



MINUTES OF THE SOUTH OGDEN CITY TOWN HALL MEETING

THURSDAY, SEPTEMBER 26, 2019 – 6:00 P.M.

NATURE PARK AMPHITHEATER

5875 S 1175 E, SOUTH OGDEN, UTAH, 84405

COUNCIL MEMBERS PRESENT

Mayor Russell Porter, Council Members Sallee Orr, Brent Strate, Adam Hensley, and Susan Stewart

STAFF MEMBERS PRESENT

City Manager Matt Dixon, Police Chief Darin Parke, Fire Chief Cameron West, Parks and Public Works Director Jon Andersen, Assistant to the City Manager Doug Gailey, Finance Director Steve Liebersbach, and Special Events Coordinator Ember Herrick

CITIZENS PRESENT

Joan H. Blevins, Gary Godfrey, Shauna DeCaria, May DeCaria, Jaylynn Hoskins, Wes Stewart, Tarina Chase, Heather Kraaima

Note: The time stamps indicated in blue correspond to the audio recording of this meeting which can be found at this link:

https://www.southogdencity.com/document_center/Sound%20Files/CC190926_1808.mp3

or requested from the office of the South Ogden City Recorder.

I. OPENING CEREMONY

A. Call To Order

Mayor Russell Porter began the meeting at 6:08 pm by calling for a motion to open.

00:00:10

Council Member Strate moved to convene in a Town Hall meeting, followed by a second from Council Member Hensley. Council Members Orr, Strate, Hensley, and Stewart all voted aye.

B. Pledge of Allegiance

Council Member Stewart led those present in the pledge.

00:00:24

II. PUBLIC COMMENTS

Joan Blevins-

00:02:16

Asked for information about the Old City Hall and Senior Center

Council response:

00:03:11

Wes Stewart-

00:06:36

Mr. Stewart asked questions on several items, including travel and training by council members and roads. He submitted a handout to the Council. See Attachment A.

Council response:

00:15:16

Gary Godfrey-

00:39:57

Mr. Godfrey commented on rats in the city and on vacant properties

Council response:

00:43:43

III. ADJOURN

At 6:56, Mayor Porter called for a motion to adjourn.

00:50:32

Council Member Strate moved to adjourn the meeting, followed by a second from Council Member Orr. The voice vote was unanimous in favor of the motion.

I hereby certify that the foregoing is a true, accurate and complete record of the South Ogden City Town Hall Meeting held Thursday, September 26, 2019.


Leesa Kapetanov, City Recorder

Date Approved by the City Council November 19, 2019

Attachment A

Handout from Mr. Stewart

TECHBRIEF



The FHWA Pavement Technology Program is a comprehensive and focused set of coordinated activities. These activities are grouped under five major areas—Asphalt; Portland Cement; Pavement Design and Management; Advanced Research; and Long-Term Pavement Performance. The goal of the program is the development, delivery, and utilization of a broad spectrum of improved technologies that will lead to better-performing and more cost-effective pavements. The program is product and end-result oriented with the intent of significantly advancing and improving pavement technology and pavement performance.



U.S. Department of Transportation
Federal Highway Administration

Research, Development, and Technology
Turner-Fairbank Highway Research Center
6300 Georgetown Pike
McLean, VA 22101-2296

www.fhwa.gov

Sealing and Filling Cracks in Asphalt Pavements

FHWA Contact: Monte Symons, 202-493-3144

Background

Sealing and filling asphalt concrete pavement cracks is a common road maintenance activity. Specialized materials are placed into or above cracks to prevent the intrusion of water and incompressible material into the cracks and to reinforce the adjacent pavement. To address deficiencies in current crack treatment materials, designs, and practices, the Strategic Highway Research Program (SHRP) and the Federal Highway Administration (FHWA) sponsored the most extensive investigation of crack treatment effectiveness ever undertaken. Monitoring and evaluation of these treatments were performed under the Long-Term Pavement Performance (LTPP) program. Between March and August of 1991, four transverse crack seal test sites and one longitudinal crack fill test site were constructed in the United States and Canada. Upon completion, 6,710 meters of cracks were treated with materials selected for evaluation.

Objectives

The primary objective of the crack treatment experiment was to determine the most effective and economical materials and methods for conducting crack-sealing and crack-filling operations. Secondary objectives included the identification of performance-related material tests and quicker, safer installation practices.

Key Benefits of This Research

The benefits of this study include service life estimates of crack sealants and fillers in asphalt concrete pavements, more cost-effective maintenance operations, decreased exposure of highway workers to traffic, and fewer maintenance delays for the traveling public.

Experiment Design

The test sites were located on highways of moderate traffic volume in four climatic regions. The four crack seal sites were located on the following roadways:

- Interstate 20—Abilene, Texas
Dry-nonfreeze region

- State Route 8—Elma, Washington
Wet-nonfreeze region
- State Route 254—Wichita, Kansas
Dry-freeze region
- Interstate 35—Des Moines, Iowa
Wet-freeze region

The longitudinal crack fill site was located at:

- Highway 401—Prescott, Ontario
Wet-Freeze region

Crack treatment materials and installation methods are outlined in Table 1.

Evaluations

Ten evaluations were performed during the 6.5-year period. The following evaluation parameters were used:

- Weathering
- Pull-outs
- Overband wear
- Tracking
- Extrusion
- Stone intrusion
- Adhesion loss
- Cohesive loss as a result of tensile/shear forces
- Cohesive loss as a result of bubbling
- Edge deterioration

During each evaluation, detailed examinations and measurements were made at each crack to determine treatment effectiveness. Two sets of laboratory tests were conducted. Initial tests ensured that the materials used in the experiment met the specifications maintained by the manufacturer. Supplemental performance tests were intended to

strengthen correlations between laboratory-determined engineering properties and actual field performance.

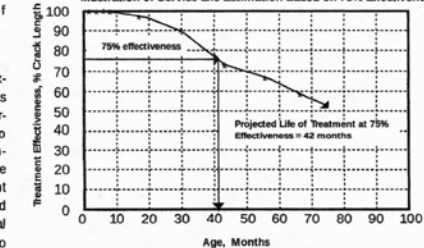
Service Life Comparison

Throughout this study, treatments were subjected to numerous, highly detailed inspections for distresses and failures. For this reason, it was determined that field performance would best be framed in terms of service life, which was defined as the estimated time for a treatment to reach the 75 percent effectiveness level. In other words, the service life is the time required for 25 percent of the crack length to develop failure.

The effectiveness level is simply the failure level subtracted from 100 percent (i.e., 10 percent overall failure equals 90 percent overall effectiveness).

Rating	Effectiveness Level (%)
Very good	90–100
Good	80–89
Fair	65–79
Poor	50–64
Very poor (failed)	< 50

FIGURE 1
Illustration of Service Life Estimation Based on 75% Effectiveness



Most of the distresses observed represented a reduction in a treatment's ability to perform its function (i.e., to keep water and incompressible materials out of the crack channel). Examples of these distresses include partial-depth adhesion and cohesion loss and overband wear. Some distresses, such as full-depth pull-outs and full-depth adhesion and cohesion loss, signified a treatment's failure to perform its function. These latter distresses were termed failure distresses. The total amount of failure distress observed in a treatment formed the basis for performance comparison.

Key Findings

- Of 61 treatments, 32 had failed after the final round of evaluations.
- Half of the eight crack-fill treatments performed favorably after the final evaluation period. The other half failed.
- Generally, the test sites with greater amounts of crack movement and traffic showed lower levels of treatment effectiveness than sites with less crack movement and traffic.

4277 Vapin was by standard 11

Crack Treatment Material	Method ¹	Average Estimated Time (in Months) at Which 75% Effectiveness Level Was Reached					Avg.
		Texas	Kansas	Washington	Iowa	Ontario ²	
		ADT=10K ³	ADT=27K	ADT=19K	ADT=14K	ADT=19K	
Meadows HI-Spec	A-2				57		57
	A-3	56	43	118	51		70
	B-3	78	59	120	82		85
	C-3		56		88		72
	D-3	48	30	120	39		59
Crafco RS 515	D-4	44	29	95	42		53
	B-3	109		120	112		114
	C-3		80		95		89
	D-3	56	33	118	45	← *	64
	B-3	111		120	106		112
Koch 9030	C-3		68		113		91
	D-3	45	24	120	51	← *	60
	B-3	86		120	114		107
	C-3		70		112		91
	D-3	48	29	119	59	← *	64
Kapelo BF+AC	D-3	9	6	105	19		35
Dow 980-SL	E-6	54	48	109	72		71
Crafco AR1	B-3		52				52
Koch 9000-S	B-3		56				56
EH CRS-2P	G-4				5		5
Crafco RS 211	B-3			120			120
	H-4					74	74
	G-1					42	42
AC	G-4					42	42
	D-4					98	98
	G-4					86	86
Hercules BF+AC	D-4					79	79
Wilco CRF	G-4					43	43
Hy-Grade Kold Flo	G-4					35	35
Avg. Service Life		62	46	116	71	62	71

Notes: ADT=average daily traffic. K=1,000.

1. The installation methods used were:

- Configuration
- A. Standard Reservoir-and-Flush
- B. Standard Recessed Band-Aid
- C. Shallow Recessed Band-Aid
- * D. Simple Band-Aid - *Robert S. Ogden had installed*
- E. Deep Reservoir-and-Recess
- F. Standard Reservoir-and-Recess
- G. Simple Flush-Fill
- H. Capped

Preparation Procedure

- 1. None
- 2. Wire Brush and Compressed Air
- 3. Hot Compressed-Air Lance
- 4. Compressed Air
- 5. Light Sandblast, Compressed Air, and Backer Rod
- 6. Compressed Air and Backer Rod
- 7. Light Sandblast, Compressed Air, and Backer Tape

2. Ontario was the longitudinal crack-fill test site. All others were transverse crack-seal test sites.

3. 2-way ADT vehicles per day:

• The predominant modes of treatment failure were adhesion loss and cohesion loss.

• The most cost-effective treatments were usually those consisting of rubberized asphalt placed in a standard or shallow-recessed Band-Aid configuration.

• The standard recessed Band-Aid method showed the longest estimated service life, followed very closely by the shallow recessed Band-Aid.

Recommendations

• For short-term crack-seal performance (between 1 and 3 years) in pavements with ordinary working cracks (2.5-5.0 mm of horizontal crack movement) and moderate traffic levels, a standard rubberized asphalt should be placed in a simple Band-Aid configuration.

• For medium-term crack-seal performance (between 3 and 5 years) under the above conditions, either a standard rubberized as-

phalt may be placed in a recessed Band-Aid configuration or a modified rubberized asphalt may be placed in a simple Band-Aid configuration.

• For long-term crack-seal performance (between 5 and 8 years) under the above conditions, a modified rubberized asphalt sealant should be installed in either a standard or shallow recessed Band-Aid configuration.

• For short-term crack-fill performance (1 to 3 years) in pavements with nonworking cracks (less than 2.5 mm of horizontal crack movement) and low to moderate traffic levels, asphalt cement should be placed in flush-fill configuration.

• For long-term crack-fill performance (between 5 and 8 years) under the above conditions, an asphalt rubber or rubberized asphalt may be placed in either a flush-fill or overband configuration, or a fiberized asphalt may be placed in an overband configuration.

• The importance of quality control in crack sealing and filling operations cannot be overemphasized. Crucial to quality control is an objective, hands-on inspector.

References

1. Belangie, M.C., and D.I. Anderson. 1985. *Crack Sealing Methods and Materials for Flexible Pavements Final Report*, Report No. FHWA/UT-85/1, Utah Department of Transportation, Salt Lake City, Utah.
2. Evans, L.D. et al., 1991. "Strategic Highway Research Program (SHRP) H-106 Experimental Design and Research Plan," SHRP Contract SHRP-89-H-106, SHRP National Research Council, Washington, D.C.
3. Evans, L.D. et al., 1992. "Strategic Highway Research Program (SHRP) H-106 Evaluation and Analysis Plan," SHRP Contract SHRP-89-H-106, SHRP National Research Council, Washington, D.C.

Researcher: This study was performed by ERES Consultants, Inc., 505 West University Avenue, Champaign, IL 61820-3915. Contract No. DTPH-93-C-00051.

Distribution: This TechBrief is being distributed according to a standard distribution.

Availability: This TechBrief is based on report No. FHWA-RD-99-143, "LTPP Pavement Maintenance Materials: SHRPAC Crack Treatment Experiment, Final Report." A limited number of copies are available from the R&T Report Center, FHWA, 9701 Philadelphia Court, Unit Q, Lanham, MD 20706; telephone: (301) 577-0818; fax: (301) 577-1421. Copies are also available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

Key Words: Crack seal, crack fill, working cracks, weathering, pull-outs, overband wear, tracking, extrusion, stone intrusion, adhesion failure, cohesive failure.

Notice: This TechBrief is disseminated under the sponsorship of the U.S. Department of Transportation in the interest of information exchange. The TechBrief provides a synopsis of the study's findings. It does not establish policies or regulations, nor does it imply FHWA endorsement of the products mentioned, the conclusions reached, or recommendations made. The U.S. Government assumes no liability for the contents or their use.

November 1999

FHWA-RD-99-176

A NEW PARK FOR SOUTH OGDEN CITY

On August 20, 2019, the South Ogden City Council directed staff to prepare bond documents in the amount of approximately \$10.7 million dollars. The full \$10.7 million is NOT going toward the new Burch Creek Park. The largest portion of the total is going toward refunding (a term used for bonds that essentially means refinancing) existing bonds at a better interest rate. The refunding will save the City approximately \$50,000 per year throughout the life of the bond. However, the remaining \$4.3 million portion of the bond will go toward not only the new Burch Creek Park, but also to create a usable park area on the property that was the site of the old Club Heights Elementary School.

The Council weighed fully the pros and cons of bonding for the new parks. The con would be adding new debt to the city at an approximate 3% interest rate. The pros were that building the parks now using current construction costs would save the City money, as construction costs historically increase 5% per year. So even if the City saved up and built the park in increments as the money was available, it would end up costing much, much more. Not only that, but by bonding for the parks, they would be available now for residents to enjoy, not in ten or twenty years.

The parks will not be built to the scope they were originally planned at. The Council wanted to get the costs of the parks down as much as possible while still remaining true to the original design presented in applying for and receiving several grants for Burch Creek Park totaling \$973,350.

At right is an illustration of the park with a list of features, including some that were removed to keep costs down.

You can view conceptual pictures of some of the park features on page three.

1 Grass playing fields*

2 Walking trail

3 Picnic shelter

4 Hill climb feature eliminated due to cost

5 Fitness stations (5 in all)

6 Labyrinth

7 Sledding hill

8 Pavilion

9 Playground

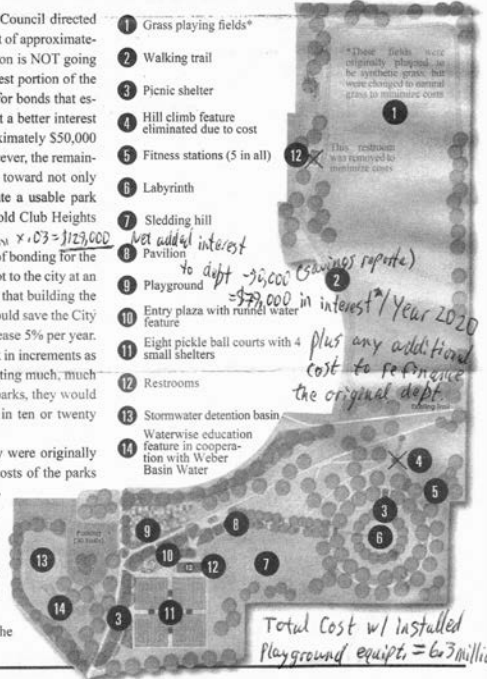
10 Entry plaza with running water feature

11 Eight pickle ball courts with 4 small shelters

12 Restrooms

13 Stormwater detention basin

14 Waterwise education feature in cooperation with Weber Basin Water



TOP JOB Asphalt

It's not just our name, It's our promise!

Phone: 435-764-0451

Fax: 801-386-5627

Mail: PO BOX 454, Mendon, UT 84325

Josh Sully
South Ogden City
(801) 622-2700

South Ogden Fall Crack
Seal

Created
10/11/17

South Ogden
City

Service	Price
---------	-------

Asphalt Repairs

☒ Crack Seal

\$26,842.00

Blow debris from surface cracks and place hot rubberized crack sealer according to manufacturer specifications. Does not include concrete/asphalt joints, alligators or hairline cracks.

Blow debris from horizontal asphalt / concrete seams and seal with hot rubberized crack sealant according to manufacturer's specifications. Note that the band of black tar will overlap asphalt and concrete and may overlap either or both 1-3 inches. Vertical seams not included.

Total \$26,842.00

1 inches is pretty small.

This means a "bandaid" fix was applied (1-3 years life expectancy on the asphalt repair than it will have failed).

"Band-Aid" 1" to 3" patch applied to crack Was any specific product specified? If not city most likely got a cheap product.

horizontal surface blow & then "Band-Aid" patch applied.

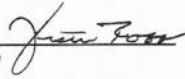
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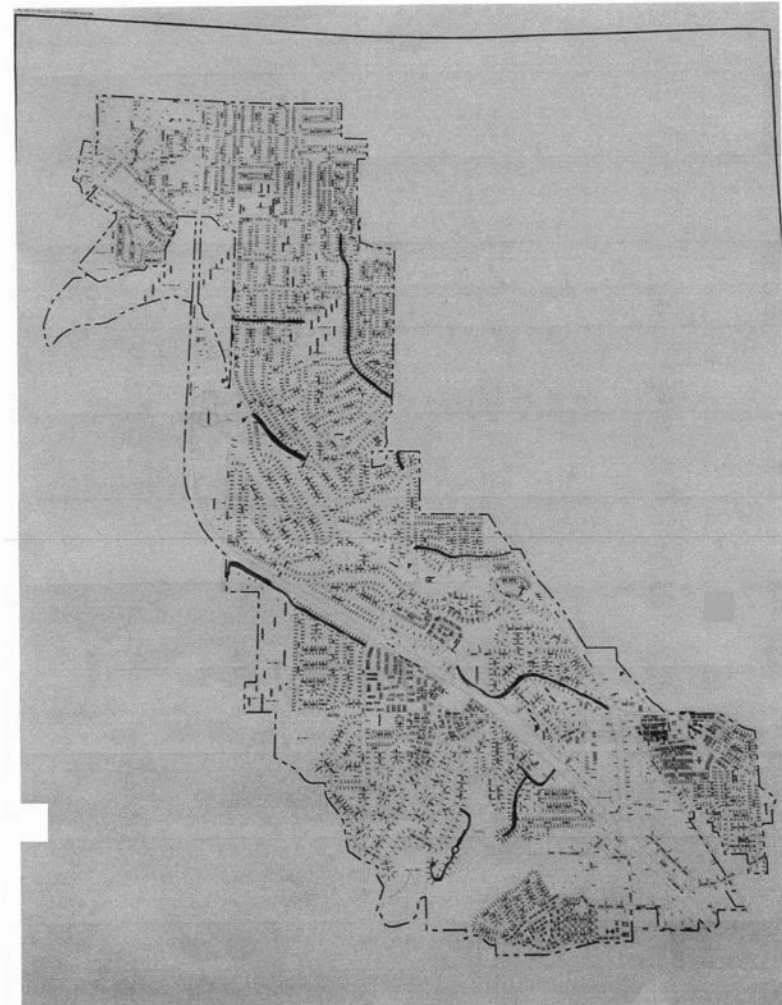
Crackseal 2017

Proposal of CKC Asphalt
South Ogden City Fall Crack Seal & Sweep

	<u>Price Per Street</u>
43 rd Street- from Adams Ave east to Madison Ave	\$1,195.20
Park Vista Drive- From 1100 East to end	\$2,091.60
5300 South- from 850 East to Adams Ave Parkway	\$5,378.40
Main Point Blvd- from Crestwood south to cul de sac	\$2,390.40
Crestwood Drive- from highway 89 to Oakwood Drive	\$1,643.40
5600 South- from Harrison to 1050 east	\$2,988.00
Edgewood- from Burchcreek to Jefferson	\$1,045.80
Monroe Blvd- from 40 th Street to Nancy Drive	\$5,826.60
Glasman- from Edgewood north to city boundary	\$1,344.60
5100 South- from Glasman way to Harrison Blvd	\$2,988.00
TOTAL BID:	\$26,892.00

Signature of qualified representative of CKC Asphalt:

X 
Justin Robb
CEO



Resolution No. 17-42

**RESOLUTION OF SOUTH OGDEN CITY APPROVING AN AGREEMENT
WITH TOP JOB ASPHALT FOR ROAD CRACK SEALING, AND PROVIDING
THAT THIS RESOLUTION SHALL BECOME EFFECTIVE IMMEDIATELY
UPON POSTING AND FINAL PASSAGE.**

WHEREAS, the City Council finds that the City of South Ogden ("City") is a municipal corporation duly organized and existing under the laws of Utah; and,

WHEREAS, the City Council finds that in conformance with Utah Code ("UC") § 10-3-717 the governing body of the city may exercise all administrative powers by resolution including, but not limited to regulating the use and operation of municipal property and programs; and,

WHEREAS, the City Council finds it necessary to address certain Road Crack Sealing needs within the city; and,

WHEREAS, the City Council finds that the city staff recommends that the city contract with Top Job Asphalt for the installation and completion of Road Crack Sealing; and,

WHEREAS, the City Council finds that Top Job Asphalt has the professional ability to provide for these services to meet the city's needs; and,

WHEREAS, the City Council finds that City now desires to further those ends by contracting with Top Job Asphalt to provide such services; and,

WHEREAS, the City Council finds that the public convenience and necessity requires the actions contemplated,

**NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BODY OF
SOUTH OGDEN AS FOLLOWS:**

SECTION II - CONTRACT AUTHORIZED

That The "Contract Agreement" For The Road Crack Sealing, Attached Hereto As **Attachment "A"** And By This Reference Fully Incorporated Herein, Is Hereby Approved And Adopted; And That The City Manager Is Authorized To More Fully Negotiate Any Remaining Details Under The Agreement On Behalf Of The City And Then To Sign, And The City Recorder Authorized To Attest, Any And All Documents Necessary To Effect This Authorization And Approval.

SECTION III - PRIOR ORDINANCES AND RESOLUTIONS

The body and substance of all prior Resolutions, with their provisions, where not otherwise in conflict with this Resolution, are reaffirmed and readopted.

Page 1 of 2

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pdf (Page 1 of 2)

Best Repair Ranking Description

- 1 Replace needed utilities and repave base (6" thick) & replace with new concrete (6-inch depth)
- 2 Replace needed utilities and repave base (8" thick) & replace with new asphalt (3-inch min. depth)
- 3 Replace failed base and asphalt and replace with new base (8" thick) and new asphalt (3-inch min. depth)
- 4 Mill out existing asphalt, use sand cone density test (by geotechnical engineer) to verify existing subbase has min. 95% density for proper new asphalt installation. If base has failed, scarify and recompact existing base material (plus 4" additional base material), repave (3-inch min. asphalt)
- 5 Mill out existing asphalt, use sand cone density test (by geotechnical engineer) to verify existing subbase has min. 95% density for proper new asphalt installation. If good reinstall 3" new asphalt
- 6 For existing roads that have new asphalt (within the last 10-15 years), provide asphalt overlay prior to Major distresses appearing. Overlays should be limited to one per roadway since underlying asphalt continues to crack, and reflective cracks will be mirrored though the new pavement (which increase in over time allowing water to enter into the pavement and weakening the underlying base support material with freeze thaw cycles in the winter months. Existing cracks should be properly sealed with hotpour asphalt sealant prior to the overlay.
- 7 This shouldn't be an option really, but since our city is doing this on failed pavement that the city has decided to provide a second, third, or fourth Mill and overlay to, at a minimum provide a liberal amount of tack coat to top of asphalt surface and exposed sides of curb (to ensure a good pavement bond). A city approved asphalt geotextile fabric product should be placed on top of the tack coat prior to paving.
- 8 For pavement that the city doesn't care about and is planning to totally rip out in the near future (5 years or less) apply tack coat to the existing milled surface prior to paving. This option is really only acceptable if there is a known to Mill and overlay only on previously overlaid surface. Expect that reflective cracking will occur within 1 to 3 years
- 9 Pavement will deteriorate at an accelerated rate due to cracks and resultant weathering (see below for more information). Over time, this is the least effective option and most expensive (or produces the worst results), hurting property values of the local residents. In the September 2019 city council meeting, the city Manager reported that he was thought that property values going up for residents was considered a good thing, so I would expect that this option should not be chosen for an area where lower income residents live and the city Manager feels like increasing the property values is a good thing for these residents. The truth of the matter is that this option has been the only option used by our city in almost all areas of our city and this is why most of our roads are failing. You can't put new asphalt on a failed roadway surface and expect to get good results. The rollers can't compact it properly for starters, which means no warranty to their work (they themselves know it is a poorly installed finish product). Because no warranty can be there provided, the city is more likely to get a quick throw it in, roll it down, and walk away from it product. Why put your best employees on a job or use your best asphalt when compaction (which is the key to good quality asphalt) can not be achieved? On our city roads there exists so much unevenness (pot holes and improperly filled potholes where asphalt was previously dumped into potholes and rolled over by the back wheels of the city truck, that it is impossible, in fact the underlying pavement will most likely failed as the asphalt rollers are rolling over the newly placed asphalt. This will create weak points everywhere the city had placed "loose" asphalt. A Miller grinding smooth the top of the pavement would help pop out these improperly placed potholes, or a leveling course applied (to fill the irregular surfaces) prior to paving would also help, but because these options add more cost, they are not chosen.

Note 0: Prior to city hiring or performing major roadwork repair/replacement all existing utility companies should be notified a year in advance of anticipated work so that they can repair or upgrade any of their existing utility lines prior to new road work installation. This includes city owned/maintained water, storm drain and sewer lines. This will help prevent unnecessary cuts and patches (that will weaken) and give an unsightly appearance to the newly installed pavement surfaces.

Note 1: For all roads to prevent premature pavement failure, it is critical that the subbase is properly compacted.

Note 2: Pavement should be dry prior to any paving operations. Because of this requirement repairs should be completed ideally during dryer summer months. Where needed, secondary irrigation lines should be temporarily shut off where nuisance water from the gutter is draining into the area to be paved. Property owners should be notified a week prior.

Note 3: A tack coat should be applied to all exposed edges of concrete (by lip of curb) and over the asphalt to be overlaid (this is the glue holding the new asphalt to the old pavement)

Note 4: For asphalt overlays where there are cracks present, an approved geotextile asphalt pavement fabric should be used. This provides a "snow shoeing effect" that helps

Note 5: For asphalt overlays where there are cracks present, an approved geotextile asphalt pavement fabric should be used. This provides a "snow shoeing effect" that helps

Note 6: On all roads where the desired life expectancy of the asphalt is 10 years or more, a good quality asphalt mix design should be used. It should not contain more than 15% Recycled Asphalt Product (RAP), temperature of the asphalt should be hot when delivered (300 degrees Fahrenheit)

Note 7: Where the road bond has been broken (between overlay on multiple overlay asphalts), there should be an 1.5" leveling course followed by a 1.5" min. paving course depth

Note 8: Badly cracked asphalt (where asphalt cracks exhibit a pulverized cracking (less than 5' x 5' area showing, multiple cracks), the pavement has failed and should be milled out full depth and replaced (refer to Notes above prior to repaving asphalt).

In order to properly achieve the results of Notes listed above, a properly trained inspector should observe that the road is properly constructed. Specifications and punitive pay reductions (as high as 75% reduction in pay to the contractor), and option to reject poorly installed asphalt should be part of the contract and specifications. Flexible Pavement (asphalt paving) is similar to a rubber band in that when it is new, it doesn't have cracks, but as it ages it becomes more brittle. Asphalt rejuvenation (when properly and timely applied), can save city money and extend the life of asphalt pavement. Our city should use these to avoid more asphalt repairs.

"The Role of Water"

AASHTO lists the number one cause of pavement deterioration as water beneath the pavement.

A pavement saturated 10% of the time will see its lifespan decrease by 50%.

According to AASHTO, upwards of 75% of water striking pavement passes through the asphalt to the base.

In addition, a 1/8" crack in the surface of the asphalt will allow 97% of water striking that area of the pavement to pass through to the base."

(source: US Fabrics, (800) 518-2290, <https://www.usfabricsinc.com/geotextileapplications/asphaltoverlay/>)

In our city with our local climate the best time to start a road construction project would be April or May, so that secondary irrigation can be shut off. Because asphalt is a petroleum based product, it repels water and is impossible to get a proper bond to the underlying material when water is present. These areas create a "floating pavement section" that will not have a three dimensional bond and will be one of the weaker sections of pavement, and a likely first candidate to break and pop out (causing a pothole down the road).

Asphalt Crack Sealing in Utah

Asphalt crack sealing in Utah is designed to prevent water from flowing through cracks in the asphalt, thus protecting the asphalt from water damage.

<https://www.fhwa.dot.gov/publications/research/infrastructure/pavements/tpp09176/09176.pdf>

Crack seal is made of a rubberized asphalt which is designed to expand and contract with the asphalt as the temperature shifts.

This means crack sealing will not only repair your asphalt but also prevent cracks from growing.

Crack sealing is one of the most important things you can do to extend the life of your asphalt. In fact, the Federal Highway Administration found that the most cost-effective treatment for asphalt cracks is the use of "rubberized asphalt in a standard or shallow-recessed Band-Aid configuration."

<https://www.utahseashell.com/services/crack-sealing/>

From website:

We live in a climate similar to Iowa (with wet freeze thaw cycles). According to the published data there are three products which produce high quality results and there are two methods if doing hot pour seals that were deemed effective. (Note that the band-aid method that S. Ogden city consultants have been installing are not effective and are listed as failing as is evident in many of our South Ogden City roadway repair projects or our existing failed roads. The band aid seal only lasts one to three years. On newly installed pavements where there are not a lot of cracks. All of the methods require hot compressed air Lance (for cleaning the surface to achieve a good bond, and blowing out the debris in the cracks for the longer high quality bond. To achieve top quality results, city should have a qualified inspector observing the contractor's cleaning methods for the work, and the contractor should get paid per gallon of product used (measure the amount of liquid at the start and stop of each day) and they get paid for the volume of cracks filled.

http://www.southogdencity.com/document_center/Resolutions/2017/Resolution_17-42_-_Approving_Agreement_with_Top_Job_Asphalt_for_Road_Crack_Sealing_-_WITH_ATTACH_-_17_Oct_17.pdf

According to the follow website, asphalt in a drive way should be replaced between 20 and 25 years: <https://www.homeadvisor.com/cost/outdoor-living/repair-asphalt-paving/> (see bottom of page). How much over 20 years have most residential roads in our city been neglected for needed asphalt replacement? Why if our city cares about residents having good property values, why doesn't the city spend the needed money to properly repair and maintain all roads????

I suppose that answer to be responded is because this would be costly. Well at what point does a city wide infrastructure has failed status, which I'm guessing is where we are at (since the city has not publically posted)? In a town hall meeting over a year ago, Mayor Porter promised that the streets report that evaluated which streets needing replaced most would be available online for the public to see.

http://www.southogdencity.com/departments/public_works/city_streets.php

TABLE 1. Estimated Service Life in Months of Tested Crack Treatment Material

Crack Treatment Material	Method ¹	Average Estimated Time (in Months) at Which 75% Effectiveness Level Was Reached					Avg.
		Texas ADT=10K ³	Kansas ADT=27K	Washington ADT=19K	Iowa ADT=14K	Ontario ² ADT=19K	
Meadows Hi-Spec	A-2				57		57
	A-3	58	43	118	81		70
	B-3	78	59	120	82		85
	C-3		56		88		72
	D-3	48	30	120	39		59
Crafco RS 515	D-4	44	29	95	42		53
	B-3	109		120	112		114
	C-3		80		95		88
	D-3	56	33	118	45		64
	B-3	111		120	106		112
Koch 9030	C-3		68		113		91
	D-3	45	24	120	51		60
	B-3	86		120	114		107
Meadows XLM	C-3		70		112		91
	D-3	48	29	119	59		64
	D-3	9	6	105	19		35
Kapelo BF+AC	D-3	54	48	109	72		71
Dow 890-SL	B-3		52				52
Crafco AR+	B-3		56				56
Koch 9000-S	B-3						56
Elit CRS-2P	G-4				6		6
Crafco RS 211	B-3			120			120
	H-4				74		74
	G-1				42		42
AC	G-4				42		42
	D-4				98		98
Crafco AR2	G-4				86		86
Hercules HP+AC	D-4				79		79
Witco CRF	G-4				43		43
Hy-Grade Kold Flo	G-4				35		35
Avg. Service Life		62	46	116	71	62	71

Notes: ADT=average daily traffic. K=1,000.

1. The installation methods used were:

Configuration

A. Standard Reservoir and Flush

B. Standard Recessed Band-Aid

C. Shallow Recessed Band-Aid

D. Simple Band-Aid - *what S. Ogden had installed*

E. Deep Reservoir and Recess

F. Standard Reservoir and Recess

G. Simple Flush-Fill

H. Capped

2. Ontario was the longitudinal crack-fill test site. All others were transverse crack-seal test sites.

3. 2-way ADT vehicles per day.

Preparation Procedure

1. None

2. Wire Brush and Compressed Air

3. Hot Compressed-Air Lance

4. Compressed Air

5. Light Sandblast, Compressed Air, and Backer Rod

6. Compressed Air and Backer Rod

7. Light Sandblast, Compressed Air, and Backer Tape

The predominant modes of treatment failure were adhesion loss and cohesion loss.

The most cost-effective treatments were usually those consisting of rubberized asphalt placed in a standard or shallow-recessed Band-Aid configuration.

The standard recessed Band-Aid method showed the longest estimated service life, followed very closely by the shallow recessed Band-Aid.

Recommendations

For short-term crack-seal performance (between 1 and 3 years) in pavements with ordinary working cracks (2.5-5.0 mm of horizontal crack movement) and moderate traffic levels, a standard rubberized asphalt should be placed in a simple Band-Aid configuration.

For medium-term crack-seal performance (between 3 and 5 years) under the above conditions, either a standard rubberized as-

phalt may be placed in a recessed Band-Aid configuration or a modified rubberized asphalt may be placed in a simple Band-Aid configuration.

For long-term crack-seal performance (between 5 and 8 years) under the above conditions, a modified rubberized asphalt sealant should be installed in either a standard or shallow recessed Band-Aid configuration.

For short-term crack-fill performance (1 to 3 years) in pavements with nonworking cracks (less than 2.5 mm of horizontal crack movement) and low to moderate traffic levels, asphalt cement should be placed in flush-fill configuration.

For long-term crack-fill performance (between 5 and 8 years) under the above conditions, an asphalt rubber or rubberized asphalt may be placed in either a flush-fill or overband configuration, or a fiberized asphalt may be placed in an overband configuration.

The importance of quality control in crack sealing and filling operations cannot be overemphasized. Crucial to quality control is an objective, hands-on inspector.

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Key Words: Crack seal, crack fill, working cracks, weathering, pull-outs, overband wear, tracking, extrusion, stone intrusion, adhesion failure, cohesive failure.

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