May 3, 2011

TO: Members of the MAG Standard Specifications and Details Committee

FROM: Troy Tobiasson, City of Goodyear, Chair

SUBJECT: MEETING ADDENDUM

Wednesday, May 4, 2011 at 1:30 p.m.
MAG Office, Suite 200 (Second Floor), Cholla Room
302 North 1st Avenue, Phoenix

This addendum includes updated case information and working group reports not included in the original agenda packet. Included are:

- Updated Case List
- Updated New Case 11-07: Hot In-Place Recycling
- Updated New Case 11-08: Revisions to Section 711 Paving Asphalt
- New Case 11-09: Preservation Seal for Asphalt Concrete Revisions, Sections 334 and 718
- Asphalt Working Group 4/13/11 Minutes
- Materials Working Group 4/13/11 Minutes

2011 PROPOSED REVISIONS TO MAG SPECIFICATIONS AND DETAILS

(Updated information can be found on the website: http://www.azmag.gov/Projects/Project.asp?CMSID=1055&CMSID2=1136

CASE	DESCRIPTION	PROPOSED BY	MEMBER	SUBMITTAL DATE Last Revision	VOTE DATE	VOTE	
10-05	Case 10-05: Revise FOREWARD to clarify use of the *MAG Specifications and Details for Public Works Construction* document.	Peoria	Jesse Gonzales	03/03/2010 03/02/2011		0 0 0	Yes No Abstain
10-08	Case 10-08: Re-write Section 717 ASPHALT-RUBBER.	MCDOT	Bob Herz	05/05/2010 02/18/2011		0 0 0	Yes No Abstain
10-12	Case 10-12: New Section 361 – Shallow Depth Fiber Optic Micro-Conduit Installation.	Scottsdale	Rod Ramos	05/05/2010 02/02/2011		0 0 0	Yes No Abstain
11-01	Case 11-01: Miscellaneous Corrections. A: Correct typographical errors in Table 711-1. B: Correct typographical error in Table 705-1. C: Correct errors in Detail 212.	MCDOT SRP	Bob Herz Peter Kandaris	01/05/2011 04/06/2011		0 0 0	Yes No Abstain
11-02	Case 11-02: Add an Asphalt Pavement Safety Edge option to Detail 201.	MCDOT	Bob Herz	01/05/2011 04/06/2011		0 0 0	Yes No Abstain
11-03	Case 11-03: Replace cadmium plated bolts referenced in Section 610.13 with zinc plated bolts as described in ASTM-B633.	Peoria	Jesse Gonzales	02/02/2011		0 0 0	Yes No Abstain
11-04	Case 11-04: Replace reference to MAG Detail 190 in MAG Section 301 with ASTM D4718. Delete MAG Detail 190.	OROW WG/ SRP	Peter Kandaris	03/02/2011 04/06/2011		0 0 0	Yes No Abstain
11-05	Case 11-05: Move MAG Section 225 Water Requirements into MAG Section 104.1.3.	OROW WG/ SRP	Peter Kandaris	03/02/2011		0 0 0	Yes No Abstain
11-06	Case 11-06: Remove sections and details of the MAG specifications that are no longer used or refer to outdated technologies.	OROW WG/ Buckeye	Scott Zipprich	03/02/2011 04/06/2011		0 0 0	Yes No Abstain
11-07	Case 11-07: Revisions to Section 327 - Hot In-Place Recycling.	AGC	Jeff Benedict	05/04/2011		0 0 0	Yes No Abstain

2011 PROPOSED REVISIONS TO MAG SPECIFICATIONS AND DETAILS

(Updated information can be found on the website: http://www.azmag.gov/Projects/Project.asp?CMSID=1055&CMSID2=1136

CASE	DESCRIPTION	PROPOSED BY	MEMBER	SUBMITTAL DATE Last Revision	VOTE DATE	VOTE	
11-08	Case 11-08: Revise Section 711 Paving Asphalt to update performance tables and reference ASTM standards.	AGC	Jeff Benedict	05/04/2011		0 0 0	Yes No Abstain
11-09	Case 11-09: Preservative Seal for Asphalt Concrete – Revise sections 334 and 718.	AGC	Jeff Benedict	05/04/2011		0 0 0	Yes No Abstain

SECTION 327

HOT IN-PLACE RECYCLING

327.1 DESCRIPTION

This work shall consist of rehabilitating the surface layer of existing asphalt concrete pavement. Rehabilitation shall be accomplished with specially designed equipment in a simultaneous multistep process of heating, scarifying, applying an asphalt recycling agent and thoroughly remixing and reshaping the old asphalt concrete surface to an average depth or 1", and then placing an overlay of new hot mix asphalt concrete in compliance with the lines, grades, thickness and typical cross sections shown on the plans (typically 1" to 2"). NOTE: This work shall be performed with a single machine that heats, scarifies, recycles and spreads new asphalt concrete hot mix, all in one continuous pass. Additional preheaters may be utilized to achieve specified depth and temperature.

327.2 MATERIALS:

Asphalt Recycling Agent used to restore the existing pavement shall be approved by the Engineer prior to use. A manufacturer's certification shall be submitted for each load of recycling agent delivered to the project.

Hot Mix Asphalt Concrete (HMAC) shall meet the requirements of section 710 or section 717.

327.3 EQUIPMENT

The Contractor shall specify, in the bid proposal, the type of equipment intended for use. The equipment shall be on the project in operating condition a minimum of 2 days before beginning operations to allow evaluation by the Engineer. The Engineer reserves the right to reject equipment deemed not suitable for the intended purpose, at no additional cost to the Agency.

The recycling equipment shall meet the following minimum requirements:

Repaver: The equipment for this work shall be a self-contained, self-propelled, automated unit capable of heating, scarifying (or milling), mixing, redistributing and leveling the existing asphalt concrete pavement to the specified depth, all in a single pass.

It shall have a means of automatically applying an asphalt recycling agent at a uniform rate as shown on the plans, special provisions, or as requested by the Engineer. It shall be capable of applying a new HMAC layer over the hot, partially compacted recycled mixture.

Heating Unit: This unit shall be hooded to prevent damage to adjacent property, including trees and shrubs. It shall be capable of heating the pavement surface to a temperature high enough (375° - 400° F.) to allow scarification to the required depth without breaking aggregate particles or charring the pavement surface.

Scarifying or Milling Units: The scarifiers or rotary millers shall be able to penetrate the pavement surface to a depth shown, up to a maximum of one inch in one pass. Scarifiers or millers shall be equipped with separate, automatic height adjustments which allow clearance over manholes and other obstructions.

Recycling Agent Applicator: This system shall automatically add recycling agent to the scarified material at a uniform rate as shown on the plans, special provisions or as requested by the Engineer. The application rate shall be synchronized with the machine's forward speed to maintain a tolerance, within 5% of the specified rate.

Conveying System: Shall consist of a receiving hopper and conveying system to collect and transport new hot mix asphalt concrete material to the finishing unit.

Recycling Unit: A system that mixes, distributes and levels the scarified material over the width processed to produce a uniform cross-section of recycled material.

Finishing Unit: This unit shall have automatic screed controls to produce a surface conforming to that shown on the plans. The unit shall be capable of producing a uniform slope, grade and texture.

327.4 CONSTRUCTION METHODS:

The pavement to be treated shall be cleaned of trash, debris, earth or other deleterious substances present in sufficient quantity to interfere with the work to be performed.

The heating shall be sufficient to soften the pavement to the extent that it can be scarified or milled to the depth specified. Due to the varying properties of the existing asphalt pavement, depth of the scarification material may be varied, if requested by the Engineer. Heating shall be done in a manner that will assure uniform softening and will not char the asphalt.

The Contractor shall be responsible for protecting the area adjacent to the work from heat damage. If damage occurs, the Contractor shall replace all damaged areas, landscape, curb, parked vehicles, etc. at not cost to the Agency.

To provide a welded longitudinal joint, the standing edge of the adjoining asphalt pavement shall be fully heated to a width at least 2 inches beyond the width to be scarified and recycled.

Immediately following heating, the pavement surface shall be scarified (or milled) to the specified depth. The scarified material shall have a temperature between 225° F. and 265° F. unless otherwise requested by the Engineer. The material shall be leveled, mixed and treated with a recycling agent. The application rate shall be as shown on the plans, special provisions or as requested by the Engineer. Application rate for the recycling agent may be adjusted as necessary to maintain a uniform mixture.

The reclaimed material shall be gathered by a leveling device and spread to a uniform depth over the width being processed. After it is placed and while it still has a residual temperature of at least 190° F., a layer of new HMAC conforming to the job mix formula shall be placed over it. The application rate of new material shall be sufficient to provide the required pavement thickness.

Construction, compaction and smoothness of the surface shall be in accordance with Section 321 except as modified in this section

327.5 WEATHER CONDITIONS:

This work shall not be done when it is raining or if there is a threat of rain. The ambient temperature shall be at least 50° F. and rising and the application shall cease when the temperature reaches 55° F. and falling.

327.6 AIR QUALITY:

The equipment and process shall meet all Arizona Department of Environmental Quality (ADEQ) and County air quality regulations and the Contractor shall have the appropriate ADEQ air quality control permit prior to the issuance of the notice to proceed.

327.7 MEASUREMENT:

Pavement Recycling will be measured by the square yard completed and accepted. Recycling Agent will measure by the gallon of actual material used in place. Hot Mix Asphalt Concrete (HMAC) will be measured by the ton in place.

327.8 PAYMENT:

The accepted quantities of pavement recycling will be paid at the contract unit price per square yard. Payment shall include cleaning the existing pavement surface and heating, scarifying, redistributing, leveling and compacting HMAC pavement. Asphalt Recycling Agent will be paid for by the gallon used in place. Hot Mix Asphalt concrete (HMAC) will be paid for by the ton used in place.

SECTION 711

PAVING ASPHALT

711.1 GENERAL:

The asphalt shall be produced from crude asphalt petroleum or a mixture of refined liquid asphalt and refined solid asphalt. It shall be free from ad-mixture with any residues obtained by the artificial distillation of coal, coal tar, or paraffin oil and shall be homogeneous and free from water.

Asphalt shall not be heated during the process of its manufacture, storage, or during construction so as to cause injury as evidence by the formation of carbonized particles.

711.2 TESTING REQUIREMENTS:

Paving asphalt shall be classified by the Performance Grading System and shall conform to the requirements set forth in Table 711-1 and AASHTO M320 with the PAV temperature changes noted herein this table.

TABLE 711-1

PERFORMANCE GRADING SYSTEM

	PG 58-22	**PG 64-16**	**PG 70-10**	**PG-76-16**
Original Asphalt				
Viscosity, ASTM D4402 (Note 1) Max. 3 Pa·s, Test Temp, °C	135	135	135	135
Dynamic Shear (Note 2) G*/Sinδ, Min., 1.0 kPa Test Temp. @ 10 rad/s, °C	58	64	70	76
Rolling Thin Film Oven Residue (AASHTO T240)				
Mass Loss, Maximum % Dynamic Shear G*/sinδ, Min., 2.20 kPa Test Temp. @ 10 rad/s, °C	1.0 58	1.0 64	1.0 70	1.0 76
Pressure Aging Vessel Residue (AASHTO R28)				
PAV Aging Temperature, °C	100	100	110	110
Dynamic Shear G*sinδ, Max., 5000 kPa Test Temp. @ 10 rad/s, °C	22	28	34	34
Creep Stiffness, AASHTO T313 S, Maximum, 300 MPa *m*-value, Minimum, 0.300 Test Temp. @60s, °C	-12	-6	0	-6
Direct Tension, (Note 3) Failure Strain, Minimum 1.0% Test Temp. @ 1.0 mm/min. °C	-12	-6	0	-6

On all Grades Flash Point Temperature T48: Minimum 230 °C and Mass Loss, Maximum 1.00 percent.

NOTES:

(1) This requirement may be waved at the discretion of the specifying agency if the supplier warrants that the asphalt binder can be adequately pumped and mixed at temperatures that meet all applicable safety standards.

(2) For quality control of unmodified asphalt cement production, measurement of the viscosity of the original asphalt cement may be substituted for dynamic shear measurements of G*/sinδ at test temperatures when the asphalt is a Newtonian fluid. Any suitable standard means of viscosity measurement may be used, including vacuum capillary or rotational viscometer (T202 or T316).

(3) If the Creep Stiffness is below 300 MPa, the direct tension test is not required. If the Creep Stiffness is between 300 and 600 MPa, the direct tension failure strain requirement can be used in lieu of the Creep Stiffness requirement. The m-value requirement must be satisfied in all cases.

Design Note: Performance Grade Asphalts are selected for certain reliabilities with respect to high and low pavement temperatures. The specified characteristics are based upon a loading frequency that approximates vehicle speeds of approximately 90 km/hr. Since all binders are frequency dependent, the designer may consider increasing the high temperature requirement for slow transient and standing loads, such as intersection loading. The high temperature requirement may also be increased for excessive numbers of equivalent single axle loads.

711.3 TEST REPORT AND CERTIFICATION:

At the time of delivery of each shipment of asphalt, the supplier supplying the material shall deliver to the purchaser 3 certified copies of the test report which shall indicate the name of the refinery and supplier, type and grade of asphalt delivered, date and point of delivery, quantity delivered, delivery ticket number, purchase order number, and results of the above specified tests. The test report shall be signed by an authorized representative of the supplier certifying that the product delivered conforms to the specifications for the type and grade indicated.

Until the certified test reports and samples of the material have been checked by the Engineer, that material will be only tentatively accepted by the Contracting Agency. Final acceptance will be dependent upon the determination of the Engineer that the material involved fulfills the requirements prescribed. The certified test reports and the testing required in connection with the reports shall be at no additional cost to the Contracting Agency.

711.4 TEMPERATURES:

Unless otherwise specified in these specifications or in the special provisions, the various grades of paving asphalt shall be applied within the temperature range indicated in Table 711-2. The exact temperature shall be determined by the Engineer.

At no time, after loading into a tank car or truck for transportation from the refinery to the purchaser, shall the temperature of the paving asphalt be raised above 400 degrees F.

TABLE 711-2

APPLICATION TEMPERATURE OF PAVING ASPHALTS

Grade of Material	Pug Mill Mixing Asphalt Temperature °F.		Distributor Application Temperature °F.	
	Min.	Max.	Min.	Max.
PG 58-22	275	325	300	390
PG 64-16	275	325	300	390
PG 70-10	275	325	300	390
PG 76-16	290	340	310	390

Paving asphalt shall be heated in such a manner that steam or hot oils will not be introduced directly into the paving asphalt during heating.

711.5 DISTRIBUTING EQUIPMENT:

Distributing Equipment shall meet the requirements of Section 330.

711.6 CONVERSION OF QUANTITIES:

When pay quantities of paving asphalt are determined from volumetric measurements, the volumetric measurement at any temperature shall be reduced to the volume the material would occupy at 60 degrees F. in accordance with ASTM D-1250. In converting volume to weight, the computations shall be based on Table 711-3.

TABLE 711-3

PAVING ASPHALT QUANTITY CONVERSION

Grade of Material	Gals. Per Ton of 60 °F.	Lbs. Per Gal at 60 °F.
PG 58-22	235	8.5
PG 64-16	235	8.5
PG 70-10	235	8.5
PG 76-16	233	8.6

SECTION 334

PRESERVATIVE SEAL FOR ASPHALT CONCRETE

334.1 DESCRIPTION:

The asphalt concrete preservative seal shall be composed of an emulsified asphalt or ~~penetrating softening agent and~~ asphalt sealant to ~~rejuvenate and~~ preserve the asphalt concrete pavement.

Preservative seals are applicable for new and existing asphalt pavements as directed on the plans, special provisions, or the Engineer.

334.2 MATERIALS:

The preservative seal shall be as specified by the engineer.
They shall be one of the following materials:
Acrylic polymer emulsion (section 718, type D)
CSS-1, or SS-1h (section 713)
A "filled" asphalt sealer such as SealMaster ® TRMSS or equal (section 718 type A)

334.3 CONSTRUCTION METHOD:

The material shall be approved by the Engineer in accordance to this specification. The application rates, dilution and curing shall be directed by the Engineer in accordance with this specification.

The application rate will be based upon a typical surface condition test site with application rate trials to determine the needed rate. All application rates specified in Section 712 shall be a diluted 50-50 ~~preservative seal~~ emulsified asphalt and water, except as recommended by the manufacturer for Types A and D. Any over applied seal will be sanded as directed by the Engineer. Application equipment shall be in accordance with Section 330.

Before opening a treated area to traffic, the surface shall be checked for slipperiness and/or tackiness. If the treated portion of the roadway must be opened to traffic prior to the disappearance of slipperiness and/or tackiness, the surface shall be sanded with a minimum of 1 ½ pounds per square yard or as directed by the Engineer. Sand Blotter shall comply with Section 333.

334.4 MEASUREMENT:

Preservative seal for asphalt concrete will be measured by the gallon or ton applied ~~including dilutent~~.

334.5 PAYMENT:

Payment will be made on the basis of the unit price bid in the proposal. Payment shall be full compensation for preservative seal complete and in place.

SECTION 718
PRESERVATIVE SEAL FOR ASPHALT CONCRETE PAVEMENT

718.1 GENERAL

Asphalt Concrete preservative seal shall be one of the following types or equal, with typical application rates.
Type A- Acrylic polymer, modified emulsion. Diluted to the manufacture's recommendation and applied at a rate of 0.10 to 0.20 gallons per square yard.

Type B- Emulsified asphalt, type SS-1h or CSS-1h. Diluted to 1:1 with hot water, and applied at a rate of 0.10 to 0.20 gallons per square yard. Material shall meet all requirements in section 713 as well as those specified in Table 718-1.

Type C- SealMaster® TRMSS or equal (not diluted), and applied at a rate of 0.10 to 0.20 gallons per square yard.

718.2 TEST METHODS AND REQUIREMENTS

Preservative seal for asphalt concrete material, shall meet Type A, B, or C on table 718-1 by certification from the manufacturer.

All tests shall be performed by AMRL accredited laboratory, accredited in the specified test being performed.

Table 718-1

**Properties ***note 2		Type-A	Type-B	Type-C
Saybolt Viscosity @77F (sfs)	AASHTO T72	15-40	20-100	45-55(KU)*note 1
Residue by evaporation at (325°F)	AASHTO T59	53 Min.	57 Min.	
Residue by evaporation, %	ASTM D2939	N/A	N/A	30 - 40
Sieve test %	AASHTO T59	0.10 max.	0.10 max.	N/A
Test on residue from evaporation AASHTO T59				
Flash point, F	AASHTO T48	450 Min..	450 Min..	450 Min..
Softening point, °F	AASHTO T53	130 Min.	N/A	130 Min.
Accelerated weathering test		Report		Report
Ductility at 77°F,100g 5, sec.	AASHTO T51	20 Min.	40 Min.	N/A
Storage stability, 24 hours, %	ASTM D4799	N/A	97.5 Min	N/A

Notes:
1, Kreb units (ASTM D562)
2. A full set of tests shall be performed as specified by the special provisions in the undiluted condition. These , and any other specified tests will be performed at the expense of the contractor.

MAG Outside Right-of-Way
Asphalt Working Group Meeting

Meeting Minutes
April 13, 2011

Opening:

The meeting of the Asphalt Working Group was called to order at 7:30 AM on April 13, 2011 at Speedie & Associates, Inc. by Jeff Benedict (Chairman).

Present:

Jeff Benedict, James Carusone, Sam Huddleston, Adrian Green, Gordon Tyus, Peter Kandaris, Brian Harvel, Brian Barnes, Syd Anderson, Doug Laquey, Scott Thompson, Phil Feliz, Brian Gallimore, Don Cornelison

A. Approval of Minutes

The minutes of the previous meeting were briefly reviewed and approved.

B. Open Issues & Discussion

The purpose of the working group was again briefly discussed. Each subgroup then presented the status of the review and/or revision of their assigned MAG Specification section(s).

Subgroup	Summary/Status
MAG 321	Doug Laquey stated that review was in early stages and would continue between now and the next meeting of the working group. Thus far, issues with determination of compaction and application of remedial measures have been identified as requiring attention and clarification or revision.
MAG 323	Jeff Benedict reported that he would be getting with Bob Erdman of Cutler Repaving to begin review and would report back at next meeting.
MAG 325	Don Cornelison reported that John Shi of MCDOT, Syd Anderson of the City of Phoenix, and Jon Flatt of the City of Glendale had all been invited to today's meeting since their agencies have considerable experience with Asphalt-Rubber Asphalt Concrete (ARAC) and they have somewhat divergent approaches to the technical aspects of the material and mix designs. Unfortunately, only Mr. Anderson was able to attend today's meeting. Copies of the existing MAG section were passed out, along with MCDOT's revisions and proposed industry revisions for review and comparison. Considerable discussion occurred relating to the differences in approach regarding binder design and mix design criteria between the indicated agencies. The consensus was to invite the indicated individuals to a meeting to discuss the details and concerns they each have and attempt to identify common ground if possible. That could then serve as the basis for a unified MAG specification section. Syd Anderson agreed to help reach out to Maricopa County and interested cities for this purpose.

MAG 334/718	Jeff Benedict reported that concerns exist regarding the policy of applying a preservative seal to brand new pavement, as well as with some of the recycling products previously utilized that are not appropriate nor in accordance with current industry practice. He will invite Jesse Gonzales of the City of Peoria to be involved as he pursues some fairly significant revisions to these sections.
MAG 335	Scott Thompson reported that his subgroup had reviewed the assigned section and were proposing some revisions. Copies of the section with the revisions were distributed for review. Review of the document with applicable comments was requested from those attending or other interested parties. Any comments should be submitted as early as possible, preferably at least a week prior to the next meeting of the working group.
MAG 337	Phil Feliz reported that this was to be a new section of the MAG Specifications detailing acceptable crack-sealing methods and measurement. He has begun work on this section and will be including representatives of Crafco as part of the subgroup.
MAG 709/719	Phil Feliz, Adrian Green, and Don Cornelison all reported on these sections. The subgroup had met on April 11 to discuss these sections and developed an outline for the needed revisions. Copies of the minutes from this meeting were submitted for review. The subgroup recommended elimination of Section 709 and inclusion of its information in the materials segment of Section 719. In addition, it was indicated that considerable revisions to Section 719 would be required to bring it into compliance with current methods and technology. A summary of these revisions was presented verbally. Also, Section 711 will need revision to address the required number of binder grades. Jeff Benedict volunteered to revise Section 711. Continued work will occur during the next month with the results to be presented at the next working group meeting.
MAG 710 (Including RAP)	Doug Laquey, Adrian Green, and Phil Feilz stated that review indicated that a number of revisions are needed, many of which are minor. Their review and proposed revisions would continue between now and the next meeting of the working group.
MAG 715	Scott Thompson reported that his subgroup had reviewed the assigned section and were proposing some revisions. Copies of the section with the revisions were distributed for review. Some comments were made by attendees regarding the noted changes to materials requirements. They believed that the existing requirements were adequate. The subgroup agreed to revisit those areas. Additional review of the document and related comments were requested from those attending or other interested parties. Any comments should be submitted as early as possible, preferably at least a week prior to the next meeting of the working group.

C. Decisions & Action Items

- As indicated in the reports above, review of the revised Sections 335 and 715 is requested of working group members prior to the next meeting. Be prepared to discuss and present any comments or suggestions.

- The next meeting of this working group will be scheduled on a Friday to accommodate Mr. Shi's schedule and hopefully allow his attendance. Section 325 will be a major topic at the next meeting and everyone is requested to familiarize themselves with the current MAG specification section as well as MCDOT's amendments and the proposed industry revisions. Copies of these documents will be posted on the MAG website.

- Subgroups are asked to continue with their review of assigned sections and come prepared to present any suggested revisions or identify what progress has been made at the next meeting.

- Jeff Benedict will revise Section 711 as required for use with Section 719.

- The items discussed and specific assignments from this working group meeting will be presented to the main MAG Standard Specifications & Details Committee at its next meeting on May 4, 2011.

D. New Business

No additional business was presented.

E. Agenda and Schedule for Next Meeting

At the next working group meeting, work will continue on detailed review of the assigned specification sections. The next working group meeting will be at 7:30 AM on Friday, May 13, 2011 at Speedie & Associates, Inc. located at 3331 E. Wood Street, Phoenix, AZ.

Adjournment:

Meeting was adjourned at 9:00 AM by Jeff Benedict.

Minutes submitted by: Donald L. Cornelison, P.E.

MAG Outside Right-of-Way
Materials Working Group Meeting

Meeting Minutes
April 13, 2011

Opening:

The meeting of the Materials Working Group was called to order at 9:00 AM on April 13, 2011 at Speedie & Associates, Inc. by Brian Gallimore (Chairman).

Present:

Brian Gallimore, Gordon Tyus, Peter Kandaris, Brian Harvel, Brian Barnes, Troy Tobiasson, Syd Anderson, Doug Laquey, Scott Thompson, Dan Selby, Michael Whitman, Michael Smith, Don Cornelison

A. Approval of Minutes

The minutes of the previous meeting were briefly reviewed and approved.

B. Open Issues & Discussion

The purpose of the working group was again briefly discussed. Each subgroup then presented the status of the review and/or revision of their assigned MAG Specification section(s).

Subgroup	Summary/Status
MAG 301	Mike Smith reported that review was in the early stages and would continue between now and the next meeting of the working group. Discussion concerning utilization of Geotechnical soils report for off-site work ensued. Concerns were expressed regarding conflicting requirements and inconsistent interpretation of the specification and various amendments or supplements. These matters will be considered by the subgroup in their ongoing review.
MAG 309/311	Brian Gallimore and Dan Selby discussed proposed revisions to these sections. It was indicated that keeping lime treated soils and cement treated soils in separate sections was preferred. It was recommended that Section 311 be renamed to better indicate that it related to soils and not base course materials. A suggested name was "*Cement Treated Subgrade*". A copy of the specification in Microsoft Word format will be marked-up by the subgroup and transmitted to the working group members in the near future for review and comment.
MAG 310, 312, 701, 702 & 705	This subgroup reported that due to the ambiguous wording and interrelated nature of all of these sections related to base course materials and construction, a considerable amount of revision would be necessary. Considerable discussion occurred relating to Standard Detail 190, "*Rock Correction Procedure*" also took place. It was generally agreed that this Detail should be eliminated and the appropriate test method identified in the applicable specification sections. A copy of the various specification sections in Microsoft Word format will be marked-up by the subgroup and transmitted to the working group members in the near future for review and comment.
MAG 270	Brian Gallimore will bring suggested revisions to the next meeting of this working group.

MAG 601	Brian Gallimore will bring suggested revisions to the next meeting of this working group.
MAG 605	Brian Gallimore will bring suggested revisions to the next meeting of this working group.
MAG 621	Brian Gallimore will bring suggested revisions to the next meeting of this working group.

C. Decisions & Action Items

- As indicated in the reports above, review of the revised Sections 309 and 311 is requested of working group members prior to the next meeting. Be prepared to discuss and present any comments or suggestions.

- Subgroups are asked to continue with their review of assigned sections and come prepared to present any suggested revisions or identify what progress has been made at the next meeting.

- The items discussed and specific assignments from this working group meeting will be presented to the main MAG Standard Specifications & Details Committee at its next meeting on May 4, 2011.

D. New Business

No additional business was presented.

E. Agenda and Schedule for Next Meeting

At the next working group meeting, work will continue on detailed review of the assigned specification sections. The next working group meeting will be at 8:45 AM on Friday, May 13, 2011 at Speedie & Associates, Inc. located at 3331 E. Wood Street, Phoenix, AZ.

Adjournment:

Meeting was adjourned at 10:30 AM by Brian Gallimore.

Minutes submitted by: Donald L. Cornelison, P.E.