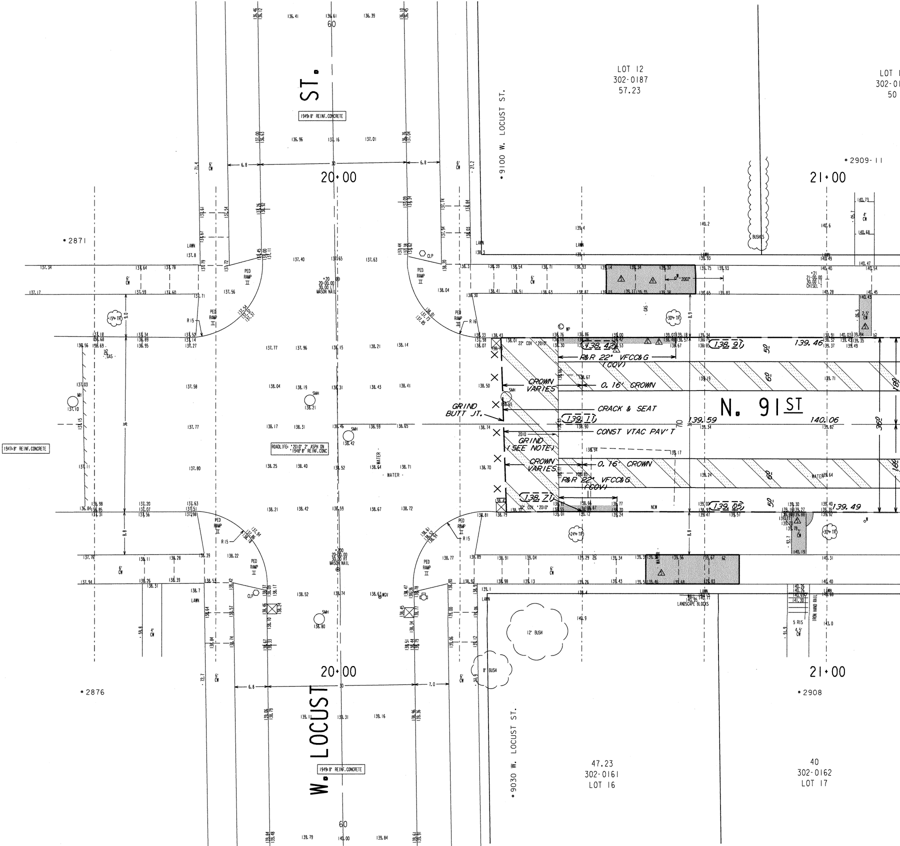
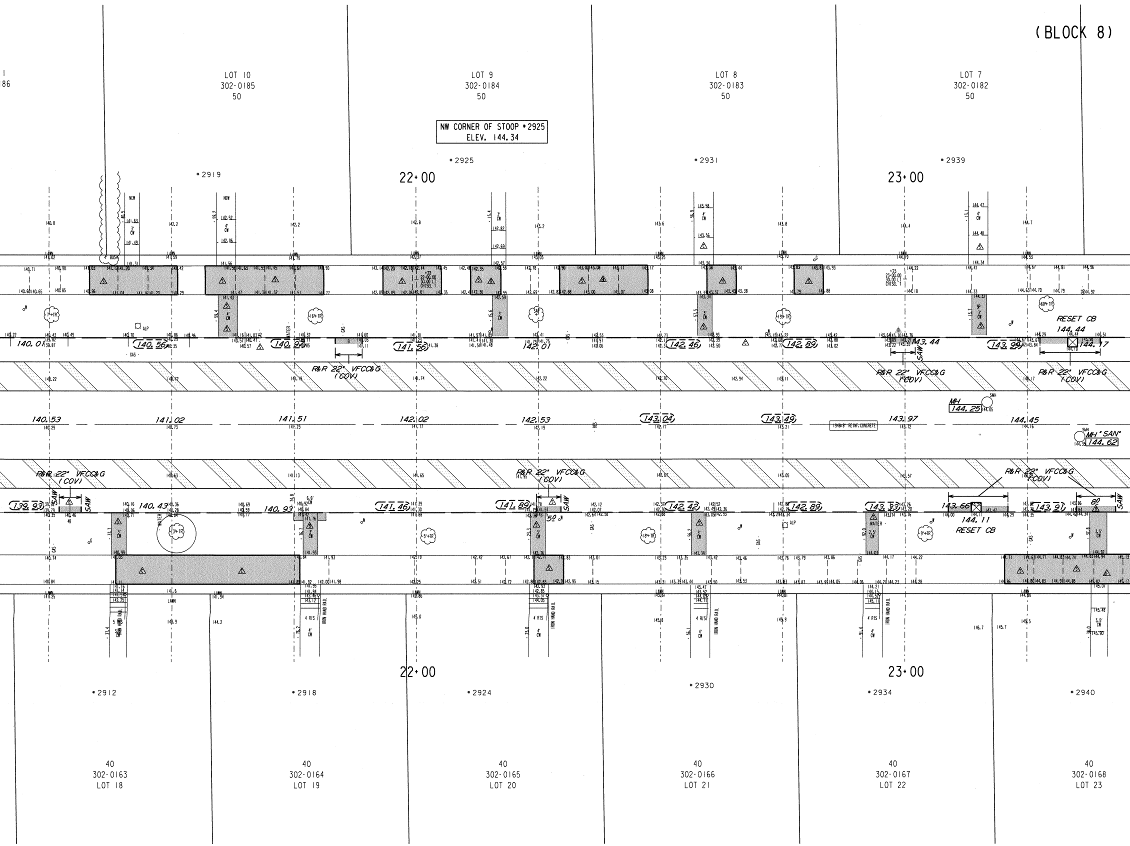
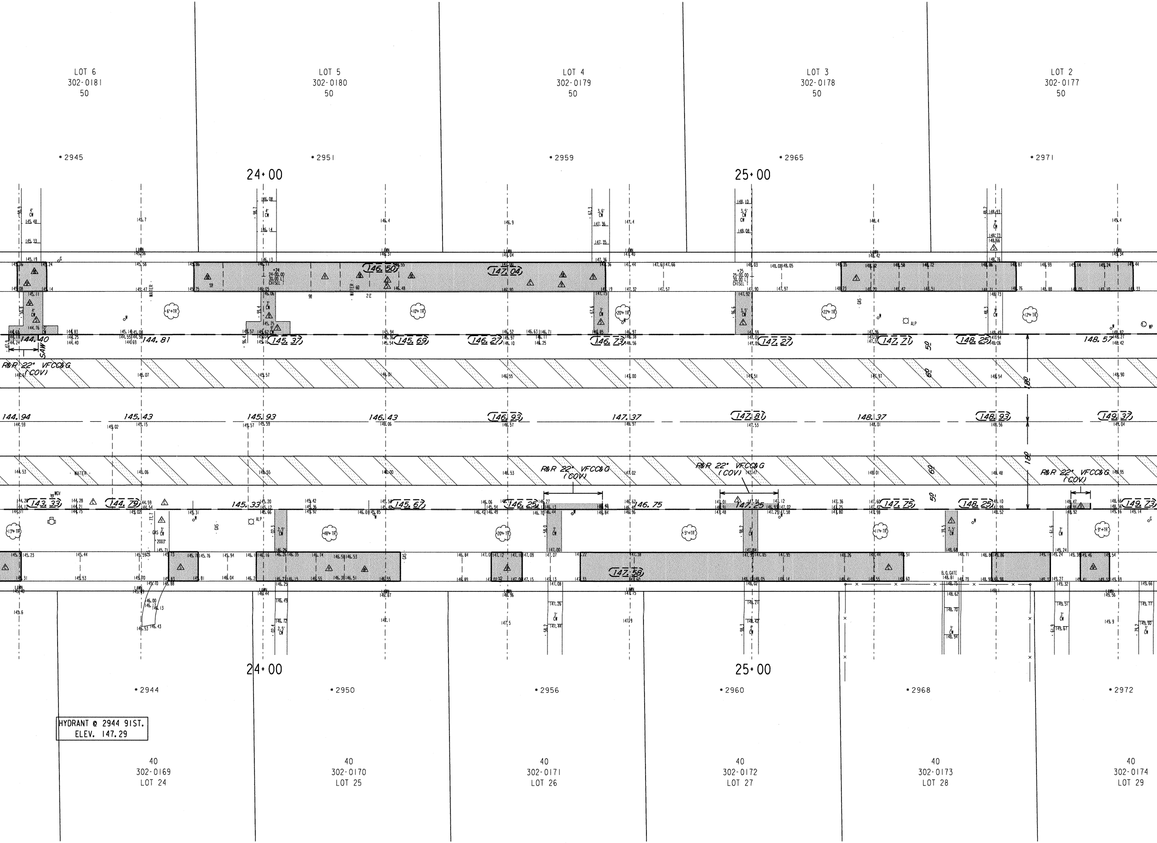
INFRASTRUCTURE SERVICES DIVISION
CONSTRUCTION SECTION
DESIGN & SURVEY SERVICES
NORTH DISTRICT
MILWAUKEE, WISCONSIN

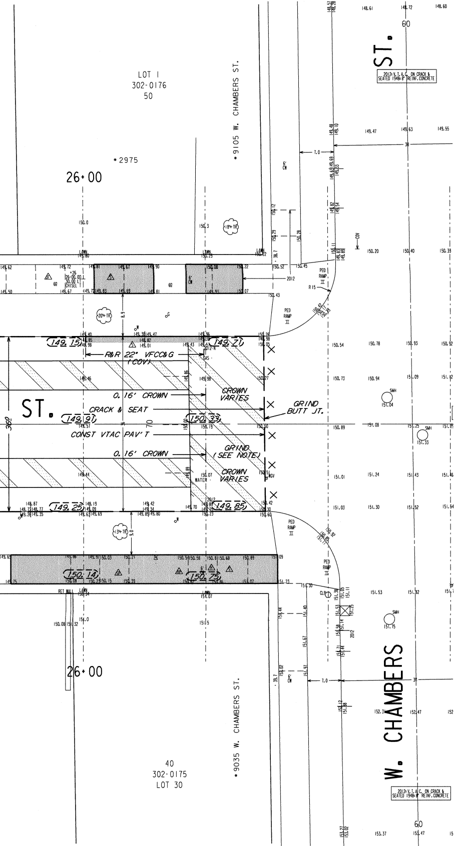
LEVELS BY: M. BRESINA
DATE: 12-05-13
DRAWN BY: SILESHI T.
DATE: 12-16-13
FILE NO: 29370

TRANSIT LINE IS THE CENTER LINE
OF THE N 91ST ST PAVEMENT
BASED ON CURB SPLITS
STATION 20+00 IS THE
C/L OF N 91ST ST @
THE C/L OF W LOCUST ST

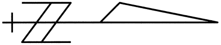

W. LOCUST ST.
N. 91ST ST
20+00
21+00
LOT 12
302-0187
57.23
302-01
50
• 9100 W. LOCUST ST.
• 9030 W. LOCUST ST.
• 2909-11
• 2871
• 2876
• 2908
47.23
302-0161
LOT 16
40
302-0162
LOT 17
1949± 8" REINF. CONCRETE
1947± 8" REINF. CONCRETE
ROADLIFE: "2010" 2" ASPH ON "1946" 8" REINF. CONC
R&R 22" VFCC&G (COV)
0.16" CROWN
CRACK & SEAT
CONST VTAC PAV'T
CROWN VARIES
GRIND BUTT JT.
2010 GRIND (SEE NOTE)
22" COV "2010"
138.42
138.91
139.46
139.11
139.59
140.06
138.71
139.05
139.49
PED RAMP II
R15
R16
CLP
SMH
MH
WATER
GAS
LAWN
BUSHES
12' BUSH
8' BUSH
15"+ TR
30"+ TR
24"+ TR
6' CW
4' CW
2.5' CW
LANDSCAPE BLOCKS
IRON HAND RAIL
5 RIS
+20 20+00.00 30.00 LT MASON NAIL
+20 20+00.00 30.00 RT MASON NAIL
+21 21+00.00 30.00 LT CHISEL T
6.8
7.0
30
36
60
NEW


(BLOCK 8)
LOT 10
302-0185
50
LOT 9
302-0184
50
LOT 8
302-0183
50
LOT 7
302-0182
50
NW CORNER OF STOOP •2925
ELEV. 144.34
•2919
•2925
•2931
•2939
22+00
23+00
RESET CB
144.44
144.17
143.44
140.01
140.56
140.94
141.56
142.01
142.46
142.89
143.99
R&R 22" VFCC&G
(COV)
SAW
GAS
WATER
ALP
MH
144.25
MH "SAN"
144.62
140.53
141.02
141.51
142.02
142.53
143.04
143.49
143.97
144.45
1948 8" REINF. CONCRETE
139.93
140.43
140.93
141.46
141.89
142.42
142.89
143.33
143.66
143.91
144.11
RESET CB
8.0
5.0
IRON HAND RAIL
4 RIS
LAWN
•2912
•2918
•2924
•2930
•2934
•2940
40
302-0163
LOT 18
40
302-0164
LOT 19
40
302-0165
LOT 20
40
302-0166
LOT 21
40
302-0167
LOT 22
40
302-0168
LOT 23


LOT 6
302-0181
50
LOT 5
302-0180
50
LOT 4
302-0179
50
LOT 3
302-0178
50
LOT 2
302-0177
50
2945
2951
2959
2965
2971
24+00
25+00
R&R 22" VFCC&G (COV)
144.40
144.81
145.37
145.69
146.27
146.73
147.27
147.71
148.25
148.57
144.94
145.43
145.93
146.43
146.93
147.37
147.81
148.37
148.93
149.37
143.33
144.79
145.33
145.67
146.25
146.75
147.25
147.75
148.25
149.73
146.50
147.04
147.58
180
60
50
SAW
WATER
GAS
ALP
B.O. GATE
2944
2950
2956
2960
2968
2972
HYDRANT @ 2944 91ST.
ELEV. 147.29
40
302-0169
LOT 24
40
302-0170
LOT 25
40
302-0171
LOT 26
40
302-0172
LOT 27
40
302-0173
LOT 28
40
302-0174
LOT 29



LOT 1
302-0176
50
• 2975
• 9105 W. CHAMBERS ST.
26+00
W. CHAMBERS ST.
2012: V.T.A.C. ON CRACK & SEATED 1948: 8" REINF. CONCRETE
PED RAMP II
R 15
R&R 22" VFCC&G (COV)
0.16' CROWN
CRACK & SEAT
CONST VTAC PAV'T
CROWN VARIES
GRIND BUTT JT.
GRIND (SEE NOTE)
(149.15)
(149.71)
(149.91)
(150.33)
(149.25)
(149.85)
(150.14)
(150.75)
ST.
SMH
WATER
GAS
CLR
RET WALL
LAWN
6' CW
7.0
30
60
36
70
• 9035 W. CHAMBERS ST.
40
302-0175
LOT 30



NOTES :

- (I), (II), (III), DENOTES RAMP TYPE.
- CONSTRUCT ALL CARRIAGE WALKS AND DRIVEWAYS PER CITY OF MILWAUKEE SPECIFICATIONS.
- OFFSET MEASUREMENTS TO TREES, WOOD POLES AND LIGHT POLES ARE TAKEN TO EDGE NEAREST THE CENTERLINE.
- OFFSET MEASUREMENTS TO HYDRANTS ARE TAKEN TO THE OPERATING NUT.
- GRADE & PLACE 1.5' WIDTH SOD IN LAWN AREAS DISTURBED BY CONSTRUCTION UNLESS OTHERWISE INDICATED.
- PROJECT IS DESIGNED TO BE CONSTRUCTED IN TWO EQUAL PASSES WITH 0.16' CROWNS IN EACH PASS, REDUCING THROUGH THE INTERSECTION(S) AS SHOWN.
- IN AREAS OF GRINDING, GRIND TO ACHIEVE 0.12' MINIMUM COVER AT FLANGES AND 0.17' AT BUTT JOINTS AND 0.21' MINIMUM ELSEWHERE.
- INTERNAL MANHOLE SEALS ARE REQUIRED IN ALL MANHOLES MARKED 'SAN' (SANITARY).
- ANY TREES TO BE REMOVED AS PART OF THIS PROJECT WILL BE NOTED IN SPECIAL PROVISIONS.
- PITCH FLANGE .08 UNLESS OTHERWISE SHOWN.
- ASPH PATCH REMOVAL TO BE DETERMINED AT THE TIME OF CONSTRUCTION BY THE CONSTRUCTION SUPERVISOR. REMOVE ASPHALT PATCHES PRIOR TO CRACK & SEAT.

HYDRANT @ NE CORNER
OF CHAMBERS & 91ST.
ELEV. 154.06

CONDITION
OF
CONCRETE

B	BROKEN
BL	BLUE LINED
BP	BACK PITCHED
C	CRACKED
EP	EXCESSIVE PITCH
H	HEAVED
JF	JOINT FAILURE
MJ	MUD JACKED
P	PATCHED
PC	POOR CONDITION
S	SETTLED
SP	SPALLED
VGC	VERY GOOD
VPC	VERY POOR

ESTIMATE / CERTIFICATE QUANTITIES

	DESCRIPTION	UNIT	ASSESS.	X-ING			PLAN TOT.	PROJ.TOT.
☒	MOBILIZATION	L.S.						
☒	FINISHING ROADWAY	L.S.						
☒	BARRICADING AND SIGNING	L.S.						
☒	CUTTING	C.Y.						
	ROADWAY CUTTING	C.Y.						
☒	FILLING	C.Y.						
	ROADWAY FILLING	C.Y.						
	PAVEMENT REMOVAL	S.Y.						
☒	BITUMINOUS SURFACE REMOVAL	S.Y.						
☒	CURB &/OR CURB & GUTTER REMOVAL	L.F.						
☒	CONC.WALK &/OR DRIVEWAY REMOVAL	S.F.						
	SAWING (FULL DEPTH)	L.F.						
☒	SAWING	L.F.						
	TREES CLEARING	I.D.						
	TREES GRUBBING	I.D.						
☒	CONCRETE CURB & GUTTER	L.F.						
☒	V.T. CONC.WALK &/OR DRIVEWAY	C.Y.						
☒	5' CONCRETE WALK	S.F.						
☒	7' CONCRETE DRIVEWAY	S.F.						
	CONCRETE PAVEMENT	S.Y.						
	7' CONCRETE ALLEY PAVEMENT	S.Y.						
☒	V.T. CONCRETE BASE	C.Y.						
	CONCRETE BASE	S.Y.						
☒	TACK COAT	GAL.						
☒	BASE PREP. FOR ASPHALT SURFACE	L.S.						
☒	V.T.ASPH.CONC.PAV'T.(MAX.)	S.Y.						
	CRUSHED STONE BASE							
	CRUSHED GRAVEL BASE							
☒	GRAVEL FILLING	TON						
☒	SODDING	S.Y.						
☒	TOPSOIL	C.Y.						
☒	PAVEMENT GRINDING (ASPHALT)	S.Y.						
☒	PAVEMENT GRINDING (CONCRETE)	S.Y.						
	SEALING PAV'T JOINTS & CRACKS	S.Y.						
	MANHOLE RINGS	EACH						
☒	SEWER FRAME ADJUSTMENT	V.F.						
☒	MANHOLE SEAL (CITY FURNISHED)	EACH						
☒	EROSION CONTROL (TYPE M)	EACH						
☒	JT & CRACK REPAIR	L.F.						1206
☒	CRACK & SEAT	S.Y.						

DEPARTMENT OF PUBLIC WORKS
INFRASTRUCTURE SERVICES DIVISION
FIELD OPERATIONS
FIELD & DESIGN ENGINEERING
MILWAUKEE, WISCONSIN

FILE NO. 442

PLAN OF: N. 91ST ST. (2900N, 9100W)

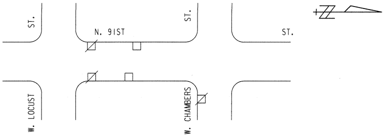
W. LOCUST ST. TO W. BURLEIGH ST.

THIS SECTION: W. LOCUST ST. TO W. CHAMBERS ST.

DRAWN BY	WAS	DATE: 5/16/14	PROJECT NO. ST211140147		SHEET 1 OF 2
DESCRIPTIONS BY	WAS	DATE: 5/16/14			
LEVELS BY	M. BRESINA	DATE: 12/5/13	SCALE	1/4 SEC.	ALD.DIST.
LEVELS TRANSF. BY		DATE:	1"=10'	302	5
DESIGNED BY	A. SCHAAFSMA	DATE: 5/22/14	OBSTRUCTIONS - SEE OBSTRUCTION LIST		
GRADES TRANSF. BY	DB / GL	DATE: 6/12/14	REVISED:		
CHECKED BY	D. Ulatowski	DATE: 8/20/14	REVISED:		
APPROVED BY		DATE: 8/20/14	REVISED:		
FILE: V:\PWELIB\PAVING\29370.FIN					
PLOT DATE: 18-AUG-2014					

THIS SHEET

STORM DRAINAGE UNITS		
C.B.W.- 0	RESET- 2	ABANDON- 0
PROJECT IN (SEPARATED) AREA		



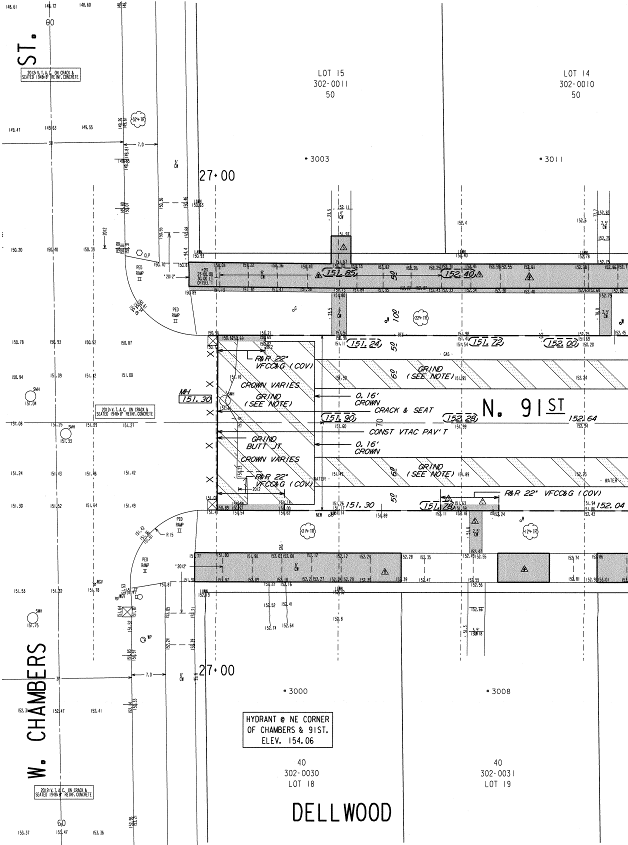
ST.
N. 91ST
ST.
ST.
W. LOCUST
W. CHAMBERS

EROSION CONTROL AND C.B. REQUISITION PLAN

	TYPE M	☒ - CBW	☐ - RESET	× - ABANDON	☐
THIS SHEET	5	0	2	0	NO WORK
PROJECT TOTAL	11	0	4	0	NO WORK

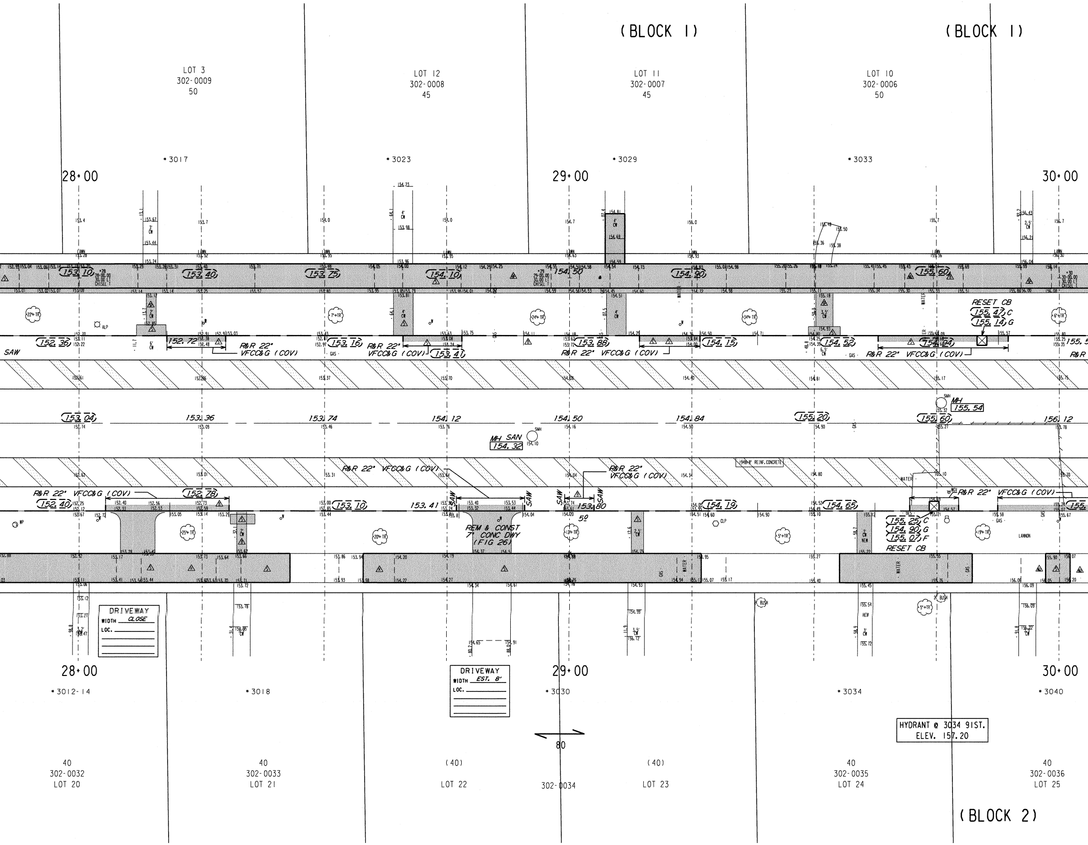
TO \ DATE	8/21/14				
ESTIMATING	1				
HOLLOW WALKS	1				
PUBLIC HEARING	1				
CONSTRUCTION	7				
SEWER	1				
WATER	1				
STREET LIGHTING	1				
BLDG. SEWERS					
MEASURING	1				
FIELD					
DISTRICT FILE	2				
FORESTRY	1				
W.E. / G.O.					
WIS. GAS CO.					
TRANSIT SYSTEM					
CABLE TV					
UND. GRD. COND.	1				
WATER DIST.	1				
WEPCO N/S					
WEPCO S/S					
SEWER SERVICES					
UTILITY COOR.	1				
TrafficEng	1				
RM 506	6				
PLAN SIZE	17"X110"				

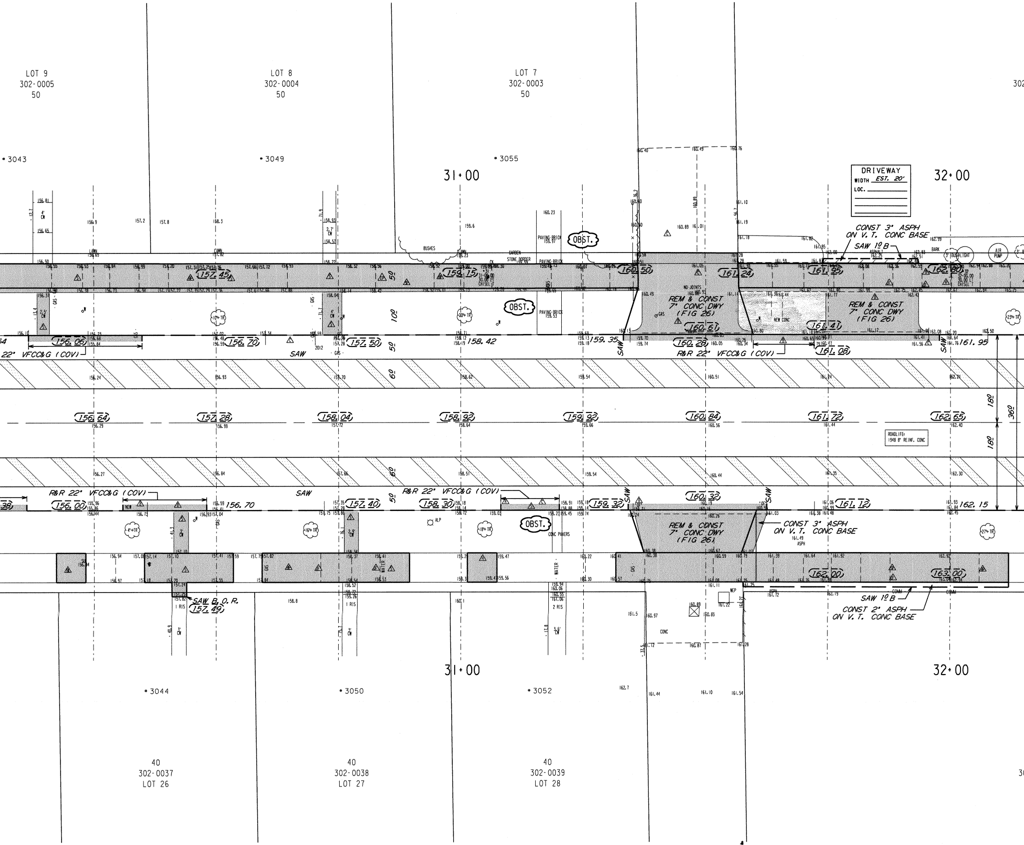
N. 91ST ST. - W. LOCUST ST. TO W. BURLEIGH ST.
W. LOCUST ST. TO W. CHAMBERS ST.
ST211140147 17" X 110" 29370 #
(1 OF 2)

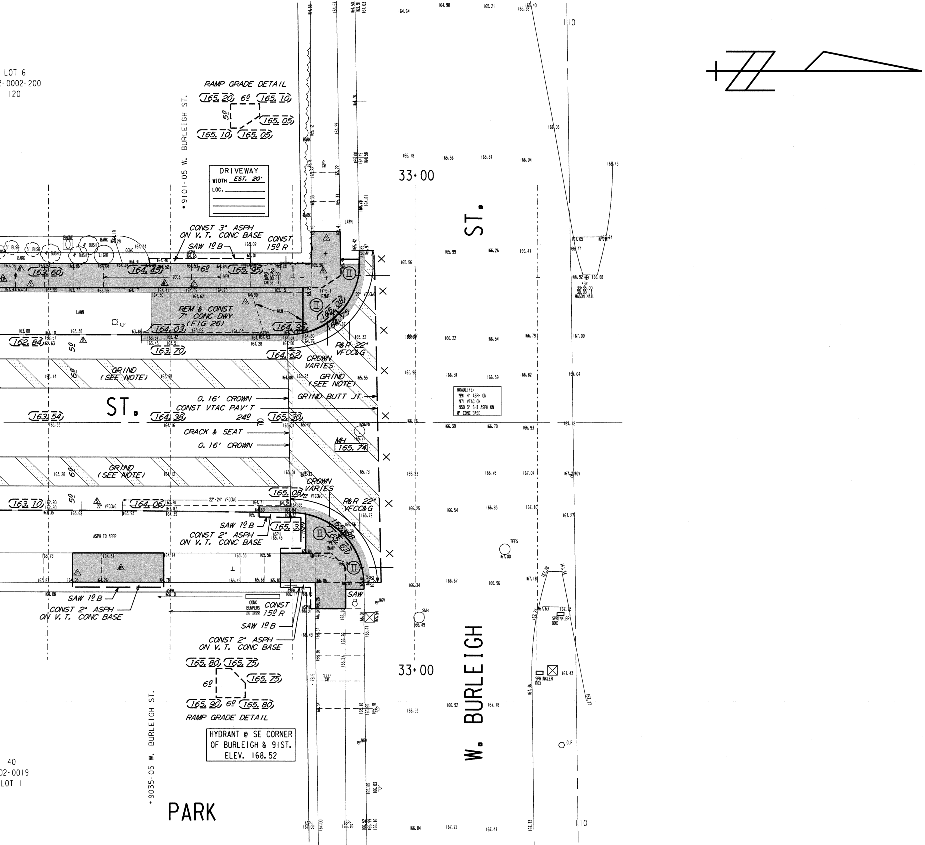


W. CHAMBERS ST.
N. 91 ST
DELLWOOD
LOT 15
302-0011
50
LOT 14
302-0010
50
• 3003
• 3011
27+00
• 3000
• 3008
40
302-0030
LOT 18
40
302-0031
LOT 19
2012± V.T.A.C. ON CRACK & SEATED 1946± 8" REINF. CONCRETE
MH 151.30
R&R 22" VFCC&G (COV)
CROWN VARIES
GRIND (SEE NOTE)
GRIND BUTT JT
0.16' CROWN
CRACK & SEAT
CONST VTAC PAV'T
PED RAMP II
R 15
151.85
152.40
151.24
151.72
152.00
151.90
152.28
152.64
151.30
151.78
152.04
SMH
CLP
WATER
GAS
6' CW
2012
7.0
30
60

HYDRANT @ NE CORNER OF CHAMBERS & 91ST. ELEV. 154.06


(BLOCK 1)
(BLOCK 1)
LOT 3
302-0009
50
LOT 12
302-0008
45
LOT 11
302-0007
45
LOT 10
302-0006
50
• 3017
• 3023
• 3029
• 3033
28+00
29+00
30+00
153.10
153.40
153.75
154.10
154.50
154.90
155.60
RESET CB
155.47 C
155.14 G
152.36
152.72
153.16
153.41
153.88
154.15
154.52
154.84
155.5
SAW
R&R 22" VFCC&G (COV)
R&R 22" VFCC&G (COV)
R&R 22" VFCC&G (COV)
R&R 22" VFCC&G (COV)
R&R
153.04
153.36
153.74
154.12
154.50
154.84
155.20
155.60
156.12
MH
155.54
MH SAN
154.32
R&R 22" VFCC&G (COV)
R&R 22" VFCC&G (COV)
R&R 22" VFCC&G (COV)
R&R 22" VFCC&G (COV)
152.40
152.78
153.10
153.41
153.80
154.19
154.65
155.25 C
154.90 G
155.07 F
RESET CB
REM & CONST
7" CONC DWY
(FIG 26)
SAW
LAWN
WATER
GAS
DRIVEWAY
WIDTH CLOSE
LOC.
DRIVEWAY
WIDTH EST. 8'
LOC.
28+00
29+00
30+00
• 3012-14
• 3018
• 3030
• 3034
• 3040
HYDRANT @ 3034 91ST.
ELEV. 157.20
80
40
302-0032
LOT 20
40
302-0033
LOT 21
(40)
LOT 22
302-0034
(40)
LOT 23
40
302-0035
LOT 24
40
302-0036
LOT 25
(BLOCK 2)


LOT 9
302-0005
50
LOT 8
302-0004
50
LOT 7
302-0003
50
*3043
*3049
*3055
31+00
32+00
DRIVEWAY
WIDTH EST. 20'
LOC.
CONST 3" ASPH ON V.T. CONC BASE
SAW 1º B
OBST.
REM & CONST 7" CONC DWY (FIG 26)
NO JOINTS
NEW CONC
R&R 22" VFCC&G (COV)
SAW
22" VFCC&G (COV)
156.06
156.70
157.50
158.42
159.35
160.28
161.08
161.95
157.45
159.15
160.50
161.24
161.95
162.80
160.61
161.41
156.64
157.28
158.04
158.92
159.92
160.84
161.72
162.65
18º
36º
ROADLIFE:
1948 8" REINF. CONC
156.00
156.70
157.40
158.30
159.32
160.32
161.12
162.15
CONST 3" ASPH ON V.T. CONC BASE
SAW B.O.R.
157.49
162.00
163.00
SAW 1º B
CONST 2" ASPH ON V.T. CONC BASE
BUSHES
GARDEN STONE BORDER
PAVING BRICK
CONC PAVERS
AIR PUMP
LIGHT
BARK
ASPHALT
GAS
WATER
COMM
CONC
ALP
1 RIS
2 RIS
*3044
*3050
*3052
40
302-0037
LOT 26
40
302-0038
LOT 27
40
302-0039
LOT 28


LOT 6
2-0002-200
120
RAMP GRADE DETAIL
165.20
6%
165.10
5%
165.05
165.10
165.05
*9101-05 W. BURLEIGH ST.
DRIVEWAY
WIDTH EST. 20'
LOC.
CONST 3" ASPH ON V.T. CONC BASE
CONST 15' R
SAW 1' B
163.60
164.45
16%
165.35
REM & CONST 7" CONC DWY (FIG 26)
164.03
164.95
165.08
164.75
TYPE 1 RAMP
162.84
163.70
164.62
R&R 22" VFCC&G
CROWN VARIES
GRIND (SEE NOTE)
GRIND BUTT JT
ST.
0.16' CROWN
CONST VTAC PAV'T
24'
163.54
164.38
165.30
CRACK & SEAT
0.16' CROWN
MH
165.74
GRIND (SEE NOTE)
CROWN VARIES
165.08
R&R 22" VFCC&G
163.10
164.06
SAW 1' B
165.38
CONST 2" ASPH ON V.T. CONC BASE
165.63
165.38
SAW 1' B
CONST 2" ASPH ON V.T. CONC BASE
CONST 15' R
SAW 1' B
SAW
CONST 2" ASPH ON V.T. CONC BASE
165.80
165.75
6%
165.75
165.90
6%
165.80
RAMP GRADE DETAIL
HYDRANT @ SE CORNER OF BURLEIGH & 91ST. ELEV. 168.52
40
02-0019
LOT 1
*9035-05 W. BURLEIGH ST.
PARK
33+00
33+00
ST.
W. BURLEIGH
ROADLIFE:
1991 4" ASPH ON
1971 VTAC ON
1950 3" SHT ASPH ON
8" CONC BASE
TEES
167.00
SMH
166.49
SPRINKLER BOX
SPRINKLER BOX
CLP
110
110
LAWN
ASPH TO APPR
CONC BUMPERS

ESTIMATE / CERTIFICATE QUANTITIES

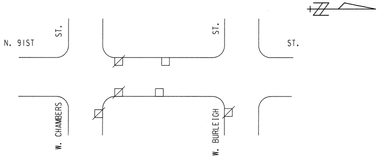
	DESCRIPTION	UNIT	ASSESS.	X-ING			PLAN TOT.	PROJ.TOT.
	MOBILIZATION	L.S.						
	FINISHING ROADWAY	L.S.						
	BARRICADING AND SIGNING	L.S.						
	CUTTING	C.Y.						
	ROADWAY CUTTING	C.Y.						
	FILLING	C.Y.						
	ROADWAY FILLING	C.Y.						
	PAVEMENT REMOVAL	S.Y.						
	BITUMINOUS SURFACE REMOVAL	S.Y.						
	CURB &/OR CURB & GUTTER REMOVAL	L.F.						
	CONC.WALK &/OR DRIVEWAY REMOVAL	S.F.						
	SAWING (FULL DEPTH)	L.F.						
	SAWING	L.F.						
	TREES CLEARING	I.D.						
	TREES GRUBBING	I.D.						
	CONCRETE CURB & GUTTER	L.F.						
	V.T. CONC.WALK &/OR DRIVEWAY	C.Y.						
	5' CONCRETE WALK	S.F.						
	7' CONCRETE DRIVEWAY	S.F.						
	CONCRETE PAVEMENT	S.Y.						
	7' CONCRETE ALLEY PAVEMENT	S.Y.						
	V.T. CONCRETE BASE	C.Y.						
	CONCRETE BASE	S.Y.						
	TACK COAT	GAL.						
	BASE PREP. FOR ASPHALT SURFACE	L.S.						
	V.T.ASPH.CONC.PAV'T.(MAX.)	S.Y.						
	CRUSHED STONE BASE							
	CRUSHED GRAVEL BASE							
	GRAVEL FILLING	TON						
	SODDING	S.Y.						
	TOPSOIL	C.Y.						
	PAVEMENT GRINDING (ASPHALT)	S.Y.						
	PAVEMENT GRINDING (CONCRETE)	S.Y.						
	SEALING PAV'T JOINTS & CRACKS	S.Y.						
	MANHOLE RINGS	EACH						
	SEWER FRAME ADJUSTMENT	V.F.						
	MANHOLE SEAL (CITY FURNISHED)	EACH						
	EROSION CONTROL (TYPE M)	EACH						
	JT & CRACK REPAIR	L.F.						1206
	CRACK & SEAT	S.Y.						

CONDITION OF CONCRETE	
B	BROKEN
BL	BLUE LINED
BP	BACK PITCHED
C	CRACKED
EP	EXCESSIVE PITCH
H	HEAVED
JF	JOINT FAILURE
MJ	MUD JACKED
P	PATCHED
PC	POOR CONDITION
S	SETTLED
SP	SPALLED
VGC	VERY GOOD
VPC	VERY POOR

DEPARTMENT OF PUBLIC WORKS INFRASTRUCTURE SERVICES DIVISION FIELD OPERATIONS FIELD & DESIGN ENGINEERING MILWAUKEE, WISCONSIN				FILE NO. 443
PLAN OF:	N. 91ST ST.			(3000N, 9100W)
W. LOCUST ST. TO W. BURLEIGH ST.				
THIS SECTION: W. CHAMBERS ST. TO W. BURLEIGH ST.				
DRAWN BY	WAS	DATE: 5/16/14	PROJECT NO.	
DESCRIPTIONS BY	WAS	DATE: 5/16/14	ST211140147	SHEET 2 OF 2
LEVELS BY	M. BRESINA	DATE: 12/5/13	SCALE | 1/4 SEC. | ALD.DIST.	
LEVELS TRANSF. BY		DATE:	1"=10' | 302 | 5	
DESIGNED BY	A. SCHAAFSMA	DATE: 5/22/14	OBSTRUCTIONS - SEE OBSTRUCTION LIST	
GRADES TRANSF. BY	DB / GL	DATE: 6/12/14	REVISED:	
CHECKED BY	D. Ulatowski	DATE: 8/20/14	REVISED:	
APPROVED BY		DATE: 8/20/14	REVISED:	
FILE: V:\PWELIB\PAVING\29370.FIN				
PLOT DATE: 18-AUG-2014				

THIS SHEET

STORM DRAINAGE UNITS		
C.B.W.- 0	RESET- 2	ABANDON- 0
PROJECT IN (SEPARATED) AREA		



N. 91ST ST.
ST.
ST.
W. CHAMBERS
W. BURLEIGH

EROSION	CONTROL	AND C.B.	REQUISITION	PLAN
TYPE M	☒ - CBW	☐ - RESET	× - ABANDON	☐
THIS SHEET 6	0	2	0	NO WORK

DATE / TO	8/21/14				
ESTIMATING	1				
HOLLOW WALKS	1				
PUBLIC HEARING	1				
CONSTRUCTION	7				
SEWER	1				
WATER	1				
STREET LIGHTING	1				
BLDG. SEWERS					
MEASURING	1				
FIELD					
DISTRICT FILE	2				
FORESTRY	1				
W.E. / G.O.					
WIS. GAS CO.					
TRANSIT SYSTEM					
CABLE TV					
UND. GRD. COND.	1				
WATER DIST.	1				
WEPCO N/S					
WEPCO S/S					
SEWER SERVICES					
UTILITY COOR.	1				
TrafficEng	1				
RM 506	6				
PLAN SIZE	17"X110"				