

Standard Topo Language for Street/Sidewalk Projects, Sewer Rehab, WQF Sites & ADA Ramps

Detail Levels

	Street/Sidewalk Detail	Sewer Detail	Limited Detail
Highlight Color:	Green (on pages 3-6)	Pink (on pages 3-6)	Yellow (on pages 3-6)
Street/Sidewalk Features	All Features		Gutter/EOP (Do not collect Curb unless collecting behind Gutter)
Planter Strips, Behind Sidewalk & Private Property Features	Collect basic topography information, "hard" features (e.g. walls, fences, pavement), <i>significant</i> vegetation or breaklines, and buildings/structures.		Buildings, Large Walls & Pavement for location only
Cross Sectioning	Center, Quarter & Gutter/EOP (Typical) 25' & Visible Grade breaks	Center & Gutter/EOP Only 50' & Visible Grade breaks	Curb Returns, Mid-Block, Major Grade Breaks; Typically beginning, middle & end.
Driveways	Details: 8 Shots <i>Extend any curb/sidewalk topo 10' past any driveway.</i> Annotate Historical (curvy) Driveway with "HIST"	Location Only: 6 Shots	Location Only: 6 Shots
PBOT Driveway Connections	Collect Connection behind Walk: <ul style="list-style-type: none"> • Minimum additional 10' if Slope is <5% • Minimum additional 20' if Slope is between 5% and 10% • To Garage if Slope is ≥10% • (Collect Hard Features within minimum of 5' either side of DWY Connection) 	N/A	N/A
ADA Ramps	Details: 10 Shots Assess adjacent (not included in scope) for additional work - add to project if failed.	Location Only: 6 Shots	Location Only: 6 Shots
PBOT - ADA Corner Scans	Include Scan Data for all corners (pass or fail) <i>Until we have the Scanning Software fully operational and the various personnel trained: Collect a break line at 8' from gutter.</i>		Scan if already scanning in intersection (pass or fail)
Utilities	Always (locate marks, poles and surface features), Including adjacent full ROW (for limited width projects) Collect all crossing overhead lines on all projects except paving projects.		
Striping	Always, Including adjacent full street (for limited width projects) For PBOT Projects only - Extend an additional 100' past project extents & an additional 50' past PC/PT at cross streets (if no fog line - extend gutter/EOP for horizontal location only)		
Trees	Always collect trees DBH ≥3" within project boundary & an additional 15' buffer around all topo limits for in street projects. Always collect trees DBH ≥6" within project boundary & an additional 15' buffer around all topo limits for projects on private property. Tag trees when needed to clarify correlation between plotted trees and point numbers.		
	For Pink & Yellow Areas: Do not collect tree wells.		

**Standard Topo Language for Street/Sidewalk Projects, Sewer Rehab, WQF Sites & ADA Ramps
Project Categories**

	Full Detail Scope (Pink/Green)	Limited Detail Scope (Yellow)	MH Details	ROW Resolution ¹
ADA Corner Improvements²	8' into street x 10' behind walk. Extend 25' past PC/PT or a minimum of 50' centered on crossing. Collect Full Street width for RRFB projects.	Remainder of intersection/crossing area & and gutter to gutter an <i>additional</i> 25' past PC/PT around all corners.	Storm & Combination Only - connected to existing inlets.	If no existing walk, or existing back of walk is <2' from ROW Line
WQF Installation²	Same as ADA corner, extend a minimum of 50' from inlet or as noted on exhibit map. Include <i>all</i> trees.	Remainder of intersection/crossing area & and gutter to gutter an <i>additional</i> 25' past PC/PT around all corners.	Storm & Combination Only - connected to existing inlets.	If no existing walk, or existing back of walk is <2' from ROW Line
Sidewalk (Infill) Improvements	8' into street x 10' behind ROW. Extend 25' past project/sidewalk ends or collect adjacent ADA corners as above.	Full Road Width (Gutter to Gutter or EOP to EOP) for an <i>additional</i> 25' past project/sidewalk ends.	Storm & Combination Only - connected to existing inlets.	If no existing walk, or existing back of walk is <2' from ROW Line
Full Intersection Improvements²	Full Intersection to 10' behind sidewalk including a minimum of 50' past PC/PT in all directions <i>* For signals only projects, collect only 25' past PC/PT and always resolve ROW.</i>	Extend an <i>additional</i> 50' in all directions.	Storm & Combination Only	If no existing walk, or existing back of walk is <2' from ROW Line
Grind and Resurface	--	Full Road Width (Gutter to Gutter or EOP to EOP); Extend 25' past project ends and 25' past PC/PT at cross streets	None (Collect MH's on center of lid)	No
Pavement Reconstruction	Full Road Width (Curb to Curb or 5' past EOP to 5' past EOP); Extend 25' past project ends and 25' past PC/PT at cross streets	Extend and additional 25' at project ends and cross streets	None (Collect MH's on center of lid)	No
New Street/Full Corridor Work	Full [proposed] ROW Width and an additional minimum of 10' behind [proposed] ROW; Extend 50' past project ends and 25' past PC/PT at cross streets	Extend and additional 50' past project ends and additional 25' at cross streets	All MH's	Always
Sewer Extensions³	Full length of proposed pipe including 25' past the last target property; extend to ROW line at target properties. Include FFE's at target properties.	--	Connection Point, or up and down stream of connection point if no MH present, Collect C/L Lid as well when MH is in legal Crosswalk.	If proposed S/L is within 10' of ROW or on private property
Full Sewer Topo³	Full length of identified pipe and 25' past each MH.	--	Target MH's Only, Collect C/L Lid as well when MH is in legal Crosswalk.	If S/L is within 10' of ROW or on private property
Limited Sewer Topo³	50' x 50' box around each MH on identified Run	Remainder of pipe run.	Target MH's Only, Collect C/L Lid as well when MH is in legal Crosswalk.	If S/L is within 10' of ROW or on private property

¹ Always resolve ROW on ODOT/Federally Funded/FHWA projects or if directed by survey request. (See Decision Tree on pg 8)

² For PBOT ADA, WQF & Intersection Improvement projects, extend to a minimum of 100' past PC/PT for locations with an existing Bus Stop (include "Far Side"). (See Decision Tree on Pg 9)

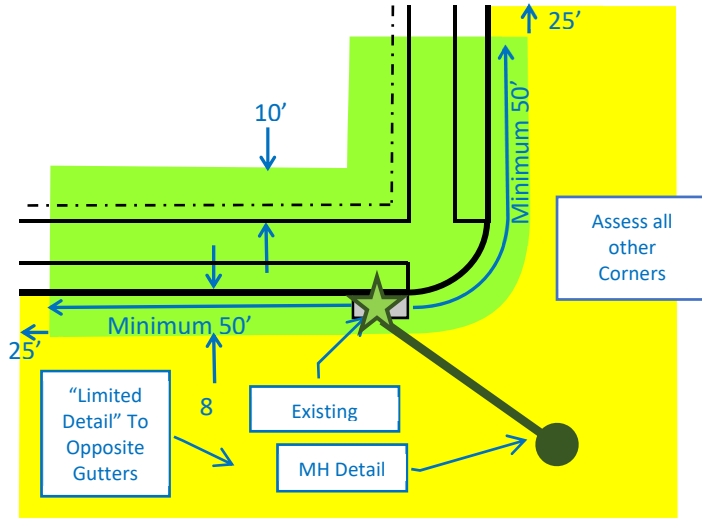
³ For BES Pipe work, carefully assess attached exhibits for collection scope based on pipe alignment location. (See exhibits on pgs. 5 & 6)

Standard Topo Language for Street/Sidewalk Projects, Sewer Rehab, WQF Sites & ADA Ramps
Project Type Exhibits

WQF Site:

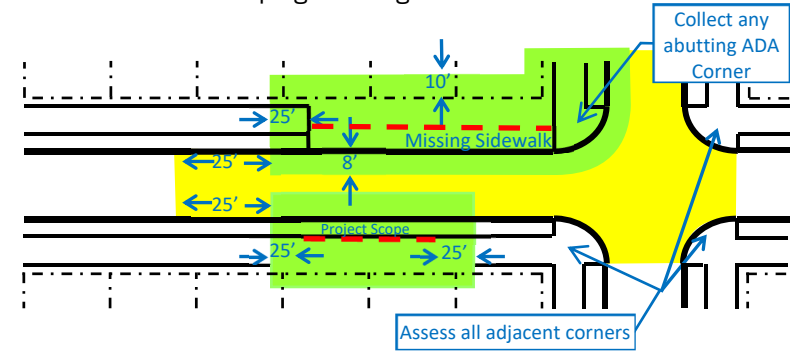
Corner Detail Topo: (green)

- Collect a minimum of 50' in both directions from inlet at corner.
- Extend Limited Detail topo gutter to gutter an *additional 25'*



Sidewalk (Infill) Improvements

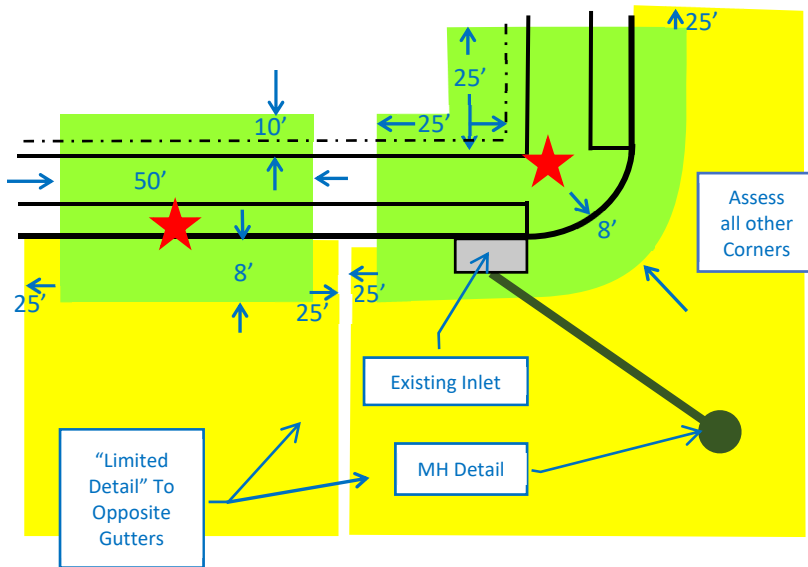
- For both Sidewalk Infill and Sidewalk Repair Projects collect to 25' either side of request area. Add missing sidewalk sections as found.
- Collect any abutting ADA Corners, assess and *add* others
- Extend Limited Detail topo gutter to gutter an *additional 25'*.



ADA Detail:

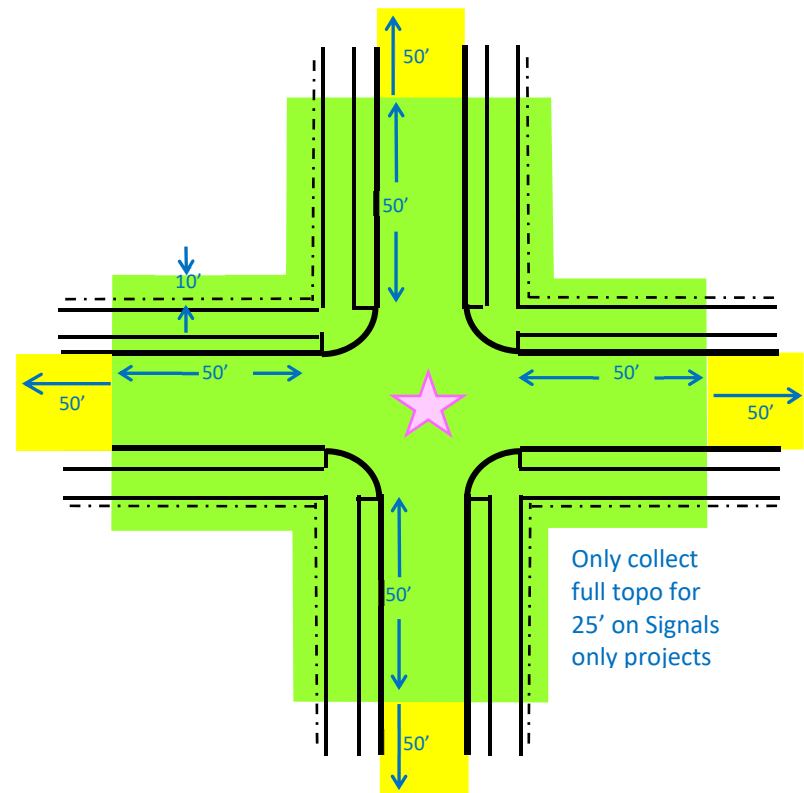
Corner Detail Topo: (green)

- Collect to 25' past the greater of the PC/PT or legal crossing.
- When it is not at a corner, 25' either side of the existing crossing
- Extend Limited Detail topo gutter to gutter an *additional 25'*



Full Intersection Improvements

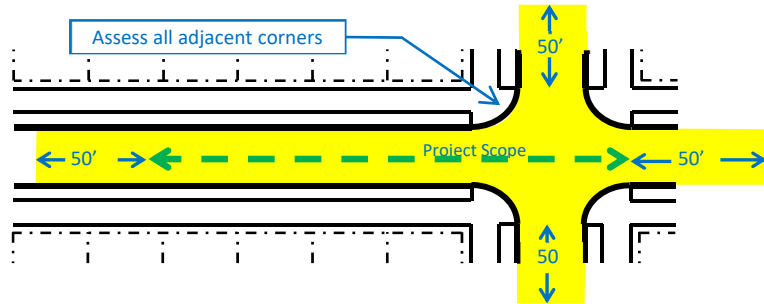
- Extend limited Detail topo gutter to gutter an *additional 50'*.



Standard Topo Language for Street/Sidewalk Projects, Sewer Rehab, WQF Sites & ADA Ramps
Project Type Exhibits

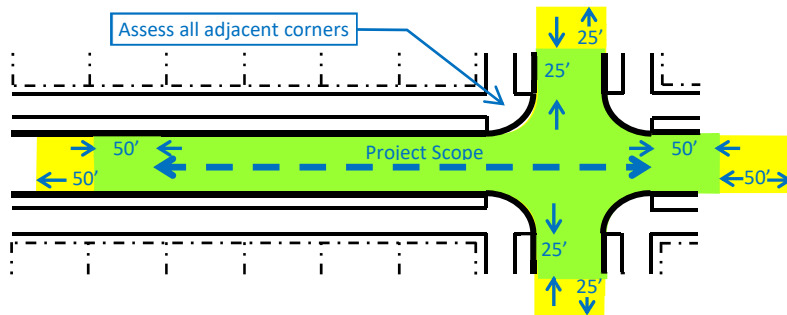
Grind & Resurface

- Extend topo 50' past project ends, and 50' at cross streets.
- Assess and add all failed ADA Corners.



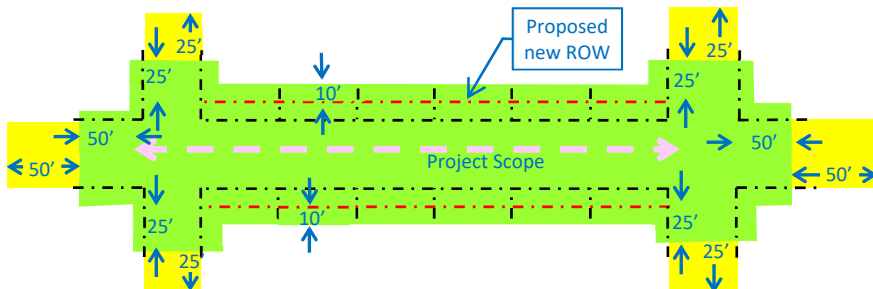
Pavement Restoration

- Extend topo 50' past project ends, and 25' at cross streets.
- Extend low detail topo gutter to gutter an *additional* 50' past project ends, and 25' at cross streets.
- Assess and add all failed ADA Corners.



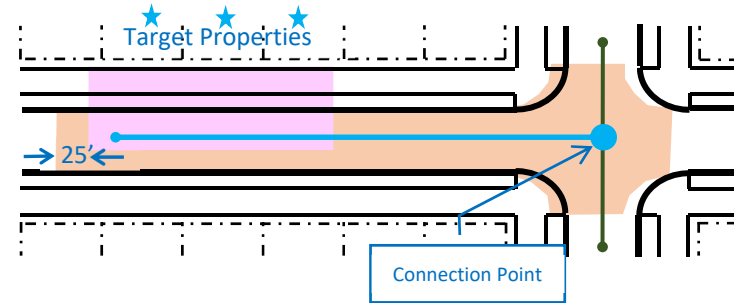
New Street/Full Corridor Work

- Extend topo 50' past project ends, and 25' at cross streets.
- Extend low detail topo an *additional* 50' past project ends, and 25' at cross streets.



Sewer Extension Topo

***Use this mainly for all NCS, SSE or other new sewer lines.**



Orange:

- Collect per appropriate "Full Sewer Topo" method.
- Extend Collect 25' past last target property.

Full Topo: (pink)

- Extend Collect from sewer line to existing ROW line at all target properties.
- Collect FFE's at target properties

MH Details

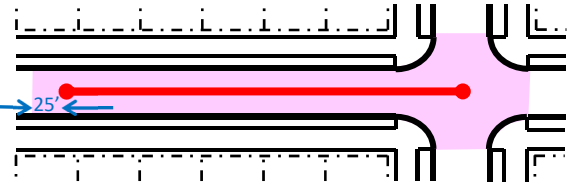
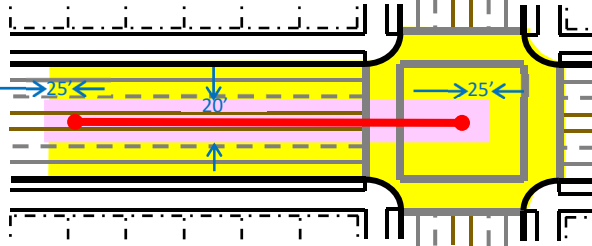
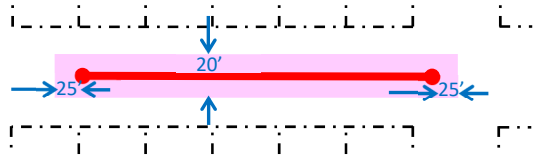
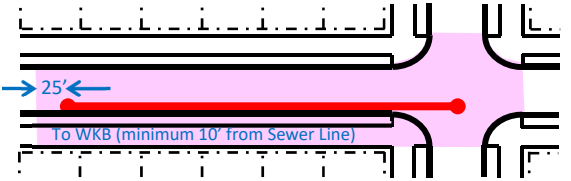
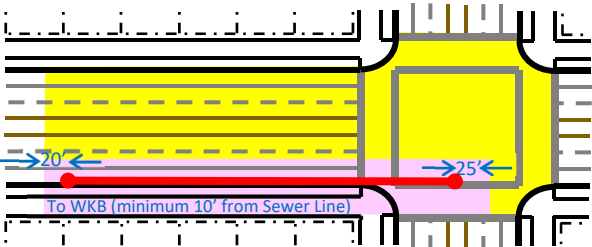
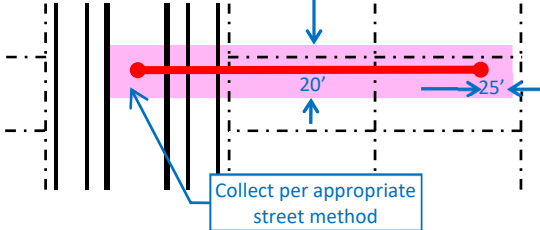
- At Connection Point.
- If no MH at connection point, both up and down stream MH

A Few Bonus Pointers:

- Shoot C/L Structure *and* C/L Lid on any MH located on or near a legal crosswalk or curb.
- Shoot sidewalk cross sections on the "far side" of existing scoring marks or joints for better match lines.
- Collect concrete streets on expansion joints.
- Always extend topo to 10' beyond driveway for non-Pipe work collects.
- Extend sidewalk (ADA or WQF) facility topo if repairs are needed along curb or sidewalk.
- Rule of Thumb: A feature only needs collected if it cannot be taken out by hand.
- Use EL & BL codes with a note for unusual items without a defined code.

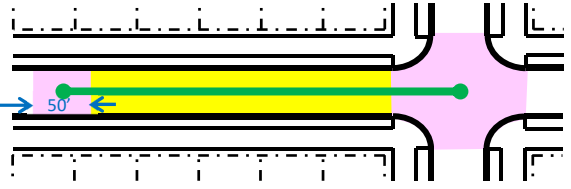
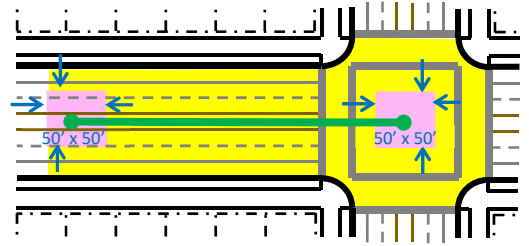
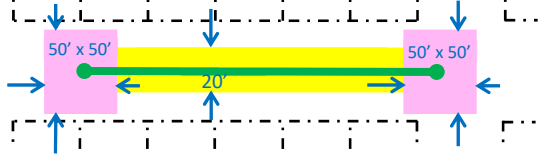
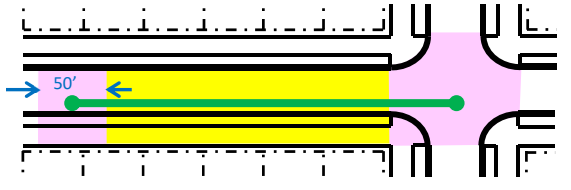
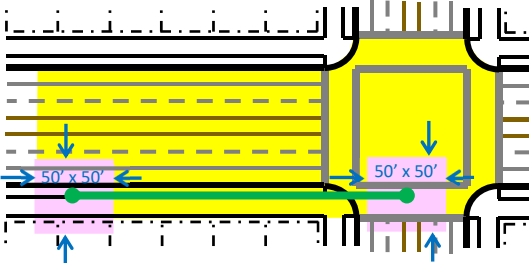
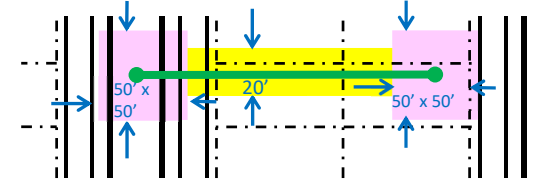
Standard Topo Language for Street/Sidewalk Projects, Sewer Rehab, WQF Sites & ADA Ramps
Full Sewer Topo

***Use this mainly for Open Cut, Spot Repair and CIPP w/ Spot Repair Sites**

<p>Residential Street Sewer Line On Center <i>Collect Method 1a</i></p>  <p>Sewer Detail Topo: (pink)</p> <ul style="list-style-type: none"> Gutter to Gutter or Edge of Pavement to Edge of Pavement. (Do not collect curb) Extend a minimum of 25' past any MH or the entire intersection. 	<p>Busy Street Sewer Line On Center <i>Collect Method 1c</i></p>  <p>Full Topo: (pink)</p> <ul style="list-style-type: none"> 10' both sides of existing Sewer Line. Extend to 25' past existing MH's <p>Limited Topo: (yellow)</p> <ul style="list-style-type: none"> Gutter to Gutter or Edge of Pavement to Edge of Pavement. (Do not collect curb) Extend a minimum of 25' past any MH or the entire intersection. 	<p>Unimproved ROW <i>Collect Method 1e</i></p>  <p>Full Topo: (pink)</p> <ul style="list-style-type: none"> 10' both sides of existing Sewer Line. Extend to 25' past existing MH's
<p>Residential Street Sewer Line < 10' from Curb <i>Collect Method 1b</i></p>  <p>Full Topo: (pink)</p> <ul style="list-style-type: none"> Gutter/Edge of pavement to adjacent back of walk. Minimum of 10' from existing Sewer Line Extend a minimum of 25' past any MH or the entire intersection. <p><i>May Trigger Additional ADA improvements.</i></p>	<p>Busy Street Sewer Line < 10' from Curb <i>Collect Method 1d</i></p>  <p>Full Topo: (pink)</p> <ul style="list-style-type: none"> 10' both sides of existing Sewer Line or to adjacent back of walk whichever is farther. Extend to 25' past existing MH's <p>Limited Topo: (yellow)</p> <ul style="list-style-type: none"> To opposite Gutter or EOP Extend a minimum of 25' past any MH or the entire intersection. <p><i>May Trigger Additional ADA improvements.</i></p>	<p>Private Property / Park / Easements <i>Collect Method 1f</i></p>  <p>Full Topo: (pink)</p> <ul style="list-style-type: none"> 10' both sides of existing Sewer Line. Extend to 25' past existing MH's

Standard Topo Language for Street/Sidewalk Projects, Sewer Rehab, WQF Sites & ADA Ramps
Limited Sewer Topo

***Use this mainly for all CIPP/Lining, Pipe Burst and Tunnel Sites**

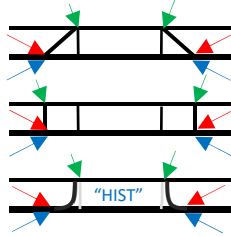
<p>Residential Street Sewer Line On Center <i>Collect Method 2a</i></p>  <p>Full Topo: (pink)</p> <ul style="list-style-type: none"> • Around both MH's: <ul style="list-style-type: none"> • Gutter to Gutter or Edge of Pavement to Edge of Pavement. (Do not collect curb) • Minimum 50' Square around MH or whole intersection. <p>Limited Topo: (yellow)</p> <ul style="list-style-type: none"> • Gutter to Gutter or Edge of Pavement to Edge of Pavement. (Do not collect curb) 	<p>Busy Street Sewer Line On Center <i>Collect Method 2c</i></p>  <p>Full Topo: (pink)</p> <ul style="list-style-type: none"> • 50' Square around both MH's <p>Limited Topo: (yellow)</p> <ul style="list-style-type: none"> • Gutter to Gutter or Edge of Pavement to Edge of Pavement. (Do not collect curb) 	<p>Unimproved ROW <i>Collect Method 2e</i></p>  <p>Full Topo: (pink)</p> <ul style="list-style-type: none"> • 50' Square around both MH's <p>Limited Topo: (yellow)</p> <ul style="list-style-type: none"> • 10' both sides of existing sewer line
<p>Residential Street Sewer Line < 10' from Curb <i>Collect Method 2b</i></p>  <p>Full Topo: (pink)</p> <ul style="list-style-type: none"> • Around both MH's: <ul style="list-style-type: none"> • Gutter to Adjacent Back of Walk • Minimum 50' Square around MH or Whole intersection. <p>Limited Topo: (yellow)</p> <ul style="list-style-type: none"> • Gutter/Edge of pavement to adjacent back of walk. • Minimum of 10' from existing Sewer Line 	<p>Busy Street Sewer Line < 10' from Curb <i>Collect Method 2d</i></p>  <p>Full Topo: (pink)</p> <ul style="list-style-type: none"> • 50' Square around both MH's <p>Limited Topo: (yellow)</p> <ul style="list-style-type: none"> • Gutter/Edge of pavement to adjacent back of walk. • Minimum of 10' from existing Sewer Line 	<p>Private Property / Park / Easements <i>Collect Method 2f</i></p>  <p>Full Topo: (pink)</p> <ul style="list-style-type: none"> • 50' Square around both MH's <p>Limited Topo: (yellow)</p> <ul style="list-style-type: none"> • 10' either side of existing sewer line

Driveways & Curb Ramps

Location vs Detail

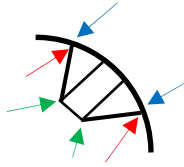
D/W Location: (Pink & Yellow Areas)

- 6 Shots only!!!
 - GUT [PER X-SECTIONING]
 - CRB DWY B
 - DWY [WKB/F]
 - DWY [WKB/F]
 - CRB B DWY
 - GUT [PER X-SECTIONING]



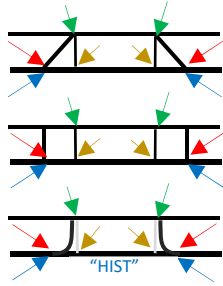
ADA Ramp Location: (Pink & Yellow Areas)

- 6 Shots only!!!
 - GUT
 - CRB CR B
 - CR
 - CR
 - CRB CR
 - GUT



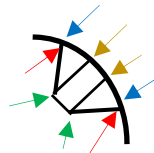
D/W Detail: (Green Areas)

- 8 Shots only!!!
 - GUT [PER X-SECTIONING]
 - CRB DWY B
 - DWY DWY1 B [WKB/F]
 - DWY1 CRB
 - DWY1 B CRB
 - DWY DWY1 [WKB/F B]
 - CRB DWY
 - GUT [PER X-SECTIONING]



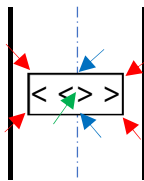
For ADA Ramp Detail: (Green Areas)

- 10 Shots only!!!
 - GUT
 - CRB CR B
 - CR CR1 B
 - CR1 CRB
 - GUT
 - GUT
 - CR1 B CRB
 - CR CR1
 - CRB CR
 - GUT



For Speed Humps:

- 7 Shots only in Green & Pink Areas
 - BL HUMP B
 - HUMP
 - HUMP
 - HUMP BL B
 - HUMP
 - HUMP C
 - SHMP
- 1 Shot only in Yellow Areas
 - SHMP



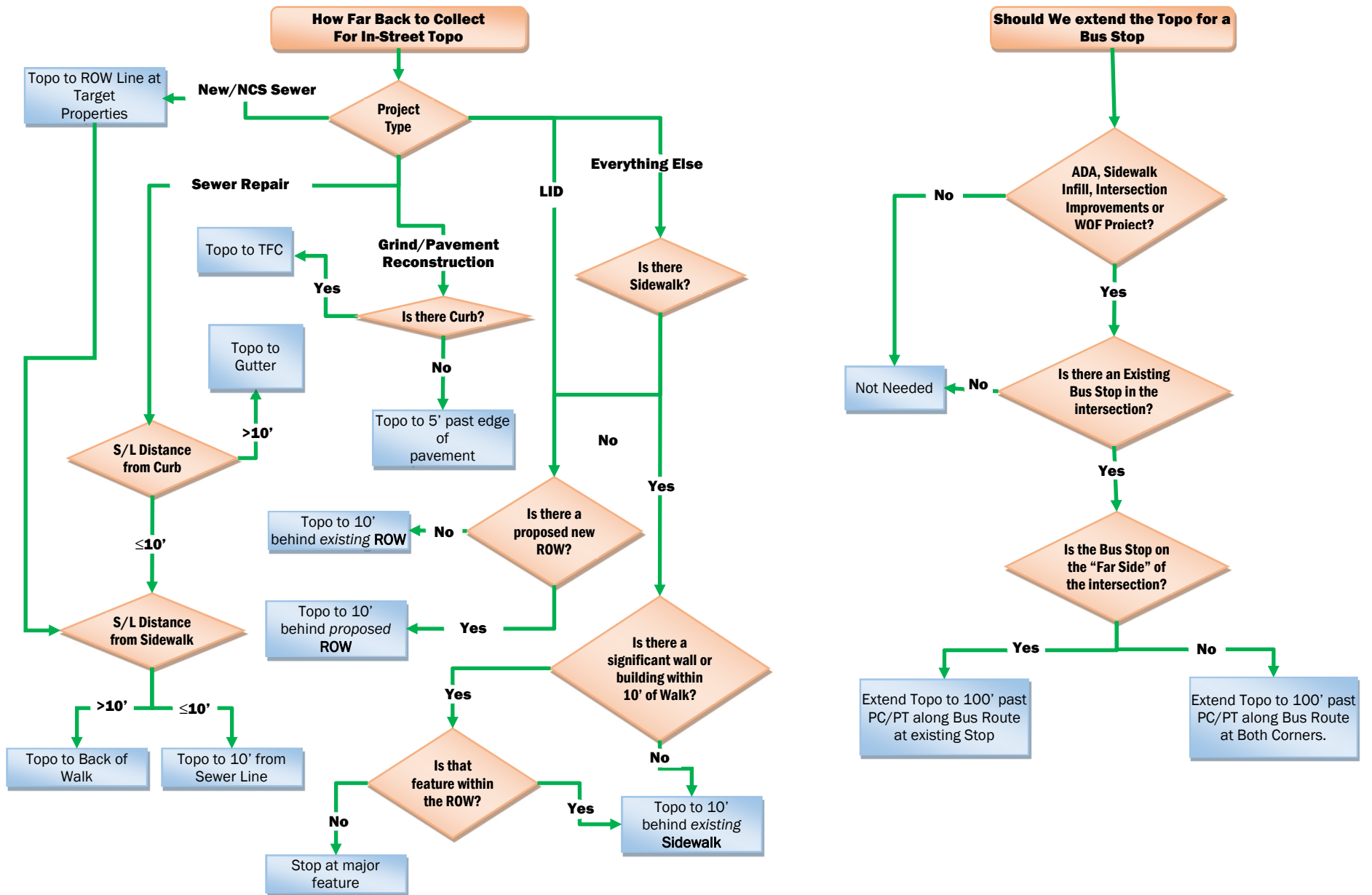
Standard Exhibit Legend

Standard Items	
	ADA Corner Improvements (Show at Corner)
	WQF Installation (Show at Corner or Inlet)
	Sidewalk (Infill) Improvements (Show along full project extent per side of street) <i>Specify Infill v Sidewalk Repair</i>
	Full Intersection Improvements (Show at C/L of Intersection)
	Grind and Resurface (Show along street C/L)
	Pavement Reconstruction (Show along street C/L)
	New Street/Full Corridor Work (Show along street C/L, Indicate Proposed ROW)
	Full Sewer Topo (Show on Pipe)
	Limited Sewer Topo (Show on Pipe)
	Sewer Extensions (Show Proposed Pipe & Connection Point and NCS Target Properties on Exhibit)

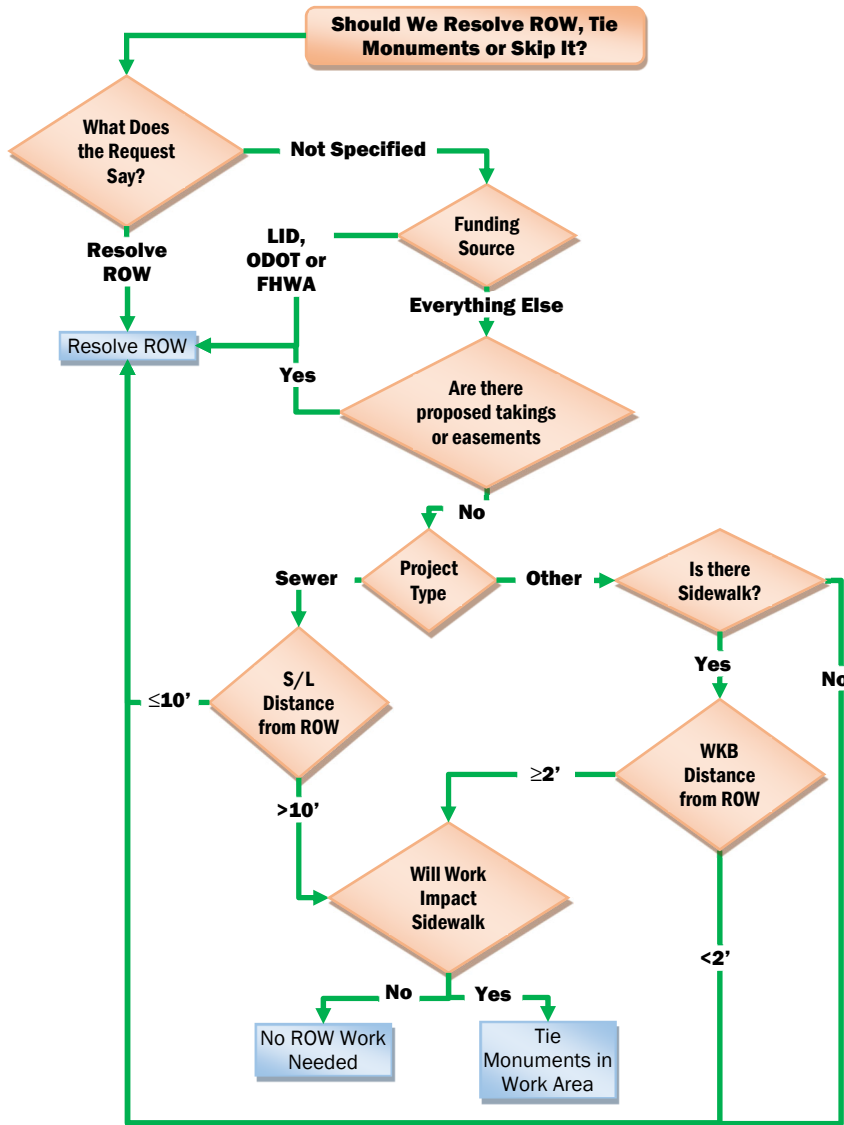
Non-Standard Items	
	Topo Area - Street / Sidewalk Detail (Green)
	Topo Area - Sewer Detail (Pink)
	Topo Area - Limited Detail (Yellow)
	Topo Area - Detail as Specified

- Clearly annotate exceptions to standard items on exhibit map(s).
- For Non-Standard Items, draw a precise shape over collect area, including dimensions.

**Standard Topo Language for Street/Sidewalk Projects, Sewer Rehab, WQF Sites & ADA Ramps
Decision Trees**

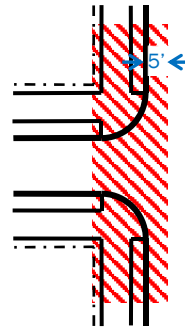
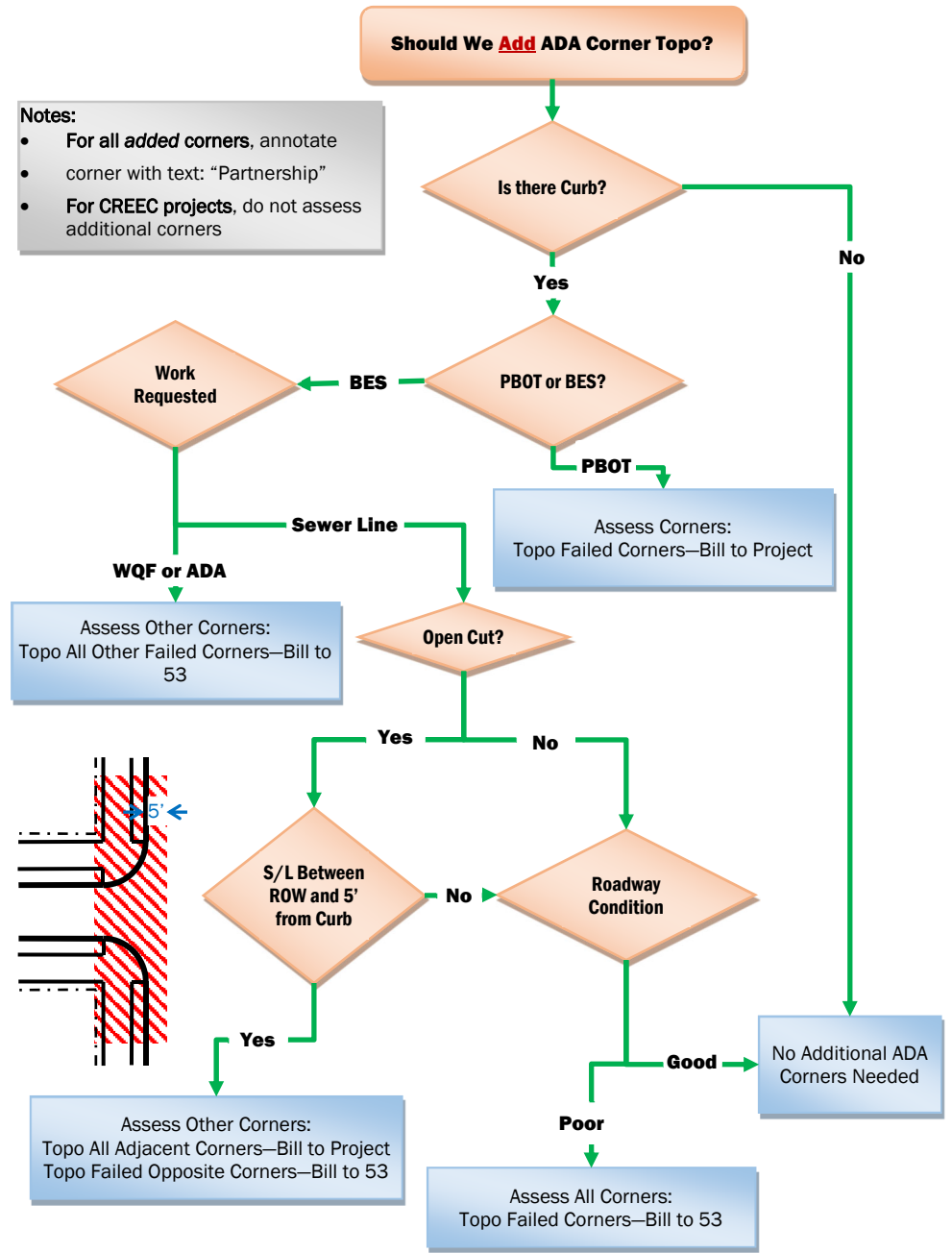


Standard Topo Language for Street/Sidewalk Projects, Sewer Rehab, WQF Sites & ADA Ramps
Decision Trees



Additional Considerations:

- **ADA Corner & WQF Only Topo's:** We do not need to resolve ROW when there is a 0 offset building present
- **CREEC Projects:** If ROW resolution is required, approximate property/ROW lines can be established by utilizing existing GIS data.



Addenda & Clarifications

Trees & Shrubs

July 2019



CREEC ADA Low Detail Topo

November 2019

- Trees smaller than the standards set on Page 1 should be collected as Shrubs and excluded from the tree spreadsheet.
- Large Vegetation should be included in topography if it is of high monetary value (e.g. established rose bushes, Japanese Maples, etc.) or could pose a constraint on design or require additional work for removal (e.g. hedges, large laurel or juniper bushes, significant blackberries, etc.).
- Other vegetation, such as flowers and small bushes, can be safely ignored.

Note to Designers: Only use this topo method when a CREEC squad designer has visited the site in person and determined that this level of detail will be sufficient. Otherwise use the Red Star ADA Corner Topo Method.

ADA Corner Shortcut

May 2019

~~If the following conditions have been met:~~

- ~~• We have assessed the ADA Corner and completed the Assessment form.~~
- ~~• The corner fails by more than 1/2% on any critical point.~~
- ~~• It's a relatively normal corner and is not an extended curb or have an associated inflow facility.~~

~~Then we can shortcut the data collect at the actual corner:~~

- ~~• Collect the curb up to the ADA corner (usually the PC) and stop until you are leaving the corner (usually the PT), i.e. gap = 0.~~
- ~~• Collect the gutter and "8' out shots" on actual grade breaks and 1/4 deltas rather than follow the curb ramp.~~
- ~~• Do not collect the ramp points.~~
- ~~• Continue to collect the sidewalk, match points, and utility or other features as usual. (Removed December 2019)~~

FFE w/ True Basement Elevation

November 2019

- If you are able to collect the FFE at the true basement elevation for whatever reason, please do so.
- Code that shot as an FFEB.
- On the note, before you enter the address, add the note "Shot at Basement" (yes, actually spell that out, we want this note to stand out).

- CREEC ADA Low Detail Topo will be marked with a Yellow Star.
- Only collect "hard" features: Curb/Gutter, Front/Back of Walk, AC shots, Trees, Walls and Concrete connections within the same scope as the Green area on a normal ADA Corner Topo.
- Utilities:
 - **Do not** request utility locates. Collect them if present, but we will not request utility locates.
 - **Do** collect utility surface features (Valves, Poles, MH Lids, etc.) in the collect area.
- Do not extend topo to the remainder of the intersection.
- Resolve ROW per normal CREEC/ADA Corner Topo rules.
- Assumed coordinates and elevations are sufficient. If it's easy to use real values, go ahead, but do not spend more than 1/2 hour on control.

CREEC Project Special Considerations

December 2019

For CREEC Related ADA corner projects only – both Red & Yellow Star Requests – please modify the standards as follows unless explicitly directed:

- Do not assess or add any receiving ramps.
- Do not do additional topo for bus stops.
- If ROW resolution is required, *approximate* property/ROW lines can be established by utilizing existing GIS data.
- Set RP Nails at the PC & PT at 10' from curb and data collect as "RP". (i.e. pre-stake it)