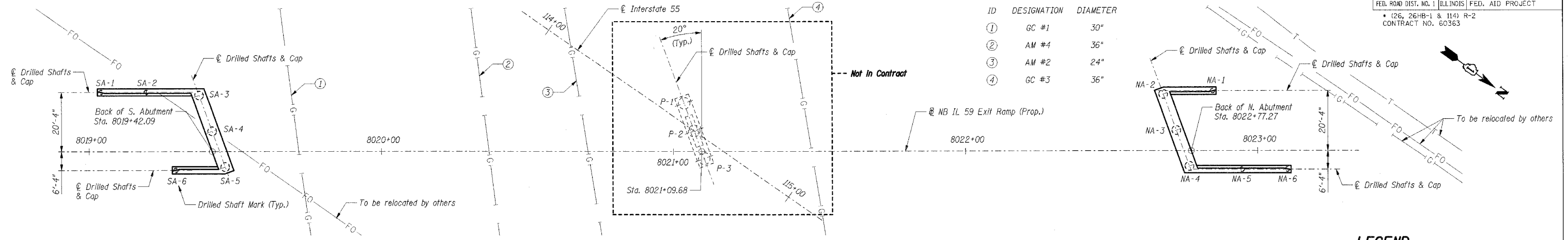


### KINDER MORGAN GAS PIPELINES

ID	DESIGNATION	DIAMETER
①	GC #1	30"
②	AM #4	36"
③	AM #2	24"
④	GC #3	36"



### SUBSTRUCTURE LAYOUT

### LEGEND

- T- Telephone Line
- G- Gas Line
- FO- Fiber Optic Line

### BILL OF MATERIAL - ABUTMENTS

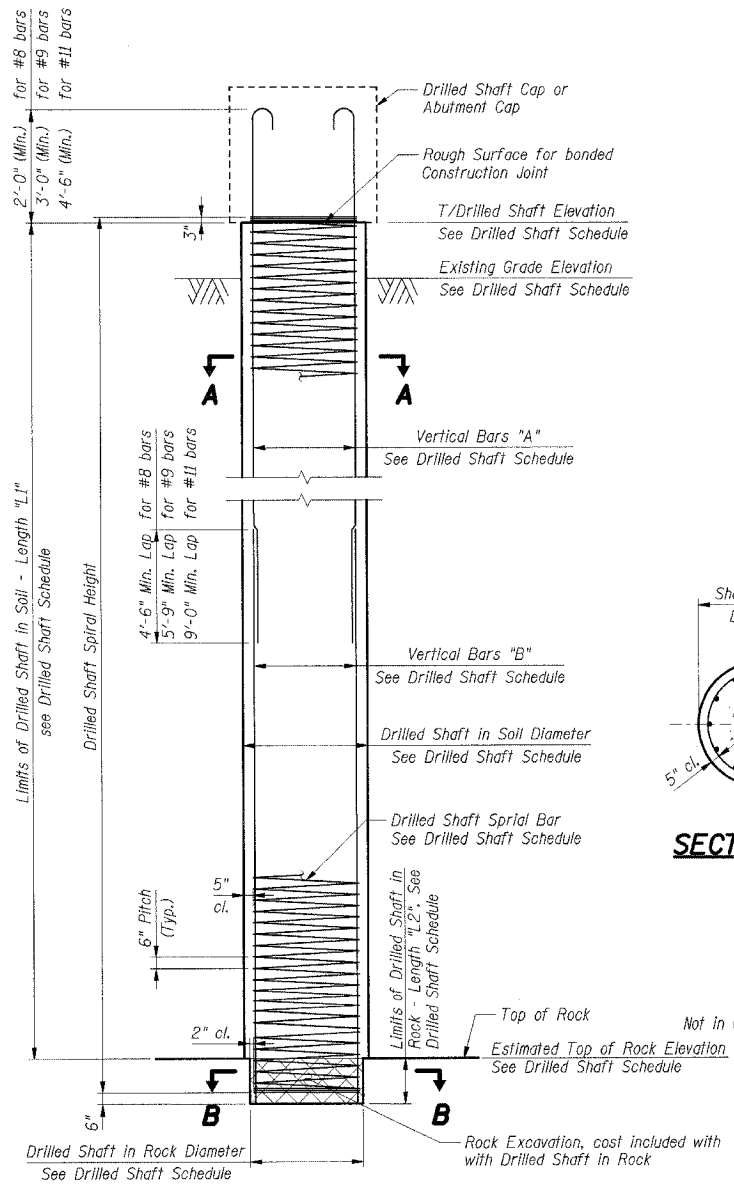
Item	Unit	Total
Drilled Shaft in Soil	Cu Yd	114.0
Drilled Shaft in Rock	Cu Yd	4.2
Reinforcement Bars	Lbs	21,690

### BILL OF MATERIAL - PIER

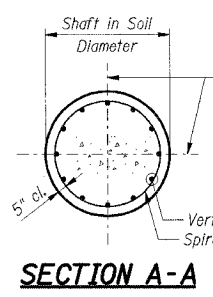
Item	Unit	Total
Drilled Shaft in Soil	Cu Yd	27.3
Drilled Shaft in Rock	Cu Yd	3.0
Reinforcement Bars	Lbs	7,110

Mark	Location		Drilled Shaft in Soil		Drilled Shaft in Rock		Reinforcement			QUANTITIES					
	Station	Offset	Diameter	Length "L1"	Diameter	Length "L2"	Vertical Bars "A"	Vertical Bars "B"	Spiral Bar	Top of Drilled Shaft Elevation	Estimated Top of Rock Elevation*	Existing Grade Elevation*	Drilled Shaft in Soil (Cu Yd)	Drilled Shaft in Rock (Cu Yd)	Reinforcing Bars (Lbs)
SA-1	8019+04.09	-20.33	24"	39'-10"	18"	2'-0"	6-#8v21	6-#8v20	1-#4sp20	611.32	571.5	593.6	4.7	0.2	1,010
SA-2	8019+19.59	-20.33	24"	39'-10"	18"	2'-0"	6-#8v21	6-#8v20	1-#4sp20	611.32	571.5	593.6	14.3	0.5	1,010
SA-3	8019+37.62	-19.22	42"	39'-10"	36"	2'-0"	12-#9v23	12-#9v22	1-#4sp21	611.32	571.5	593.6	14.3	0.5	2,620
SA-4	8019+42.07	-7.00	42"	39'-10"	36"	2'-0"	12-#9v23	12-#9v22	1-#4sp21	611.32	571.5	593.6	14.3	0.5	2,620
SA-5	8019+46.51	5.22	42"	39'-10"	36"	2'-0"	12-#9v23	12-#9v22	1-#4sp21	611.32	571.5	593.6	4.7	0.2	2,620
SA-6	8019+29.65	6.33	24"	39'-10"	18"	2'-0"	6-#8v21	6-#8v20	1-#4sp20	611.32	571.5	593.6	4.7	0.2	1,010
P-1	8021+03.71	-16.40	54"	15'-6"	48"	2'-0"	12-#11v29	12-#11v28	1-#4sp24	585.00	569.5	591.2	9.1	1.0	2,370
P-2	8021+07.13	-7.00	54"	15'-6"	48"	2'-0"	12-#11v29	12-#11v28	1-#4sp24	585.00	569.5	591.2	9.1	1.0	2,370
P-3	8021+10.55	-2.40	54"	15'-6"	48"	2'-0"	12-#11v29	12-#11v28	1-#4sp24	585.00	569.5	591.2	9.1	1.0	2,370
NA-1	8022+84.61	-20.33	24"	39'-5"	18"	2'-0"	6-#8v25	6-#8v24	1-#4sp22	612.87	573.5	595.9	4.7	0.2	1,000
NA-2	8022+67.75	-19.22	42"	39'-5"	36"	2'-0"	12-#9v27	12-#9v26	1-#4sp23	612.87	573.5	595.9	14.3	0.5	2,600
NA-3	8022+72.20	-7.00	42"	39'-5"	36"	2'-0"	12-#9v27	12-#9v26	1-#4sp23	612.87	573.5	595.9	14.3	0.5	2,600
NA-4	8022+76.64	-5.22	42"	39'-5"	36"	2'-0"	12-#9v27	12-#9v26	1-#4sp23	612.87	573.5	595.9	14.3	0.5	2,600
NA-5	8022+94.67	6.33	24"	39'-5"	18"	2'-0"	6-#8v25	6-#8v24	1-#4sp22	612.87	573.5	595.9	4.7	0.2	1,000
NA-6	8023+10.17	6.33	24"	39'-5"	18"	2'-0"	6-#8v25	6-#8v24	1-#4sp22	612.87	573.5	595.9	4.7	0.2	1,000

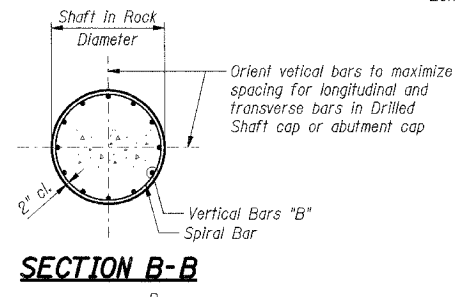
\* Estimated elevations and Length "L1" for information only



### DRILLED SHAFT SECTION



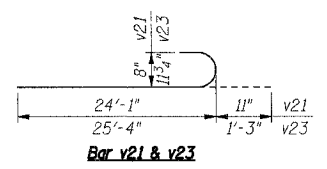
### SECTION A-A



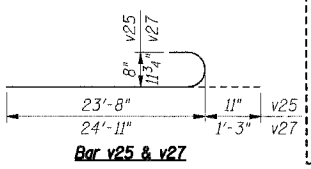
### SECTION B-B

Bar	A	B
sp20	41'-7"	1'-2"
sp21	41'-7"	2'-8"
sp22	41'-2"	1'-2"
sp23	41'-2"	2'-8"
sp24	17'-3"	3'-8"

### sp Bars



### Bar v21 & v23



### Bar v25 & v27

### BAR LIST - ABUTMENTS

Bar	No.	Size	Length	Shape
sp20	3	#4	41'-7"	WWW
sp21	3	#4	41'-7"	WWW
sp22	3	#4	41'-2"	WWW
sp23	3	#4	41'-2"	WWW
v20	18	#8	24'-0"	—
v21	18	#8	25'-0"	—
v22	36	#9	25'-0"	—
v23	36	#9	26'-7"	—
v24	18	#8	24'-0"	—
v25	18	#8	24'-7"	—
v26	36	#9	25'-0"	—
v27	36	#9	26'-2"	—

\*\* Length is height of spiral, not the actual bar length. The mass of spiral bars is based upon 30 ft maximum bar length with 2'-0" minimum lap splices.

### BAR LIST - PIER

Bar	No.	Size	Length	Shape
sp24	3	#4	17'-3"	WWW
v24	36	#11	15'-3"	—
v25	36	#11	17'-1"	—

\*\* Length is height of spiral, not the actual bar length. The mass of spiral bars is based upon 30 ft maximum bar length with 2'-0" minimum lap splices.

Not in Contract For Information Only

### SHT. S-3 OF S-24

REVISIONS	DATE
NAME	DATE

- Notes:**
- The quantities and detailing are based on the estimated elevations shown on the plans. The actual elevations may differ at each Drilled Shaft and corresponding adjustments shall be made to the Drilled Shaft and reinforcements quantities and payment limits.
  - Soil and groundwater conditions may necessitate the use of wet or cased construction techniques. See boring logs and refer to special provision for Drilled Shafts.
  - Concrete: f'c = 3.5 ksi. Reinforcing: fy = 60 ksi.
  - For detail layout of abutment and pier dimensions, see abutment and pier plans.

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 F.A.P. ROUTE 338 (ILLINOIS ROUTE 59)  
 IL ROUTE 59 OVER F.A.I. 55 (I-55)  
 SECTION (26, 26HB-1 & 114) R-2  
 STRUCTURE NUMBER 099-4642  
 STATION 8021+17.13, WILL COUNTY

SUBSTRUCTURE LAYOUT  
 DRILLED SHAFT DETAILS AND SCHEDULE

DATE: 03/14/08

DRAWN BY: MX  
 CHECKED BY: MDB

**TENG**

\G:\PROJECTS\1032780\STRUCTURE\DRILLED SHAFTS\DRILLED SHAFT SCHEDULE.dwg  
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