

Horizontal and Vertical Control Data For Hamilton Southeastern Utilities, Inc.



November -1996

Revised - March 1997

Revised – June 1997

Revised – September 1997

Revised - April 2001

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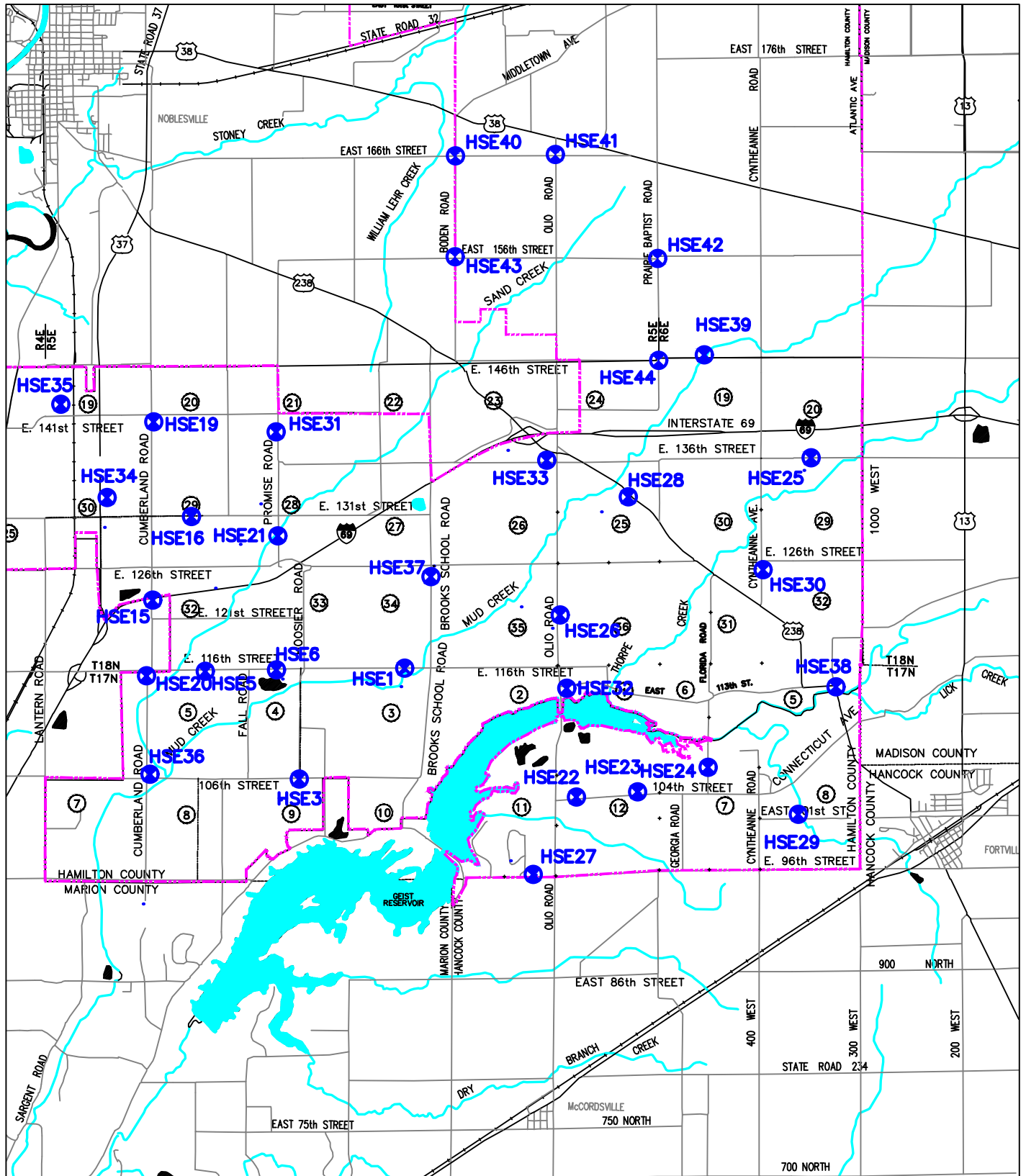
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Hamilton Southeastern Utilities Control Point Information



HAMILTON SOUTHEASTERN UTILITIES, INC.

HORIZONTAL AND VERTICAL CONTROL DATA

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SECTION 1 - INTRODUCTION

Primary Control (which points are identified by point numbers with the prefix “G”) was run by The Schneider Corporation in February and March 1993 using the Global Positioning System (*Reference The Schneider Corporation Job Number 757.025*). Secondary control points (which points are identified by point numbers with the prefix “C”) were computed based on tying primary control points to land surveys by The Schneider Corporation and other firms which showed angles and distances on sections and quarter sections.

Control points which fall on section or quarter section corners referenced by the Hamilton County Surveyor are identified as such herein. A number of control points fall at locations which may be centers of section or quarter-quarter corners, but which corner positions, with regard to the public land system, were not confirmed as a part of this project. Coordinates for these points are included for use in tying into the reference datum, but no statement is hereby made regarding their integrity as aliquot corner locations. It is to be noted that corners identified as section or quarter section corners were so noted based upon information believed to be reliable at the time of this control survey. This designation does not relieve the individual surveyor of the professional responsibility to confirm any corners used in the process of his or her individual surveys.

Dates of recovery for each monument are indicated. Reference ties are available upon request.

The horizontal datum is the Indiana State Plane Coordinate System, East Zone (NAD 1983) prior to any High Accuracy Reference Network (“HARN”) adjustment by the National Geodetic Survey (“NGS”).

The Combination Factors (scale and elevation) utilized for this work in reducing ground distances to grid distances are 0.99993162 for the westerly portion and 0.99993295 for the easterly portion of the project area. Exact definition of a line of delineation between the easterly and westerly portions of the project area is not necessary. Use of multiple factors is needed only in cases where eastings for control points utilized on a specific project vary by more than about three miles.

SECTION 2 - PRIMARY HORIZONTAL CONTROL DATA
(Indiana State Plane Coordinate System, East Zone, NAD 1983)

Point #	Northing	Easting	Description
G30	1731591.79	273292.04	Northeast corner of section 20-18N-6E Railroad spike (1993)
G31	1731578.70	271939.77	5/8" rebar with cap (1993)
G32	1731584.46	270634.79	Stone (1993)
G33	1731562.59	269179.17	5/8" rebar with cap (1993)
G34	1731560.64	267970.24	Northwest corner of section 20-18N-6E Railroad spike (1993)
G35	1731539.59	266232.44	5/8" rebar with cap (1993)
G36	1731546.84	265314.71	Railroad spike (1993)
G38	1731528.57	262664.11	Northwest corner of section 19-18N-6E Iron pipe 10" down (1993)
G39	1731401.27	262671.23	Northeast corner of section 24-18N-5E Railroad spike 10" down (1993)
G40	1731405.78	261352.08	Stone with cut "X" (1993)
G41	1731410.16	260025.94	North quarter corner of section 24-18N-5E Railroad spike (1993)
G42	1731407.96	258699.73	Stone with cut "X" (1993)
G43	1731405.97	257374.14	Northwest corner of section 24-18N-5E Pinched pipe (1993)
G44	1730159.92	257366.85	5/8" rebar with cap (1993)
G45	1728743.36	257380.37	West quarter corner of section 24-18N-5E Railroad spike (1993)
G47	1727665.21	255709.20	5/8" rebar with cap (1993)
G48	1727209.13	254437.18	Aluminum monument (1993)
G49	1726050.54	254753.65	Railroad spike (1993)

G50	1726038.65	253436.32	5/8" rebar with cap (1993)
G51	1726025.95	252119.92	Northeast corner of section 27-18N-5E Brass disk in box (1993)
G52	1726009.46	250795.22	5/8" rebar (1993)
G53	1725992.50	249470.88	Boat spike (1993)
G54	1725971.61	248144.70	Boat spike (1993)
G55	1725942.24	246654.40	5/8" rebar with cap (1993)
G56	1725946.11	245501.36	1/2" rebar (1993)
G57	1725939.32	244179.13	Stone with cut "X" (1993)
G58	1725932.16	242858.39	3/4" rebar (1993)
G59	1724565.01	242856.50	5/8" rebar with cap (1993)
G60	1723267.03	242876.15	Railroad spike (1993)
G61	1723256.86	241563.99	East quarter corner of section 29-18N-5E 5/8" rebar (1993)
G62	1723244.14	240240.90	1/2" rebar (1993)
G63	1723233.38	238920.71	Center of section 29-18N-5E 5/8" rebar (1993)
G64	1723221.41	237601.81	Railroad spike (1993)
G65	1723209.41	236282.91	East quarter corner of section 30-18N-5E Aluminum monument (1993)
G66	1723193.16	234945.26	PK nail (1993)
G67	1723177.05	233614.46	Center of section 30-18N-5E PK nail (1993)
G69	1723141.99	230741.26	West quarter corner of section 30-18N-5E Aluminum monument (1993)
G76	1723073.35	230741.05	East quarter corner of section 25-18N-4E PK nail found (1.1' East) (1988)
G77	1725722.24	228111.10	North quarter corner of section 25-18N-4E (1988)

G79 ³	1717931.48	241576.53	East quarter corner of section 32-18N-5E Stone with cut "X" (1997)
G80	1720500.94	230751.78	Southwest corner of section 30-18N-5E Harrison monument (1993)
G81	1720435.62	230751.88	Southeast corner of section 25-18N-4E Harrison monument (1993)
G82	1720525.56	233617.85	South quarter corner of section 30-18N-5E PK nail (1993)
G83	1720548.66	236288.96	Northwest corner of section 32-18N-5E Harrison monument (1993)
G84	1720559.84	237607.33	1/2" rebar (1993)
G85	1720571.39	238933.39	North quarter corner of section 32-18N-5E Railroad spike (1993)
G86	1720582.75	240255.29	Railroad spike (1993)
G87	1720593.99	241576.61	Northeast corner of section 32-18N-5E Railroad spike (1997)
G88	1720604.51	242891.00	5/8" rebar (1993)
G89	1723277.30	244188.92	Center of section 28-18N-5E PK nail (1993)
G91	1723301.99	246836.94	East quarter corner of section 28-18N-5E Stone with cut "X" (1993)
G92 ⁹	1726081.56	257386.15	Harrison Monument (2002)
G93	1726090.11	258707.94	Pipe (1993)
G94	1726099.66	260030.73	Railroad spike (1993)
G95	1726110.02	261350.07	3/4" rebar (1993)
G96	1728746.22	258694.35	Stone (1993)
G97	1728749.08	260009.52	1/2" rebar (1993)
G98	1728757.53	261328.73	1/2" rebar (1993)
G99	1728754.81	262638.13	East quarter corner of section 24-18N-5E 1/2" rebar 5" down (1993)
G100	1728893.37	267975.90	West quarter corner of section 20-18N-6E Square head bolt (1993)
G101	1726223.87	267980.04	Harrison monument (1993)
G114	1731382.30	254742.58	North quarter corner of section 23-18N-5E Railroad spike (1993)
G115	1731358.76	252110.70	Center of iron box (1993)

G117	1728626.19	248139.37	Railroad spike (1993)
G118	1728612.36	246816.54	East quarter corner of section 21-18N-5E 1/2" rebar bent (1993)
G119	1728604.92	245491.75	1/2" rebar (1993)
G120	1728599.89	244166.83	Center of section 21-18N-5E Railroad spike (1993)
G121	1728590.34	242843.74	PK nail (1993)
G123	1725908.05	240221.41	5/8" rebar (1993)
G124	1724578.74	240230.80	1-1/2" iron pipe (1993)
G125	1725874.28	236276.50	Southeast corner of section 19-18N-5E PK nail (1993)
G126	1731208.15	236246.55	Northeast corner of section 19-18N-5E Harrison monument (1993)
G127	1731173.10	233580.29	North quarter corner of section 19-18N-5E Road nail (1993)
G130	1728465.71	230727.48	West quarter corner of section 19-18N-5E 5/8" rebar over stone (1993)
G131	1728505.52	233595.47	Center of section 19-18N-5E PK nail (1993)
G132	1728542.68	236261.81	East quarter corner of section 19-18N-5E Railroad spike (1993)
G133	1728553.16	237605.55	5/8" rebar (1993)
G134	1728563.52	238909.77	Center of section 20-18N-5E 5/8" rebar (1993)
G135	1728571.30	240209.63	Railroad spike (1993)
G136	1728580.64	241520.03	East quarter corner of section 20-18N-5E PK nail (1993)
G137	1731252.89	240202.46	1-1/2" pipe (1993)
G138	1727240.03	240218.09	PK nail (1993)
G139	1727207.30	236270.74	PK nail (1993)
G141	1723081.32	228123.96	Center of section 25-18N-4E Stone (1993)
G142	1720441.86	228135.16	South quarter corner of section 25-18N-4E Harrison monument (1993)
G143	1720450.21	225519.18	Southwest corner of section 25-18N-4E PK nail (1993)

G144	1717884.31	236291.68	West quarter corner of section 32-18N-5E Brass plug in box (1993)
G148	1717961.32	244212.05	Center of section 33-18N-5E Railroad spike (1993)
G149	1719076.05	236317.95	5/8" rebar (1993)
G150	1720644.83	246850.10	Northwest corner of section 34-18N-5E PK nail (1993)
G151	1720671.00	249500.79	North quarter corner of section 34-18N-5E Harrison monument (1993)
G152	1720684.34	250826.17	PK nail (1993)
G153	1720697.77	252151.39	Southeast corner of section 27-18N-5E Harrison monument (1993)
G154	1719355.43	250827.16	1" iron pipe (1993)
G155	1718025.31	250827.17	5/8" rebar (1993)
G156	1715359.34	250829.71	Brass plug (1993)
G157	1715367.65	252020.67	Northeast corner of section 03-17N-5E PK nail (1993)
G158A ⁴	1715354.32	249512.92	South quarter corner of section 34-18N-5E Railroad spike (1993)
G158B ⁴	1715350.37	249515.23	South quarter corner of section 34-18N-5E PK nail per Indiana land title survey prepared by Evergreen Planners, Inc. recorded as instrument #9414249 (1994)
G159	1715343.04	248187.87	5/8" rebar (1993)
G160	1715340.55	246869.56	Southwest corner of section 34-18N-5E Harrison monument (1993)
G161	1715338.26	246685.57	Northeast corner of section 04-17N-5E PK nail 4" down (1993)
G162	1715305.43	244220.33	South quarter corner of section 33-18N-5E Harrison monument (1993)
G163	1715302.73	244020.02	North quarter corner of section 04-17N-5E PK nail (1993)
G165 ³	1717908.11	238933.36	Center of section 32-18N-5E PK nail (1988)
G170	1712677.95	236052.36	PK nail (1993)
G171	1709573.28	236026.54	Northwest corner of section 08-17N-5E 5/8" rebar 2" down (1993)
G172	1709569.09	237356.42	Railroad spike (1993)

G173	1709564.66	238686.29	North quarter corner of section 08-17N-5E Iron pipe with cap (1993)
G174	1709567.13	240000.66	Railroad spike (1993)
G175	1709574.32	241325.24	Southwest corner of section 04-17N-5E Harrison monument 4" down (1993)
G176	1712207.16	241337.69	West quarter corner of section 04-17N-5E Railroad spike (1993)
G177	1709592.23	243990.67	South quarter corner of section 04-17N-5E Stone in box (1993)
G178	1712217.18	244003.13	Center of section 04-17N-5E PK nail in washer (1993)
G179	1713531.90	244009.45	Iron pipe (1993)
G180	1712224.89	245343.55	2" iron pipe (1993)
G181	1709599.40	245330.15	PK nail (1993)
G182	1709605.45	246678.42	Southeast corner of section 04-17N-5E PK nail (1993)
G183	1706967.01	245316.60	PK nail (1993)
G184	1704307.33	241297.73	Southeast corner of section 08-17N-5E Harrison monument (1993)
G185	1704301.09	239968.01	Railroad spike (1993)
G186	1704292.27	238641.87	South quarter corner of section 08-17N-5E Harrison monument 2" down (1993)
G187	1704274.75	235989.89	Southwest corner of section 08-17N-5E Brass plug in box (1993)
G188	1707805.25	236014.40	5/8" rebar (1993)
G189	1705617.87	239976.27	Railroad spike (1993)
G190	1706934.44	239986.15	1" pipe (1993)
G191	1708250.78	239992.83	Railroad spike (1993)
G192	1727755.45	267958.55	5/8" rebar with cap (1993)
G197	1727298.73	248142.09	Railroad spike (1993)
G201 ^{1, 2, 6, 8}	1715408.29	257438.80	Southwest corner of section 36-18N-5E Harrison monument (2001)
G202 ^{1, 2, 9}	1718083.54	257424.35	East quarter corner of section 35-18N-5E Harrison monument (2002)

G203 ^{1, 2, 9}	1720757.56	257407.53	Northeast corner of section 35-18N-5E Harrison monument (2002)
G205 ^{1, 2}	1720839.67	262707.30	Northeast corner of section 36-18N-5E Per county surveyor (1996)
G206 ^{1, 2, 9}	1723419.51	257396.52	East quarter corner of section 26-18N-5E Harrison monument (2002)
G207 ^{1, 2}	1720791.99	260056.67	North quarter corner of section 36-18N-5E PK nail (1996)
G208 ^{1, 2, 6}	1715451.77	260055.96	North quarter corner of section 01-17N-5E Iron pipe (1996)
G209 ^{1, 2}	1715503.89	262717.03	Southwest corner of section 31-18N-6E Berntsen monument per county surveyor (1996)
G210 ^{1, 2}	1715552.69	268028.27	Northwest corner of section 05-17N-6E Stone per county surveyor (1996)
G213 ^{1, 2}	1723555.88	267990.64	East quarter corner of section 30-18N-6E Railroad spike (1996)
G215 ^{1, 2}	1718192.58	265367.84	Center of section 31-18N-6E PK nail (1996)
G216 ^{1, 2}	1715523.44	265377.86	South quarter corner of section 31-18N-6E Stone (1996)
G217 ^{1, 2}	1712730.04	265281.32	Center of section 06-17N-6E 5/8" rebar (1996)
G218 ^{1, 2}	1720886.69	268003.32	Southwest corner of section 29-18N-6E 1" iron pipe (1996)
G220 ⁸	1715407.84	257380.21	Northeast corner of section 02-17N-5E Harrison monument (2001)
G222 ⁹	1715218.03	236294.74	Southwest corner of section 32-18N-5E Harrison Monument (2002)
G223 ⁹	1715239.76	238938.78	South quarter corner of section 32-18N-5E Boat Spike (2002)
G224 ⁹	1715237.81	238709.00	North quarter corner of section 05-17N-5E PK nail (2002)
G225 ⁹	1715212.75	236070.21	Northwest corner of section 05-17N-5E Harrison Monument (2002)
G226 ¹⁰	1709708.29	257355.34	Northeast corner of Section 11-17N-5E Pk nail (2003)
G227 ¹⁰	1707088.92	257337.77	West quarter corner of Section 12-17N-5E Railroad spike (2003)
G228 ¹⁰	1704469.52	257316.37	Southeast corner of Section 11-17N-5E Railroad Spike (2003)
G229 ¹⁰	1704429.18	254633.79	South quarter corner of section 11-17N-5E Brass Plug (2003)
G230 ¹⁰	1708804.45	262705.37	Railroad spike (2003)
G231 ¹⁰	1707473.41	262701.92	West quarter corner of section 7-17N-6E 5/8" rebar with cap (2003)

G232 ^{10,12}	1704769.52	262694.08	Southwest corner of Section 7-17N-6E Mag nail (2003)
G233 ¹⁰	1710098.07	265241.88	South quarter corner of Section 6-17N-6E Cotton gin spindle (2003)
G234 ¹⁰	1710122.63	267894.45	Southeast corner of Section 6-17N-6E Pk nail (2003)
G235 ¹⁰	1707468.24	267921.78	West quarter corner of Section 8-17N-6E Pk nail (2003)
G236 ¹⁰	1704811.42	267947.55	Southwest corner of Section 8-17N-6E Brass plug (2003)
G237 ¹⁰	1704790.96	265294.72	South quarter corner of Section 7-17N-6E Harrison monument (2003)
G508 ⁴	1709659.12	230760.51	Northwest corner of section 07-17N-5E Railroad spike (1997)

Note: The horizontal values indicated above are per GPS by The Schneider Corporation. Horizontal values are in U.S. Survey feet referenced to the Indiana State Plane Coordinate System, East Zone (NAD 1983).

SECTION 3 - SECONDARY HORIZONTAL CONTROL DATA
(Indiana State Plane Coordinate System, East Zone, NAD 1983)

Note: The coordinates provided as secondary control points are for reference only. These coordinates were established by calculation of various boundary surveys which had two or more common corners with the primary control monuments referenced herein. These coordinates are NOT based on the field survey performed for the primary control.

Point #	Northing	Easting	Description
C10	1731259.09	246796.73	Northwest corner of section 22-18N-5E Berntsen monument in casting
C24	1712263.85	249341.69	Center of section 03-17N-5E Stone with cut "X" (1989)
C28	1709623.61	249348.67	South quarter corner of section 03-17N-5E Railroad spike over stone (1989)
C36	1707000.91	249324.96	Center of section 10-17N-5E Railroad spike (1989)
C50	1706922.26	236008.35	West quarter corner of section 08-17N-5E Stone with cut "X" (1992)
C51	1706924.63	238666.90	Center of section 08-17N-5E Stone with cut "X" (1990)
C52	1706939.95	241308.04	East quarter corner of section 08-17N-5E Stone with cut "X" (1990)
C54	1706974.92	246653.29	East quarter corner of section 09-17N-5E
C56	1728368.23	230728.19	East quarter corner of section 24-18N-4E 1/2" pipe (1989)
C57	1725832.98	233610.43	North quarter corner of section 30-18N-5E PK nail (1989)
C68	1725793.61	230748.75	Northwest corner of section 30-18N-5E 5/8" rebar (1989)
C72	1731015.23	230728.02	Northeast corner of section 24-18N-4E Rebar with cap (1991)
C73	1731145.24	230727.83	Northwest corner of section 19-18N-5E Rebar (1991)
C74	1725730.92	230749.19	Northeast corner of section 25-18N-4E 5/8" rebar (1988)
C76	1723073.35	230741.05	East quarter corner of section 25-18N-4E PK nail (1.1' east) (1988)
C90	1715269.76	241585.57	Southeast corner of section 32-18N-5E Square head bolt 0.6' north of corner (1992)
C91	1715267.10	241350.07	Northeast corner of section 05-17N-5E Railroad spike (1992)

C94	1712212.09	236051.14	West quarter corner of section 05-17N-5E PK nail (1988)
C502	1704349.95	230753.74	Southwest corner of section 07-17N-5E Harrison monument (1993)
C504	1704314.02	233336.25	South quarter corner of section 07-17N-5E Brass plug in box (1993)
C506	1709611.51	233397.26	North quarter corner of section 07-17N-5E Railroad spike over stone (1988)
C507	1706946.19	233379.27	Center of section 07-17N-5E Stone (1988)
C509	1707002.14	230757.97	West quarter corner of section 07-17N-5E PK nail (1988)
C1001	1712233.83	246679.76	East quarter corner of section 04-17N-5E Stone (1989)
C1014	1712289.08	252000.59	East quarter corner of section 03-17N-5E Stone (1989)
C1053	1715353.65	249350.79	North quarter corner of section 03-17N-5E

Note: The coordinates provided as secondary control points are for reference only. These coordinates were established by calculation of various boundary surveys which had two or more common corners with the primary control monuments referenced herein. These coordinates are NOT based on the field survey performed for the primary control.

SECTION 4 - VERTICAL CONTROL DATA
(Vertical Datum - NAVD 1988)

Benchmark	Northing	Easting	Elevation	Description
HSE1 ²	1715248.39	249445.99	803.66	HSE disc in concrete on top of 116 th Street Lift Station wet well. 1/4 mile west of Brooks School Road.
HSE3 ^{2, 7}	1709497.51	243950.00	827.46	HSE disc in concrete on west side of Windermere Pointe entrance from 106 th Street. South side of entrance wall at angle break in sidewalk. 93.4' S of the centerline of 106 th and 33' W of NW corner of brick median sign.
HSE5 ^{2, 7}	1715109.88	239064.29	817.43	HSE disc in concrete at south end of entrance median to Spyglass Hill from 116 th Street. 71' from MH at SW corner of 11577 Spyglass Ridge Drive and 3.5' N of back of curb.
HSE6 ^{2, 7}	1715185.56	242770.84	796.06	HSE disc in concrete located within Lake Stonebridge at the east end of Peppermill Lane on the north side of the cul-de-sac median. 12' S of curb inlet and 57' W of centerline (at back of curb) driveway for 11173 Peppermill Lane.
HSE10 ⁸	1714414.89	258449.28	802.20	HSE disc in concrete set at the entrance to Ashford Pointe on the west side of Deerstone Lane, 17.0' W of back of curb, 29.4' SW of back of curb at curb inlet & 13.0' SE of fire hydrant.
HSE12 ^{2, 7, 14}	1718443.73	257385.42	836.50	HSE disc in concrete set in south island of north entrance to Fall Creek Elementary School. 33.3' S of centerline of north entrance and 72.4' W of centerline of Olivo Road. Lies under the canopy of a large tree.

Benchmark	Northing	Easting	Elevation	Description
HSE13 ^{2, 7}	1726939.23	256205.59	840.88	HSE disc in concrete set at angle break in right-of-way fence in southeast quadrant of exit ramp from I-69 north to State Road 238. 1' from corner R/W fence and 100 +/- to edge of pavement.
HSE15 ^{2, 7}	1718802.24	236319.79	846.50	HSE disc in concrete set 45.0 feet south and 11.0 feet east of the southeast corner of the Cumberland Road bridge abutment over I-69. 29.3' E of centerline of Cumberland Road.
HSE16 ^{2, 7}	1723123.15	238331.81	825.65	HSE disc in concrete at south end of entrance median to Sweet Briar from 131st Street. 1.2' N of back of curb.
HSE19 ^{2, 7}	1728100.08	236349.75	822.36	HSE disc in concrete on north side of Plantana entrance from Cumberland Road. 36.5' N of cut "x" in sidewalk along Plantana Boulevard, 46.5' E of cut "x" in asphalt path along Cumberland and 8' SW of entrance wall.
HSE 20 ^{11, 15}	1714869.98	236002.67	818.89	HSE disc in concrete set at the northeast corner of the Kroger Parking Lot at 116 th Street and Cumberland Road. 25' W of concrete walk, 25' S of BC at entrance and 15' E of BC at parking lot second space. Prior published elevation: 819.01
HSE 21 ¹¹	1722164.09	242829.69	809.88	HSE disc in concrete set at the Sandcreek Lift Station at the south entrance. 40' W of centerline of Promise Rd., 4.5' N of paved drive and 15' SE of southeast corner of 8' wood fence.

Benchmark	Northing	Easting	Elevation	Description
HSE 22 ^{11, 15}	1708548.04	258379.98	837.84	HSE disc in concrete set at the 104 th St. entrance to Weatherstone on the west side of Saddlestone Drive. 30' W of BC on Saddlestone Dr. and 40' N of BC on 104 th St. Prior published elevation: 837.84
HSE 23 ¹¹	1708769.07	261660.75	844.73	HSE disc in concrete set at the 104 th St. entrance to Brooks Landing on the east side of Madison Brooks Drive. 18' N of edge of pavement of 104 th St., 35' E of BC of Madison Brooks Drive & 25' SE of Northwest corner of stone entry wall.
HSE 24 ¹¹	1710069.42	265208.91	845.09	HSE disc in concrete set at the entrance to Valleys at Geist on the south side of Geist Ridge Drive. 20' NE of the center of the entry wall and 3' SW of the back of curb.
HSE 25 ¹²	1726192.99	270604.39	846.62	HSE disc in concrete set at the 136 th Street entrance to Barrington Estates on the east side of Stiles Drive. 36' S of edge of pavement of 136 th St., 123' SW of telephone pole and 156' +/- E of the centerline of Stiles Drive.
HSE 26 ¹³	1718032.38	257547.36	838.42	HSE disc in concrete set on the east side of Olio Road, 100' +/- N of the back of curb of the N entrance to Fall Creek Intermediate School and 25' +/- East of the back of walk which runs along Olio Road.
HSE 27 ¹³	1704514.99	256243.31	838.32	HSE disc in concrete set at the 96 th Street entrance to Fox Hollow at Geist on the east side of Wading Crane Avenue. 60' E of the concrete back of walk and 2' N of asphalt path which runs along 96 th Street

Benchmark	Northing	Easting	Elevation	Description
HSE 28 ¹³	1724201.12	261128.69	839.01	HSE disc in concrete set at the SR 238 entrance to Avalon of Fishers on the north side of Isle Of Man Way. 20' SW of asphalt path, 36' NW of concrete walk and 25' +/- N of the NW end of the stone entry wall.
HSE 29 ¹⁵	1707462.37	269743.89	855.00	HSE disc in concrete set 5' south of the south back of curb along 101 st St., 1800' +/- east of Cyntheanne Rd., 33' west of the first drive west of the bridge over Flatfork Creek
HSE 30 ¹⁵	1720388.59	268107.24	846.25	HSE disc in concrete set 1' north of the asphalt path along the south side of the Cyntheanne Park entrance, 75' +/- east of Cyntheanne Rd., 45' +/- SE of the west tip of the center island in the park entrance.
HSE 31 ¹⁵	1727602.21	242771.27	832.13	HSE disc in concrete set near the top of the mound in the greenspace 35' +/- west of the back of asphalt path along the west side of Promise Rd., 110' +/- south of the south back of curb of Green Blade Dr. being the first road south of 141 st St.
HSE 32 ¹⁵	1714234.32	257875.18	797.85	HSE disc in concrete set 1.5' north of the north edge of asphalt drive to the HSE lift station located southeast of the intersection of Olio Rd. and 113 th St., 98' east of the east corner of the lift station fence, 72' west of the intersection of the drive with Stone Key Way
HSE 33 ¹⁵	1726084.48	256885.33	841.08	HSE disc in concrete set 10' +/- west of the west edge of sidewalk in the gore of the island west of Olio Rd along the north side of 136 th St.

Benchmark	Northing	Easting	Elevation	Description
HSE 34 ¹⁵	1724154.49	233939.48	810.35	HSE disc in concrete set 2' SW of the SW corner of the asphalt lot at the lift station located 1000'+/- north and 300'+/- east of the intersection of S.R. 37 and 131 st Street.
HSE 35 ¹⁵	1729015.34	231555.91	809.70	HSE disc in concrete set 2'+/- west of the sidewalk along the west side of Harrison Pkwy. north of 141 st St., 103'+/- south of the north school entrance and 125' north of the south school entrance.
HSE 36 ¹⁵	1709734.07	236186.87	786.51	HSE disc in concrete set at the HSE lift station site located at the northeast corner of Cumberland Rd. and 106 th Street. 30' SE of the southeast corner of the north building, 42' NE of the northeast corner of the south building and 3' west of the wood rail fence.
HSE 37 ¹⁵	1720028.99	250784.36	820.35	HSE disc in concrete set 3' west of the asphalt walk along the west side of Brooks School Rd., 400'+/- south of 126 th St., 30'+/- north of the north edge of pavement into the north Brooks School Elementary entrance
HSE 38 ¹⁵	1714311.66	271884.73	809.14	Observed the bronze disk stamped "Hamilton County Geodetic Control Point No. 285" set in the north end of the east concrete handrail on the bridge over Fall Creek on Southeastern Pkwy. south of 113 th St.
HSE 39 ¹⁵	1731564.05	265047.72	833.08	Observed the bronze disk stamped "Hamilton County Geodetic Control Point No. 175" found in the northeast wingwall of the 146 th St. bridge over Mud Creek, 90'+/- west of the intersection of 146 th St. and Crystal Creek Dr.

HSE 40 ¹⁶	1742015.5	252081.8	811.88	Observed the Harrison Monument found at the Northeast Corner of Section 10, Township 18 North, Range 5 East at the Intersection of 166 th Street and Boden Road. Corner Reference No. 18051003
HSE 41 ¹⁶	1742014.7	257301.2	829.37	Observed the Harrison Monument found at the Northeast Corner of Section 11, Township 18 North, Range 5 East at the Intersection of 166 th Street and Olio Road. Corner Reference No. 18051103
HSE 42 ¹⁶	1736701.0	262620.2	850.71	Observed the Harrison Monument found at the Northeast Corner of Section 13, Township 18 North, Range 5 East at the intersection of 156 th Street and Prairie Baptist Road. Corner Reference No. 18051303
HSE 43 ¹⁶	1736687.3	252098.9	817.36	Observed the Harrison Monument found at the Northeast Corner of Section 15, Township 18 North, Range 5 East at the intersection of 156 th and Boden Road. Corner Reference No. 18051503
HSE 44 ¹⁶	1731401.2	262671.2	854.44	Observed Harrison Monument at the Northeast Corner of Section 24, Township 18 North, Range 5 East at the south jog of the intersection of 146 th Street and Prairie Baptist Road. Corner Reference No. 18052403

Note: The horizontal values indicated above are per GPS by The Schneider Corporation. Horizontal values are in U.S. Survey feet referenced to the Indiana State Plane Coordinate System, East Zone (NAD 1983).

SECTION 5 - REVISION HISTORY

- 1 During November of 1996 a GPS field survey was performed to establish surveyed coordinate values for these monuments. These monuments were added as a part of the “Horizontal Control Data, Addendum #1” The horizontal values indicated are per GPS by Schneider Engineering Corporation and/or GPS by the Hamilton County Surveyor.
- 2 During March of 1997 a GPS field survey was performed to establish surveyed coordinate values and vertical elevations for these monuments. These monuments were added as a part of the “Vertical Control Data.” Also, G204 originally identified as the south quarter corner of section 35-18N-5E with coordinates of 1715367.350, 253527.544 (elevation 831.196) was removed from the list. Also, elevations were removed from G201-G210, G213 and G215-G218.
- 3 As stated elsewhere in this document, the coordinates for the “C” series points were calculated based on unsubstantiated data. During June of 1997 a GPS field survey was performed to establish surveyed coordinate values for the following monuments. As a result, the designation for these monuments was changed from “C” to “G”. C79 (now G79) was originally identified as a stone with a cut “X” (1992) with coordinates of 1717932.64, 241577.64. C165 (now G165) was originally identified as a PK nail (1988) with coordinates of 1717908.65, 238934.37.
- 4 As stated elsewhere in this document, the coordinates for the “C” series points were calculated based on unsubstantiated data. During September of 1997 a GPS field survey was performed to establish surveyed coordinate values for the following monument. As a result, the designation for this monument was changed from “C” to “G”. C508 (now G508) was originally identified as a concrete monument (1988) with coordinates of 1709658.65, 230760.52. Also, G158 was renamed to G158A and G158B was added to address different monuments being held as the south quarter corner of section 34-18N-5E.
- 5 S236 was verified by a GPS field survey and added to the “Vertical Control Data.” Also, HSE4 with coordinates of 1709061.35, 248305.91 and elevation of 820.66 located in the median of Hawthorn Ridge Drive across from 12070 Landover Lane was destroyed, and therefore removed from the list. Also, HSE8 with coordinates of 1714422.68, 258459.39 and elevation of 802.31 located on the west side of the entrance to Ashford Pointe was destroyed, and therefore removed from the list.
- 6 G201 and G208 were mislabeled in the Hamilton County Surveyor’s corner record sheets. G201 was mislabeled as the northwest corner of section 01-17N-5E and G208 was mislabeled as the south quarter corner of section 36-18N-5E. Also, HSE18 with coordinates of 1728401.57, 228944.98 and elevation of 784.99 located at the southwest corner of the Harrison Lakes Lift Station site was destroyed, and therefore removed from the list.
- 7 Ties were added for these monuments listed in the “Vertical Control Data.”
- 8 During April 2001 a GPS field survey was performed to re-establish surveyed coordinate values for G201 since the intersection of 116th Street and Olio Road was re-constructed in 2000. G201 was originally identified as a railroad spike (1996) with coordinates of 1715408.19, 257438.81.

Also, during the same survey the surveyed coordinate values for G220 were obtained. **Also**, during the same survey the surveyed coordinate values and vertical elevation were obtained for HSE7 and HSE10. These monuments were added to the “Vertical Control Data.”

- 9 As stated elsewhere in this document, the coordinates for the “C” series points were calculated based on unsubstantiated data. During May of 2002 a GPS field survey was performed to establish surveyed coordinate values for the following monuments. As a result, the designation for these monuments was changed from “C” to “G”. C78 (now G222) was originally identified as an iron pipe (1992) with coordinates of 1715217.73, 236296.23. C89 (now G223) had no monument originally identified with coordinates of 1715239.90, 238940.38. C92 (now G224) was originally identified as a PK nail (1988) with coordinates of 1715237.97, 238710.55. C93 (now G225) was originally identified as a 2” steel disk (1992) with coordinates of 1715212.43, 236071.65. **Also**, during May of 2002 another GPS field survey was performed to re-establish surveyed coordinate values for the following monuments since Olio Road was re-constructed in 2000. G92 was originally identified as a 1” iron pipe (1993) with coordinates of 1726081.64, 257386.21. G202 was originally identified as an iron pipe (1996) with coordinates of 1718083.54, 257424.53. G203 had no monument originally identified (1996) with coordinates of 1720757.61, 257407.56. G206 was originally identified as a boat spike (1996) with coordinates of 1723419.28, 257396.47.
- 10 During March of 2003 a GPS field survey was performed to establish surveyed coordinate values for these monuments. The horizontal values indicated are per GPS by The Schneider Corporation.
- 11 During April of 2003 a GPS field survey was performed to establish surveyed coordinate values for these monuments. The horizontal and vertical values indicated are per GPS by The Schneider Corporation.
- 12 During November of 2004 a GPS field survey was performed to establish surveyed coordinate values for HSE25. The horizontal and vertical values indicated are per GPS by The Schneider Corporation. The easting value for G232 was updated and HSE9 was removed from the control listing due to the fact it was destroyed during 2004.
- 13 During October of 2005 a GPS field survey was performed to establish surveyed coordinate values for HSE26, HSE27 and HSE28. The horizontal and vertical values indicated are per GPS by The Schneider Corporation.
- 14 During April of 2013 a recovery mission verified that the following HSE monuments no longer exist: 2, 4, 7-9, 11, 14, 17 & 18. Following the recovery mission, a fast-static GPS field survey was performed on all remaining HSE monuments except HSE 12 because it lies under the canopy of a large tree. New HSE monuments stamped “HSE 29” through “HSE 39” set during the recovery mission were also observed during this field survey. A fully-constrained, post-processed GPS network was performed using Trimble Business Center to verify the published coordinate values for the existing monuments HSE 1 through HSE 28 and to establish new coordinates for monuments HSE 29 through HSE 39. Quality Control/Assurance checks consisting of GPS RTK measurements on most of the control points and differential level circuits were performed between existing and newly set monuments.
- 15 The published elevations of HSE 1, 20, & 22 were revised based upon the 2013 fast-static survey.

16 During February of 2019 a GPS Survey was conducted to verify the horizontal position of the HSE control points 40-44, as established by the Hamilton County Surveyor. The above coordinates reflect the coordinate of the found Harrison monuments utilizing a pre-HARN position as explained in page 1 of this document. The Hamilton County Surveyor's Office Corner Record states a horizontal location utilizing N.A.D. 83/CORS 96. The coordinate values of the county record were found to be within a reasonable tolerance except HSE 40 which was found to be 0.2 feet South and 0.2 feet East of the published coordinate. A level circuit was ran from HSE 33 through HSE control points 40-44 and closing on HSE 39.

APPENDIX A CALIBRATION INFORMATION

After the 2013 fast-static GPS field survey was performed, a site calibration was computed for the monuments using Trimble Business Center. This calibration file was created to assist with future field work. The following HSE monuments were constrained both Horizontally and Vertically for the calibration file: 1, 3, 5, 6, 13, 15, 16 & 19-39. The maximum horizontal residual was 0.091 feet (at point HSE3) and the maximum vertical residual was 0.004 feet (as point HSE 29). The Site Calibration Report from the Trimble Business Center project is attached in the following pages for additional reference.

Two calibration files were saved to the servers for field crew access. A .DC file has been saved for older controllers and a .JOB file has been saved for newer controllers. The paths to the files are as follows:

DC File (Older Controllers)

T:\0k\757\Survey\Control Recovery & Expansion 2013\HSE 2013 CONTROL\HSE 2013 CONTROL.dc

JOB File (Newer Controllers)

T:\0k\757\Survey\Control Recovery & Expansion 2013\HSE 2013 CONTROL\HSE 2013 CONTROL.job

Note: CSV files have also been created for both the horizontal ("G" series points) and vertical ("HSE" series points) control. These files can be found at the following locations:

Horizontal ("G" Series Points)

T:\0k\757\GPS\001\DOCS\HSE-Hor Control-rev061013.csv

Vertical ("HSE" Series Points)

T:\0k\757\GPS\001\DOCS\HSE-Vert Control-rev260315.csv

Project File Data		Coordinate System	
Name:	T:\0k\757\Survey\Control Recovery & Expansion 2013\HSE 2013 CONTROL.vce	Name:	US State Plane 1983
Size:	2 MB	Datum:	NAD 1983 (Conus)
Modified:	6/11/2013 9:17:04 AM (UTC:-4)	Zone:	
Time zone:	Eastern Standard Time	Geoid:	GEOID12A
Reference number:	757.001N	Vertical datum:	NAVD 88
Description:			

Site Calibration Report

Horizontal Calibration Parameters

Translation north:	0.315 ft
Translation east:	-1.412 ft
Rotation:	0°00'00"
Origin northing:	1718354.995 ft
Origin easting:	251316.619 ft
Scale factor:	1.0000010492

Vertical Calibration Parameters

Vertical shift at origin:	0.000 ft
Slope north:	-0.053 ppm
Slope east:	-0.046 ppm
Origin northing:	1715248.423 ft
Origin easting:	249445.976 ft

Residual Differences Between GPS and Known Coordinates

Summary

	Maximum residual	Root Mean Square residual	Point
Horizontal	0.091 ft	0.044 ft	HSE3
Vertical	0.004 ft	0.002 ft	HSE29
Three-dimensional	0.091 ft	0.044 ft	HSE3

Point Residuals

Residuals sign: Calculated-Control

GNSS Point		Calculated Point		Grid Point	
Point	HSE1	Point	HSE1	Point	HSE1c
Latitude	N39°57'26.096950800"	Northing	1715248.423 ft	Northing	1715248.390 ft
Longitude	W85°56'49.848716400"	Easting	249445.976 ft	Easting	249445.990 ft
Height	692.015 ft	Elevation	803.660 ft	Elevation	803.660 ft
		Horiz. residual	0.036 ft	Type	Horz and Vert
		Vert. residual	0.000 ft		
		3D residual	0.036 ft		
Point	HSE3	Point	HSE3	Point	HSE3c
Latitude	N39°56'29.086486800"	Northing	1709497.550 ft	Northing	1709497.510 ft
Longitude	W85°58'00.180109200"	Easting	243949.919 ft	Easting	243950.000 ft
Height	715.880 ft	Elevation	827.461 ft	Elevation	827.460 ft
		Horiz. residual	0.091 ft	Type	Horz and Vert
		Vert. residual	0.001 ft		
		3D residual	0.091 ft		
Point	HSE5	Point	HSE5	Point	HSE5c
Latitude	N39°57'24.383206800"	Northing	1715109.823 ft	Northing	1715109.880 ft
Longitude	W85°59'03.162606000"	Easting	239064.307 ft	Easting	239064.290 ft
Height	705.809 ft	Elevation	817.430 ft	Elevation	817.430 ft
		Horiz. residual	0.059 ft	Type	Horz and Vert
		Vert. residual	0.000 ft		
		3D residual	0.059 ft		
Point	HSE6	Point	HSE6	Point	HSE6c
Latitude	N39°57'25.259684400"	Northing	1715185.589 ft	Northing	1715185.560 ft
Longitude	W85°58'15.567463200"	Easting	242770.834 ft	Easting	242770.840 ft
Height	684.428 ft	Elevation	796.060 ft	Elevation	796.060 ft
		Horiz. residual	0.030 ft	Type	Horz and Vert
		Vert. residual	0.000 ft		
		3D residual	0.030 ft		
Point	HSE13	Point	HSE13	Point	HSE13c
Latitude	N39°59'21.833725200"	Northing	1726939.232 ft	Northing	1726939.230 ft
Longitude	W85°55'23.474438400"	Easting	256205.572 ft	Easting	256205.590 ft
Height	729.159 ft	Elevation	840.879 ft	Elevation	840.880 ft
		Horiz. residual	0.018 ft	Type	Horz and Vert
		Vert. residual	-0.001 ft		
		3D residual	0.018 ft		

Point HSE15 Latitude N39°58'00.775290000" Longitude W85°59'38.580676800" Height 734.854 ft	Point HSE15 Northing 1718802.199 ft Easting 236319.828 ft Elevation 846.501 ft Horiz. residual 0.055 ft Vert. residual 0.001 ft 3D residual 0.055 ft	Point HSE15c Northing 1718802.240 ft Easting 236319.790 ft Elevation 846.500 ft Type Horz and Vert
Point HSE16 Latitude N39°58'43.549316400" Longitude W85°59'12.938647200" Height 713.955 ft	Point HSE16 Northing 1723123.130 ft Easting 238331.822 ft Elevation 825.650 ft Horiz. residual 0.023 ft Vert. residual 0.000 ft 3D residual 0.023 ft	Point HSE16c Northing 1723123.150 ft Easting 238331.810 ft Elevation 825.650 ft Type Horz and Vert
Point HSE19 Latitude N39°59'32.662525200" Longitude W85°59'38.634903600" Height 710.625 ft	Point HSE19 Northing 1728100.032 ft Easting 236349.755 ft Elevation 822.360 ft Horiz. residual 0.048 ft Vert. residual 0.000 ft 3D residual 0.048 ft	Point HSE19c Northing 1728100.080 ft Easting 236349.750 ft Elevation 822.360 ft Type Horz and Vert
Point HSE20 Latitude N39°57'21.903019200" Longitude W85°59'42.467640000" Height 707.287 ft	Point HSE20 Northing 1714869.946 ft Easting 236002.707 ft Elevation 818.891 ft Horiz. residual 0.050 ft Vert. residual 0.001 ft 3D residual 0.050 ft	Point HSE20c Northing 1714869.980 ft Easting 236002.670 ft Elevation 818.890 ft Type Horz and Vert
Point HSE21 Latitude N39°58'34.227080400" Longitude W85°58'15.117218400" Height 698.185 ft	Point HSE21 Northing 1722164.073 ft Easting 242829.703 ft Elevation 809.880 ft Horiz. residual 0.021 ft Vert. residual 0.000 ft 3D residual 0.022 ft	Point HSE21c Northing 1722164.090 ft Easting 242829.690 ft Elevation 809.880 ft Type Horz and Vert
Point HSE22 Latitude N39°56'20.141815200" Longitude W85°54'54.878702400" Height 726.242 ft	Point HSE22 Northing 1708548.089 ft Easting 258379.999 ft Elevation 837.840 ft	Point HSE22c Northing 1708548.040 ft Easting 258379.980 ft Elevation 837.840 ft

		Horiz. residual 0.053 ft Vert. residual 0.000 ft 3D residual 0.053 ft	Type Horz and Vert
Point HSE23 Latitude N39°56'22.414581600" Longitude W85°54'12.766078800" Height 733.132 ft	Point HSE23 Northing 1708769.137 ft Easting 261660.760 ft Elevation 844.730 ft Horiz. residual 0.068 ft Vert. residual 0.000 ft 3D residual 0.068 ft	Point HSE23c Northing 1708769.070 ft Easting 261660.750 ft Elevation 844.730 ft Type Horz and Vert	
Point HSE24 Latitude N39°56'35.356207200" Longitude W85°53'27.254238000" Height 733.484 ft	Point HSE24 Northing 1710069.492 ft Easting 265208.934 ft Elevation 845.090 ft Horiz. residual 0.076 ft Vert. residual 0.000 ft 3D residual 0.076 ft	Point HSE24c Northing 1710069.420 ft Easting 265208.910 ft Elevation 845.090 ft Type Horz and Vert	
Point HSE25 Latitude N39°59'14.827869600" Longitude W85°52'18.456776400" Height 734.938 ft	Point HSE25 Northing 1726193.027 ft Easting 270604.363 ft Elevation 846.618 ft Horiz. residual 0.045 ft Vert. residual -0.002 ft 3D residual 0.045 ft	Point HSE25c Northing 1726192.990 ft Easting 270604.390 ft Elevation 846.620 ft Type Horz and Vert	
Point HSE26 Latitude N39°57'53.848306800" Longitude W85°55'05.912670000" Height 726.756 ft	Point HSE26 Northing 1718032.345 ft Easting 257547.318 ft Elevation 838.420 ft Horiz. residual 0.054 ft Vert. residual 0.000 ft 3D residual 0.054 ft	Point HSE26c Northing 1718032.380 ft Easting 257547.360 ft Elevation 838.420 ft Type Horz and Vert	
Point HSE27 Latitude N39°55'40.223733600" Longitude W85°55'22.162407600" Height 726.756 ft	Point HSE27 Northing 1704514.937 ft Easting 256243.275 ft Elevation 838.320 ft Horiz. residual 0.063 ft Vert. residual 0.000 ft 3D residual 0.063 ft	Point HSE27c Northing 1704514.990 ft Easting 256243.310 ft Elevation 838.320 ft Type Horz and Vert	
Point HSE28	Point HSE28	Point HSE28c	

Latitude	N39°58'54.909087600"	Northing	1724201.096 ft	Northing	1724201.120 ft
Longitude	W85°54'20.128032000"	Easting	261128.691 ft	Easting	261128.690 ft
Height	727.315 ft	Elevation	839.009 ft	Elevation	839.010 ft
		Horiz. residual	0.024 ft	Type	Horz and Vert
		Vert. residual	-0.001 ft		
		3D residual	0.024 ft		
Point	HSE29	Point	HSE29	Point	HSE29c
Latitude	N39°56'09.699100800"	Northing	1707462.338 ft	Northing	1707462.373 ft
Longitude	W85°52'28.950290400"	Easting	269743.890 ft	Easting	269743.886 ft
Height	743.415 ft	Elevation	855.004 ft	Elevation	855.000 ft
		Horiz. residual	0.035 ft	Type	Horz and Vert
		Vert. residual	0.004 ft		
		3D residual	0.036 ft		
Point	HSE30	Point	HSE30	Point	HSE30c
Latitude	N39°58'17.406598800"	Northing	1720388.575 ft	Northing	1720388.595 ft
Longitude	W85°52'50.359634400"	Easting	268107.257 ft	Easting	268107.237 ft
Height	734.593 ft	Elevation	846.250 ft	Elevation	846.250 ft
		Horiz. residual	0.029 ft	Type	Horz and Vert
		Vert. residual	0.000 ft		
		3D residual	0.029 ft		
Point	HSE31	Point	HSE31	Point	HSE31c
Latitude	N39°59'27.967952400"	Northing	1727602.229 ft	Northing	1727602.208 ft
Longitude	W85°58'16.106462400"	Easting	242771.269 ft	Easting	242771.266 ft
Height	720.389 ft	Elevation	832.127 ft	Elevation	832.130 ft
		Horiz. residual	0.021 ft	Type	Horz and Vert
		Vert. residual	-0.003 ft		
		3D residual	0.021 ft		
Point	HSE32	Point	HSE32	Point	HSE32c
Latitude	N39°57'16.322767200"	Northing	1714234.303 ft	Northing	1714234.316 ft
Longitude	W85°55'01.564827600"	Easting	257875.179 ft	Easting	257875.178 ft
Height	686.205 ft	Elevation	797.846 ft	Elevation	797.850 ft
		Horiz. residual	0.013 ft	Type	Horz and Vert
		Vert. residual	-0.004 ft		
		3D residual	0.013 ft		
Point	HSE33	Point	HSE33	Point	HSE33c
Latitude	N39°59'13.405844400"	Northing	1726084.483 ft	Northing	1726084.481 ft
Longitude	W85°55'14.709417600"	Easting	256885.346 ft	Easting	256885.331 ft
Height	729.368 ft	Elevation	841.081 ft	Elevation	841.080 ft
		Horiz. residual	0.015 ft	Type	Horz and Vert

		Vert. residual 0.001 ft 3D residual 0.015 ft	
Point HSE34 Latitude N39°58'53.582260800" Longitude W86°00'09.412228800" Height 698.655 ft	Point HSE34 Northing 1724154.517 ft Easting 233939.469 ft Elevation 810.349 ft Horiz. residual 0.032 ft Vert. residual -0.001 ft 3D residual 0.032 ft	Point HSE34c Northing 1724154.487 ft Easting 233939.480 ft Elevation 810.350 ft Type Horz and Vert	
Point HSE35 Latitude N39°59'41.529793200" Longitude W86°00'40.273768800" Height 697.968 ft	Point HSE35 Northing 1729015.374 ft Easting 231555.907 ft Elevation 809.702 ft Horiz. residual 0.038 ft Vert. residual 0.002 ft 3D residual 0.038 ft	Point HSE35c Northing 1729015.337 ft Easting 231555.914 ft Elevation 809.700 ft Type Horz and Vert	
Point HSE36 Latitude N39°56'31.154071200" Longitude W85°59'39.860732400" Height 674.961 ft	Point HSE36 Northing 1709734.079 ft Easting 236186.840 ft Elevation 786.509 ft Horiz. residual 0.030 ft Vert. residual -0.001 ft 3D residual 0.030 ft	Point HSE36c Northing 1709734.068 ft Easting 236186.868 ft Elevation 786.510 ft Type Horz and Vert	
Point HSE37 Latitude N39°58'13.382680800" Longitude W85°56'32.851183200" Height 708.669 ft	Point HSE37 Northing 1720028.991 ft Easting 250784.360 ft Elevation 820.352 ft Horiz. residual 0.003 ft Vert. residual 0.002 ft 3D residual 0.004 ft	Point HSE37c Northing 1720028.988 ft Easting 250784.359 ft Elevation 820.350 ft Type Horz and Vert	
Point HSE38 Latitude N39°57'17.437028400" Longitude W85°52'01.663597200" Height 697.516 ft	Point HSE38 Northing 1714311.633 ft Easting 271884.744 ft Elevation 809.139 ft Horiz. residual 0.036 ft Vert. residual -0.001 ft 3D residual 0.036 ft	Point HSE38c Northing 1714311.665 ft Easting 271884.728 ft Elevation 809.140 ft Type Horz and Vert	
Point HSE39 Latitude N40°00'07.774909200"	Point HSE39 Northing 1731564.042 ft	Point HSE39c Northing 1731564.046 ft	

Longitude	W85°53'30.020341200"	Easting	265047.751 ft	Easting	265047.719 ft
Height	721.363 ft	Elevation	833.083 ft	Elevation	833.080 ft
		Horiz. residual	0.032 ft	Type	Horz and Vert
		Vert. residual	0.003 ft		
		3D residual	0.032 ft		

Date: 12/4/2014 2:56:14 PM	Project: T:\0k\757\Survey\Control Recovery & Expansion 2013\HSE 2013 CONTROL.vce	Trimble Business Center
----------------------------	--	-------------------------

GPS Field Log

Schneider Engineering Corp.

Static/Rapid Static Operation

Leica SR399

Antenna Offset 0.441 Meters

Mask Angle 10 Degrees

Recording Rate 15 Seconds

Job No. 757.001D

Date 30 APR 03

Page 24

Unit # 2649

Initials NB

Point No. HSE 13

Start Time 2:14 P / 2:48 P

End Time 2:45 P / 3:53 P

GDOP

Height in Meters 1.916m / 1.957

Height in Feet 6.28' / 6.42'

BOTTOM OF
NOTCH

Monument Description

Type ALUM. DISK IN CONC.

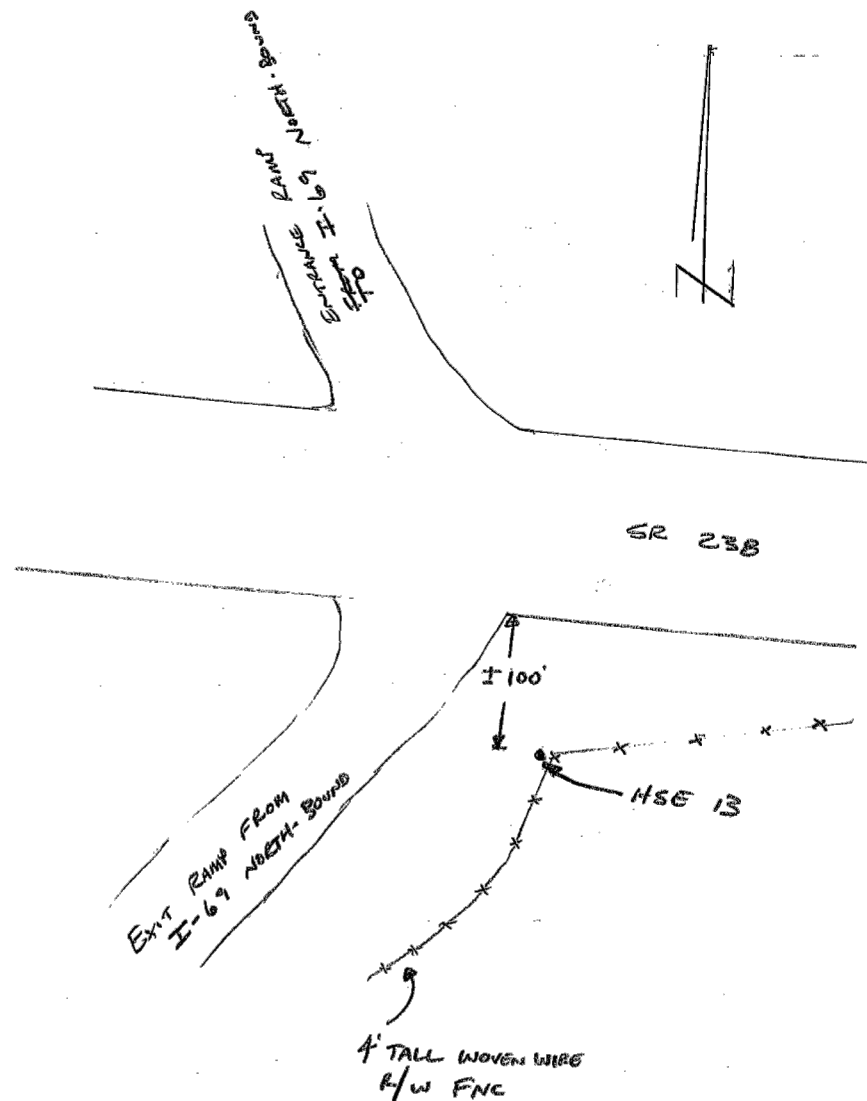
Size N/A

Depth FLUSH

Markings HAMILTON SOUTHEASTERN UTILITIES INC BENCHMARK
HSE 13"

***** Orient Antenna to North *****

25



NBAER
30 APR 03

18

GPS Field Log

Schneider Engineering Corp.

Static/Rapid Static Operation

Leica SR399

Antenna Offset 0.441 Meters

Mask Angle 10 Degrees

Recording Rate 15 Seconds

Job No. 757.001D

Date 30 APR 03

Page _____

Unit # 2649

Initials NB

Point No. HSE 20

Start Time 10:03 A / 10:39 A

End Time 10:37 A / 11:20 A

GDOP _____

Height in Meters 1.942 / 1.914

Height in Feet 6.37 / 6.28

Bottom of disk
not offset

Monument Description

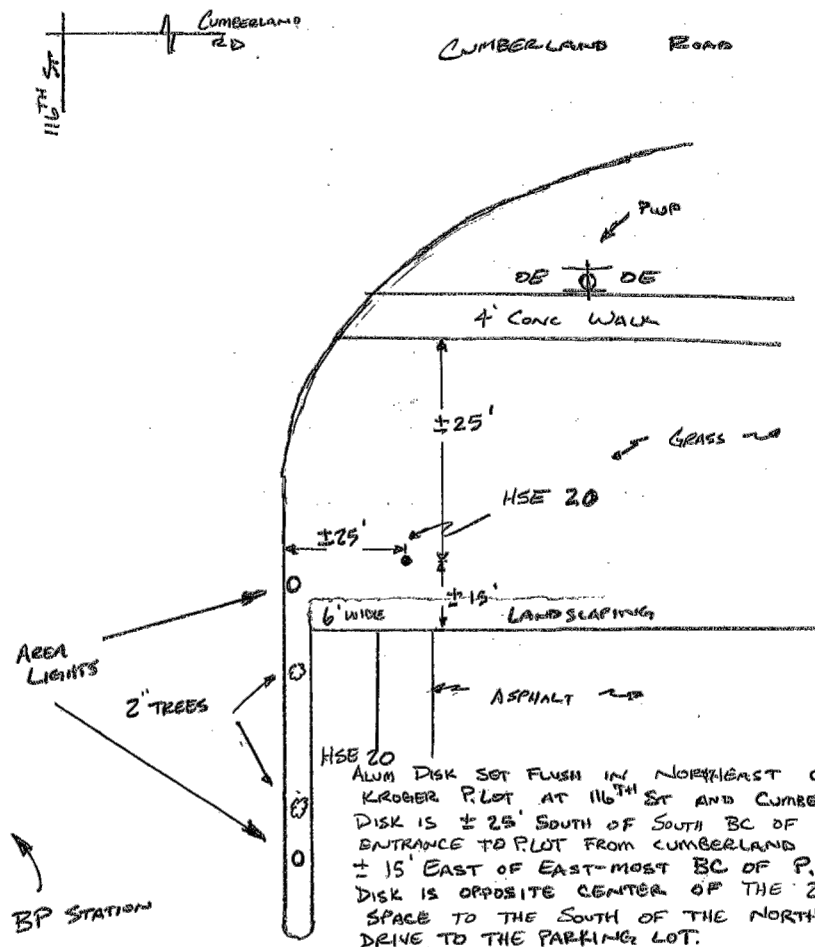
Type ALUM. DISC IN CONC

Size N/A Depth FLUSH

Markings HAMILTON SOUTHEASTERN UTILITIES INC. BENCHMARK
HSE 20"

***** Orient Antenna to North *****

19



NBAKER
30 APR 03

KROGER

GPS Field Log

Schneider Engineering Corp.

Static/Rapid Static Operation

Leica SR399

Antenna Offset 0.441 Meters

Mask Angle 10 Degrees

Recording Rate 15 Seconds

Job No. 757.01D

Date 30 APR 03

Page 19

Unit # 3059

Initials GA

Point No. HSE 21

Start Time 10:58^{am} / 11:24^{am}

End Time 11:20^{am} / 11:55^{am}

GDOP _____

Height in Meters 1.892^m / 1.858^m

Height in Feet 6.21' / 6.09'

Monument Description

Type Aluminum Disk In Conc.

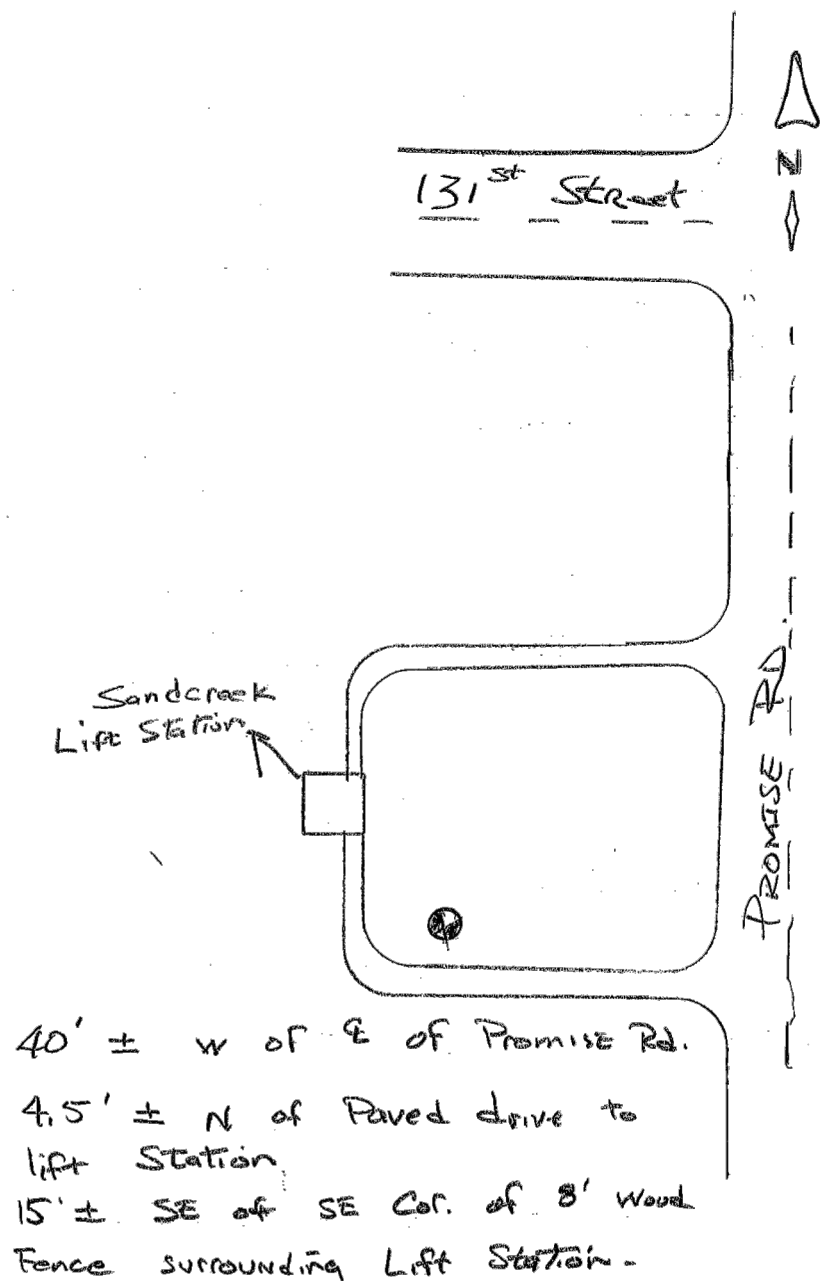
Size N/A Depth Flush

Markings Hamilton Southeastern Utilities

Benchmark # 21

***** Orient Antenna to North *****

20



GPS Field Log

Schneider Engineering Corp.

Static/Rapid Static Operation

Leica SR399

Antenna Offset 0.441 Meters

Mask Angle 10 Degrees

Recording Rate 15 Seconds

Job No. 757.001D

Date 30 Apr 03

Page 21

Unit # 3059

Initials GA

Point No. HSE 22

Start Time 12:17^{am} / 12:47^{pm}

move legs before
starting measurement
delete last 5 min.

End Time 12:39^{pm} / 1:19^{pm}

GDOP _____

Height in Meters 1.933^m / 1.888^m

Height in Feet 6.34' / 6.19'

Monument Description

Type Aluminum Disk In Conc.

Size N/A Depth 0.1' Down

Markings Hamilton Southeastern Utilities

Benchmark HSE # 22

***** Orient Antenna to North *****

22

30' ± W. OF (W) BC on
Saddlestone Drive.

40' ± N. OF (N) BC on
104th Street.

Saddlestone Drive

104th Street

GPS Field Log

Schneider Engineering Corp.

Static/Rapid Static Operation

Leica SR399

Antenna Offset 0.441 Meters

Mask Angle 10 Degrees

Recording Rate 15 Seconds

Job No. 757.001D

Date 30 APR 03

Page 22

Unit # 2649

Initials NB

Point No. HSE 23

Start Time 12:58P / 1:21P

End Time 1:19P / 1:52P

GDOP

Height in Meters 1.932 / 1.956

BOTTOM OF
NOTCH

Height in Feet 6.34 / 6.41

Monument Description

Type ALUM. DISK IN CONC.

Size

N/A

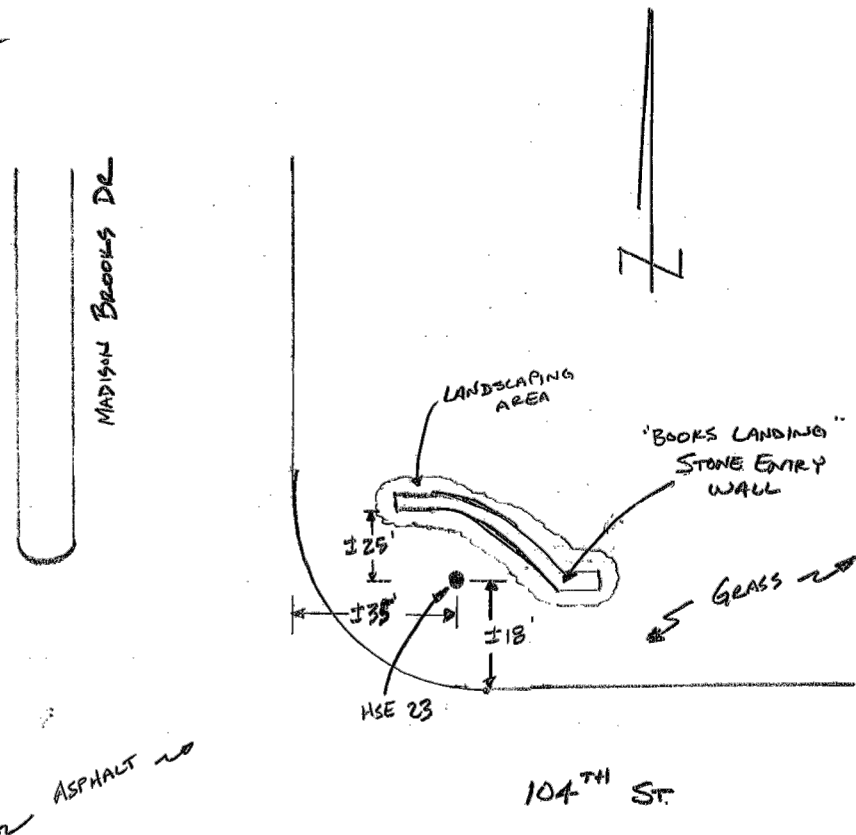
Depth

FLUSH

Markings HAMILTON SOUTHEASTERN UTILITIES INC. BENCHMARK
HSE 23

***** Orient Antenna to North *****

23



HSE 23

ALUM. DISK SET FLUSH @ NORTHEAST CORNER OF ENTRANCE TO BROOKS LANDING FROM 104TH STREET. DISK IS 18' NORTH OF NORTH EDGE OF PAVEMENT OF 104TH ST AND 35' EAST OF EAST BACK OF CURB (TANGENT EXTENDED) OF MADISON BROOKS DR. DISK IS ALSO 25' SOUTH OF SOUTH FACE OF NORTH MOST PART OF STONE ENTRY WALL.

NBAKER
30 APR 03

GPS Field Log

Schneider Engineering Corp.

Static/Rapid Static Operation

Leica SR399

Antenna Offset 0.441 Meters

Mask Angle 10 Degrees

Recording Rate 15 Seconds

Job No. 757.001D

Date 30 Apr 30

Page 23

Unit # 3059

Initials GA

Point No. HSE 24

Start Time 1:31^{PM} / 1:55^{PM}

End Time 1:51^{PM} / 2:45^{PM}

GDOP _____

Height in Meters 1.892^m / 1.918^m

Height in Feet 6.21' / 6.29'

Monument Description

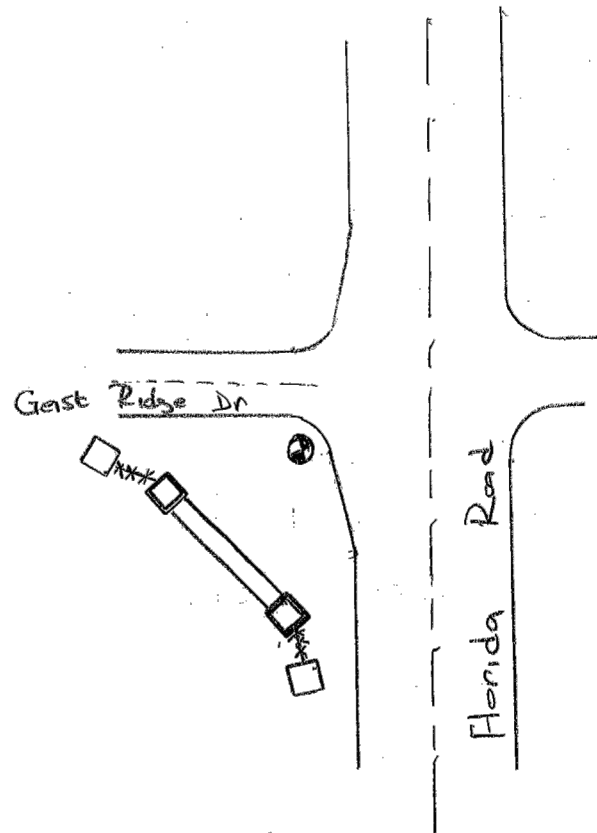
Type Aluminum Disk IN Conc.

Size N/A Depth 0.20' Down

Markings Hamilton Southeastern Utilities Bench
mark

***** Orient Antenna to North *****

24



20' ± NE from 2 of
ENTRY wall.

3' ± SW of MP@BL

HSE New Control

HSE 210

Fall Creek
Elem.
School

Ohio Rd

4' Conc. Walk

±25'

±100'

N

Fall Creek
Intermediate
School

HSE Junior
High

Alum Mon set flush on east side of Ohio Rd. Disc is ±
100' north of the north b.c. of the north ent. to the Fall Creek
Intermediate School and ±25' east of back of walk which
runs along Ohio Rd.

GPS Field Log

The Schneider Corp.

Static Operation

Trimble 5700/5800

Job No. 757

Date 10-04-05

Page

Set No. Set 1 Base
0455

Mask Angle ☐ 10 ☐ 13*

Initials

Epoch Recording Rate ☐ 1 ☐ 5 ☐ 15*

Point No. HSE 210

Start Time 11:23A / 11:49A

End Time 11:44A / 12:46P

Antenna Type ☐ Zephyr ☒ Zephyr Geodetic

☐ 5800

Measured to ☐ Top Notch (Zephyr)

☒ Bottom Notch (Zephyr Geodetic)

☐ Bottom Antenna Mount (5800)

Height in Feet 6.72 / 6.63

Height in Meters 2.048 / 2.020

Monument Description

Type Alum. Mon

Size 3" Depth Flush

Markings Hamilton Southeastern Utilities Benchmark HSE 210

* refers to default--Reference Ties on reverse side

GPS Field Log

The Schneider Corp.

Static Operation

Trimble 5700/5800

Job No. _____

Date 10-04-05

Page _____

Set No. Set 1 Rover

BS17

Mask Angle ☐ 10 ☐ 13*

Initials _____

Epoch Recording Rate ☐ 1 ☐ 5 ☐ 15*

Point No. HSE 27

Start Time 12:13 P / 1:00 P / 3:51 P

End Time 12:57 P / 1:24 P / 4:27 P

Antenna Type ☒ Zephyr ☐ Zephyr Geodetic

☐ 5800

Measured to ☒ Top Notch (Zephyr)

☐ Bottom Notch (Zephyr Geodetic)

☐ Bottom Antenna Mount (5800)

Height in Feet 6.24 / 6.35 / 6.25

Height in Meters 1.904 / 1.936 / 1.906

Monument Description

Type Alum Mon

Size 3" Depth 0.1' Down

Markings Hamilton Southeastern Utilities Benchmark HSE27

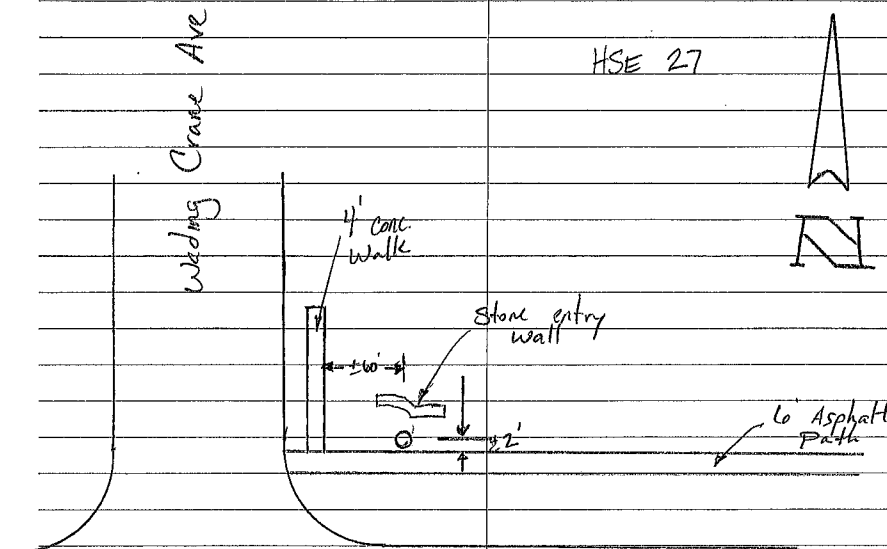
* refers to default--Reference Ties on reverse side

PROJ. NO. 757 Line _____

NBaker
MHackett

PAGE _____ OF _____

10-04-05



96TH St

Alum Mon set 0.1' down ±60' east of conc. back of walk and 2' north of north e.p. of 6' asphalt walk at the northeast cor. of 96TH St and Wading Crane Ave. (the south entrance of Fox Hollow @ Geist)

GPS Field Log

The Schneider Corp.
Static Operation
Trimble 5700/5800

Job No. _____

Date 10-04-05

Page _____

Set No. BS17

Mask Angle ☐ 10 ☐ 13*

Initials NB MH

Epoch Recording Rate ☐ 1 ☐ 5 ☐ 15*

Point No. HSE 28

Start Time 1:51 P / 2:40 P

End Time 2:35 P / 3:14 P

Antenna Type ☒ Zephyr ☐ Zephyr Geodetic

☐ 5800

Measured to ☒ Top Notch (Zephyr)

☐ Bottom Notch (Zephyr Geodetic)

☐ Bottom Antenna Mount (5800)

Height in Feet 10.52 / 6.36

Height in Meters 1.987 / 1.940

Monument Description

Type Alum. Mon.

Size 3" Depth Flush

Markings Hamilton Southeastern Utilities Benchmark

HSE 28

* refers to default--Reference Ties on reverse side

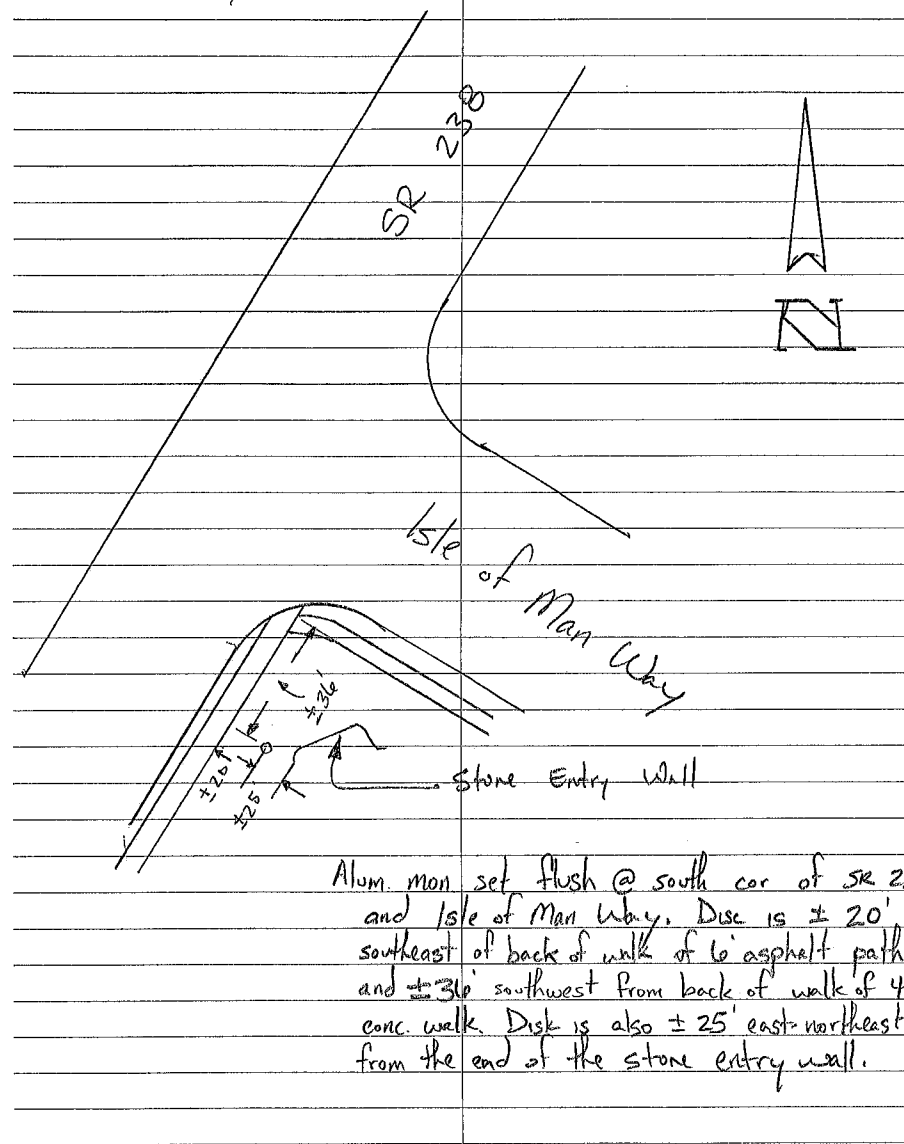
PROJ. NO. 757 Line _____

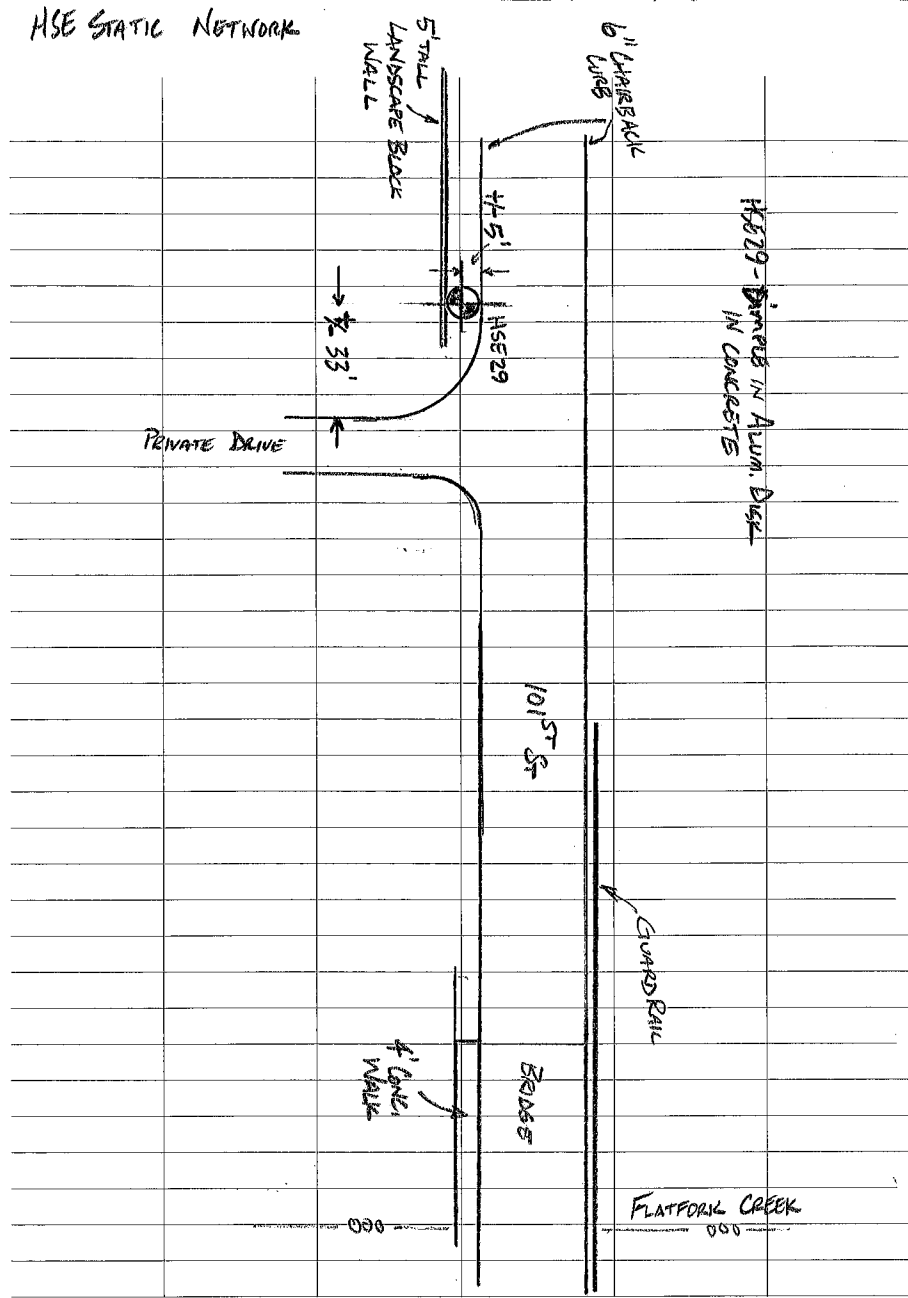
60° Sunny

NBaker
MHackett

PAGE _____ OF _____

10-4-05





GPS Field Log

The Schneider Corp.
Static Operation
Trimble 5700/5800

Job No. 757.001N
Date 20 MAR 13
Page _____
Set No. JKW

Mask Angle ☐ 10 ☐ 13*

Initials N/RB

Epoch Recording Rate ☐ 1 ☐ 5 ☐ 15*

Point No. HSE 29
Start Time 10:34A / 10:59A
End Time 10:54A / 11:31A

Antenna Type ☐ Zephyr ☐ Zephyr Geodetic
☐ 5800 RB-2

Measured to ☐ Top Notch (Zephyr)
☐ Bottom Notch (Zephyr Geodetic)
☐ Bottom Antenna Mount (5800)

Height in Feet 6.050' C.O.B / 5.763' C.O.A
Height in Meters 1.844m / 1.7565m

Monument Description

Type DIMPLE IN ALUM. DISK IN CONC.
Size 3" Depth FLUSH
Markings HAMILTON SOUTHERN UTILITIES BENCHMARK HSE 29

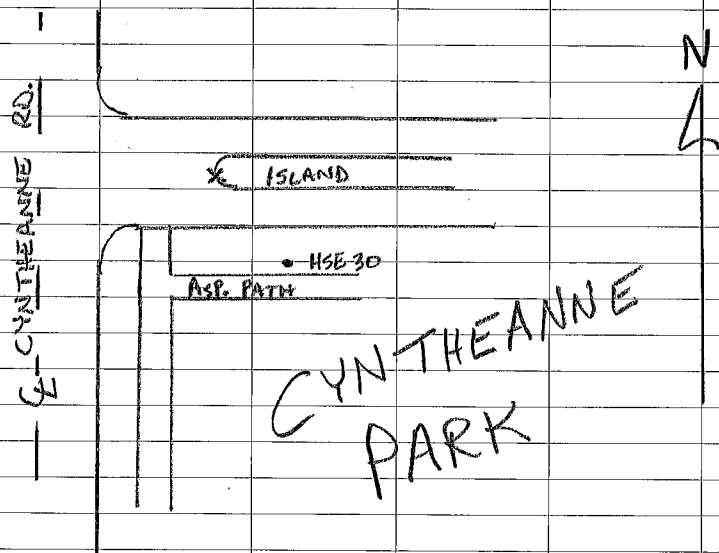
* refers to default--Reference Ties on reverse side

HSE 30 DESCRIPTION

HSE UTILITIES INC "HSE 30" SET IN CONC.

± 75' EAST OF CYNTHIANNE RD. ± 45' SE OF

TIP OF ISLAND @ PARK ENT. ± 1' NORTH OF ASP. PATH



2013 ELEV. = 846.25'

GPS Field Log

The Schneider Corp.

Static Operation

Trimble 5700/5800

Job No. 757.001N

Date 20 MAR 13

Page

Set No. 4150

Mask Angle ☐ 10 ☐ 13*

Initials BF

Epoch Recording Rate ☐ 1 ☐ 5 ☐ 15*

Point No. 30

Start Time 8:47 A

End Time 9:08 A

Antenna Type ☐ Zephyr ☐ Zephyr Geodetic☐ 5800 RB-3Measured to ☐ Top Notch (Zephyr)☐ Bottom Notch (Zephyr Geodetic)☐ Bottom Antenna Mount (5800)

Height in Feet 5.86 C.O.B.

Height in Meters 1.786

Monument Description

Type

Size Depth

Markings

* refers to default--Reference Ties on reverse side

GPS Field Log

The Schneider Corp.

Static Operation

Trimble 5700/5800

Job No. 757.001N

Date 21 MAR 13

Page

Set No. JKN

Mask Angle ☐ 10 ☐ 13*

Initials NRB

Epoch Recording Rate ☐ 1 ☐ 5 ☐ 15*

Point No. HSE 32

Start Time 2:16 P

End Time 2:47 P

Antenna Type ☐ Zephyr ☐ Zephyr Geodetic

☐ 5800

R8-2

Measured to ☐ Top Notch (Zephyr)

☐ Bottom Notch (Zephyr Geodetic)

☐ Bottom Antenna Mount (5800)

Height in Feet 5.812' COR

Height in Meters 1.7715m

Monument Description

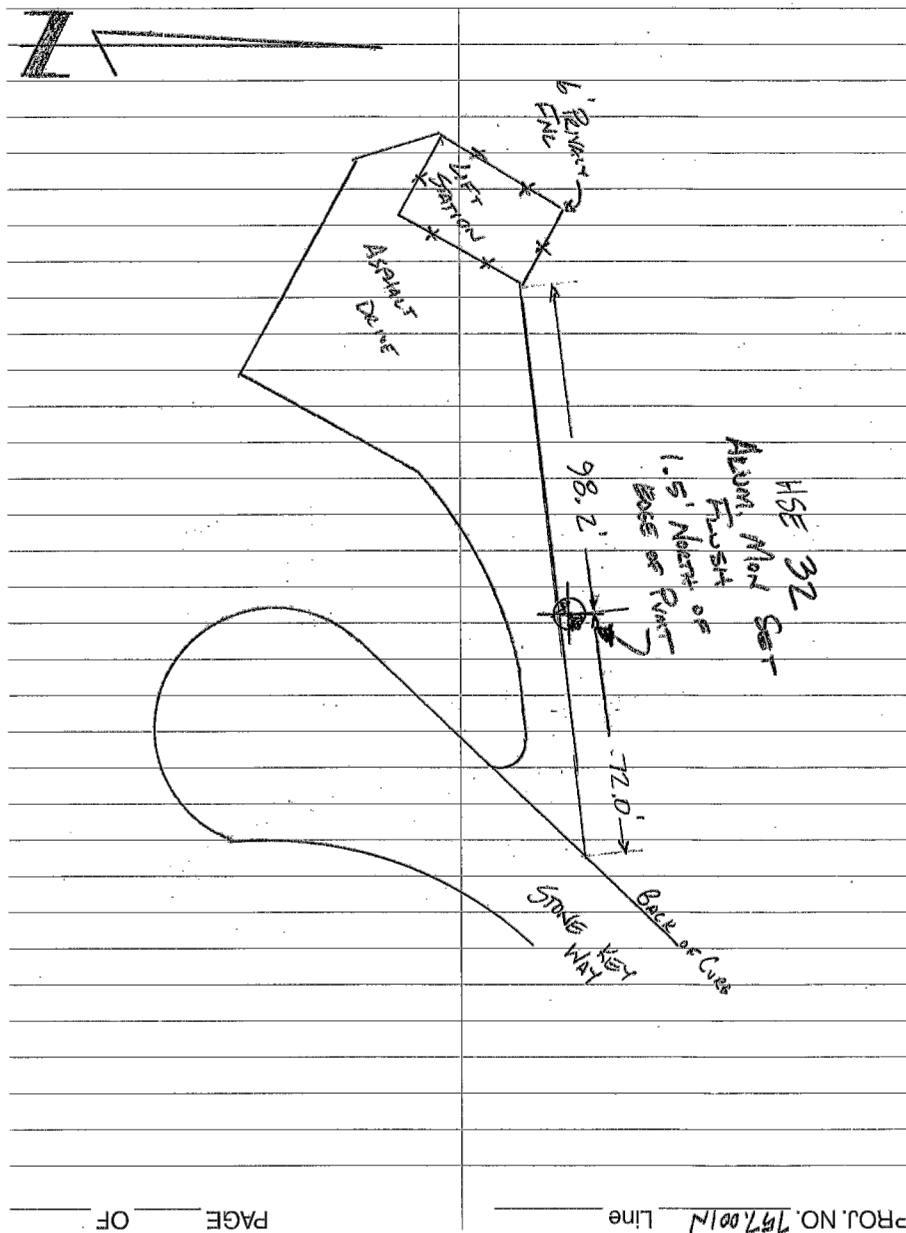
Type Cut X in Alum. Disk in Conc.

Size 3" Depth 0.1'

Markings HAMILTON SOUTHEASTERN UTILITIES BENCHMARK

HSE 32

* refers to default--Reference Ties on reverse side



NRB
8 Oct 13

PAGE OF

PROJ. NO. 757.001N Line

GPS Field Log

The Schneider Corp.
Static Operation
Trimble 5700/5800

Job No. 757.001N
Date 19 MAR 13
Page _____
Set No. JKN

Mask Angle ☐ 10 ☐ 13*

Initials NRB

Epoch Recording Rate ☐ 1 ☐ 5 ☐ 15*

Point No. HSE 33
Start Time 3:12P / 3:36P
End Time 3:32P / 4:09P

Antenna Type ☐ Zephyr ☐ Zephyr Geodetic
☐ 5800 R8-2

Measured to ☐ Top Notch (Zephyr)
☐ Bottom Notch (Zephyr Geodetic)
☐ Bottom Antenna Mount (5800)

Height in Feet 5.79' COB / 6.07' COB
Height in Meters 1.765m / 1.850m

Monument Description

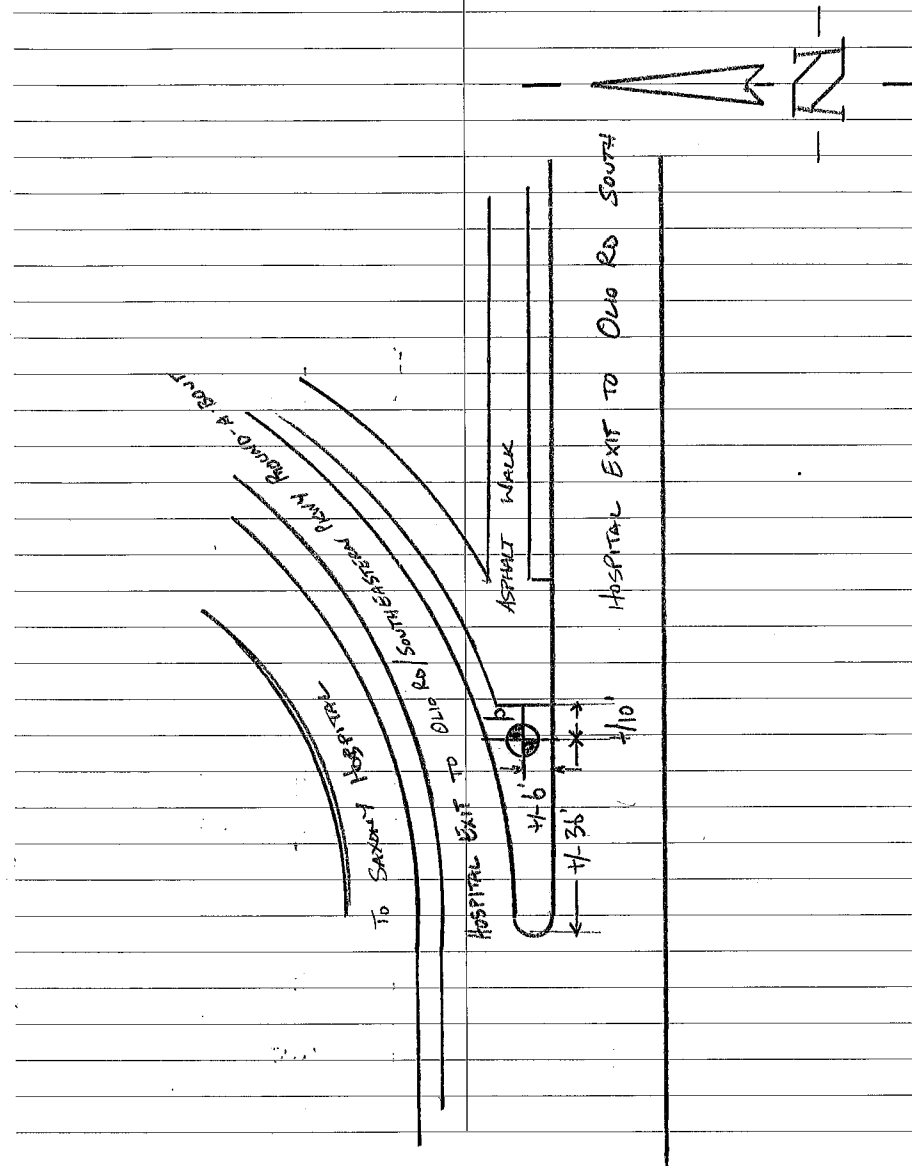
Type Cut X in Alum Disk in CONC.
Size 3" Depth FLUSH
Markings HAMILTON SOUTHEASTERN UTILITIES BENCHMARK HSE 33

* refers to default--Reference Ties on reverse side

NBAKER

PROJ. NO. 757.001N Line _____ 19 MAR 13

PAGE 16 OF _____
32° SUNNY/WINDY



GPS Field Log

The Schneider Corp.
Static Operation
Trimble 5700/5800

Job No. 757,001N

Date 19 MAR 13

Page

Set No. JKN

Mask Angle ☐ 10 ☐ 13*

Initials NRB

Epoch Recording Rate ☐ 1 ☐ 5 ☐ 15*

Point No. HSE 34

Start Time 10:09A 10:38A / 11:09A

End Time 10:29A 11:04A / 11:36A

Antenna Type ☐ Zephyr ☐ Zephyr Geodetic

☐ 5800 RB-2

Measured to ☐ Top Notch (Zephyr)

☐ Bottom Notch (Zephyr Geodetic)

☐ Bottom Antenna Mount (5800)

Height in Feet 6.07' COB / 5.88' COB

Height in Meters 1.851m / 1.793m

Monument Description

Type Cut 'X' in Alum. Disk in Conc.

Size 3" Depth 0.2'

Markings HAMILTON SOUTHEASTERN UTILITIES BENCHMARK HSE 34

* refers to default--Reference Ties on reverse side

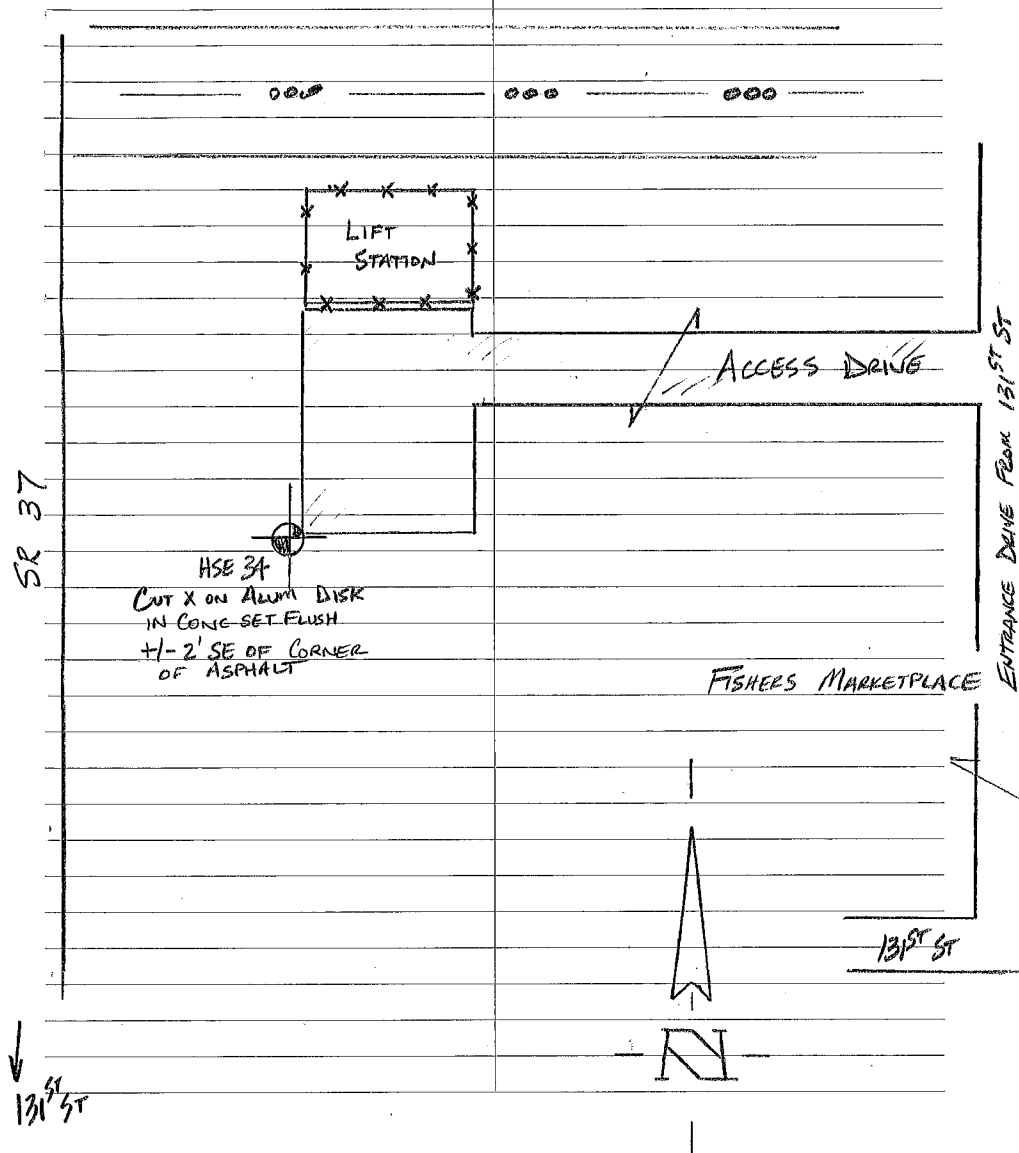
PROJ. NO. 757,001N Line

TRIMBLE RB-2

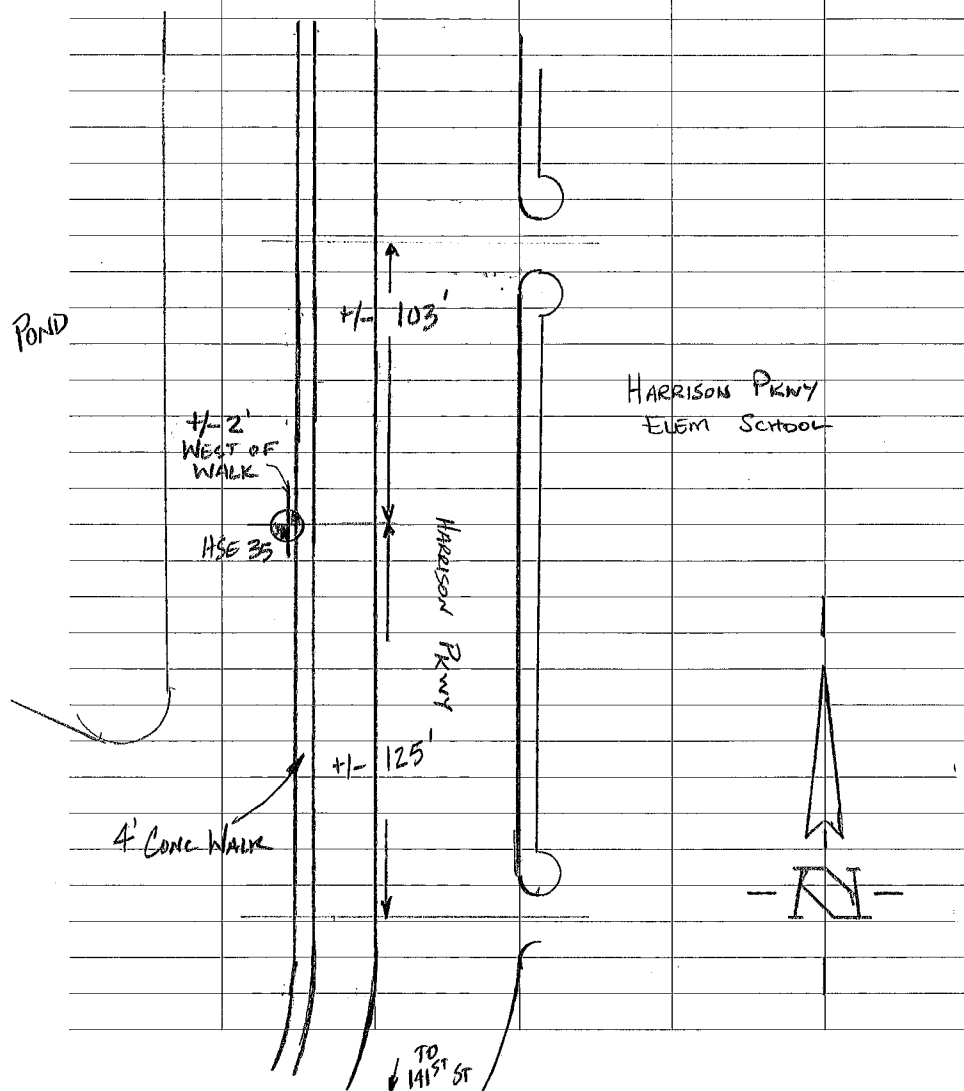
19 MAR 13

PAGE 13 OF

25° NESTLY Sunny / Windy



HSE 35 - CUT X ON ALUM DISK IN CONC, SET FWD 0.10' DOWN



GPS Field Log

The Schneider Corp.

Static Operation

Trimble 5700/5800

Job No. 757,001N

Date 19 MAR 13

Page _____

Set No. JKN

Mask Angle ☐ 10 ☐ 13*

Initials NRB

Epoch Recording Rate ☐ 1 ☐ 5 ☐ 15*

Point No. HSE35

Start Time 11:51A / 12:20P

End Time 12:14P / 12:48P

Antenna Type ☐ Zephyr ☐ Zephyr Geodetic

☐ 5800 R8-2

Measured to ☐ Top Notch (Zephyr)

☐ Bottom Notch (Zephyr Geodetic)

☐ Bottom Antenna Mount (5800)

Height in Feet 5.80' C.O.B. / 5.71'

Height in Meters 1.7935m / 1.741m

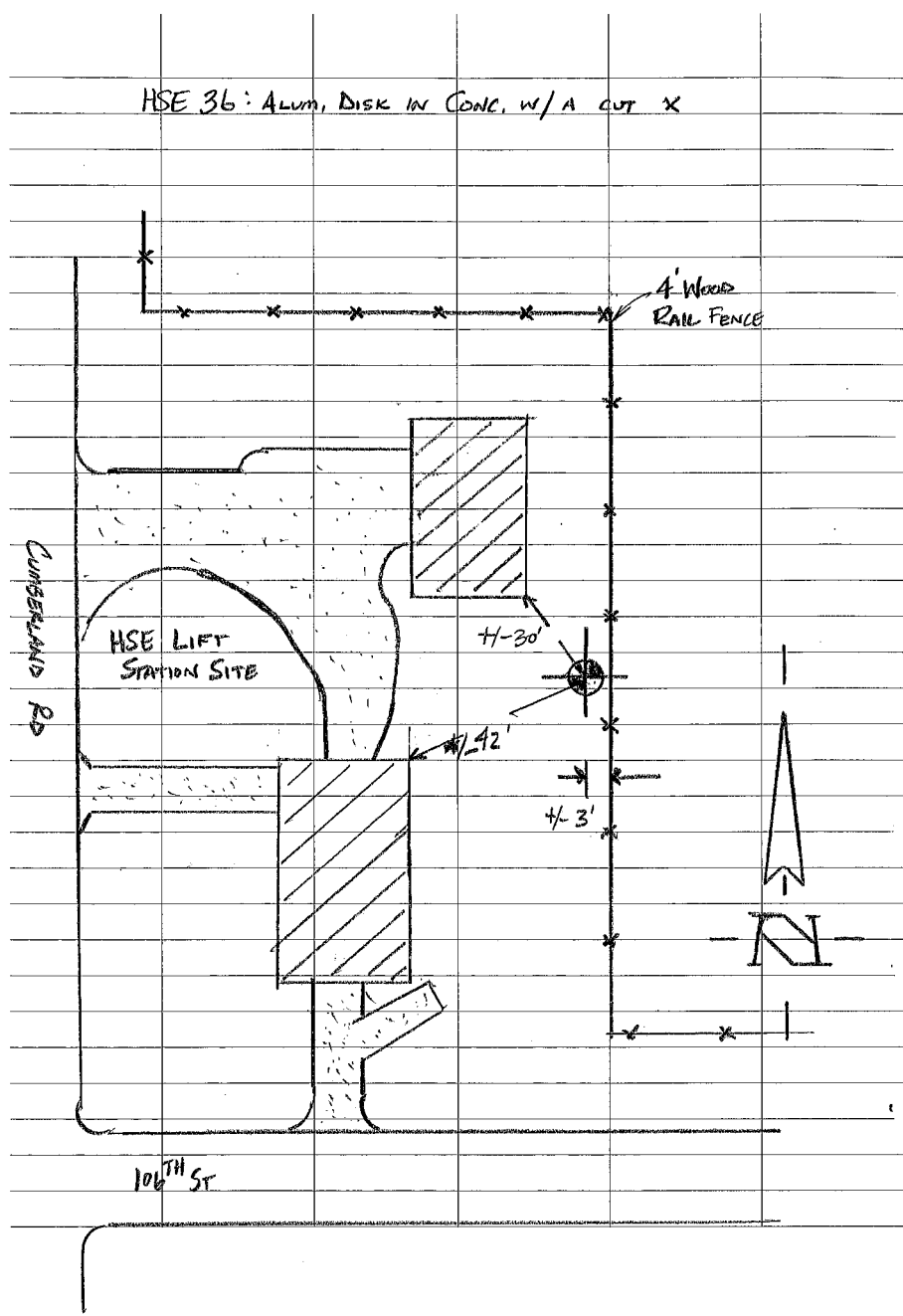
Monument Description

Type CUT X IN ALUM DISK IN CONC

Size 3" Depth 0.10'

Markings HAMILTON SOUTHEASTERN UTILITIES BENCHMARK HSE35

* refers to default--Reference Ties on reverse side



GPS Field Log

The Schneider Corp.

Static Operation

Trimble 5700/5800

Job No. 757,001N

Date 19 MAR 13

Page _____

Set No. JKN

Mask Angle ☐ 10 ☐ 13*

Initials NRB

Epoch Recording Rate ☐ 1 ☐ 5 ☐ 15*

Point No. HSE36

Start Time 9:07A

End Time 9:27A

Antenna Type ☐ Zephyr ☐ Zephyr Geodetic

☐ 5800 RB-2

Measured to ☐ Top Notch (Zephyr)

☐ Bottom Notch (Zephyr Geodetic)

☐ Bottom Antenna Mount (5800)

Height in Feet 5.92' C.O.B

Height in Meters 1.804m

Monument Description

Type ALUM. DISK IN CONCRETE WITH CUT X

Size 3" Depth FLUSH

Markings HAMILTON SOUTHEASTERN UTILITIES BENCHMARK HSE 36

* refers to default--Reference Ties on reverse side

GPS Field Log

The Schneider Corp.
Static Operation
Trimble 5700/5800

Job No. 757.001N
Date 19 MAR 13
Page _____
Set No. 4150

Mask Angle ☐ 10 ☐ 13*

Initials BF

Epoch Recording Rate ☐ 1 ☐ 5 ☐ 15*

Point No. HSE 37
Start Time 1:00 P
End Time 1:35 P

Antenna Type ☐ Zephyr ☐ Zephyr Geodetic
☐ 5800 RB-3

Measured to ☐ Top Notch (Zephyr)
☐ Bottom Notch (Zephyr Geodetic)
☐ Bottom Antenna Mount (5800)

Height in Feet 5.112 C.O.B.
Height in Meters 1.802

Monument Description

Type ALUM DISC. IN CONC.
Size 4" Depth 0.01'
Markings HSE UTILITIES "HSE 37"

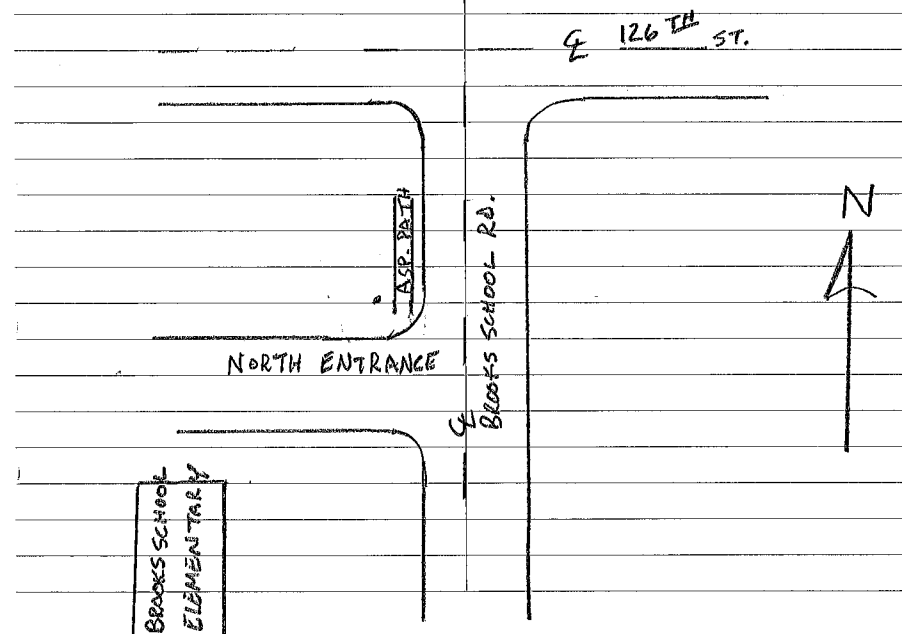
* refers to default--Reference Ties on reverse side

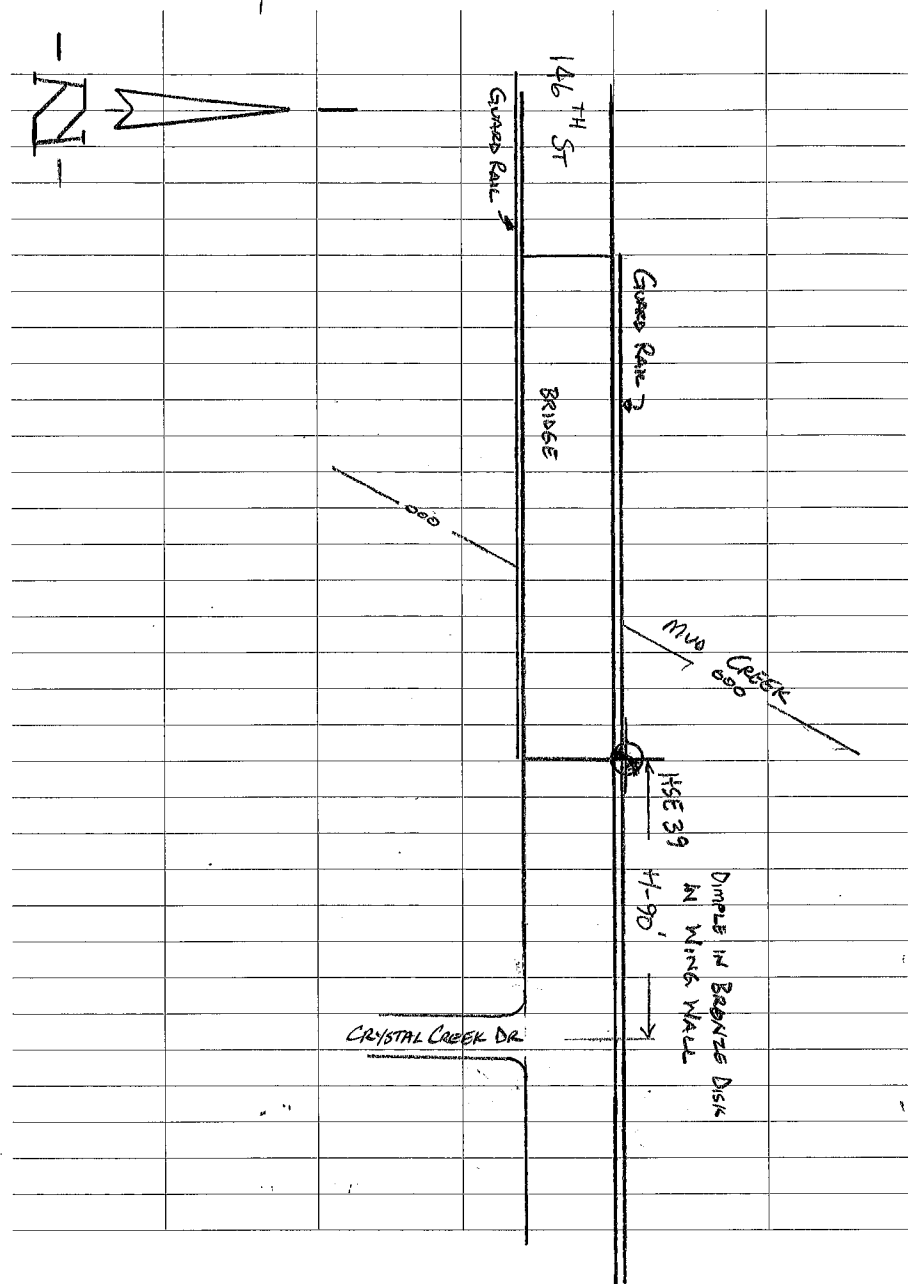
PROJ. NO. _____ Line _____

PAGE 30 OF _____

HSE 37 DESCRIPTION

HSE UTILITIES INC "HSE 37" SET IN
CONC. \pm 400' SOUTH OF 126TH \pm 20' WEST OF
BROOKS SCHOOL RD. \pm 5' NORTH OF MID. RAD. @
NORTH ENT. OF BROOKS SCHOOL ELEMENTARY
 \pm 3' WEST OF ASP. WALKING PATH





GPS Field Log

The Schneider Corp.

Static Operation

Trimble 5700/5800

Job No. 757.001NDate 20 MAR 13

Page _____

Set No. JKUMask Angle ☐ 10 ☐ 13*Initials NRBEpoch Recording Rate ☐ 1 ☐ 5 ☐ 15*Point No. HSE 39 (HCBR 175)Start Time 8:06A / 8:32AEnd Time 8:27 / 9:08AAntenna Type ☐ Zephyr ☐ Zephyr Geodetic☐ 5800RB-2Measured to ☐ Top Notch (Zephyr)☐ Bottom Notch (Zephyr Geodetic)☐ Bottom Antenna Mount (5800)Height in Feet 4.678' C.O.B. / 4.426' C.O.B.Height in Meters 1.426m / 1.349m

Monument Description

BRONZEType Dimple in ~~BRASS~~ Disk in Wing WallSize 2" 2" Depth FLUSHMarkings HAMILTON COUNTY GEODETIC CONTROL

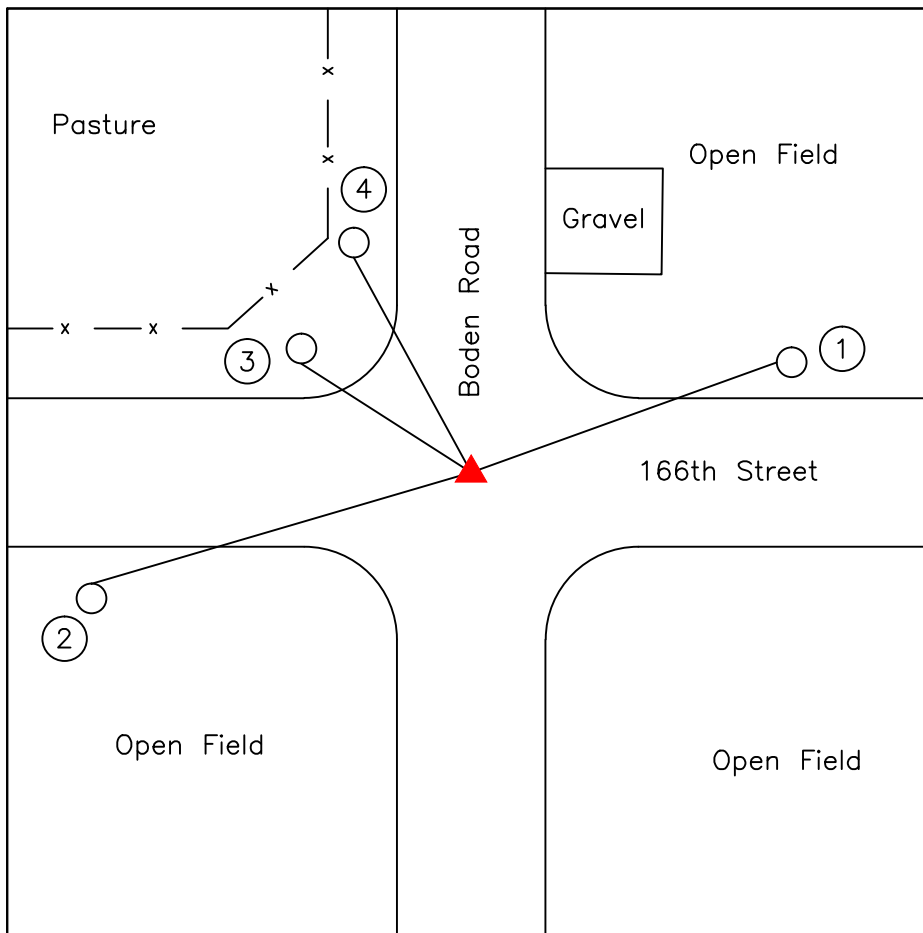
* refers to default--Reference Ties on reverse side

APPENDIX B

The below tie sheets reflect the coordinates of the based on N.A.D. 83/ CORS 96. The difference between the pre-HARN coordinates of the Hamilton Southeastern Utilities, Inc. Horizontal and Vertical Control Data book and the N.A.D. 83/ CORS 96 are on average 0.3 feet in the northing and -1.4 feet in the easting.

HAMILTON COUNTY SURVEYOR'S OFFICE

CORNER RECORD



DATE : 6-15-2010

FIELD CREW:

Tony Reitenour

Sean O'Grady

Zach Hazelhorst

Austin Hazelhorst

Type of Monument : HARRISON SET AT IP FOUND

GEODETIC CONTROL

BY: Tony Reitenour

DATE: 12-16-2008

N.A.D.: 83/CORS 96

N: ~~1742014.92~~ 1742015.16

E: ~~252083.32~~ 252083.14

ELEV: 811.88

Ref.	Dist.	Description
1	92.70'	Mag nail & washer set, NW face of utility pole # 070-250, 1.0' up and 7.5' off edge of pavement
2	107.50'	Mag nail & washer set North side utility pole 5.70' above ground, 4.0' off edge of pavement
3	69.95'	Mag nail & washer set, SW face of utility pole # 253-633, 1.0' up, 28' north of pavement
4	92.40'	Mag nail & washer set, SW face of utility pole # 025-3633 , 1.0' up, 5.0' west of pavement

NOTES :

Rebar found 12-2008, 11-2004 HCSO

Iron Rod found 8-1995, 5-1995, 6-1992 HCSO

Iron Rod set over Stone found

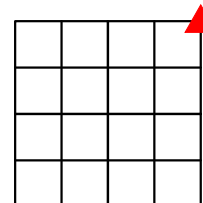
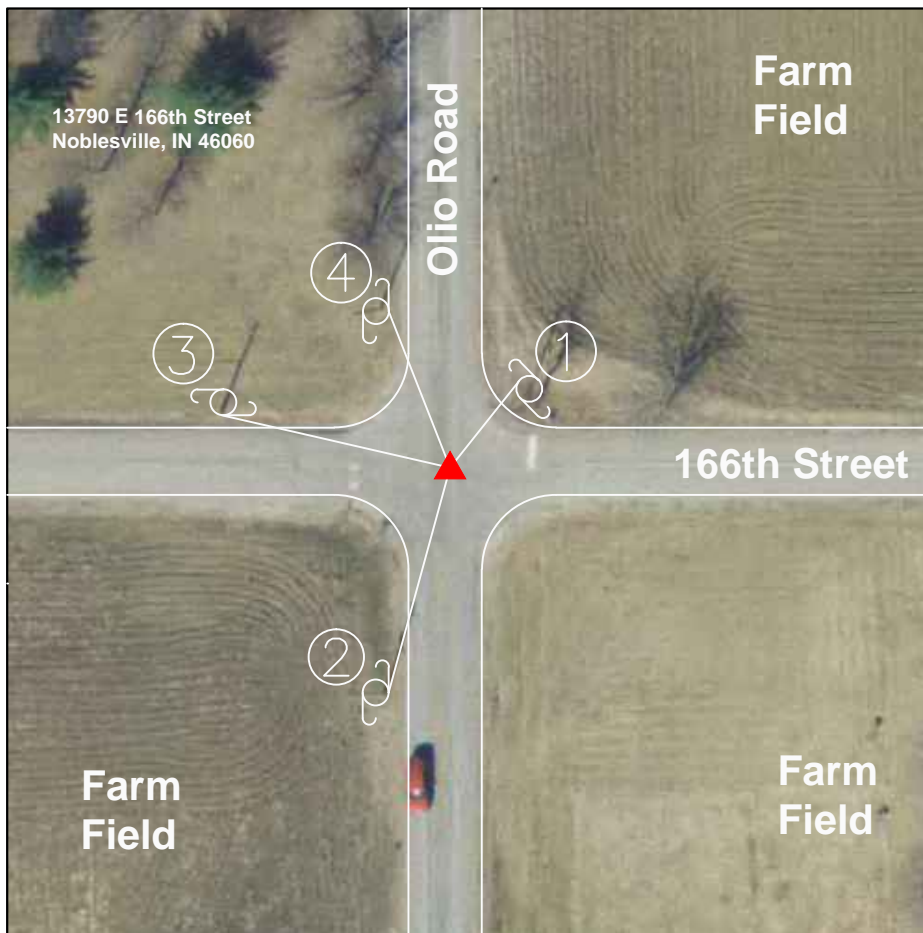
Stone set 11-1865

CORNER NUMBER

18051003

HAMILTON COUNTY SURVEYOR'S OFFICE

CORNER RECORD



11-18-05
SEC. - T - R

DATE : **6-3-2015**

FIELD CREW:

Tony Reitenour

Luke Brown

Emilee Liston

Type of Monument : **HARRISON RESET AT SURFACE**

Ref.	Dist.	Description
1	25.80'	Mag nail & washer in NW side of pwp #196-166
2	62.80'	Mag nail & washer in East side of pwp #165-590
3	61.15'	Mag nail & washer in South side of pwp #252-507
4	45.30'	Mag nail & washer set in East side of pwp no #

GEODETIC CONTROL

BY: Tony Reitenour

DATE: 6-3-2015

NAD 83 (CORS96)

NAVD 88 (GEOID09)

N: 1742014.291

E: 257302.566

ELEV: ~~829.43~~

829.37

HISTORY :

Harrison found 10-2008,11-2004,1-2001,12-1999,8-1995 HCSO

Harrison set 4-1990 HCSO

Stone found 6-1970 HCSO

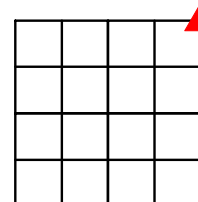
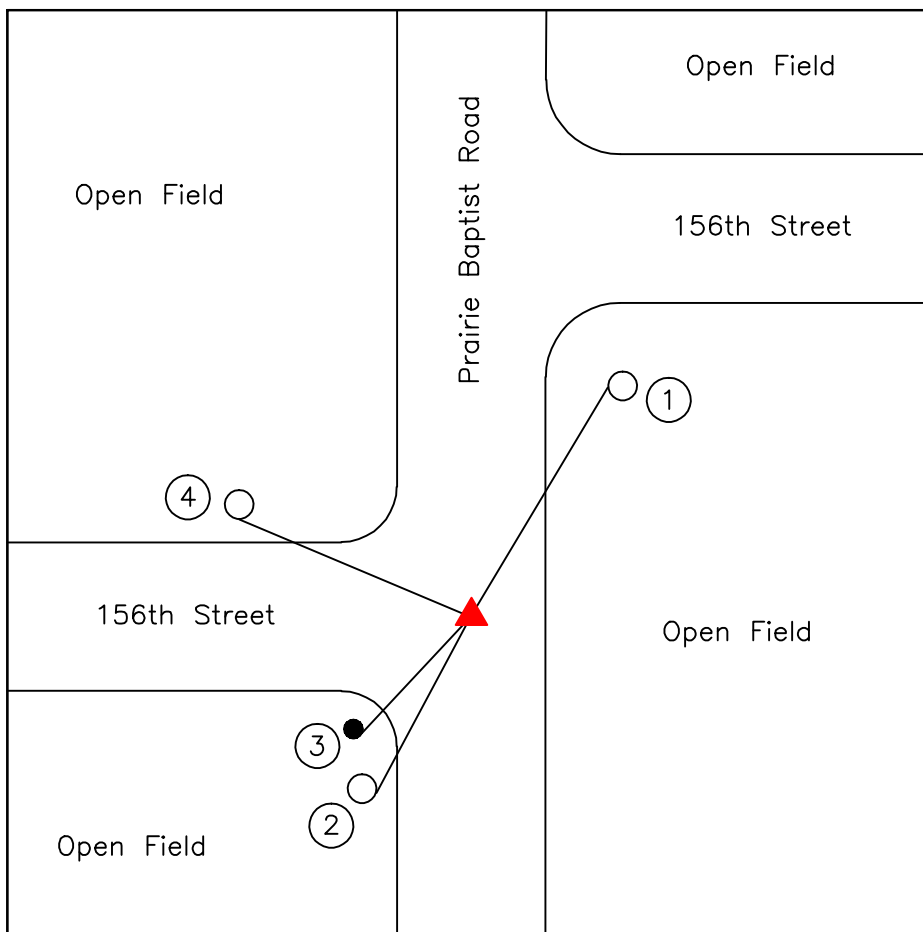
Stone set 11-1865

CORNER NUMBER

18051103

HAMILTON COUNTY SURVEYOR'S OFFICE

CORNER RECORD



13-18-5
SEC./T/R

DATE : **12-03-2008**

FIELD CREW:

Tony Reitenour

Sean O'Grady

Type of Monument : **HARRISON FOUND 0.4' DOWN**

Ref.	Dist.	Description
1	72.80'	Mag nail & washer set, NW side of utility pole # 070-192, 2.0' above ground, 6.0' off road
2	30.00'	Mag nail & washer set, SE side of utility pole 2.0' above ground, 5.0' off edge of pavement
3	22.63'	Mag nail & washer set, SE side of round concrete post 2.0' above ground, 3.50' off edge of road
4	56.68'	Mag nail & washer set, SW side of utility pole 2.0' above ground, 5.0' off edge of pavement

GEODETIC CONTROL

BY: Tony Reitenour

DATE: 12-03-2008

N.A.D.: 83/CORS 96

N: 1736700.71

E: 262621.60

ELEV: **850.71**

NOTES :

Harrison found 10-2005 HCSO

Stone found under 1 1/2" Iron Pipe 8-1995 HCSO

Stone found 6-1966 HCSO

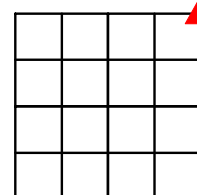
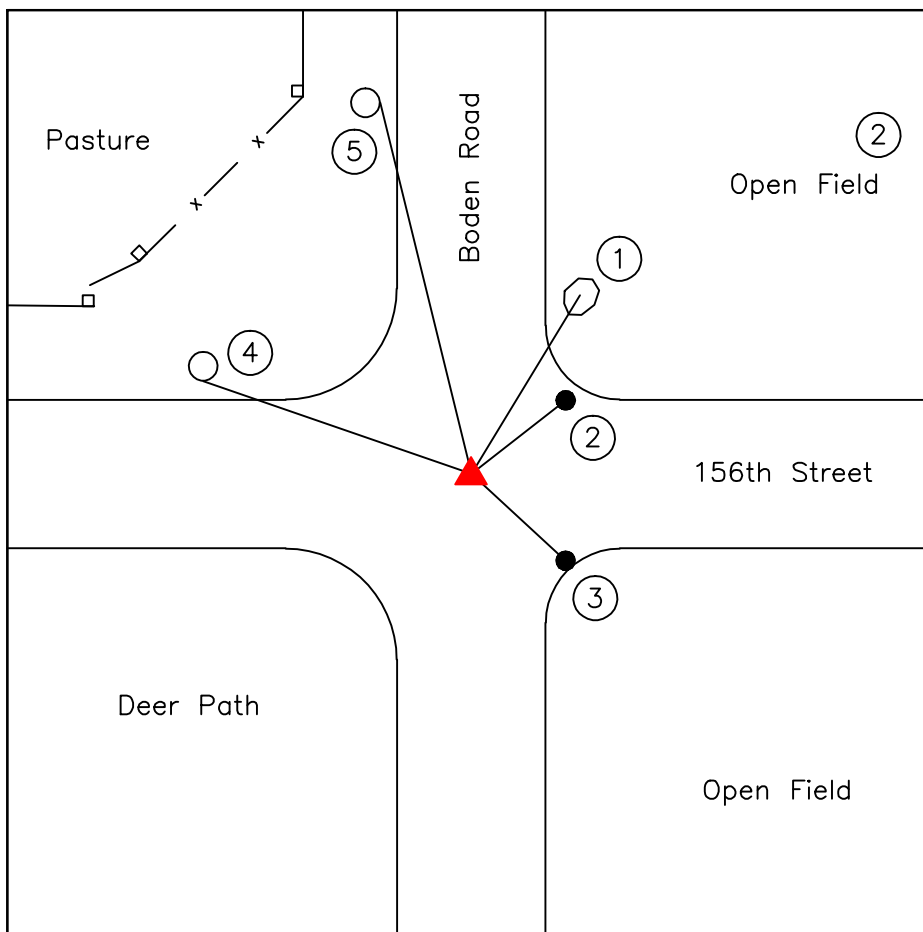
Stone set 10-1864

CORNER NUMBER

18051303

HAMILTON COUNTY SURVEYOR'S OFFICE

CORNER RECORD



15-18-5
SEC./T/R

DATE : **10-15-2008**

FIELD CREW:

Tony Reitenour

Sean O'Grady

Type of Monument : **HARRISON SET AT RR SPIKE FOUND**

Ref.	Dist.	Description
1	36.65'	Drilled hole in top of rock, 7.30' E of pavement
2	27.60'	Mag nail & washer set, NE corner of intersection
3	29.87'	Mag nail & washer set, SE corner of intersection
4	62.55'	Mag nail & washer set, South side of utility pole
		# HM1-8040, 2.0' above ground
5	62.55'	Mag nail & washer set, East side of utility pole
		# PSI-253-633, 2.0' above ground

GEODETIC CONTROL

BY: Tony Reitenour

DATE: 10-15-2008

N.A.D.: 83/CORS 96

N: 1736686.98

E: 252100.19

ELEV: **817.36**

NOTES :

RR Spike found 11-2004, 9-2000, 5-1995, 7-1992 HCSO

Stone found under IP, reset RR Spike over Stone 7-1983

Iron Rod set over Stone found 5-1982

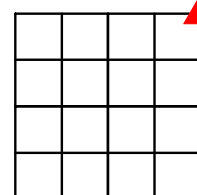
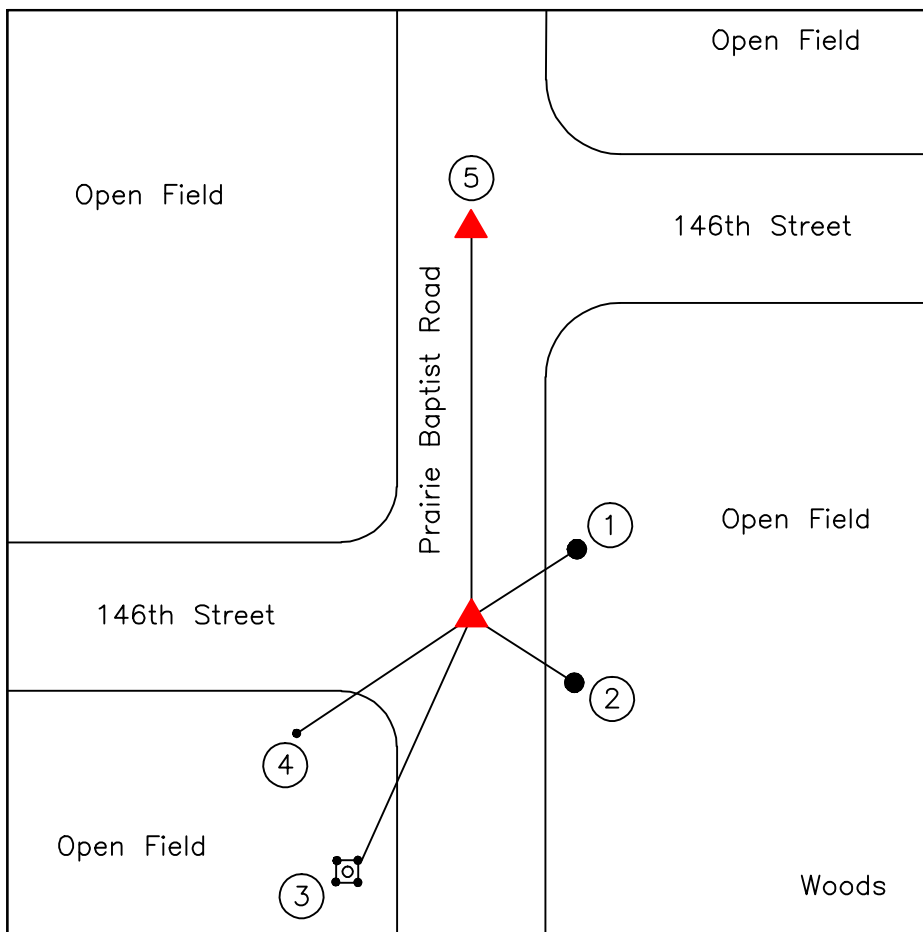
Stone set 3-1857

CORNER NUMBER

18051503

HAMILTON COUNTY SURVEYOR'S OFFICE

CORNER RECORD



24-18-5
SEC./T/R

DATE : **12-10-2008**

FIELD CREW:

Tony Reitenour

Sean O'Grady

Type of Monument : **HARRISON FOUND 0.3' DOWN**

GEODETIC CONTROL

BY: Tony Reitenour

DATE: 12-10-2008

N.A.D.: 83/CORS 96

N: 1731400.90

E: 262672.61

ELEV: **854.44**

Ref.	Dist.	Description
1	12.53'	HCSO capped rebar set, 1.0' east of pavement
2	12.55'	HCSO capped rebar set, 1.0' east of pavement
3	86.60'	Point on the NE Gaurd post, Eastside, 2.80' up
4	49.47'	Stop sign post, North edge, 2.0' above ground
5	127.60'	Existing Harrison for corner # 18061901

NOTES :

Harrison found 10-2005, 12-2003 HCSO

Stone found under RR Spike 4-1992 HCSO

Stone found under Iron Pipe 10-1965 HCSO

Stone set 5-1884

CORNER NUMBER

18052403