

Best Practices for Noninfringing Redesigns

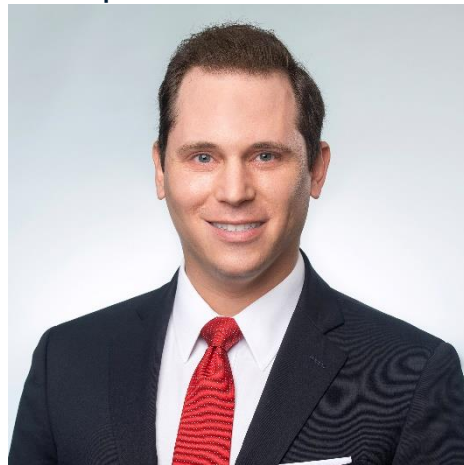
January 31, 2024

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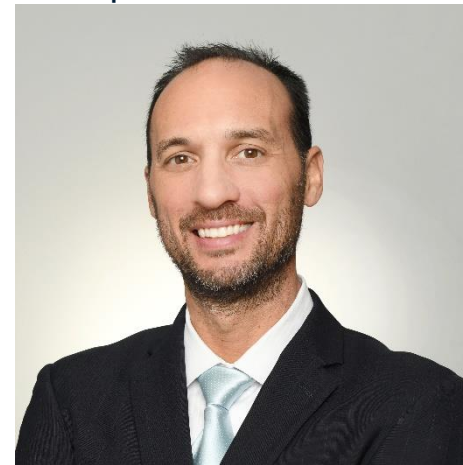
Meet the Speakers

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Agenda

Redesign Scenarios

Applicable Legal Standards

Redesign Strategies

Implementation Best Practices

Redesign Scenarios

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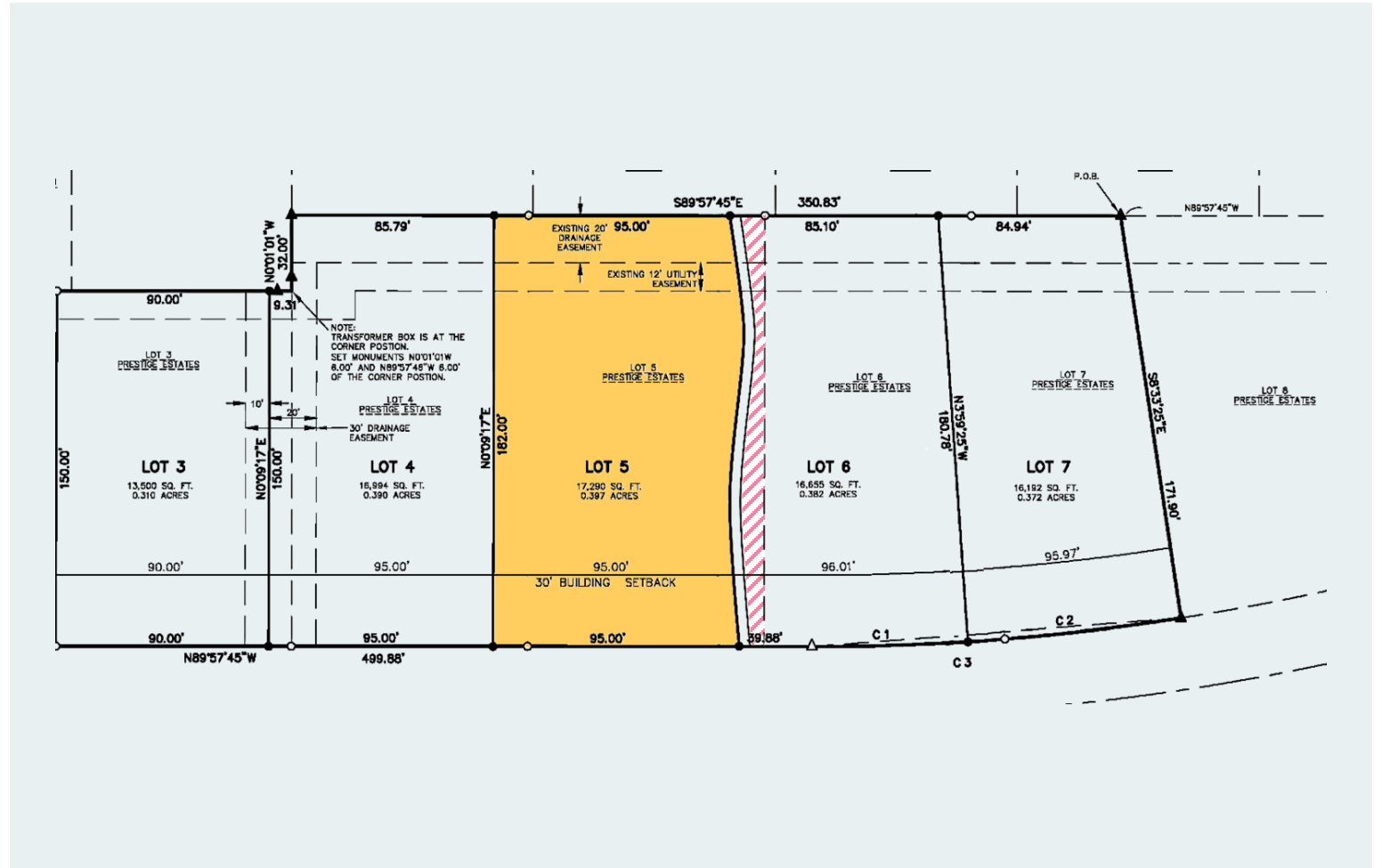
District Court: Nuanced Approach

Redesign Incentives

- Infringement / invalidity tension
- Can be used to limit damages
- Typical burdens

Defenses Prevent Overreach

- Invalidity
- Patent Eligibility



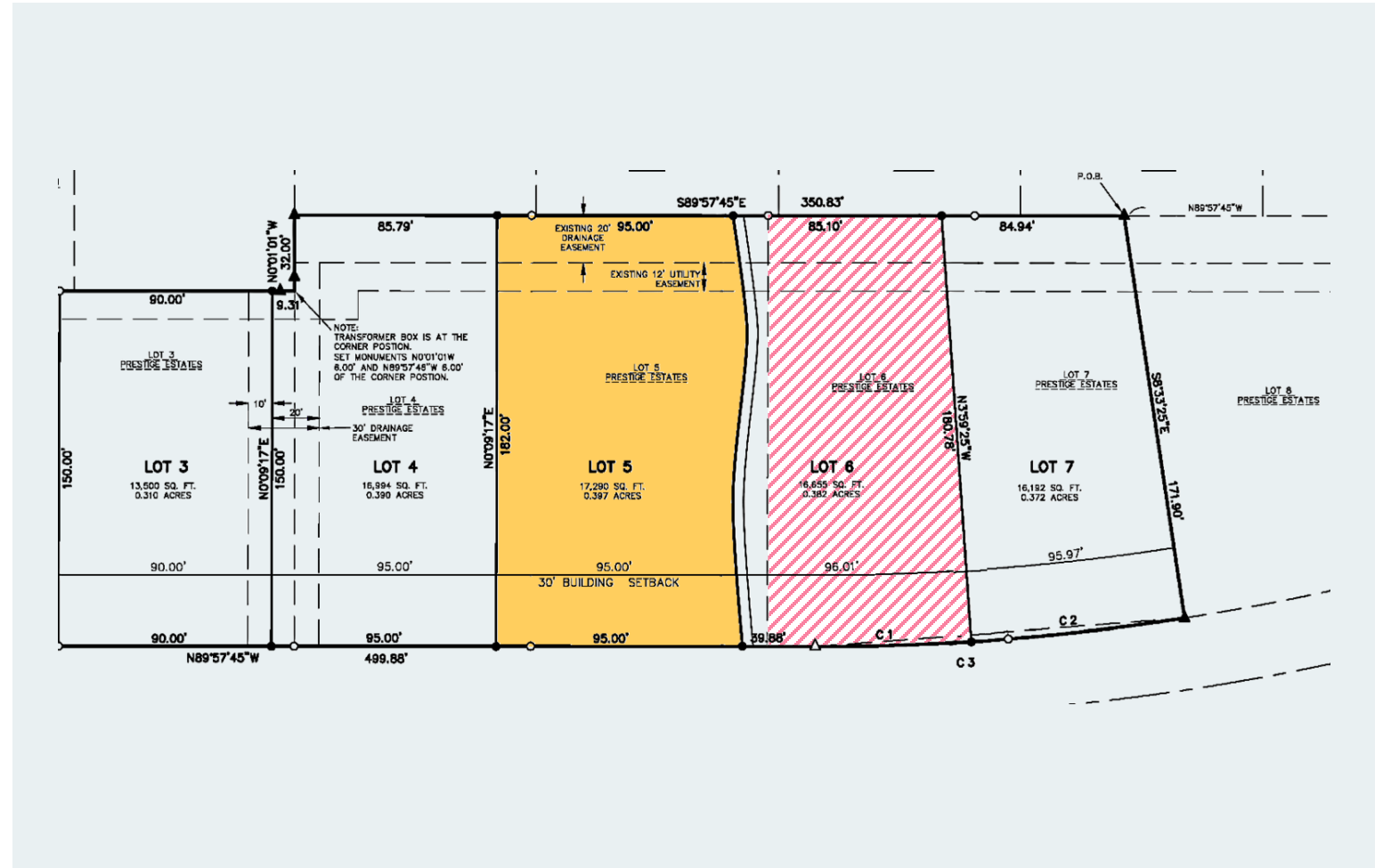
ITC: Robust Approach

Redesign Incentives

- Infringement / invalidity tension
- Avoid ITC exclusion Order
- Typical burdens

Defenses Prevent Overreach

- Invalidity
- Patent Eligibility



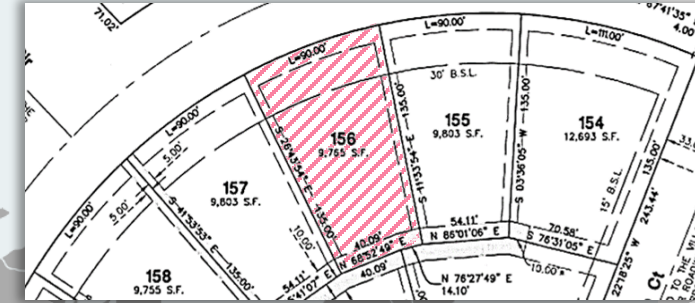
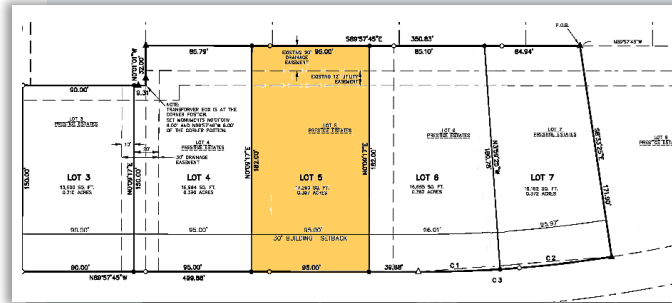
Customs / CIT: “Country Mile” Away

Redesign Incentives

- Often last-ditch before / during ITC exclusion order

Limited Defenses

- Bound by ITC determinations
- Limited ability to perform construction, validity analysis
- Not typical burdens



Applicable Legal Standards

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“Configured To” vs. “Capable of”



“[T]he claim was infringed ‘in the same way that an automobile engine for propulsion exists in a car even when the car is turned off.’”¹


¹ *INVT SPE LLC v. Int’l Trade Comm’n*, 46 F.4th 1361, 1373 (Fed. Cir. 2022) (quoting *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1205 (Fed. Cir. 2010))

Determining Which Standard Applies

Claim language governs which infringement standard will apply



	Configured To	Capable Of
Method Claims		
Apparatus Claims		
• Software		
• Mechanical		
• Functional Language		
Hybrid Claims		

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¹ *ParkerVision, Inc. v. Qualcomm Inc.*, 903 F.3d 1354, 1361 (Fed. Cir. 2018); *Lucent Techs. v. Gateway, Inc.*, 580 F.3d 1301, 1317 (Fed. Cir. 2009)

Determining Which Standard Applies

	Configured To	Capable Of
Method Claims¹		
Apparatus Claims		
• Software ²		 (Favored)
• Mechanical		
• Functional Language		
Hybrid Claims		

¹ *ParkerVision, Inc. v. Qualcomm Inc.*, 903 F.3d 1354, 1361 (Fed. Cir. 2018); *Lucent Techs. v. Gateway, Inc.*, 580 F.3d 1301, 1317 (Fed. Cir. 2009)

² *INVT SPE LLC v. Int’l Trade Comm’n*, 46 F.4th 1361, 1372–74 (Fed. Cir. 2022)

Determining Which Standard Applies

	Configured To	Capable Of
Method Claims¹	✓	
Apparatus Claims		
• Software ²		✓ (Favored)
• Mechanical ³	✓ (Favored)	
• Functional Language		
Hybrid Claims		

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Determining Which Standard Applies

	Configured To	Capable Of
Method Claims ¹	✓	
Apparatus Claims		
• Software ²		✓ (Favored)
• Mechanical ³	✓ (Favored)	
• Functional Language ⁴		✓ (Favored for software)
Hybrid Claims		

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Determining Which Standard Applies

	Configured To	Capable Of
Method Claims ¹	✓	
Apparatus Claims		
• Software ²		✓ (Favored)
• Mechanical ³	✓ (Favored)	
• Functional Language ⁴		✓ (Favored for software)
Hybrid Claims	<i>Above principles apply</i>	

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“Configured To” Infringement

Keys

- Must actually operate in the infringing manner
- Infringing functionality must be active
- Software functionality must be enabled



Reasonably “Capable of” Infringement

Keys

- Must infringe when placed into operation
 - Software need not be active / enabled
- Requires evidence of an instance of infringing operation
- Significant modification prohibited
- Software blocks bar infringement



In-house Counsel Toolkit

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Redesign Strategies

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Three General Redesign Strategies

Elimination

- “Rip out”
- Completely remove or block a claim element
- Element should not be replaced with an equivalent

Division

Substitution

Three General Redesign Strategies

Elimination

- “Rip out”
- Completely remove or block a claim element
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Division

- Separate performance of claim elements between cooperating devices (e.g., driving motors, processors)
- Relies on claim construction, validity, and other limitations on claim scope
- Doctrine of Equivalents should be considered here

Substitution

Three General Redesign Strategies

Elimination

- “Rip out”
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Division

- Separate performance of claim elements between cooperating devices (e.g., driving motors, processors)
- Relies on claim construction, validity, and other limitations on claim scope
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Substitution

- Substitute a claim element with a different element that allows product functionality
- Similar considerations as Division strategy

Implementation Best Practices

Building the Redesign

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Hardware vs. Software Redesigns

Appropriate redesign depends on claim limitations

Hardware

- Can be slow and costly to implement
- Often greater variety of potential redesigns
 - Numerous physical reorientations
 - Many potential component parts
 - Fundamental adjustments to functionality
- More easily described to adjudicator

Software

Hardware vs. Software Redesigns

Appropriate redesign depends on claim limitations

Hardware

- Can be slow and costly to implement
- Often greater variety of potential redesigns
 - Numerous physical reorientations
 - Many potential component parts
 - Fundamental adjustments to functionality
- More easily described to adjudicator

Software

- Can be quicker and cheaper to implement
- Redesigns limited to functionality permitted by the product's design and purpose
- Can be difficult to describe to adjudicator

Software Redesign Basics: Removing Functionality

Removal of Functionality

- Remove lines from source code database
- Remove lines from compiled code (e.g., comments, MACROs)
- Change functionality so that certain code is never run (e.g., if-then statements)

Source Code

```
| #include <stdio.h>
|
| int main() {
|     // Initialize the variable to 1
|     int redesignedSetting = 1;
|
|     if (redesignedSetting == 1) {
|         printf("Redesigned functionality\n");
|         // Perform redesigned functionality
|     } else {
|         #ifndef REDESIGNED
|         printf("Legacy functionality\n");
|         // Perform legacy functionality
|         #endif
|     }
|
|     return 0;
| }
```

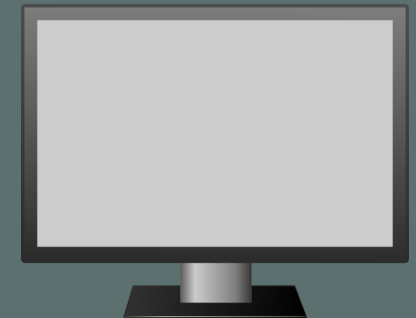


Compiled Code

```
80483e4: 55          push    ebp
80483e5: 89 e5      mov     ebp,esp
80483e7: 83 e4 10   and     esp,0xfffffff0
80483ea: 83 ec 10   sub     esp,0x10
80483ed: c7 45 1c 01 00 00 00 mov     DWORD PTR [ebp-0x4],0x1
80483f4: 83 7d fc 01 cml     DWORD PTR [ebp-0x4],0x1
80483f8: 74 1e     je      8048418 <main+0x34>
80483fa: 8b 45 fc   mov     eax,DWORD PTR [ebp-0x4]
80483fd: 89 04 24   mov     DWORD PTR [esp],eax
8048400: e8 ab fe ff ff call    8048250 <puts@plt>
8048405: eb 18     jmp     804841f <main+0x3b>
8048407: 90        nop
8048408: 90        nop
8048409: 90        nop
804840a: 90        nop
804840b: 90        nop
804840c: 90        nop
```



Product



Software Redesign: Advocacy Keys

Introduce evidence of programming *in the product*

- Compiled code
- Build files

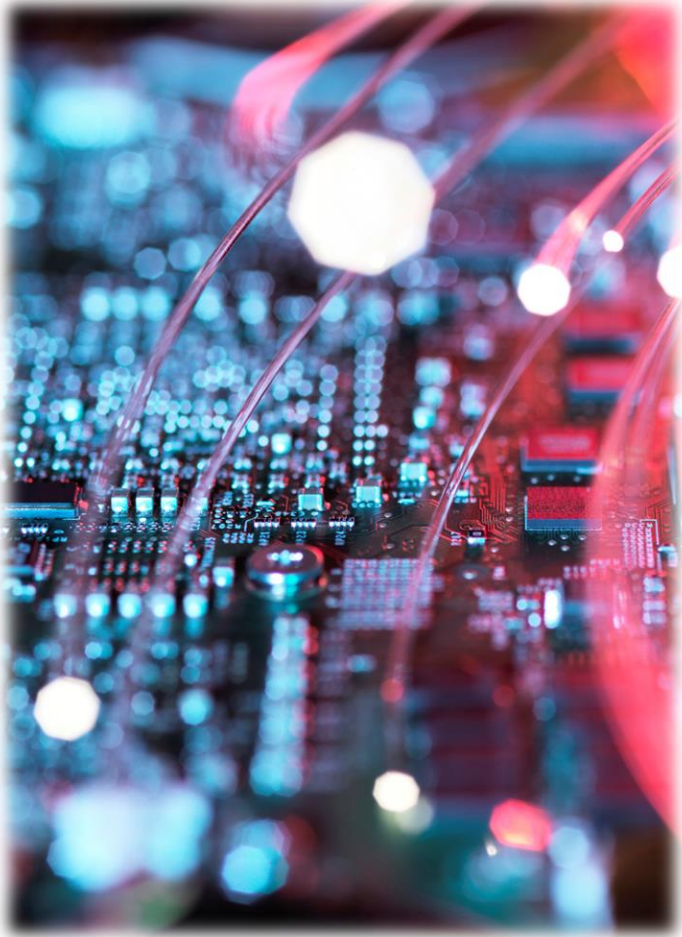
Scrutinize comments, function names, variable names

- Relied upon by fact finders to determine functionality
- Often include unreviewed thoughts of rushed programmers
- Also consider check-in comments and notes

Use plain language code to make your case



One-time-programmable Hardware



Memory that cannot be reprogrammed without wiping the contents or potentially destroying it

Utilize one-time-programmable hardware where possible

- Shows commitment to redesign

Common uses

- Smaller code bases can be programmed entirely in OTP hardware
- Serial numbers can be coded into OTP hardware and relied upon by the redesigned code

Implementation Best Practices

Documenting the Redesign

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Update Internal Documentation

Primary evidence is best but sometimes secondary evidence is easier to understand

Product & Code Naming Conventions

Technical Documents

- Schematics, Requirements and Design Specifications
- Product operation flowcharts, diagrams

Internal Procedures

- Validation, QC, testing, other normal product development processes

Any Key Litigation Documents

- Any document from litigation should be updated where possible



Update External Documentation

Primary evidence is best but sometimes secondary evidence is easier to understand

User Facing

- User manuals, FAQs
- Product webpages
- Product packaging

Regulatory

- E.g., FDA documentation (can also be internal)

Any Key Litigation Documents

- Any document from litigation should be updated where possible



Showing Finality

Oposing party will often argue that redesign is not real or non-final such that it cannot be adjudicated

Compliance with Typical Product Processes

- Product development, testing, review, analysis
- Technical, business, marketing, sales analysis
- Regulatory compliance

Actual Samples

- Importation of actual samples available for testing and review
- Finalized hardware, software, or other aspects that are ready for adjudication



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**Most important in the ITC and
Customs**

Preserving Privilege & Work Product Protections

Natural tension between documenting the redesign and preserving privilege

Ensure that attorney communications and instructions are clearly marked

- Email hygiene
- Document hygiene

Remove instances in public documents where the line could be blurred

- References to instructions from “attorneys” or “legal”

Record instances where actions were taken at the direction of attorneys, rather than independently

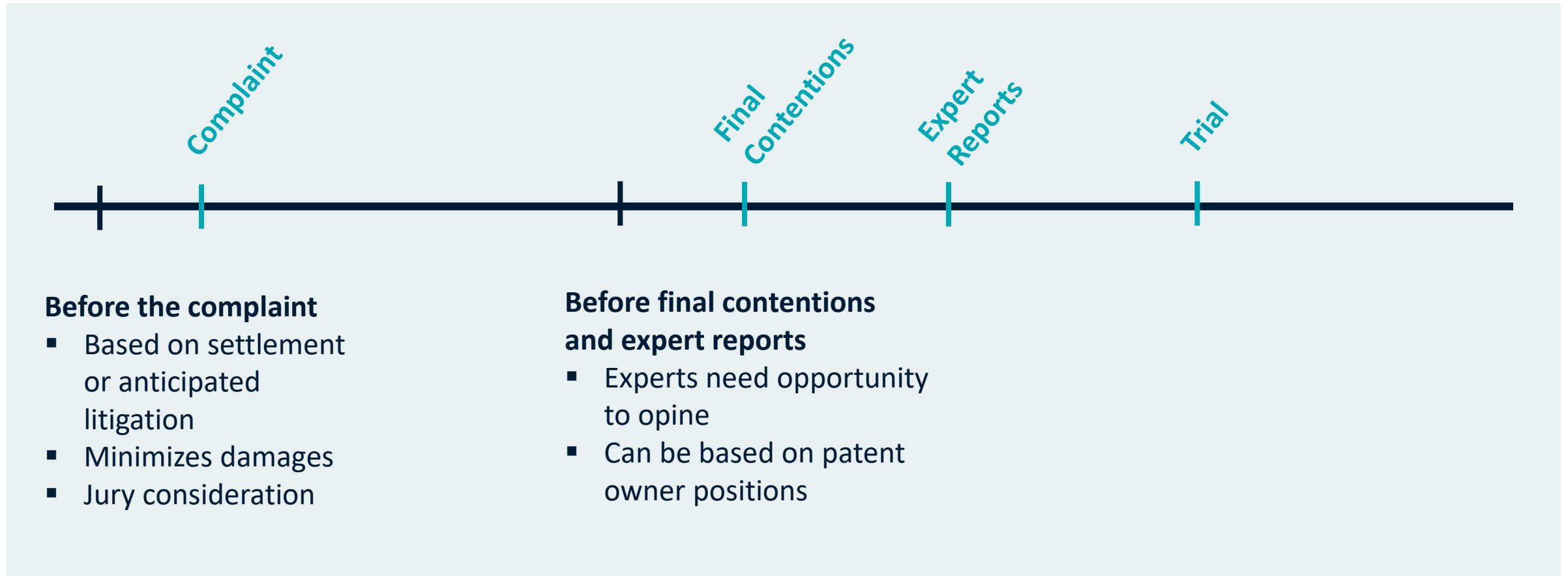


Implementation Best Practices

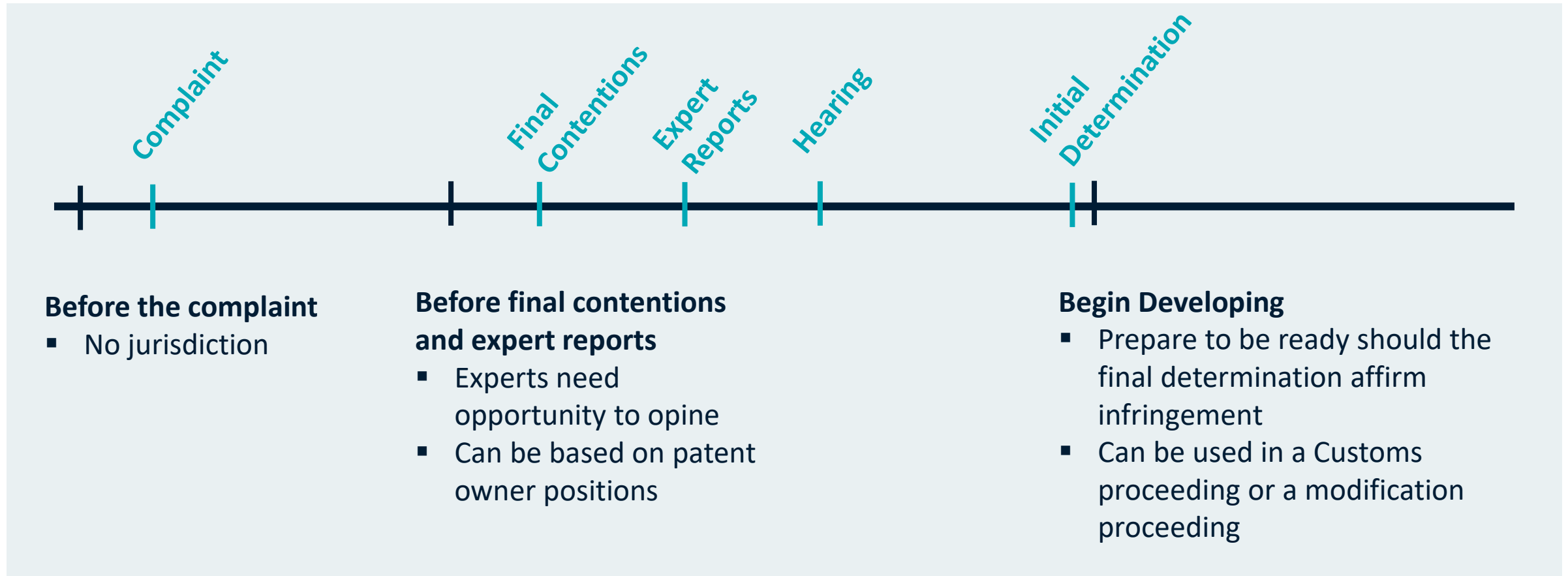
Litigating the Redesign

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District Court: Redesign Introduction Timeline



ITC: Redesign Introduction Timeline



Redesign Expert

Consider whether to use the same or a different expert to litigate the redesign

Will Same Tribunal Eventually Consider the Redesign?

Was Expert's Analysis Criticized by the Tribunal?

Is Expert Willing To Refrain from Re-litigating Old Issues?

Does Expert Have Experience Building / Commercializing Products?





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Thank You!

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