

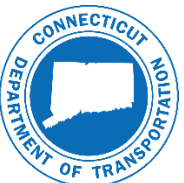
State Project No. 0130-0192 // Federal Local Bridge Program
Bridge No. 05029 // Poverty Road over Pomperaug River
Town of Southbury, Connecticut



Project 0130-0192: Replacement of Bridge No. 05029



Marc Byrnes, P.E.
Project Manager – CT DOT
Tel. No. (860) 594-3489
Marc.Byrnes@ct.gov



Goals for Tonight's Meeting

- Introduce the Project Team
- Interact with the Project Team
- Explain Federal Local Bridge “Design Managed by State” (DMS) Program
- Formal Presentation of the Design Progress
 - ❖ Explain the condition of existing bridge & define Purpose and Need
 - ❖ Recommend a viable proposal (Design Plans are only 30% complete)
- Open the Forum to your Q&A's



Title VI – Your Civil Rights

No Person shall, on the basis of race, color or national origin, be excluded from participation or subject to discrimination in the development of this project.

- Voluntary Post-Meeting Survey:

- <https://portal.ct.gov/ctdotsurvey>



- Civil Rights information:

- <https://portal.ct.gov/DOT/Business/Office-of-Equity/Title-VI-Page>

A recording of this presentation will be posted to YouTube after the event.

Closed captioning—including non-English translation options—are available on Zoom and YouTube.





Connecticut Department of Transportation

Title VI Notice to the Public

- ◇ The Connecticut Department of Transportation (CTDOT) operates its programs and services without regard to race, color, and national origin in accordance with Title VI of the Civil Rights Act. Any person who believes she or he has been aggrieved by any unlawful discriminatory practice under Title VI may file a complaint with the CTDOT.
- ◇ For more information on the CTDOT's civil rights program, and the procedures to file a complaint, contact the CTDOT Title VI Coordinator at (860) 594-2169, TRS 711; Debra.Goss@ct.gov; or visit our administrative office at 2800 Berlin Turnpike, Newington, CT 06131. For more information, visit www.ct.gov/dot
- ◇ A complainant may file a complaint directly with the Federal Transit Administration by filing a complaint with the FTA Office of Civil Rights, Attention: Title VI Program Coordinator, East Building, 5th Floor-TCR, 1200 New Jersey Ave., SE, Washington, DC 20590
- ◇ A complainant may file a complaint directly with the Federal Highway Administration by filing a complaint with the FHWA Office of Civil Rights, Attention: Title VI Program Coordinator, 8th Floor E81-105, 1200 New Jersey Ave., SE, Washington, DC 20590

如需更多信息或免费语言协助，请致电 (860) 594-2109

Para información adicional, o asistencia lingüística gratuita, por favor llame al (860) 594-2109

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Для получения подробной информации или бесплатных услуг перевода звоните по телефону (860) 594-2109

Pou jwenn plis enfòmasyon, oswa asistans ak lang gratis, ranpri rele (860) 594-2109

لمزيد من المعلومات أو للحصول على مساعدة لغوية مجانية، يرجى الاتصال بالرقم (860) 594-2109

Si vous souhaitez en savoir plus ou bénéficier d'une assistance linguistique gratuite, merci de composer le numéro suivant (860) 594-2109

अधिक जानकारी या निःशुल्क भाषा संबंधी सहायता के लिए कृपया (860) 594-2109 पर कॉल करें।

추가 정보가 필요하거나 무료 언어 지원이 필요하시면 (860) 594-2109로 전화주십시오

Để có thêm thông tin hoặc hỗ trợ ngôn ngữ miễn phí, vui lòng gọi (860) 594-2109



Welcoming Remarks

Karl Schmidt-President of Heritage Village Master Association

Blake Leonard-Director of Public Works-Town of Southbury



Project Team



Bart
Sweeney, P.E.
Division Chief
of Bridges
CTDOT



Derick
Lessard, P.E.
Principal
Engineer
CTDOT



Marc
Byrnes, P.E.
Project
Manager
CTDOT



Andrew
Shields
Project
Engineer
CTDOT



Zachary
Guarino
ROW
Coordinator
CTDOT



James
Platosh, P.E.
Project
Manager
CJM



Thomas
Weldon
Project
Engineer
CJM



Funding for Project

Federal Local Bridge Program – “Design Managed by State” (DMS)

Traditional Fed. Local Program: 80% Federal and 20% Town for Design, ROW, and CN

DMS: Design, ROW, and CN Phases are funded with 80% Federal and 20% State Funds

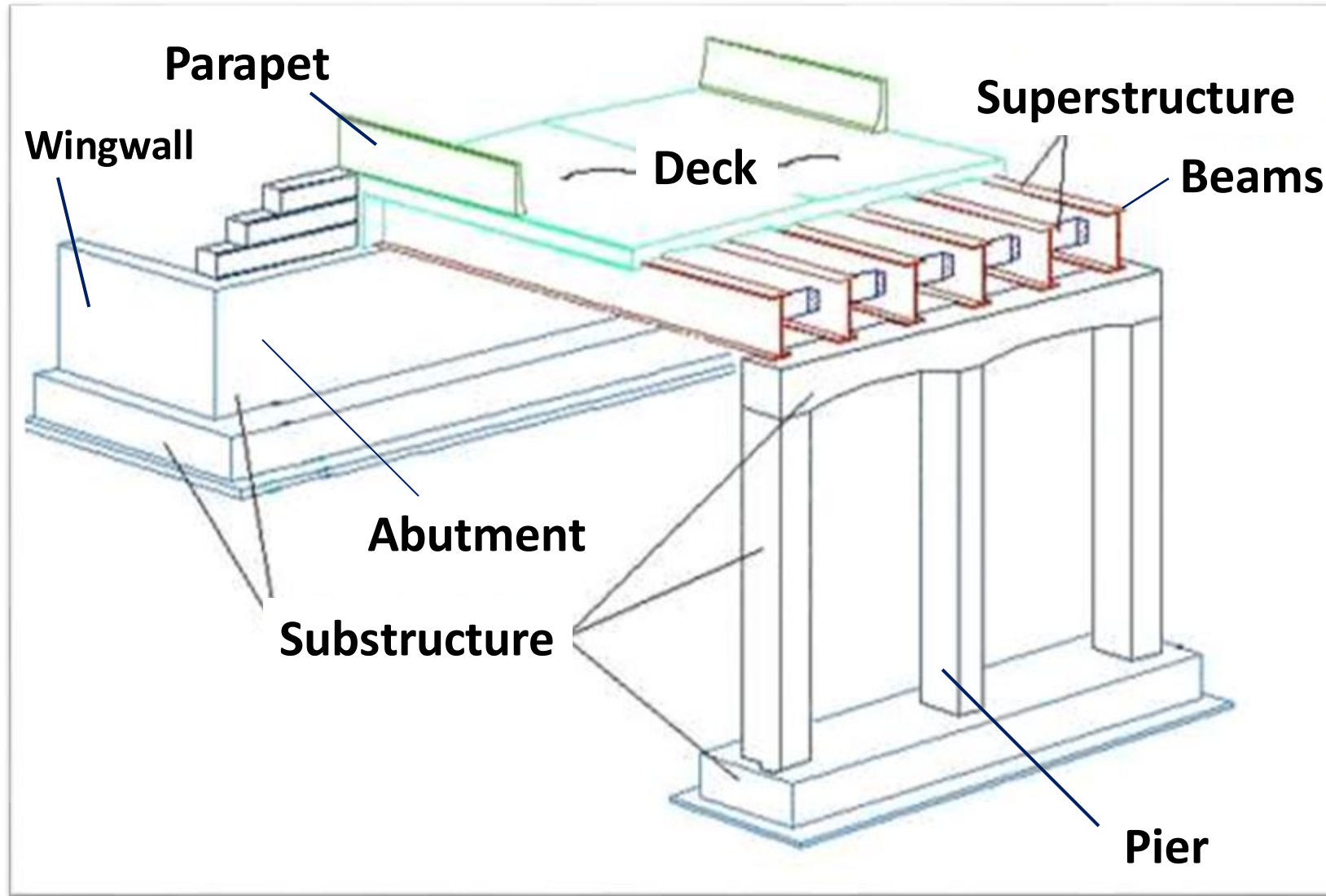
- Design is at zero cost to the Town
- Design is “Full Partnership” and Coordination with the Town

Goals of DMS:

- Provide a “Streamlined approach to Design” using full DOT resources
- Aid the Towns to Keep their bridges in “State of Good Repair” by effective use of funds
- Decrease typical design time
- Utilize Accelerated Bridge Construction (ABC) techniques to shorten construction duration
- Increase the number of municipal projects delivered to construction each year



Bridge Structural Elements Diagram



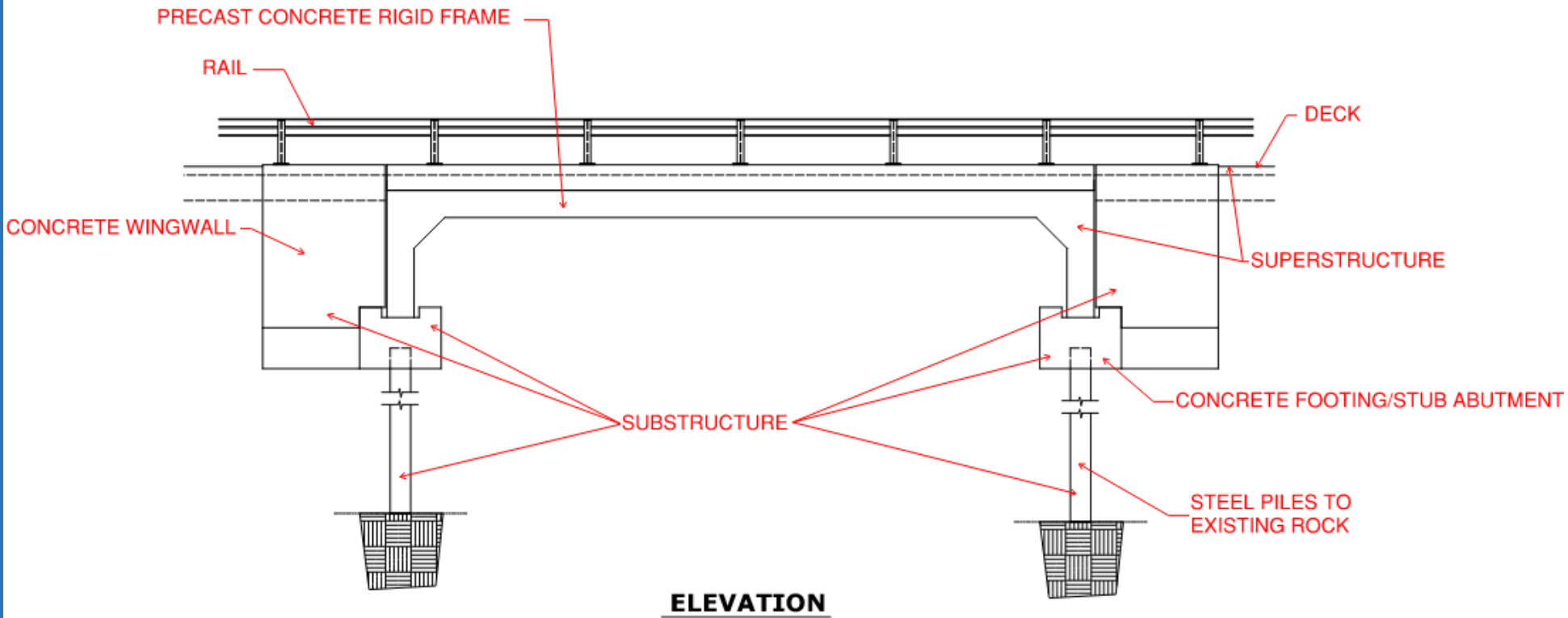
Bridge Condition Ratings

Scale: 1 to 9

- 9 – Excellent
- 8 – Very Good
- 7 – Good
- 6 – Satisfactory
- 5 – Fair
- 4 – Poor
- 3 – Serious
- 2 – Critical
- 1 – Imminent Failure



Bridge Structural Elements Diagram



Bridge Condition Ratings

Scale: 1 to 9

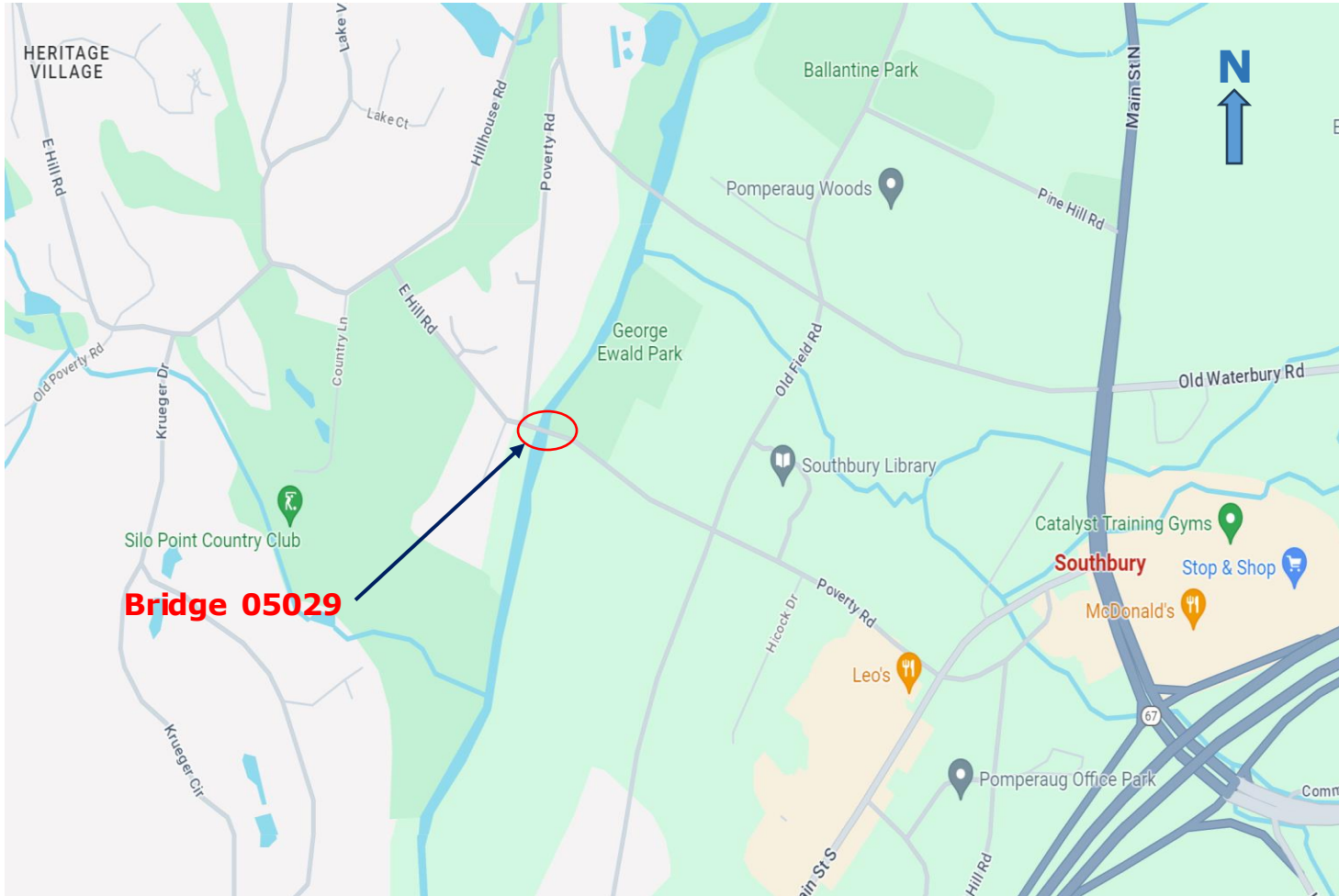
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State Project No. 0130-0192 Replacement of Bridge No. 05029 Poverty Road over Pomperaug River, Southbury



Project Location



- Located approximately 0.6 miles west of Main Street South intersection.
- Functionally Classified as Urban Local Road

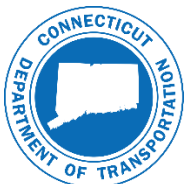
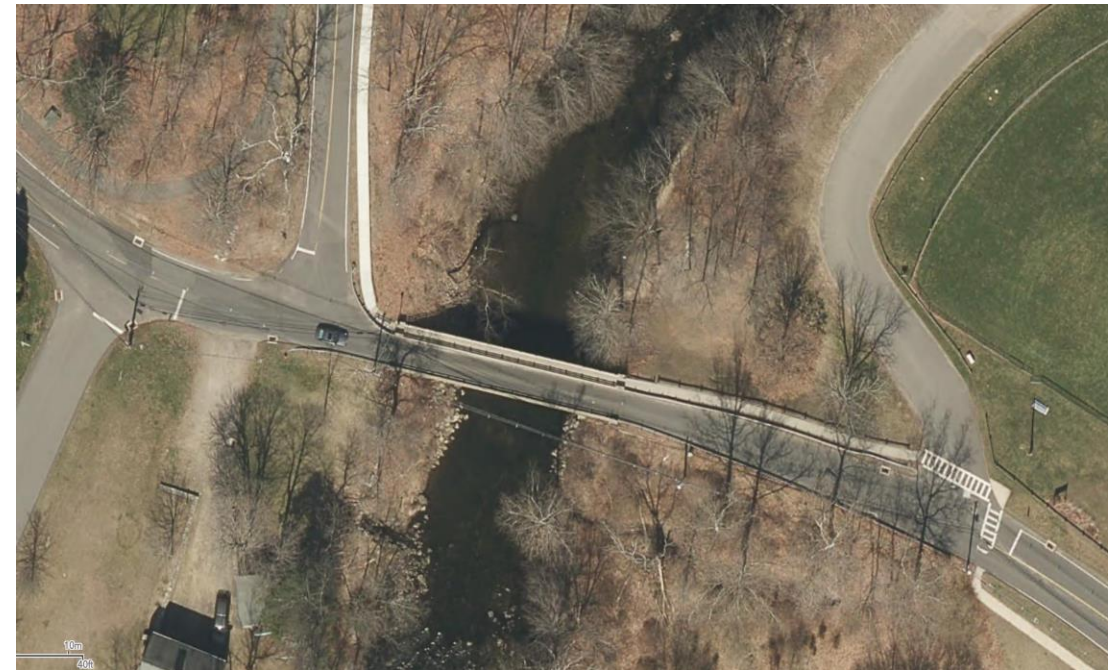


Aerial View



Surrounding Properties:

- Heritage Village Master Association
- Silo Point Country Club
- East Meadow Condominiums
- Private Residential home
- George Ewald Park
- Town Detention Basin



Existing Conditions

- **Year Built: 1967**
- **Rebuilt: 1989**
- **Steel Beams**
- **Stone Masonry Gravity Abutments**
- **U-Type Wingwalls**

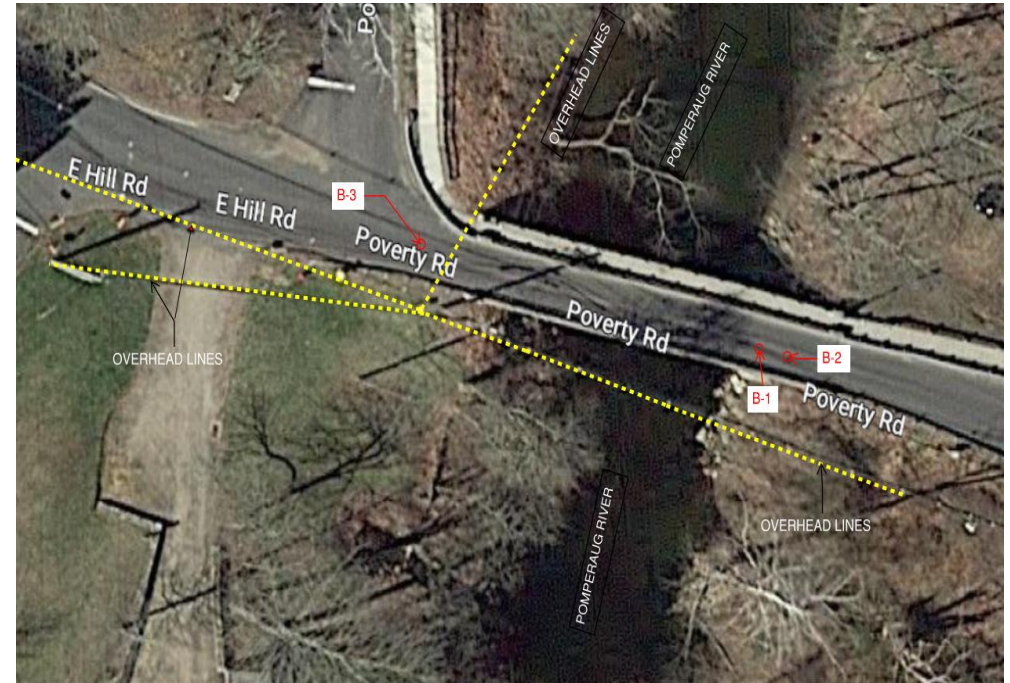


- **108-Foot Total Structure Length**
 - **71.5-foot Clear Span**
- **12-Foot Curb-To-Curb Width**
- **ADT = 4462 Vehicles Per Day**
- **3-foot sidewalk along north side of the structure**
- **Aluminum Traffic Rail and Pedestrian Rail**



Utilities

- **Overhead electric, communication and cable television** - south side of structure
- **8-inch ductile iron water main** - under river on downstream side
- **Fire hydrant** - adjacent to guiderail at southwest quadrant
- **Electrical service cabinet and meter** - at southeast quadrant for bridge lighting



Deck Condition

- Random transverse hairline cracks on bituminous wearing surface
- Sealed and unsealed linear cracks and isolated potholes at approach spans
- Concrete deck underside exhibits isolated hairline cracks with efflorescence
- Concrete sidewalk exhibits random hairline cracks and areas of light to moderate scaling
- Concrete rail end posts exhibit collision scrapes, spalls and gouges
- Damage to the aluminum traffic rail and pedestrian rail

Deck Rating: 7 (Good Condition)

Approach Rating: 7 (Good Condition)

Condition ratings [\[edit \]](#)

The NBI includes a structural evaluation of deck, superstructure, substructure, and culvert on a 0-9 scale.^[2]

Description	Code
NOT APPLICABLE	N
EXCELLENT CONDITION	9
VERY GOOD CONDITION - no problems noted.	8
GOOD CONDITION - some minor problems.	7
SATISFACTORY CONDITION - structural elements show some minor deterioration.	6
FAIR CONDITION - all primary structural elements are sound but may have minor section loss, cracking, spalling, or scour.	5
POOR CONDITION - advanced section loss, deterioration, spalling or scour.	4
SERIOUS CONDITION - loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.	3
CRITICAL CONDITION - advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless the bridge is closely monitored, it may be necessary to close the bridge until corrective action is taken.	2
"IMMINENT" FAILURE CONDITION - major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.	1
FAILED CONDITION - out of service - beyond corrective action.	0



Bridge Condition



Bridge Sidewalk Condition



Superstructure Condition

- Bearings exhibit light rust on anchor bolts
- Moderate rust on load plates
- Minor displacement of elastomeric material at each abutment
- Original girders exhibit areas of blistering and peeling paint with light to moderate rust throughout and section loss
- Laminated rust on flanges due to weepole runoff

Superstructure Rating: 6 (Satisfactory Condition)



Typical Underside Views



Substructure Condition

- East abutment exhibits mortar voids in stone masonry joint with concrete cap
- Cracks in mortar joints
- Wingwalls have areas of reinforcing steel protruding from concrete cap
- Voids in masonry joints
- Heavy vegetation growth on wingwalls

Substructure Rating: 7 (Good Condition)



Abutment 1 (West Abutment)



Abutment 2 (East Abutment)



Channel and Scour Conditions

- Channel flow favors under easterly half of span
- Large stones were set in embankments adjacent to bridge for stabilization
- Undercutting beyond the stones with exposed tree roots
- Exposed tree roots and vegetation growth

Channel Rating: 7 (Good)

Scour Rating: 8 (Insignificant Scour)



View Upstream



View Downstream



Project Purpose and Need

Purpose:

- **Address structural deficiencies and substandard design and safety conditions**

Need:

- **Bridge is functionally obsolete due to a Deck Geometry appraisal rating of 2**
- **Narrow width restricts passage by emergency vehicles, thereby increasing response times**
- **Narrow width restricts bi-directional vehicular traffic crossing (4462 Vehicles per Day)**
- **Stop signs control alternating one-way traffic flow operation**
 - **Alternate feed 4 cars maximum**
- **Traffic Safety Features that do not meet current standards**
 - **Bridge Railings**
 - **Approach Guiderails**
 - **Rail transitions**
 - **Width of bridge sidewalk**
 - **Intersection on the west side of the bridge**



Design Considerations

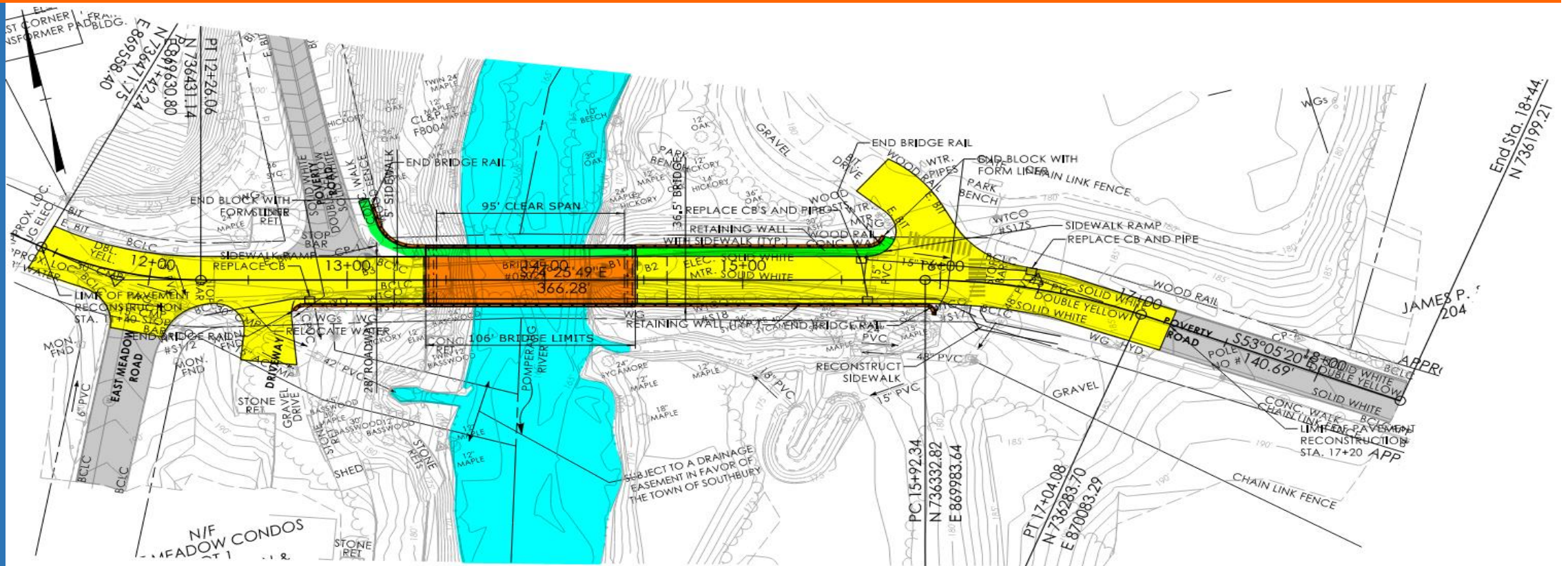
The following Design Considerations were a priority in the development of the preliminary plans we are about to present:

- **SAFETY**
- **AESTHETICS**
- **ROW IMPACTS**

Each of these Design Considerations will be explained as the presentation unfolds.



Proposed Roadway Plan



PLAN

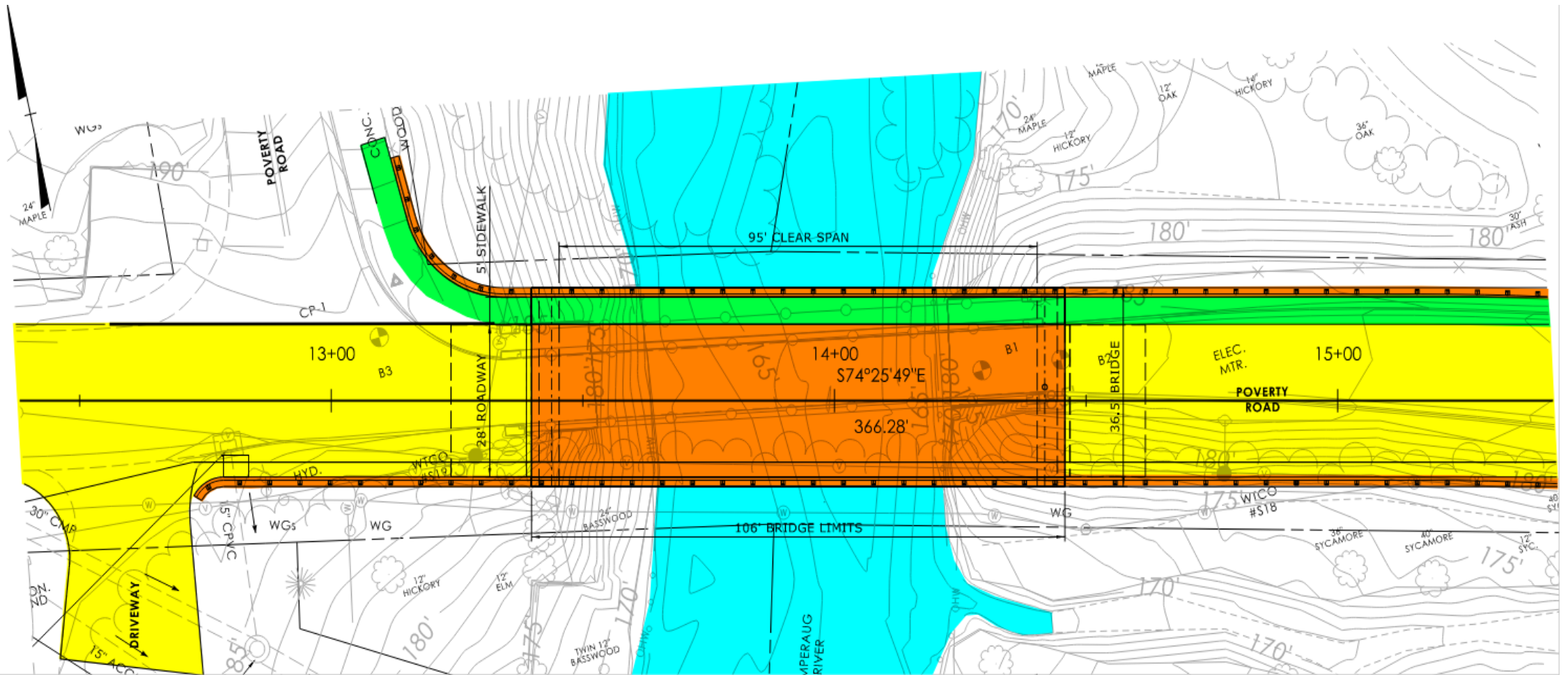
SCALE: 1"=50'

LEGEND

- PROPOSED BRIDGE
- PROPOSED PAVEMENT
- WATERCOURSE
- PROPOSED SIDEWALK



Proposed Bridge

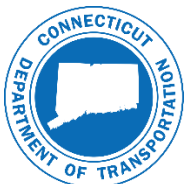


LEGEND

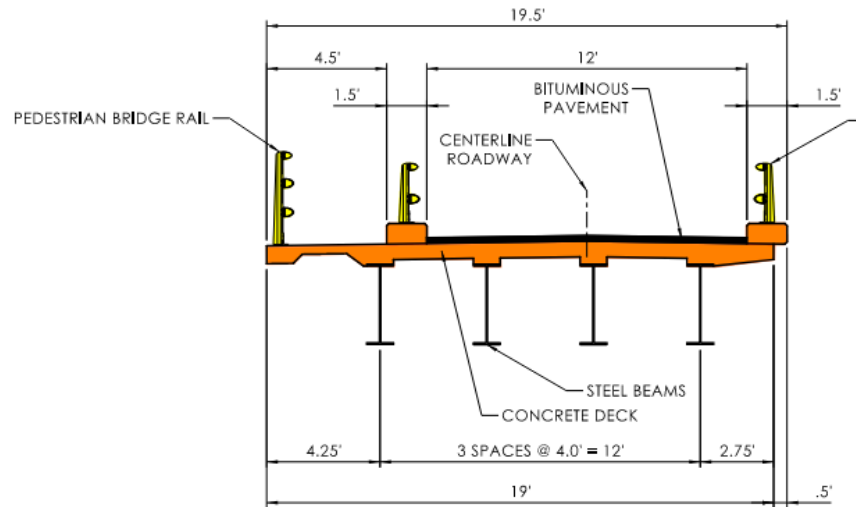
- PROPOSED BRIDGE
- PROPOSED PAVEMENT
- WATERCOURSE
- PROPOSED SIDEWALK

PLAN

SCALE: 1"=20'



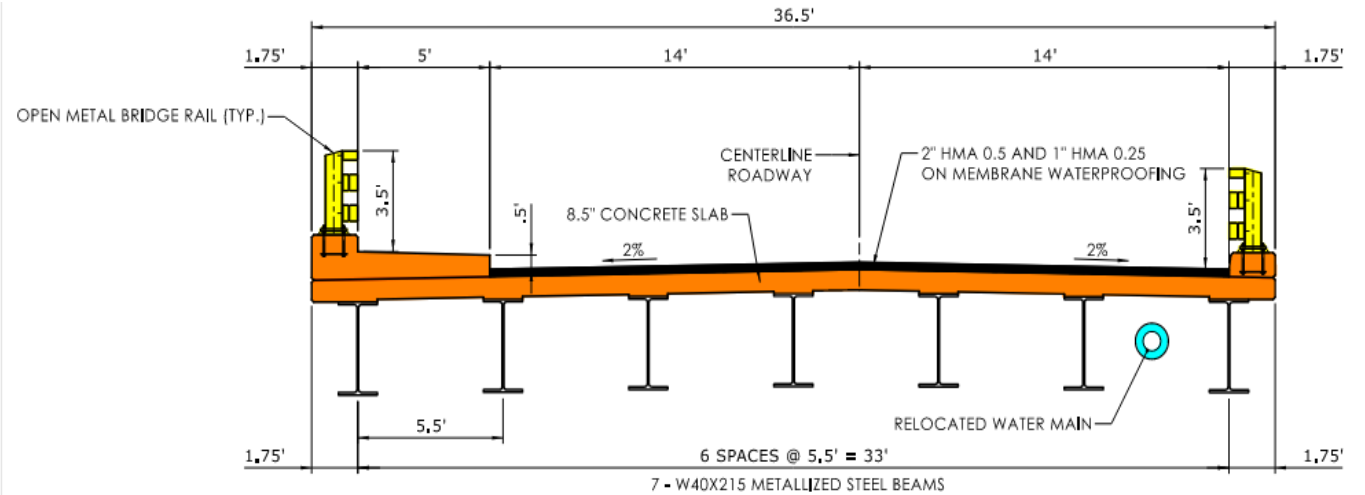
Bridge Cross Sections



TYPICAL SECTION

SCALE: 1"=5'

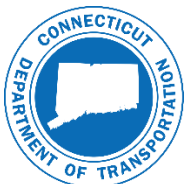
Existing Bridge



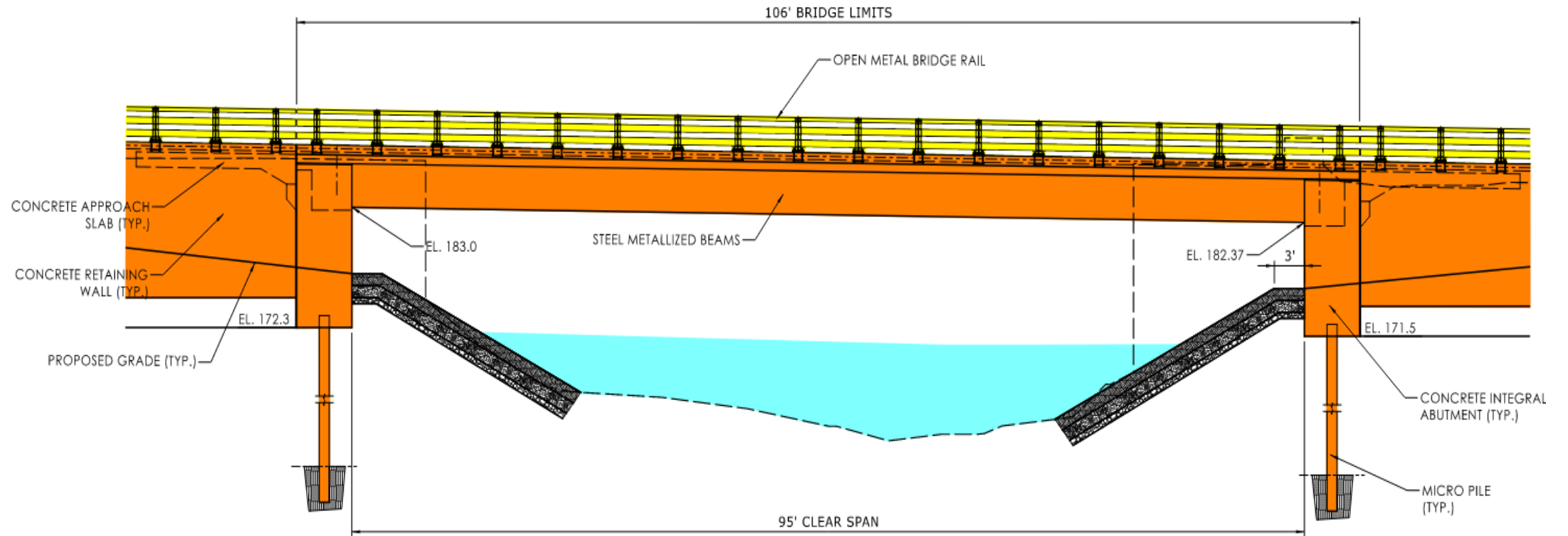
TYPICAL SECTION

SCALE: 1"=5'

Proposed Bridge



Proposed Bridge Elevation



ELEVATION

SCALE: 1"=10'



Concrete Form Liner and Open Bridge Rail Treatment



Proposed Detour



Detour Length

1.5 miles

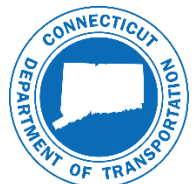
Detour Duration

4 min

Roads Included

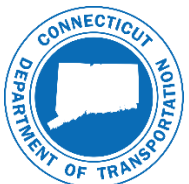
- Poverty Road
- Old Field Road
- Heritage Road
- Hillhouse Road
- East Hill Road

Access to George Ewald Park will be maintained at all times



Poverty Road Closure

- Recommend closing Poverty Road from East Hill Road to first driveway to Heritage Village Parking Lot
- Improves intersection safety
- Eliminates restrictive sightline to the west along East Hill Road
- Steep grade along Poverty Road approaching intersection is eliminated
- Existing sidewalk remains
- Golf Cart crossing remains
- Pavement is removed



Poverty Road Closure



Permit and Environmental Considerations

Anticipated Permits

- **Local Inland Wetland and Watercourses**
- **U.S. Army Corps of Engineers General Permit 19**
- **CTDOT/CTDEEP Flood Management Certification Program Memorandum of Understanding**

Natural Diversity Data Base (NDDDB)

- **Project located within NDDDB area (December 2023)**
- **According to records, there are populations of State Special Concern: Common Crayfish**

Fisheries

- **Recommendations from Fisheries: critical for replacement structure to maintain conditions for unrestricted fish passage through the structure**
- **Best management practice: any unconfined instream work in the Pomperaug River should be restricted from July 1 through September 30, inclusive.**



Construction Sequence

- Temporarily relocate the existing Overhead Utilities to the north side of the bridge
- Temporarily relocate the existing water main further to the south
- Initiate the bridge and Poverty Road closure and detour
- Demolish the existing superstructure
- Install temporary earth retaining systems needed to hold back the existing soil to facilitate the excavation of the foundations, abutments, wingwalls and retaining walls
- Install the water handling devices which will be placed in front of existing abutments allowing the removal of the existing substructure and construction of the new “in the dry”
- Remove abutments and excavate back to the new abutments
- Construct new abutments wingwalls and retaining walls
- Complete any required channel grading and placement of rip rap slopes
- Construct superstructure, place deck and approach slabs in addition to Bridge Rail Systems
- Complete full depth roadway reconstruction, sidewalks, drainage and paving.
- Relocate all utilities to permanent location
- Open bridge to traffic



Anticipated Schedule and Cost

- Start of Construction: Spring, 2026
- Completion of Construction: Fall, 2026
- Construction Cost: \$6,600,000
- 80% Federal Funds / 20% State Funds
- 0% Town of Southbury Funds



Division of Rights of Way

- Function: Acquire all property/property rights necessary for the project.
- Relevant Law
 - State of Connecticut
 - C.G.S. Section 13a-73 & 13a-98e
 - Federal
 - Uniform Relocation Assistance and Real Properties Acquisition Policies Act of 1970, as amended.



ROW – Acquisition Process

Letter of Intent to Acquire

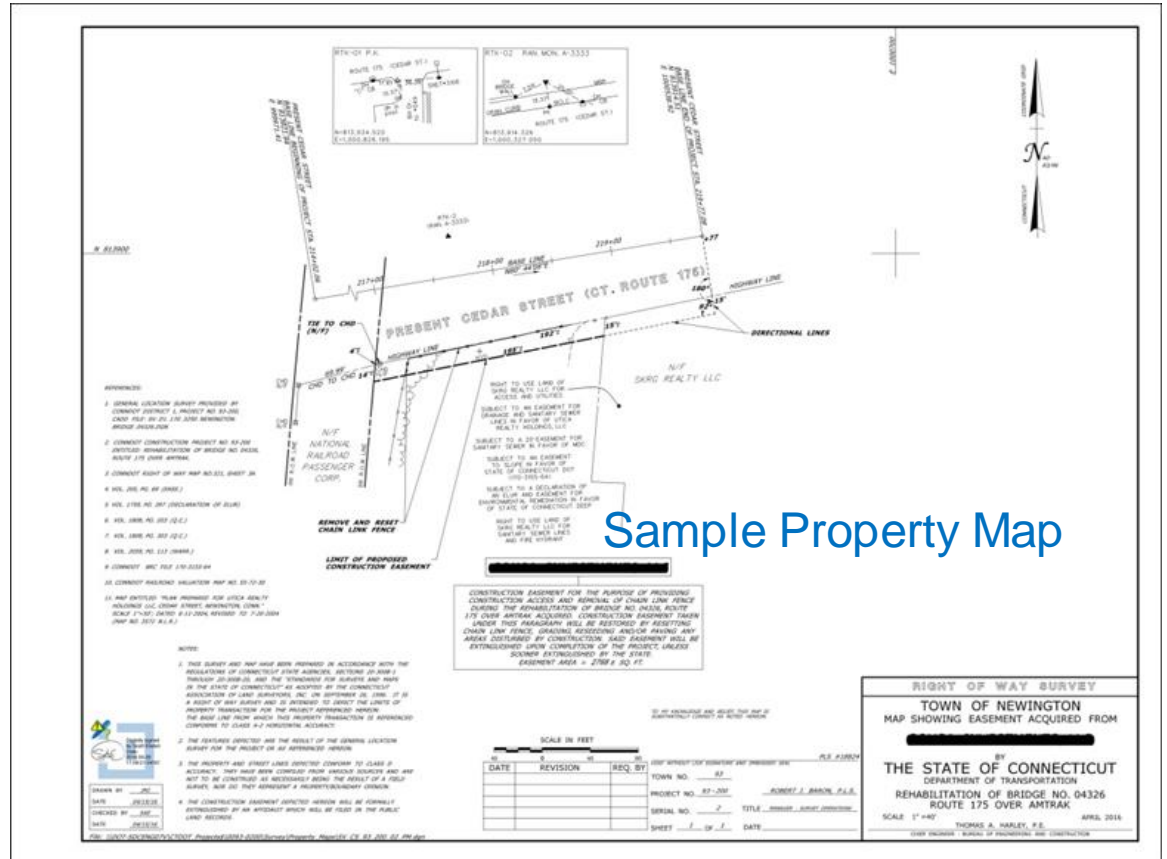
Valuation

Offer of Just Compensation

Negotiation

Acquisition

- Agreement
- Eminent Domain/Condemnation
 - 6 month appeal period



Question & Answer Session (Q&A)



by email: DOT-FLBP@ct.gov



by phone: (860) 594-2020 (voicemail)



project **webpage**: <https://portal.ct.gov/DOTSouthbury130-192>

Note: The comment period is open through **May 8, 2024***



Questions & Answers

