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 TO: Kevin J. Murphy, City Manager  
 VIA: Jim Donison, DPW Commissioner  
 FROM: Nicolás H. Bosonetto, P.E., City Engineer

**INFORMATIONAL: Street Paving List**

The City Engineer maintains a pavement management system that tracks Road Surface Rating (RSR) values which rate street surface condition from 0 to 100. A freshly repaved street is rated at 100, while a street that has more than 50% of the pavement cracked or more than 10% covered in potholes would rate below a 20. The table below shows the relative condition of the city’s 235 miles of roadway and the anticipated cost to bring all streets to an RSR of above 92. The average RSR for a city street is 70.38.

<u>Status</u>	<u>Length (Miles)</u>	<u>Estimated Cost – Paving Only</u>
Reconstruction (RSR<20)	4.27	\$3,163,790
Reclamation (RSR<50)	40.03	\$19,985,531
Rehabilitation (RSR<70)	84.64	\$19,351,914
Preventative Maintenance (RSR<80)	37.59	\$3,769,668
Routine Maintenance (RSR<92)	39.45	\$334,692
Defer Maintenance	28.35	\$0
<b>Totals</b>	<b>235.37</b>	<b>\$46,605,596</b>

The City Engineer’s office typically receives around \$3.5 Million per year for repaving and sidewalk reconstruction. In order to make the most effective use of these funds, streets are ranked using a Cost Benefit Value (CBV) equation which takes into account the RSR, the life of the repair, the cost and the amount of traffic using the street every day.

For example, Pawtucket Street from University Avenue to Middlesex Street has an average RSR of 59.65 and average daily traffic of about 7,800 vehicles/day. This is the lowest value for any arterial roadway in the city. There are however about 170 residential streets which have an RSR below 60 but that carry much lower traffic volumes than an arterial roadway.

In order to maximize the effectiveness of the paving program, it is necessary to prioritize roadways based on a cost benefit value and to concentrate on arterial and collector roadways. Residential streets which abut these principal roadways should be paved in conjunction with the main roadway work.

## Street Paving Procedures

Prior to paving streets, it is necessary to have all of the utilities, drainage and sidewalk improvements completed in order to assure a long service life of the new pavement. The City Engineer coordinates in advance all paving work with NGRID gas, LRWWU and LRWU. Sidewalks and ADA ramps are also inspected for possible improvements and complete streets and economic development opportunities are also assessed.

## Spring 2018 Paving Lists

The 2018 spring paving list was formulated in an attempt to address some longstanding requests from City Council and local residents. Utility work has been completed and the paving work will begin in early April and be completed by June of this year.

<b>Street</b>	<b>RSR</b>	<b>Classification</b>
Aberdeen Street	24	Local
Butterfield	46	Local
C Street	32	Local
Central Street	60	Minor Arterial
Duren Avenue	44	Local
Eighteenth Street	10	Local
Elliot Drive	55	Local
Foch Street	n/a	Local
Humphrey Street	36	Local
Joffrey Street	44	Local
Mammoth Road	58	Minor Arterial
Mansion Drive	0	Local
Merrimack Street (Kearney Sq. to Dutton Street)	60	Minor Arterial
Mt. Vernon Street (Broadway to Pawtucket)	50	Collector
Mt. Washington Street	39	Local
Nob Way	21	Local
Parkview Avenue (Hovey to Mansur)	39	Local
Prince Avenue	48	Local
South Street	57	Local
Swan Street	41	Minor Arterial
Thorndike Street (YMCA to Gallagher)	59	Principal Arterial
Walker Street (W. Adams to Broadway)	50	Collector
Rogers School Parking Lot	n/a	Parking Lot
Robinson School Driveway	n/a	Parking Lot
Pemberton Street (LRWU)	47	Local
Seventeenth Street (LRWU)	58	Local
Surrey Lane (LRWU)	13	Local

### Future Paving Lists

For the next several years, engineering personnel and financial resources have been allocated towards successful completion of the HCID infrastructure, TIGER Bridges, Route 38 widening, Thorndike Street widening and Lord Overpass projects. These projects will limit our ability to take on large corridor improvements such as Bridge Street or Cupples Squares, but routine paving will continue.

Below is a tentative list for the 2018 summer and fall paving list.

<b>Street</b>	<b>RSR</b>	<b>Classification</b>
Varnum Avenue (Bedford Ave to Totman Rd)	57	Minor Arterial
Shirley Avenue	0	Local
Melrose Avenue	10	Local
Lexington Avenue	27	Local
Bedford Avenue	21	Local
Fowler Road/Boulevard Street	30/26	Local
Meadow Drive	19	Local
Rule Lane	28	Local
Karen Street	0	Local
Nelson Street	24	Local
Ina Street	49	Local

For the following years, we have the following corridor projects as candidates for sidewalk and traffic improvements which would also include paving of the corridor and any side streets which are in disrepair.

<b>Street</b>	<b>RSR</b>	<b>Classification</b>
Middlesex/Branch Street (Lord Overpass to School Street)	30-70	Minor Arterial
Pawtucket Street (Mt. Vernon St to Broadway)	59	Principal Arterial
Merrimack Street (Cabot St to City Hall)	62	Minor Arterial
Middlesex Street (Burnside St to Cornell St)	65	Principal Arterial
Chelmsford Street (Plain St to Short Street)	79	Minor Arterial
Inland Street (Chelmsford St to Wilder St)	0	Local – Safe Routes to School
Appleton Street (Lord Overpass to Church Street - conversion to two-way traffic)	68	Principal Arterial
High Street (E. Merrimack St to Andover St)	51	Collector
Hildreth Street (Bridge St to Aiken St)	52	Collector