



Forced Betterment Guideline

Forced Betterment incorporated into utility work requires advanced approval from the Austin District. The following guideline should be used when preparing a Forced Betterment approval request to the Austin District. Please review each of the following processes thoroughly before proceeding to minimize rejections and frustration by the project team and the utility owner representatives.

The following SOP has been broken down into the following processes:

1. Identify the need to supply forced betterment documentation.
2. Completing Forced Betterment Approval Form
3. Assembling the forced betterment package
4. Examples of forced betterment submissions from past agreements

Process #1 – Identify the need for forced betterment.

What is forced betterment?

- a. Forced betterment is an upgrade in the utility's current infrastructure, that is necessitated by the highway construction and not solely for the benefit of the utility company.
 - b. When a utility adjustment is eligible for reimbursement, that same eligibility applies to any approved forced betterment.
2. How is forced betterment documented in the standard utility agreement?
- a. Attachment A
 - i. Plans should include call outs showing areas of forced betterment.
 - ii. Forced Betterment should be included in the cost estimate as an IN-KIND replacement cost.
 - b. Attachment G
 - i. Forced betterment documentation shall be included in attachment G.
 - ii. If elective betterment is also included in the utility adjustment, a side-by-side cost comparison is used to calculate the betterment percentage. Elective Betterment is defined as an improvement to the existing facility that is made as a choice of the utility. This type of betterment is not eligible for reimbursement.
 - iii. Approved Forced betterment is considered to be an INKIND cost; therefore, all unit rates and costs for forced betterment should be on the INKIND (left) side of the comparative (side-by-side) estimate.
3. When can forced betterment be claimed? Forced betterment can be claimed for any of the following reasons:
- a. non-stocked items that are uneconomical to purchase
 - b. items to comply with governmental laws and ordinances
 - c. appropriate regulatory commission codes
 - d. published, current design practices regularly followed by the utility in its own work
 - e. installment of replacements of equivalent standard, although not identical
 - f. betterments for which there are direct benefits to, and /or are required for, the transportation project.



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Process #2 – Completing Forced Betterment Approval Form

1. Fill in the top section of the form with the correct project information and utility information.
 - a. This information can be found in TxDOT Connect.
 - b. If access to TxDOT Connect is not available, obtain confirmation from the TxDOT PM that the information is correct on the form before submitting.

		Austin District	
<i>Texas Department of Transportation</i>		Forced Betterment Approval FORM	
Date of Request:	<input type="text"/>	Utility ID:	<input type="text"/>
Utility Name:	<input type="text"/>		
Construction CSJ:	<input type="text"/>	ROW CSJ:	<input type="text"/>
Highway:	<input type="text"/>	Limits From:	<input type="text"/>
Letting Date:	<input type="text"/>	Limits To:	<input type="text"/>

- c.
2. When claiming forced betterment exists make sure that one or more of the reasons listed on the form applies. These are the **ONLY** acceptable reasons for forced betterment.

- a. Project schedule is not a valid reason for forced betterment.

Forced Betterment is being claimed for the following reason(s):	
<input type="checkbox"/>	non-stocked items that are uneconomical to purchase;
<input type="checkbox"/>	items to comply with governmental laws and ordinances;
<input type="checkbox"/>	appropriate regulatory commission codes;
<input type="checkbox"/>	published, current design practices regularly followed by the utility in its own work;
<input type="checkbox"/>	installment of replacements of equivalent standard, although not identical;
<input type="checkbox"/>	betterments for which there are direct benefits to, and /or are required for, the transportation project.

- b.
3. As noted in the instructions, summarize the forced betterment, and explain the justification.
 - a. Failure to provide adequate justification may result in rejection of submission. You are telling the story of how we got to this point to someone that has never heard the story before.
 - b. How to summarize the forced betterment:
 - i. Describe the existing material type, size, and quantity.
 - ii. Separately describe the proposed forced betterment material type, size, and quantity.
 - c. Explain the justification:
 - i. State the reason that forced betterment is being claimed (please remember: the only acceptable reasons for forced betterment are listed on a checklist within the form).
 - ii. Individually explain how one or more of the acceptable reasons for forced betterment applies to the subject utility adjustment; be sure to highlight relevant comparisons and distinctions.
 - iii. Describe the nature of the conflict between the proposed transportation project and the existing utility facility. In other words, state the nature of the conflict [construction; UAR; local ordinance; safety, etc.] and elaborate on the details that illustrate the conflict in this specific situation.



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- iv. Explain why IN-KIND replacement is insufficient and why betterment replacement is the most sufficient option. In other words, describe the difference between the conditions that exist before and after the project construction which make IN-KIND replacement insufficient going forward.
- v. In addition to listing direct benefits to the transportation project (if any), in specific detail describe and elaborate upon those direct benefits and provide supporting documentation.
- vi. Describe the hardship to the transportation project that would be caused if the forced betterment is not approved.
- vii. Cite specific references to the rules (TAC UAR), regulations, utility design criteria, etc. that support the forced betterment justification.
- viii. In some cases, for relatively complicated situations, it may be required that the forced betterment justification be supported by a signed letter from the utility coordination consultant, on the consultant firm’s letterhead.

Summarize the Forced Betterment and Explain the Justification (May require letter from utility coordinator).

- d.
- 4. The form includes a checklist of additional information items. All three of those items are required and must be provided with the forced betterment approval request submittal.
 - a. NOTE: One of the items on the checklist refers to an Excel spreadsheet that is required to be included with each submittal. Specifically for that purpose, the AUS Engineering Services Utilities Section created an Excel workbook template that is available for use. The template has multiple spreadsheets with tables to describe comparisons between existing items and proposed forced betterment items. The table that best best describes the nature of the forced betterment request should be used.

Checklist for additional information included with this Forced Betterment Approval (all three REQUIRED)	
<input type="checkbox"/>	exhibit showing location of forced betterment;
<input type="checkbox"/>	back up documentation (design manuals, ordinances, cost estimates, etc.);
<input type="checkbox"/>	Excel spreadsheet describing existing facility structures and proposed facility structures.

- b.
- 5. The request for the approval signatures shall be coordinated by the TxDOT Austin District Engineering Services Utilities Section.



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TxDOT Austin District Approval Process - signatures required	
1.) TxDOT Project Manager	Date
2.) AUS Utility Team member processing AGMT	Date
3.) AUS District Utility Processing Team Lead	Date
4.) AUS District Design Engineer	Date

- a.
- b. This form is an internal TxDOT document used to document review and approval; therefore, this form will not be included in the executed standard utility agreement.

Process #3 – Assembling the Forced Betterment Package

1. What is needed in the forced betterment approval package?
 - a. Completed Austin District Forced Betterment Approval Form including reason forced betterment is being claimed and summary of justification.
 - b. Exhibit showing location of forced betterment. This could be on the relocation plans or may be provided early in design by using the existing and proposed utility layouts prepared by the TxDOT utility coordination consultant.
 - c. Here is a list of the level of detail needed on the plans/exhibit:
 - Existing & proposed ROW lines (only the existing ROW line is required when no new ROW is being acquired.)
 - Material Type, sizes, quantities and TxDOT stations numbers
 - Existing & proposed utility easements
 - Existing & proposed joint-use areas
 - Existing & proposed highway features (edge of pavement (EOP), shoulder/ditch, drainage, retaining walls, etc.)
 - Existing & proposed utility facilities (**needed to verify INKIND vs Betterment replacement**)
 - Special characteristics – such as operation pressures, directions of low, source of power, wall thickness (of pipe), coatings, anode beds, yield strength, design factor or class locations, use of Barlow’s formula, etc. (if applicable).
 - UAR Compliance (depth of cover, OH clearance, length of encasement, distance from ROW line/EOP, etc.)
 - Legend or notations that are consistent and clearly define all symbols used in the plans.
 - Conflict with existing utility facility (add additional notes to describe the nature of the conflict.
 - Location of forced betterment
 - North direction arrow and scale (needed to verify INKIND vs. Betterment replacement)



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- d. Required back up documentation (design manuals, ordinances, cost estimates, etc.).
- e. Excel Workbook showing existing facility structures and proposed facility structures.
2. USE the Forced Betterment FORM as a checklist. Remember as the utility coordination consultant or engineer working for a utility you are trying to tell a story that justifies forced betterment as it relates to at least **one of the six** justifications.
3. In many cases a letter from the consultant performing utility coordination on behalf of TxDOT for the roadway project may be required to explain the engineering decisions made for the project that necessitate the utility adjustment and therefore justify the forced betterment.

Process #4 – Examples of Forced Betterment submissions from past agreements

In this section we will provide some examples of forced betterment submissions that may be used as go-by examples. Each project is different and may require unique justification documentation.

1. Example #1 – **UPSIZE of Water Line** - For this example a rural water utility had an existing 2” water lines in an easement within TxDOT ROW acquisition that was in conflict and had to relocate. Documentation was provided to justify that because this facility was in the City of Austin ETJ (Extra-Territorial Jurisdiction), the water utility must comply with City of Austin design requirements.
 - a. A letter was provided by the utility design engineer explaining the need for TxDOT to approve forced betterment to upsize the existing 2” PVC water line to an 8” PVC water line.
 - b. A map was included to show that the location of this facility was within the City of Austin ETJ.
 - c. City of Austin design criteria was provided to demonstrate that any water distribution lines being installed or replaced along roadways in the ETJ must be a minimum of 8 inches.
2. Example #2 – **Overhead to Underground** - A telecom was attached to the overhead electric facility crossing state highway at an intersection where TxDOT was installing a grade separation (overpass). The existing poles reimbursable due to the fact they were in easements within proposed ROW acquisition. The attached telecom was determined to be reimbursable due to attachment agreement.
 - a. Overhead electric company decided to relocate the crossing east of the intersection about 1,200 feet to cross at existing grade.
 - b. The telecom provided need to maintain the crossing at the intersection; therefore, justification was provided for the overhead crossing to be relocated to an underground crossing.
 - c. A letter from the utility coordination consultant along with an exhibit was included in the standard utility agreement to justify this decision.
3. Example #3 – **Material Change** - A City of Austin pressurized forced main was required to relocate for a TxDOT project. The existing line was a 12” ductile iron pipe. Published City of Austin design manual stated that all new or replaced forced mains must polyethylene pipe (PE). It was determined that HDPE is an available type of PE pipe. Justification was provided to change the material from ductile iron to HDPE; however, 12” HDPE did not have the same inside diameter as ductile iron. Additional documentation was required to documents that 16” HDPE pipe had the equivalent inside diameter measurements as 12” ductile iron.