

13th Street Improvements STPAA-6556(4) Project Review

December 6, 2008
Planning Meeting



Miller  **Associates**
CONSULTING ENGINEERS, P.C.



13th Street Project



Airport Road

13th Street

Erie Street

Adams Street

Project Location

10th Street

Hwy 30

13th Street – Phase III



Airport Road

Phase III

15th Street

Liberty Drive

Independence Drive

13th Street

Project Location

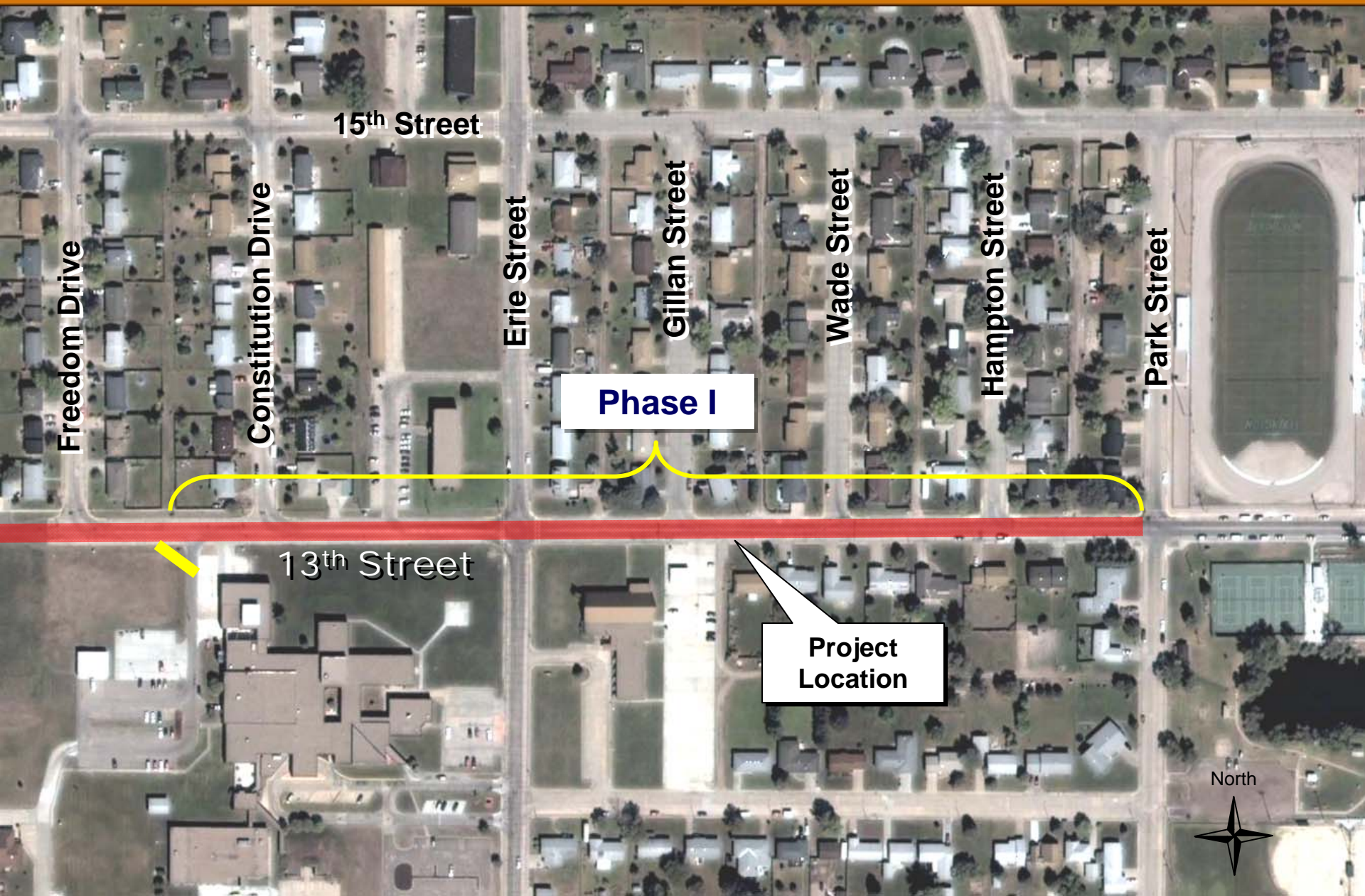
North



13th Street – Phase II



13th Street – Phase I



15th Street

Freedom Drive

Constitution Drive

Erie Street

Gillan Street

Wade Street

Hampton Street

Park Street

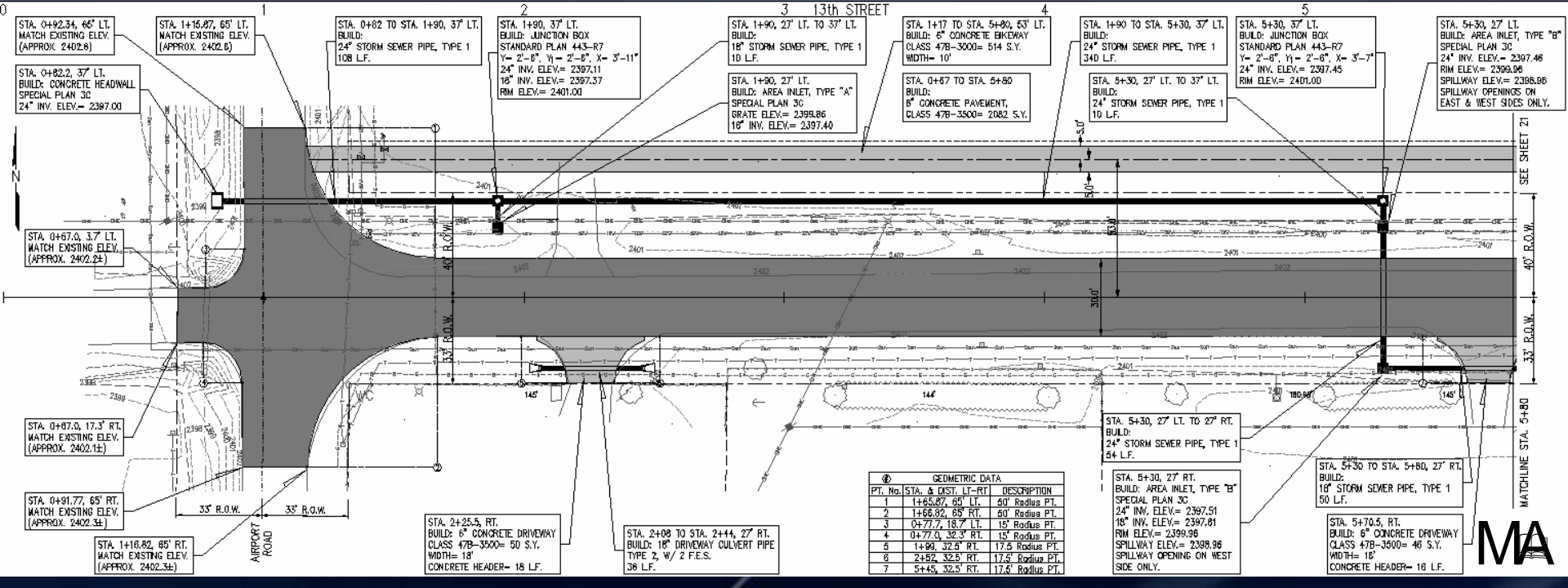
Phase I

13th Street

Project Location

North



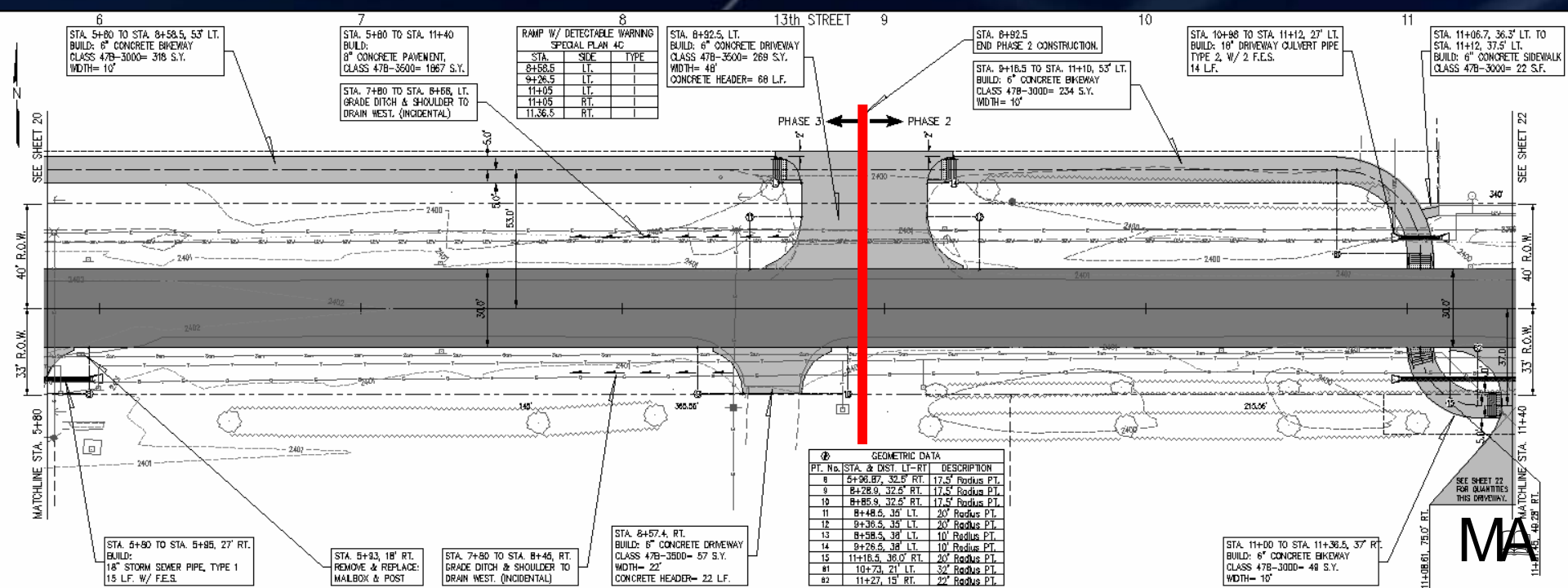


④ GEOMETRIC DATA

PT. No.	STA. & DIST. LT-RT	DESCRIPTION
1	1+65.87, 65' LT.	60' Radius PT.
2	1+66.82, 65' LT.	60' Radius PT.
3	0+77.7, 18.7' LT.	15' Radius PT.
4	0+77.0, 32.3' RT.	15' Radius PT.
5	1+99, 32.3' RT.	17.5' Radius PT.
6	2+82, 32.5' RT.	17.5' Radius PT.
7	5+45, 32.5' RT.	17.5' Radius PT.

RAMP W/ DETECTABLE WARNING SPECIAL PLAN 4C

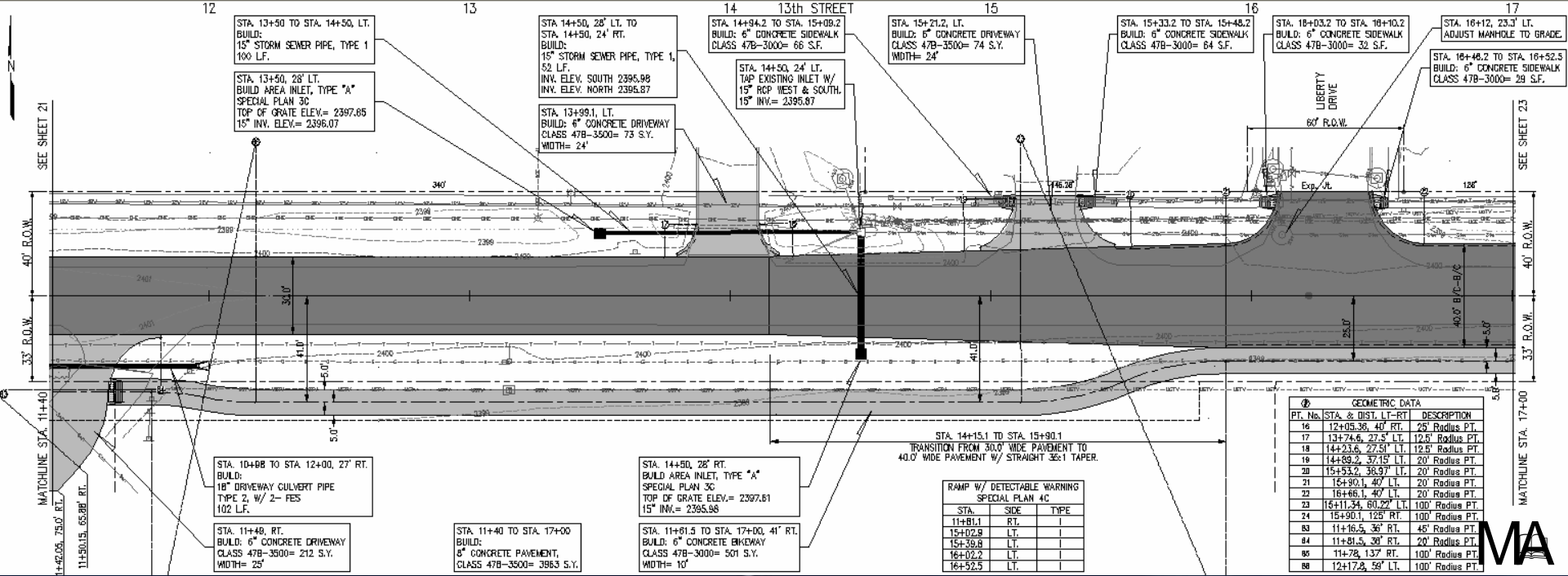
STA.	SIDE	TYPE
8+58.5	LT.	
9+26.5	LT.	
11+05	LT.	
11+05	RT.	
11+36.5	RT.	



④ GEOMETRIC DATA

PT. No.	STA. & DIST. LT-RT	DESCRIPTION
8	5+96.87, 32.5' RT.	17.5' Radius P.T.
9	8+28.9, 32.5' RT.	17.5' Radius P.T.
10	8+85.9, 32.5' RT.	17.5' Radius P.T.
11	8+48.5, 35' LT.	20' Radius P.T.
12	8+36.5, 35' LT.	20' Radius P.T.
13	8+58.5, 35' LT.	10' Radius P.T.
14	8+26.5, 38' LT.	10' Radius P.T.
15	11+16.5, 36.0' RT.	20' Radius P.T.
81	10+79, 21' LT.	32' Radius P.T.
82	11+27, 15' RT.	22' Radius P.T.



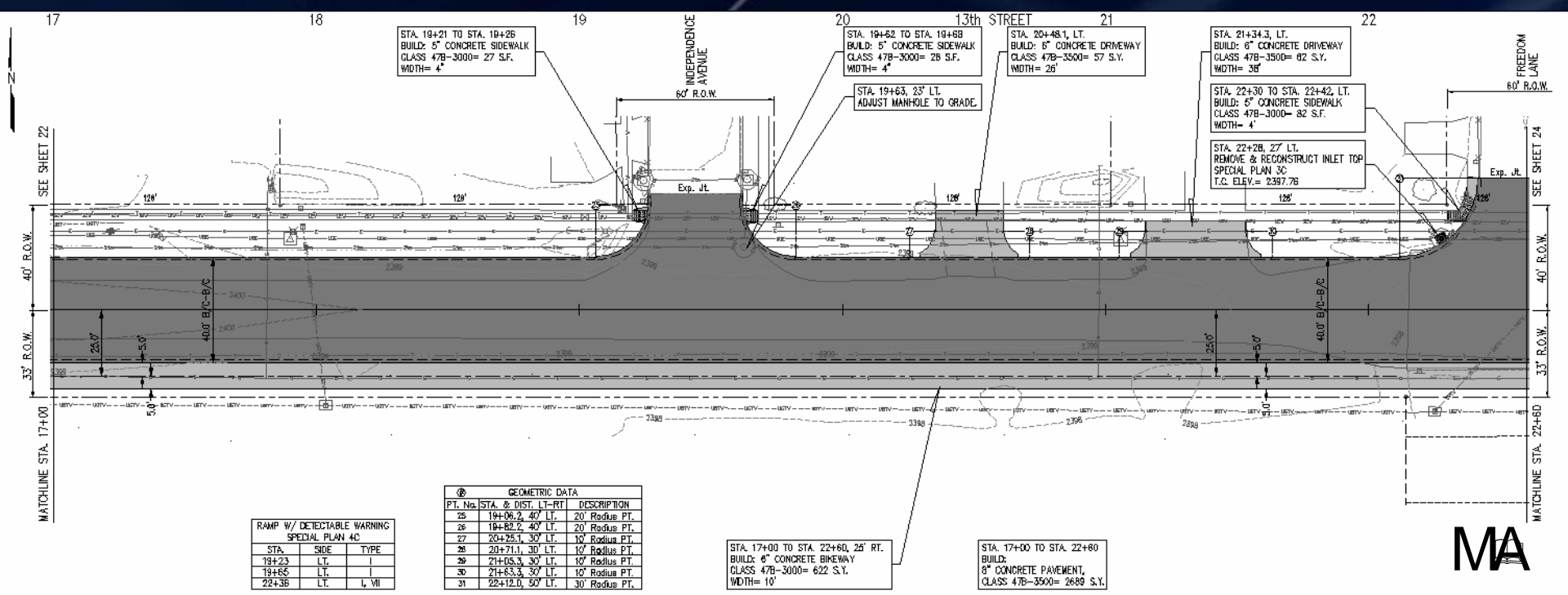


⊕ GEOMETRIC DATA

PT. No.	STA. & DIST. LT-RT	DESCRIPTION
16	12+05.36, 40' RT.	25' Radius PT.
17	13+74.6, 27.5' LT.	12.5' Radius PT.
18	14+23.6, 27.5' LT.	12.5' Radius PT.
19	14+69.2, 37.15' LT.	20' Radius PT.
20	15+33.2, 36.97' LT.	20' Radius PT.
21	16+30.1, 40' LT.	20' Radius PT.
22	16+66.1, 40' LT.	20' Radius PT.
23	15+11.34, 60.22' LT.	100' Radius PT.
24	15+90.1, 125' RT.	100' Radius PT.
83	11+16.5, 36' RT.	45' Radius PT.
84	11+81.5, 30' RT.	20' Radius PT.
85	11+78, 137' RT.	100' Radius PT.
86	12+17.8, 59' LT.	100' Radius PT.

RAMP W/ DETECTABLE WARNING SPECIAL PLAN 4C

STA.	SIDE	TYPE
11+81.1	RT.	
15+02.9	LT.	
15+39.8	LT.	
16+02.2	LT.	
16+52.5	LT.	



⊕ GEOMETRIC DATA

PT. No.	STA. & DIST. LT-RT	DESCRIPTION
25	19+06.2, 40' LT.	20' Radius PT.
26	19+82.2, 40' LT.	20' Radius PT.
27	20+25.1, 30' LT.	10' Radius PT.
28	20+71.1, 30' LT.	10' Radius PT.
29	21+05.5, 30' LT.	10' Radius PT.
30	21+83.5, 30' LT.	10' Radius PT.
31	22+12.0, 50' LT.	30' Radius PT.

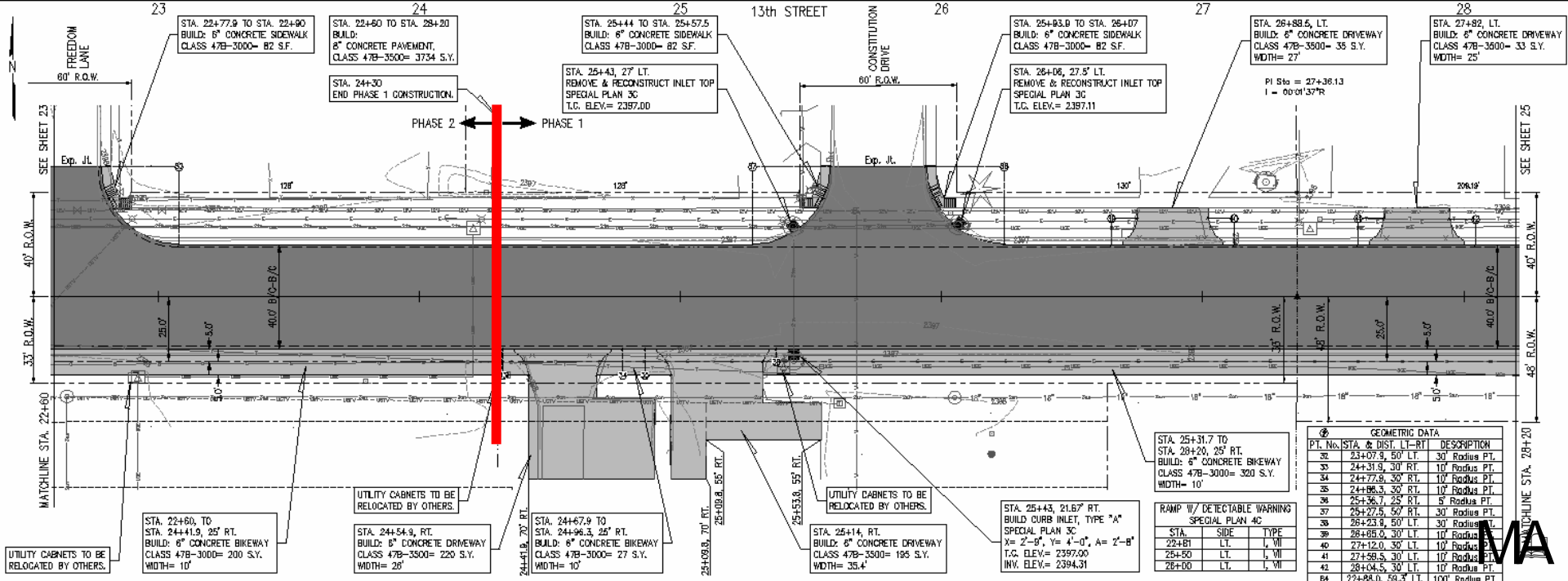
RAMP W/ DETECTABLE WARNING SPECIAL PLAN 4C

STA.	SIDE	TYPE
19+23	LT.	
19+65	LT.	
22+38	LT.	I, VII

STA. 17+00 TO STA. 22+60, 25' RT. BUILD: 6" CONCRETE PAVEMENT, CLASS 47B-3500= 622 S.Y. WIDTH= 10'

STA. 17+00 TO STA. 22+60 BUILD: 6" CONCRETE PAVEMENT, CLASS 47B-3500= 2669 S.Y.



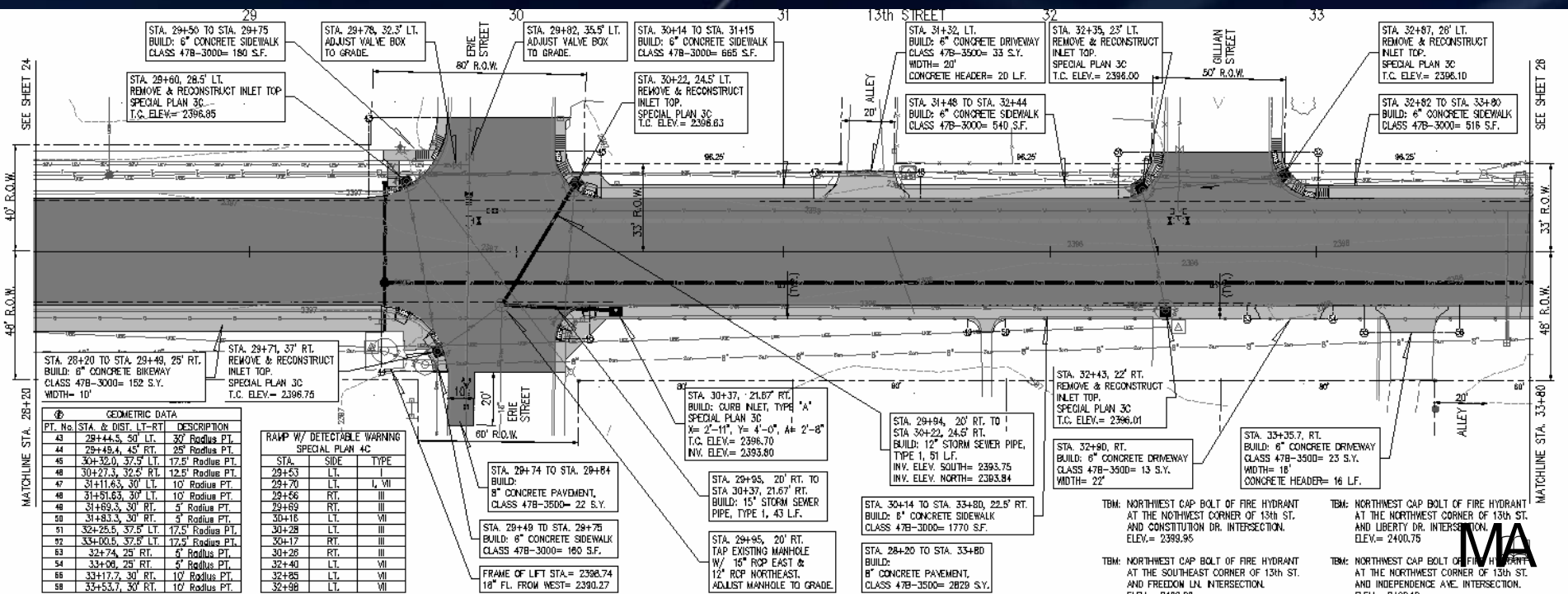


SEE SHEET 23

SEE SHEET 25

MATCHLINE STA. 22+60

MATCHLINE STA. 28+20



SEE SHEET 24

SEE SHEET 26

40' R.O.W.

40' R.O.W.

48' R.O.W.

48' R.O.W.

MATCHLINE STA. 28+20

MATCHLINE STA. 33+80

STA. 22+77.9 TO STA. 22+90
BUILD: 6" CONCRETE SIDEWALK
CLASS 47B-3000- 82 S.F.

STA. 23+50 TO STA. 28+20
BUILD: 8" CONCRETE PAVEMENT,
CLASS 47B-3500- 3734 S.Y.

STA. 25+44 TO STA. 25+57.5
BUILD: 6" CONCRETE SIDEWALK
CLASS 47B-3000- 82 S.F.

STA. 25+43, 27' LT.
REMOVE & RECONSTRUCT INLET TOP
SPECIAL PLAN 3C
T.C. ELEV.= 2397.00

STA. 25+93.9 TO STA. 26+07
BUILD: 6" CONCRETE SIDEWALK
CLASS 47B-3000- 82 S.F.

STA. 26+06, 27.5' LT.
REMOVE & RECONSTRUCT INLET TOP
SPECIAL PLAN 3C
T.C. ELEV.= 2397.11

STA. 26+88.5, LT.
BUILD: 6" CONCRETE DRIVEWAY
CLASS 47B-3500- 35 S.Y.
WIDTH= 27'

PI 5% = 27+38.13
1 = 0.0137R

STA. 27+82, LT.
BUILD: 6" CONCRETE DRIVEWAY
CLASS 47B-3500- 33 S.Y.
WIDTH= 25'

STA. 22+60, TO
STA. 24+41.9, 25' RT.
BUILD: 6" CONCRETE BIKEWAY
CLASS 47B-3000= 200 S.Y.
WIDTH= 10'

UTILITY CABINETS TO BE
RELOCATED BY OTHERS.

STA. 24+54.9, RT.
BUILD: 6" CONCRETE DRIVEWAY
CLASS 47B-3500= 220 S.Y.
WIDTH= 26'

STA. 24+67.9 TO
STA. 24+96.3, 25' RT.
BUILD: 6" CONCRETE BIKEWAY
CLASS 47B-3000= 27 S.Y.
WIDTH= 10'

UTILITY CABINETS TO BE
RELOCATED BY OTHERS.

STA. 25+14, RT.
BUILD: 6" CONCRETE DRIVEWAY
CLASS 47B-3500= 195 S.Y.
WIDTH= 35.4'

STA. 25+43, 21.67' RT.
BUILD CURB INLET, TYPE "A"
SPECIAL PLAN 3C
X= 2'-8", Y= 4'-0", A= 2'-8"
T.C. ELEV.= 2397.00
INV. ELEV.= 2394.31

STA. 25+31.7 TO
STA. 28+20, 25' RT.
BUILD: 6" CONCRETE BIKEWAY
CLASS 47B-3000= 320 S.Y.
WIDTH= 10'

RAMP W/ DETECTABLE WARNING
SPECIAL PLAN 4C

STA.	SIDE	TYPE
22+81	LT.	I, VII
25+50	LT.	I, VII
26+00	LT.	I, VII

PT. No.	STA. & DIST.	LT-RT	DESCRIPTION
22	23+07.9	50' LT.	30' Radius PT.
33	24+31.9	30' RT.	10' Radius PT.
34	24+77.8	30' RT.	10' Radius PT.
25	24+86.3	30' RT.	10' Radius PT.
26	25+36.7	25' RT.	5' Radius PT.
27	26+27.5	50' RT.	30' Radius PT.
28	26+23.9	50' LT.	30' Radius PT.
39	26+89.0	30' LT.	10' Radius PT.
40	27+12.0	30' LT.	10' Radius PT.
41	27+58.5	30' LT.	10' Radius PT.
42	28+04.5	30' LT.	10' Radius PT.
84	22+84.0	59.3' LT.	100' Radius PT.

STA. 29+50 TO STA. 29+75
BUILD: 6" CONCRETE SIDEWALK
CLASS 47B-3000= 180 S.F.

STA. 29+78, 32.5' LT.
ADJUST VALVE BOX
TO GRADE.

STA. 29+82, 35.5' LT.
ADJUST VALVE BOX
TO GRADE.

STA. 30+14 TO STA. 31+15
BUILD: 6" CONCRETE SIDEWALK
CLASS 47B-3000= 665 S.F.

STA. 30+23, 24.5' LT.
REMOVE & RECONSTRUCT
INLET TOP.
SPECIAL PLAN 3C
T.C. ELEV.= 2396.83

STA. 31+48 TO STA. 32+44
BUILD: 6" CONCRETE SIDEWALK
CLASS 47B-3000= 540 S.F.

STA. 31+32, LT.
BUILD: 6" CONCRETE DRIVEWAY
CLASS 47B-3500= 33 S.Y.
WIDTH= 20'
CONCRETE HEADER= 20 L.F.

STA. 32+35, 23' LT.
REMOVE & RECONSTRUCT
INLET TOP.
SPECIAL PLAN 3C
T.C. ELEV.= 2396.00

STA. 32+87, 28' LT.
REMOVE & RECONSTRUCT
INLET TOP.
SPECIAL PLAN 3C
T.C. ELEV.= 2396.10

STA. 32+82 TO STA. 33+80
BUILD: 6" CONCRETE SIDEWALK
CLASS 47B-3000= 516 S.F.

STA. 28+20 TO STA. 29+49, 25' RT.
BUILD: 6" CONCRETE BIKEWAY
CLASS 47B-3000= 152 S.Y.
WIDTH= 10'

STA. 29+71, 37' RT.
REMOVE & RECONSTRUCT
INLET TOP.
SPECIAL PLAN 3C
T.C. ELEV.= 2396.75

STA. 29+74 TO STA. 28+84
BUILD:
8" CONCRETE PAVEMENT,
CLASS 47B-3500= 22 S.Y.

STA. 30+37, 21.67' RT.
BUILD: CURB INLET, TYPE "A"
SPECIAL PLAN 3C
X= 2'-11", Y= 4'-0", A= 2'-8"
T.C. ELEV.= 2396.70
INV. ELEV.= 2393.80

STA. 29+94, 20' RT. TO
STA. 30+22, 24.5' RT.
BUILD: 12" STORM SEWER PIPE,
TYPE 1, 51 L.F.
INV. ELEV. SOUTH= 2393.75
INV. ELEV. NORTH= 2393.84

STA. 32+43, 22' RT.
REMOVE & RECONSTRUCT
INLET TOP.
SPECIAL PLAN 3C
T.C. ELEV.= 2396.01

STA. 32+80, RT.
BUILD: 6" CONCRETE DRIVEWAY
CLASS 47B-3500= 13 S.Y.
WIDTH= 22'

STA. 33+35.7, RT.
BUILD: 6" CONCRETE DRIVEWAY
CLASS 47B-3500= 23 S.Y.
WIDTH= 16'
CONCRETE HEADER= 16 L.F.

PT. No.	STA. & DIST.	LT-RT	DESCRIPTION
43	29+44.5	50' LT.	30' Radius PT.
44	29+49.4	45' RT.	25' Radius PT.
45	30+32.0	37.5' LT.	17.5' Radius PT.
46	30+27.3	32.5' RT.	12.5' Radius PT.
47	31+11.63	30' LT.	10' Radius PT.
48	31+89.3	30' RT.	5' Radius PT.
49	31+83.3	30' RT.	5' Radius PT.
50	32+23.5	37.5' LT.	17.5' Radius PT.
51	32+06.5	37.5' LT.	17.5' Radius PT.
52	32+74	25' RT.	4' Radius PT.
53	32+96	25' RT.	4' Radius PT.
54	33+17.2	30' RT.	10' Radius PT.
55	33+17.2	30' RT.	10' Radius PT.
56	33+53.7	30' RT.	10' Radius PT.

STA.	SIDE	TYPE
29+43	LT.	III
29+70	LT.	I, VII
29+66	RT.	III
29+89	RT.	III
30+16	LT.	VII
30+28	LT.	VII
30+17	RT.	III
30+26	RT.	III
32+40	LT.	VII
32+85	LT.	VII
32+98	LT.	VII

STA. 29+49 TO STA. 29+75
BUILD: 6" CONCRETE SIDEWALK
CLASS 47B-3000= 160 S.F.

FRAME OF LIFT STA.= 2398.74
18" FL. FROM WEST= 2390.27

STA. 29+95, 20' RT.
TAP EXISTING MANHOLE
W/ 16" RCP EAST &
12" RCP NORTHEAST.
ADJUST MANHOLE TO GRADE

STA. 30+14 TO STA. 33+80, 22.5' RT.
BUILD: 8" CONCRETE SIDEWALK
CLASS 47B-3000= 1770 S.F.

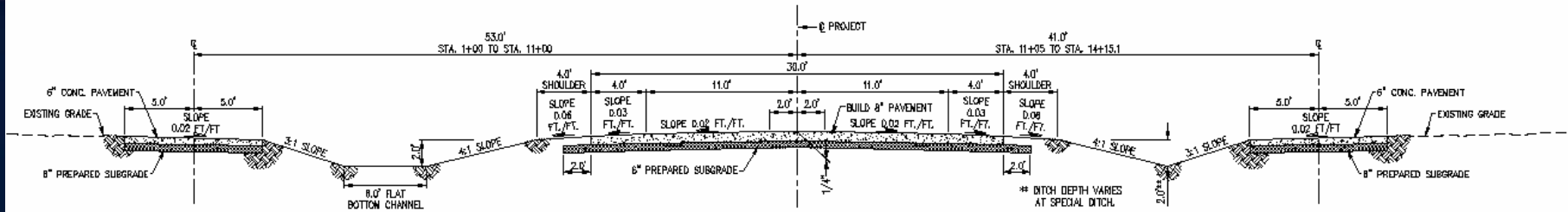
TBM: NORTHWEST CAP BOLT OF FIRE HYDRANT
AT THE NORTHWEST CORNER OF 13th ST.
AND CONSTITUTION DR. INTERSECTION.
ELEV.= 2393.95

TBM: NORTHWEST CAP BOLT OF FIRE HYDRANT
AT THE SOUTHEAST CORNER OF 13th ST.
AND FREEDOM LN. INTERSECTION.

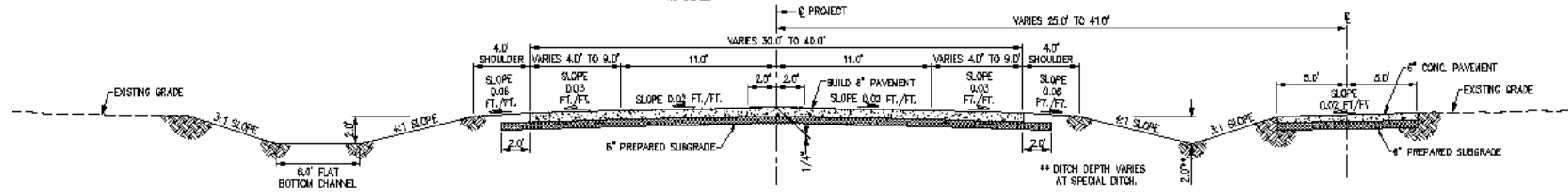
TBM: NORTHWEST CAP BOLT OF FIRE HYDRANT
AT THE NORTHWEST CORNER OF 13th ST.
AND LIBERTY INTERSECTION.
ELEV.= 2400.75

TBM: NORTHWEST CAP BOLT OF FIRE HYDRANT
AT THE NORTHWEST CORNER OF 13th ST.
AND INDEPENDENCE AVE. INTERSECTION.

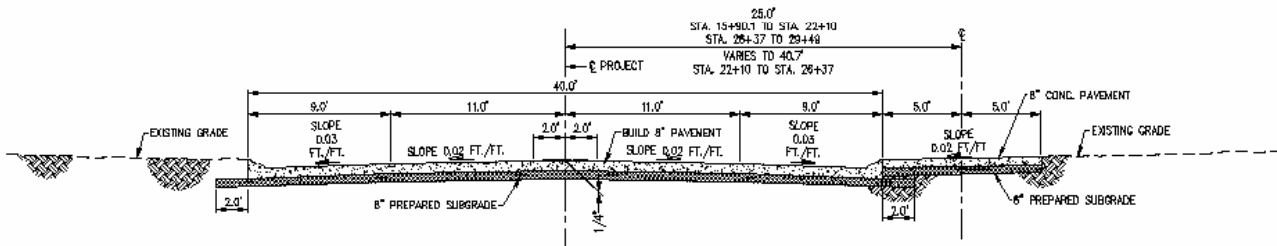
Typical Cross Sections



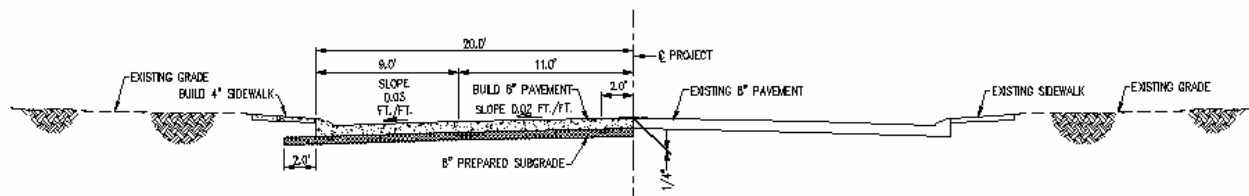
STA. 1+00 TO STA. 14+15.1
30 FT. TANGENT SLAB PAVEMENT
NO SCALE



STA. 14+15.1 TO STA. 15+90.1
30 FT. TO 40 FT. TRANSITION TANGENT SLAB PAVEMENT
NO SCALE

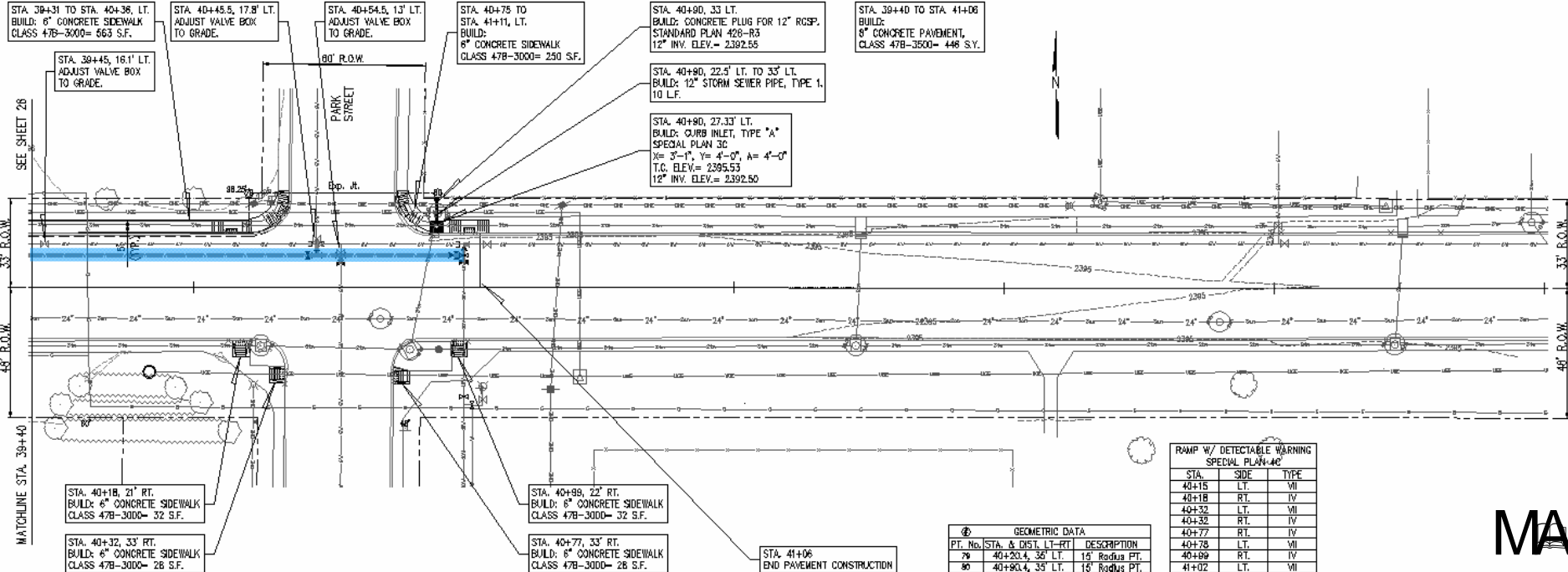


STA. 15+90.1 TO STA. 38+00
40 FT. TANGENT SLAB PAVEMENT
NO SCALE



STA. 38+00 TO STA. 41+06
1/2 OF 40 FT. TANGENT SLAB PAVEMENT
NO SCALE

Water and Sanitary Sewer Improvements



STA. 39+31 TO STA. 40+36, LT.
BUILD: 6" CONCRETE SIDEWALK
CLASS 47B-3000= 563 S.F.

STA. 40+45.5, 17.8' LT.
ADJUST VALVE BOX
TO GRADE.

STA. 40+54.5, 13' LT.
ADJUST VALVE BOX
TO GRADE.

STA. 40+75 TO
STA. 41+11, LT.
BUILD:
6" CONCRETE SIDEWALK
CLASS 47B-3000= 250 S.F.

STA. 40+90, 33 LT.
BUILD: CONCRETE PLUG FOR 12" RCSP.
STANDARD PLAN 428-R3
12" INV. ELEV.= 2392.55

STA. 39+40 TO STA. 41+08
BUILD:
8" CONCRETE PAVEMENT,
CLASS 47B-3500= 448 S.Y.

STA. 39+45, 16.1' LT.
ADJUST VALVE BOX
TO GRADE.

STA. 40+90, 22.5' LT. TO 33' LT.
BUILD: 12" STORM SEWER PIPE, TYPE 1,
10 L.F.

STA. 40+90, 27.33' LT.
BUILD: CURB INLET, TYPE "A"
SPECIAL PLAN 3C
X= 3'-1", Y= 4'-0", A= 4'-0"
T.C. ELEV.= 2395.53
12" INV. ELEV.= 2392.50

SEE SHEET 28

48' R.O.W.

MATCHLINE STA. 39+40

33' R.O.W.

48' R.O.W.

STA. 40+18, 21' RT.
BUILD: 6" CONCRETE SIDEWALK
CLASS 47B-3000= 32 S.F.

STA. 40+32, 33' RT.
BUILD: 6" CONCRETE SIDEWALK
CLASS 47B-3000= 28 S.F.

STA. 40+99, 22' RT.
BUILD: 6" CONCRETE SIDEWALK
CLASS 47B-3000= 32 S.F.

STA. 40+77, 33' RT.
BUILD: 6" CONCRETE SIDEWALK
CLASS 47B-3000= 28 S.F.

STA. 41+08
END PAVEMENT CONSTRUCTION

RAMP W/ DETECTABLE WARNING SPECIAL PLAN #C		
STA.	SIDE	TYPE
40+15	LT.	VI
40+18	RT.	IV
40+32	LT.	VI
40+32	RT.	IV
40+77	RT.	IV
40+75	LT.	VI
40+99	RT.	IV
41+02	LT.	VI

GEOMETRIC DATA		
PT. No.	STA. & DIST. LT-RT	DESCRIPTION
79	40+20.4, 36' LT.	15' Radius PT.
80	40+90.4, 35' LT.	15' Radius PT.



**Engineer's Opinion of
Probable Cost: \$1,600,000**

Proposed Schedule

Description	Date
Advertise	February, 2009
Award Bids	March, 2009
Begin Construction	April, 2009
Complete Construction	November, 2009

Questions / Comments

Thank You!



Miller  Associates
CONSULTING ENGINEERS, P.C.

