

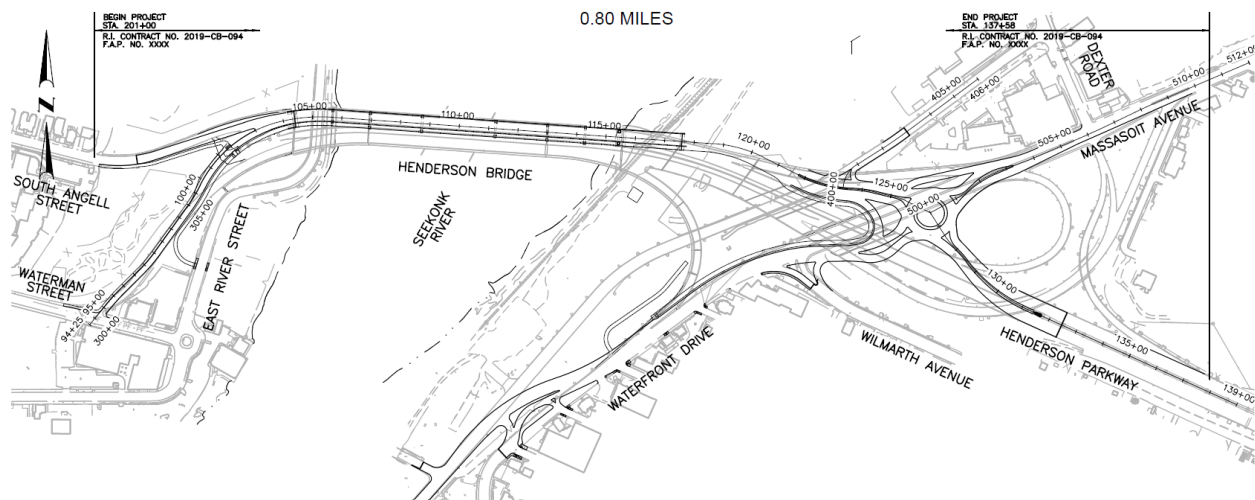


## Providence Bicycle and Pedestrian Advisory Commission

Jorge O. Elorza, Mayor

### **Staff Report: Henderson Bridge Design Review – Wayland – Ward 1 (For Action)**

*Presented at July 15, 2020 BPAC meeting*



### **Project Background**

The City of Providence Department of Planning and Development seeks comments from the BPAC regarding plans developed by RIDOT for the Henderson Bridge. The project will reduce the width of the Henderson bridge to half of its current width, incorporate a separated shared-use path onto the bridge, and include extensive realignment of the bridge landing on the East Providence side. Compared to the East Providence side of the bridge, planned improvements to the Providence side are quite minor.

In March 2019, the BPAC discussed this project, but made no recommendations as the project was not scheduled for formal review at the time. According to the minutes from that meeting: “Support was expressed for **ample bicycle and pedestrian infrastructure on the bridge itself** including benches, as well for the bridge to terminate on the Providence side in a **controlled, at-grade intersection** to address speeding concerns on Waterman St and South Angell St. **Support for lowering the bridge height** if possible was expressed, as well as for **urban-style development parcels** near the bridge landing.”

The State determined that hastening the development of plans for the bridge precluded integrating most of these features and is going out to bid during Summer 2020.

Separate from the RIDOT project, the City is planning to install two sets of speed lumps on South Angell Street between Paterson and Butler. The timeline for that installation is still uncertain, but the Department of Public Works expects installation before the end of 2020.



## Providence Bicycle and Pedestrian Advisory Commission

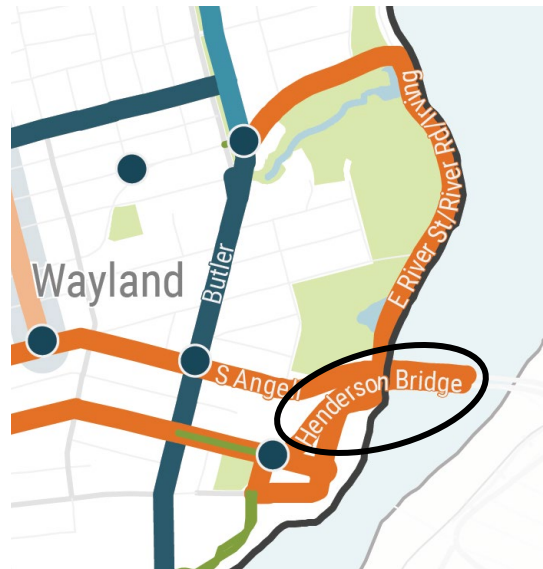
Jorge O. Elorza, Mayor

### Changes since Prior BPAC discussion

- Most of the design changes have been on the East Providence side of the bridge
- RIDOT has suggested integrating some improvements to the Providence-side landing into a “Phase 2”

### Status of features discussed previously by BPAC

- **Bicycle and pedestrian infrastructure on the bridge:** Minimal amenities are planned. The path and a metal railing are shown in the plans, but no benches.
- **Intersection at bridge landing:** Minimal safety features are planned for this intersection, with such improvements discussed for “Phase 2”.
- **Lowering bridge height:** The design has kept the bridge at the existing height
- **Development parcels:** Minimal changes are planned to roadway alignment on the Providence side, and thus opportunities for creating development parcels that sometimes occur on bigger projects are not present in this project. Some small amount of land may be freed up adjacent to the existing dog park, and it may make sense for a public process to determine the best use for that land.



*Portion of Urban Trail Network map from Great Streets Plan around Henderson Bridge*

### Staff recommendations

- The state should formally specify Phase 2 funding, timeline, and scope of work, including safety features on the Providence-side landing not included in Phase 1.
- That Phase 2 scope should specify plans for:
  - calming traffic coming off the bridge to no faster than 25mph at Paterson St,
  - conversion of the bridge landing to either a signal-controlled intersection or roundabout with path connections prioritized in either configuration, and
  - conversion of the “Henderson Parkway” on-ramp to the bridge from Waterman Street into a two-way.
  - Prior staff recommendations that should be incorporated into a formal scope for Phase 2 include:
    - The roundabout alternative or alternative options for slowing down westbound vehicular traffic coming off the bridge should be explored. If the T intersection concept is implemented, it should be modified to include traffic control or other traffic calming tools.



**Providence Bicycle and Pedestrian Advisory Commission**

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- Include traffic calming measures at the intersection of Waterman St with the bridge access road, such as aligning the intersection as close to a 90 degree angle as feasible, traffic controls such as stop signs or signals, bump-outs to narrow perceived width, and raised crossings.
  - The HAWK signalized shared use path crossing across the connector road should be a raised crossing or should have advanced speed lumps installed to slow vehicular speed and further improve vulnerable road user safety.
  - Along the connector road between Waterman and the bridge, a horizontal or vertical buffer should be included between the shared use path and the roadway to improve vulnerable road user safety.
  - All vehicular travel lanes should be reduced to no more than 11'-wide.
  - The speed on the connector roads and bridge should be reduced from the existing 35 mph limit to 25 mph to improve safety.
- A neighborhood public process for identifying future uses of any freed-up land should be initiated, perhaps as part of Phase 2 planning.

Respectfully submitted by Alex Ellis.

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2	STANDARD PLAN SYMBOLS & STANDARD LEGEND
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4	STANDARD NOTES - 2
5	JOB SPECIFIC PLAN SYNBOLES, LEGEND AND NOTES
6	KEY PLAN
7-11	TYPICAL SECTIONS NOS. 1-5
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33-53	GENERAL PLAN NOS. 1-21
54-57	MISCELLANEOUS DETAILS NOS. 1-4
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172	LIGHTING LEGEND
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194-195	DETAIL SHEET NOS. 1-2
196	WETLAND MITIGATION PLAN

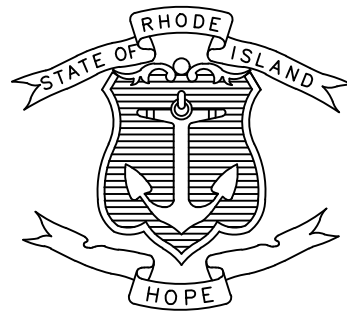
LIST OF VOLUMES

VOLUME 1 - HIGHWAY & LIGHTING PLANS  
VOLUME 2 - BRIDGE PLANS  
VOLUME 3 - TEMPORARY TRAFFIC CONTROL PLANS  
VOLUME 4 - CROSS SECTIONS

R.I. STANDARD SPECIFICATIONS AND STANDARD DETAILS

SPECIFICATIONS TO GOVERN THIS PROJECT ARE THE R.I. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AMENDED MARCH 2018, WITH ALL REVISIONS AND THE STATE AND FEDERAL SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS. STANDARD DETAILS FOR THIS PROJECT ARE R.I. STANDARD DETAILS, 1998 EDITION, WITH ALL REVISIONS.

STATE OF RHODE ISLAND



DEPARTMENT OF TRANSPORTATION

PLAN, PROFILE AND SECTIONS OF PROPOSED

STATE HIGHWAY

BRIDGE GROUP 49 - HENDERSON

RECONSTRUCTION OF HENDERSON BRIDGE NO. 600

PROVIDENCE - SOUTH ANGELL STREET AND WATERMAN STREET TO HENDERSON BRIDGE  
EAST PROVIDENCE - HENDERSON BRIDGE TO NORTH BROADWAY

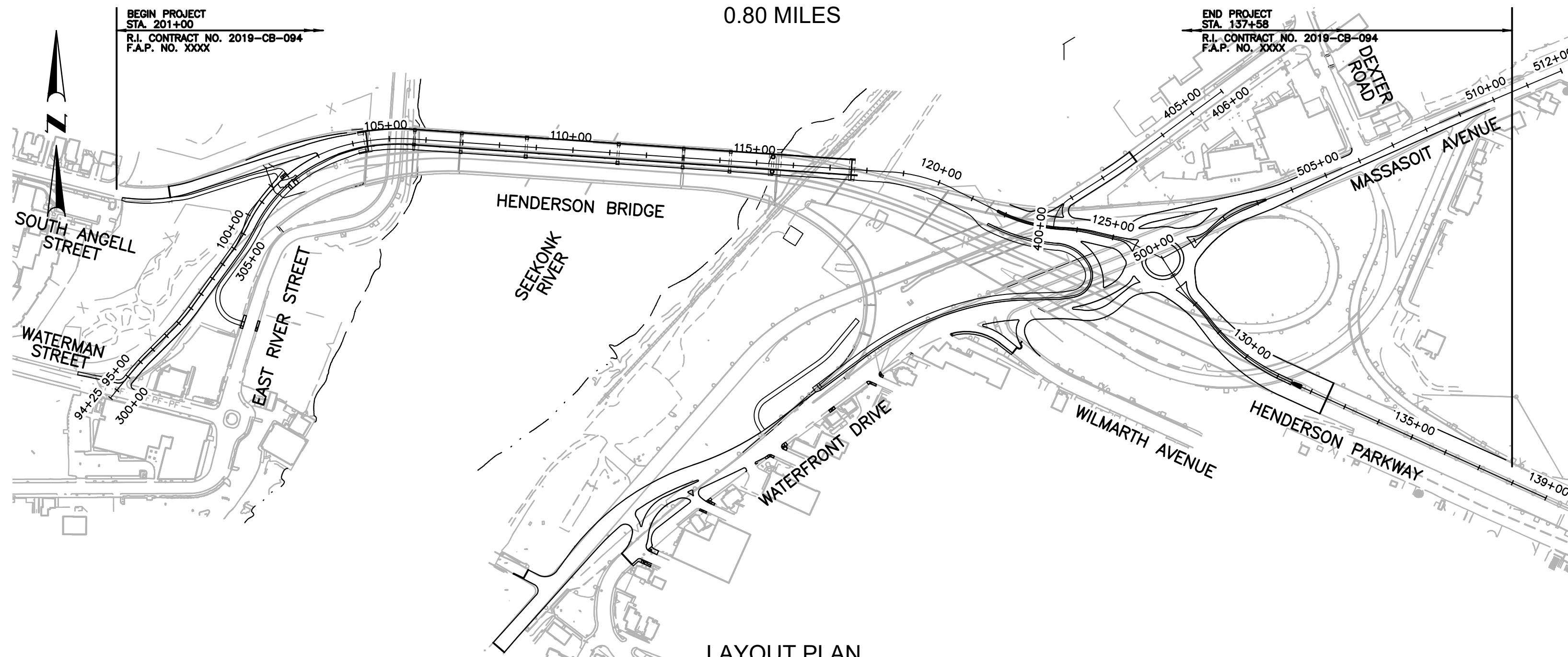
CITIES OF PROVIDENCE AND EAST PROVIDENCE  
COUNTY OF PROVIDENCE

R.I. CONTRACT NO. 2019-CB-094 F.A. PROJECT NO.

PAVEMENT STRUCTURE

2" MODIFIED CLASS 9.5 SURFACE COURSE MODIFIED  
6" MODIFIED CLASS 19 BASE COURSE MODIFIED  
12" GRAVEL BORROW SUBBASE COURSE

0.80 MILES



LAYOUT PLAN  
SCALE: 1"=250'

SCALES OF DRAWINGS  
Plans 1 inch = 20 feet

BASE OF LEVELS  
NGVD 88  
NAD 83 (2011) (EPOCH 2010)

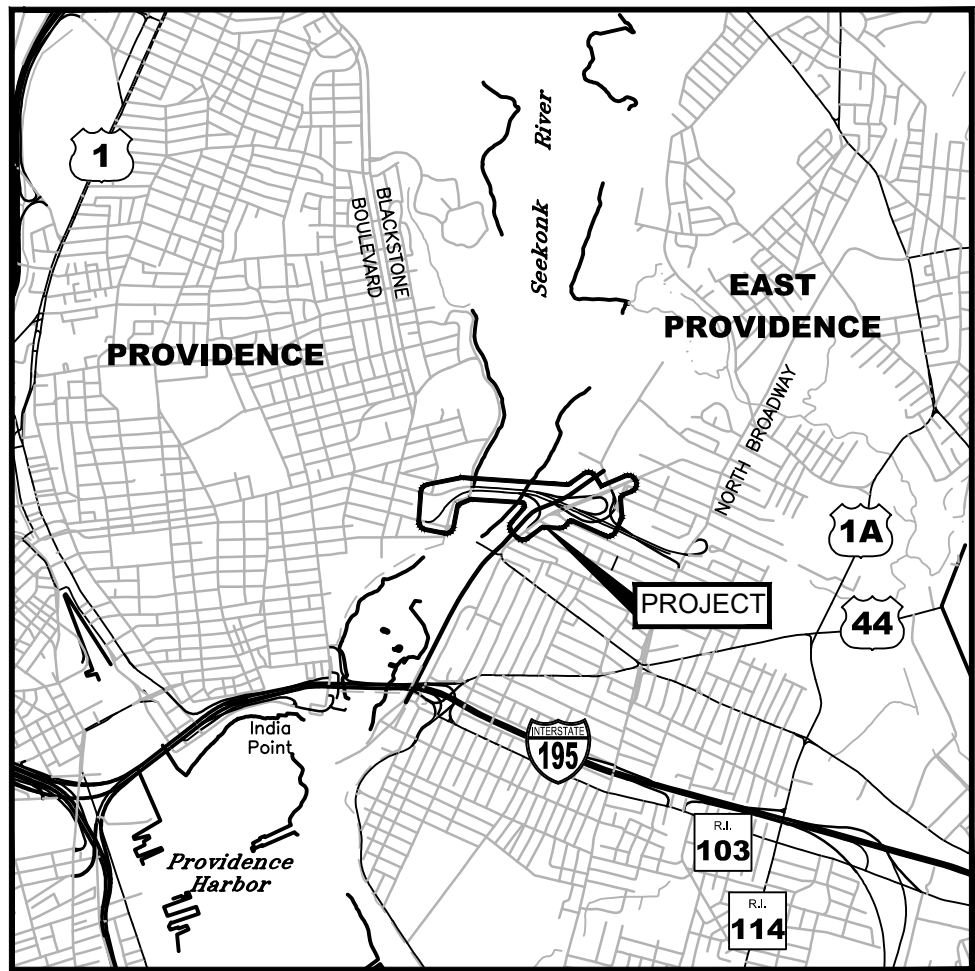
1 Cedar Street  
Suite 400  
Providence, RI 02903  
401.272.8100

Contract Number 2019-CB-094

Number of Sheet 1

Total Sheets 196

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI	XXX-XXX(001)	2020	1	196



LOCATION MAP  
SCALE: 1"=3600'

DESIGN DESIGNATION

	HENDERSON BRIDGE	HENDERSON PARKWAY	MASSASOIT AVENUE	WATERFRONT DRIVE
2019 AADT	20,900 V.P.D.	9,600 V.P.D.	10,500 V.P.D.	4,500 V.P.D.
2043 AADT	24,000 V.P.D.	11,100 V.P.D.	11,200 V.P.D.	24,200 V.P.D.
D	55% WB	60% WB	56% NB	82% NB
K	11.2%	10.7%	9.5%	9.1%
T	2.1%	1.4%	8.9%	8.9%
2019 DHV	2,340 V.P.H.	1,030 V.P.H.	1,000 V.P.H.	410 V.P.H.
2043 DHV	2,690 V.P.H.	1,190 V.P.H.	1,070 V.P.H.	2,200 V.P.H.
DESIGN SPEED	40 M.P.H.	40 M.P.H.	30 M.P.H.	35 M.P.H.

HURRICANE EVACUATION ROUTE

This project does not include work on a designated Hurricane Evacuation and Diversionary Route.

PS&E SUBMISSION  
FEBRUARY 2020

R.I. DEPARTMENT OF TRANSPORTATION

APPROVED

ADMINISTRATOR, PROJECT MANAGEMENT DATE  
APPROVED

CHIEF ENGINEER OF INFRASTRUCTURE DATE  
APPROVED

DIRECTOR DATE

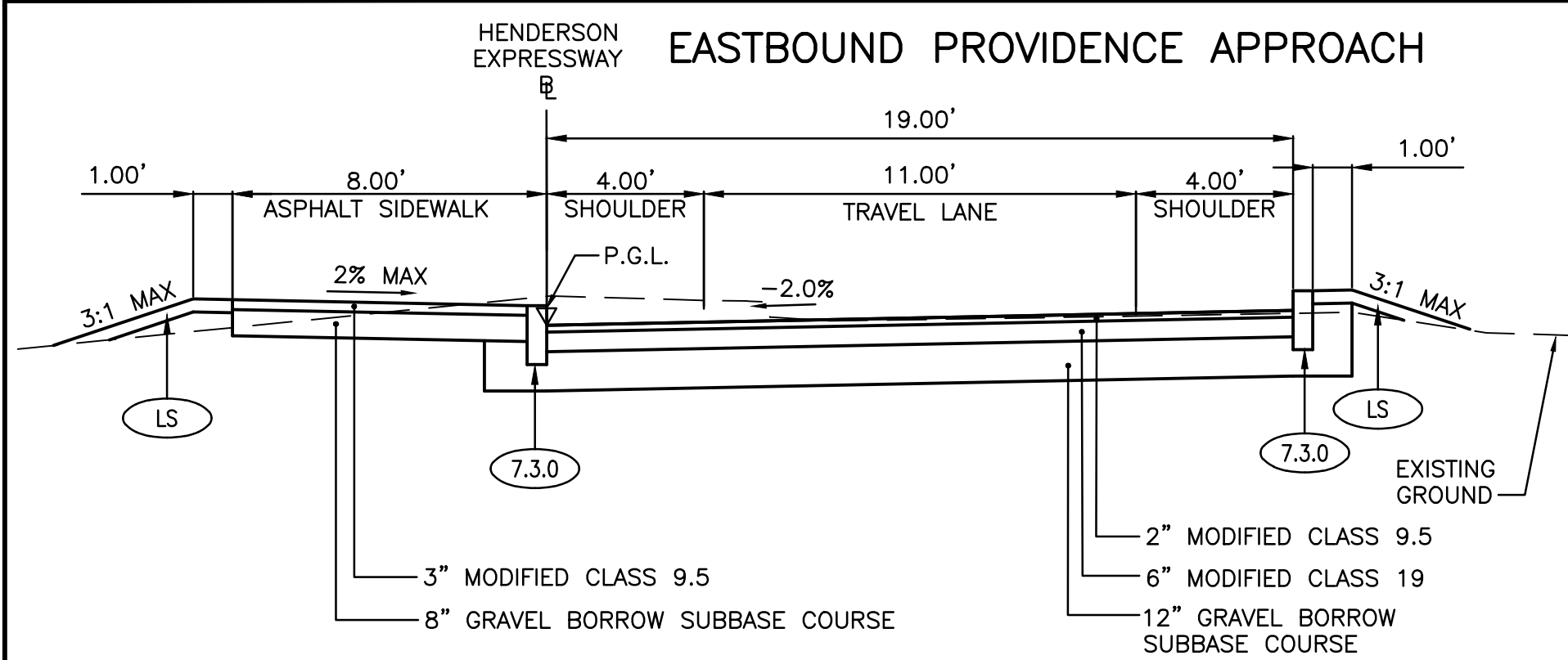
DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

APPROVED

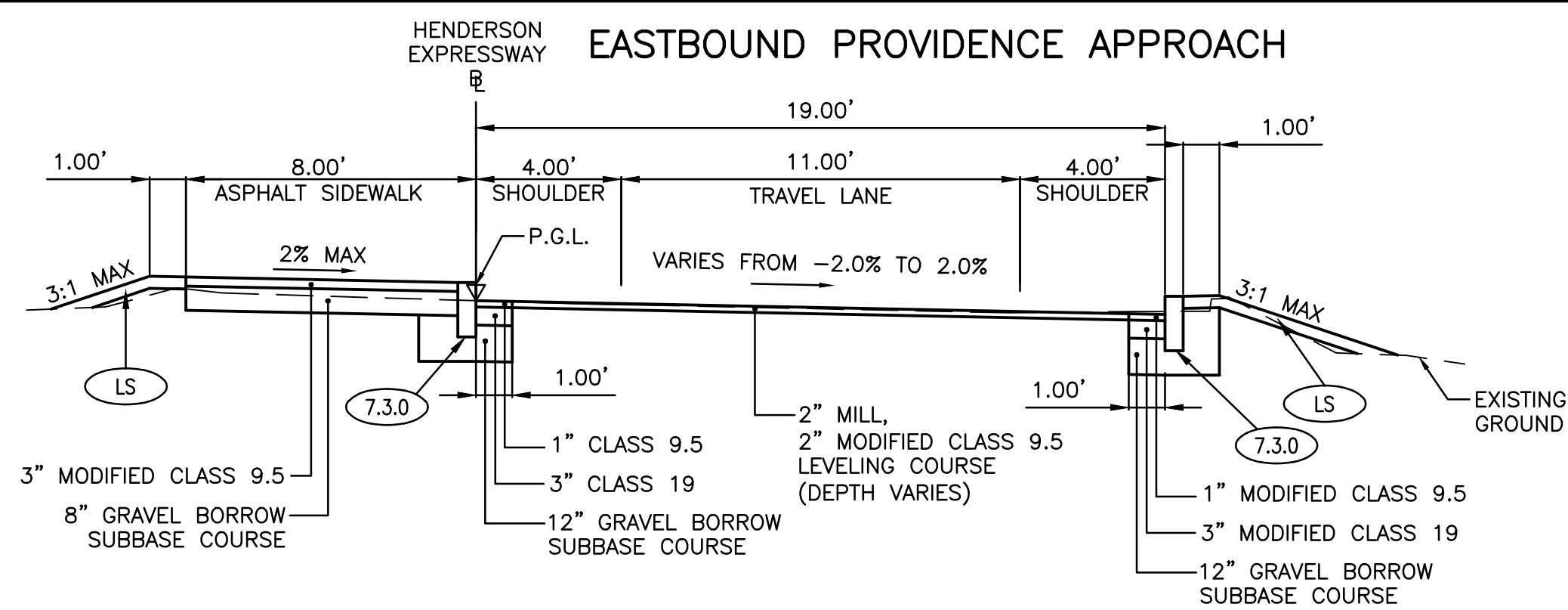
DIVISION ADMINISTRATOR DATE



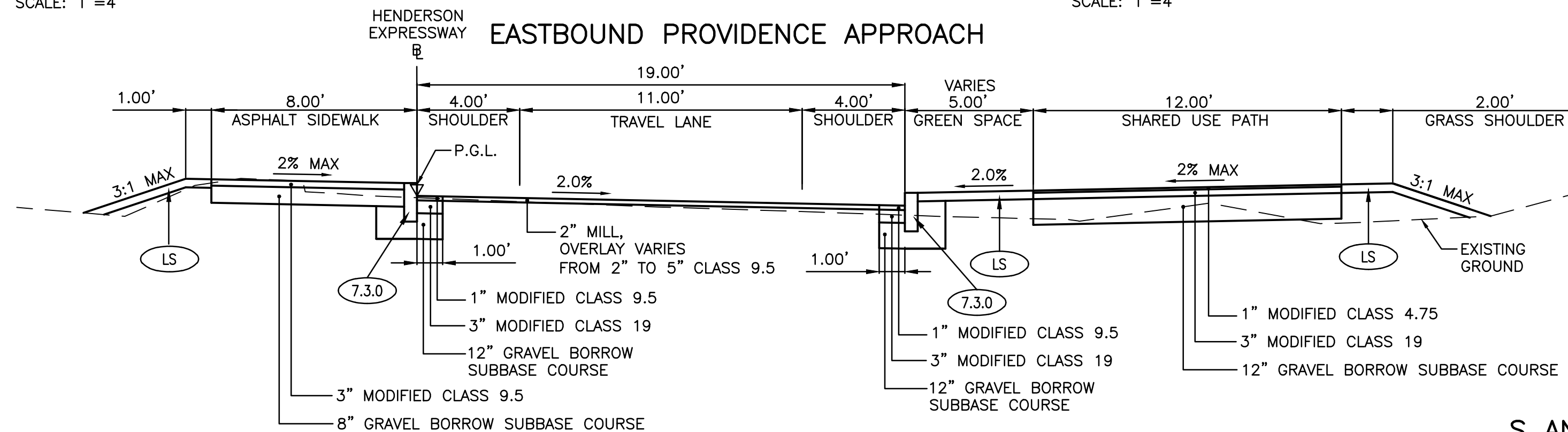
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI		2020	7	196



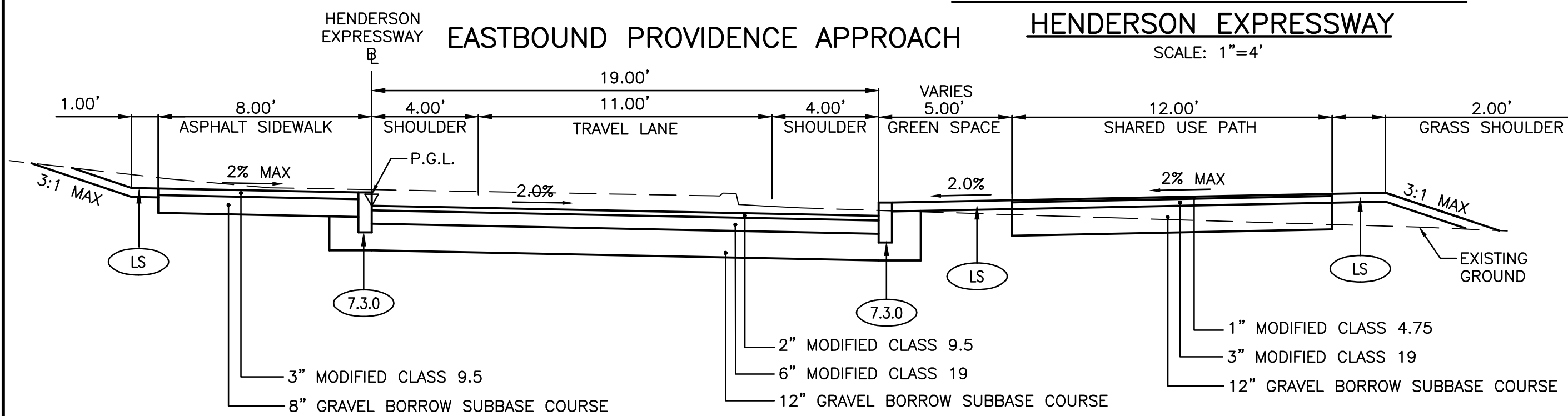
STATION 94+85 TO STATION 96+72  
HENDERSON EXPRESSWAY  
SCALE: 1"=4'



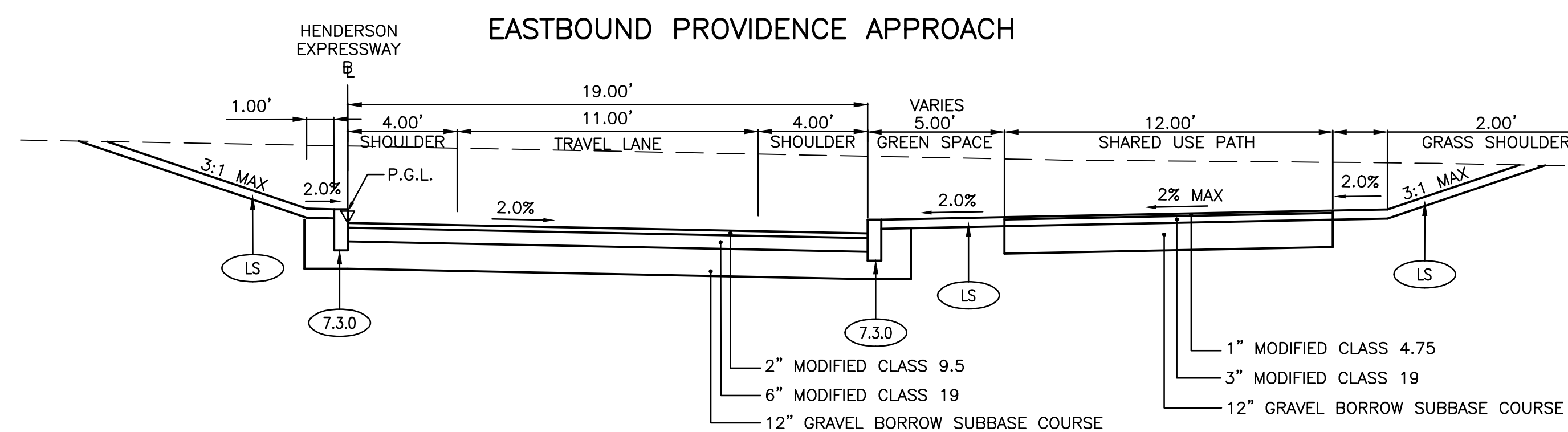
STATION 96+72 TO STATION 98+56  
HENDERSON EXPRESSWAY  
SCALE: 1"=4'



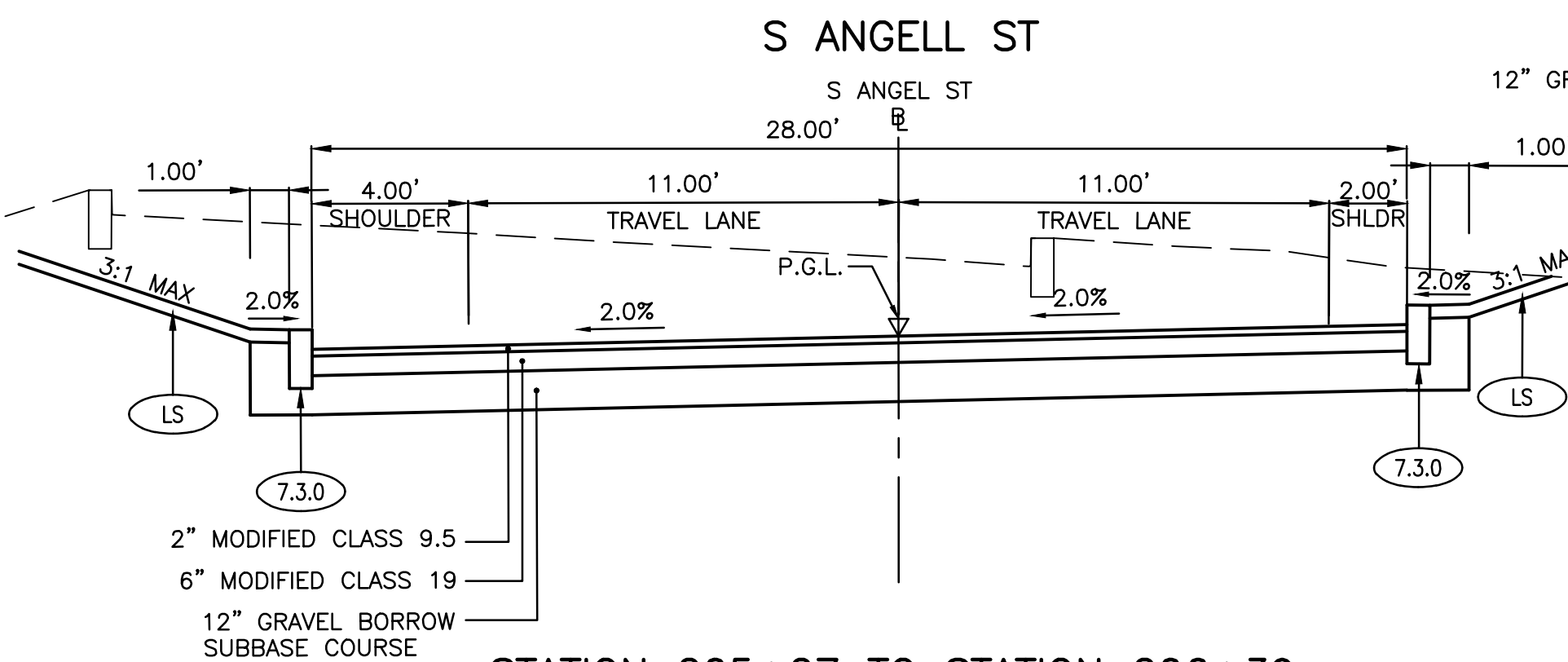
STATION 98+56 TO STATION 99+31  
HENDERSON EXPRESSWAY  
SCALE: 1"=4'



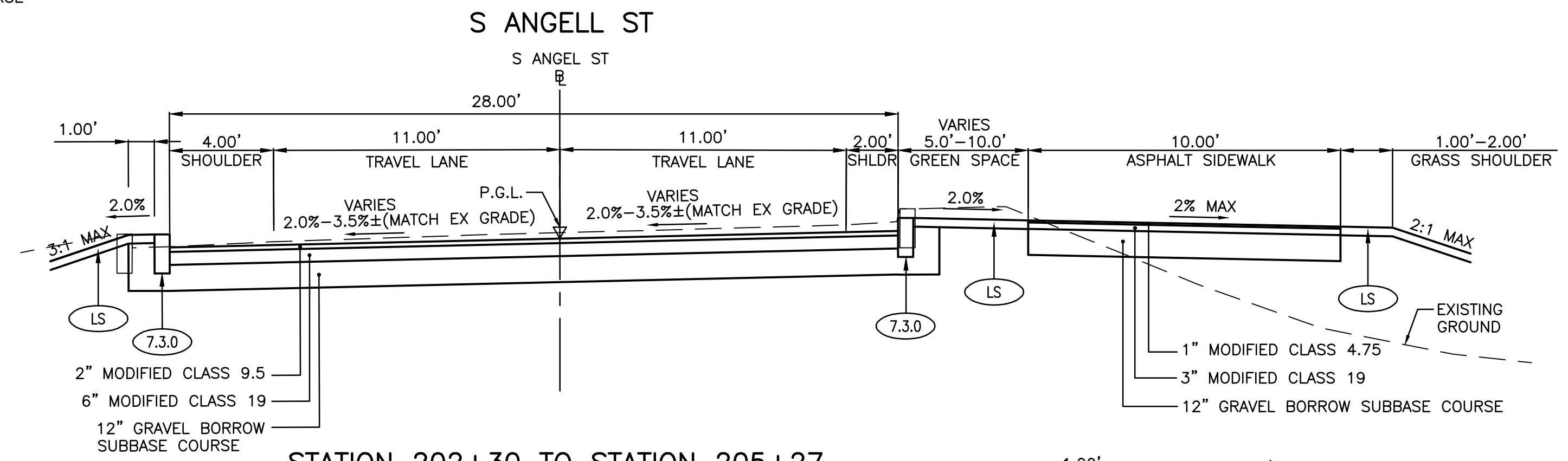
STATION 99+31 TO STATION 101+85  
HENDERSON EXPRESSWAY  
SCALE: 1"=4'



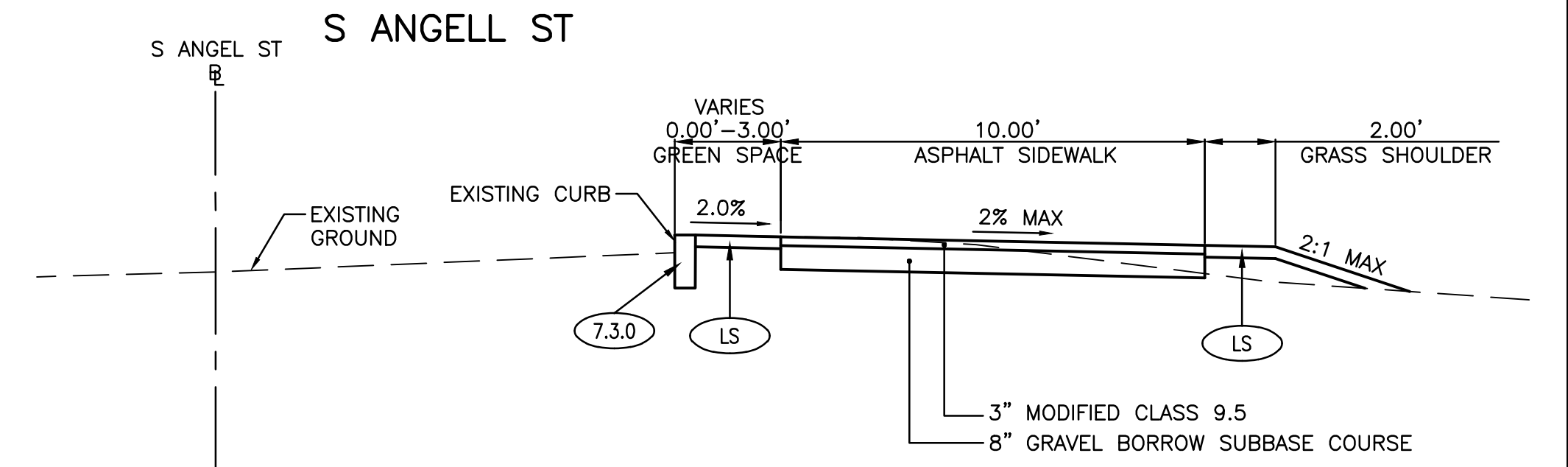
STATION 102+02 TO STATION 103+00  
HENDERSON EXPRESSWAY  
SCALE: 1"=4'



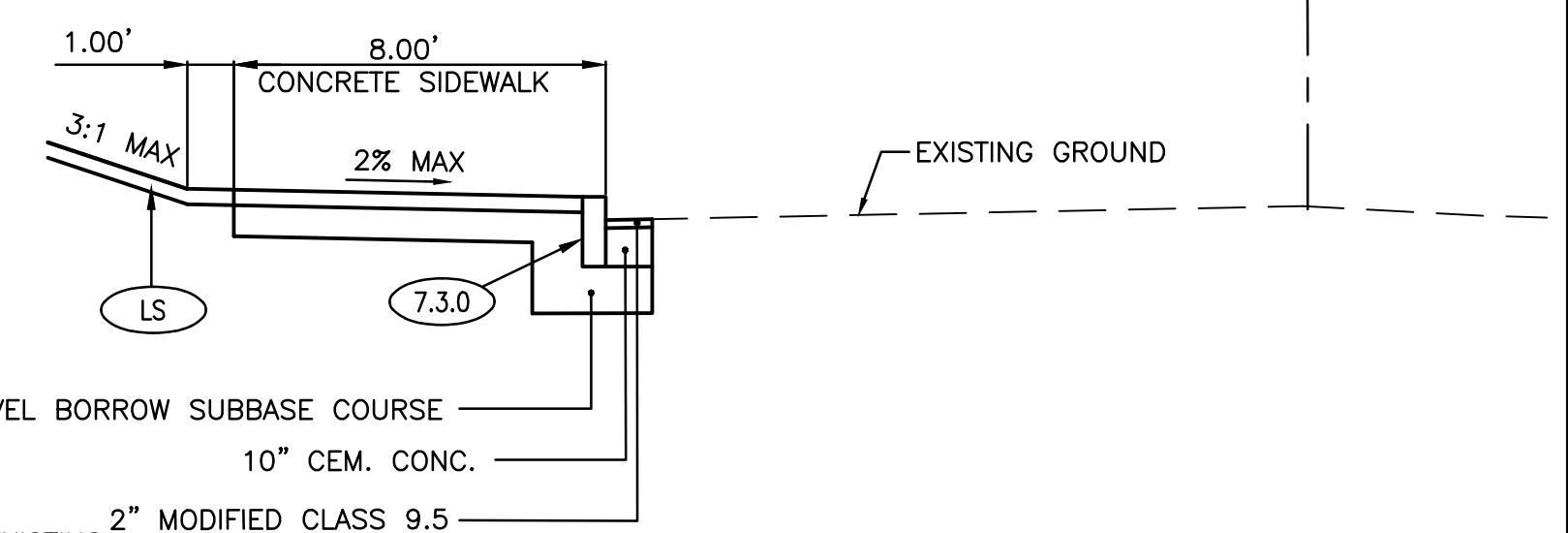
STATION 205+27 TO STATION 206+39  
S ANGELL ST  
SCALE: 1"=4'



STATION 202+30 TO STATION 205+27  
S ANGELL ST  
SCALE: 1"=4'



STATION 201+05 TO STATION 202+30  
S ANGELL ST  
SCALE: 1"=4'



STATION 701+12 TO STATION 702+21  
WATERMAN STREET  
SCALE: 1"=4'

REVISIONS			RHODE ISLAND	
NO.	DATE	BY	DEPARTMENT OF TRANSPORTATION	
			BRIDGE GROUP 49 - HENDERSON	
			RECONSTRUCTION OF	
			HENDERSON BRIDGE NO. 600	
			PROVIDENCE/EAST PROVIDENCE, RHODE ISLAND	
			TYPICAL SECTIONS NO. 1	
			CHECKED BY	DATE
				SCALE 1"=4'















