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FINANCE, BUDGET AND AUDIT COMMITTEE
SEPTEMBER 17, 2014

SUBJECT: MAJOR CONSTRUCTION UMBRELLA INSURANCE PROGRAM

ACTION: PURCHASE UMBRELLA INSURANCE

RECOMMENDATION

A. Authorize the Chief Executive Officer to negotiate and purchase construction project umbrella liability insurance policies (also known as a super excess general liability insurance program) with up to $550 million in additional limits at a cost not to exceed $20.9 million for the period effective October 1, 2014 to January 3, 2023 (and products and completed operations coverage to January 3, 2033).

B. Amend the FY15 budget to establish a separate project for Construction Project Umbrella Liability Insurance Betterments with a Life-of-Project budget of $20.9 million.

ISSUE

Metro is concerned about the financial implications of a catastrophic loss resulting in major damage to adjacent properties and/or loss of life/injury on our major transit projects and whether such risk can be mitigated reasonably through the purchase of additional insurance.

DISCUSSION

Existing Coverage

The five major transit projects currently underway have dedicated limits of insurance coverage provided by each of the Design Build (DB) contractors. The liability insurance on each project, which covers the negligent injury or death and/or property damage to others, ranges from a low of $100 million on the Gold Line Foothill and Expo II projects, to a high of $350 million on the Regional Connector project. This coverage also includes products and completed operations for ten years following revenue operation and will respond to latent defects which cause injury or death, or real property damage to other people. The coverage limits available to each project differ because of difference in risks resulting from aspects such as concentration of property values near the project, population density, tunneling, project duration, and other factors. In setting these limits, we also assessed current market pricing, and industry practice for similar projects with the Association of General Contractors (AGC), global insurance companies writing construction risks of this type including AIG, Starr, various Lloyds of London, syndicates and others as well as the world's largest insurance brokers.

Risk Exposure Above Existing Coverage

Despite using liability insurance limits toward the high end of industry practice in our contracts, these limits would be insufficient to respond to an extremely unlikely and unanticipated catastrophic loss resulting in widespread property damage or loss of life. As examples, the following list shows some estimated catastrophic losses based on available data (in 2014 dollars) on major public works projects, globally, occurring either during construction or a result of construction defects.

- San Paulo Metro Station Road and Station Collapse (January 2007) Road and station collapse with seven dead - $525 million total loss
- Cologne North-South Metro Train Line Road/Building Collapse (March 2009) Road collapse leading to collapse of several buildings, two deaths and large evacuations - current estimated $973 million to $1.391 billion loss
- Hangzhou Metro Tunnel Road Collapse (November 2008) Road collapse and water main break leading to twenty-one deaths and multiple injuries - $304 million loss

Advantageous Insurance Market Conditions

In addition, current pricing for liability and casualty insurance are at historic lows with premiums barely covering loss payments. The combined ratio, an index for evaluating insurance underwriting performance, shows US insurance markets in 2013 paid out in losses 99.5% of premiums collected and Lloyds paid out in losses 93.0% of premiums collected. The insurance market today is effectively a break-even for underwriting profits.

Because of low insurance pricing and an interest by Executive Staff to evaluate the cost of protecting Metro from the extremely unlikely catastrophic event scenario, Metro approached Aon, a global insurance broker, in late December 2013 to explore the possibility of creating a program which would provide excess liability coverage for Metro's interest only sitting above the five project Contractor Controlled Insurance Programs with the following DB contract values:

- Crenshaw/LAX - $1,399,860,000 C.V. (Walsh/Shea)
- Expo II Transit Corridor - $653,510,000 C.V. (Skanska/Rados)
- Regional Connector - $1,019,950,000 C.V. (Skanska/Traylor)
- Gold Line Foothill II - $551,870,000 C.V. (Kiewit/Parson)
- Westside Subway Extension - $1,655,900,000 C.V. (Skanska/Traylor)

The total Design Build contract values for these projects are approximately $5.2 billion.

At Metro's direction, Aon began work in January to construct a program of insurance to sit on top of all of the DB's liability insurance policies and provide total limits inclusive of the DB's project specific liability insurance limits, any Metro deductibles and umbrella limits available under the proposed program of $1 billion on any single project. Globally, $1 billion in total limits was not available commercially. Aon was, however, successful in obtaining total limits up to $750 million maximum on any single project or loss by adding $550 million in new insurance plus a $100 million deductible in excess of the DB's project specific insurance limit.

<u>Illustrative Example to Explain Insurance Tiers</u>

The use of this new insurance capacity of $550 million is best explained by example. Assume a loss of $700 million on the Westside Subway project. The first $250 million in limits to pay the loss would come from the DB's dedicated project specific liability insurance policies. The next $100 million is a self-insured retention or deductible layer that would be satisfied either by the DB's practice insurance policy or by Metro. The next $350 million would be satisfied by these new insurance limits. Since only $350 million of the $550 million in new limits was used on this loss, $200 million in new limits would still be available for coverage should another loss occur exceeding the dedicated insurance limits on any project. Further, the $100 million self-insured layer only needs to be satisfied one time. Continuing with the example, should a subsequent loss occur on the Expo II project of $250 million, the DB's dedicated project specific policy of $100 million would be exhausted, then $150 million of the now remaining $200 million in new limits would be available to satisfy the loss, leaving $50 million still available.

<u>Creating the Desired Insurance Program Structure</u>

The nature of the coverage being afforded and the limits being offered led to several challenges in finding carriers and developing pricing. Aon approached every insurance company that will insure such projects. Nearly fifty insurers were approached. Eight insurers from London, three insurers from Bermuda and one domestic insurer were needed to create our desired program structure. Some of the concerns that the carriers had in relation to the projects were: a tunnel collapsing under a building or road, an earthquake affecting the tunnel/tracks and a train derailing, mitigation and monitoring of subsidence risks, and how new projects are connecting into existing tracks. Some of the major challenges that had to be overcome in order to develop a comprehensive program for Metro were:

1. Since there were multiple General Contractors involved, there were issues of capacity of limits and anti-stack issues. This means that if a carrier were on a program for a General Contractor, we would not allow them to put an anti-stacking restriction on the program for Metro. The anti-stacking endorsement

would enable them to pay only one set of limits for a covered loss. Our removal of that endorsement requires them to pay for any limits they insure.

2. The fact that work already commenced on some projects (Gold Line Foothill II, Expo II Transit Corridor & Crenshaw/LAX) was an issue due to our requirement that they provide coverage for prior works/completed operations.
3. The length of term for the policy/projects (eight year term plus ten year completed operations) exceeds the insurer's reinsurance treaties which are generally limited to five years.
4. There is a limited amount of insurance limits available for concentrated Southern California risks because of earthquake exposures.

Attachment A provides an overview of the proposed program. Attachment B provides a comparison with a peer agency project and a table looking at the combined ratios of both the domestic and London marketplace. Attachment C identifies the insurance carriers proposed for the program in the first $300 million in new limits. The carrier proposed for the next $250 million in limits is Berkshire Hathaway. We are aware of only one other umbrella liability policy of this type placed in the United States, the pricing for which is substantially higher per million dollars of coverage and had far less exposure.

DETERMINATION OF SAFETY IMPACT

Approval of this recommendation will not impact the safety of Metro's patrons or employees.

FINANCIAL IMPACT

Upon authorization to purchase the Major Construction Umbrella Insurance Program, a Betterment project will be established with a Life-Of-Project budget of $20.9 million. This treatment is consistent with the Metro-sponsored betterments on the Expo Phase 2 Light Rail project the Board approved in April 2014.

Payment for the Program will be made in two installments: $10.3 million (including all applicable taxes and fees) due on October 3, 2014 and $10.6 million due on July 1, 2015. Each installment will be made in three sub payments, one to Aon London for the placements made in London, one to Aon Bermuda for the placements made in Bermuda and one to Aon Risk Insurance Services West, Inc. for the domestic placement.

Impact to Budget

The first installment of $10.3 million for this action will be funded by Proposition C 25% in FY15. Staff will identify the funding requirements for the second installment of $10.6 million for Board consideration during the FY16 budget process.

ALTERNATIVES CONSIDERED

Aon explored the possibility of a single insurer, Berkshire Hathaway to provide the full coverage required for the project. Their estimated premium for doing so was estimated at $40 million and, therefore, was not a viable option. There are no other viable options as we have exhausted the marketplace to develop the limits recommended in this super excess liability program. There are no more available limits in the insurance industry. Metro could also self-insure this exposure and rely on its indemnities with the DB contractors with an unknown and unknowable risk of catastrophic loss.

NEXT STEPS

Upon Board approval of this action, we will advise Aon to proceed with placement and binding of the Major Construction Umbrella Insurance Program outlined herein effective October 1, 2014.

ATTACHMENTS

A. Overview of the Proposed Program
B. Comparison with a Peer Agency Project/Table Looking at the Combined Ratios of Both the Domestic and London Marketplace
C. Proposed Carriers for the First $300 Million in New Limits

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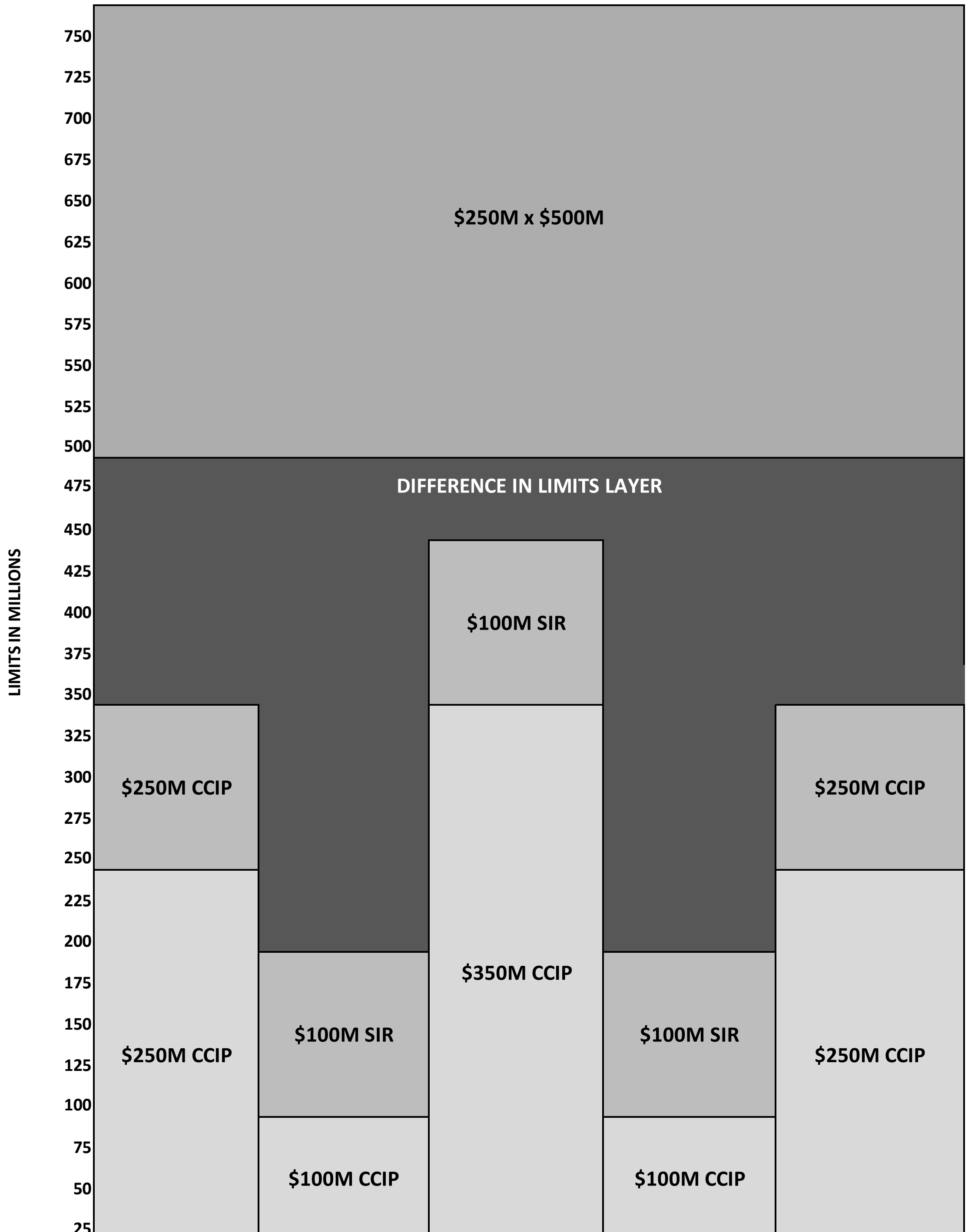
ATTACHMENT A

Overview of the Proposed Program

Note: This is a pictoral and not to scale



	Crenshaw-LAX	EXPO II Transit Corridor	Regional Connector	Gold Line Foothill II	Westside
Contractor	**Walsh / Shea**	**Skanska / Rados**	**Skanska / Traylor**	**Kiewit / Parsons**	**Skanska / Traylor**
Type	Over & Under Ground &	Over Ground	Under Ground	Over Ground	Under Ground
Const Value	$1,399,860,000	$653,510,000	$1,019,950,000	$551,870,000	$1,655,900,000
Term (Years)	5	4	6.9	5	8.4
				Construction Total	**$5,281,090,000**

ATTACHMENT B

Comparison with a Peer Agency Project

	PEER AGENCY	LACMTA
Project Scope	**1 Tunnel and 3 stations**	**3 Tunnels and 30 stations**
Total Miles	**1.7 Miles**	**31.9 Miles**
Term	**5 Years**	**8.4 Years**
Construction Value	**$753,000,000**	**$5,281,090,000**
First Layer	$150M X $50M	$300M DIL
First Layer Premium	$7,575,000	$13,500,000
Second Layer	$150M X $200M	$250M X $500M
Second Layer Premium	$10,700,876	$6,500,000
Limits	**$300M TOTAL**	**$550M TOTAL**
Composite Rate	**$24.2708**	**$3.7871**
Premium	**$18,275,876**	**$20,000,000**

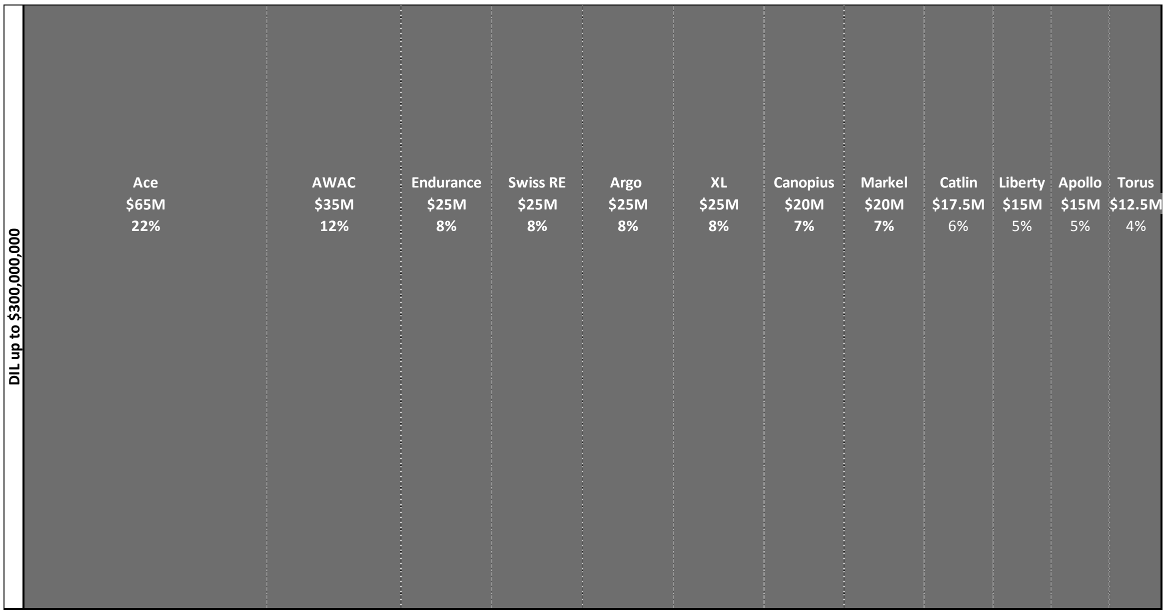
**Premiums do not include any applicable taxes and fees and are for comparison purposes only.*

Table Looking at the Combined Ratios of Both the Domestic and London Marketplace

	2012	2013	2014
US Markets	105.00%	99.50%	97.00%
Lloyds	88.00%	93.00%	+/- 2% over 2013*

ATTACHMENT C

Proposed Carriers for the First $300 Million in New Limits



London Markets:
Swiss RE - $25,000,000
Argo - $25,000,000
XL - $25,000,000
Markel - $20,000,000
Catlin - $17,500,000
Apollo - $15,000,000
Liberty - $15,000,000
Torus - $12,500,000

Bermuda Markets:
Ace - $65,000,000
AWAC - $35,000,000
Canopius - $20,000,000

Domestic Markets:
Endurance - $25,000,000

No Earthquake or Wild Fire Exclusion.