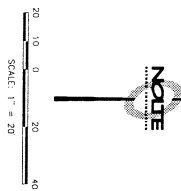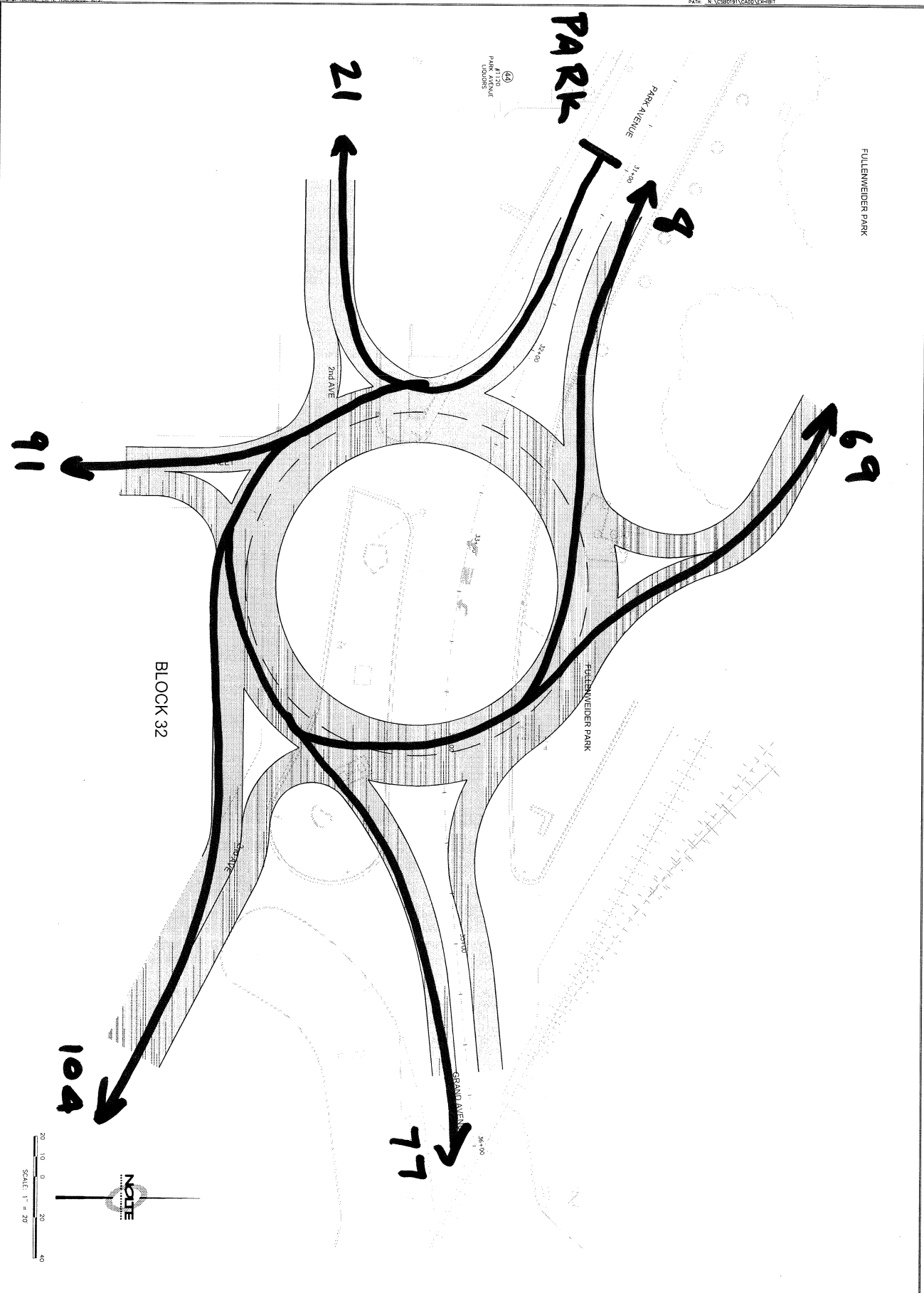# Roundabout analysis using simulation

A roundabout design from the City of Monte Vista, California will be analyzed for level of service using a VISSIM simulation model. A file containing the basic geometric layout can be found at the course website – the attached sheets show design hour volumes for the intersection. Posted speeds on the approaches are 35mph except Fullenweider Park access road which is 20 mph.

1. Prepare a scaled VISSIM network using the monte.jpg file as the background. Prepare all necessary VISSIM coding (volumes, yields etc.)
2. Conduct a node analysis (10 run only) and determine the LoS of each movement and the entire intersection.
3. Prepare a simple (college assignment type) report consisting of the following:
    *   A summary sheet with your name, name of intersection and a clear statement of results
    *   Simulation detail - a printout of your results spreadsheet
    *   Inp file – email me your inp file, name the file roundlastname.inp

Due Monday, June 8

PARK

21

9

91

69

104

77

BLOCK 32

FULLENWEIDER PARK

FULLENWEIDER PARK

PARK AVENUE

2nd AVE

GRAND AVENUE

#1120
PARK AVENUE
LOOPS

44

SCALE 1" = 20

20 10 0 20 40

NOLTE
BEYOND ENGINEERING

6225 N. ACADEMY BLVD., SUITE 304   COLORADO SPRINGS, CO 80918
719.268.8500 TEL 719.268.9299 FAX   WWW.NOLTE.COM

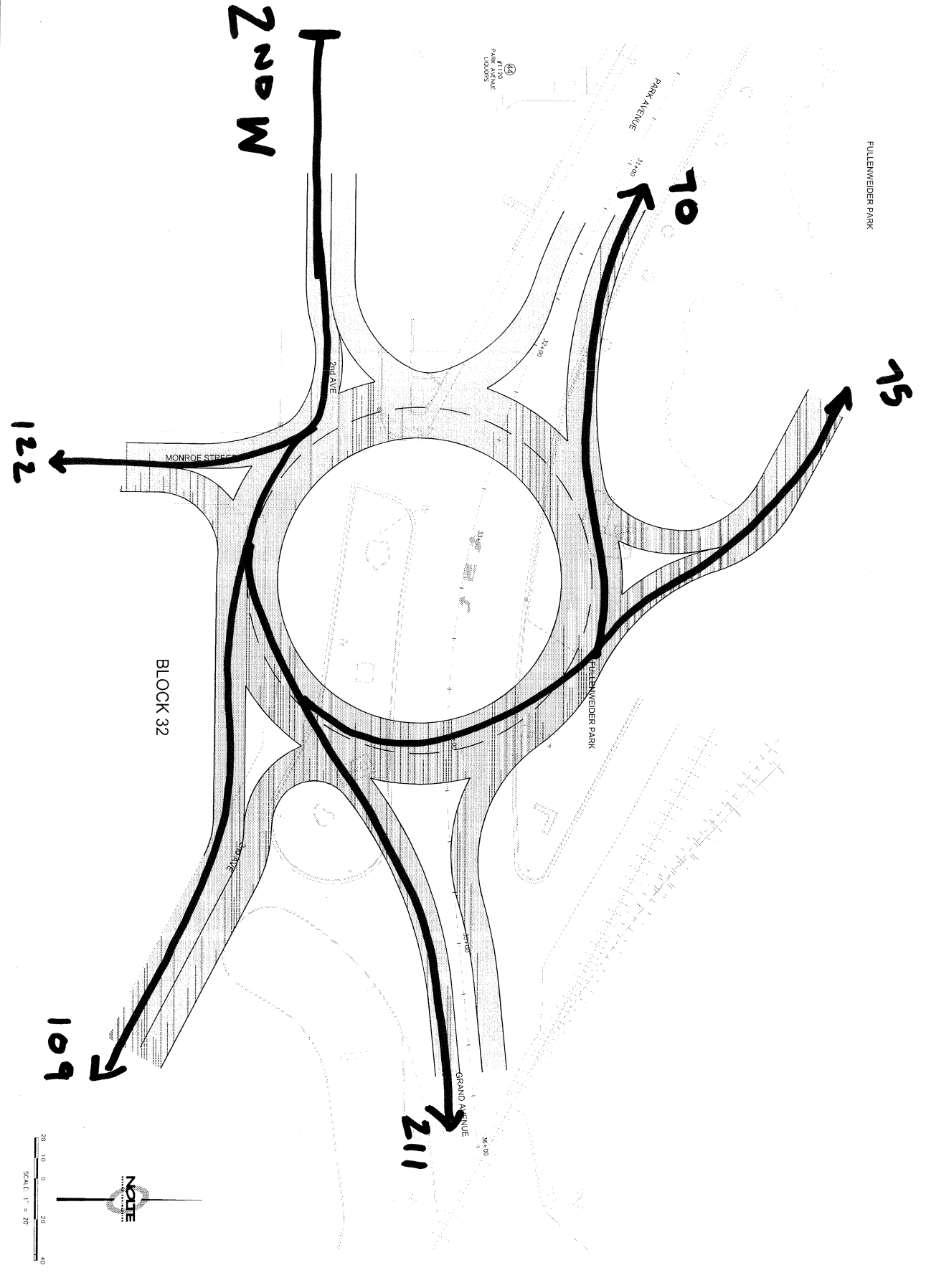## MONTE VISTA
OPTIONAL ROUNDABOUT

PREPARED FOR: CITY OF MONTE VISTA   DATE SUBMITTED: DEC, 2006

JOB NUMBER
CSB019100

SCALE
VERTICAL: N/A
HORIZONTAL: 20'

SHEET NUMBER
RB01
1 OF 1 SHEETS

NO.   BY   DATE   REVISIONS

XREFS: TBEX07, EXPN Roundabout ver3I

2ND W

70

75

122

PARK AVENUE LIQUORS
#1120 PARK AVENUE
(44)

PARK AVENUE

2nd AVE

MONROE STREET

FULLENWEIDER PARK

FULLENWEIDER PARK

BLOCK 32

109

211

GRAND AVENUE

SCALE: 1" = 20
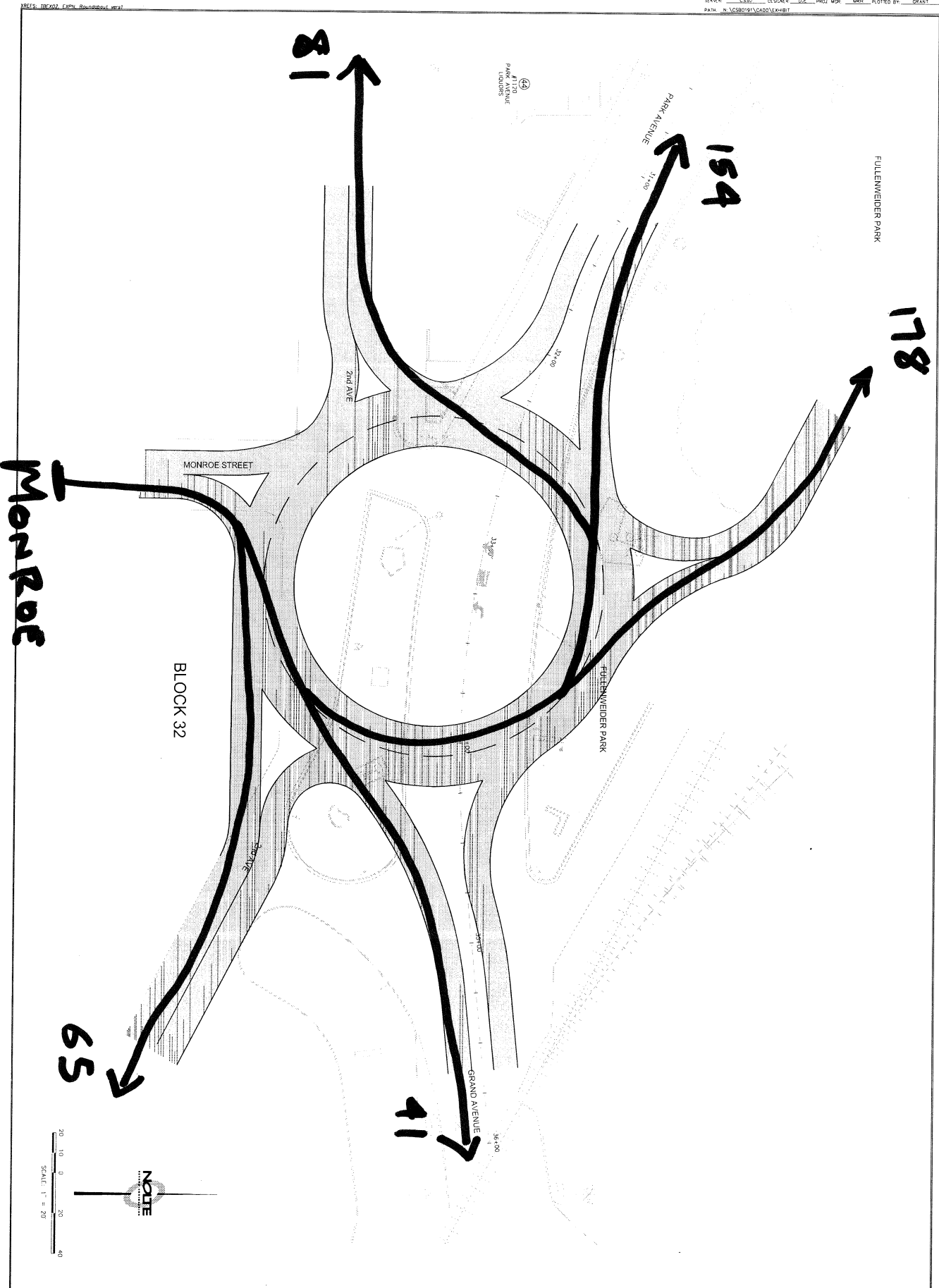20 10 0   20   40

NOLTE

MONTE VISTA
OPTIONAL ROUNDABOUT
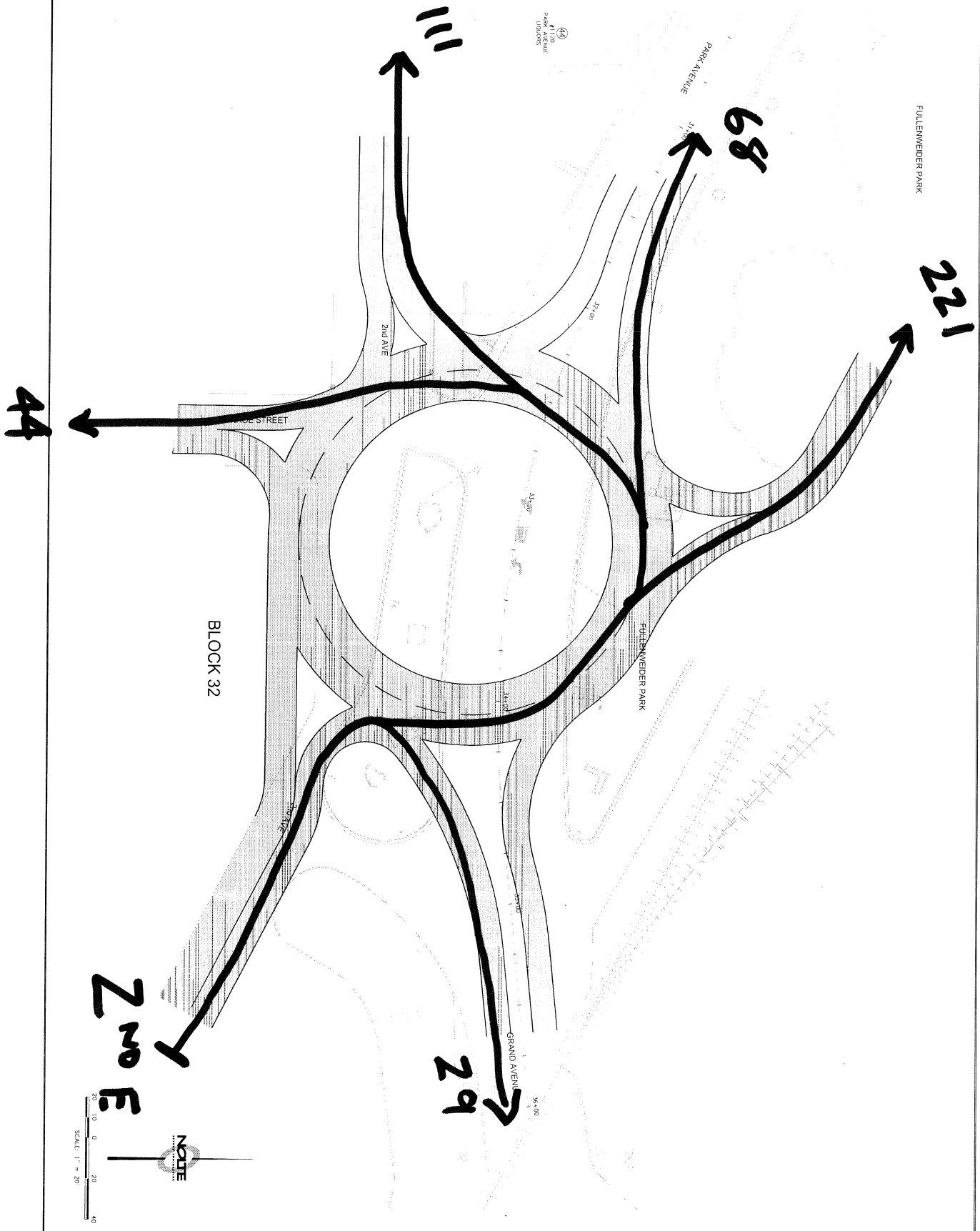
NOLTE
BEYOND ENGINEERING

6225 N. ACADEMY BLVD., SUITE 304   COLORADO SPRINGS, CO 80918
719.268.8500 TEL 719.268.9200 FAX   WWW.NOLTE.COM

PREPARED FOR: CITY OF MONTE VISTA

DATE SUBMITTED: DEC. 2006

SHEET NUMBER
RB01
OF 1 SHEETS

VERTICAL: N/A
HORIZONTAL: 20'
SCALE

JOB NUMBER
CSB019100

NO   BY   DATE   REVISIONS

XREFS: TBCX02, EXPN, Roundabout ver.1

81

154

178

PARK AVENUE

PARK AVENUE
#1120
PARK AVENUE
LIQUORS
44

FULLENWEIDER PARK

2nd AVE

MONROE STREET

MonRoe

BLOCK 32

FULLENWEIDER PARK

65

41

GRAND AVENUE

SCALE 1" = 20'
20 10 0 20 40

NOLTE

MONTE VISTA
OPTIONAL ROUNDABOUT

PREPARED FOR: CITY OF MONTE VISTA   DATE SUBMITTED: DEC. 2006

JOB NUMBER: CSB019100
VERTICAL: N/A
HORIZONTAL: 20'
SCALE
SHEET NUMBER: RB01
1 OF 1 SHEETS

NO BY DATE REVISIONS

XREFS: TBEX02, EXPN, Roundabout vers1

111

#1120
PARK AVENUE
LIQUORS

(44)

PARK AVENUE

FULLENWEIDER PARK

69

221

2nd AVE

44

BLOCK 32

FULLENWEIDER PARK

2nd E

GRAND AVENUE

29

SCALE: 1" = 20'

20 10 0 20 40

NOLTE

NOLTE
BEYOND ENGINEERING

6225 N. ACADEMY BLVD., SUITE 304   COLORADO SPRINGS, CO 80918
719.268.8500 TEL 719.268.9200 FAX   WWW.NOLTE.COM

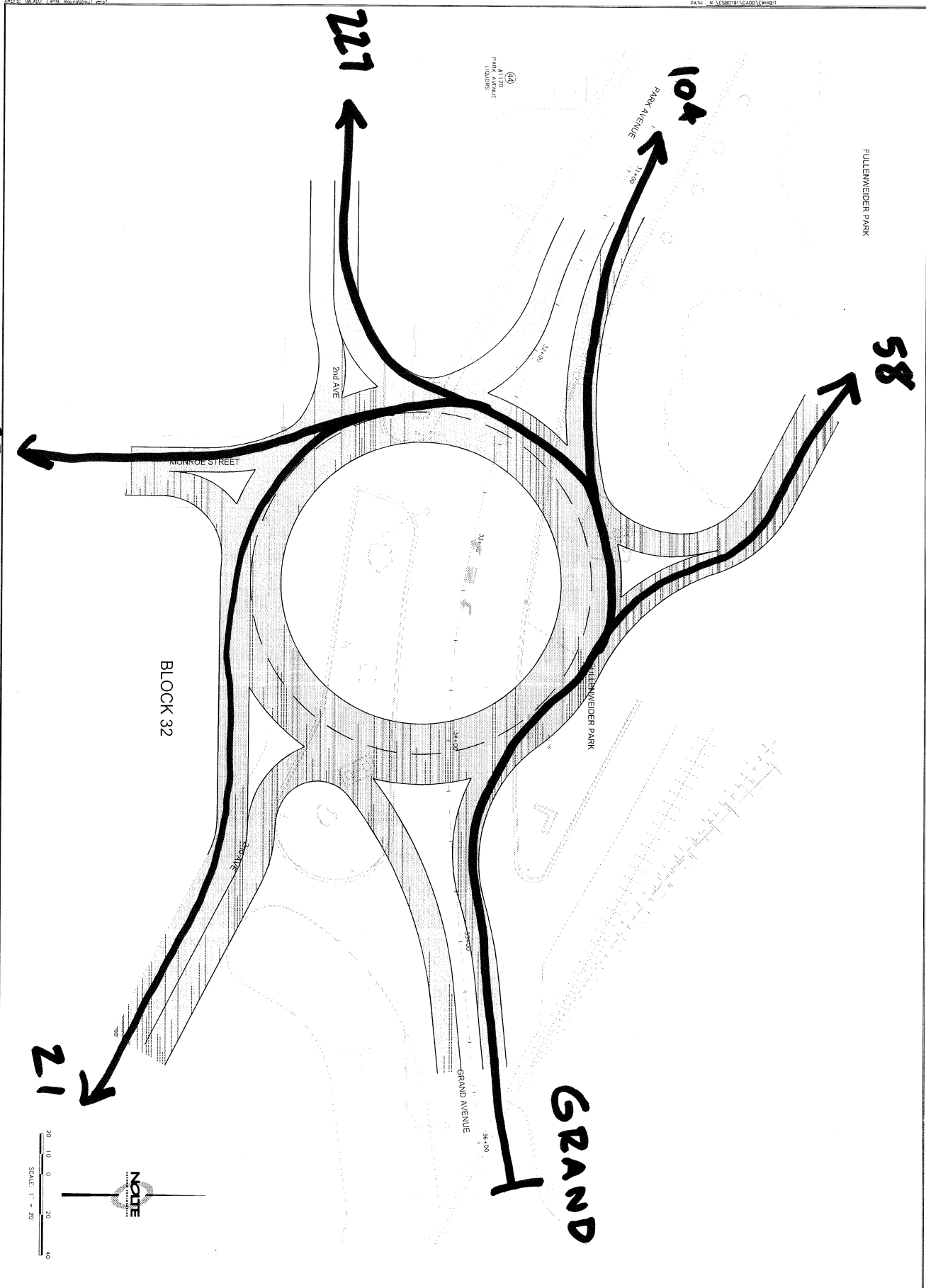PREPARED FOR: CITY OF MONTE VISTA

MONTE VISTA
OPTIONAL ROUNDABOUT

DATE SUBMITTED: DEC. 2006

SHEET NUMBER RB01
1 OF 1 SHEETS
VERTICAL: N/A
HORIZONTAL: 20'
SCALE
JOB NUMBER
CSB019100

NO. BY DATE REVISIONS

XREFS: TBEX02, EXPN, Roundabout ver21

227

104

62

58

#1120
PARK AVENUE
LIQUORS

(44)

FULLENWEIDER PARK

PARK AVENUE

2nd AVE

31+00

90+00

MONROE STREET

33+00

BLOCK 32

FULLENWEIDER PARK

34+00

21

3rd AVE

GRAND AVENUE

36+00

GRAND

SCALE: 1" = 20'

20 10 0   20   40

NOLTE

NOLTE
BEYOND ENGINEERING

6225 N. ACADEMY BLVD., SUITE 304   COLORADO SPRINGS, CO 80912
719.268.8500 TEL 719.268.9200 FAX   WWW.NOLTE.COM

MONTE VISTA
OPTIONAL ROUNDABOUT

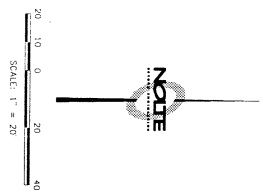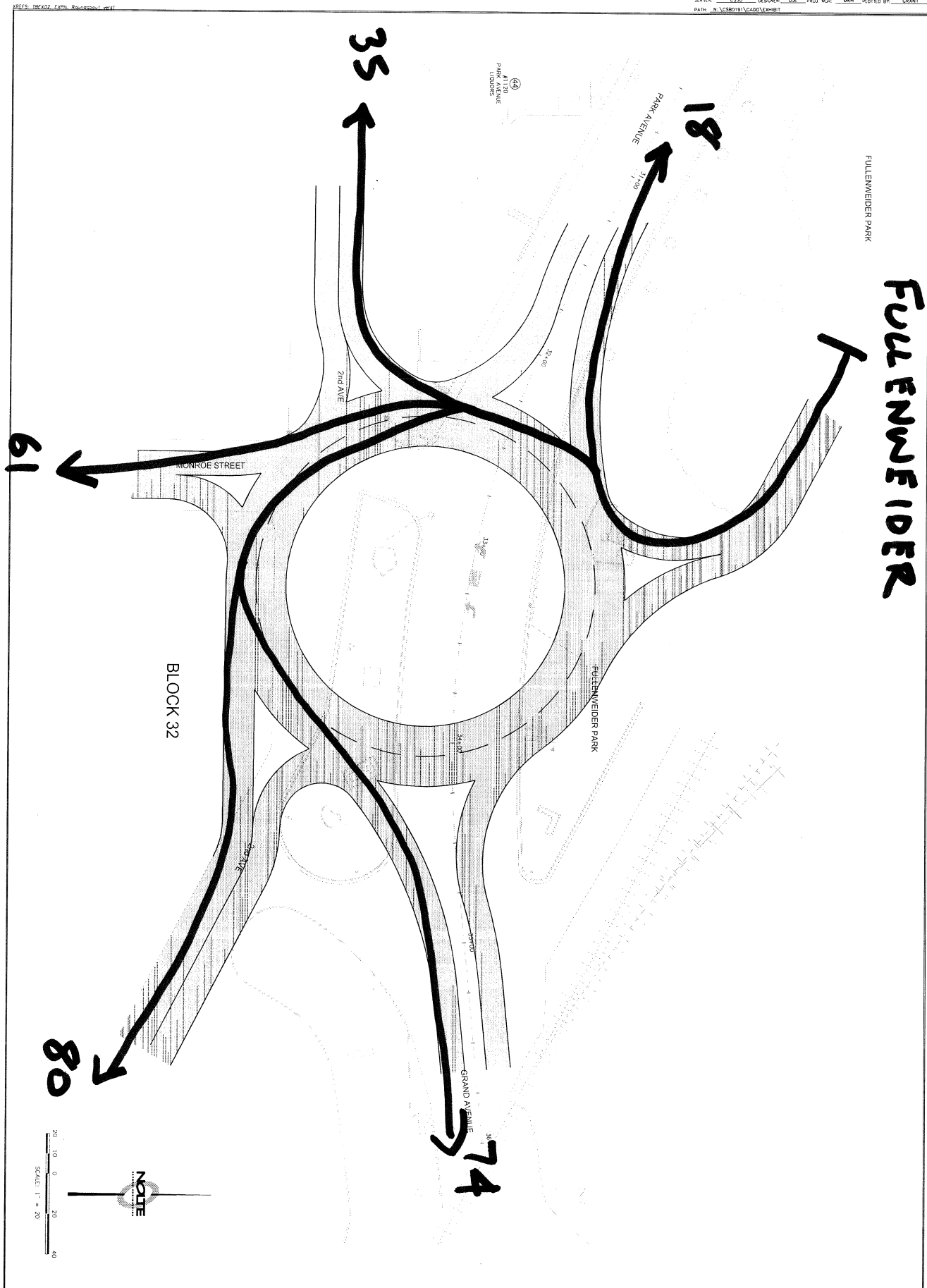PREPARED FOR: CITY OF MONTE VISTA   DATE SUBMITTED: DEC. 2006

NO.   BY   DATE   REVISIONS

XREFS: TBCX02, EXPN, Roundabout vers1

35

19

61

FULLENWEIDER

PARK AVENUE LOOPERS
#1120
PARK AVENUE LOOPERS

FULLENWEIDER PARK

PARK AVENUE

2nd AVE

MONROE STREET

BLOCK 32

FULLENWEIDER PARK

80

GRAND AVENUE

74

SCALE 1" = 20'
20   10   0   20   40

NOLTE
BEYOND ENGINEERING
5225 N. ACADEMY BLVD., SUITE 304   COLORADO SPRINGS, CO 80918
719.268.8500 TEL 719.268.8200 FAX   WWW.NOLTE.COM

MONTE VISTA
OPTIONAL ROUNDABOUT

PREPARED FOR: CITY OF MONTE VISTA

DATE SUBMITTED: DEC. 2006

NO. | BY | DATE | REVISIONS