









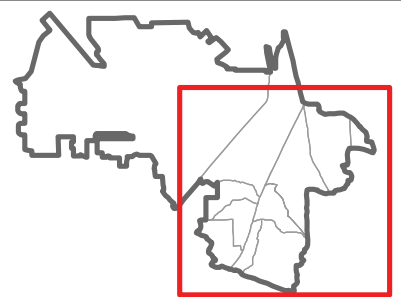


-  100-Year Storm Event Flood Inundation Without Project
-  Reservoir
-  Channel Improvements
-  Culvert/Bridge Modification
-  Levee/Floodwall

-  Approximate Creek Channel Location
 -  Municipal Boundary
 -  Watershed Boundary
- Problem Areas**
-  Modeled
 -  Regional



CLIENT:
METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TITLE:
LOWER DES PLAINES RIVER DETAILED WATERSHED PLAN CRYSTAL CREEK WATERSHED TRIBUTARY OVERVIEW

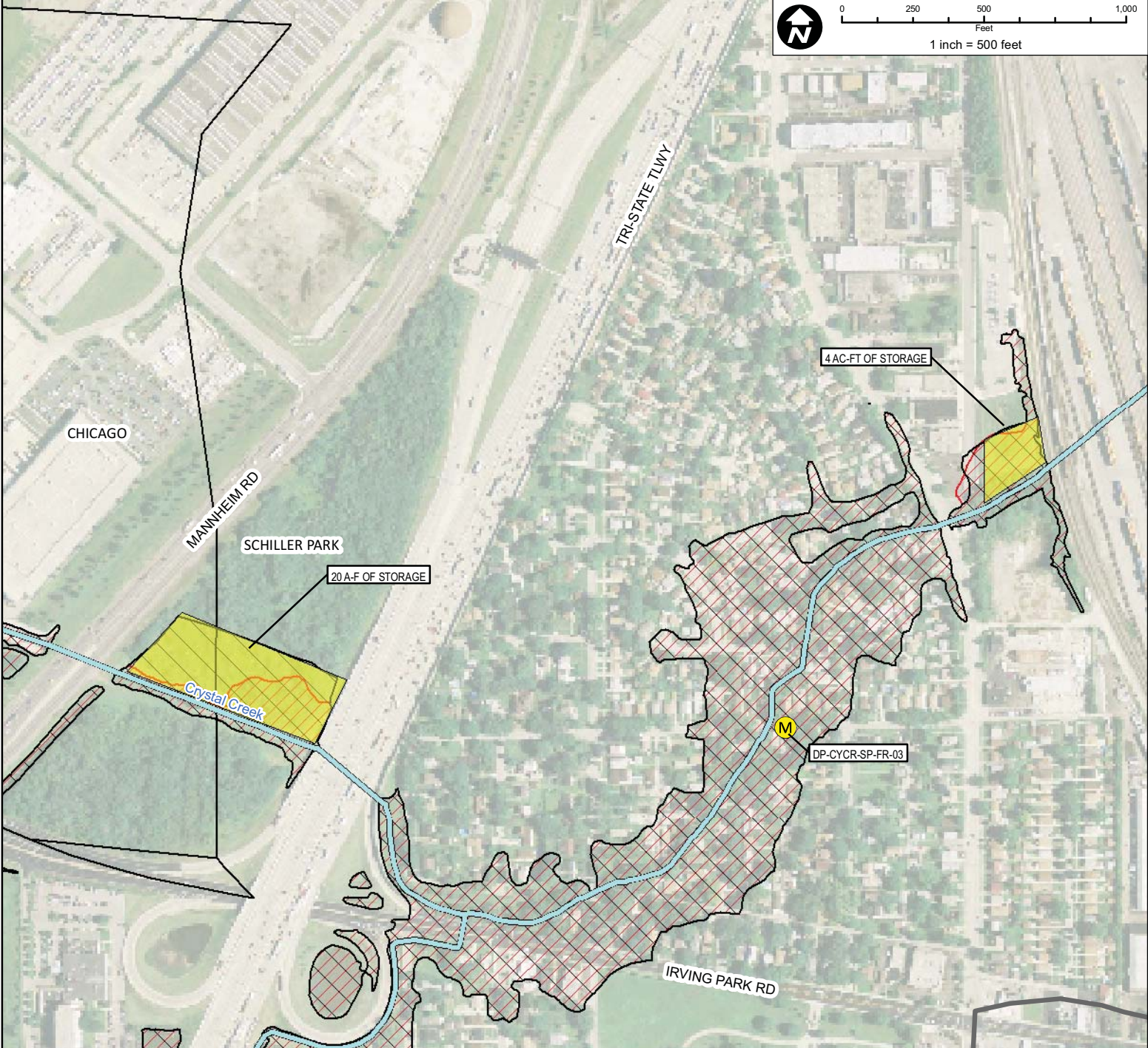
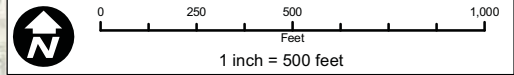
PROJ. NO. 08-0043
 DATE: 05-10-2010
 SHEET 1 OF 1
 DRAWING NO.

 **CHRISTOPHER B. BURKE ENGINEERING, LTD.**
 9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.	DRW	4-10	SCALE:	
DWN.			GIS USER	DRW
CHKD.			PLOT DATE	
FILE:				

FIGURE 3.5.1

Map Document: Z:\MWR\DC\08-0043 Phase B\GIS\Exhibits\Meeting Maps\Cystal Silver Golf\Cystal Creek Overall.mxd 11/19/2010 -- 8:32:04 AM

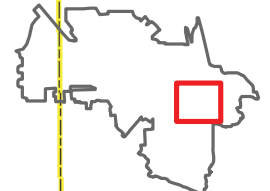


Subwatershed: Crystal Creek
 Alternative: CYCR-1
 Alternatives Description: Provide storage west of I-294 and east of Mannheim Road and east of the SOO Line Railroad tracks.
 Reduce flood profile of Crystal Creek between Irving Park Road and SOO Line Railroad.

Concept Level Cost: \$7,425,208
 Benefits: \$98,760
 B/C Ratio: 0.01

Legend

- | | | | |
|---|-----------------------------|------------------------------------|---|
| 100-Year Storm Event Flood Inundation Without Project | Culvert/Bridge Modification | Approximate Creek Channel Location | Problem Areas
Modeled
Regional |
| 100-Year Storm Event Flood Inundation With Project | Channel Improvements | Municipal Boundary | |
| Reservoir | Levee/Floodwall | Watershed Boundary | |



CLIENT:
METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TITLE:
**LOWER DES PLAINES RIVER DETAILED WATERSHED PLAN
 CRYSTAL CREEK WATERSHED
 PROPOSED ALTERNATIVE CYCR-1**

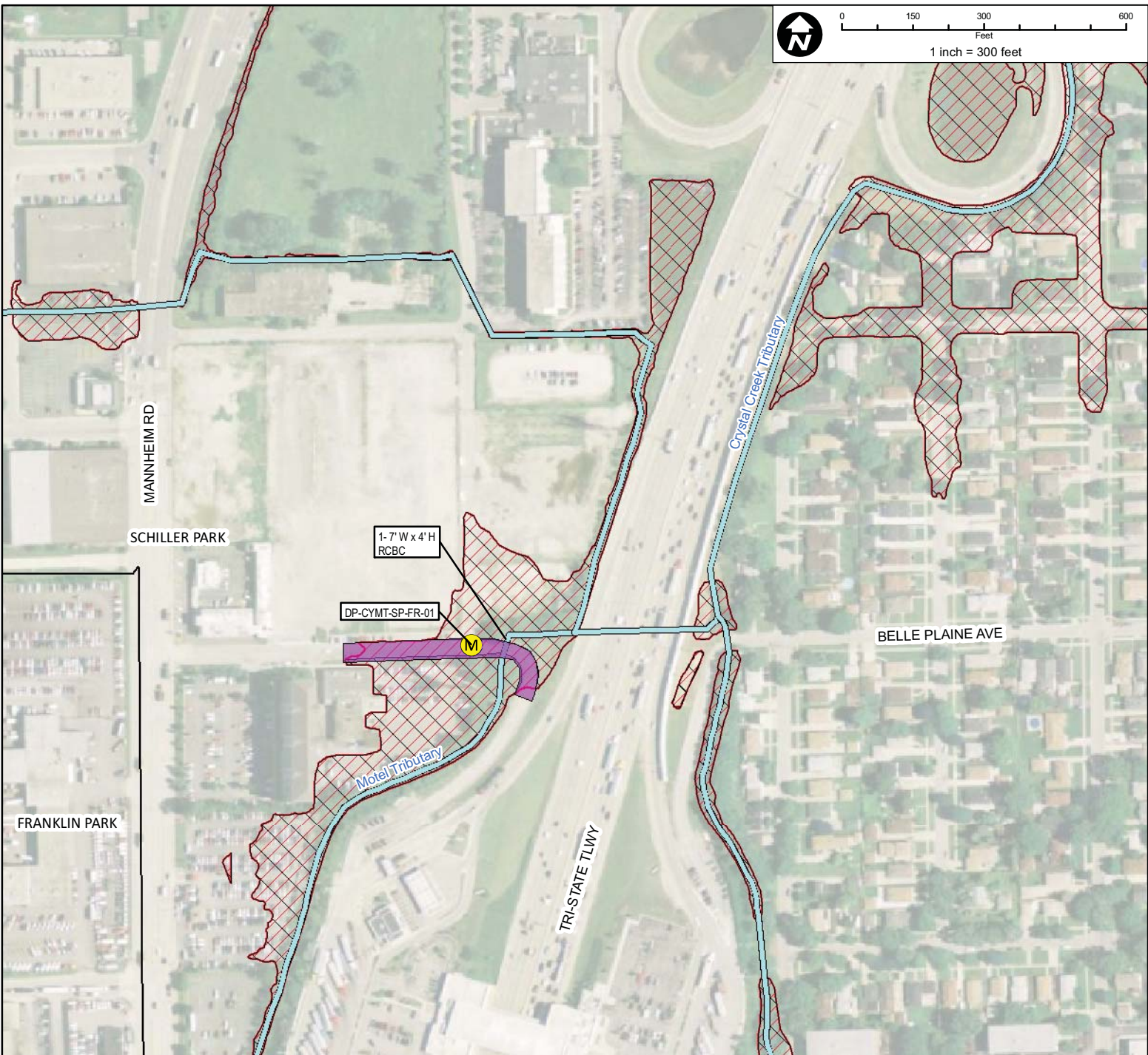
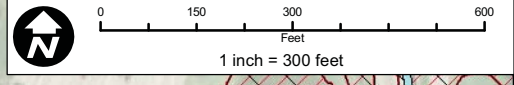
PROJ. NO. 08-0043
 DATE: 04-30-2010
 SHEET 1 OF 1
 DRAWING NO.

CHRISTOPHER B. BURKE ENGINEERING, LTD.
 9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.	DRW	4-10	SCALE	1' = 500'
DWN.			GIS USER	DRW
CHKD.			PLOT DATE	
FILE:				

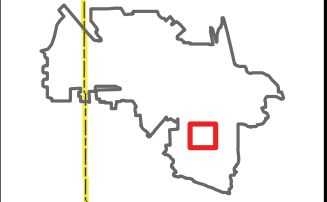
FIGURE 3.5.2

Map Document: (Z:\MWR\RDCC\08-0043 Phase B\GIS\Exhibits\Meeting Maps\Crystal Silver Golf\Crystal Silver Golf\Crystal Creek Detailed Sheets.mxd) 8/20/2010 10:32:55 AM



Subwatershed: Crystal Creek
 Alternative: CYCR-2
 Alternatives Description: Belle Plaine Avenue culvert replacement – increase culvert to a 7' W x 4' H RCBC and raise the road profile of Belle Plaine Avenue to 640.1ft.
 Concept Level Cost: \$312,086
 Benefits: \$14
 B/C Ratio: <0.01

Legend			
	100-Year Storm Event Flood Inundation Without Project		Culvert/Bridge Modification
	100-Year Storm Event Flood Inundation With Project		Channel Improvements
	Reservoir		Levee/Floodwall
	Approximate Creek Channel Location		Municipal Boundary
	Watershed Boundary		Modeled Problem Areas
			Regional Problem Areas



CLIENT:
METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TITLE:
**LOWER DES PLAINES RIVER DETAILED WATERSHED PLAN
 CRYSTAL CREEK WATERSHED
 PROPOSED ALTERNATIVE CYCR-2**

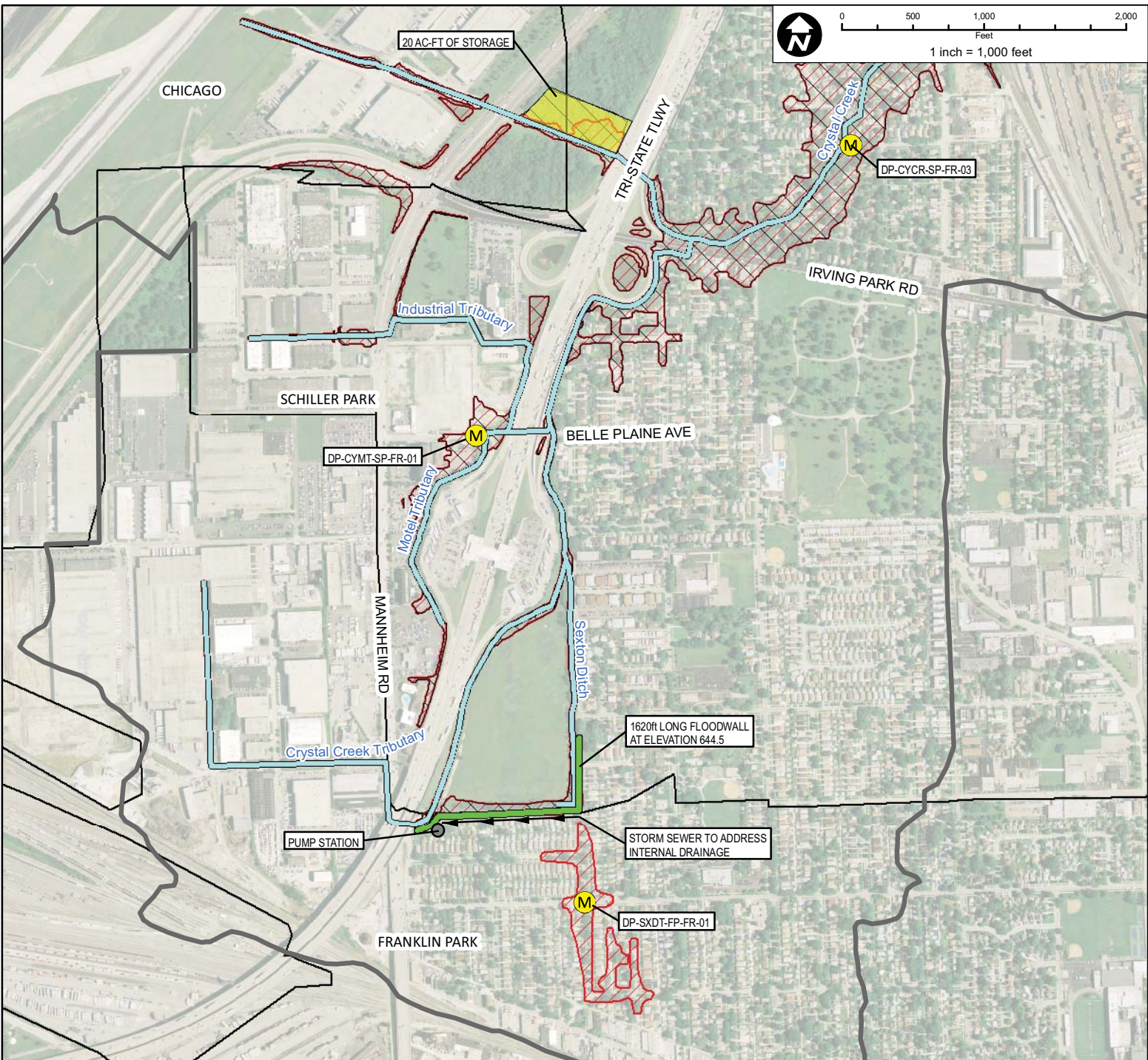
PROJ. NO. 08-0043
 DATE: 04-30-2010
 SHEET 1 OF 1
 DRAWING NO.

CHRISTOPHER B. BURKE ENGINEERING, LTD.
 9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.	DRW	4-10	SCALE	1' = 500'
DWN.			GIS USER	DRW
CHKD.			PLOT DATE	
FILE:				

FIGURE 3.5.3

Map Document: Z:\MWR\RDCC\08-0043 Phase B\GIS\Exhibits\Meeting Maps\Crystal Silver Golf\Crystal Creek Detailed Sheets.mxd
 8/2/2010 10:32:10 AM



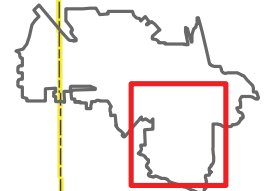
Subwatershed: Crystal Creek
 Alternative: CYCR-3

Alternatives Description: Construct a 1620 ft long floodwall north Panoramic Drive and west of Dora Street. Floodwall will be constructed to an elevation of 644.5ft. Flood mitigation storage provided in parcel east of Mannheim Road and west of I-294. Pump station and storm sewer constructed to address internal drainage south of Sexton Ditch.

Concept Level Cost: \$13,278,911
 Benefits: \$294,025
 B/C Ratio: 0.02

Legend

- 100-Year Storm Event Flood Inundation Without Project
- Culvert/Bridge Modification
- Approximate Creek Channel Location
- Problem Areas Modeled
- 100-Year Storm Event Flood Inundation With Project
- Channel Improvements
- Municipal Boundary
- Problem Areas Regional
- Reservoir
- Levee/Floodwall
- Watershed Boundary



CLIENT:
METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TITLE:
**LOWER DES PLAINES RIVER DETAILED WATERSHED PLAN
 CRYSTAL CREEK WATERSHED PROPOSED ALTERNATIVE CYCR-3**

PROJ. NO. 08-0043
 DATE: 05-10-2010
 SHEET 1 OF 1
 DRAWING NO.

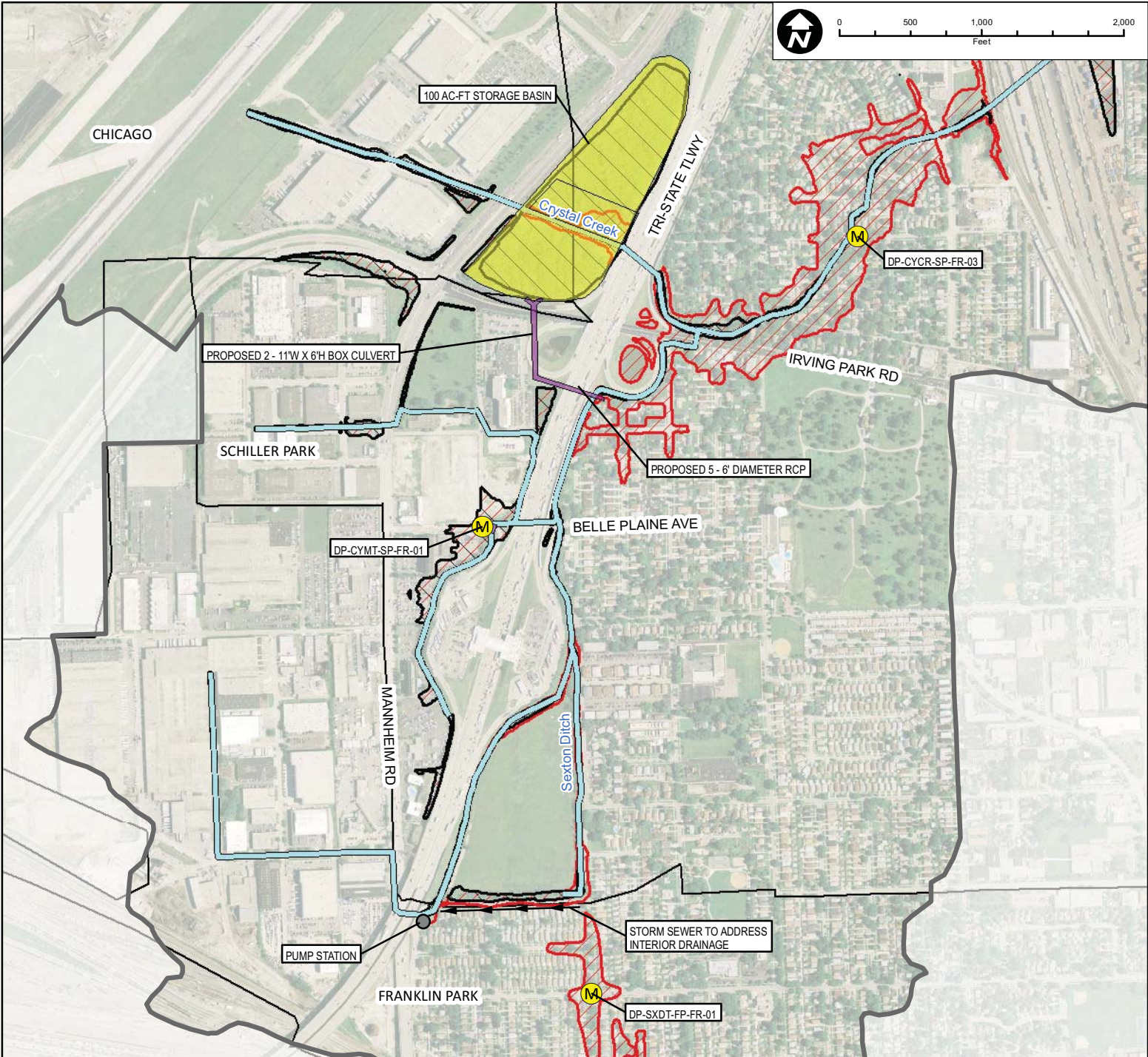
CHRISTOPHER B. BURKE ENGINEERING, LTD.
 9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.	DRW	4-10	SCALE	1" = 1,000'
DWN.			GIS USER	DRW
CHKD.			PLOT DATE	
FILE:				

FIGURE 3.5.4

Map Document: (Z:\MWR\RDCC\08-0043 Phase B\GIS\Exhibits\Meeting Maps\Crystal Silver Golf\Crystal Silver Golf\Crystal Creek Detailed Sheets.mxd) 8/20/2010 10:30:12 AM

Map Document: (Z:\MWR\RDCC\08-0043 Phase B\GIS\Exhibits\Meeting Maps\Crystal Silver Golf\Crystal Silver Golf\Crystal Creek Detailed Sheets.mxd) 8/20/2010 9:55 AM

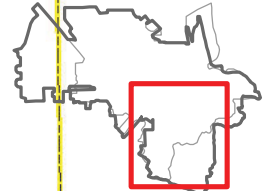


Subwatershed: Crystal Creek
 Alternative: CYCR-4
 Alternatives Description: Crystal Creek Tributary is diverted west under I-294 downstream of Berteau Avenue through 5 - 6' RCP culverts. Flow is then diverted north under Irving Park Road in 2 - 11' W x 6' H RCBC and into the proposed 100 A-F storage facility. A pump station and storm sewer will be constructed to address internal drainage associated with Sexton Ditch.

Concept Level Cost: \$42,671,156
 Benefits: \$1,198,534
 B/C Ratio: 0.03

Legend

- 100-Year Storm Event Flood Inundation Without Project
- 100-Year Storm Event Flood Inundation With Project
- Reservoir
- Culvert/Bridge Modification
- Channel Improvements
- Levee/Floodwall
- Approximate Creek Channel Location
- Municipal Boundary
- Watershed Boundary
- Problem Areas**
- M Modeled
- R Regional



CLIENT:
METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TITLE:
LOWER DES PLAINES RIVER DETAILED WATERSHED PLAN CRYSTAL CREEK WATERSHED RECOMMENDED ALTERNATIVE CYCR-4

PROJ. NO. 08-0043
 DATE: 05-10-2010
 SHEET 1 OF 1
 DRAWING NO.

CB CHRISTOPHER B. BURKE ENGINEERING, LTD.
 9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.	DRW	4-10	SCALE	
DWN.			GIS USER	DRW
CHKD.			PLOT DATE	
FILE:				

FIGURE 3.5.5