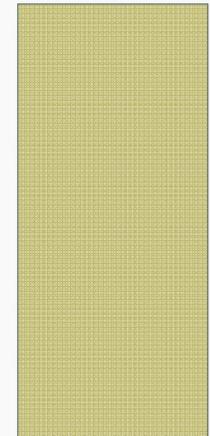


JAMES BOULEVARD CONCRETE REHAB

CONCRETE & ASPHALT COMPARISON



Presented by Town of Signal Mountain & CTI Engineering
Thursday, August 29, 2013 6:00 pm EDT

JAMES BOULEVARD



Existing condition – concrete deterioration

JAMES BOULEVARD



Subsurface condition – deteriorated railroad ties

JAMES BOULEVARD



James Blvd looking west



James Blvd looking east

JAMES BOULEVARD

- The preliminary cost totals shown in the following slides include only the items listed in the table and do not reflect total construction costs.
- A complete construction cost estimate will be provided as part of the engineering design contract.
- The costs shown herein are for budgetary purposes only.

38 FEET – CONCRETE ROADWAY

| With Rails | | Without Rails | |
|-----------------|------------------|-----------------|------------------|
| Stone base | \$ 52,000 | Stone base | \$ 52,000 |
| Pavement | \$342,000 | Pavement | \$342,000 |
| Concrete curbs | \$ 53,000 | Concrete curbs | \$ 53,000 |
| Reinstall rails | <u>\$ 70,000</u> | Reinstall rails | <u>\$ 0</u> |
| TOTAL | \$517,000 | TOTAL | \$447,000 |

- Concrete has a much longer life cycle with little maintenance costs.
- Most costly option. Highest first cost, but less expensive life cycle cost.
- Wider streets tend to be more conducive to speeding.

38 FEET – ASPHALT ROADWAY

With Rails

| | |
|-----------------|------------------|
| Stone base | \$ 52,000 |
| Pavement | \$118,000 |
| Concrete curbs | \$ 62,000 |
| Reinstall rails | <u>\$ 70,000</u> |
| TOTAL | \$302,000 |

Without Rails

| | |
|-----------------|------------------|
| Stone base | \$ 52,000 |
| Pavement | \$118,000 |
| Concrete curbs | \$ 62,000 |
| Reinstall rails | <u>\$ 0</u> |
| TOTAL | \$232,000 |

- Asphalt road typically needs resurfacing approximately every 15 years.
- Overlay cost could run approximately \$36,000 and milling another \$8,000 - \$10,000 for this section of roadway.
- Difficult to get a good seal between the rail and asphalt.
- Water can seep in and deteriorate the asphalt and shorten the life cycle.
- Wider streets tend to be more conducive to speeding.

26 FEET ROADWAY

Concrete without Rails

| | |
|-----------------|------------------|
| Stone base | \$ 40,000 |
| Pavement | \$261,000 |
| Concrete curbs | \$ 58,000 |
| Reinstall rails | \$ <u>0</u> |
| TOTAL | \$359,000 |

Asphalt without Rails

| | |
|-----------------|------------------|
| Stone base | \$ 40,000 |
| Pavement | \$ 90,000 |
| Concrete curbs | \$ 68,000 |
| Reinstall rails | \$ <u>0</u> |
| TOTAL | \$198,000 |

- Overlay cost could run approximately \$27,000 and milling another \$5,000 for this section of roadway.
- 26' Roadway with rails creates safety issues.
- No on-street parking will be allowable with this scenario.
- Lends itself easily to a collector street & to traffic calming

ASPHALT ROADWAYS

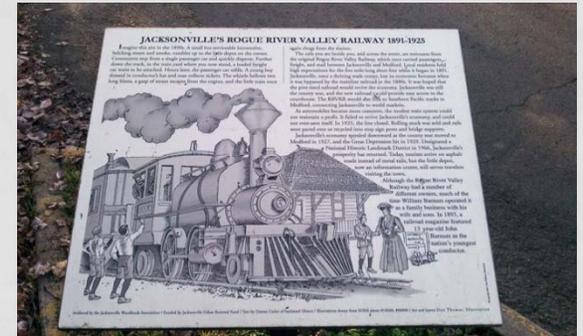
- Resurfacing would require milling so that the overlay is at the same level as the rails.
- It would be difficult to mill along the edges of the rail and maintain a smooth, tight fit.

RIGHT-OF-WAY

- In all cases, the right-of-way usage and footprint will not change.
- All work is to be done within the existing right-of-way.
- No permanent environmental impact issues.
- However, a narrower street will lend itself to more green space on each side of the street.

COMMEMORATIVE SUGGESTIONS

- Memorial adjacent to site using a portion of the original track.
- Memorial at alternative location using a portion of the original track.
- Preserve a portion of the track in place.
- Make portions of the track available to the public.



QUESTIONS

&

COMMENTS









