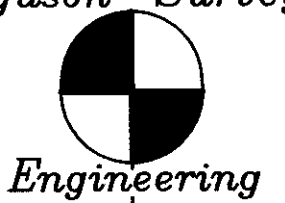


# OREGON MILITARY DEPARTMENT CAMP REES LICENSE BOUNDARY



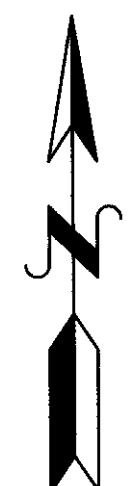
P.O. BOX 519, 210 E. MAIN  
MT. VERNON, OR 97865  
PHONE (541)932-4520  
FAX (541)932-4430  
EMAIL djse@oretelco.net

Situated in MORROW COUNTY as follows:

In the E1/2 of Sections 1, 12, & 13, T.4N., R.26E., W.M.;  
And in Sections 4, 5, 6, 7, 8, 9, 16, 17, 18 & 21, and  
in the E1/2 of Section 20, T.4N., R.27E., W.M.

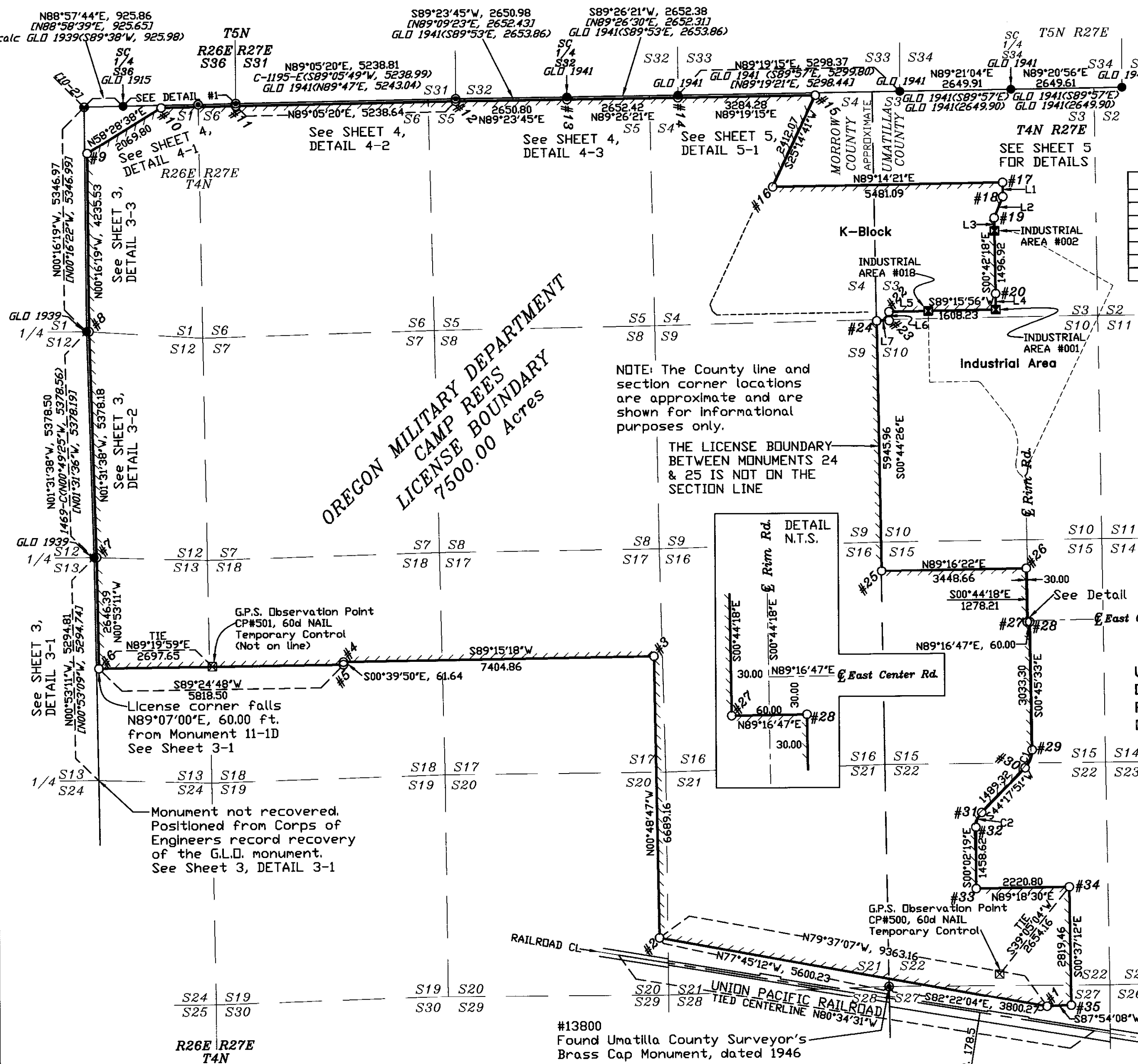
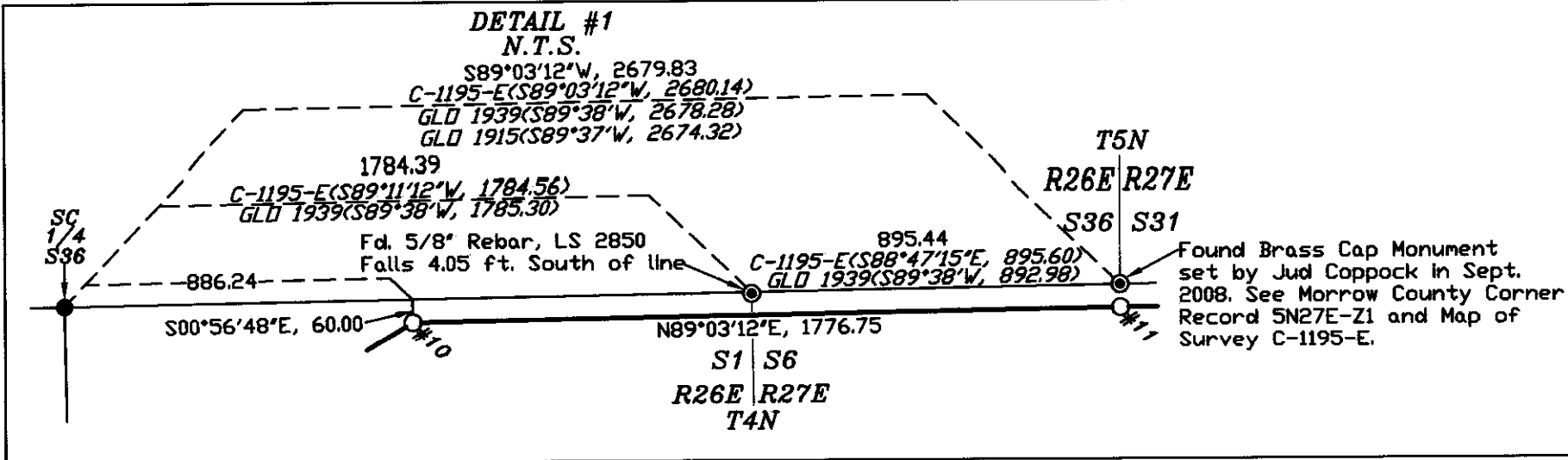
Situated in UMATILLA COUNTY as follows:

In Sections 3, 15, 21 & 22;  
In the W1/2 of Section 10;  
In the N1/2 of Section 27:  
All in T.4N., R.27E., W.M.



Scale: 1" = 2000'

BASIS OF BEARINGS: NAD 83(epoch 2010) Oregon North Zone(3601)  
See "SURVEY DATUM" on Sheet 2



OREGON MILITARY DEPARTMENT  
CAMP REES  
LICENSE BOUNDARY  
7500.00 Acres

NOTE: The County line and section corner locations are approximate and are shown for informational purposes only.

THE LICENSE BOUNDARY BETWEEN MONUMENTS 24 & 25 IS NOT ON THE SECTION LINE

LINE TABLE		
L1	S00°46'59"E	335.83
L2	S22°30'46"W	543.74
L3	S00°46'34"E	309.40
L4	S00°01'32"E	379.97
L5	S89°13'30"W	937.54
L6	S00°46'02"E	209.56
L7	S88°46'20"W	297.40



RECEIVED BY  
Umatilla County Surveyor  
Date: 8/27/2014  
Rec'd By: G. Hensley  
No.: 14-119-B

REGISTERED PROFESSIONAL LAND SURVEYOR  
OREGON  
JULY 13, 1999  
KENNETH H. DELANO JR.  
49865  
RENEWS: 1/1/2016

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- Sheet 6 Easement Centerlines - Roads & Water Main
- Sheet 7 Easement Centerlines
  - Detail 7A - Roads
  - Detail 7B - Proposed Railroad, Sanitary Sewer & Storm Drain
  - Detail 7C - Roads
  - Detail 7D - Roads
- Sheet 8 Easement Centerlines - Electrical & Natural Gas
- Sheet 9 Easement Centerlines - Telephone/Fiber Optic & Water Mains

**LEGEND - Sheets 1 thru 5**

- GLD 1915(Bearing/Dist) Record returned by Joseph A. Ganong, under instructions dated March 8, 1915, including surveys in Group No. 9.
- GLD 1939(Bearing/Dist) Record returned by Otis D. Gould, under special instructions dated January 26, 1938, including surveys in Group No. 217.
- GLD 1941(Bearing/Dist) Record returned by Otis D. Gould, under special instructions dated September 9, 1940, including surveys in Group No. 260.
- [Bearing/Dist] Bearing/Distance shown on a survey by the Corps of Engineers, Walla Walla, Washington, titled "Umatilla Depot Activity, Boundary Survey", in 1987.
- [Mon. ID] Monument Identifier as shown on a survey by the Corps of Engineers, Walla Walla, Washington, titled "Umatilla Depot Activity, Boundary Survey" in 1987.
- C-1195-E(Bearing/Dist) Record returned by Judson Coppock on Morrow County Map of Survey No. C-1195-E(969) filed in December, 1998.
- 1469-C(Bearing/Dist) Record returned by Robert Stratton on Morrow County Map of Survey No. 1469-C filed in May, 2006. (See Sheet 3-2)
- P.P. 2009-6(Bearing/Dist) Record returned by Dennis Edwards on Morrow County Partition Plat 2009-6, recorded as file No. 2009-24830 on Oct. 8, 2009 (See Sheet 4-2)

- Found G.L.D. Brass cap monument, see date near symbol.
- ⊙ Found record survey monument. See note near symbol.
- ⊕ Found Corps of Engineers monument set in 1987.
- ⊠ Found 3" aluminum pipe monument with aluminum cap stamped "INDUSTRIAL AREA" and monument number as shown, set by H&S Construction Site Surveyors.
- Set 2-3/8" dia. x 30' aluminum pipe monument with 3-1/4" dia. aluminum capped marked as shown in the "DIAGRAM OF SET MONUMENTS".

CAMP REES License Boundary, marked with 2-1/2" x 72" fiberglass reinforced composite posts with "PROPERTY BOUNDARY, OREGON NATIONAL GUARD LAND BEHIND THIS SIGN" DECAL, set at nominal 250' spacings.

CURVE TABLE					
NUMBER	DELTA ANGLE	RADIUS	ARC LENGTH	CHORD DIRECTION	CHORD LENGTH
C1	45°03'23"	600.00	471.83	S21°46'09"W	459.77
C2	44°20'10"	500.00	386.91	S22°07'46"W	377.32

R26E R27E  
T4N

#13800  
Found Umatilla County Surveyor's Brass Cap Monument, dated 1946

HISTORY OF SURVEYS

The First Standard Parallel North, being the south line of T.5N., R.26 & 27E., was originally surveyed by H.J.G. Maxon and Jared S. Hurd under Contract No. 50, dated February 2, 1860.

The subdivision of T.4N., R.26E., was originally surveyed by Nicholas Walden under Contract No. 209 dated July 6, 1874.

The south line of T.5N. R.26E. was retraced by Joseph A. Ganong, under instructions dated March 8, 1915, to govern surveys included in Group No. 9. Ganong does not make any mention of the closing corners for T.4N. during his retracement.

A dependent resurvey of the First Standard Parallel North, through R.26E., and dependent resurvey of the subdivision of T.4N., R.26E. was performed by Otis O. Gould in 1939 under special instructions dated January 26, 1938 which provided for the surveys included under Group No. 217. It should be noted that Gould reset both the Standard Corners for T.5N. and the Closing Corners for T.4N. during this survey.

A dependent resurvey of the First Standard Parallel North, through R.27E., and dependent resurvey of the east boundary of T.4N., R.27E. was performed by Otis O. Gould in 1941 under special instructions dated September 9, 1940, which provided for the surveys included under Group No. 260. It should be noted that Gould reset only the Standard Corners to T.5N., excepting the Closing Corner at T.4N., R.27 & 28E., which he reset at proportionate measure.

In 1987, The U.S. Army Corps of Engineers (USACE) performed a survey of the exterior boundary of the Umatilla Ordnance Depot. This survey is discussed further in the Narrative.

In 1998, Judson Coppock performed a survey situated in Section 36, T.5N., R.26E. and in Section 31, T.5N., R. 27E., filed as Morrow County Map of Survey C-1195-E and is discussed further in the Narrative.

In 2006, Robert Stratton performed a survey in Section 12, T.4N., R.26E., filed as Morrow County Map of Survey 1469-C. Mr. Stratton recovered the 1939 G.L.O. brass cap monuments at the 1/4 corners to Sections 1 & 12 and Sections 12 & 13. Mr. Stratton also calls the U.S. Corps of Engineer monuments as references to the G.L.O. monuments.

In 2009, Dennis Edwards performed a partition survey in Section 31, T.5N., R. 27E., filed as Morrow County Partition Plat 2009-6, recorded as file No.2009-24830 on Oct. 8, 2009.

NARRATIVE

This survey was performed under contract with the State of Oregon, Oregon Military Department, to locate, monument and mark a predetermined license boundary located within a portion of the Umatilla Army Depot. This survey will be utilized to reassign a portion of the Army lands, as shown herein, to the National Guard Bureau and to permit use of the said Army lands by the State of Oregon, Oregon Military Department, in a License Agreement. The portion of the Depot land within license boundary is referred to as Camp Rees.

That portion of the westerly Depot boundary affecting the License Boundary is the north-south center of section lines through sections 1,12 and 13, T.4N., R.26E. as shown herein. The relevant 1/4 Section Corners were re-established by the G.L.O. in 1939. We recovered G.L.O. monuments at the 1/4 corner to Section 1 & 12 and the 1/4 corner to Section 12 & 13. The monument marking the 1/4 corner to Section 13 & 24 was not recovered and is discussed below.

During the initial research for the exterior boundary of the Depot, a 1987 survey, performed by the United States Army Corp of Engineers (USACE), Walla Walla District, was provided by the Corp of Engineers. We recover a majority of the USACE monuments along that portion of the westerly and the northerly boundaries as shown herein.

We find the USACE survey monuments along the westerly boundary to be online between the aforementioned 1/4 corners and accept the Corps survey along the westerly Depot boundary as the record position. The USACE survey monumentation notes indicate that the G.L.O. monument at the 1/4 corner to Section 13 & 24 was found to be damaged and was replaced with a Corps monument. We did not recover the G.L.O. or USACE monument at this location. We determined that the record position returned by the USACE survey to be best available evidence of the location of this corner.

The License Boundary is located parallel to and 60 feet east of the above said N-S center of section lines, beginning at Camp Rees Monument #6, and coursing north to Camp Rees Monument #9.

NARRATIVE (cont.)

The northern most portion of the License Boundary, from Camp Rees Monument #10 to Camp Rees Monument #15, is located 60 feet south and parallel to the First Standard Parallel North, T.4 & 5N., R.26 & 27E., and is described below.

At the Standard 1/4 Corner for Section 36, T.5N., R.26E., we recover the G.L.O. monument set by Ganong in 1915. 926 feet west of the G.L.O. monument, we recover USACE monument 10-2, and find that based on it's position relative to the said 1/4 corner, it represents the best record position to determine the direction of the N-S center of section line of Section 1, T.4N., R.26E. The license boundary between monuments 8 & 9 is placed 60 feet east of and parallel to the said N-S centerline of Section 1.

At the Township Corner to T.5N., R.26 & 27E., we find a brass cap set by Judson Coppock in 2008. Mr. Coppock recovered the 1915 G.L.O. monuments in 1998 as reported on Morrow County Map of Survey C-1195-E. In 2008, Mr. Coppock finds the G.L.O. monument has been destroyed and re-monuments it. See Morrow County Corner Record 5N27E-21. We accept this monument as the Township corner.

At the Standard Corner to Sections 31 & 32, we find a brass cap set by Judson Coppock in 1998, which he states he re-established at record angles and proportionate measure from the 1941 G.L.O. survey. We accept this monument.

We recover the 1941 G.L.O. monuments at the Standard 1/4 corner of Section 32, the Standard Section corners to Sections 32 & 33 and Sections 33 & 34. These monuments are accepted and utilized in locating the license boundary. The 1941 G.L.O. monuments are also recovered at the Standard 1/4 corner of Section 34 and the Standard Section corner to Sections 34 & 35 and are shown for the record.

The 1987 USACE survey recovered the G.L.O. monument at the the Standard 1/4 Corner for Section 36, T.5N., R.26E. and the Standard 1/4 Corner for Section 32, T.5N., R.27E. USACE monuments are set in a straight line between the above said monuments, as indicated on the USACE survey. As stated above, we accepted the position of the Coppock monument at the Township Corner to T.5N., R.26 & 27E., and the Coppock monument at the Standard corner to Sections 31 & 32, T.5N., R.27E. Based on the above said Coppock monuments and the found G.L.O. monuments at the Standard 1/4 corner of Section 36, T.5N., R.26E. and at the Standard 1/4 corner of Section 32, T.5N., R.27E., we find the USACE monuments to be off of the Township Line. The fallings to the Township line are shown herein for the off-line USACE monuments. The distance shown between said USACE monuments are on the Township line at a point perpendicular to the said Township line from the USACE monuments.

We find the USACE monuments between the found G.L.O. monuments east of the Standard Standard 1/4 Corner for Section 32, T.5N., R.27E. to be on the Township line.

The license boundary, from Monument #10 to Monument #15, is then located 60 feet south of and parallel to the Township Line as shown.

The license boundary from Monument #1 to #6 and from Monument #15 to #35 is located at the direction of the Oregon Military Department.

SURVEY DATUM

The Datum for this survey is NAD 83(epoch 2010) Oregon North Zone(3601) U.S. Survey Ft., determined as follows:

Two temporary control points are established, shown herein as CP#500 and CP#501. Independent static g.p.s. observations are made at those points. The collected data is then uploaded to the NOAA "Online Positioning User Services" (OPUS) and an NGS OPUS Solution report was provided to us. A modified copy of that report is included herein.

Utilizing coordinates returned by OPUS at points CP #500 and CP #501, static and r.t.k. observations are made using both a Topcon HiPerlite system and a Topcon HiPer II system.

The coordinate base is then shifted 0.018 ft. east and 1.428 ft. north to match the historic coordinates utilized for surveys around the weapons disposal area, shown herein as the Industrial Area, by H&S Construction Site Surveyors.

REGISTERED PROFESSIONAL LAND SURVEYOR

OREGON JULY 13, 1999 KENNETH H. DELANO JR. 49865

RENEWS: 1/1/2016

SURVEY DATUM (cont.)

NGS OPUS SOLUTION REPORT

POINT: CP #500
FILE: B11010a.tps OP1382377497467
All computed coordinate accuracies are listed as peak-to-peak values. For additional information: http://www.ngs.noaa.gov/OPUS/about.jsp#accuracy
DATE: October 21, 2013
RINEX FILE: b110283r.13o TIME: 17:45:52 UTC

SOFTWARE: page5 1209.04 master62.pl 072313
EPHEMERIS: igr17614.eph [rapid]
NAV FILE: brdc2830.13n
ANT NAME: TPSHIPER\_LITE NONE
ARP HEIGHT: 1.56361
START: 2013/10/10 17:14:00
STOP: 2013/10/10 22:23:00
OBS USED: 11757/11846: 99%
# FIXED AMB: 45/46: 98%
OVERALL RMS: 0.010(m)

REF FRAME: NAD\_83(2011)(EPOCH:2010.0000)
X: -2188043.027(m) 0.001(m)
Y: -3879299.629(m) 0.002(m)
Z: 4550446.082(m) 0.002(m)

OPUS Calculated Field Observed\*
N LAT: 45°48'25.90801" 0.002(m) 45°48'25.87"
W LON: 119°25'27.55521" 0.001(m) 119°25'27.61"
EL HGT: 154.764(m) 0.001(m)
ORTHO HGT: 176.555(m) 0.015(m)
NOTE: ORTHO HGT=NAVD88(OPUS Computed using GEOID12A), used for project elevation.

STATE PLANE COORDINATES (3601 OR N)

(Meters) (U.S. Survey Ft.) (This Survey)
Northing (Y) 238421.832 782222.294 782223.722
Easting (X) 2583608.502 8476388.894 8476388.876
Elev (Z) 176.555 579.249 579.249

Convergence [dms]: 00°45'46.28"
Point Scale: 0.99995670
Combined Factor: 0.99993244
1 meter = 3.2808333333 U.S. Survey Ft.

US NATIONAL GRID DESIGNATOR: 11TLL1162975484(NAD 83)

BASE STATIONS USED

PID DESIGNATION LATITUDE LONGITUDE DISTANCE(m)
AF9664 GOBS - GOLDENDALE OBSER. CORS ARP N45°50'19.731" W120°48'52.775" 108105.2
DH4096 P451 - WSUOTHELO\_WA2004 CORS ARP N46°47'34.014" W119°02'28.842" 113461.4
DG7408 PO20 - DRYLNDNRSH\_WA2004 CORS ARP N47°00'07.933" W118°33'56.712" 148340.0

NGS OPUS SOLUTION REPORT

POINT: CP #501
FILE: R11010a.tps OP1382377395264
All computed coordinate accuracies are listed as peak-to-peak values. For additional information: http://www.ngs.noaa.gov/OPUS/about.jsp#accuracy
DATE: October 21, 2013
RINEX FILE: r110283r.13o TIME: 17:44:11 UTC

SOFTWARE: page5 1209.04 master62.pl 072313
EPHEMERIS: igr17614.eph [rapid]
NAV FILE: brdc2830.13n
ANT NAME: TPSHIPER\_LITE NONE
ARP HEIGHT: 1.71601
START: 2013/10/10 17:30:00
STOP: 2013/10/10 22:13:00
OBS USED: 10563/10981: 96%
# FIXED AMB: 53/55: 96%
OVERALL RMS: 0.011(m)

REF FRAME: NAD\_83(2011)(EPOCH:2010.0000)
X: -2192165.641(m) 0.003(m)
Y: -3875048.279(m) 0.004(m)
Z: 4552071.714(m) 0.003(m)

OPUS Calculated Field Observed\*
N LAT: 45°49'41.48468" 0.002(m) 45°49'41.45"
W LON: 119°29'50.67775" 0.002(m) 119°29'50.73"
EL HGT: 153.867(m) 0.005(m)
ORTHO HGT: 175.687(m) 0.017(m)

STATE PLANE COORDINATES (3601 OR N)

(Meters) (U.S. Survey Ft.) (This Survey)
Northing (Y) 240681.869 789637.099 789638.527
Easting (X) 2577898.870 8457656.543 8457656.525
Elev (Z) 175.687 576.401 579.249

RECEIVED BY
Umatilla County Surveyor
Date: 8/27/2014
Rec'd By: G Nensley
No.: 14-119-B

Convergence [dms]: 00°42'39.68"
Point Scale: 0.99996086
Combined Factor: 0.99993674
1 meter = 3.2808333333 U.S. Survey Ft.

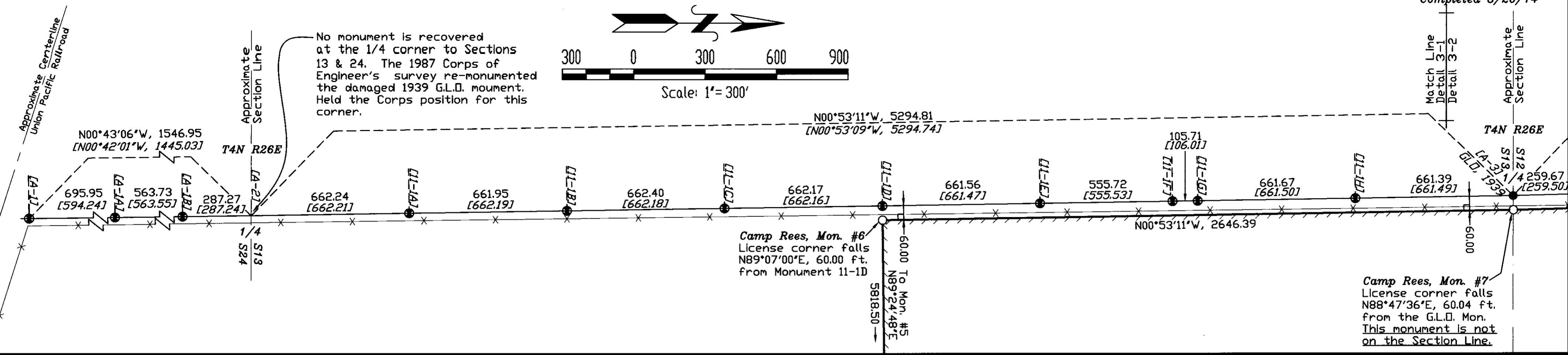
US NATIONAL GRID DESIGNATOR: 11TLL0602377991(NAD 83)

BASE STATIONS USED

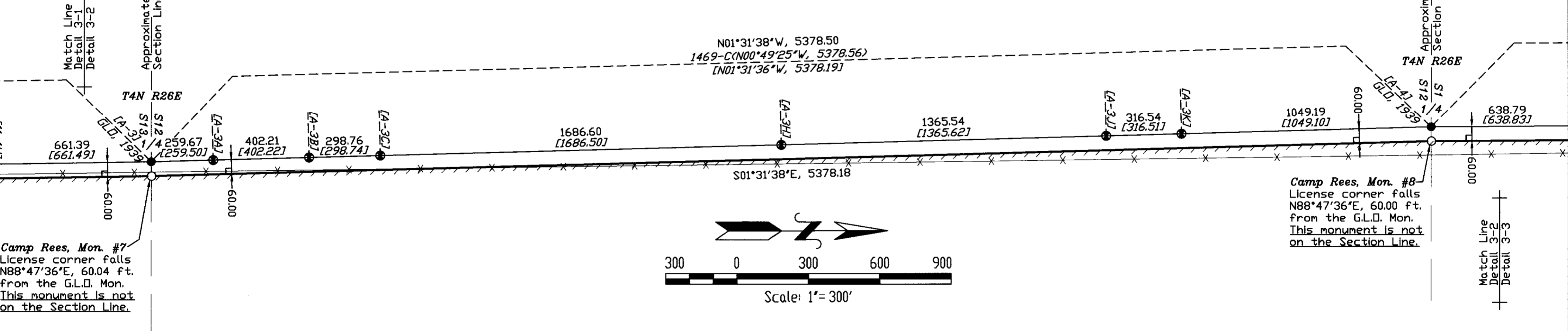
PID DESIGNATION LATITUDE LONGITUDE DISTANCE(m)
DH4096 P451 - WSUOTHELO\_WA2004 CORS ARP N46°47'34.014" W119°02'28.842" 112832.5
DN5846 PDTN - PENDLETON CORS ARP N45°39'57.391" W118°45'24.883" 60380.8
DG7408 PO20 - DRYLNDNRSH\_WA2004 CORS ARP N47°00'07.933" W118°33'56.712" 148868.8

\*Field observed Lat & Long shown above are the returned observation from TDS's Survey Pro Software, using Topcon Hyper II GPS system.

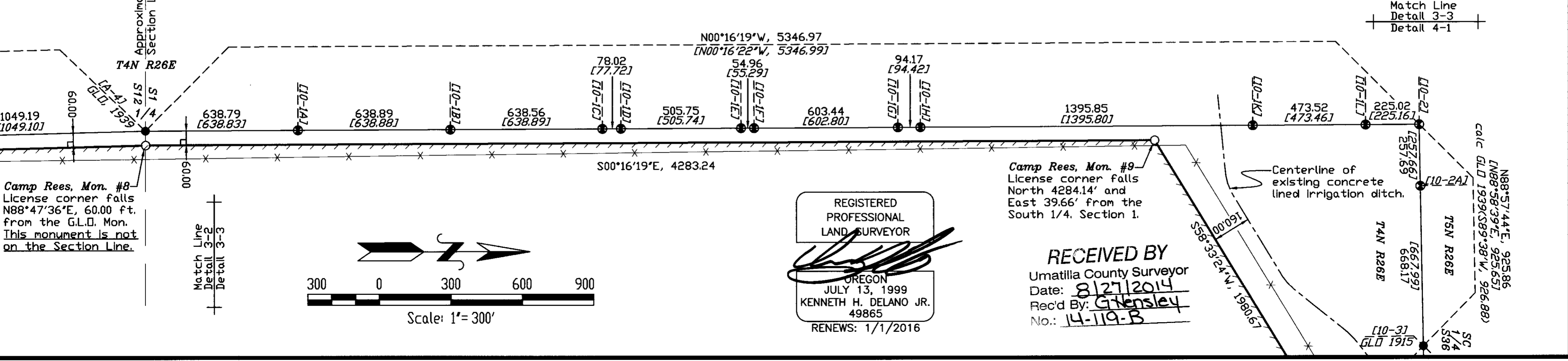
DETAIL 3-1

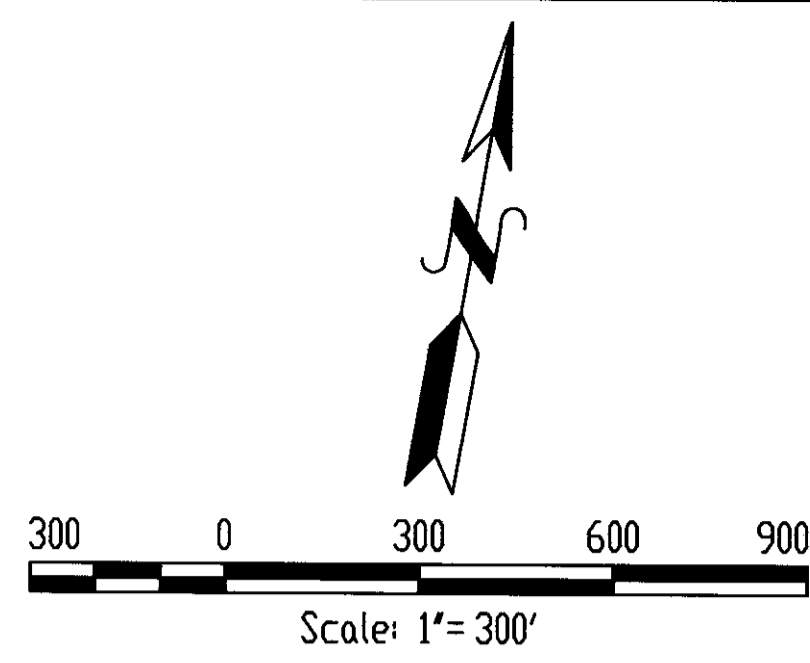


DETAIL 3-2

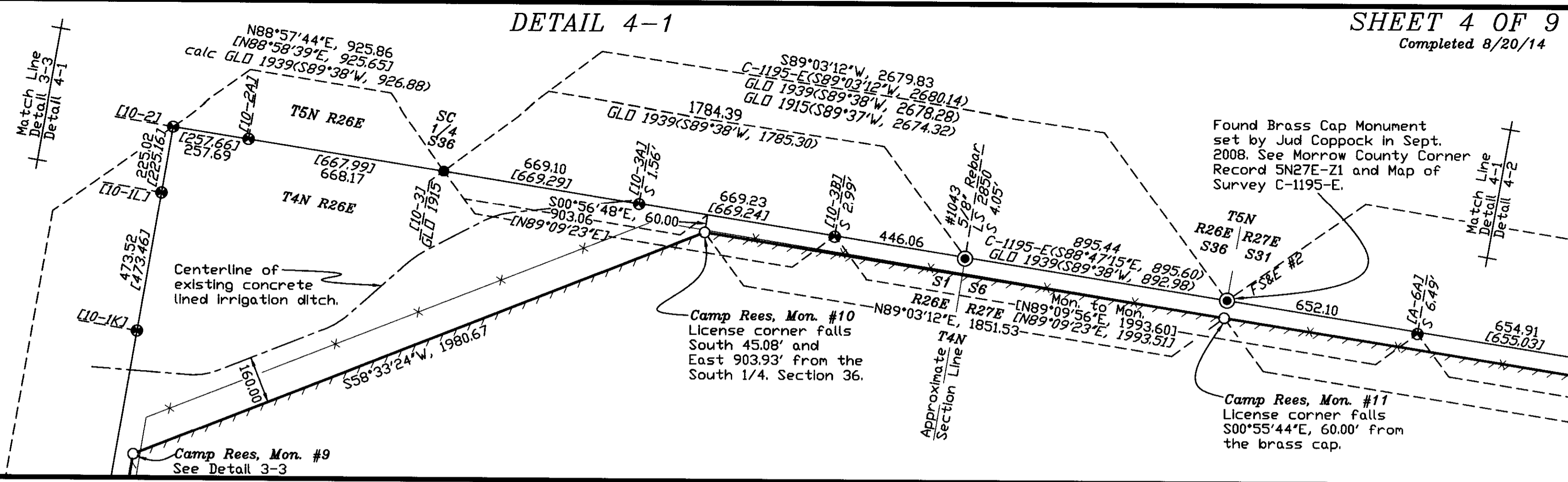


DETAIL 3-3

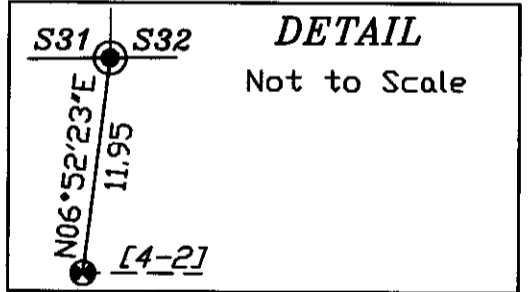
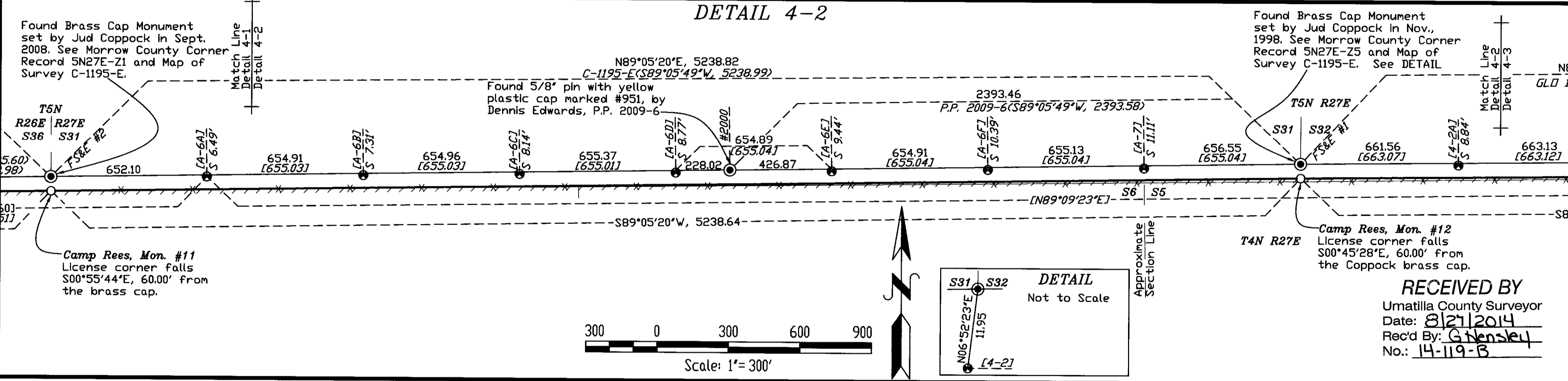




DETAIL 4-1



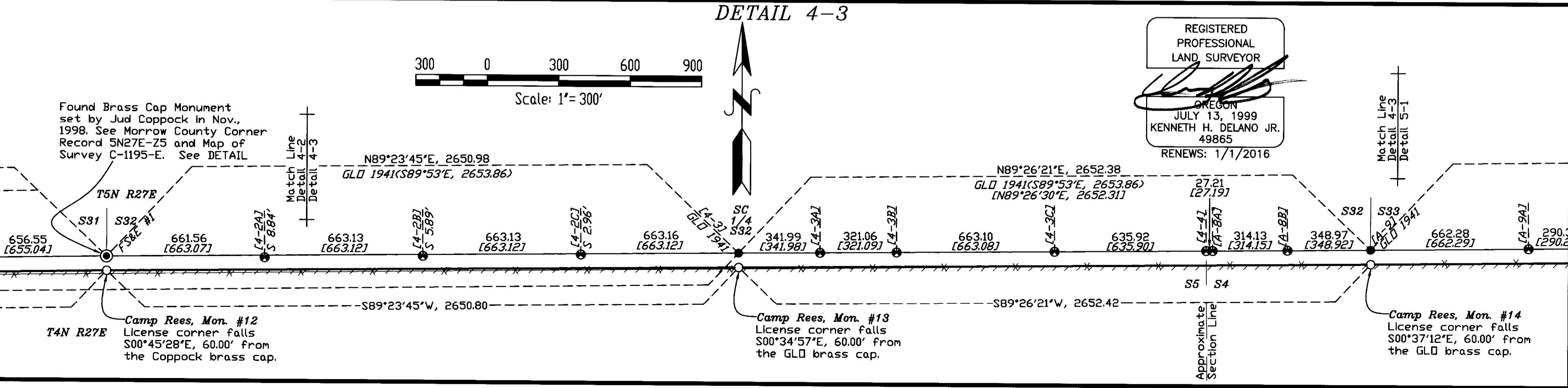
DETAIL 4-2



Found Brass Cap Monument set by Jud Coppock in Nov., 1998. See Morrow County Corner Record 5N27E-25 and Map of Survey C-1195-E. See DETAIL

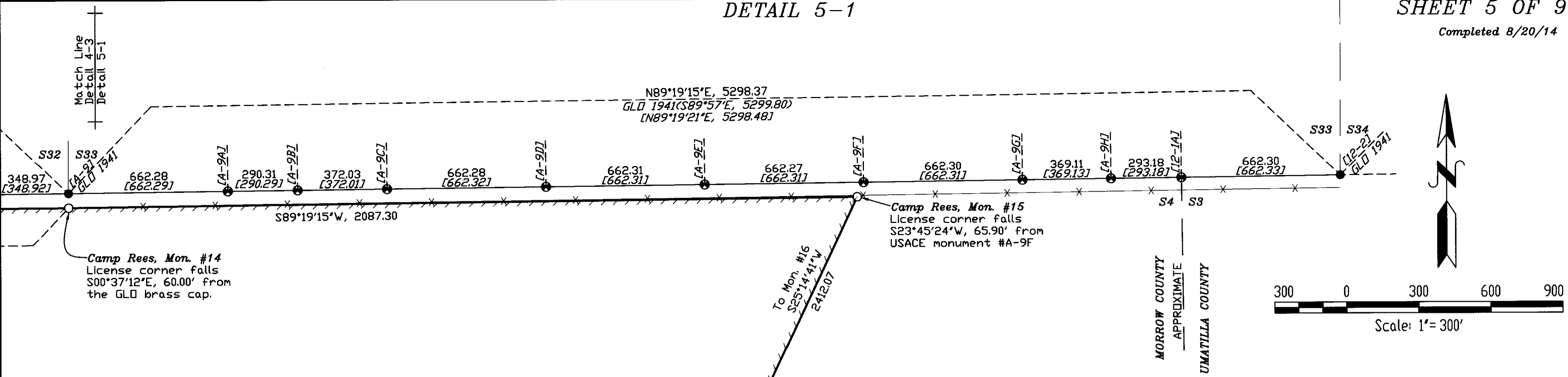
RECEIVED BY  
Umatilla County Surveyor  
Date: 8/27/2014  
Rec'd By: G. Hensley  
No.: 14-119-B

DETAIL 4-3



REGISTERED PROFESSIONAL LAND SURVEYOR  
*(Signature)*  
OREGON  
JULY 13, 1999  
KENNETH H. DELANO JR.  
49865  
RENEWS: 1/1/2016

Match Line Detail 4-3  
Detail 5-1



**COORDINATE TABLE  
MONUMENTS SET THIS SURVEY**

ID	Northing	Easting	Elev.
#1	781443.48	8477515.10	578.42
#2	783136.14	8468275.70	544.47
#3	789824.63	8468180.77	579.22
#4	789728.35	8460776.53	579.64
#5	789666.72	8460777.25	583.64
#6	789607.13	8454959.05	565.65
#7	792253.21	8454918.11	NA
#8	797629.47	8454774.78	488.48
#9	801864.96	8454754.67	415.45
#10	802947.13	8456519.04	404.06
#11	802976.48	8458295.54	428.42
#12	803059.79	8463533.52	488.33
#13	803087.74	8466184.16	543.44
#14	803113.71	8468836.46	575.32
#15	803152.64	8472120.50	620.34
#16	800970.94	8471091.79	636.82
#17	801043.73	8476572.39	648.30
#18	800707.94	8476576.98	649.05
#19	800205.64	8476368.79	655.57
#20	798399.46	8476391.40	644.02
#22	797986.19	8473846.01	632.06
#23	797776.65	8473848.82	633.15
#24	797770.28	8473551.48	631.28
#25	791824.81	8473628.34	NA
#26	791868.58	8477076.73	639.26
#27	790590.48	8477093.20	629.70
#28	790591.23	8477153.19	630.19
#29	787558.19	8477193.38	600.77
#30	787131.21	8477022.86	595.46
#31	786065.27	8475982.74	598.14
#32	785715.74	8475840.61	597.45
#33	784257.12	8475841.59	595.60
#34	784283.93	8478062.23	585.31
#35	781464.64	8478092.74	580.66

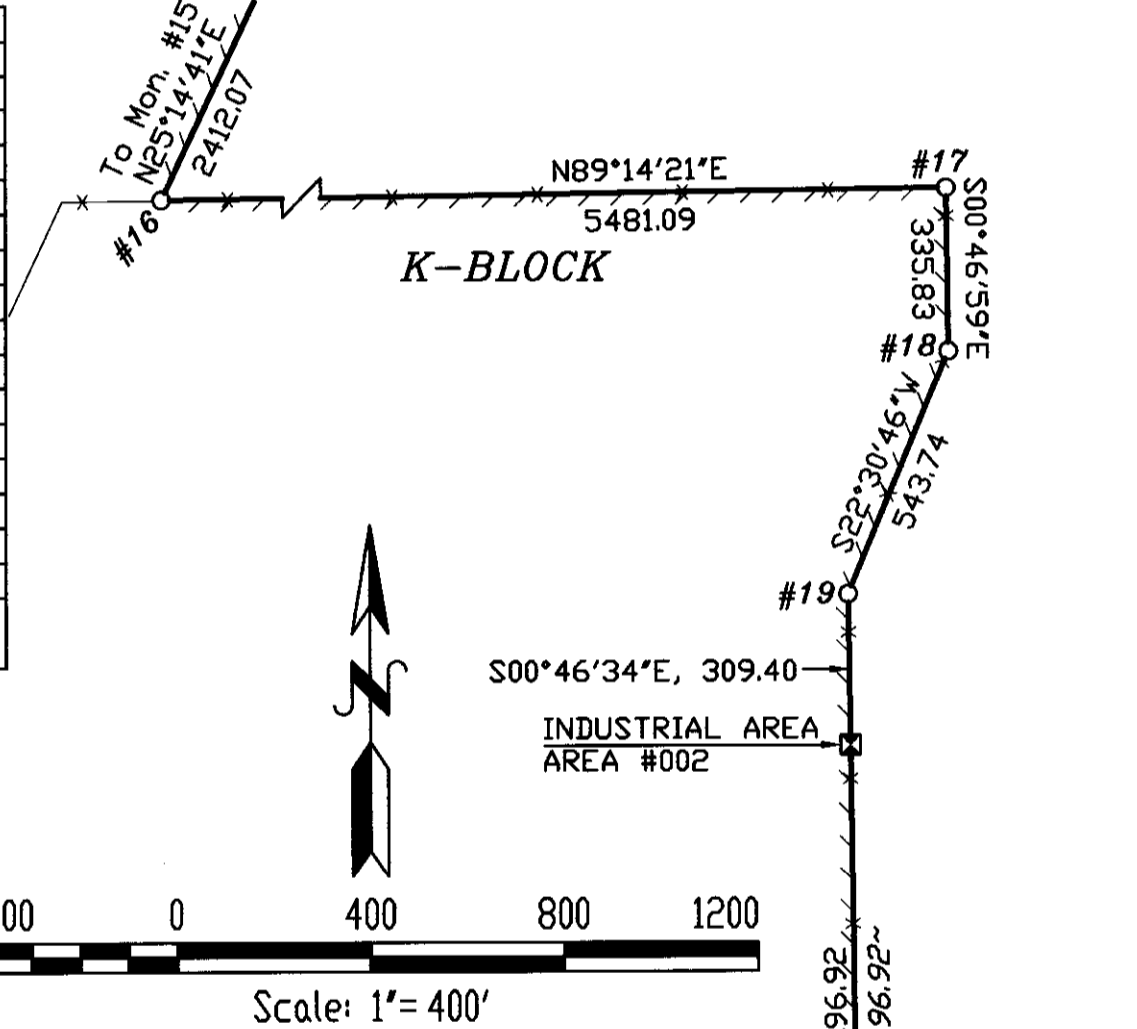
**COORDINATE TABLE - FOUND MONUMENTS**

ID	Northing	Easting	Elevation	Description
A-1	785410.93	8454959.43	548.37	USACE MON
A-1A	786106.83	8454950.70	552.83	USACE MON
A-1B	786670.52	8454943.64	560.38	USACE MON
A-2	786957.76	8454940.04	NA	Calc Pt 1/4 S13-24 4N 26E
11-1A	787619.92	8454929.79	569.24	USACE MON
11-1B	788281.79	8454919.55	568.89	USACE MON
11-1C	788944.11	8454909.30	569.82	USACE MON
11-1D	789606.20	8454899.06	565.53	USACE MON
11-1E	790267.68	8454888.83	569.68	USACE MON
11-1F	790823.34	8454880.23	569.40	USACE MON *
11-1G	790929.04	8454878.59	565.08	USACE MON
11-1H	791590.63	8454868.36	571.04	USACE MON
A-3	792251.94	8454858.12	556.06	1/4 S12-13 4N 26E GLO BC 1939
A-3A	792511.52	8454851.20	557.56	USACE MON
A-3B	792913.59	8454840.48	547.85	USACE MON
A-3C	793212.24	8454832.52	552.24	USACE MON
A-3H	794898.24	8454787.57	533.82	USACE MON
A-3J	796263.29	8454751.18	552.47	USACE MON
A-3K	796579.72	8454742.74	545.20	USACE MON
A-4	797628.53	8454714.78	487.70	1/4 S1-12 4N 26E GLO BC 1939
10-1A	798267.31	8454711.75	481.23	USACE MON
10-1B	798906.19	8454708.72	465.72	USACE MON *
10-1C	799544.75	8454705.68	456.58	USACE MON
10-1D	799622.76	8454705.31	457.16	USACE MON
10-1E	800128.50	8454702.91	448.49	USACE MON
10-1F	800183.46	8454702.65	445.17	USACE MON
10-1G	800786.90	8454699.79	434.45	USACE MON *
10-1H	800881.06	8454699.34	429.12	USACE MON
10-1K	802276.90	8454692.71	384.41	USACE MON
10-1L	802750.41	8454690.46	382.79	USACE MON
10-2	802975.43	8454689.40	370.18	USACE MON
10-2A	802980.10	8454947.04	373.41	USACE MON
10-3	802992.20	8455615.10	377.61	SC 1/4 S36 5N 26E GLO BC 1915
10-3A	803001.69	8456284.14	391.64	USACE MON
10-3B	803011.32	8456953.30	407.99	USACE MON *
#1043	803017.63	8457399.32	413.15	5/8" REBAR LS 2850
FS&E #2	803036.47	8458294.57	NA	S36 S31 T5N R26-27E COPPOCK BC
A-6A	803040.35	8458946.69	440.31	USACE MON *
A-6B	803049.95	8459601.53	438.26	USACE MON *
A-6C	803059.53	8460256.42	440.98	USACE MON *
A-6D	803069.33	8460911.71	444.41	USACE MON *
#2000	803081.72	8461139.57	450.85	5/8" pin with #951 cap
A-6E	803079.07	8461566.54	455.76	USACE MON *
A-6F	803088.53	8462221.38	467.50	USACE MON *
A-7	803098.24	8462876.44	475.53	USACE MON
4-2	803107.92	8463531.29	486.64	USACE MON
FS&E #1	803119.79	8463532.72	NA	SC S31 S32 5N 27E COPPOCK BC
4-2A	803117.92	8464194.34	495.71	USACE MON
4-2B	803127.86	8464857.40	513.29	USACE MON
4-2C	803137.79	8465520.46	526.87	USACE MON
4-3	803147.74	8466183.56	539.82	SC 1/4 S32 GLO BC 1941
4-3A	803151.09	8466525.53	551.18	USACE MON
4-3B	803154.23	8466846.58	551.32	USACE MON
4-3C	803160.72	8467509.64	556.86	USACE MON
4-4	803166.95	8468145.53	576.77	USACE MON
A-8A	803167.21	8468172.74	576.34	USACE MON

**COORDINATE TABLE - FOUND MONUMENTS**

ID	Northing	Easting	Elevation	Description
A-8B	803170.29	8468486.85	582.29	USACE MON
A-9	803173.71	8468835.81	573.39	SC S32 S33 GLO BC 1941
A-9A	803181.56	8469498.03	578.92	USACE MON
A-9B	803185.00	8469788.33	591.52	USACE MON
A-9C	803189.41	8470160.33	591.42	USACE MON
A-9D	803197.26	8470822.56	598.01	USACE MON
A-9E	803205.11	8471484.82	607.51	USACE MON
A-9F	803212.96	8472147.05	616.95	USACE MON
A-9G	803220.81	8472809.31	628.68	USACE MON
A-9H	803225.19	8473178.39	633.94	USACE MON
12-1A	803228.67	8473471.55	634.82	USACE MON
12-2	803236.52	8474133.81	634.74	SC S33 S34 GLO BC 1941
#002	799896.26	8476372.98	655.75	Alum. Mon, H&S Construction Site Surveyors
#001	798019.49	8476391.57	647.89	Alum. Mon, H&S Construction Site Surveyors
#018	797998.87	8474783.47	625.74	Alum. Mon, H&S Construction Site Surveyors
#13800	781948.21	8473748.49	572.46	Sec. Cor. 21, 22, 27 & 28, 4N 27E UMATILLA CO SURVEYOR BC

\* Monument cap has been destroyed. Breakaway monument base section recovered.



~BEARING/DIST~ Bearing and distance from drawings provided by H&S Construction Site Surveyors, Lacey Washington, revision date 3-10-2014.

Found 3" aluminum pipe monument with aluminum cap stamped "INDUSTRIAL AREA" and monument number as shown, set by H&S Construction Site Surveyors.

NOTE: Monuments set 1± outside of the K-Block fence.

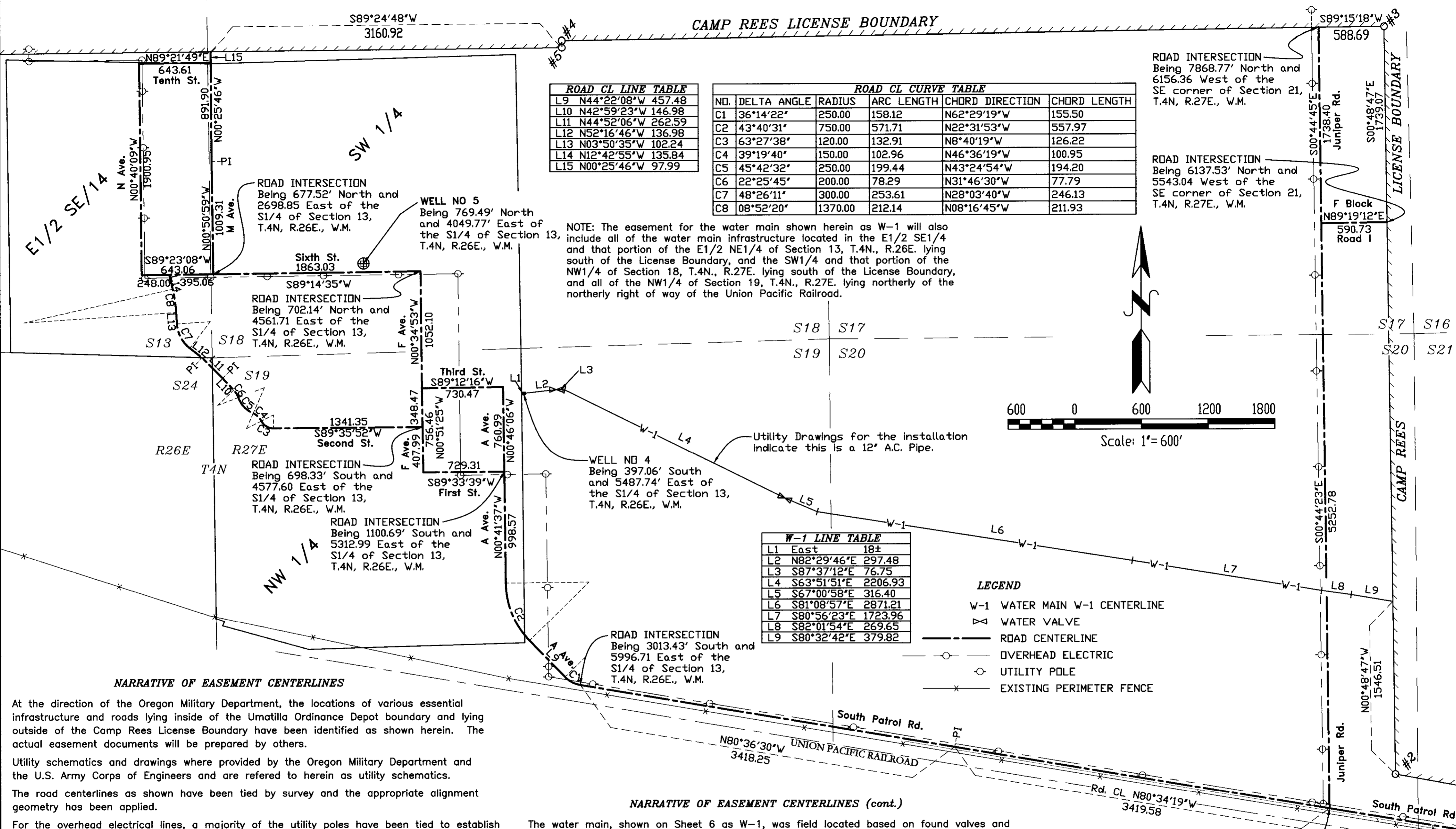
REGISTERED PROFESSIONAL LAND SURVEYOR

KENNETH H. DELANO JR.  
49865  
RENEWS: 1/1/2016

**COORDINATE TABLE  
TEMPORARY CONTROL**

ID	Northing	Easting
CP#500	782223.86	8476405.85
CP#501	789638.68	8457673.46

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No.: 14-119-B



**ROAD CL LINE TABLE**

L9	N44°22'08"W	457.48
L10	N42°59'23"W	146.98
L11	N44°52'06"W	262.59
L12	N52°16'46"W	136.98
L13	N03°50'35"W	102.24
L14	N12°42'55"W	135.84
L15	N00°25'46"W	97.99

**ROAD CL CURVE TABLE**

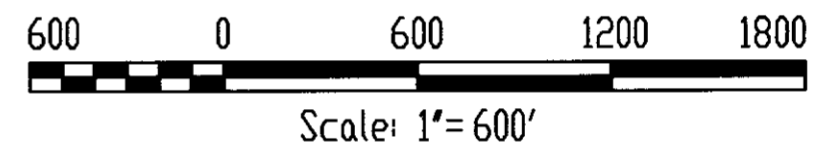
NO.	DELTA ANGLE	RADIUS	ARC LENGTH	CHORD DIRECTION	CHORD LENGTH
C1	36°14'22"	250.00	158.12	N62°29'19"W	155.50
C2	43°40'31"	750.00	571.71	N22°31'53"W	557.97
C3	63°27'38"	120.00	132.91	N8°40'19"W	126.22
C4	39°19'40"	150.00	102.96	N46°36'19"W	100.95
C5	45°42'32"	250.00	199.44	N43°24'54"W	194.20
C6	22°25'45"	200.00	78.29	N31°46'30"W	77.79
C7	48°26'11"	300.00	253.61	N28°03'40"W	246.13
C8	08°52'20"	1370.00	212.14	N08°16'45"W	211.93

NOTE: The easement for the water main shown herein as W-1 will also include all of the water main infrastructure located in the E1/2 SE1/4 and that portion of the E1/2 NE1/4 of Section 13, T.4N., R.26E. lying south of the License Boundary, and the SW1/4 and that portion of the NW1/4 of Section 18, T.4N., R.27E. lying south of the License Boundary, and all of the NW1/4 of Section 19, T.4N., R.27E. lying northerly of the northerly right of way of the Union Pacific Railroad.

ROAD INTERSECTION  
Being 7868.77' North and  
6156.36 West of the  
SE corner of Section 21,  
T.4N, R.27E., W.M.

ROAD INTERSECTION  
Being 6137.53' North and  
5543.04 West of the  
SE corner of Section 21,  
T.4N, R.27E., W.M.

S18 S17  
S19 S20



**W-1 LINE TABLE**

L1	East	18±
L2	N82°29'46"E	297.48
L3	S87°37'12"E	76.75
L4	S63°51'51"E	2206.93
L5	S67°00'58"E	316.40
L6	S81°08'57"E	2871.21
L7	S80°56'23"E	1723.96
L8	S82°01'54"E	269.65
L9	S80°32'42"E	379.82

- LEGEND**
- W-1 WATER MAIN W-1 CENTERLINE
  - ∇ WATER VALVE
  - ROAD CENTERLINE
  - OVERHEAD ELECTRIC
  - UTILITY POLE
  - × EXISTING PERIMETER FENCE

**NARRATIVE OF EASEMENT CENTERLINES**

At the direction of the Oregon Military Department, the locations of various essential infrastructure and roads lying inside of the Umatilla Ordinance Depot boundary and lying outside of the Camp Rees License Boundary have been identified as shown herein. The actual easement documents will be prepared by others.

Utility schematics and drawings were provided by the Oregon Military Department and the U.S. Army Corps of Engineers and are referred to herein as utility schematics.

The road centerlines as shown have been tied by survey and the appropriate alignment geometry has been applied.

For the overhead electrical lines, a majority of the utility poles have been tied to establish straight line runs from pole to pole, thus establishing the angle points along said lines. The easements centerlines shown herein are based on those straight line runs from angle point to angle, and it is to be understood the actual pole to pole location of the electrical lines shall be the centerline of the easements.

The sanitary sewer line is located based on the sanitary sewer manholes recovered and tied during the course of this survey. The easement centerline of the sanitary sewer is shown from manhole to manhole based on the recovered manholes. We cannot guarantee that all of the existing manholes have been recovered. It is to be understood that the Sanitary Sewer Main easement shall be from existing manhole to existing manhole as they are actually located.

The storm drain, as indicated on the supplied schematics, runs parallel with the sanitary sewer main. We located and tied the outlet of the storm drain line as well as the outlet swale, as shown on Sheet 7, Detail 7B.

**NARRATIVE OF EASEMENT CENTERLINES (cont.)**

The water main, shown on Sheet 6 as W-1, was field located based on found valves and the visible trench location. The water mains shown on Sheet 9, W-2 and W-3, were not located during this survey. The location of those mains are shown based on the provided utility schematics. It is to be understood that the centerline of the existing water mains shall be the actual centerline of the easement.

The telephone/telecom locations shown herein are based on found telephone risers, telephone junction vaults, markers indicating underground cable locations and the schematics provided. It is to be understood that the centerline of the existing telephone cables and fiber optic lines shall be the actual centerline of the easement.

The natural gas line, shown on Sheet 8, is located based on line markers and a valve found along the said line. It is to be understood that the centerline of the existing gas main shall be the actual centerline of the easement.

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*[Signature]*  
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JULY 13, 1999  
KENNETH H. DELANO JR.  
49865  
RENEWS: 1/1/2016

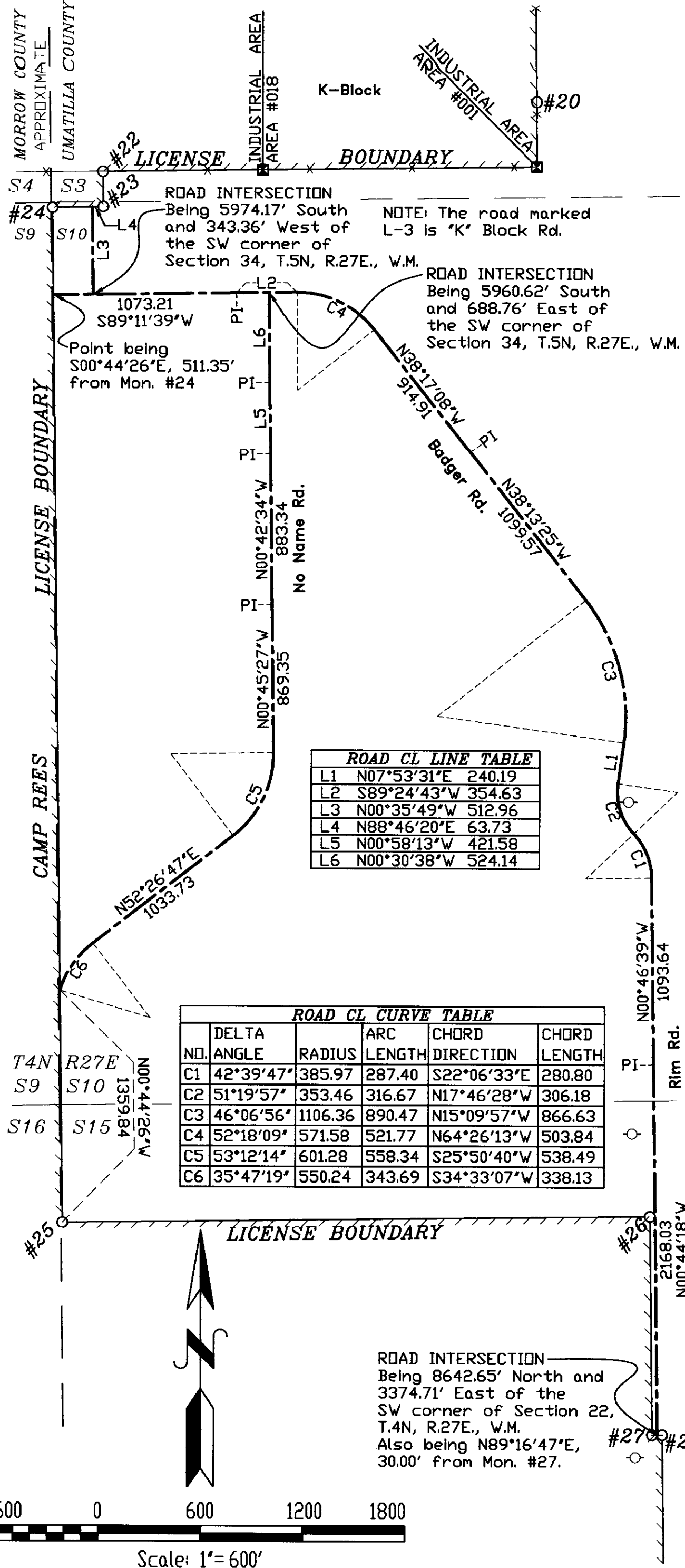
ROAD INTERSECTION  
Being 878.18' North and  
6065.92 West of the  
SE corner of Section 21,  
T.4N, R.27E., W.M.

See Detail 7D,  
Sheet 7 for  
beginning of South  
Patrol Rd.

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T4N	R27E
S20	S21
S29	S28

**DETAIL 7A  
EASEMENT CENTERLINES - ROADS**



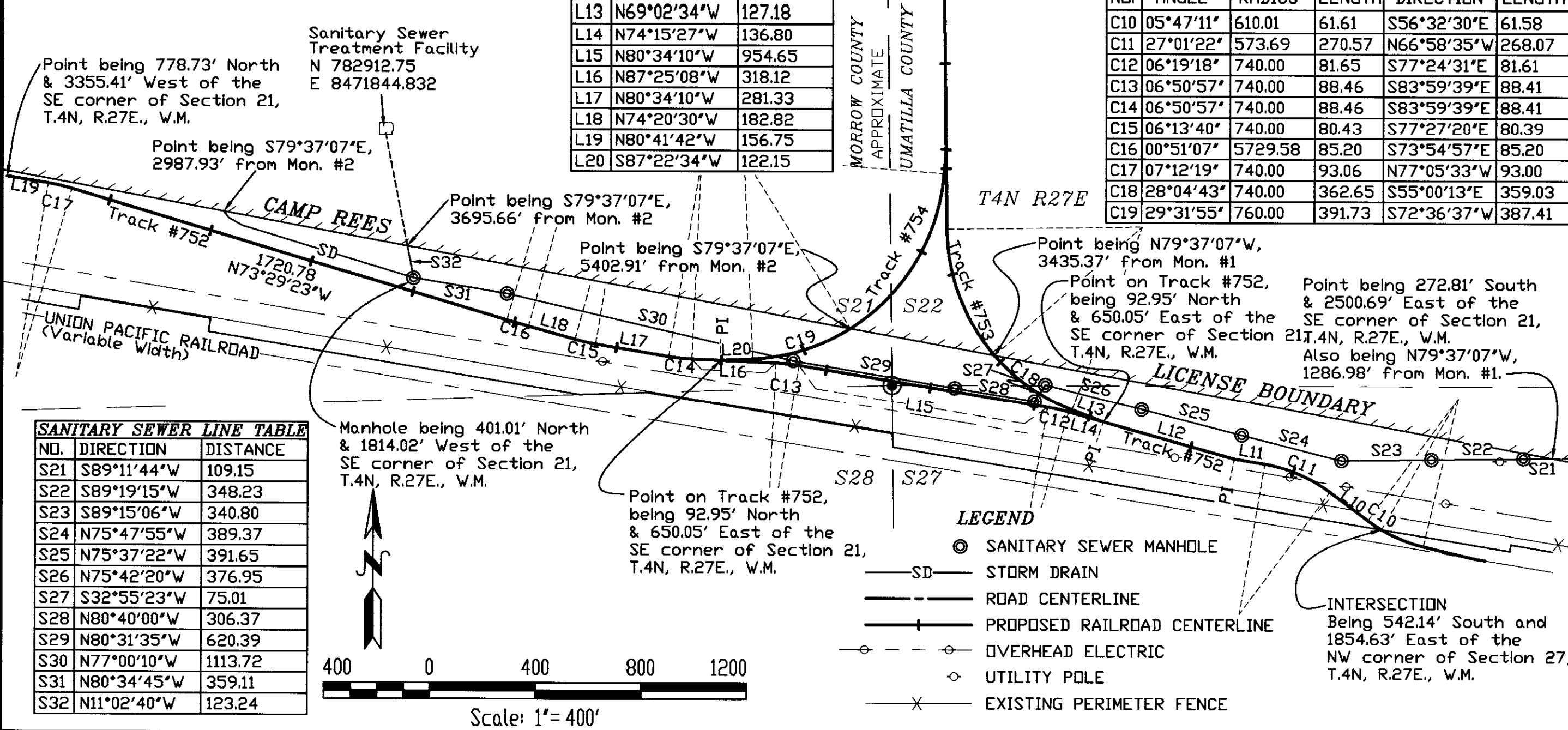
**ROAD CL LINE TABLE**

NO.	DIRECTION	DISTANCE
L1	N07°53'31"E	240.19
L2	S89°24'43"W	354.63
L3	N00°35'49"W	512.96
L4	N88°46'20"E	63.73
L5	N00°58'13"W	421.58
L6	N00°30'38"W	524.14

**ROAD CL CURVE TABLE**

NO.	DELTA ANGLE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD DIRECTION
C1	42°39'47"	385.97	287.40	280.80	S22°06'33"E
C2	51°19'57"	353.46	316.67	306.18	N17°46'28"W
C3	46°06'56"	1106.36	890.47	866.63	N15°09'57"W
C4	52°18'09"	571.58	521.77	503.84	N64°26'13"W
C5	53°12'14"	601.28	558.34	538.49	S25°50'40"W
C6	35°47'19"	550.24	343.69	338.13	S34°33'07"W

**DETAIL 7B  
EASEMENT CENTERLINES - PROPOSED RAILROAD, SANITARY SEWER & STORM DRAIN**



**RAILROAD CL LINE TABLE**

NO.	DIRECTION	DISTANCE
L10	N53°27'54"W	179.20
L11	N80°29'16"W	115.87
L12	N74°14'53"W	517.35
L13	N69°02'34"W	127.18
L14	N74°15'27"W	136.80
L15	N80°34'10"W	954.65
L16	N87°25'08"W	318.12
L17	N80°34'10"W	281.33
L18	N74°20'30"W	182.82
L19	N80°41'42"W	156.75
L20	S87°22'34"W	122.15

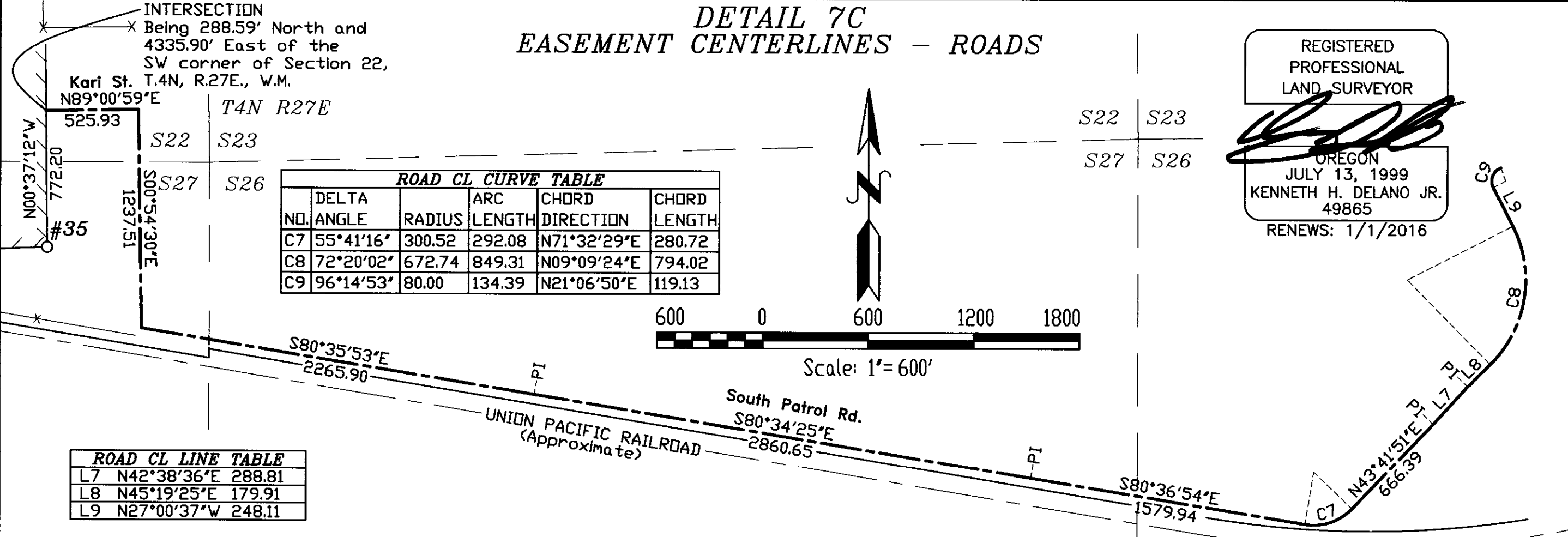
**RAILROAD CL CURVE TABLE**

NO.	DELTA ANGLE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD DIRECTION
C10	05°47'11"	610.01	61.61	61.58	S56°32'30"E
C11	27°01'22"	573.69	270.57	268.07	N66°58'35"W
C12	06°19'18"	740.00	81.65	81.61	S77°24'31"E
C13	06°50'57"	740.00	88.46	88.41	S83°59'39"E
C14	06°50'57"	740.00	88.46	88.41	S83°59'39"E
C15	06°13'40"	740.00	80.43	80.39	S77°27'20"E
C16	00°51'07"	5729.58	85.20	85.20	S73°54'57"E
C17	07°12'19"	740.00	93.06	93.00	N77°05'33"W
C18	28°04'43"	740.00	362.65	359.03	S55°00'13"E
C19	29°31'55"	760.00	391.73	387.41	S72°36'37"W

**SANITARY SEWER LINE TABLE**

NO.	DIRECTION	DISTANCE
S21	S89°11'44"W	109.15
S22	S89°19'15"W	348.23
S23	S89°15'06"W	340.80
S24	N75°47'55"W	389.37
S25	N75°37'22"W	391.65
S26	N75°42'20"W	376.95
S27	S32°55'23"W	75.01
S28	N80°40'00"W	306.37
S29	N80°31'35"W	620.39
S30	N77°00'10"W	1113.72
S31	N80°34'45"W	359.11
S32	N11°02'40"W	123.24

**DETAIL 7C  
EASEMENT CENTERLINES - ROADS**



**ROAD CL LINE TABLE**

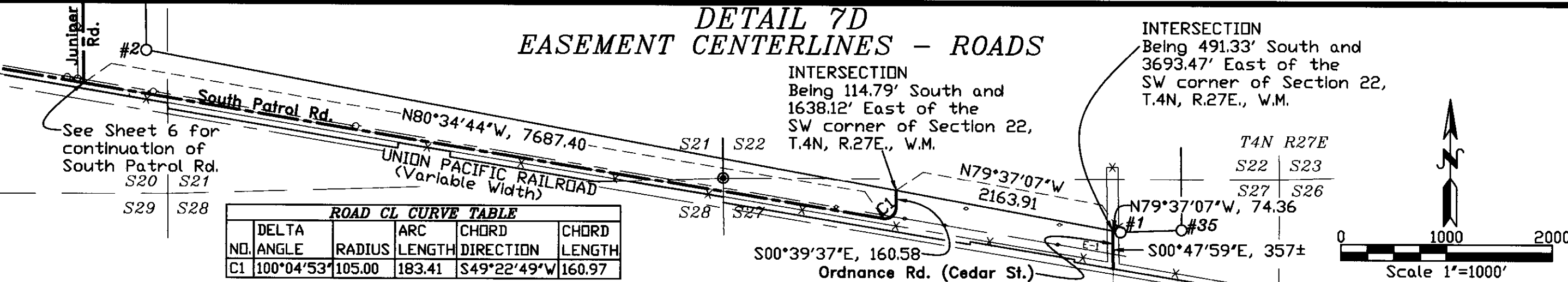
NO.	DIRECTION	DISTANCE
L7	N42°38'36"E	288.81
L8	N45°19'25"E	179.91
L9	N27°00'37"W	248.11

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*[Signature]*

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**DETAIL 7D  
EASEMENT CENTERLINES - ROADS**



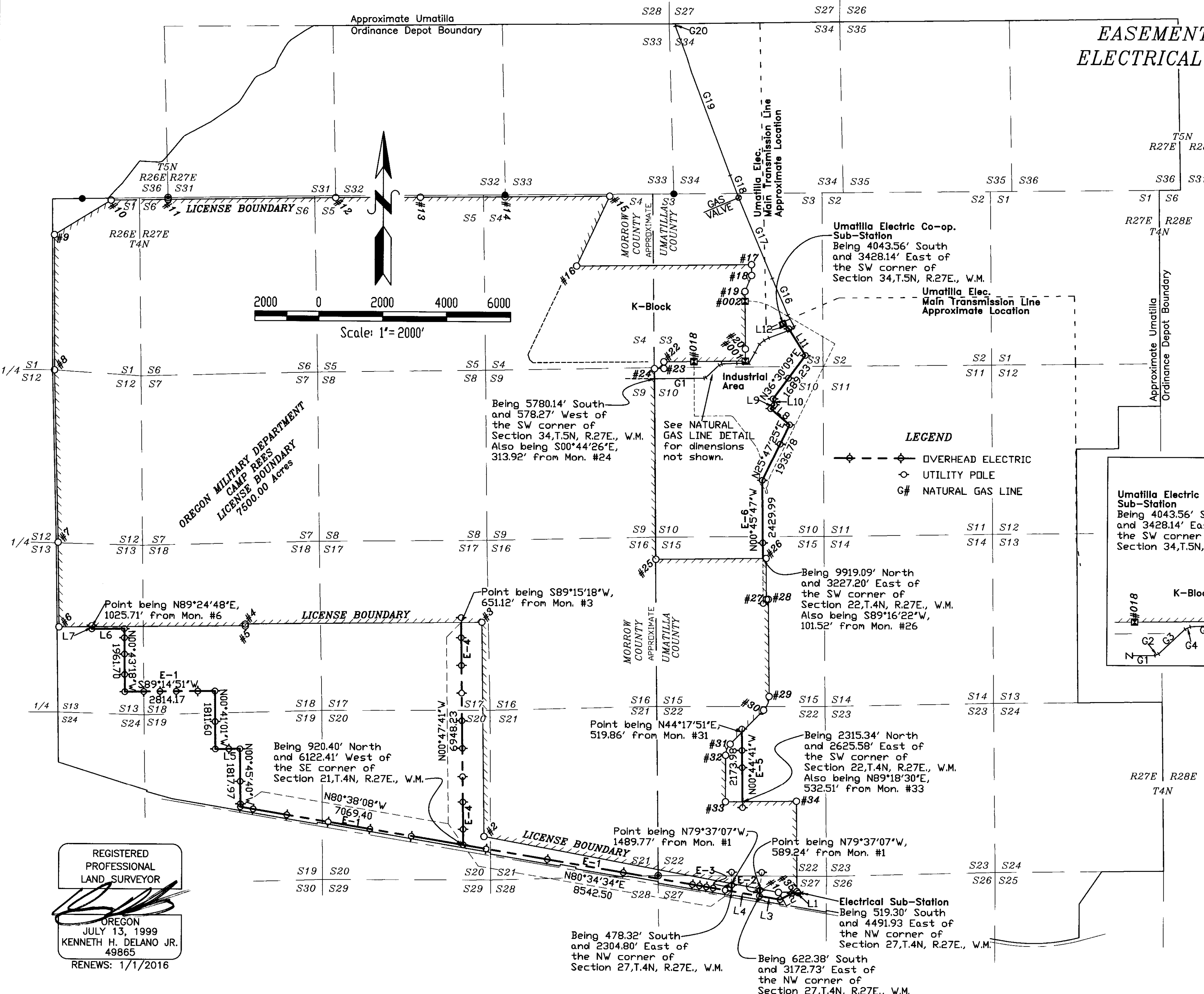
**ROAD CL CURVE TABLE**

NO.	DELTA ANGLE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD DIRECTION
C1	100°04'53"	105.00	183.41	160.97	S49°22'49"W

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14-119-B

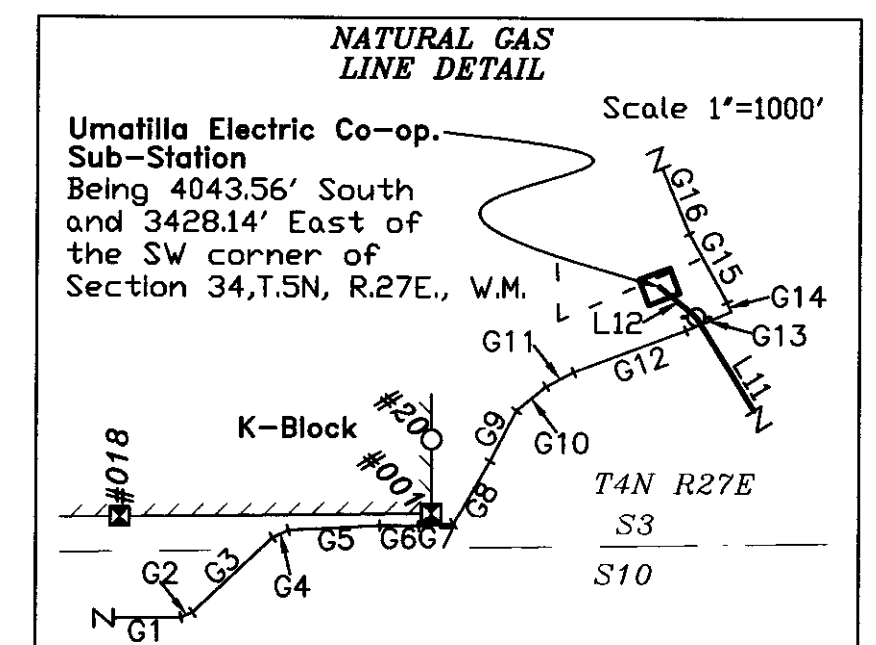
EASEMENT CENTERLINES  
ELECTRICAL & NATURAL GAS

Completed 8/20/14



NATURAL GAS LINE TABLE		
NO.	DIRECTION	DISTANCE
G1	N89°13'42"E	1546.10
G2	N67°52'43"E	65.16
G3	N46°42'34"E	565.79
G4	N64°36'42"E	89.14
G5	N87°05'24"E	471.69
G6	S89°56'37"E	201.22
G7	N86°23'54"E	179.57
G8	N29°51'40"E	376.16
G9	N27°20'06"E	293.31
G10	N50°52'58"E	196.24
G11	N62°10'36"E	161.70
G12	N69°22'48"E	617.86
G13	N67°11'19"E	251.73
G14	N22°56'25"W	50.15
G15	N29°12'32"W	405.59
G16	N23°07'33"W	1251.00
G17	N22°59'03"W	2729.98
G18	N21°13'57"W	744.91
G19	N20°48'04"W	4894.20
G20	N03°26'12"E	80.00±

**LEGEND**  
 ---◇--- OVERHEAD ELECTRIC  
 ○ UTILITY POLE  
 G# NATURAL GAS LINE



OVERHEAD ELECTRIC LINE TABLE		
NO.	DIRECTION	DISTANCE
E-2	N03°39'12"E	224.29
E-3	N00°50'43"E	242.08
L1	S87°26'22"W	302.79
L2	S62°02'25"W	419.66
L3	N80°34'34"W	645.89
L4	N80°34'34"W	879.80
L5	S89°10'38"W	766.82
L6	S89°21'14"W	1014.45
L7	N00°33'52"W	67.32
L8	N49°48'21"W	778.06
L9	N44°26'57"E	165.88
L10	N12°26'17"W	191.10
L11	N31°59'45"W	979.28
L12	N50°37'31"W	246.67

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 KENNETH H. DELANO JR.  
 49865  
 RENEWS: 1/1/2016



OREGON MILITARY DEPARTMENT  
 CAMP REES  
 LICENSE BOUNDARY  
 7500.00 Acres

Being 5780.14' South and 578.27' West of the SW corner of Section 34, T.5N, R.27E., W.M. Also being S00°44'26"E, 313.92' from Mon. #24

See NATURAL GAS LINE DETAIL for dimensions not shown.

Being 9919.09' North and 3227.20' East of the SW corner of Section 22, T.4N, R.27E., W.M. Also being S89°16'22"W, 101.52' from Mon. #26

Being 920.40' North and 6122.41' West of the SE corner of Section 21, T.4N, R.27E., W.M.

Point being N44°17'51"E, 519.86' from Mon. #31

Being 2315.34' North and 2625.58' East of the SW corner of Section 22, T.4N, R.27E., W.M. Also being N89°18'30"E, 532.51' from Mon. #33

Point being N79°37'07"W, 1489.77' from Mon. #1

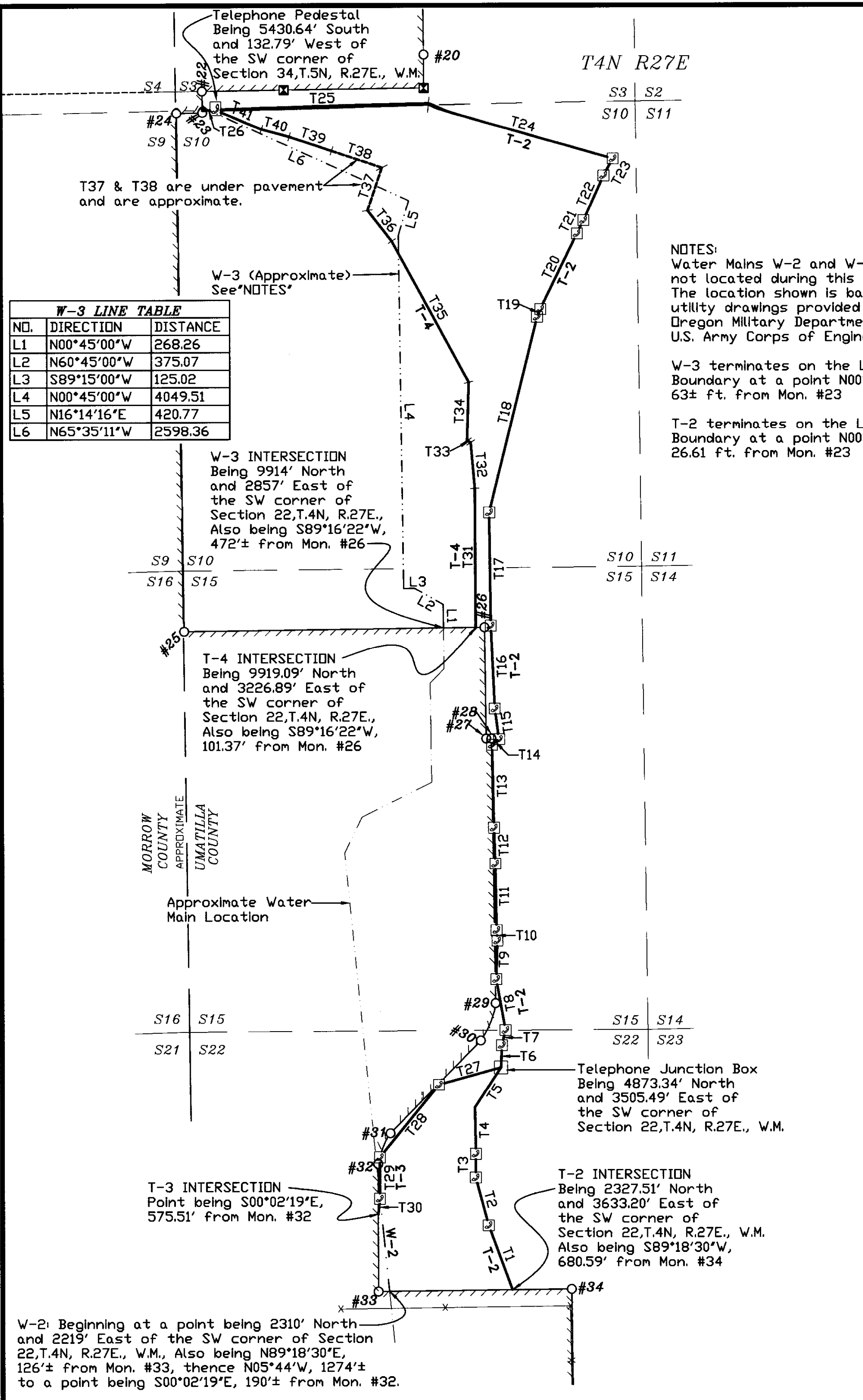
Point being N79°37'07"W, 589.24' from Mon. #1

Being 478.32' South and 2304.80' East of the NW corner of Section 27, T.4N, R.27E., W.M.

Being 622.38' South and 3172.73' East of the NW corner of Section 27, T.4N, R.27E., W.M.



EASEMENT CENTERLINES  
TELEPHONE/FIBER OPTIC &  
WATER MAINS  
Completed 8/20/14



**W-3 LINE TABLE**

NO.	DIRECTION	DISTANCE
L1	N00°45'00"W	268.26
L2	N60°45'00"W	375.07
L3	S89°15'00"W	125.02
L4	N00°45'00"W	4049.51
L5	N16°14'16"E	420.77
L6	N65°35'11"W	2598.36

NOTES:  
Water Mains W-2 and W-3 were not located during this survey. The location shown is based on utility drawings provided by the Oregon Military Department and the U.S. Army Corps of Engineers.

W-3 terminates on the License Boundary at a point N00°46'02"W, 63± ft. from Mon. #23

T-2 terminates on the License Boundary at a point N00°46'02"W, 26.61 ft. from Mon. #23

**TELEPHONE (T-2) LINE TABLE**

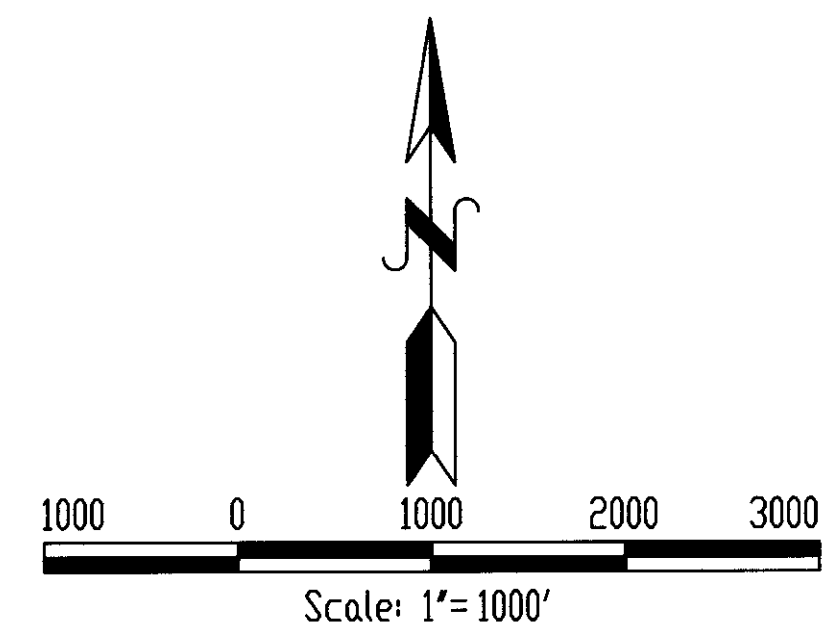
NO.	DIRECTION	DISTANCE
T1	N20°19'07"W	784.69
T2	N15°02'05"W	565.98
T3	N00°07'24"E	271.48
T4	N00°54'22"W	533.00
T5	N33°07'16"E	547.99
T6	N02°39'21"E	255.41
T7	N13°31'21"E	177.37
T8	N10°11'20"W	593.00
T9	N01°40'47"E	437.81
T10	N04°00'34"W	121.44
T11	N00°57'58"W	761.97
T12	N02°00'50"W	414.90
T13	N01°06'08"W	951.24
T14	N51°03'14"E	102.17
T15	N07°52'25"W	352.35
T16	N02°33'35"W	956.32
T17	N00°42'42"W	1293.36
T18	N13°53'03"E	2310.99
T19	N22°44'41"E	97.26
T20	N25°55'52"E	965.65
T21	N26°19'17"E	170.77
T22	N24°06'17"E	566.40
T23	N28°54'30"E	221.86
T24	N74°08'53"W	2200.47
T25	S89°00'52"W	2444.68
T26	S89°00'52"W	152.58

**TELEPHONE (T-3) LINE TABLE**

NO.	DIRECTION	DISTANCE
T27	S74°25'37"W	739.52
T28	S39°19'38"W	1075.65
T29	S00°03'59"W	473.92
T30	S05°55'43"W	177.76

**TELEPHONE (T-4) LINE TABLE**

NO.	DIRECTION	DISTANCE
T31	N00°13'45"W	1590.56
T32	N04°58'16"W	527.54
T33	N62°35'08"W	46.66
T34	N01°36'19"E	672.47
T35	N28°30'47"W	1843.59
T36	N38°10'49"W	449.52
T37	N18°31'15"E	521.24
T38	N71°28'45"W	609.21
T39	N71°28'45"W	513.09
T40	N75°13'34"W	329.44
T41	N67°10'58"W	569.17



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*[Signature]*

OREGON  
JULY 13, 1999  
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49865  
RENEWS: 1/1/2016

**LEGEND**

☒ PHONE RISER/BURIED CABLE MARKER

— TELEPHONE/FIBER OPTIC LINE

- - - WATER MAIN

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