



Costain Skanska HS2 EW South Delivery JV

Healthier by Design



RAPID

Sandra Winters – Occupational Health Lead
David Harris – Lead Design Team





- ✓ Record
- ✓ Apply
- ✓ Pin-Point
- ✓ Inform
- ✓ Develop

RAPID





RAPID

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Quantifying Risk Potential



Based on 5.5m operative hours worked.



SKANSKA

Working on
behalf of

HS2



RAPID

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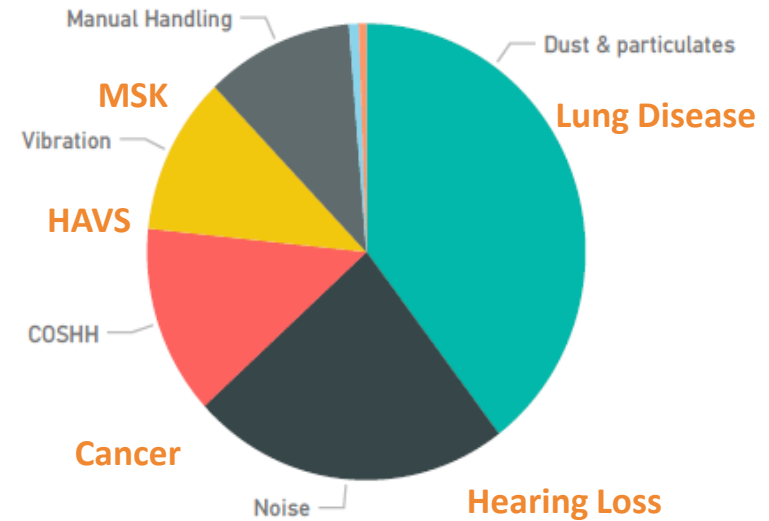


RAPID - Record

Hazard Identification

- DRA
- HHEMP / HRA
- Other sources of information

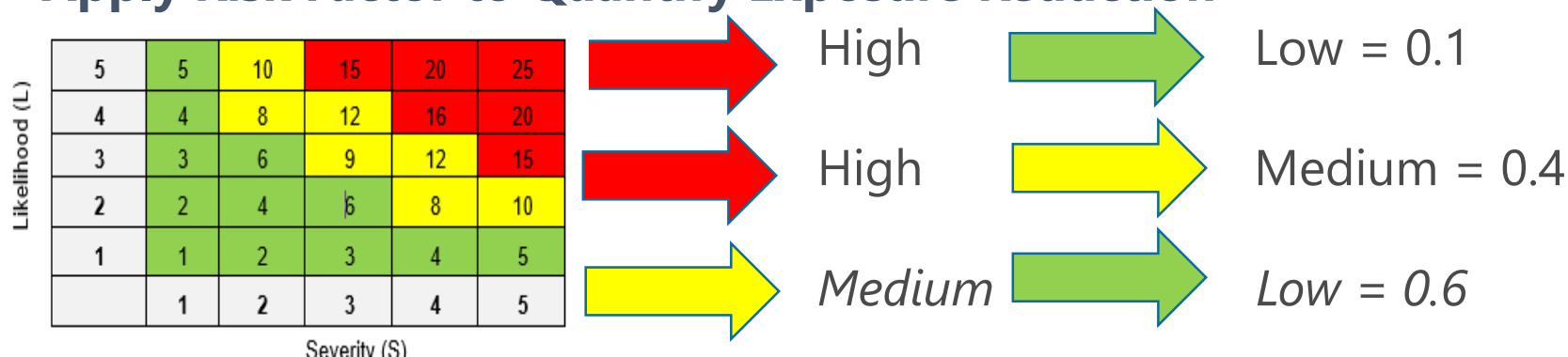
Hazard Classification



30% Occupational Disease Risks

RAPID - Apply

Apply Risk Factor to Quantify Exposure Reduction



Apply Risk Factor to Quantify Disease in Working Hours

Lung Cancer 220 days = 1 year x 25 years = 5,500 days x 8 hours
 = 44,000 hours / 5.5m = **125 Cases**



RAPID

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RAPID – Pin-Point



Mitigation Optimisation

Design Outcome =
77% less Vibration
73% less Weight



**Reduced
HAVS risk**



**Reduced
MSK risk**

RAPID - Inform

Preventing new cases of disease

80%

90%

90%

85%

80%

Dust

10% 0.1
40% 0.4
30% 0.6

Noise

15% 0.1
20% 0.4
55% 0.6

Vibration

30% 0.1
40% 0.4
20% 0.6

COSHH

20% 0.1
15% 0.4
50% 0.6

Manual Handling

35% 0.1
10% 0.4
35% 0.6

RAPID - Develop



Communication



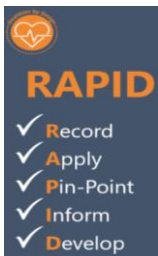
Sharing



Informing



Innovation



- Demolition
- Utilities
- Temporary Works
- Plant Person Interface
- Work at Height



ENABLING WORKS CONTRACT | SOUTH



- Fatigue
- Mental Health
- Physical Activity
- Diabetes and Obesity
- Heart Health



- Noise
- Dust
- Vibration
- Manual Handling
- COSHH



Risk Reduction Programme

Completion Due Autumn 2019



- Carbon
- Consents
- Air Quality
- Noise and Vibration
- Waste and Recycling

RAPID - Conclusion

R **Record**, identify and categorise hazards EWC = 1. Dust 2. Noise 3. Vibration 4. COSHH 5. Manual Handling

A **Apply** risk reduction factors

Likelihood	5	4	3	2	1
5	5	10	15	20	25
4	4	8	12	16	20
3	3	6	9	12	15
2	2	4	6	8	10
1	1	2	3	4	5
	1	2	3	4	5
	Severity				

High → Low = 0.1
 High → Medium = 0.4
 Medium → Low = 0.6

Lung Cancer

220 days = 1 year x 25 years = 5,500 days
 x 8 hours = 44,000 hours / 5.5m
 = 125 Cases

P **Pin-Point** elimination and hazard reduction opportunities



I **Inform** through to the construction stages NB: Exposure Reduction = Prevention of Occupational Disease



D **Develop** industry best practice to focus on Risk Reduction Programmes at Design

