Appendix F

Miscellaneous Forms and Instructions

DOT COUNTY COORDINATE CONVERSION FACTORS

ND LAMBERT STATE PLANE COORDINATE SYSTEM 83 State Plane Coordinate (or grid distance) = Ground Coordinate (or distance) times cf Ground Coordinate (or distance) = State Plane Coordinate (or grid distance) times 1/cf

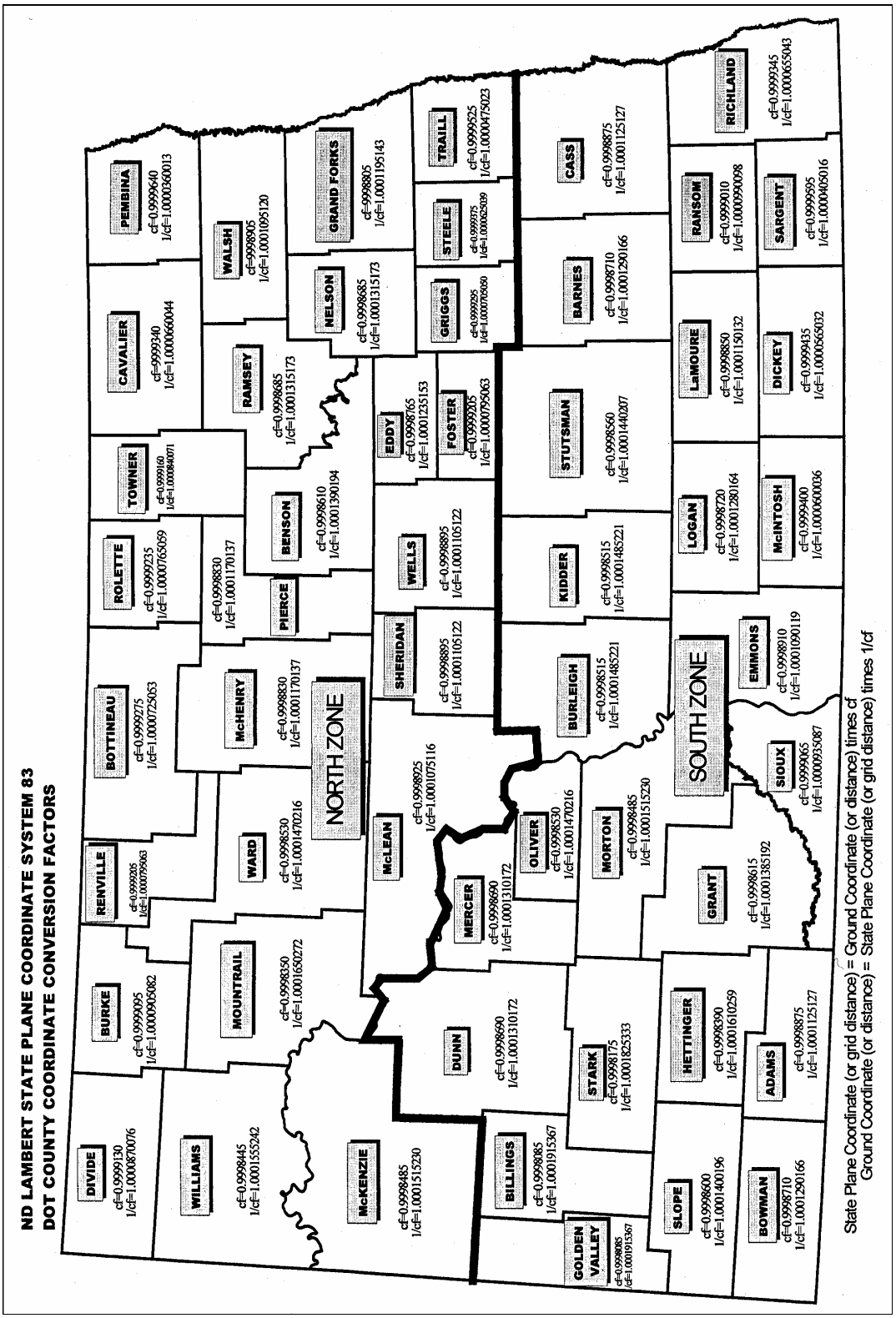
NORTH ZONE

COUNTY	COUNTY COMBINATION FACTOR (cf)	1/cf
Benson	0.9998610	1.0001390194
Bottineau	0.9999275	1.0000725053
Burke	0.9999095	1.0000905082
Cavalier	0.9999340	1.0000660044
Divide	0.9999130	1.0000870076
Eddy	0.9998765	1.0001235153
Foster	0.9999205	1.0000795063
Grand Forks	0.9998805	1.0001195143
Griggs	0.9999295	1.0000705050
McHenry	0.9998830	1.0001170137
McKenzie	0.9998485	1.0001515230
McLean	0.9998925	1.0001075116
Mountrail	0.9998350	1.0001650272
Nelson	0.9998685	1.0001315173
Pembina	0.9999640	1.0000360013
Pierce	0.9998830	1.0001170137
Ramsey	0.9998685	1.0001315173
Renville	0.9999205	1.0000795063
Rolette	0.9999235	1.0000765059
Sheriden	0.9998895	1.0001105122
Steele	0.9999375	1.0000625039
Towner	0.9999160	1.0000840071
Traill	0.9999525	1.0000475023
Walsh	0.9998905	1.0001095120
Ward	0.9998530	1.0001470216
Wells	0.9998895	1.0001105122
Williams	0.9998445	1.0001555242

SOUTH ZONE

COUNTY	COUNTY COMBINATION FACTOR (cf)	1/cf
Adams	0.9998875	1.0001125127
Barnes	0.9998710	1.0001290166
Billings	0.9998085	1.0001915367
Bowman	0.9998710	1.0001290166
Burleigh	0.9998515	1.0001485221
Cass	0.9998875	1.0001125127
Dickey	0.9999435	1.0000565032
Dunn	0.9998690	1.0001310172
Emmons	0.9998910	1.0001090119
Golden Valley	0.9998085	1.0001915367
Grant	0.9998615	1.0001385192
Hettinger	0.9998390	1.0001610259
Kidder	0.9998515	1.0001485221
LaMoure	0.9998850	1.0001150132
Logan	0.9998720	1.0001280164
McIntosh	0.9999400	1.0000600036
Mercer	0.9998690	1.0001310172
Morton	0.9998485	1.0001515230
Oliver	0.9998530	1.0001470216
Ransom	0.9999010	1.0000990098
Richland	0.9999345	1.0000655043
Sargent	0.9999595	1.0000405016
Sioux	0.9999065	1.0000935087
Slope	0.9998600	1.0001400196
Stark	0.9998175	1.0001825333
Stutsman	0.9998560	1.0001440207

DOT COUNTY COORDINATE CONVERSION FACTORS (Map)
ND LAMBERT STATE PLANE COORDINATE SYSTEM 83



FIELD SURVEY CHECKLIST

BOUNDARY

NEEDS	DONE	ITEM	COMMENTS
		ALIGNMENT POINTS SHOT	
		TIES TO ALIGNMENT POINTS	

		SEC CORNERS	
		QTR CORNERS	
		SIDE STREETS	
		PROPERTY CORNERS	
		SIDE ROADS	
		TPI'S & BENCHMARKS	

TOPOG

		BOX CULVERTS - SIZES	
		RAILROAD TIES & <'S	
		MISC. TOPOG	

UTILITY

		SIGNS, SIGN SURVEY	
		CULVERTS	
		TV	
		TELEPHONE, FIBER OPTIC	
		ELECTRICAL	
		GAS	
		SANITARY SEWER PLATS	
		SANITARY FORCE MAIN	
		STORM SEWER PLATS	
		WATER PLATS	

EARTH

		DTM SPOTS	
		BREAK LINES	
		VOID LINES	

BRIDGE SURVEY REPORT

North Dakota Department of Transportation, Bridge
SFN 3853 (Rev. 11-2000)

Bridge No.	
Project No.	

County	Section	Township	Range
Bridge Over	Route (Highway No.)		
Surveyed by	Date		

EXISTING STRUCTURE

Type ☐ Truss ☐ Steel girder ☐ Concrete girder ☐ Slab ☐ Box culvert ☐ Timber girder ☐ Other		
Year Built	Structure Position ☐ Normal ☐ Skew	Size (Span Arrangement And Total Length)
Bridge Deck or Roadway Elevation Begin Br. End Br.		Station Begin Br. End Br.
Low Point in Roadway, If Not at Structure		Elevation of Clearance Line
Culvert's Invert Elevation at inlet at outlet		Waterway Opening Below Clearance Line
Scour Location	Depth	Length / Width

COMMENTS

FIELD SUGGESTIONS FOR OFFICE PLANNING OF NEW STRUCTURE

Provide channel profile 1,000 feet upstream and 1,000 feet downstream. For bridges, provide channel section at upstream and/or downstream edge of bridge. Obtain stream sections preferably 100 feet to 500 feet both upstream and downstream. Select locations that represent typical stream sections.

OTHER STRUCTURES ACROSS SAME STREAM	**NO. 1**	**NO. 2**
Location of structure		
Railroad or highway crossing		
Kind of structure		
Number and length of spans		
Total waterway opening		
Extent of scour at crossing		
Distance from stream bed to clearance line		
Does size of structure appear to be adequate?		
Other Comments		

TRAINING SUBJECT: DATA COLLECTION

HISTORICAL FLOOD DATA

Maximum Known Stage	Date of Maximum Stage	
How Long Was this Stage at or near Maximum?	Location of Maximum Stage ☐ Upstream ☐ Downstream ☐ Unknown	
Head Differential Between Upstream and Downstream Ft. ☐ Unknown	Stage Affected by ☐ Ice ☐ Debris ☐ Dams ☐ Other	
Water Overtop Roadway ☐ Yes ☐ No Comment:	If Yes, Depth and Length of Section Overtopped Depth Length	
Was the above Stage Exceptional or Have Other Stages Been near the Maximum Stage?		
Elevation or Depth of Extreme Low Water	Source of Information	
Where Does Source Live?	How Long?	Did Source Personally Observe Maximum Stage? ☐ Yes ☐ No
Other Comments		

HISTORICAL FLOOD DATA

Maximum Known Stage	Date of Maximum Stage	
How Long Was this Stage at or near Maximum?	Location of Maximum Stage ☐ Upstream ☐ Downstream ☐ Unknown	
Head Differential Between Upstream and Downstream Ft. ☐ Unknown	Stage Affected By ☐ Ice ☐ Debris ☐ Dams ☐ Other	
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Was the above Stage Exceptional or Have Other Stages Been near the Maximum Stage?		
Elevation or Depth of Extreme Low Water	Source of Information	
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Other Comments		

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Elevation or Depth of Extreme Low Water	Source of Information	
Where Does Source Live?	How Long?	Did Source Personally Observe Maximum Stage? ☐ Yes ☐ No
Other Comments		

Railroad Crossing Review

Project No.:_____Date:_____Recorded By: _____.

Type of Crossing Surface in Place:_____.
(plank, full depth timber, asphalt, rubber, concrete)

Condition: _____ .

Number of Tracks: _____.

Crossing Angle: _____.

Width of Roadway (present): _____.

Width of Shoulders (present): _____.

Length of Crossing Surface (present):_____.
(measured along track centerline)

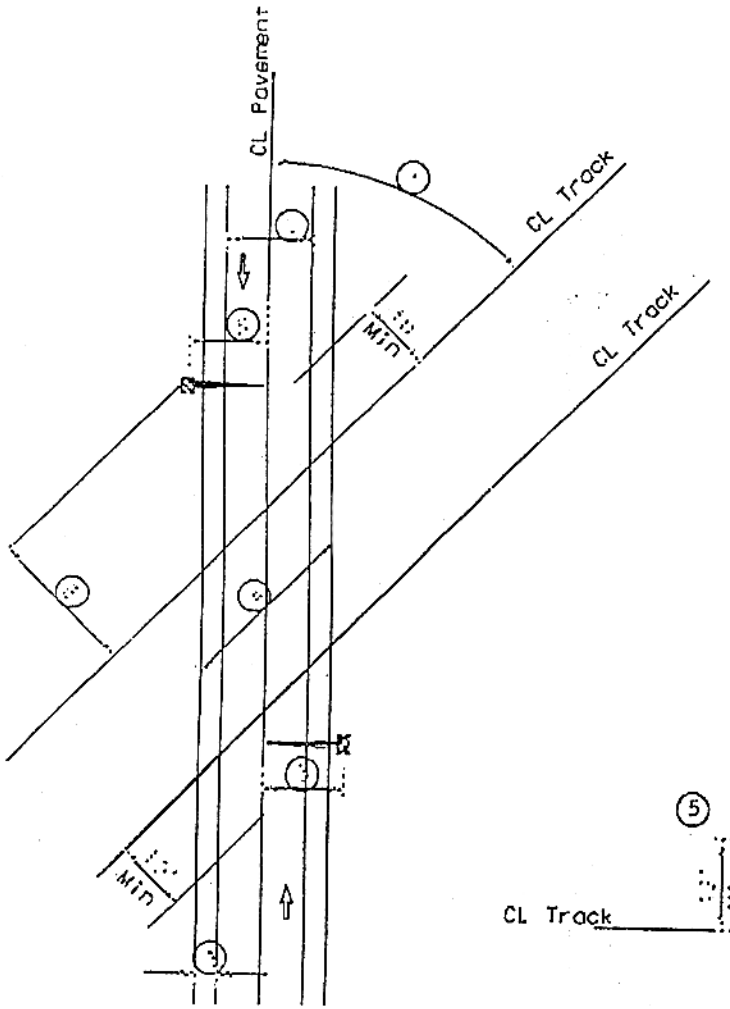
Location of Signal Foundations:_____.
(measured center roadway to center of signal base and center of track to center of signal base)

Location of Controller Cabinet (Bungalow):_____.
(measured to closest edges from track and edge of roadway)

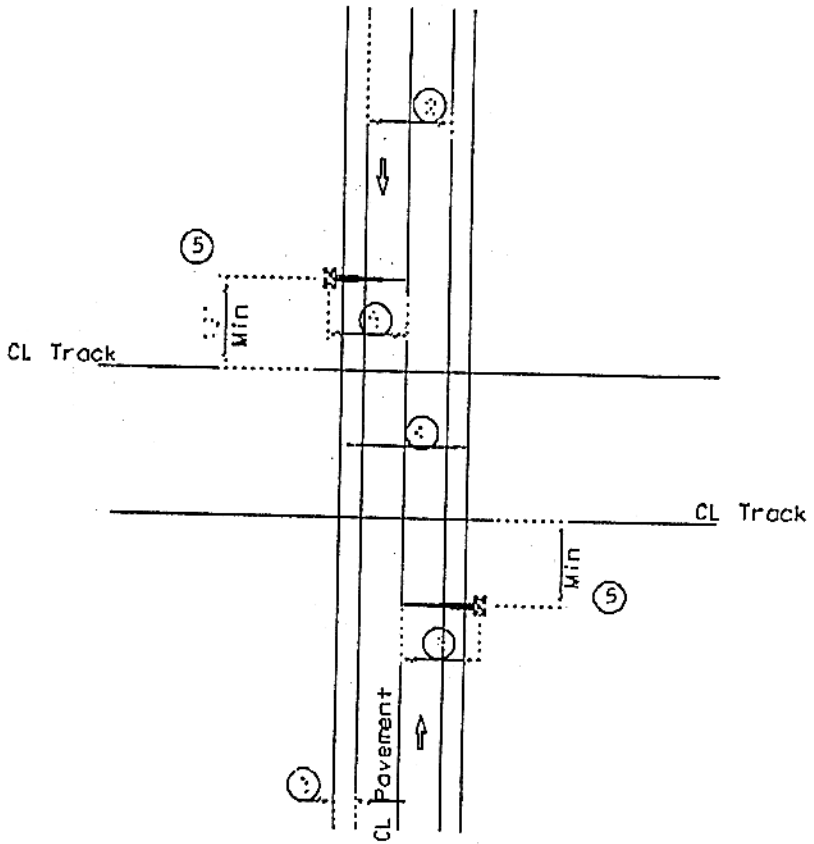
Other comments:_____

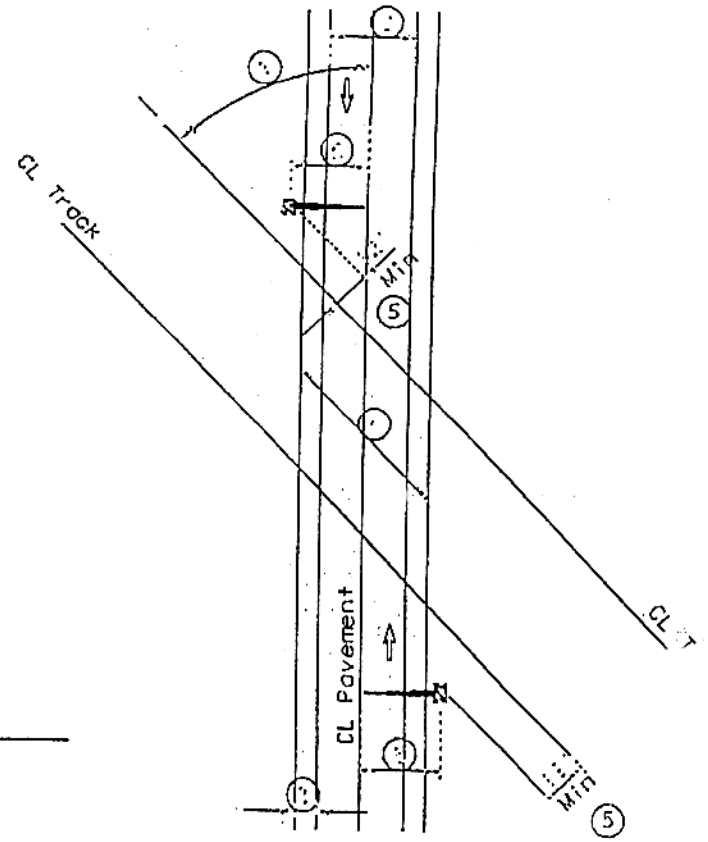
_____

_____.



OBTUSE ANGLE





ACUTE ANGLE

PHOTOGRAMMETRIC CONTROL - GPS

North Dakota Department of Transportation, Design Division

SFN 9995 (Rev. 08-2003)

Project Number	Date	Page
( )	/ /	Of

Project Description
GPS Operator

RECEIVER NO. (check one)		OCCUPIED POINT	
4000		Controller	Julian Day-Session No. —
4800		Description	
5700			
Point Code			

Controller Job Name

☐ STATIC NETWORK POINT

☐ OPUS SOLUTION

ANTENNA			
COMPACT L1/L2 w G/P		BOTTOM OF ANT. MOUNT (FIXED HEIGHT)	
4800			
ZEPHYR GEOD.			
HEIGHT Begin: ____ Ft. ____ M. End: ____ Ft. ____ M.		BOTTOM OF NOTCH ON G/P	
		HOOK USING 4800 TAPE	

TIME OF OBSERVATION
Start:
Stop:

NOTE: USE BACK SIDE OF PREVIOUS SHEET FOR SKETCH AND NOTES OF THE OCCUPIED POINT.

CHECK IF RECEIVER HAS THE PROPER ANTENNA TYPE ENTERED.

PHOTOGRAMMETRIC CONTROL - GPS

North Dakota Department of Transportation, Design Division

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( )	/ /	Of

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		HOOK USING 4800 TAPE	

TIME OF OBSERVATION
Start:
Stop:

NOTE: USE BACK SIDE OF PREVIOUS SHEET FOR SKETCH AND NOTES OF THE OCCUPIED POINT.

CHECK IF RECEIVER HAS THE PROPER ANTENNA TYPE ENTERED.

NATIONAL GEODETIC SURVEY, NOAA - "MARK RECOVERY" ENTRY FORM

This form can be used to submit recoveries of survey marks to the National Geodetic Survey. If the data sheet for this mark shows a recovery within the past year and the status has not changed, please do not report it.

ENTER PID: _____ **STAMPED:** _____

Select condition of the mark:

- ○ Good
- ○ Not recovered, not found
- ○ Poor, disturbed, mutilated, requires maintenance

For destroyed marks do one of the following:

1. If you found the actual marker separated from its setting, you may report the point as destroyed.
   To do so please send the report on the destroyed mark as an email to Deb Brown (Deb.Brown@noaa.gov); if you send this email, please do not submit the current form; instead Deb will submit the report for you.
   In addition, please submit proof of the mark's destruction via actual disk, rubbing, photo or digital picture (preferred) to Deb Brown.

   Deb Brown's mailing address is: Deb Brown, N/NGS143
   National Geodetic Survey, NOAA
   1315 East West Highway, #8400
   Silver Springs, MD 20910
2. If you did not find the actual marker, then you should enter notes concerning evidence of its possible destruction as text records and select "Not recovered, not found" as the condition of mark.

ENTER AGENCY CODE OF THE RECOVERING ORGANIZATION/AGENCY: **NDDT**

ENTER INITIALS OF THE PERSON WHO RECOVERED THE MARK : _____

The date of recovery must be expressed as a numerical month (between 1 and 12), a numerical day of the month, and a four character numerical year. The month, day, and year may be separated by spaces or by commas.

Valid examples are: 4,25,2001 for April 25, 2001
4 25 2001 for April 25, 2001

ENTER DATE OF RECOVERY: _____

Enter your name and email address.

ENTER NAME: DeLane R. Meier ***ENTER EMAIL ADDRESS:*** dmeier@state.nd.us

You may enter up to 5 lines of text. Only the following characters are allowed: letters, numbers, blank/space[ ], comma[,], period/decimal[.], apostrophe/single quote['], asterisk[*], plus sign[+], minus sign/hyphen[-], equal sign[=], slash[/], left parenthesis[( ], and right parenthesis[ )].

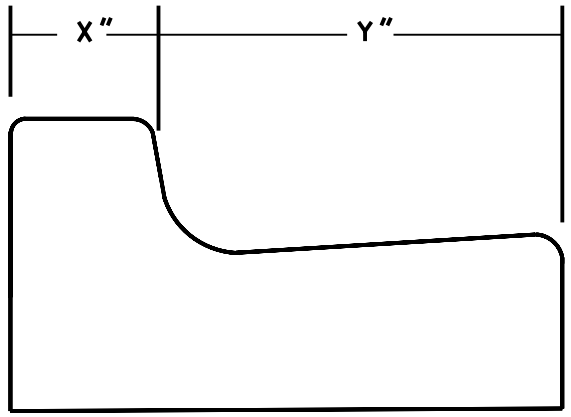
CHANGED DESCRIPTION:

IS THIS STATION SUITABLE FOR SATELLITE OBSERVATIONS?

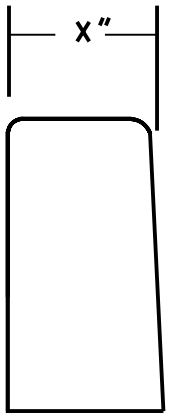
○ Yes ○ No ○ Don't know

The Field Crew needs to collect the following information for curb and gutter on ALL city projects.

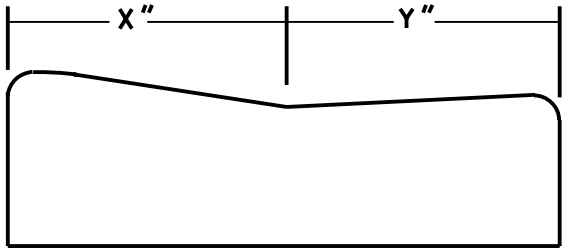
Type, Size of gutter and Size of curb.



Curb & Gutter (C&G)



Curb



Mountable(Mnt)
or
Valley Gutter (VG)