



Logistics



- COME & GO AS YOU NEED-QUIETLY PLEASE
- BREAKS ARE TAKEN AS I NEED THEM I WILL KEEP IT GOING!
- THE MANUAL IS SUPPLEMENTE WITH THE POWER POINT PRESENTATION. THEY ARE NOT THE SAME!
- I WILL ALOCATE THE LAST TEN MINUTES OF EACH HOUR FOR QUESTIONS. NOTE THE PAGE NUMBER ON THE SLIDE/PAGE NUMBER ON THE MANUAL AND WILL DISCUSS (Q) AT THAT TIME.
- I WILL REMAIN AFTER CLASS UNTIL EVERYONE HAS HAD THEIR QUESTIONS ANSWERED.
- I WILL ANSWER (Q) BY EMAIL FOLLOWING THE PRESENTATION-AVAILABLE FOR PRACTICE TESTS.
 - SO, WHERE ARE WE? WHAT CLASSED HAVE TO TAKEN TO DATE? IS THIS WORTH WHILE? SELF STUDY? SPEAKERS GOOD?



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Your Presenter



- Third Generation Land Surveyor
- Youngest Licensed Surveyor in Kansas
- Surveyed in five decades
- Licensed in three states
- Surveyed in : Kansas, Oklahoma, Missouri, Nebraska, Colorado, Utah, Wyoming, Arizona, California, Alaska
- Expert Witness in Boundary Issues, Boundary establishment.







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Why do you want to be a **Professional Land Surveyor?**



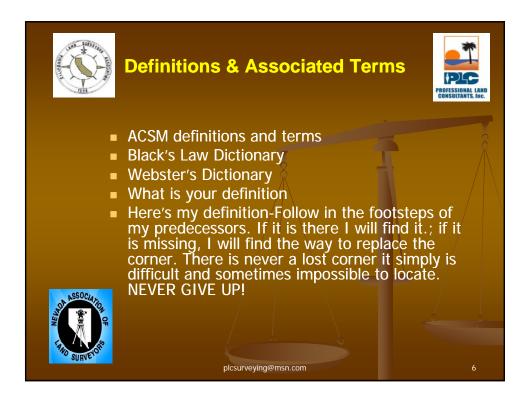
Open Discussion-input from the audience

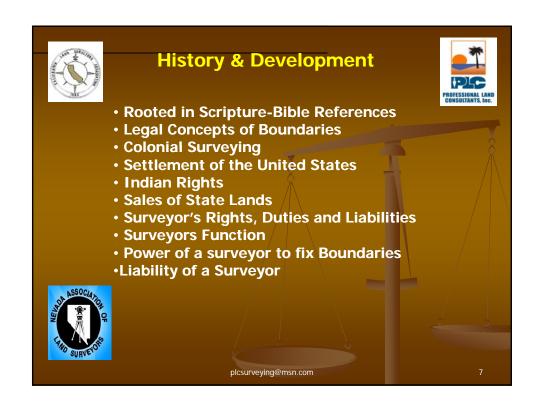
- Benefits of Professionalism
- Responsibilities-historian & collector of evidence (CSI style) follow the evidence
- SMA/EA the LAW in California
- Acknowledgment of participation by California LS to assist you in obtaining your LS.



A Special THANK YOU to Dorothy/CrissyNeed (3) teams to take measurements!

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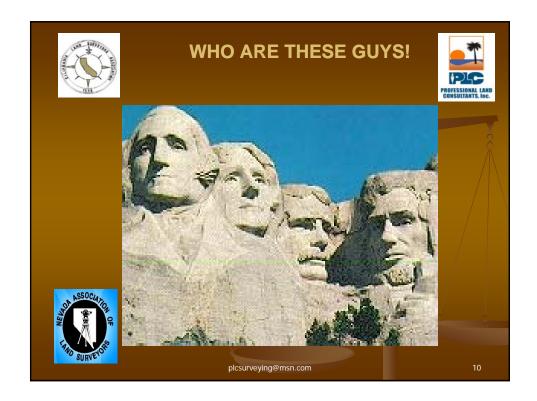
DO WE HAVE A PLAN?



- GOVERNMENT AT IT'S BEST!
- Land Ordinance of 1785
- Subsequent Acts: 1796, 1800, 1805, 1812, 1820, 1836, 1849.
- General Instructions: 1815, 1831, 1834, 1843, 1846, 1850, 1851.
- Manuals: 1881, 1890, 1894, 1902, 1909, 1919, 1930, 1947, 1973, 2010
- Basic Guidelines for Sectional Land.1st-Land was laid out in rectangular Grid System beginning in Ohio in 1785.
 Migration was to the west setting control monuments and control for both North/South & East/West.
 (Principal Meridians and Base Lines). 35 PM & 32 BL for the entire country. Controls 30 states!



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Let's Revisit the GLO PLAN



- General Rules 1-6
- Discussion of Lost vs. obliterated for corner locations.
- Excess & deficiency will be in the northerly/westerly sections.
- NW ¼ of NW ¼ is the absolute worse case scenario.
- Range Lines intersect at the North Pole; allowance for convergence was made with Standard Parallels at 24 mile intervals (4 Townships).
- Acceptable error: angular 21' horizontal 25 links per 40 chains (32'x33') What do you think? GOOD/BAD??
- 1973 Manual Pg. 70 Rectangular Limits
- OLD SCHOOL: one second is one foot in forty miles
- 1 x 0.000004865 x (40x5280) 211,200′=1.02
 - W/L 36; N/L 36; W/L 25; N/L 25; W/L 24; N/L 24; W/L 13; N/L 13; W/L 12; N/L 12; W/L 1 Tie into the north line of township
- Clark Pg.; 161



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MEASUREMENTS THAT'S WHAT WE DO BEST



- Rod / Pole / Perch 16.5' (16 men from church on Sunday)
- Vara has varying lengths as to the location used Texas/CA
- Knowing your chain! What if a chain of the original surveyor was 1-10 links off and you could prove it through research and measurements, would this impact your survey?
- Expert Witness: calibration test prior to and upon commencement of survey to ensure removal of random errors.



What's in your tool box? GPS vs. Pocket Tape
Watch the zero's & the costs! Know When to say When

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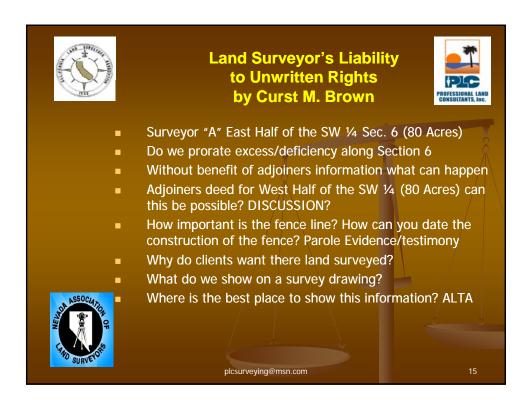
Walter G. Robillard, LS, Esq. RULES FOR LAND SURVEYORS



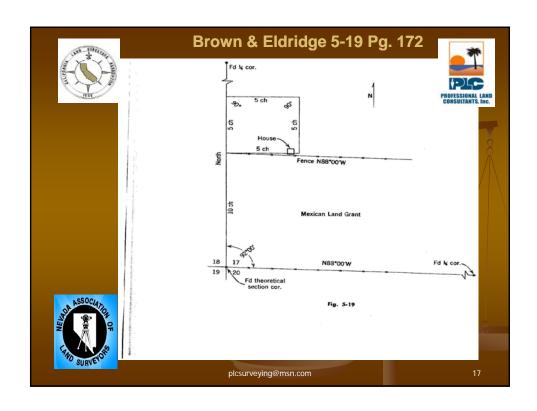
- Err on the side of safety. Always do a little bit more
- Locate deed on the ground do not verify if it is legal.
- 3. Search well! (Denver intersection)
- 4. Liability results of failure to perform work as indicated.
- Conclusion based on the facts-EVIDENCE.
- 6. RIGHT prevail in court. (Walt's fence story)
- 7. County Surveyor's Monuments (CSB Maps LA Co. Cors)
- 8. Evidence/Proof/Conclusions
- Best Evidence-Original Monument or call to Original
 - Preponderance vs. Reasonable Doubt Rules of Evidence
 - Evidence discovered in the initial survey.
 - Must be able to understand property line law to practice



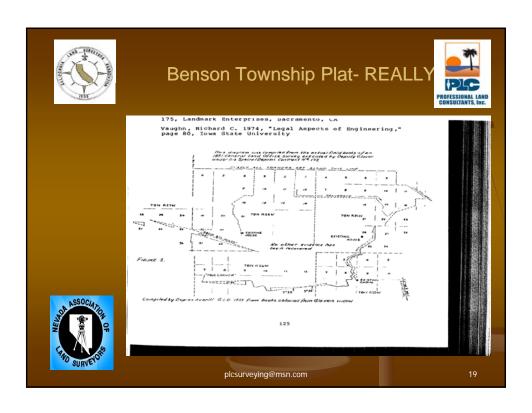
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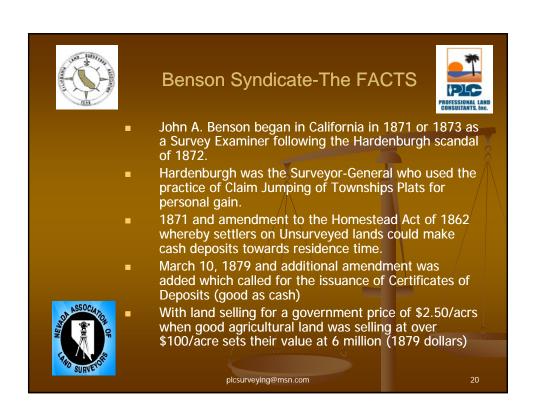














Benson Syndicate-The Grand Schei



- Find an Unsurveyed Township
- Arrange for "dummy settlers to apply for a survey
- Make an extremely low estimate of the cost of for the survey to reduce the amount of deposit required
- Obtain the cost of the deposit from the Bank of Nevada which is in collusion with surveyors.
- Begin the survey. Discover that the initial estimate was too low and obtain additional govt. money
- Perform only a skeletal or reconnaissance survey
- Benson would "Barroom write" the field notes
- Use the special deposit certificates to purchase valuable land



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Benson Syndicate-The Story



- Special Deposits accelerate the surveys to a point defying natural laws. Surveys doubled form 1879-1880
- Flatland surveying use to take 21-30 days; now they are performing rough terrain in 5-10 days
- Deputy Berdan lost six miles of the Sacramento River
- Honest Commissioner Sparks went to the field
- 3 Year statute of limitation let bad surveys become approved surveys prior to being checked by Sparks
- By the end of 1885 bad news was getting to D.C.



James Treadwell discovered that 60, 000 acres of the famous California Redwoods were being sold but not documented on the Field Notes

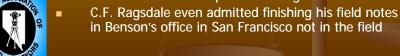
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Benson Syndicate-The Story



- Commissioners salary \$1,300 offered \$1,500 bribes
- Treadwell recalled by the Sec. of Interior Lamar
- Government hired GLO Surveyor from Illinois Agent George Pickett
- Agent Charles Conrad was wiser and told his friends in the newspaper business to "watch his back". San Francisco & Sacramento papers (Hearst)
- December 1886 had proof that surveys were frauds
- April 1887 Grand Jury handed down 41 indictments
- An example: Charles Holcomb stated under oath that he was never even a Deputy Surveyor-records reveal that over 70 Townships bear his signature.



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Benson Syndicate-The Story



- Prosecuting US Attorney Henry S. Dibble was moonlighting for the Bank of Nevada
- Benson's bail was secured by two principals from the Bank of Nevada
- Benson fled to Norway August 1887 where he was arrested for being a terrorist.
- Returned to US in 1889
- 1887 Agent Conrad was approached by the Southern Pacific RR and told to leave San Francisco



By 1889 Pickett, Treadwell, Conrad were all dismissed by the government. Dismissal was determined to be at the hands of the Sec. of the Interior; three US Representatives and two US Senators.

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Benson Syndicate-The Story



- The protesting Senator Stewart was the primary defense attorney for the Benson Group.
- Following the appointment of several agents, finally F.S. Stratton, the son of the former Surveyor-General of California who had approved townships for Benson was approved
- Trail began in 1892. Benson's attorneys told the government attorney to...sit down you know nothing about surveying!
- On closing argument day the lead attorney for the US went to the Horse Races and his assistant was constantly interrupted by the judge resulting in a committal.



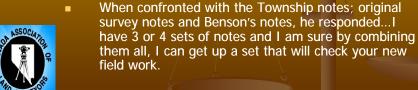
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Benson Syndicate-The Story



- January 1893 a one year delay was imposed
- Benson's DC attorney Col. Hazleton, a close personal friend of GLO commissioner Lamoreau offered the government the infamous 1894 Compromise. Agreed to send the indicted Deputies back to the field to "place in perfect condition" all the rejected surveys.
- July 1895 returned to California to resurvey as per the 1894 Compromise Agreement.
- Test case was T1S R1W SBB&M. After one week of just trying to find a POC they gave up





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Benson Syndicate-The Story



- June 1897 and Amended Stipulation was added to the 1894 Compromise....that all of the rejected surveys would be accepted if the indicted deputies would not sue the government for damages. So without further examination the government put forward \$400,000 to the Bank of Nevada for the surveys.
- While the townships involved in the indictments and the 1894 /1897 stipulations were finally rejected in 1911, there still remain in the western states a large number of Benson surveys that were approved prior to the Sparks field examinations of 1885.



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How hard can a Legal Description



- Parcel A: the Olson Placer Claim, South Swan Place Claim, Days Gulch Place Claim and Mulberry Place Claim (United States MS 5145) being a portion of Sections 31 and 32, township 6 South, range 76 West and Sections 5 and 6, Township 7 South, range 76 and Sections 35 and 36, Township 6 South range 77 and Section 1, Township 7 South, Range 77 all West of the 6th PM
- EXCEPT all that portion described as follows:
- Beginning at Corner No. 1, identical with Corner No. 3 of Survey No. 84, thence S 63 42 E 3585 feet to Corner No. 2 a Pine Post, whence a pine tree 11 inch diameter bears S 78 W feet, thence S 33 08 W 1614 feet to Conner No. 3 a pine post, whence a pine tree 10 inch diameter bears N 48 30 W



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How hard can a Legal Description



- On and On and On
- All of said premises so excepted being the same and identical premises which were decreed to the property of Daniel D. Eacher, Oliver Swanson, Jessie W. Sterling, widow and executrix of the Last Will and testament of A. J. Sterling, decease, George H. Callahan and Charles C. Johnson, deceased, in case No. 1586, in the District Court of said County of Summit, in which case Nelly Daly Campion, as Trustee was the plaintiff, and John Campion, 1 et al., were Defendants.
- Parcel B: The Miller Placer Claim (United States MS 3909) being a portion of the Carpenter Mining District and embracing a portion of Sections 25,26,35,36, Township 6 South, range 77 West of the 6th PM Except all that portion lying within Parkville Subdivision Filing No.1



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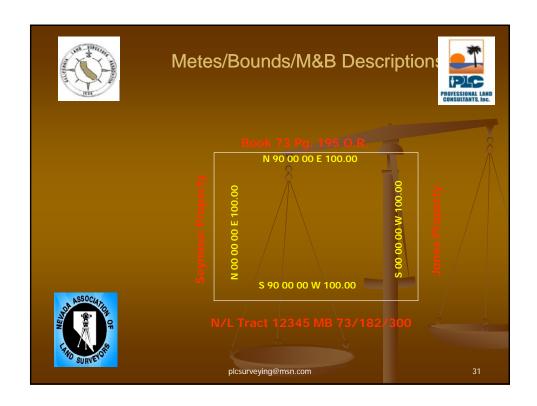
How hard can a Legal Description



Beginning at the right bank of Cripple Creek; thence in a direct line to the NW Corner of Brown's Barn; Thence NE'ly to a Cottonwood Stump, measuring 48"; Thence along the ROW Line of Old County Road 65 to the fork in the road; thence returning in a straight line to the point of beginning, containing 40 acres more or less.



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CLSA EXAM GUIDE

LUTIONS QUENTIAL CONVEYANCES DBLEM 1

How is Deed 1 established? Give as much detail as possible, without performing calculatic The Southerly ½ of Lot 2 will be established based on ½ of the total area of Lot 2 (Brown 13.5)

The direction of the northerly line of the southerly ½ of Lot 2 will be the mean bearing of the northerly and southerly line of Lot 2 (Brown 13.8)

What is the bearing of the easterly line of the land conveyed in Deed 2?

The bearing of the easterly line will be south 16° west, right angles to the northerly line of the tract. (Brown 11.46)

What is the bearing of the southerly line of the land conveyed in Deed 2?

North 75° West, based on the controlling call of being perpendicular to the west line (Brown 11.11)

What is the approximate distance of the westerly line of the land conveyed in Deed 3?

The Approximate distance is 125 feet (Actual distance is 123.15 feet). The call to the point of beginning being 150 feet is erroneous based on the Retracement of Deed 2. (Brown 11.29) The actual point of beginning is approximately 100 feet (actual distance is 101.73 feet) from the northwest corner. (Brown 11.23)

What is the bearing of the easterly line of the land conveyed in Deed 3?

North 16° east being at right angles to the described southerly line. (Brown 11.15 & 11.46)

What is the bearing of the southerly line of the land conveyed in Deed 3?

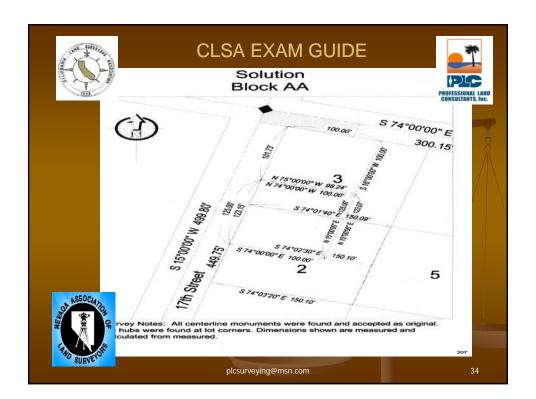
The Bearing of the southerly line is going to be the mean bearing of the northerly and southerly line of Lot 2 (Actual bearing is south 74° 02' 30" East), as Deed 1 has senior rights over deed 3. (Brown 11.13)

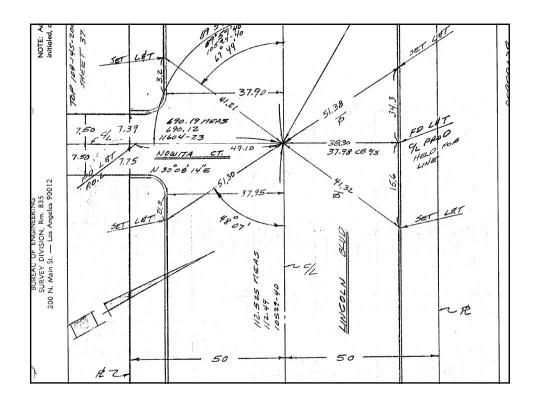


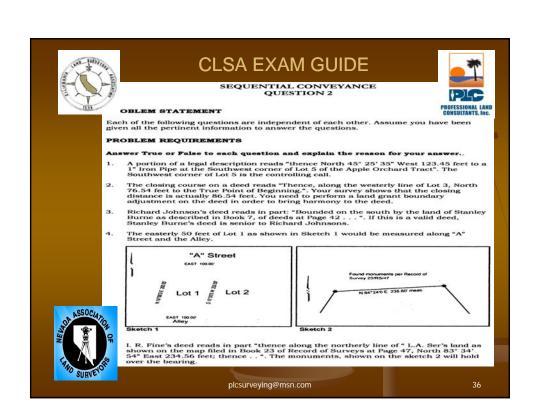
o is the underlying owner of the westerly 100 feet of Avenue H lying within Block "AA"?
Wheat would have ownership of the underlying fee title to the westerly 100 feet of Avenue "H", even ugh his deed calls along the side lines of the Avenue (Brown 8.8)

es are from Boundary Control and Legal Principles (Fifth Edition) by Curtis M. Brown.

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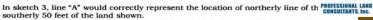


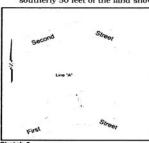


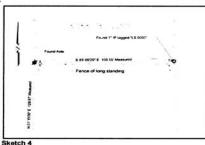


CLSA EXAM GUIDE

SEQUENTIAL CONVEYANCE PROBLEM 2 (Continued)







Jones's description reads in part "thence North 2° 15' East 125.67 feet to an axle at the southwest corner of Sweet's land; thence East 100.50 feet to a 1" iron pipe tagged "LS 000" at the southeast corner of Sweet's land. The measured positions of the monuments and the existing improvements are shown on sketch 4. Based on this information the axle should be accepted as the axle in the description.



The Survey as shown on Sketch 4 proves that the fence shown has been there for at least 20 years. There is evidence that the Sweet's have gardened right up to the fence for years. Your survey on the property to the south should accept the lines of Occupation by setting your monuments at the fence corners.

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CLSA EXAM GUIDE

SOLUTIONS SEQUENTIAL CONVEYANCES PROBLEM 2



A portion of a legal description reads "thence North 45° 25' 35" West 12 CONSULTANTS leg. feet to a 1" Iron Pipe at the Southwest corner of Lot 5 of the Apple Orchard Tract". The Southwest corner of Lot 5 is the controlling call.

FALSE. The controlling call is the 1" Iron Pipe. (Brown 11.23) The southwest corner of Lot 5 is an informative call on what the 1" iron pipe is marking (Brown 11.11)

The closing course on a deed reads "Thence, along the westerly line of Lot 3, North 76.54 feet to the True Point of Beginning.". Your survey shows that the closing distance is actually 86.54 feet. You need to perform a land grant boundary adjustment on the deed in order to bring harmony to the deed.

FALSE: Based on the information given, there is no conflict in the deed, as it excludes the direction and distance by going "To the True Point of Beginning" (Brown 11.23) There is a mathematical error, however common practice is to put the error in the last course (Brown 11.29). The deed closes absolutely as it forces the last line to close on the point of beginning.

Richard Johnson's deed reads in part: "Bounded on the south by the land of Stanley Burne as described in Book 7, of deeds at Page 42 . . . ". If this is a valid deed, Stanley Burne's deed is senior to Richard Johnsons.

FALSE: Call to an adjoiner, does not mean that adjoiner must be senior, nor does it invalidate the deed. (Brown 11.14)

The easterly 50 feet of Lot 1 as shown in Sketch 1 would be measured along "A" Street and the Alley.

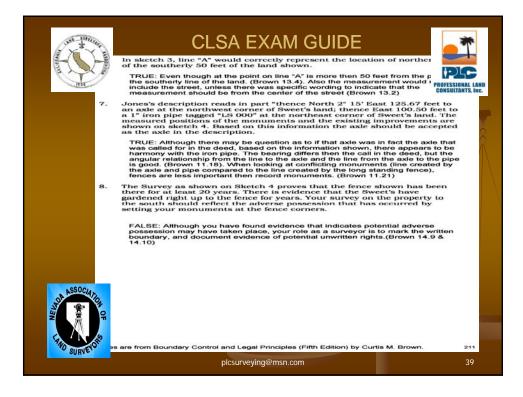
FALSE: Barring other information, the 50 feet would be measured at right angles to the easterly line of Lot 1. (Brown 13.4)

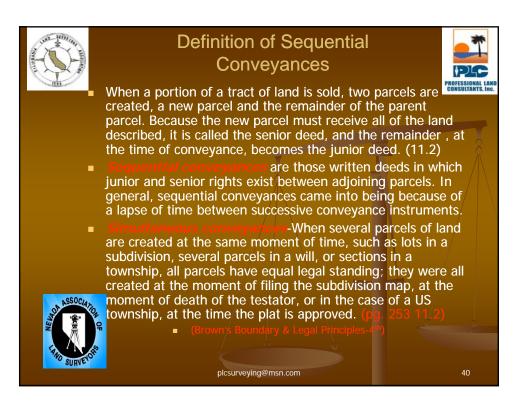
R. Fine's deed reads in part "thence along the northerly line of " L.A. Ser's land as shown on the map filed in Book 23 of Record of Surveys at Page 47, North 83° 34' 54" east 234.56 feet; thence . . ". The monuments, shown on the sketch 2 will hold over the bearing.

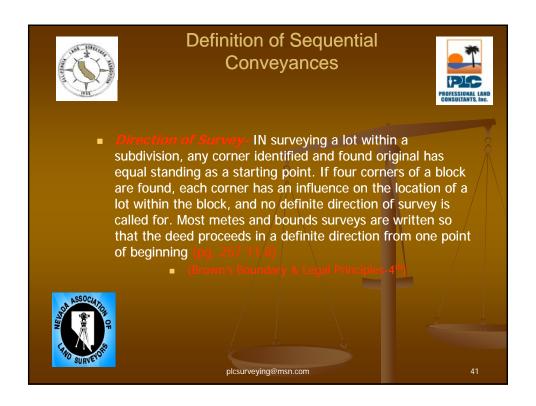
TRUE: The call to the record of survey, makes that plat a part of the description. As those monuments were shown on the survey as marking the northerly line of Ser, they would define the direction for the descriptions.

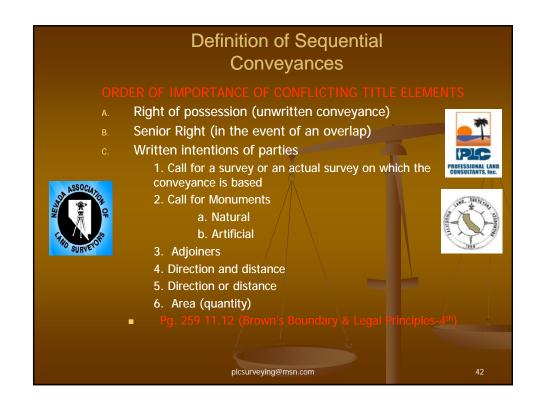
are from Boundary Control and Legal Principles (Fifth Edition) by Curtis M. Brown.

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Definition of Sequential Conveyances



Study the chapter on Locating Sequential Conveyan

When locating a parcel from a written description, the surveyor will see that there are three general classes of surveys or resurveys or more particularly retracement: (1) locating metes and bounds descriptions where the parcels have been located in a sequential order, (2) locating lots within subdivisions where the lost were created simultaneously, and (3) locating parcels that are predicated on sectionalized federal governmental lands, each of these will be treated separately.

A surveyor will find metes and bounds survey in all of the states as well as the various territories. As will be seen with sequential surveys or conveyance, one will seldom apply proportionate measurements, but in a retracement of simultaneously created parcels, proportionate measurement may be the rule, unless the contrary can be shown.



27 Principals to follow KNOW THESE WELL!

Pg. 250 11.1 (Brown's Boundary & Legal Principles-4th

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SURVEYING LIBRARY



- Clark on Surveying and Boundaries-4th Edition by John S. Grimes
- Brown's Boundary Control and Legal Principals 4th Edition Curtis M. Brown; Walter G. Robillard; Donald A. Wilson
- Definitions of Surveying and Associated Terms ACSM 1972 Edition
- Wattles Writing Legal Descriptions in conjunction with Survey Boundary Control
- Boundaries and Landmarks a Practical Manual by A.C. Mulford.



- 1948 & 1973 BLM Manual (2010 Manual?)
- Over 30 books in my personal library

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