 feet distance to cor. no. 1, the northwest corner, the point and place of beginning of the tract herein described, and containing an area of 9,937.56 acres, more or less.

This plat was prepared from a combination of: An actual field survey of the East boundary of Sandia Crest Tract; the North and South boundaries were computed by the triangulation method; the West boundary was taken from the field notes and survey plats of the 1915 resurvey of and by Earl Harrington. Said boundaries, legal description, and acreages shown hereto are to be used ONLY for identification and guidance purposes.

Milford T. Keene  
Registered Land Survey  
Registration No. 8489  
State of New Mexico  
October 15, 1985



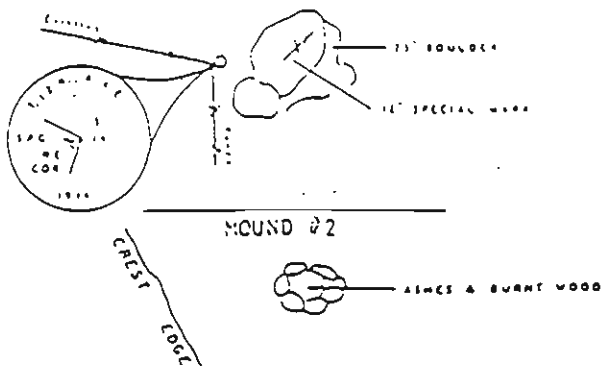
## CERTIFICATION OF FINAL REPORT

The signature on this certification affirms that the report was prepared by me or under my supervision and direction and that all are true and correct to the best of my ability, knowledge, and belief.

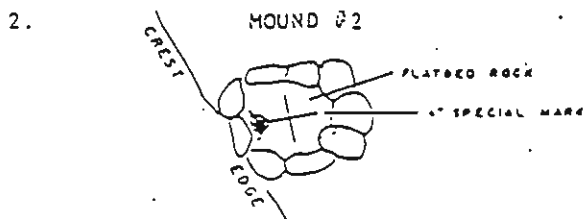


Milford T. Keene  
Registered Land Survey  
Registration No. 8489  
State of New Mexico  
October 15, 1985

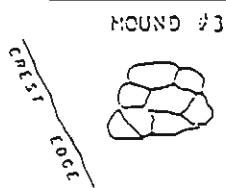
1. NORTHEAST CORNER SANDIA BLVD GRANT



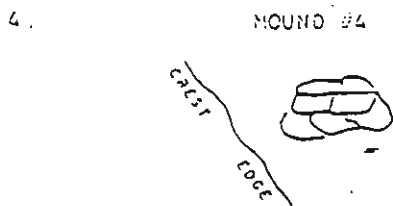
Small mound 30' east of Crest Edge disassembled and found ashes & burnt wood, no special markings were evident. Location approximately 300' north of mound #2 not used on this survey.



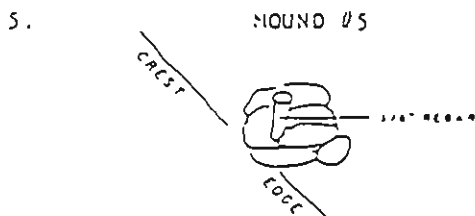
Large mound at Crest Edge disassembled and found special marking used as boundary marker on this survey.



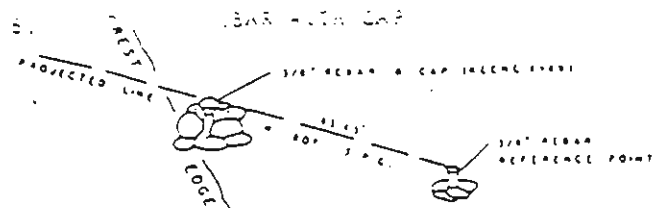
Small mound at Crest Edge disassembled and found no special marking, used as boundary marker on this survey.



Small mound at Crest Edge disassembled and found no special marking used as boundary marker on this survey.



Small mound with 3/8" rebar at Crest Edge disassembled and found no special marking used as boundary marker on this - 40 - survey.



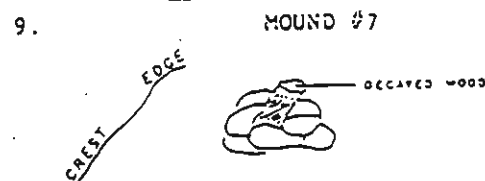
Sec rebar with cap KEENE #5489 at Crest Edge on projection line of the North Boundary Sandia Pueblo Grant.

7. PROJECTED CORNER

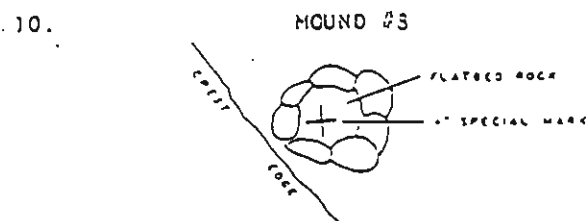
Sec nail at angle point along Crest Edge.



Small mound at Crest Edge disassembled and found no special marking used as boundary marker on this survey.



Small mound at Crest Edge disassembled and found decayed wood in the middle, no special marking used as boundary marker on this survey.



Large mound at Crest Edge disassembled and found special marking used as boundary marker on this survey.

11. PROJECTED CORNER

Sec nail at angle point along Crest Edge.

12. PROJECTED CORNER

Sec nail at angle point along Crest Edge.



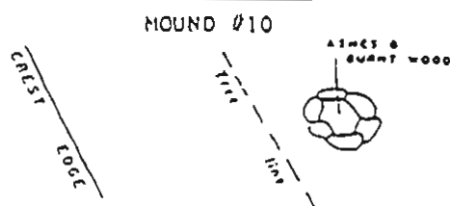
Large mound at Crest Edge found Forest Service Brass Cap embedded in smooth flat bed rock, used as boundary marker on this survey.

14. PROJECTED CORNER

Set nail at angle point along Crest Edge.

15. PROJECTED CORNER

Set nail at angle point along Crest Edge.



Small mound 40' east of Crest Edge disassembled and found ashes & burnt wood, no special marking. Not used on this survey.

16. PROJECTED CORNER

Set nail at angle point along Crest Edge.

17. PROJECTED CORNER

Set nail at angle point along Crest Edge.

18. BRASS CAP



Found Forest Service Brass Cap at Crest Edge, used as boundary marker on this survey.

19. PROJECTED CORNER

Set nail at angle point along Crest Edge.

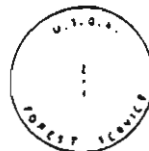
20. PROJECTED CORNER

Set nail at angle point along Crest Edge.

Set nail at angle point along Crest Edge.

22. PROJECTED CORNER

Set nail at angle point along Crest Edge and reference to a Forest Service Brass Cap.



Used as reference marker on this survey.

23. PROJECTED CORNER

Set nail at angle point along Crest Edge and reference to a Forest Service Brass Cap,



used as reference marker on this survey.

24. PROJECTED CORNER

Set nail at chain link fence along Crest Edge and reference to a U.S. Coast and Geodetic Survey Brass Cap, "CREST"



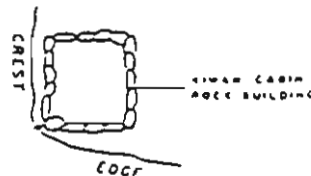
used as reference marker on this survey.

25. PROJECTED CORNER

Set nail at angle point along Crest Edge.

26. PROJECTED CORNER

Being the southwest corner of Niwan Cabin.



27. PROJECTED CORNER

Set nail at angle point along Crest Edge.

28. PROJECTED CORNER

Set nail at angle point along Crest Edge.

Set nail at angle point along Crest Edge.

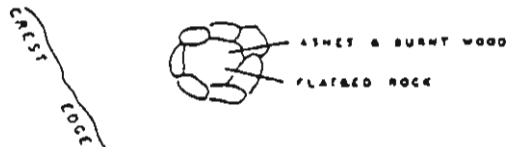
30. PROJECTED CORNER

Set nail at angle point along Crest Edge.

31. PROJECTED CORNER

Set nail at angle point along Crest Edge.

32. MOUND #11



Small mound at Crest Edge disassembled and found ashes and burned wood, no special marking, used as boundary marker on this survey.

33. PROJECTED CORNER

Set nail at angle point along Crest Edge.

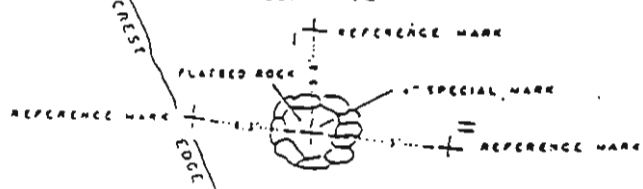
34. PROJECTED CORNER

Set nail at angle point along Crest Edge.

PROJECTED CORNER

Set nail at angle point along Crest Edge.

36. MOUND #12

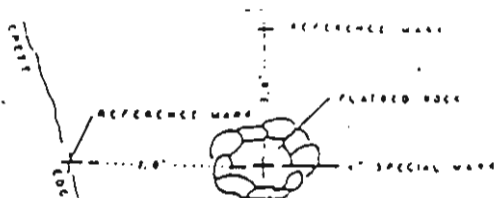


Large mound at Crest Edge disassembled and found special marking additional reference markers were found to the east, north and west. This particular mound was pointed out to me by Sandia officials. Used as boundary marker on this survey.

37. MOUND #13 & BRASS CAP



Small mound with set stone marked and B.L.M. Brass Cap at Crest Edge. Being the northeast corner of the Elena Gallegos Grant, this particular mound was pointed out to me by Sandia officials. Used as boundary marker on this survey.



Large mound at Crest Edge disassembled and found special markings, additional reference markers were found to the north and west located 2680 feet south of the northeast corner of Elena Gallegos Grant. Not used on this survey.

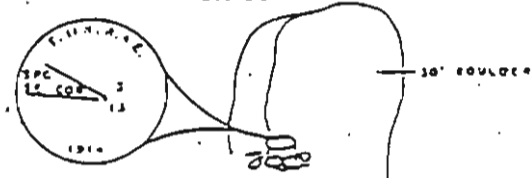
MOUND #15



Large mound at Crest Edge disassembled and found ashes and burned wood, special mark survived burns, additional markings were found to the east and north. Located 3078 feet south of Mound #14. Not used on this survey.

38.

BRASS CAP



Southeast corner Sandia Pueblo Grant used as boundary marker on this survey.

39.

BRASS CAP

1915 G.L.O. Brass Cap, being A.P. 1 Sandia Pueblo Grant.

40.

BRASS CAP

1915 G.L.O. Brass Cap A.P. 2, Sandia Pueblo Grant.

41.

BRASS CAP

1915 G.L.O. Brass Cap closing corner for T.12 N.; T.11 N. and Sandia Pueblo Grant.

42.

BRASS CAP

1915 G.L.O. Brass Cap A.P. 3 Sandia Pueblo Grant.

43.

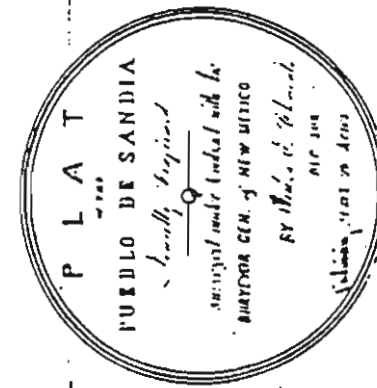
BRASS CAP

1915 G.L.O. Brass Cap A.P. 4 Sandia Pueblo Grant.

# PLAT

PUEBLO DE SANDIA

0° CORRECTION LINE NORTH



PUEBLO DE SANDIA

Lot	Area	Owner
1	1.00	...
2	1.00	...
3	1.00	...
4	1.00	...
5	1.00	...
6	1.00	...
7	1.00	...
8	1.00	...
9	1.00	...
10	1.00	...

Lot	Area	Owner
11	1.00	...
12	1.00	...
13	1.00	...
14	1.00	...
15	1.00	...
16	1.00	...
17	1.00	...
18	1.00	...
19	1.00	...
20	1.00	...

Lot	Area	Owner
21	1.00	...
22	1.00	...
23	1.00	...
24	1.00	...
25	1.00	...
26	1.00	...
27	1.00	...
28	1.00	...
29	1.00	...
30	1.00	...

The Surveyor General of New Mexico and the Surveyor General of New Mexico have agreed to accept the Surveyor General of New Mexico as the Surveyor General of New Mexico.

A. V. Jones, General Surveyor  
Walter C. Planché, Surveyor  
J. H. Jones, Surveyor

29/1/1904  
Surveyed by J. H. Jones

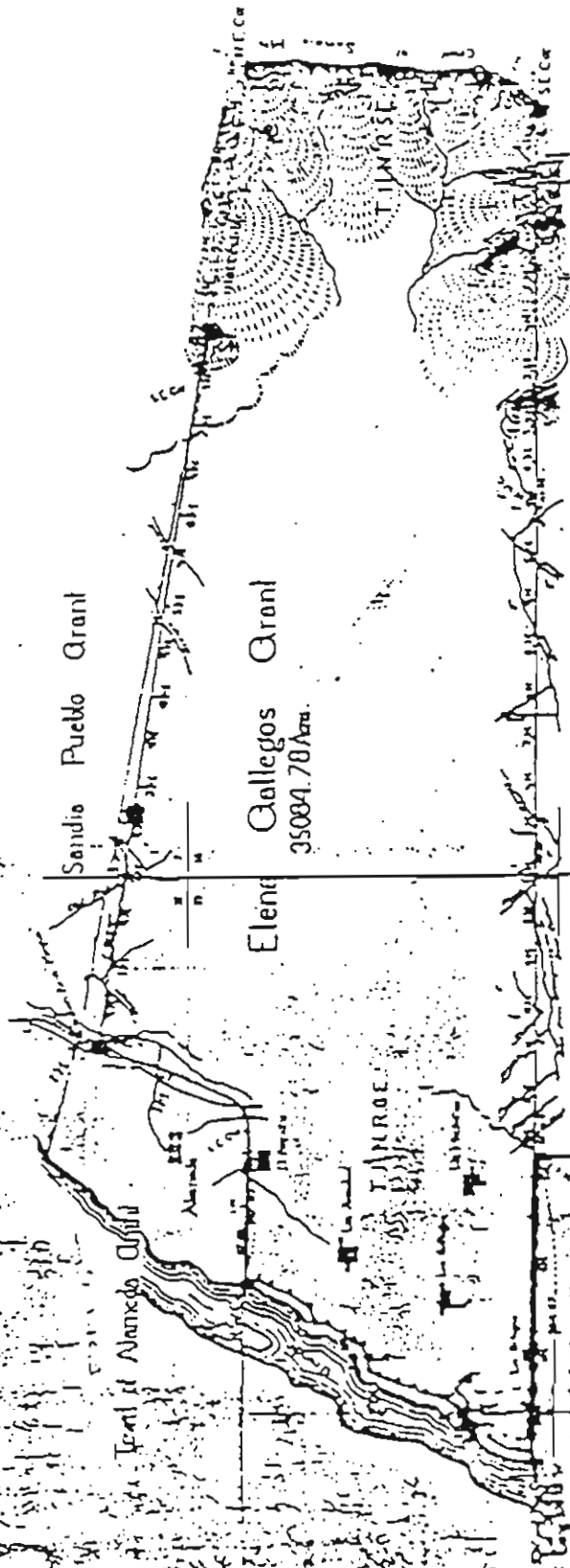
# Elena Gallegos Grant

New Mexico

Geo J. J. Prodt

Under His Command July 20, 20

Scale 1000 ft = 1 inch



Section	Area	Remarks
1	100.00	...
2	100.00	...
3	100.00	...
4	100.00	...
5	100.00	...
6	100.00	...
7	100.00	...
8	100.00	...
9	100.00	...
10	100.00	...
11	100.00	...
12	100.00	...
13	100.00	...
14	100.00	...
15	100.00	...
16	100.00	...
17	100.00	...
18	100.00	...
19	100.00	...
20	100.00	...

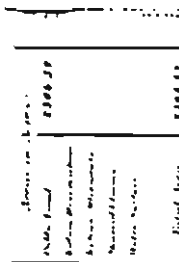
Certificate

The field notes of the survey of the 'Elena Gallegos Grant' from which this plat has been made, have been examined and approved and are on file in this office.

U.S. Survey Office  
Santa Fe, N.M., Aug 14, 1909.

*Louise Price*  
U.S. Survey Office



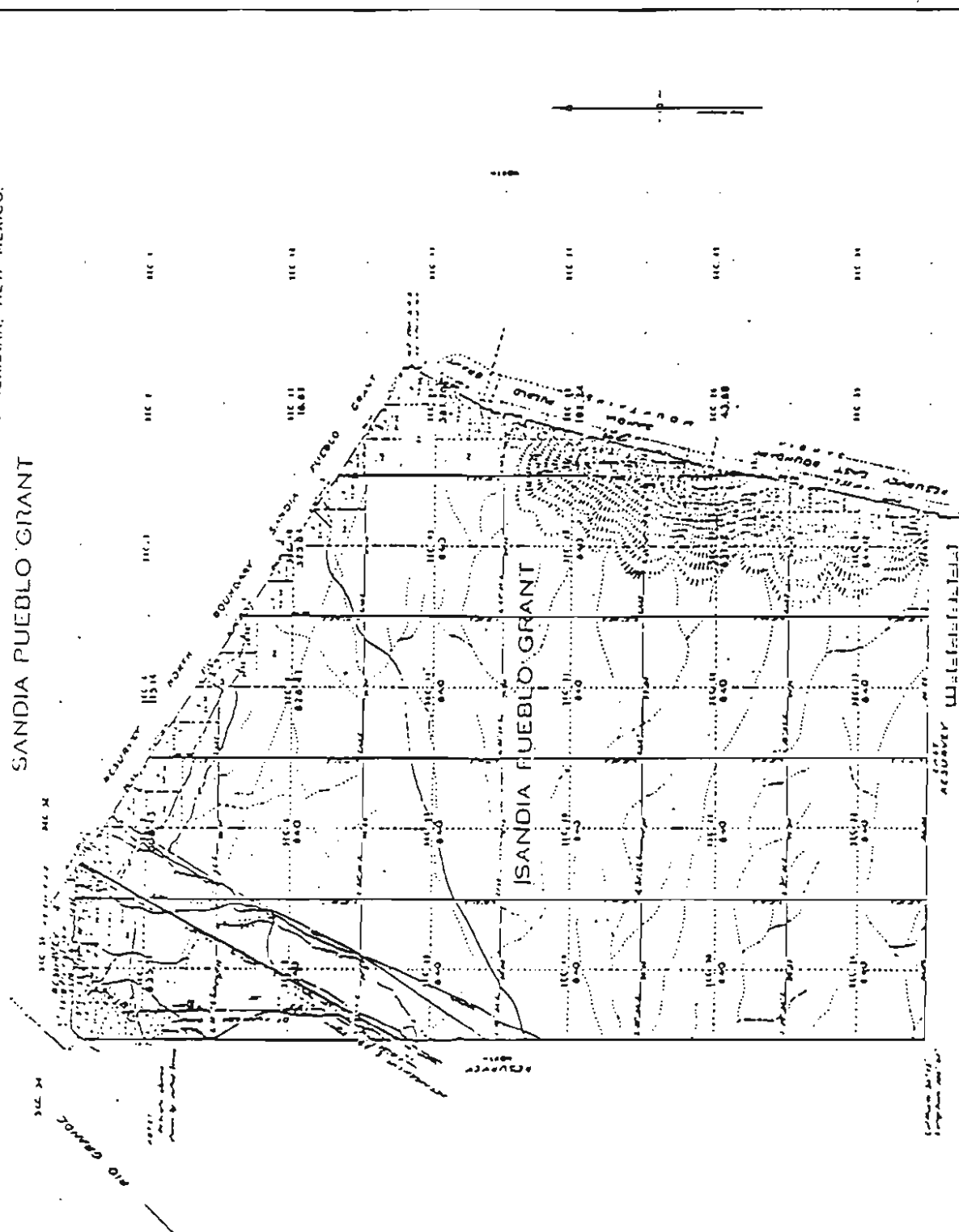


1. The first part of the document is a list of names and addresses, which appears to be a directory or a list of contacts. The names are written in a cursive script, and the addresses are listed below them. The list includes names such as "Mr. J. H. Smith", "Mr. W. H. Jones", and "Mr. R. H. Brown".

the other way of thinking. Now if the House Am. Fund in the House of Representatives is identified as the House is chiefly responsible for the maintenance of the entire Government and its in that it is the House that is responsible and supported.

Manuel D. Sanchez

SANDIA PUEBLO GRANT

[illegible]

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