

June 29, 2015

Nicholas Farber Enterprise Specialist High Performance Transportation Enterprise 4201 E. Arkansas Ave., Room 230 Denver, CO 80222 (720) 248-8544 DOT 170EProject@state.co.us

#### Public Disclosure Statement of Qualification ("Public Disclosure SOQ")

Mr. Farber,

I am pleased to submit this Public Disclosure SOQ to the Procuring Authorities for the I-70 East Project on behalf of **5280 Connectors**. 5280 Connectors has provided a version of the SOQ that redacts the information specified in Form B (Confidential Contents Index) of the SOQ and other information necessary in order to be consistent with each of the references to the items stated in Form B.

Accordingly, in connection with the Request for Qualifications dated March 25, 2015 (as amended by the addendum dated May 29, 2015) (the "RFQ") issued by the High Performance Transportation Enterprise and the Bridge Enterprise, divisions of the Colorado Department of Transportation, in relation to the I-70 East Project (as defined therein), under penalty of perjury I hereby certify on behalf of **5280 Connectors** (the "Proposer") that the enclosed digital and physical copies of Proposer's Public Disclosure SOQ (as defined in the RFQ) have been prepared in compliance with Section 5.7.3 of Part B of the RFQ, and I further acknowledge that the Procuring Authorities are relying on my certification to this effect.

If you have any questions or would like to discuss any aspect of the foregoing, our redacted SOQ or our Form B, please do not hesitate to contact the undersigned. We look forward to working alongside the Procuring Authorities during the RFQ selection process.

Sincerely,

Brian Clark Official Representative for 5280 Connectors

#### FORM A: SUBMITTAL LETTER

Proposer Name:	5280 Connectors
Proposer's business address:	1700 Lincoln Street, Suite 300, Denver, CO 80203

#### SOQ Submission Date: June 22, 2015

High Performance Transportation Enterprise and Colorado Bridge Enterprise c/o High Performance Transportation Enterprise Colorado Department of Transportation 4201 E. Arkansas Avenue, Room 230 Denver, Colorado 80222

Attn: Michael Cheroutes, HPTE Director and Shailen Bhatt, CDOT Executive Director acting as BE Executive Director

#### Re. Submission of SOQ in connection with the I-70 East Project

- 1. Introduction.
  - (a) 5280 Connectors (the "<u>Proposer</u>") submits this statement of qualifications (this "<u>SOQ</u>") in response to the Request for Qualifications dated March 25, 2015 (as amended by Addendum No. 1 thereto dated May 29, 2015, the "RFQ") issued by the High Performance Transportation Enterprise ("<u>HPTE</u>") and the Bridge Enterprise ("<u>BE</u>"), each of which is a division of the Colorado Department of Transportation, in relation to the I-70 East Project.
  - (b) Capitalized terms not otherwise defined in this letter have the meanings given to them in the RFQ.
  - (c) References to Sections and Parts herein are references to Sections and Parts of the RFQ.
- 2. Enclosures.
  - (a) Enclosed, and by this reference incorporated herein and made a part of this SOQ, are each of Volume 1 Volume 2 of the SOQ as required to be submitted in accordance with the RFQ. This letter itself constitutes the Submittal Letter.
  - (b) For the Procuring Authorities' ease of reference:
    - (i) attached as <u>Annex A</u> to this letter is a reference chart indicating the conclusions of Proposer's evaluation of each element of the SOQ for compliance with the Pass/Fail Evaluation Criteria; and
    - (ii) attached as <u>Annex B</u> to this letter is a reference chart indicating each element of the SOQ that Proposer believes is relevant to each of the Substantive Evaluation Criteria.
- 3. <u>Representations and Warranties; Acknowledgments and Agreements</u>.
  - (a) Proposer represents and warrants to HPTE, BE and CDOT that it (i) has read the RFQ (including Addendum No. 1 thereto) and (ii) agrees to abide by the contents and terms of the RFQ and the statements and commitments in Proposer's SOQ.

of Section 1.4.3 of Part B, including the limitation on Proposer's ability to rely on such information and materials.

- (c) Proposer acknowledges and understands that, under the terms of the RFQ, the Procuring Authorities have reserved to themselves a number of rights related to the selection of Short-listed Proposers and the procurement of the Project, including as set out in Section 9 of Part B.
- (d) Proposer further understands that all costs and expenses incurred by it in preparing this SOQ and participating in the Project procurement process will be borne solely by Proposer, other than as may be expressly provided for in the RFP.
- (e) Proposer agrees that, in accordance with Section 6.2.3 of Part B, it, and not the Procuring Authorities, will be responsible for any errors, omissions, assumptions, inaccuracies or incomplete statements in its SOQ.
- (f) Proposer acknowledges and agrees to the protest provisions set out in Section 8.1 of Part B and understands that such provisions limit Proposer's rights and remedies to protest or challenge any aspect of the RFQ process or any determination or short-listing thereunder.
- 4. Official Representative. For the purpose of any future communications, the "Official Representative" for Proposer is:

Name:	Brian Clark
Title:	Senior Vice President
Employer:	Plenary Group USA Ltd.
Address:	1700 Lincoln Street, Suite 300, Denver, CO 80203
Phone (office):	604-638-3966
Phone (mobile):	604-761-0117
Email:	brian.clark@plenarygroup.com
Fax (if any):	N/A

5. Governing law. This letter shall be governed by and construed in all respects according to the law of the State of Colorado.

Under penalty of perjury, I hereby swear and affirm that I am authorized to act on behalf of Proposer in signing and delivering this letter, and acknowledge that the Procuring Authorities are each relying on my representation to this effect.

Proposer:	5280 Connectors	
Bv:	R	

ву:

Printed Name: Brian Clark

Title: Official Representative

- (a) certifies on behalf of the entity for which he or she signs that:
  - (i) the Official Representative named above is authorized by the relevant entity to sign this Submittal Letter on behalf of Proposer; and
  - (ii) the representations, certifications, statements, disclosures, authorizations and commitments made, and information contained, in the SOQ (including, for the avoidance of doubt, in <u>Form</u> <u>D</u> (*Legal Disclosures*)) in respect of such entity have been authorized by such entity, is or are correct, complete and not materially misleading; and
- (b) swears and affirms that he or she is authorized to act on behalf of the entity for which he or she signs and acknowledges that the Procuring Authorities are each relying on his or her representation to this effect:

Lead Engineer:

Plenary Group USA Ltd.

By:

Forthe

Printed Name:

Title:

Executive Director

**Brian Budden** 

- (a) certifies on behalf of the entity for which he or she signs that:
  - (i) the Official Representative named above is authorized by the relevant entity to sign this Submittal Letter on behalf of Proposer; and
  - (ii) the representations, certifications, statements, disclosures, authorizations and commitments made, and information contained, in the SOQ (including, for the avoidance of doubt, in <u>Form</u> <u>D</u> (*Legal Disclosures*)) in respect of such entity have been authorized by such entity, is or are correct, complete and not materially misleading; and
- (b) swears and affirms that he or she is authorized to act on behalf of the entity for which he or she signs and acknowledges that the Procuring Authorities are each relying on his or her representation to this effect:

Equity Member:

Skanska Infrastructure Development Inc.

By:

Printed Name: Magnus Eriksson

Title:

Director

- (a) certifies on behalf of the entity for which he or she signs that:
  - (i) the Official Representative named above is authorized by the relevant entity to sign this Submittal Letter on behalf of Proposer; and
  - (ii) the representations, certifications, statements, disclosures, authorizations and commitments made, and information contained, in the SOQ (including, for the avoidance of doubt, in <u>Form</u> <u>D</u> (*Legal Disclosures*)) in respect of such entity have been authorized by such entity, is or are correct, complete and not materially misleading; and
- (b) swears and affirms that he or she is authorized to act on behalf of the entity for which he or she signs and acknowledges that the Procuring Authorities are each relying on his or her representation to this effect:

Joint venturer in Lead Contractor: Skanska USA Civil West Rocky Mountain District Inc.

By:

Ward Berg O

Printed Name:

Title:

William C. Broughton

Sr. Vice President, General Manager

- (a) certifies on behalf of the entity for which he or she signs that:
  - (i) the Official Representative named above is authorized by the relevant entity to sign this Submittal Letter on behalf of Proposer; and
  - (ii) the representations, certifications, statements, disclosures, authorizations and commitments made, and information contained, in the SOQ (including, for the avoidance of doubt, in <u>Form</u> <u>D</u> (*Legal Disclosures*)) in respect of such entity have been authorized by such entity, is or are correct, complete and not materially misleading; and
- (b) swears and affirms that he or she is authorized to act on behalf of the entity for which he or she signs and acknowledges that the Procuring Authorities are each relying on his or her representation to this effect:

Lead Contractor:

Zachry Construction Corporation, Joint venturer in Lead Contractor

By:

**Printed Name:** 

Executive Vice President

Kevin McMinniman

Title:

#### 5280 Connectors

- (a) certifies on behalf of the entity for which he or she signs that:
  - (i) the Official Representative named above is authorized by the relevant entity to sign this Submittal Letter on behalf of Proposer; and
  - (ii) the representations, certifications, statements, disclosures, authorizations and commitments made, and information contained, in the SOQ (including, for the avoidance of doubt, in <u>Form</u> <u>D</u> (*Legal Disclosures*)) in respect of such entity have been authorized by such entity, is or are correct, complete and not materially misleading; and
- (b) swears and affirms that he or she is authorized to act on behalf of the entity for which he or she signs and acknowledges that the Procuring Authorities are each relying on his or her representation to this effect:

Lead Engineer:	HDR Engineering, Inc.
By:	R.Brackey Martis
Printed Name:	R. Bradley Martin
Title:	Senior Vice President   Area Manager

(a) certifies on behalf of the entity for which he or she signs that:

- (i) the Official Representative named above is authorized by the relevant entity to sign this Submittal Letter on behalf of Proposer; and
- (ii) the representations, certifications, statements, disclosures, authorizations and commitments made, and information contained, I,n the SOQ (including, for the avoidance of doubt, in <u>Form</u> <u>D</u> (*Legal Disclosures*)) in respect of such entity have been authorized by such entity, is or are correct, complete and not materially misleading; and
- (b) swears and affirms that he or she is authorized to act on behalf of the entity for which he or she signs and acknowledges that the Procuring Authorities are each relying on his or her representation to this effect:

Lead Operator:	Transfield Services Infrastructure
Bv:	

Printed Name: Clive Freeman

Title: Senior Vice President

- (a) certifies on behalf of the entity for which he or she signs that:
  - (i) the Official Representative named above is authorized by the relevant entity to sign this Submittal Letter on behalf of Proposer; and
  - (ii) the representations, certifications, statements, disclosures, authorizations and commitments made, and information contained, in the SOQ (including, for the avoidance of doubt, in <u>Form</u> <u>D</u> (*Legal Disclosures*)) in respect of such entity have been authorized by such entity, is or are correct, complete and not materially misleading; and
- (b) swears and affirms that he or she is authorized to act on behalf of the entity for which he or she signs and acknowledges that the Procuring Authorities are each relying on his or her representation to this effect:

Lead Engineer: Plenary Group (Canada) Ltd, acting as Financially Responsible Party to Equity Member Plenary Group USA Ltd.

Printed Name: Brian Budden

By:

Title: Executive Director

- (a) certifies on behalf of the entity for which he or she signs that:
  - (i) the Official Representative named above is authorized by the relevant entity to sign this Submittal Letter on behalf of Proposer; and
  - (ii) the representations, certifications, statements, disclosures, authorizations and commitments made, and information contained, in the SOQ (including, for the avoidance of doubt, in <u>Form</u> <u>D</u> (*Legal Disclosures*)) in respect of such entity have been authorized by such entity, is or are correct, complete and not materially misleading; and
- (b) swears and affirms that he or she is authorized to act on behalf of the entity for which he or she signs and acknowledges that the Procuring Authorities are each relying on his or her representation to this effect:

Financially	Skanska AB, acting as Financially Responsible
Responsible	Party for Skanska Infrastructure Development
Party:	Inc., an Equity Member
By:	Clurillui Suddel

Printed Name: Anne-Marie Hedbeck

Title:

General Counsel

5280 Connectors

- (a) certifies on behalf of the entity for which he or she signs that:
  - (i) the Official Representative named above is authorized by the relevant entity to sign this Submittal Letter on behalf of Proposer; and
  - (ii) the representations, certifications, statements, disclosures, authorizations and commitments made, and information contained, in the SOQ (including, for the avoidance of doubt, in <u>Form</u> <u>D</u> (*Legal Disclosures*)) in respect of such entity have been authorized by such entity, is or are correct, complete and not materially misleading; and
- (b) swears and affirms that he or she is authorized to act on behalf of the entity for which he or she signs and acknowledges that the Procuring Authorities are each relying on his or her representation to this effect:

Financially	Skanska AB, acting as Financially Responsible
Responsible	Party for Skanska USA Civil West Rocky
Party:	Mountain District Inc., a Joint venturer in Lead
10 BWW77 - 7751	Contractor
	Amille A the
By:	allather marked

Printed Name: Anne-Marie Hedbeck

Title:

General Counsel

5280 Connectors

- (c) certifies on behalf of the entity for which he or she signs that:
  - the Official Representative named above is authorized by the relevant entity to sign this Submittal Letter on behalf of Proposer; and
  - (ii) the representations, certifications, statements, disclosures, authorizations and commitments made, and information contained, in the SOQ (including, for the avoidance of doubt, in <u>Form</u> <u>D</u> (*Legal Disclosures*)) in respect of such entity have been authorized by such entity, is or are correct, complete and not materially misleading; and
- (d) swears and affirms that he or she is authorized to act on behalf of the entity for which he or she signs and acknowledges that the Procuring Authorities are each relying on his or her representation to this effect:

Financially Responsible Party: Zachry Construction & Materials, Inc., acting as Financially Responsible Party to Joint venturer Zachry Construction Corporation

Printed Name:

Title:

By:

Senior Vice President

Timothy A. Watt

- (a) certifies on behalf of the entity for which he or she signs that:
  - (i) the Official Representative named above is authorized by the relevant entity to sign this Submittal Letter on behalf of Proposer; and
  - (ii) the representations, certifications, statements, disclosures, authorizations and commitments made, and information contained, in the SOQ (including, for the avoidance of doubt, in <u>Form</u> <u>D</u> (*Legal Disclosures*)) in respect of such entity have been authorized by such entity, is or are correct, complete and not materially misleading; and
- (b) swears and affirms that he or she is authorized to act on behalf of the entity for which he or she signs and acknowledges that the Procuring Authorities are each relying on his or her representation to this effect:

Financially Responsible Party: Transfield Services Ltd., acting as Financially Responsible Party to Lead Operator Transfield Services Infrastructure

By:

**Printed Name:** 

Title:

Graegie Hunt

Managing Director and Chief Executive Officer



#### Annex A to the Submittal Letter

#### Pass/Fail Evaluation Criteria Verification

No.	Pass/Fail Ev	aluation Criteria	RFQ Reference	Satisfied
(1)		ns to all RFQ instructions anization, format and content, e limitations.	General Requirements, Financial Requirements and SOQ Submission Requirements	
(2)	Volume 1 of 3 following:	SOQ includes each of the		$\boxtimes$
	(a) Submittal	Letter ( <u>Form A</u> );	Section 1.1 of the Volume 1 Requirements	$\boxtimes$
	(b) narrative	executive summary;	Section 1.2 of the Volume 1 Requirements	$\boxtimes$
	(c) SOQ Sub	mission Public Statement;	Section 1.3.1 of the Volume 1 Requirements	$\boxtimes$
	(d) Confident	tial Contents Index ( <u>Form B</u> );	Section 1.3.2 of the Volume 1 Requirements	$\boxtimes$
		d <u>Form C</u> ( <i>Information Regarding</i> ) for each of:	Section 2.1.1 of the Volume 1 Requirements	$\boxtimes$
	(i)	each Equity Member;	Section 2.1.1.a of the Volume 1 Requirements	$\boxtimes$
	(ii)	Lead Contractor;	Section 2.1.1.b of the Volume 1 Requirements	$\boxtimes$
	(iii)	Lead Engineer;	Section 2.1.1.c of the Volume 1 Requirements	$\boxtimes$
	(iv)	Lead Operator; and	Section 2.1.1.d of the Volume 1 Requirements	$\boxtimes$
	(v)	each Financially Responsible Party (if any);	Section 2.1.1.e of the Volume 1 Requirements	$\boxtimes$
	(f) organizat	ional chart (entity level);	Section 2.1.2 of the Volume 1 Requirements	$\boxtimes$
	by time p	ional chart (or charts, if different eriod) identifying Key Personnel agement structures;	Section 2.1.3 of the Volume 1 Requirements	
		description of Proposer's ional and management structure;	Section 2.1.4 of the Volume 1 Requirements	$\boxtimes$
	(i) list of nar personne	nes and titles of senior involved l;	Section 2.1.5 of the Volume 1 Requirements	$\boxtimes$
	(other tha	description of workloads and in for (vi) below) availability of cial resources for each of:	Section 2.2 of the Volume 1 Requirements	
	(i)	each Equity Member;	Section 2.2.a of the Volume 1 Requirements	$\boxtimes$



No.	Pass/Fail Eva	luation Criteria	RFQ Reference	Satisfied
	(ii)	Lead Contractor;	Section 2.2.b of the Volume 1 Requirements	$\boxtimes$
	(iii)	Lead Engineer;	Section 2.2.c of the Volume 1 Requirements	
	(iv)	Lead Operator;	Section 2.2.d of the Volume 1 Requirements	$\boxtimes$
	(v)	Financially Responsible Party (if any); and	Section 2.2.e of the Volume 1 Requirements	
	(vi)	each proposed Key Personnel;	Section 2.2.f of the Volume 1 Requirements	$\boxtimes$
	organization narrative d	onfirmation of absence of any nal conflicts of interest; or (ii) escription of any such nal conflicts of interest;	Section 3.1 of the Volume 1 Requirements	
	(I) completed	Form D (Legal Disclosures);	Section 3.2.1 of the Volume 1 Requirements	$\boxtimes$
		<u>Part A</u> (Summary of ns) of <u>Form E</u> (Certifications);	Section 3.2.2 of the Volume 1 Requirements	$\boxtimes$
	(n) completed ( <i>Certificatio</i>	Part B (Certifications) of Form E ons) for each of:	Section 3.2.3 of the Volume 1 Requirements	$\boxtimes$
	(i)	each Equity Member;	Section 3.2.3.a of the Volume 1 Requirements	$\boxtimes$
	(ii)	Lead Contractor;	Section 3.2.3.b of the Volume 1 Requirements	$\boxtimes$
	(iii)	Lead Engineer;	Section 3.2.3.c of the Volume 1 Requirements	
	(iv)	Lead Operator; and	Section 3.2.3.d of the Volume 1 Requirements	$\boxtimes$
	(v)	each Financially Responsible Party (if any);	Section 3.2.3.e of the Volume 1 Requirements	
		regarding the presence (or of anticipated legal issues;	Section 3.3 of the Volume 1 Requirements	$\boxtimes$
	(p) completed each of:	Form F (Project Experience) for	Section 4.1 of the Volume 1 Requirements	
	(i)	the Equity Members (collectively), with respect to at least 3 but no more than 5 General Reference Projects (of which the Procuring Authorities permit 1 General Reference Project to not satisfy paragraph (a) of the definition of General Reference Project);	Section 4.1.a of the Volume 1 Requirements	



No.	Pass/Fail Eva	luation Criteria	RFQ Reference	Satisfied
	(ii)	the Lead Contractor (collectively), with respect to at least 4 but no more than 6 General Reference Projects (of which the Procuring Authorities permit 1 General Reference Project to not satisfy paragraph (a) of the definition of General Reference Project);	Section 4.1.b of the Volume 1 Requirements	
	(iii)	the Lead Engineer (collectively), with respect to at least 4 but no more than 6 General Reference Projects (of which the Procuring Authorities permit 1 General Reference Project to not satisfy paragraph (a) of the definition of General Reference Project); and	Section 4.1.c of the Volume 1 Requirements	
	(iv)	the Lead Operator (collectively), with respect to at least 2 but no more than 4 O&M Reference Projects.	Section 4.1.d of the Volume 1 Requirements	
	(q) completed for each of	<u>Form G</u> (Safety Questionnaire)	Section 4.2 of the Volume 1 Requirements	
	(i)	Lead Contractor;	Section 4.2.a of the Volume 1 Requirements	
	(ii)	Lead Engineer; and	Section 4.2.b of the Volume 1 Requirements	$\boxtimes$
	(iii)	Lead Operator;	Section 4.2.c of the Volume 1 Requirements	$\square$
		<u>Form H</u> (Stakeholder and Engagement Questionnaire);	Section 4.3 of the Volume 1 Requirements	$\square$
	attaching r	<u>Form I</u> ( <i>Key Personnel</i> ) esumes (including a list of in the form of <u>Annex A</u> to each of:	Section 4.4 of the Volume 1 Requirements	
	(i) De	esign-Build Manager;	Section 4.4.a of the Volume 1 Requirements	
	(ii) De	esign Manager;	Section 4.4.b of the Volume 1 Requirements	
	(iii) O8	&M Manager;	Section 4.4.c of the Volume 1 Requirements	
	(iv) Qu	uality Manager;	Section 4.4.d of the Volume 1 Requirements	
	(v) Er	vironmental Manager;	Section 4.4.e of the Volume 1 Requirements	$\boxtimes$



No.	Pass/Fail Evaluation Criteria		RFQ Reference	Satisfied
	(vi)	Utilities Manager; and	Section 4.4.f of the Volume 1 Requirements	
	(vii)	Community and Public Relations Manager; and	Section 4.4.g of the Volume 1 Requirements	
	(t) statem	ent of technical approach.	Section 5 of the Volume 2 Requirements	$\square$
(3)	Volume 2 of following:	of SOQ includes each of the		$\square$
	organiz	ve description of Proposer's ational and management structure lates to financial matters;	Section 1.1 of the Volume 2 Requirements	
	capacit	ve description of the financial y available to Proposer for this for each of:	Section 1.2 of the Volume 2 Requirements	
	(i)	each Equity Member;	Section 1.2.a of the Volume 2 Requirements	
	(ii)	Lead Contractor;	Section 1.2.b of the Volume 2 Requirements	
	(iii)	Lead Engineer;	Section 1.2.c of the Volume 2 Requirements	
	(iv)	Lead Operator; and	Section 1.2.d of the Volume 2 Requirements	
	(v)	each Financially Responsible Party (if any);	Section 1.2.e of the Volume 2 Requirements	
	experie	ve description of the relevant ence of the Core Proposer Team ers on General Reference Projects;	Section 1.3 of the Volume 2 Requirements	$\boxtimes$
	(d) stateme	ent of financial approach;	Section 2 of the Volume 2 Requirements	
		f support from each Financially nsible Party (if any);	Section 3.1 of the Volume 2 Requirements	
	togethe or lette Instituti credit c	r letters from an Eligible Surety, er (at Proposer's option) with a letter rs from an Eligible Financial on, as evidence of bonding/letter of capacity and ability to secure nance security;	Section 3.2 of the Volume 2 Requirements	
	(g) equity f Membe	funding letter from each Equity er;	Section 3.3 of the Volume 2 Requirements	
	(h) financia	al statements for:	Section 4.1 of the Volume 2 Requirements	
	(i)	each Equity Member;	Section 4.1.a of the Volume 2 Requirements	



No.	Pass/Fail Eva	luation Criteria	RFQ Reference	Satisfied
	(ii)	Lead Contractor;	Section 4.1.b of the Volume 2 Requirements	$\boxtimes$
	(iii)	Lead Engineer;	Section 4.1.c of the Volume 2 Requirements	
	(iv)	Lead Operator; and	Section 4.1.d of the Volume 2 Requirements	$\boxtimes$
	(v) Party (	each Financially Responsible if any);	Section 4.1.e of the Volume 2 Requirements	$\boxtimes$
	financial ca	n regarding material changes in apacity, or confirmation of the f any such changes, for:	Section 4.2 of the Volume 2 Requirements	
	(i)	each Equity Member;	Section 4.2.b.i of the Volume 2 Requirements	$\boxtimes$
	(ii)	Lead Contractor;	Section 4.2.b.ii of the Volume 2 Requirements	$\boxtimes$
	(iii)	Lead Engineer;	Section 4.2.b.iii of the Volume 2 Requirements	$\boxtimes$
	(iv)	Lead Operator; and	Section 4.2.b.iv of the Volume 2 Requirements	$\boxtimes$
	(v)	each Financially Responsible Party (if any);	Section 4.2.b.v of the Volume 2 Requirements	$\boxtimes$
		on of off balance sheet liabilities, ation of the absence of such or each of:	Section 4.3 of the Volume 2 Requirements	
	(i)	each Equity Member;	Section 4.3.a of the Volume 2 Requirements	$\boxtimes$
	(ii)	Lead Contractor;	Section 4.3.b of the Volume 2 Requirements	$\boxtimes$
	(iii)	Lead Engineer;	Section 4.3.c of the Volume 2 Requirements	$\boxtimes$
	(iv)	Lead Operator; and	Section 4.3.d of the Volume 2 Requirements	$\boxtimes$
	(v)	each Financially Responsible Party (if any);	Section 4.3.e of the Volume 2 Requirements	$\boxtimes$
	(k) completed	Form J (Credit Ratings); and	Section 4.4.1 of the Volume 2 Requirements	$\boxtimes$
	entity that I	formation and materials for each nas a credit rating as indicated apleted <u>Form J</u> ( <i>Credit Ratings</i> ).	Section 4.4.2 of the Volume 2 Requirements	

#### Annex B to the Submittal Letter

#### Scoring Reference Chart

Relevant RFQ Section (of Part C)	Substantive Evaluation Criteria	SOQ Vol. & Sec. Ref.
	Technical Criteria	Volume 1
Section 1.1	Organization, Structure and Experience	Volume 1, Section 1; Volume 1, Section 2; Volume 1, Section 4; Volume 1, Section 5; Volume 1, Section 2;
Section 1.1.a	Likelihood of success based on:	Volume 1, Section 1; Volume 1, Section 2; Volume 1, Section 4
Section 1.1.a.i	<ul> <li>management, organization and structure</li> </ul>	Volume 1, Section 1.2; Volume 1, Section 2.1; Volume 1, Section 2.2; Volume 1, Section 4.4.a-g; Volume 1, Section 5.a; Volume 2, Section 2, Figure 2.A.1
Section 1.1.a.ii	<ul> <li>prior experience and Demonstrated Performance</li> </ul>	Volume 1, Section 1.2; Volume 1, Section 2.1; Volume 1, Section 2.2; Volume 1, Section 4.1.a-d (Form F); Volume 1, Section 4.3 (Form H); Volume 1, Section 4.4.a-g
Section 1.1.b	<ul> <li>Experience and Demonstrated Performance on Reference Projects based on:</li> </ul>	Volume 1, Section 1; Volume 1, Section 2; Volume 1, Section 4; Volume 1, Section 5
Section 1.1.b.i.A	- design and construction	Volume 1, Section 1.2; Volume 1, Section 2.1; Volume 1, Section 2.2.b; Volume 1, Section 4.1.a-d (Form F); Volume 1, Section 4.2.a-b; Volume 1, Section 4.3.a; Volume 1, Section 4.4.a-g; Volume 1, Section 5.
Section 1.1.b.i.B	- operations and maintenance	Volume 1, Section 1.2; Volume 1, Section 2.1; Volume 1, Section 2.2.d; Volume 1, Section 4.1.a-d; Volume 1, Section 4.2.c; Volume 1, Section 4.4.a-g;

VOLUME 1 – 4. TECHNICAL EXPERIENCE



Relevant RFQ Section (of Part C)	Substantive Evaluation Criteria	SOQ Vol. & Sec. Ref.
		Volume 1, Section 5.a-d
Section 1.1.b.ii.A	<ul> <li>workforce, subcontractor and stakeholder engagement</li> </ul>	Volume 1, Section 1.2; Volume 1, Section 2.2; Volume 1, Section 4.1.a-d (Form F); Volume 1, Section 4.3 (Form H); Volume 1, Section 4.4.a-g; Volume 1, Section 5.a; Volume 1, Section 5.d
Section 1.1.b.ii.B	<ul> <li>environmental monitoring and mitigation</li> </ul>	Volume 1, Section 1.2; Volume 1, Section 2.1.3-4; Volume 1, Section 2.2; Volume 1, Section 4.1.a-d (Form F); Volume 1, Section 4.2 (Form G); Volume 1, Section 4.3 (Form H); Volume 1, Section 4.4.a-g Volume 1, Section 5.d;
Section 0	Technical Approach to Project	Volume 1, Section 1; Volume 1, Section 2; Volume 1, Section 4; Volume 1, Section 5; Volume 2, Section 1; Volume 2, Section 2
Section 1.2.a	<ul> <li>Understanding of key challenges and risks</li> </ul>	Volume 1, Section 1.2; Volume 1, Section 2.1.2-4 Volume 1, Section 4.1.a-d (Form F); Volume 1, Section 4.2 (Form G) Volume 1, Section 4.4.a-g Volume 1, Section 5.a-d Volume 2, Section 2.a.ii
Section 1.2.b	<ul> <li>Project plan</li> </ul>	Volume 1, Section 1.2; Volume 1, Section 2.1.4.b; Volume 1, Section 2.2; Volume 1, Section 4.2 (Form G); Volume 1, Section 4.3 (Form H); Volume 1, Section 4.4.a-g; Volume 1, Section 5.a-c; Volume 2, Section 1.2
Section 1.2.c	<ul> <li>Public interest and engagement plan</li> </ul>	Volume 1, Section 1.2; Volume 1, Section 2.1.4; Volume 1, Section 4.2 (Form G);



Relevant RFQ Section (of Part C)	Substantive Evaluation Criteria	SOQ Vol. & Sec. Ref.
		Volume 1, Section 4.3 (Form H);
		Volume 1, Section 4.4.a-g;
		Volume 1, Section 5.d
	Financial Criteria	Volume 2
	Financial Qualifications and Capacity	Volume 1, Section 1;
		Volume 1, Section 2;
		Volume 1, Section 4.
Section 2.1		Volume 2, Section 1;
		Volume 2, Section 2;
		Volume 2, Section 3;
		Volume 2, Section 4;
		Volume 1, Section 1.2;
		Volume 1, Section 2.1.5;
		Volume 1, Section 2.2;
		Volume 1, Section 4.1.a (Form F);
Caption 0.1 a	<ul> <li>Experience and Demonstrated Performance on closing financing of Reference Projects</li> </ul>	Volume 2, Section 1.1;
Section 2.1.a		Volume 2, Section 1.2;
		Volume 2, Section 1.3;
		Volume 2, Section 3.1;
		Volume 2, Section 3.2;
		Volume 2, Section 3.3
	<ul> <li>Financial capacity</li> </ul>	Volume 1, Section 1.2;
		Volume 1, Section 2.2;
Section 2.1.b		Volume 2, Section 1.2;
		Volume 2, Section 3.1;
		Volume 2, Section 3.2;
		Volume 2, Section 3.3;
		Volume 2, Section 4.1
Section 2.2	Financial Approach to Project	Volume 1, Section 1.2;
		Volume 1, Section 2.1.5;
		Volume 2, Section 1.1;
		Volume 2, Section 1.3;
		Volume 2 Section 2;



## **1. GENERAL REQUIREMENTS**

#### **1.2 Executive Summary**

5280 Connectors is pleased to provide its Statement of Qualifications to the Procuring Authorities for the I-70 East Project ("the Project").

The I-70 East Project is arguably the most important and complex project ever undertaken by CDOT and there will continue to be keen public and political interest in the Project. Utilizing a Public Private Partnership ("PPP") as the delivery model will allow CDOT to harness the opportunity the I-70 East Project represents to the community and the State.

Delivering such complex projects is what 5280 Connectors does.

This promise is backed by our extensive experience delivering major Reference Projects and will be implemented through our organizational structure and tailored project plan. To develop that structure and plan, we have rolled up our sleeves, dug in, and worked hard to understand the I-70 East Project.

5280 Connectors understands that, more than being a high-profile example of how to deliver such projects with alternate procurement processes, this stretch of I-70 is functionally critical, being both the gateway to the City of Denver and as the main transportation artery for the entire State of Colorado.

We also understand that, more than being a highway project that will benefit the state and local economy, the Project offers the opportunity to build trust:

- Of the communities along the I-70 East Corridor by utilizing a collaborative process with the objective of enhancing community values and Project benefits;
- Of the Colorado taxpayers by demonstrating an appropriate and meaningful use of public resources to upgrade and reconfigure this critical transportation artery; and
- Of elected officials that PPP is an effective and transparent procurement model that maximizes value of state dollars and ensures long-lasting functional infrastructure.



Elizabeth River Tunnels

Being "what we do", 5280 Connectors understands the importance for the Procurement Authorities to deliver a successful project for the State, local communities, and taxpayers.

Our job in partnering with clients is to make complex projects successful for all parties involved.

It is essential that the team selected by the Procuring Authorities be more than merely qualified to deliver the a base design and construction project, have significant PPP experience and a proven track record in managing complex projects. The best private partner will be the team that has these qualifications and track record, but that also respects the Project's history and significance and understands the unique opportunity it represents for the community. Then, develops a comprehensive plan to harness this opportunity, and possesses the local knowledge and experience to execute that plan.

Throughout this Executive Summary and by the end of our Statement of Qualifications, we intend to demonstrate that 5280 Connectors is that team.

#### 5280 Connectors – Who We Are



5280 Connectors is a team designed to address the Project Goals and objectives of this vi-

tal project. Every Core Proposer Team Member has extensive PPP project experience in successfully delivering complicated infrastructure projects, from developing and financing, to designing, constructing and operating and maintaining.

Specifically, the Core Proposer Team Members of 5280 Connectors are comprised of the following entities:

Plenary Plenary Group ("Plenary") Group is a 50% Equity Member and co-developer of 5280 Connectors. Since inception ten years ago, Plenary has invested in and developed 23 PPP projects in North America worth in excess of \$11 billion (35 projects globally worth in excess of \$20 billion) with an approach to structure a long-term equity investment and develop a sustainable partnership strategy with public authorities. Plenary has evidenced this partnership strategy with HPTE on the US 36 Phase 2 Managed Lanes project where Plenary is acting as sole equity investor and developer on this Reference Project. This project has helped Plenary understand the people, understand the process, and understand the challenges and opportunities.

Plenary and Skanska ID have combined to develop and invest in 25 PPP Projects across North America and 66 Projects globally, backing those projects with over \$1 billion in equity investments.

**SKANSKA** Skanska Infrastructure Development Inc. ("Skanska

ID") is a 50% Equity Member and co-developer for 5280 Connectors. One of the development units of the Skanska Group, Skanska ID is a world leader in infrastructure PPPs with 31 successful projects worldwide. Combining the concern of an investor with the skill of a contractor, the company provides communities with what they need: safe

roads, rails, and bridges, reliable energy, and state-of-the-art social infrastructure. In the US. Skanska ID has teamed with Skanska Civil on two of the largest, most complicated PPPs to date: the Elizabeth River Tunnels and the I-4 Ultimate. and is part of a consortium that was recently named preferred bidder on the multi-billion dollar Terminal Replacement Project at LaGuardia Airport.

Skanska USA Civil Inc.1 SKANSKA ("Skanska Civil") is a 65% joint venture partner in 5280 Connectors' Lead Contractor. Skanska Civil employs over 6,500 salaried and craft employees and has operated in Colorado for 64 years. It is ranked by ENR as the 3rd largest heavy civil contractor in the US based on 2014 revenues of \$2.4 billion. A leader in safety, Skanska took its global "Safety Week" program nationwide last year with great success with over 40 construction companies participating. Specializing in large, complex projects with substantial community involvement, Skanska Civil has worked with its clients and stakeholders to deliver over 40 design-build projects valued at \$16 billion, including projects such as the 11th Street Bridges Reconstruction and Expo Phase 2 LRT as well as the two PPPs mentioned above.

ZACHRY Zachry Construction Corporation ("Zachry") is a 35% joint venture partner in 5280 Connectors' Lead Contractor. A successful family-owned business for over 90 years, Zachry has heavy construction units that are centrally managed from its corporate headquarters in San Antonio, Texas with regional offices in strategic markets including an Area Office in Westminster, CO. Zachry's resources include 488 salaried employees and 871 hourly employees supported by a substantial equipment fleet. Since its inception, Zachry has undertaken over 1,455 transportation projects nationwide. An experienced PPP contractor and investor, Zachry was ranked #14 by ENR in Highway Construction in the country with annual revenue of million.

<sup>1</sup> Skanska USA Civil Inc. will contract through its Colorado registered subsidiary Skanska USA Civil West Rocky Mountain District Inc.

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HDR Engineering Inc. ("HDR") is the Lead Engineer for 5280 Connectors. Having worked on recent, significant PPP projects

with Plenary, Skanska, Zachry, and Transfield, HDR is one of the most experienced and reputable engineering firms globally, with market-leading experience on mega-design build projects such as I-4 Ultimate, US 36 Managed Lanes, Eagle P3, and the New NY Bridge (Tappan Zee). HDR understands what it takes to maximize value for owners, work collaboratively with contractors and how to address the community's objectives in order to produce lasting signature project designs. HDR has over 400 local staff with more than 100 dedicated to transportation.



 Transfield Services Infrastructure, Inc. is the Lead Operator for 5280 Connectors. Transfield currently holds transportation operations and

maintenance contracts throughout Australia, New Zealand, Canada, and the United States, including 21 contracts in the country. Most notably in their PPP portfolio, Transfield is responsible for 93% of

the operations and maintenance scope for Reference Project US 36 Managed Lanes (with Plenary responsible for the remaining 7% of the O&M scope). As evidenced by their 21 O&M contracts, four as PPPs, in the US, Transfield actively manages and executes operations and maintenance plans and all lifecycle aspects of projects in order to prolong serviceability.

Collectively, the Core Proposer Team Members of 5280 Connectors independently are among the most experienced and competent firms in the transportation PPP space and collectively have world-class expertise delivering PPPs, a presence on local Reference Projects, and strong financial capacity.

#### Meeting or Exceeding the Project Goals

As discussed above, 5280 Connectors has rolled "up their sleeves" to understand the unique circumstances of the Project which are embodied in the Project Goals set forth in the RFQ. The Table below provides a brief description of how 5280 Connectors will approach partnering with the Procuring Authorities in order to successfully achieve them.

#### The Procuring Authorities and CDOT's Project Goals

Optimize the scope of the Project to promote economic and community vitality:

Governments choose the PPP model to drive the innovation that optimizes scope and value and this is something our team has delivered time and again. On Skanska's I-4 Ultimate project, the team added auxiliary lanes not contemplated in the RFP which will improve traffic flow and provide first responders with improved access to the multiple hospitals along the corridor. The Plenary-led consortium on SH 183 Managed Lanes in Dallas was the only bidder able to deliver all five enhancements on TxDOT's "wish list."

To promote economic and community vitality, we will exceed S/DBE contracting goals while implementing a strong workforce development program as demonstrated on multiple Reference Projects. For example, at Elizabeth River Tunnels the Skanska-led team subcontracted the entire MLK Freeway Extension to DBE/SWaM firms and on the Expo 2 project the Skanska JV exceeded the local hire requirement by 19.5%.

Optimize operating and lifecycle costs with quality:

As long-term investors, Plenary and Skanska ID will apply proven methodologies to optimize lifecycle costs. In addition, Lead Operator Transfield will be involved in the task force-based design development process from the start.

Skanska Civil, Zachry, and HDR have implemented quality management plans on mega-projects that not only meet local DOT and FHWA requirements but also proactively plan quality into the finished product with the goal of delivering a project with zero defects.

#### The Procuring Authorities and CDOT's Project Goals

Minimize impacts to community and traveling public during and after construction:

One concern of local residents relates to their ability to cross the area affected by construction to obtain essential services. For this and other reasons 5280 Connectors will employ a multi-channel communication program to notify of changes to normal traffic patterns. Examples include notification of pending lane or road closures with alternate detour routes and open house meetings to hear concerns of local businesses. 5280 Connectors will minimize inconvenience to the community by the second school zones, business districts and residential neighborhoods. Other measures include installing positive control devices, such as concrete barriers and fences to keep pedestrians and errant vehicles away from construction activity, and providing for safety personnel to quide residents along the designated safe route.

On 11th Street, for example, Skanska completed portions of the work in a modified sequence in order to address a community concern about access. On I-4 Ultimate the original number of traffic lanes will remain open throughout construction.

Create reliable travel speeds and minimize maintenance:

With experience on managed lane projects such as US 36, I-4 Ultimate, and IH 35E, 5280 Connectors understands that such facilities must be designed with cohesive physical and operational elements that facilitate smooth traffic flow and enable reliable travel times. This is supported by an operations plan that quickly and effectively clears incidents. As an owner and operator of transportation projects around the world, we also understand that even regular maintenance can impact thousands of people every day. We will implement a preventive and off-hour maintenance plan to minimize disruptions to the flow of traffic.

#### Utilize a collaborative process to enhance community values and project benefits:

Community outreach is integral to everything we do. As demonstrated on our Reference Projects, Core Proposer Team Members have used a wide variety of approaches to conduct outreach and collaborate in our projects' communities.

Building on the work done to date by CDOT, 5280 Connectors will engage the public – and particularly the environmental justice communities and adjacent neighborhoods affected by the Project – in development of the design solution as well as our approach to aesthetics, phasing, and maintaining safe pedestrian and vehicular access and mobility. Our outreach plan will account for the need for bilingual speakers at all events.

Protect the safety of workforce and public:

5280 Connectors will not undertake work its members cannot do safely, for its workers or the public at large. During construction, 5280 Connectors will implement an OHSAS 18001/ISO 14001 Certified Safety Health and Environmental Management System. A key element is Skanska Civil's Injury-Free Environment ("IFE") program of training for the entire workforce. Similarly, maintenance of traffic plans will be carefully developed to provide for the safety of I-70 users as well as cross-traffic and pedestrians.

#### 5280 Connectors – Organization and Management

As shown in the corporate organization chart below, 5280 Connectors will employ a structure that is easily recognizable to the Procuring Authorities and lenders that the team has utilized previously for the execution of PPPs for large, complex transportation projects similar to I-70 East. Embodying the PPP principle of assigning risk to those best suited to manage it, 5280 Connectors will contract with Skanska Civil, Zachry and HDR for design-build and Transfield for operations and maintenance while retaining responsibility for financing and overall project management.





The four main entities collaborate to carry out the obligations of 5280 Connectors to execute the Project. The organizational approach of each is briefly described below:

## 5280 Connectors Project Company (the Developer)

Equity Members Plenary and Skanska ID share a philosophy of an active, value-added management approach when establishing a special-purpose project company for large-scale endeavors, such as the I-70 East Project. 5280 Connectors will be responsible for the first-level interface with CDOT, overall financial management, and project delivery while overseeing the design, construction, operations and maintenance.

#### Equity Investments in Availability Payment Projects

Plenary has invested or is committed to invest approximately in equity for PPPs of which for Availability Payment projects, including approximately in availability-based US PPPs.

Skanska ID has \$523 million equity commitments in PPPs globally, of which over \$350 million in Availability Payments projects, including approximately \$73 million in availability-based US PPPs.

The team has developed 53 Availability Payment PPP projects (32 for Plenary and 21 for Skanska ID)

Both Plenary and Skanska ID are strictly development-oriented equity investors. We are not passive investors that purchase equity opportunities only after the development work has been completed. Instead, we investigate, develop and invest in opportunities which we support with continued oversight and management during construction and into operations; develop lasting relationships with our clients and local stakeholders; and focus on managing that investment for the mutual benefit of all parties.

#### Lead Contractor Skanska-Zachry

Lead Contractor Skanska-Zachry I-70 East Constructors ("Skanska-Zachry") is a fully integrated construction joint venture with the proven expertise and resources necessary to carry out projects similar to the I-70 East Project, such as I-4 Ultimate, ERT and SH 130. Member firms are jointly and severally liable, and Skanska-Zachry will manage and perform its duties as a project-based business unit working as an integrated team to achieve the Project Goals. Under this structure, staff is oriented to think and perform in the interest of the Project.

#### Lead Engineer HDR

Lead Engineer HDR will operate under contract to Skanska-Zachry and will retain design sub-consultants to provide specialty support and DBE participation. HDR will operate in a fully integrated manner with Skanska-Zachry, Transfield and 5280 Connectors to jointly develop the Project design and construction approach in a way that maximizes overall project value to CDOT in accordance with the Project Goals.

#### 5280 CONNECTORS REFERENCE PROJECT: I-4 ULTIMATE PROJECT

Availability payment PPP project that involves the construction of existing 21 miles of urban interstate with the addition of express/managed lanes, for the Florida DOT

Key Facts:

- Largest PPP transportation project in US history (\$2.3 billion)
- Financing included TIFIA, bank debt and equity

Current Status: Under construction (approx. 16.6% complete)

Team Members: Skanska ID, Skanska Civil and HDR

**Benefits of Experience for I-70 East Project:** 

- Clear, transparent communication with stakeholders
   and the client
- Iconic design and signature aesthetic features that reflect neighborhoods; maximize sustainability
- Heavily trafficked and densely populated urban area with environmental justice communities
- Robust health and safety program based on Skanska's IFE
- Plans to exceed the DBE and SBE goals; 250 workforce trainees
- Proactive O&M services that focuses on lifecycle optimization for the design including pavement, structures and lighting
- Construction staging plan to minimize impacts and keep existing number of lanes open

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#### Lead Operator Transfield

Lead Operator Transfield will be integrated and co-located with the project team beginning with the bid phase to begin planning the operations and maintenance of the Project and to assist the design team in optimizing the lifecycle costs of the project. The Project will benefit from Transfield's US 36 and I-25 experience and its in-depth knowledge of CDOT practices and local weather conditions to ensure lifecycle value creation during design, construction, operating period and the handback at the end of the term.

#### **Team Integration**

These four entities contribute personnel, expertise and best practices to 5280 Connectors. Integrated staff organizational charts, both prior to and after commercial close, are included in Vol. 1, Sec. 2.1.3 and illustrate the positions of our Key Personnel and other managers and functional areas.

The structure is, based on extensive successful experience, designed to integrate the technical expertise and collective experience from the Core Proposer Team Members while establishing the platform for successful execution throughout all phases of the Project.

A key feature of our team structure is the technical Task Forces that are organized by discipline and are made up of representatives from design, construction, estimating, O&M and equity. These groups meet regularly to develop innovations,



address particular project requirements and drive towards a comprehensive solution that includes optimization of scope, delivery and lifecycle consideration. Following commercial close, 5280 Connectors will work in close collaboration with CDOT and stakeholders to promote collaboration and transparency for all aspects of the Project.

5280 Connectors envisions its staff working alongside CDOT in a single project office

in order to promote transparency and collaboration. Successful examples include US 36 where Plenary, HDR, and Transfield are currently co-located with CDOT, and on I-4 Ultimate in Orlando where Skanska, HDR and other team members are currently co-located with FDOT.

#### Advisors, Underwriters and Banks

5280 Connectors has already engaged several advisors at the Developer level to provide strategic counsel and specialist advice on the Project:

- Financial Advisory: With their vast experience in arranging financings for PPP projects, 5280 Connectors will be performing financial advisory internally.
- Technical Advisory: BTY will serve as the Lenders Technical Advisor.
- Legal Counsel: Hogan Lovells will serve as legal counsel to the Equity Members.
- Public Relations: ZoZo Group will advise 5280 Connectors on public relations matters.

5280 Connectors has named JP Morgan, Wells Fargo, and TD Securities to serve as bond underwriters for the consortium. The Equity Members have a long and successful history working with these underwriters which also have significant institutional knowledge of transportation, and more specifically, the Procuring Authorities finances (see Vol.1, Sec.2.1.5.).

In addition, both Plenary and Skanska ID have a long history of partnering with banks, and have developed numerous long standing relationships, on previous pursuits. We have received expressions of interest from several of our relationship banks to support our team on the proposal for the Project.

US 36 Managed Lanes



#### 5280 Connectors Experience

#### **Project Experience**

The members of 5280 Connectors are responsible for many of the most recent, largest, highly complex and challenging PPPs and design-build projects in the US that have similar characteristics as the I-70 East Project.

Throughout this Executive Summary, we have included Reference Project examples highlighting our team's experience and how it is particularly relevant to a successful delivery of the I-70 East. Full details of each Reference Project can be found in Vol.1, Sec.4.1.

#### 5280 Connectors - Safety Record

5280 Connectors' comprehensive commitment to safety, as demonstrated in our members' safety record shown in Vol.1, Sec.4.2, goes beyond adhering to rules and regulations. A key element of 5280 Connectors' approach to safety will be the use of Skanska's Injury-Free Environment ("IFE") program of training for all personnel and subcontractors. IFE focuses on safety culture and attitudes at work and everyday life with the purpose of creating a culture and an individual mindset that the safety of oneself and others is everyone's responsibility. Additionally, 5280 Connectors will base its project specific safety plan on Skanska's OHSAS 18001/ISO 14001 certified Safety, Health and Environmental Management System ("SHEMS"). This project specific plan will be developed in accordance with SHEMS to address situations and characteristics unique to I-70 East and incorporates best practices from all members of 5280 Connectors.

#### 5280 Connectors – Stakeholder Engagement

The Core Proposer Team Members of 5280 Connectors strive to embrace the communities in which they work. Project staff members often live in these communities and are committed to delivering projects that improve the lives of local residents. The team members constantly interact with their community members and stakeholders through multiple forms of outreach. Each community is different and requires a unique approach.



Our responses to the six questions in Vol.1, Sec. 4.3 demonstrate the wide-ranging and effective ways the Core Proposer Team Members of 5280 Connecters have carried out community outreach and stakeholder engagement on large, high-impact infrastructure projects and provides additional detail of our proposed stakeholder engagement, community outreach and workforce development plan for the I-70 East Project.

#### 5280 CONNECTORS REFERENCE PROJECT: RTD EAGLE P3 PROJECT

PPP that involves design and construction of 36 miles of new commuter rail lines and associated stations, for the Denver Regional Transportation District.

Key Facts:

- construction cost \$<u>1 billion</u>
- critical urban design coordination, including with railways and utilities

Current Status: Under construction

#### Team Members: HDR

#### Benefits of Experience for I-70 East Project:

- Drainage and grading in urban environments
   associated with over 36 miles of commuter rail track
- 36 bridges
- Relocation of roadways
- Design of new roadways, including 14 Park-n-Ride stations
- One commuter rail maintenance facility, and relocation of 4 miles of BNSF mainline tracks
- Extensive utility relocation

#### I-70 EAST PROJECT



"John [Kalvelage] continues to accelerate critical responses to field design changes that occur during construction while honoring safety, contract and quality requirements necessary for those changes. His ability to bring parties together to discuss disagreements and the ability to see issues through the perspective of all parties involved allows him to move issues forward for successful resolution."

- Greg Straight, Eagle P3 Design/Build Manager, RTD Eagle Project

#### 5280 Connectors – Key Personnel

The Key Personnel for 5280 Connectors provide a combination of industry leading experience and local knowledge. These persons are very well versed in large, complex design and construction projects as well as specifically understanding the Project and its impacts on surrounding neighborhoods and roadways. In fact, many members of our team drive I-70 on a regular basis!

Our Key Personnel include:

- Design-Build Manager Wade Watson. Wade is currently serving a similar capacity as manager of the Skanska-led construction joint-venture undertaking the construction of the Elizabeth River Tunnels project in Norfolk, Virginia. Wade brings many years of successful experience leading and managing mega projects, with complex environmental, MOT and technical challenges similar to I-70 East.
- Design Manager John Kalvelage. Currently the design manager on the Eagle P3 project, John has extensive experience designing for complex construction and dealing with the kind of critical local issues that need to be addressed on I-70 East.
- O&M Manager Christian Guevara. Currently the O&M Manager for US 36 and overseeing operations on I-25 since March 2014. Christian will apply local experience preparing, managing and executing operations and maintenance plans to prolong serviceability of facilities and optimize lifecycle aspects.

- Quality Manager Danny Bennett. Danny is the construction quality assurance Manager on Eagle P3 in Denver. Danny has significant, relevant experience leading quality assurance and quality control efforts both from the contractor's side and as a client representative and consultant.
- Environmental Manager Matthew Zoss. Matthew is the Environmental Compliance Manager for Denver Transit Constructors on the Eagle P3 project in Denver. Matthew's local knowledge and work with groundwater issues will be instrumental in addressing the Project's unique environmental challenges.
- Utility Manager Emil Dzuik. Emil is currently a Utility Coordinator and Manager for Zachry on its SH 99 Grand Parkway project near Houston, Texas. Emil has had a distinguished career working on the utility side of many relocation projects giving Emil unique insight and perspective.
- Community and Public Relations Manager Pauline Haberman. Pauline is currently the Senior Public Information Coordinator of ZoZo Group. She has a long history of working with community outreach and public relations on transportation projects in Colorado. With a strong connection to local communities that will be impacted by the Project, Pauline is already heavily involved in the project pursuit for 5280 Connectors.



"I have seen contractors in all shapes, sizes, and approaches. I've found Skanska to be the best in terms of coming to the table and bringing up issues that are very critical and when owners have concerns they step up to the plate, in a true partnering spirit and solving the issues. There's not question in my mind. It has been a pure joy, pride and honor to work with Skanska"

> - Ravindra Ganvir, Deputy Chief Engineer, District Department of Transportation

In addition to identified Key Personnel, 5280 Connectors employs many other industry-leading professionals who are experienced on PPP projects. Additional team members include:

- Project Director Brian Clark. As Project Director, Brian brings vast experience from PPP projects across North America, including as Project Director for HPTE's US 36 Managed Lanes project.
- Deputy Project Director Frederick Burman. Frederick has worked on several North American PPP projects including as Skanska ID's commercial lead and current Board member on the Elizabeth River Tunnels project.
- Construction Manager Brian Freund. Brian will act as a Construction Manager to Wade Watson, who is serving as the Design-Build Manager, bringing experience from many projects including the Expo LRT in California.

#### **Technical Approach**

Three things will maximize project value to the Procuring Authorities: innovation, efficiency and a whole-life view of the Project. 5280 Connectors is the team most skilled, experienced and best configured to maximize all three.



technical sub-consultants to provide additional expertise and capacity to tackle the more difficult or unique technical aspects of the Project. Throughout all phases, the Developer will provide overall coordination and the first-level interface with CDOT. This continuity underpins the evolving structure and approach of the team as the Project progresses through the phases of development, design, construction and operations and maintenance.

The Table in Vol.1, Sec.5.a provides further information regarding the technical, project management and subcontracting approach that 5280 Connectors will apply for each phase of the Project. This has proven effective on large, complex projects such as I-4 Ultimate, US 36, Penn Bridges and ERT.

#### 5280 CONNECTORS REFERENCE PROJECT: PENNSYLVANIA RAPID BRIDGE REPLACEMENT PROJECT

Availability payment PPP project that involves the replacement of 558 bridges, for the Pennsylvania DOT.

Key Facts:

- Construction cost \$899 million
- Largest PABs issuance in US history (\$721 million)
- · Financing included PABs and equity

Current Status: Under construction (approx. 9% complete)

Team Members: Plenary and HDR

#### **Benefits of Experience for I-70 East Project:**

- First multi-asset PPP to be undertaken in the US (558 bridges)
- Successful financing with strong pricing (low yield to maturity)
- Significant MOT requirements during construction with operating contract commencing during the construction period
- Capital structure includes milestone and availability payments during the construction period
- 4 Bridges over railroads; 8 that have a perpendicular crossing nearby; 17 adjacent; and 10 different rail companies that have to be coordinated with on the project

#### **Technical Challenges**

5280 Connectors' Denver-based team has been closely following the development of preferred alternative in the SDEIS. The benefits include, for example, how in cities such as Seattle and Dallas, a freeway cover has proven effective in "re-linking" adjoining neighborhoods.

Depressing a portion of the reconfigured freeway below grade, however, introduces unique challenges in many areas including drainage, geotechnical, hazardous materials, maintenance of traffic, utilities, excavation, walls, groundwater, and Fire Life Safety systems. Our team has assembled internal experts and added specialty sub-consultants as shown in the table below to address these challenges.

SPECIALTY SUB-CONSULTANTS				
Design Sub	Role			
Apex Design	ITS, Tolling, MOT			
Brierley & Associates	Ground Support, Geotechnical			
Enginuity	Drainage & Floodplain			
Harris Kocher Smith	Street Design			
Hatch Mott McDonald	Project Controls			
Merrick & Company	Utility & Street Design			
Pinyon Environmental	Environmental			
Survey and Mapping	Survey, Utility Coordination, SUE			

5280 Connectors will take a comprehensive view when designing the depressed section and address challenges such as:



Other technical challenges 5280 Connectors will address with technical solutions, targeted project management, and coordination efforts include:

- Utility coordination. To be managed by the Utility Manager Emil Dzuik and coordinated in a dedicated task force;
- Railroad coordination. To be managed closely by Skanska-Zachry. Additionally, HDR and Plenary have extensive local recent experience on Eagle P3 and US 36. The entire team has extensive national experience on numerous projects; and
- Toll/ITS. To be coordinated with CDOT and E-470. Plenary, Skanska ID and team members have experience with Toll/ITS on projects such as Elizabeth River Tunnels (with integrator 3M), US 36 and I-4 Ultimate among others. Our tolling and ITS team member, Apex Design, has extensive experience with CDOT's ITS and tolling systems and is managing the implementation of CDOT's new ITS software.

"I have worked with Skanska for several years on many bridge construction projects. I am pleased to recommend Skanska for any and all construction projects because of their dedication to safety, their on-time delivery of product and their cooperative endeavors with all parties involved."

- Glen E. Mott, BNSF Representative

### **Project Plan**

5280 Connectors will utilize a comprehensive Project Management Plan ("PMP") to organize, manage and control the design, construction, operations and maintenance of the Project in accordance with the requirements of the Project Agreement and industry best practices.



#### 5280 CONNECTORS REFERENCE PROJECT: ELIZABETH RIVER TUNNELS PROJECT

Revenue risk PPP project that involves the construction and operations of a highway interchange and tunnels for the Virginia DOT.

Key Facts:

- Construction cost \$1.47 billion
- The largest PABs issuance in US history (\$675 million) at the time
- Financing included PABs, TIFIA and equity
- Environmental Justice

Current Status: Under construction (approx. 70% complete)

Team Members: Skanska ID and Skanska Civil

#### **Benefits of Experience for I-70 East Project:**

- Transportation PPP in North America
- Tunnel with urban interstate highway interchange
- Maintenance of traffic during construction
- Complex deep excavation, drainage, environmental considerations
- Strong DBE/SWaM contracting and workforce development programs for construction and operations, that exceeded goals
- Utility coordination, relocation and diversion

#### Public Interest and Engagement Plan

5280 Connectors understands how sensitive community needs and impacts will be. Working within the communities we will actively:

- Minimize and then manage noise and negative impacts to air quality;
- Manage logistics during construction to lesson negative impacts on the community;
- Engage, to the greatest extent possible, small and disadvantaged businesses; and
- Develop plans with CDOT for community meetings, including having bilingual speakers;

# Financial Organization, Capacity, Experience and Approach

#### Organization and Management Structure

The organizational approach for 5280 Connectors' financing efforts starts with the fact that we will retain full responsibility for performing all financial functions including analysis, structuring and arrangement required to develop a highly executable, yet competitive financing solution. We have successfully utilized this approach on recent PPP projects including Penn Bridges, I-4 Ultimate, and US 36.

5280 Connectors employs a Finance Task Force led by Brian Budden of Plenary and Amando Madan of Skanska ID, and supported by dedicated structuring and modelling resources. This group will coordinate closely with, the commercial, legal and technical functions within the equity team. This approach will ensure constant feedback/input within the team while ensuring sufficient, dedicated resources for financing at all times during proposal development. This task force will work with lenders, lender's advisors, counsel and rating agencies to negotiate and secure all documentation for bid submission and financial close.

The team's organization also includes top-tier PPP bond underwriters, JP Morgan, Wells Fargo and TD Securities who will manage the PABs structuring and pricing, and support on any taxable bond structures we may develop. The team is further supplemented by commercial banks on non-exclusive basis. Should a bank element in the structure provide value, the flexibility it provides will be useful responding to the specific features of the Procuring Authorities' contribution schedule.

After being named preferred bidder, 5280 Connectors will complete the financing arrangements based on the committed financial plan detailed in the Proposal.







US 36 Managed Lanes

5280 Connectors' Equity Members will continue to provide project oversight, technical expertise and management after the Project reaches financial close through their combined 25 dedicated and experienced individuals in their asset management groups. The asset management function will be led by the Project Company Board composed of Plenary and Skanska ID senior executives.

- Plenary, and its Financially Responsible Party, Plenary Canada, have current unencumbered cash and access to cash to allow it to fund up to the project in equity, far in excess of that required for this Project, even when combined with our conservative estimate of our possible requirement for US equity investments prior to financial close for the Project of approximately
- Skanska ID has its equity commitments sourced from its Financially Responsible Party, Skanska AB. With global operations and revenues amounting to \$20.8 billion (as of end of fiscal year 2014), Skanska AB has cash and cash equivalents of over \$1.1 billion and has access to

- Skanska-Zachry, and Financially Responsible Parties, Skanska AB and Zachry Construction & Materials, have \$ in current bonding capacity and letter of support from the surety providers of Such strong bonding capacity is supplemented with letter of credit support of up to for the Project;
- HDR had 2014 US revenue of \$1.37 billion. More importantly for an engineering company on a complex project, HDR has substantial resources to support its effort on the Project – 475 employees in its Denver office alone, with approximately 8,000 employees in the US to support them;
- Transfield Services Infrastructure, and its Financially Responsible Party, Transfield Services Limited, is among the most financially secure, dedicated road operators and service providers in the PPP space.

Transfield is financially

stable.



Plenary, Skanska, Zachry, HDR, and Transfield all have financial capacity far in excess of that required to stand behind 5280 Connectors obligations for the Project.

Plenary and Skanska ID's Financing Track Record				
Financed 66 PPP projects valued at approx.	globally			
Financed 25 PPP projects valued at approx. America	in North			
Developed and invested in 8 transportation PPP projects in North America worth and 17 globally worth				
Closed two of the largest PABs deals in the US (Penn Bridges, ERT)				
Closed over \$1.8 billion in TIFIA loans (I-4 Ultimate, ER	RT, US 36)			

5280 Connectors has significant and directly applicable experience financing PPP projects that will benefit the Procuring Authorities. Based on the structure and assumptions outlined in the RFQ, our team provides an outstanding blend of financing experience, capacity and innovation. Our directly relevant experience includes:

 TIFIA financings. 5280 Connectors has successfully closed TIFIA funding for the I-4 Ultimate, ERT and US 36 projects. Depending upon the project particulars, we have had varying experiences with TIFIA. For example,

the I-4 Ultimate was the largest (more than \$1 billion) and fastest V PABs Financing (4.5 months) TIFIA closing on a PPP project. We have also had



challenging experiences and prolonged closings - as a result we have acquired a deeper understanding of how to prepare for and work with TIFIA to reach financial close expeditiously.

- PABs financings. The Penn Bridges and ERT projects are two of the largest single PABs issuances in history. Furthermore, our underwriting team has underwritten more than \$3.75 billion in PABs.
- Highway and road project financings. All of 5280 Connectors Reference Projects for financing and equity are major highway, bridge, or road projects. Overall, our members have financed and closed 8 transportation projects in North America and 17 transportation projects globally.



I-4 Ultimate



#### Samples of financing on our Reference Projects include:


Achievement of the Procuring Authorities goal to optimize the scope of the Project requires efficient, tightly priced financing. Our Finance Task Force will lead the structuring, analysis and evaluation of innovative financing alternatives. The team will achieve that by managing the underwriters in the development of PABs structure and pricing, and leveraging our extensive US and global relationships with the lending community in order to maximize price tension among financing sources, and to obtain the most competitive solution. While PABs and TIFIA will likely be the most competitive structure, our approach will (i) drive the best pricing possible on the PABs, and (ii) provide additional funding capacity should it be required.

Some of the factors that will impact the markets Plenary and Skanska ID will access to finance the Project include the term, the profile of payments, the relative pricing and market capacity of various financing sources; the security package backing the Lead Contractor and the Lead Operator; and the availability of TIFIA and PABs for the Project.

Our team is also experienced in managing through the potential challenges that can affect PPP financings:

- Closing PPPs under a tight schedule. Our team has been able to close PPP transactions in North America within 2 months of being identified as preferred proponent, and has also closed the shortes+t process ever seen for a TIFIA loan (4.5 months). As a result, we provide the Procuring Authorities with the best opportunity to meet the desired project timeline.
- Experience with the appropriations process. Our team has experience closing financings in Colorado on PPPs with underlying State covenants, and on other availability based US PPPs.
- Access to and experience with various financing sources. If TIFIA and PABs allocations either are not obtained or are insufficient, our approach will provide sufficient additional capacity to ensure the Project is adequately financed.

5280 Connectors has developed a preliminary financing schedule (please see the chart in Vol.2. Sec.2 of our response to the RFQ. There, we have applied all of our previous experience on closing PABs and TIFIA and combined that with the schedule provided by the Procuring Authorities in the RFQ. This timeline anticipates and provides scheduling for the commencement of due diligence for lenders, involvement of ratings agencies, development of the legal contracts, sufficient timing for the funders credit committee reviews and sign-offs and including all efforts required to market and close the financing, among many more tasks. The result is, working in partnership with the Procuring Authorities, the proposed schedule is very achievable and our approach will provide the most responsive, deliverable, and cost effective financing solution possible for the Project.

#### The Future, Harnessing Opportunity

5280 Connectors' tailored approach for the I-70 East Project focuses attention on all facets of a successful project, from the design, construction and delivery aspects to the importance of community outreach and public consultation, to O&M with a whole-life view and innovative long-term financing.

5280 Connectors is the team the brings the most applicable project experience, the most complete team of qualified professionals, and the best track record of partnering and project success in the PPP world. We also bring a strong local understanding of the Project, the affected communities and the interested stakeholders.

Just as 5280 Connectors' Core Proposer Team Members have complimentary values and approach to the Project we believe 5280 Connectors and CDOT, HPTE and BE will complement each other very well in our collaborative approach to delivering the Project. We look forward to working with the Procuring Authorities during the coming phases of the Project to harness the opportunity this Project represents, and to make the I-70 East Project an unqualified success for the local communities, the City of Denver and the State of Colorado.

## **1. GENERAL REQUIREMENTS**

## **1.3 Public Disclosure Information**

## 1.3.1 SOQ Submission Public Statement

Colorado Bridge Enterprise and High Performance Transportation Enterprise's undertaking of I-70 East is one of the most critical, complicated and sensitive projects to be trusted to the Public-Private Partnership ("PPP") delivery model in the United States. As a result, it is a project of national importance.

More than being a high-profile example of how to deliver such projects with alternate procurement processes, The I-70 East Corridor will be a highprofile example of how alternative procurement process can expedite delivery of this functionally critical project that is both the gateway to the City of Denver and the main artery through the entire State of Colorado.

The Project also represents an opportunity to provide a transparent process and build trust within the affected communities and the traveling public by showing how the Project can address the community needs and benefit the state economy.

The Core Proposer Team Members of 5280 Connectors all specialize in delivering complex PPP projects. In other words, we are pursuing this project because, for us it is our core business. For a project of this level of importance through a critical corridor to the City and State, you want a team who understands the risks and opportunities of the PPP delivery model.

### **Our Team**



5280 Connectors is a team designed to address the Project Goals and objectives of this

vital project. Every Core Proposer Team Member has extensive PPP project experience in successfully delivering complicated infrastructure projects, from developing and financing, to designing, constructing and operating and maintaining such project.

## CUMULATIVE 5280 CONNECTORS PPP DEVELOPMENT EXPERIENCE

Plenary and Skanska ID have combined to develop and invest in 25 PPP Projects across North America and 66 Projects globally, backing those projects with over \$1 billion in equity investments.

Specifically, the Core Proposer Team Members of 5280 Connectors are comprised of the following entities:

#### Equity Members / Developer

**OPlenary** Group North American-based Plenary Group is a 50% Equity Member and co-developer of 5280 Connectors. Since inception ten years ago, Plenary Group has invested in and developed 23 PPP projects in North America worth in excess of \$11 billion with an approach to structure a long-term equity investment and develop a sustainable partnership strategy with public authorities. Plenary has evidenced this partnership strategy with HPTE on the US 36 Phase 2 Managed Lanes project where Plenary is acting as sole equity investor and developer on this Reference Project. More recently, Plenary was able to extend this collaborative

## **US 36 MANAGED LANES**

Acting as Plenary Roads Denver, Plenary, HDR and Transfield partnered to deliver HPTE's first PPP project which involves the refurbishment or construction of managed lanes, general purpose lanes, multi-modal facilities (bikeways and BRT) and tolling capabilities along US 36 between Denver and Boulder.

With this \$121.5 million project approximately 60% complete, the team is preparing to commence operations on Phase 1 this summer and on Phase 2 this winter. Plenary is the sole developer and equity **investor**, **HDR** is the lead engineer, and Transfield, which has been operating the I-25 Managed Lanes since March 2014, is the lead operator for this project.

attitude towards Pennsylvania after delivering the state's Pennsylvania Rapid Replacement Bridge project ("Penn Bridges"), a project that required the largest PABs issuance to-date.

Plenary's North American headquarters for delivering civil projects is located in Denver and team currently oversees projects in Colorado, Pennsylvania and Texas.

**SKANSKA** Skanska Infrastructure Development Inc. is a 50% Equity Member and co-developer for 5280 Connectors. One of the development units of Skanska Group, Skanska ID is a world leader in infrastructure having successfully delivered 31 PPP projects worldwide, including two of the largest US projects PPP to-date: the Elizabeth River Tunnels project in Virginia and the I-4 Ultimate project in Florida. More recently, Skanska ID was part of the consortium that was named as preferred bidder on a the multi-billion dollar Terminal Replacement Project at LaGuardia Airport in New York.

## I-4 ULTIMATE

Skanska ID, Skanska Civil and HDR teamed to deliver this PPP project that involves the construction of existing 21 miles of urban interstate with the addition of express/managed lanes, for the Florida DOT.

The largest PPP transportation project in U.S. history, this \$2.3 billion project is currently under construction. Skanska ID is acting as lead developer and equity investor, Skanska Civil is leading the construction joint venture, and HDR is the lead engineer for the project.

### Lead Contractor

## SKANSKA

Skanska Civil is a joint venture partner in 5280

Connectors' Lead Contractor Skanska-Zachry I-70 E Constructors. Skanska Civil is one of four Skanska U.S business units and employs over 6,500 salaried and craft employees. It is ranked by ENR as the 3rd largest heavy civil contractor in the country based on FY2014 annual revenues of \$2.4 billion. Specializing in large, complex projects and always emphasizing the importance of an exhaustive community involvement approach, Skanska Civil has delivered over 40 Design-Build projects valued at over \$16 billion, including projects such as the 11th Street Corridor Project in Washington, DC, Expo Phase 2 LRT, Elizabeth River Tunnels and the I-4 Ultimate.

## **ELIZABETH RIVER TUNNELS**

Skanska ID and Skanska Civil teamed to deliver this PPP that involves the construction of a road tunnel and interchange, for the Virginia DOT.

This \$1.47 billion project is nearing completion. Skanska ID is the developer and lead equity investor while Skanska Civil is the lead construction join venture partner.

ZACHRY Zachry Construction Corporation is a joint venture partner in 5280 Connectors' Lead Contractor. A successful, family-owned business for over 90 years, the company has undertaken over 1,450 transportation projects. Zachry's heavy construction unit is headquartered in San Antonio, Texas with regional offices in strategic markets including Westminster, Colorado. Zachry's resources include over 1,350 salaried and hourly employees. An experienced PPP civil contractor and equity investor, Zachry was ranked by ENR as #14 in highway construction in the country.

## **DFW CONNECTOR**

As part of a joint venture, Zachry delivered this Design-Build Reference Project that involved 8.4 miles of roadway improvements to SH 114 and SH 121 north of Dallas/ Fort Worth International Airport, including four highways and two major interchanges, for the Texas DOT. Construction is complete on this \$917 million project.

#### Lead Engineer



HDR Engineering Inc. is the Lead Engineer for 5280 Connectors. HDR is one of the most

experienced and reputable global engineering firms, with market-leading design and engineering experience on long Design-Build and PPP projects such as Eagle P3 Commuter Rail Project in Colorado, I-4 Ultimate in Florida, the US 36



Managed Lanes in Colorado, and the New NY Bridge (Tappan Zee) in New York. HDR maintains a large Denver office, housing 475 employees, including 108 transportation professionals.

### EAGLE P3

HDR is the lead engineer on this PPP Reference project that involves design and construction of 36 miles of new commuter rail lines, associated stations, and a maintenance facility for the Denver Regional Transportation District.

With a construction cost of \$1 billion, this project required critical urban design coordination, including with railways and utilities, to deliver an important addition to the RTD commuter rail network.

#### Lead Operator



Transfield Services Infrastructure, Inc. is the Lead Operator for 5280 Connectors. Transfield currently holds transportation operations and

maintenance contracts throughout Australia, New Zealand, and the United States, including 21 contracts in the country. Of the company's US O&M contracts four are PPPs where one such project is the US 36 in Colorado. Transfield actively manages and executes operations and maintenance plans and all lifecycle aspects of projects in order to prolong serviceability.

## PORT MIAMI TUNNEL

Transfield is delivering operations and maintenance services on this PPP project that involves the operation and maintenance of a heavily trafficked urban tunnel and roadway for the Florida DOT.

One of the earliest PPP projects in the US, the Port Miami Tunnel is an excellent example of an operational PPP project where the private sector performance is measured against stringent performance standards and response times.

## **Our Experience**

Every 5280 Connectors team member 5280 Connectors has substantial experience on complex transportation projects delivered under the PPP process:

- Our Developers, Plenary and Skanska ID, have invested over \$1 billion in equity to fund 66 PPP projects globally, including in Colorado;
- Our Construction joint venture, comprising of Skanska Civil and Zachry, completed over \$2.8 billion in civil construction work last year alone;
- Our Lead Engineer, HDR, performed \$1.24 billion in engineering work in the US last year, \$550 million of which came from transportation project engineering; and
- Our Lead Operator, Transfield maintains more than 13,500 lane miles of roads and highways over 21 projects across the US.

## PENNSYLVANIA RAPID BRIDGE REPLACEMENT

Plenary and HDR teamed to deliver this PPP project that involves the refurbishment or replacement of 558 bridges for the Pennsylvania Department of Transportation.

Having reached financial close in March 2015 on this \$899 million Reference Project, the team has commenced its aggressive construction schedule and will deliver the 558 bridges over the next 36 months. Similar to I-70 East, Plenary is acting as a developer and equity investor while HDR is the lead engineer for this Reference Project.

We have highlighted some projects throughout this SOQ Submission Public Statement that show 5280 Connectors' ability to deliver complex infrastructure.

A critical component of PPP projects is the arrangement of financing to pay for construction and operations. Our experience with accessing funding from the bond market, through issuance of Private Activity Bonds ("PABs"), the commercial Bank market, as well as Federal funding such as TIFIA Loans is as described below:



- Plenary and Skanska to develop and invest in 8 US transportation PPP projects worth \$7 billion, and 17 globally worth over \$18 billion;
- Achieved closing on two of the largest PABs issuances in the country (Penn Bridges and ERT), and in total have worked on the issuance of over \$1.4 billion in PABs; and
- Achieved closing on over \$1.7 billion in TIFIA loans for the I-4 Ultimate project, Elizabeth River Tunnels Project ("ERT"), and US 36 Managed Lanes project.

Finally, our team is among the most recognized within our industry for consistently delivering infrastructure and surpassing project goals and expectations of our clients. To the right is a summary of industry recognition for the 5280 Connectors development team.

## Why we are Pursuing the I-70 East Project

As evidenced in our projects, the Core Proposer Team Members of 5280 Connectors specialize in projects such as I-70 East that require developing sustainable solutions to complex, technical challenges combined with addressing, community needs.

Additionally, the I-70 East Project is in our backyard. We are part of this community and want to protect and improve it.

- Plenary Group's North American civil project delivery group is headquartered in Denver;
- Skanska Civil (Rocky Mountain Division) has been headquartered in Cortez, Colorado for decades and has an office in Denver;
- Zachry maintains a Colorado presence with an office in Westminster;
- HDR has operated in Colorado for nearly 60 years; and
- Transfield has been operating in Denver since early 2014 on one of the only roads in the State that utilizes a specialist contractor to provide complete "A-to-Z" operations and maintenance services.

5280 Connectors brings the best combination of local and global experience, as well as a strong desire to improve our own community. We believe we can provide strong value to taxpayers through our approach and execution of complex PPP projects, and we relish the opportunity to prove it with the I-70 East Project.

## **5280 CONNECTORS PPP AWARDS**

#### 2014

- Global Developer of the Year Infrastructure Investor
- Global Deal of the Year Infrastructure Investor
- PPP Deal of the Year North America -Infrastructure Investor
- Best Project Sponsor, North America P3 Bulletin Infrastructure Awards
- North American Transport IJ Global
- UK Highways Agency Supplier Awards for 'Delivering Sustainable Value'

#### 2013

- Best Project Sponsor World Finance Magazine
  Infrastructure Investment Awards
- Best Project Sponsor North America World Finance

#### 2012

Project Finance Magazine: "Deal of the Year 2012"

#### 2011

- North American PPP Deal of the Year Project Finance Magazine
- 2nd among Global Sponsors: All PPP Transactions Infrastructure - Journal League Tables
- 6th among Global Sponsors: All Infrastructure Transactions - Journal League Tables
- 10th among Global Sponsors: All Project Finance Transactions Dealogic - Project Finance Review

#### 2010

North American Sponsor of the Year - Project Finance Magazine

## **2. TEAM BACKGROUND INFORMATION**

## 2.1 Corporate, Organizational, and Management Information

## 2.1.1 Completed Form C

Please refer to the following pages for Form C (Information Regarding Proposer) for each Equity Member, Lead Contractor, Lead Engineer, Lead Operator and each Financially Responsible Party.

## FORM C: INFORMATION REGARDING PROPOSER

Proposer Name: 5280 Connectors

Α.	Team Member and Role		
(1)	Name of Team Member:	Plenary	/ Group USA Ltd.
(2)	Role:		Equity Member Lead Contractor Lead Engineer Lead Operator Joint venturer in Lead [Contractor][Engineer][Operator] Financially Responsible Party for [ <i>Proposer to provide entity name</i> ]
в.	Legal Information		
(1)	Type of Legal Entity:		Corporation Limited Liability Company Joint Venture Partnership Other: [ <i>Proposer to provide</i> ]
(2)	Year Established:		2006
(3)	Country of Organization or Formation (and, if US or Canada, state or Province of Organization or Formation):		USA, Nevada
(4)	Federal Tax ID:		90-0325809
(5)	Authorized to do Business in Colorado:	$\square$	Yes (ID: 20131407757) No
(6)	North American Industry Classification Code:		Not Applicable
(7)	Prior Name(s) (past five years):		Not Applicable
(8)	Successor in Interest to Entity/Entities (if any, past five years):		Not Applicable

## FORM C: INFORMATION REGARDING PROPOSER

Proposer Name: 5280 Connectors

Α.	Team Member and Role		
(1)	Name of Team Member:	Skansk	a Infrastructure Development Inc.
(2)	Role:		Equity Member Lead Contractor Lead Engineer Lead Operator Joint venturer in Lead [Contractor][Engineer][Operator] Financially Responsible Party for [ <i>Proposer to provide entity name</i> ]
В.	Legal Information		
	Type of Legal Entity:		Corporation Limited Liability Company Joint Venture Partnership Other: [ <i>Proposer to provide</i> ]
(2)	Year Established:		2006
(3)	Country of Organization or Formation (and, if US or Canada, state or Province of Organization or Formation):		USA, Delaware
(4)	Federal Tax ID:		20-4847293
(5)	Authorized to do Business in Colorado:	$\square$	Yes (ID No.: <i>20151318721</i> ) No
(6)	North American Industry Classification Code:		237310
(7)	Prior Name(s) (past five years):		Not Applicable
(8)	Successor in Interest to Entity/Entities (if any, past five years):		Not Applicable



## FORM C: INFORMATION REGARDING PROPOSER

**Proposer Name:** 5280 Connectors

Α.	Team Member and Role		
(1)	Name of Team Member:		a USA Civil West Rocky Mountain District
(2)	Role:	Inc.	Equity Member Lead Contractor Lead Engineer Lead Operator Joint venturer in Lead Contractor Financially Responsible Party for [ <i>Proposer to provide entity name</i> ]
В.	Legal Information		
(1)	Type of Legal Entity:		Corporation Limited Liability Company Joint Venture Partnership Other: [ <i>Proposer to provide</i> ]
(2)	Year Established:		1950
(3)	Country of Organization or Formation (and, if US or Canada, state or Province of Organization or Formation):		USA, Delaware
(4)	Federal Tax ID:		20-8254040
(5)	Authorized to do Business in Colorado:	$\square$	Yes (ID No.: 26-77348-0000 ) No
(6)	North American Industry Classification Code:		237310
(7)	Prior Name(s) (past five years):		Not Applicable
(8)	Successor in Interest to Entity/Entities (if any, past five years):		Not Applicable

## FORM C: INFORMATION REGARDING PROPOSER

**Proposer Name:** 5280 Connectors

Α.	Team Member and Role		
(1)	Name of Team Member:	Zachry	Construction Corporation
(2)	Role:		Equity Member Lead Contractor Lead Engineer Lead Operator Joint venturer in Lead Contractor Financially Responsible Party for [ <i>Proposer to provide entity name</i> ]
В.	Legal Information		
(1)	Type of Legal Entity:		Corporation Limited Liability Company Joint Venture Partnership Other: [ <i>Proposer to provide</i> ]
(2)	Year Established:		1950
(3)	Country of Organization or Formation (and, if US or Canada, state or Province of Organization or Formation):		USA, Delaware
(4)	Federal Tax ID:		26-08687625
(5)	Authorized to do Business in Colorado:	$\square$	Yes (ID No.: 20111188643) No
(6)	North American Industry Classification Code:		237310
(7)	Prior Name(s) (past five years):		Not Applicable
(8)	Successor in Interest to Entity/Entities (if any, past five years):		Not Applicable

## FORM C: INFORMATION REGARDING PROPOSER

**Proposer Name:** 5280 Connectors

Α.	Team Member and Role		
(1)	Name of Team Member:	HDR E	ngineering, Inc.
(2)	Role:		Equity Member Lead Contractor Lead Engineer Lead Operator Joint venturer in Lead [Contractor][Engineer][Operator] Financially Responsible Party for [ <i>Proposer</i> <i>to provide entity name</i> ]
в.	Legal Information		
(1)	Type of Legal Entity:		Corporation Limited Liability Company Joint Venture Partnership Other: [ <i>Proposer to provide</i> ]
(2)	Year Established:	1917; H	IDR Engineering, Inc. incorporated 1987
(3)	Country of Organization or Formation (and, if US or Canada, state or Province of Organization or Formation):		United States, Nebraska
(4)	Federal Tax ID:		47-0680568 (HDR Engineering, Inc)
(5)	Authorized to do Business in Colorado:	$\square$	Yes (ID No.: 47-0680568) No
(6)	North American Industry Classification Code:		541330 – Engineering Services 541618 – Other Management Consulting Services
(7)	Prior Name(s) (past five years):		Not Applicable
(8)	Successor in Interest to Entity/Entities (if any, past five years):		Not Applicable



## FORM C: INFORMATION REGARDING PROPOSER

Proposer Name: 5280 Connectors

Α.	Team Member and Role		
(1)	Name of Team Member:	Transfi	eld Services Infrastructure
(2)	Role:		Equity Member Lead Contractor Lead Engineer Lead Operator Joint venturer in Lead [Contractor][Engineer][Operator] Financially Responsible Party for
B.	Legal Information		
(1)	Type of Legal Entity:		Corporation Limited Liability Company Joint Venture Partnership Other: [ <i>Proposer to provide</i> ]
(2)	Year Established:		1995
(3)	Country of Organization or Formation (and, if US or Canada, state or Province of Organization or Formation):		USA, Delaware
(4)	Federal Tax ID:		54-1769861
(5)	Authorized to do Business in Colorado:	$\square$	Yes (ID No.: 20131581755) No
(6)	North American Industry Classification Code:		541648
(7)	Prior Name(s) (past five years):		VMS, Inc.
(8)	Successor in Interest to Entity/Entities (if any, past five years):		Not Applicable

## FORM C: INFORMATION REGARDING PROPOSER

**Proposer Name:** 5280 Connectors

Α.	Team Member and Role		
(1)	Name of Team Member:	Plenary	y Group (Canada) Ltd.
(2)	Role:		Equity Member Lead Contractor Lead Engineer Lead Operator Joint venturer in Lead [Contractor][Engineer][Operator] Financially Responsible Party for <b>Plenary Group USA Ltd.</b>
В.	Legal Information		
(1)	Type of Legal Entity:		Corporation Limited Liability Company Joint Venture Partnership Other: [ <i>Proposer to provide</i> ]
(2)	Year Established:		2005
(3)	Country of Organization or Formation (and, if US or Canada, state or Province of Organization or Formation):		British Columbia, Canada
(4)	Federal Tax ID:		83812214RT0001
(5)	Authorized to do Business in Colorado:	$\square$	Yes No
(6)	North American Industry Classification Code:		Not Applicable
(7)	Prior Name(s) (past five years):		Not Applicable
(8)	Successor in Interest to Entity/Entities (if any, past five years):		Not Applicable

## FORM C: INFORMATION REGARDING PROPOSER

**Proposer Name:** 5280 Connectors

Α.	Team Member and Role		
(1)	Name of Team Member:	Skansk	a AB
(2)	Role:		Equity Member Lead Contractor Lead Engineer Lead Operator Joint venturer in Lead [Contractor][Engineer][Operator] Financially Responsible Party for <i>Skanska Infrastructure Development</i> <i>Inc.</i>
В.	Legal Information		
	Type of Legal Entity:		Corporation Limited Liability Company Joint Venture Partnership Other: [ <i>Proposer to provide</i> ]
• •	Year Established:		1887
(3)	Country of Organization or Formation (and, if US or Canada, state or Province of Organization or Formation):		Sweden
(4)	Federal Tax ID:		556000-4615
(5)	Authorized to do Business in Colorado:	$\square$	Yes (ID No.: [ <i>Proposer to provide</i> ]) No
(6)	North American Industry Classification Code:		Not Applicable. (Swedish corporation)
(7)	Prior Name(s) (past five years):		Not Applicable
(8)	Successor in Interest to Entity/Entities (if any, past five years):		Not Applicable

## FORM C: INFORMATION REGARDING PROPOSER

Proposer Name: 5280 Connectors

Α.	Team Member and Role		
(1)	Name of Team Member:	Skansk	a AB
(2)	Role:		Equity Member Lead Contractor Lead Engineer Lead Operator Joint venturer in Lead [Contractor][Engineer][Operator] Financially Responsible Party for <i>Skanska USA Civil West Rocky</i> <i>Mountain District Inc.</i>
В.	Legal Information		
	Type of Legal Entity:		Corporation Limited Liability Company Joint Venture Partnership Other: [ <i>Proposer to provide</i> ] 1887
• •	Year Established:		
(3)	Country of Organization or Formation (and, if US or Canada, state or Province of Organization or Formation):		Sweden
(4)	Federal Tax ID:		556000-4615
(5)	Authorized to do Business in Colorado:	$\square$	Yes (ID No.: [ <i>Proposer to provide</i> ]) No
(6)	North American Industry Classification Code:		Not Applicable. (Swedish corporation)
(7)	Prior Name(s) (past five years):		Not Applicable
(8)	Successor in Interest to Entity/Entities (if any, past five years):		Not Applicable

## FORM C: INFORMATION REGARDING PROPOSER

Proposer Name: 5280 Connectors

Α.	Team Member and Role		
(1)	Name of Team Member:	Zachry	Construction & Materials, Inc.
(2)	Role:		Equity Member Lead Contractor Lead Engineer Lead Operator Joint venturer in Lead [Contractor][Engineer][Operator] Financially Responsible Party for Zachry Construction Corporation
В.	Legal Information		
	Type of Legal Entity:		Corporation Limited Liability Company Joint Venture Partnership Other: [ <i>Proposer to provide</i> ]
(2)	Year Established:		2007
(3)	Country of Organization or Formation (and, if US or Canada, state or Province of Organization or Formation):		USA, Delaware
(4)	Federal Tax ID:		26-0868629
(5)	Authorized to do Business in Colorado:	$\square$	Yes (ID No.: [ <i>Proposer to provide</i> ]) No
(6)	North American Industry Classification Code:		551114
(7)	Prior Name(s) (past five years):		Not Applicable
(8)	Successor in Interest to Entity/Entities (if any, past five years):		Not Applicable

## FORM C: INFORMATION REGARDING PROPOSER

Proposer Name: 5280 Connectors

Α.	Team Member and Role		
(1)	Name of Team Member:	Transfi	eld Services Ltd.
(2)	Role:		Equity Member Lead Contractor Lead Engineer Lead Operator Joint venturer in Lead [Contractor][Engineer][Operator] Financially Responsible Party for <i>Transfield Services Infrastructure</i>
в.	Legal Information		
(1)	Type of Legal Entity:		Corporation Limited Liability Company Joint Venture Partnership Other: [ <i>Proposer to provide</i> ]
(2)	Year Established:		
(3)	Country of Organization or Formation (and, if US or Canada, state or Province of Organization or Formation):		Australia
(4)	Federal Tax ID:		Not Applicable
(5)	Authorized to do Business in Colorado:	$\square$	Yes (ID No.: [ <i>Proposer to provide</i> ]) No
(6)	North American Industry Classification Code:		Not Applicable
(7)	Prior Name(s) (past five years):		Not Applicable
(8)	Successor in Interest to Entity/Entities (if any, past five years):		Not Applicable

## **2. TEAM BACKGROUND INFORMATION**

## 2.1 Corporate, Organizational and Management Information

2.1.2 Organizational Chart Identifying each Core Proposer Team Member



5280 Connectors

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## Notes Regarding the Organization of Core Proposer Team Members

The chart in Vol.1, Sec.2.1.2 depicts the contractual organization of 5280 Connectors with Financially Responsible Parties at the top, interim corporate entities in the middle and Core Proposer Team Members in their project roles with contractual relationships shown in the bottom portion.

5280 Connectors will employ a corporate structure that is customary for the execution of the design, construction, finance, operation and maintenance for large complex transportation projects similar to the I-70 East Project. The Equity Members, Plenary Group USA Ltd. ("Plenary") and Skanska Infrastructure Development Inc. ("Skanska ID"), will form a special-purpose project company to serve as Developer in order to carry out the obligations of the Project Agreement with the Procuring Authorities.

The Developer will execute contracts with Skanska-Zachry I-70 East Constructors ("Skanska-Zachry") as Lead Contractor for carrying out the design and construction and Transfield Services Infrastructure, Inc. ("Transfield") as Lead Operator for carrying out the operations and maintenance of the Project. Skanska-Zachry will contract with HDR Engineering, Inc. ("HDR") as Lead Engineer. This contracting arrangement is consistent with the principles of non-recourse project finance and provides assurance to lenders and clients that risk and responsibilities are allocated to the party best able to manage them.

All 5280 Connectors Core Proposer Team Members have successful experience delivering similar projects in the United States using this structure and are accustomed to the contracting practices and other requirements for executing large-scale projects.

#### Financially Responsible Parties for Core Proposer Team Members

Plenary  Group	Plenary Group USA Ltd., Equity Member (50%), is a wholly owned subsidiary of Plenary Group (Canada) Ltd. ("Plenary Canada"), which is the Financially Responsible Party.
SKANSKA	Skanska Infrastructure Development Inc., Equity Member (50%), is a wholly owned subsidiary of Skanska AB, which is the Financially Responsible Party.
SKANSKA	Skanska USA Civil Inc. through Skanska USA Civil West Rocky Mountain District Inc. is a member (65%) of the Lead Contractor and is a wholly owned subsidiary of Skanska AB, which is the Financially Responsible Party.
ZACHRY	Zachry Construction Corporation is a member (35%) of the Lead Contractor and is a wholly owned subsidiary of Zachry Construction & Materials, Inc., which is the Financially Responsible Party.
FC	HDR Engineering, Inc. is the Lead Engineer.
- The	Transfield Services Infrastructure, Inc., Lead Operator, is a wholly owned subsidiary of

Transfield Services Ltd., which is the Financially Responsible Party.

RANSFIELD

## 2. TEAM BACKGROUND INFORMATION

#### **Corporate, Organizational and Management Information** 2.1

2.1.3 Organizational chart (or charts, if different by time period) identifying Key Personnel and Proposer's management structures:

2.1.3.a) During the RFQ and RFP Process but Prior to Commercial Close



**VOLUME 2 - 2. TEAM BACKGROUND INFORMATION** 



### **Joint Steering Committee**

**DBE** Outreach George Cuckle



\*Professional Engineer \*\*Professional Engineer, Colorado

## Notes Regarding Key Personnel and Management Structure (prior to Commercial Close)

The chart in Vol.1, Sec.2.1.3.a depicts the organization of 5280 Connectors during the RFQ and RFP process but prior to commercial close. The structure of the organization and the roles defined represent accumulated best practice from the team members as successfully employed on undertakings similar to I-70 East. A full team organization for the RFQ and RFP phase is depicted, though a subset of the full team is required for RFQ phase.

Equity Members Plenary and Skanska ID, Lead Contractor Skanska-Zachry, Lead Engineer HDR, and Lead Operator Transfield all assign dedicated staff to what is essentially a co-located, matrix-type organization that is designed to maximize collaboration and perform all the functions necessary to prepare a Statement of Qualifications and a binding RFP Proposal. The project staff is supplemented by other corporate resources and specialized advisors, as necessary.

The 5280 Connectors team works under the direction of Project Director Brian Clark, Design-Build Manager Wade Watson, Design Manager John Kalvelage, and O&M Manager Christian Guevara. The leadership will prepare a project plan and budget to meet the requirements of the procurement schedule. Senior management from core members meet regularly as a Joint Steering Committee to review progress, provide input and ensure corporate resources are available.

A key feature of our team structure is the technical Task Forces that are organized by discipline and are made up of representatives from design, construction, estimating, O&M and equity (as required). These groups meet weekly and are tasked with:

- · Developing innovative design solutions,
- · Planning suitable and safe means and methods,
- · Incorporating operations and maintenance requirements,
- Developing construction sequencing and schedules,
- · Developing a preliminary stakeholder outreach plan,
- Performing lifecycle optimization,
- Designing safe and effective Maintenance of Traffic ("MOT"),
- · Compiling the information necessary for estimating, and
- Developing the technical response for the proposal.

Bi-weekly meetings of Task Force leaders are held to coordinate across disciplines.

As Equity Members, Plenary and Skanska ID will lead the arrangement of project financing and the structuring of the Design-Build and O&M Contracts. These activities are closely integrated with the on-going development of innovative, technical solutions for the Project. The design impacts the construction schedule and cost which in turn affects the financing plan and structure. Similarly, the choice of materials and design elements affects long-term operations and maintenance and lifecycle costs. These and other considerations must be analyzed and accounted for by the team in the development of a comprehensive and cost-effective Proposal.

Each member of 5280 Connectors will contribute their expertise, resources and best practices to the team and this structure has been proven effective in integrating these inputs across functions and disciplines in order to provide an innovative, optimized and executable Proposal to the Procuring Authorities.

### 2.1.3.b) After Commercial Close





## Notes regarding Key Personnel and Management Structure (after Commercial Close)

The chart in Vol.1, Sec.2.1.3.b depicts the organization of 5280 Connectors after commercial close. The structure of the organization and the roles defined are similar to the proposal organization (prior to commercial close) discussed above, main differences being:

- The organization is now formally structured under contracts including the Project Agreement, financing agreements, Design-Build Contract and O&M Contract, and
- The organization now fully fitted out with the personnel, resources and subcontracts required to execute a complex, challenging enterprise like the I-70 East Project.

In fact, the chart depicts a fairly high-level structure because it would not be possible to show every position and function in the design and construction organizations in the space available. At its peak, the Project is expected to involve several hundred staff across various disciplines.

Equity Members Plenary and Skanska ID will establish a special-purpose project company to serve as the Developer and will provide the necessary staff and management for it to carry out its functions. Brian Clark will continue as Project Director and be responsible for the company's performance and project delivery. As 5280 Connector's representative under the Project Agreement, he is the first point of contact for the Procuring Authorities. Other contacts between 5280 Connectors and the Procuring Authorities will be established on various levels to facilitate transparency and collaboration during the implementation of the Project.

Key Personnel including Quality Manager Danny Bennett, Environmental Manager Matthew Zoss and Community Public Relations Manager Pauline Haberman will be part of a staff that includes financial, legal/commercial and technical functions. O&M Manager Christian Guevara will be co-located with 5280 Connectors to oversee O&M planning and execution.

A Board of Directors, comprised of Plenary and Skanska ID representatives, will provide corporate oversight and guidance to 5280 Connectors. Additionally, the CJV Executive Committee, comprised of Skanska Civil and Zachry representatives, will provide oversight and guidance to Skanska-Zachry.

Skanska-Zachry will mobilize the Project under the direction of Design-Build Manager Wade Watson and establish the structures, policies and procedures necessary to manage a large-scale project. Certain project-wide functions such as controls, DBE outreach and procurement will work across disciplines and areas. Other managers, such as Utility Manager Emil Dzuik, will be responsible for their specific functions.

A CJV design coordinator and a construction manager will assist Wade in day-to-day management of these functions and will work closely with Design Manager John Kalvelage, who will be responsible for the HDR design organization and sub-consultants.

Members of 5280 Connectors employ comprehensive quality regimes as a matter of good practice, and anticipate that such quality practices can be readily adapted to the RFP requirements. The construction and design quality managers will have an independent reporting relationship to the Quality Manager. Similarly, the Safety Manager will have an independent reporting relationship to the CJV Executive Committee.

Overall this organizational plan will promote collaboration and integration of the team while providing the necessary structure to carry out the Project.

## 2. TEAM BACKGROUND INFORMATION

## 2.1 Corporate, Organizational, and Management Information

## 2.1.4 Narrative Description of Proposer's Organizational and Management Structure

The organization charts and accompanying notes in Vol.1, Sec.2.1.2 and Sec.2.1.3 above provide an overview of how the 5280 Connectors team will be structured in the two major phases of the I-70 East Project that occur prior to and after commercial close. Proven effective on numerous projects, these organizational structures integrate the technical expertise and collective experience from the team members while establishing the platform for successful execution throughout the term of the Project.

The Developer's project management structure following commercial close establishes clear lines of responsibility and reporting among project staff and member firms in accordance with design-build and operations and maintenance contracts Project Agreement. These contracts are "back-to-back" with the Project Agreement.

5280 Connectors envisions its staff working alongside CDOT in a single project office under a single project controls and communication platform in order to promote transparency and collaboration. Plenary, HDR, and Transfield are currently applying this approach with CDOT on US 36 Managed Lanes ("US 36"). Skanska and HDR are also following this approach with FDOT on I-4 Ultimate ("I-4 Ultimate") in Florida.

This organizational structure will take advantage of the collective experience of the 5280 Connector's



I-4 Safety Briefing

Core Proposer Team Members Plenary, Skanska, Zachry, HDR and Transfield to help achieve the Project Goals, including;

- Providing a trusted partner with a reliable track record that includes recent significant US PPPs such as Pennsylvania Rapid Replacement Bridge project ("Penn Bridges") in Pennsylvania, I-4 Ultimate in Florida, Elizabeth River Tunnels ("ERT") in Virginia, and US 36,
- Maximizing Project value to the Procuring Authorities through innovative design solutions, safe and efficient construction execution, a fully optimized project lifecycle and market-leading financing solutions, and
- Implementing a culture focused on safety along with a proven track record of community outreach, collaboration and DBE contracting demonstrated on projects such as US 36, I-4 Ultimate, ERT, 11th Street Bridges in Washington DC, and Penn Bridges.

The following paragraphs further describe how the 5280 Connectors team is organized on various levels and will capture the member firms' experience implementing similar large, complex projects to the benefit of the I-70 East Project.

## Project Company (Developer)

Equity Members Plenary and Skanska ID share a philosophy of an active, value-added management approach when establishing special-purpose project companies for large-scale projects such as the I-70 East Project. 5280 Connectors' project company, acting as the Developer, will be responsible for the first-level interface with CDOT, overall financial management and project delivery while overseeing the design, construction, operations and maintenance. As long-term investors, Plenary and Skanska ID will create value by taking a whole-oflife view of the Project and integration of the entire team including CDOT and stakeholders. Plenary and Skanska ID have employed similar approaches on the US 36, I-4 Ultimate and Penn Bridges projects and numerous other successful project deliveries that are currently operational.

To ensure that the Project benefits from the expertise and collective experience of Plenary and Skanska ID, senior staff positions will be filled with experienced Equity Member personnel, including Plenary's Matt Girard and Terry Ostrom who are both working alongside HPTE to deliver US 36 and are further described in Vol.1, Sec.2.2. The Board of Directors of 5280 Connectors will provide corporate support and oversight to the project company.

## Lead Contractor Skanska-Zachry

Lead Contractor Skanska-Zachry is a fully integrated construction joint venture with the proven expertise and resources necessary to carry the Project as evidenced on I-4 Ultimate, ERT, and SH 130 in Texas. Member firms are joint and severally liable with Skanska-Zachry managing and performing its duties as a project-based business unit focused on the Project Goals. Under this structure, staff is oriented to think and perform in the interest of the Project. Business systems, project controls, communications, and administrative processes will be dedicated to and project-based with the team operating from a shared cloud-based platform.

Skanska-Zachry benefits from the support of a CJV Executive Committee consisting of key executives with long Colorado experience who will ensure that the Project is provided with all of the necessary personnel, equipment and financial resources necessary for effective project delivery.



HDR Design Meeting

The committee will also provide oversight and critical high-level guidance to ensure project issues are resolved in a timely manner and serve as an additional partnering resource with CDOT.

## Lead Engineer HDR

Lead Engineer HDR operates under contract with Skanska-Zachry and will retain design sub-consultants to provide specialty support and DBE participation. HDR will operate in a fully integrated manner with Skanska-Zachry, Transfield and the Developer to jointly develop the design and construction approach in a way that maximizes overall project value to CDOT in accordance with the Project Goals.

The Project will benefit from HDR's proven organizational approach for large projects and enhanced technical expertise gained through its history and recent experience on PPP/DB projects including the I-4 Ultimate, US 36 (both Phase 1 and Phase 2), Eagle P3, New NY Bridge project (replacement for the Tappan-Zee Bridge) and I-35E Managed Lanes in Texas.

### Lead Operator Transfield Services Infrastructure

Lead Operator Transfield will be integrated and co-located with the project team from the bid phase to begin planning the operations and maintenance of the Project and to assist the design team in optimizing lifecycle costs of the Project. Transfield will apply best practices, such as interfacing with HPTE prior to the transition of operations, from projects such as US 36, POMT in Florida and Presidio in California in order to help achieve the Project Goal to optimize the lifecycle. The Project will benefit from Transfield's US 36 and I-25 experience and its in-depth knowledge of CDOT practices to ensure lifecycle value creation during design, construction, operations and handback at the end of the term.

## 2.1.4.a) Team Integration

In addition to establishing the proper team organization and structure, 5280 Connectors will establish processes and procedures specific to the Project designed to enable collaboration and coordination across the project team. Chief among these processes will be co-located, disciplinebased Task Forces. These groups will include key personnel from the Procuring Authorities and the design, construction, operations and maintenance disciplines. As noted previously, the Task Forces begin work during the RFQ/RFP stage and continue after commercial close (including CDOT and stakeholders) through completion of construction. Skanska and HDR are currently employing this approach on I-4 Ultimate and Plenary, HDR, and Transfield are currently employing this approach on US 36.

Integration will also be enhanced by a comprehensive Project Management Plan ("PMP") that will establish policies and procedures to guide staff at all levels, subject to review and approval by CDOT, the PMP will incorporate best practices from the member firms and provide the structure necessary to manage a large, complex undertaking like the Project. Certain key processes such as guality, safety, and environmental management will be detailed in sub-plans to the PMP. As an example, Skanska and Zachry will combine their approach to safety by taking policies that are proven to be effective for construction from both firms, and integrating and tailoring them to the Project. Further elaboration on 5280 Connectors' Project Plan is provided in Vol.1, Sec.5.c.

The PMP will also establish a framework for communication and information flows through regular meetings to manage progress on the Project, keep the wider 5280 Connectors team informed, and address challenges on the Project in a timely manner.

The Task Forces will meet weekly to discuss and coordinate the project's development to ensure that responsive plans are developed to complete the design process, carry out the construction and ensure that operations and maintenance requirements are properly accounted for. Early in the RFP process the Task Forces will hold technical brainstorming sessions to identify innovative solutions to:

Identify and reduce design and construction risk	Manage and reduce environmental impacts	Develop safe and effective means and methods	
Minimize public impact during construction and provide for public safety	Maximize schedule through efficient construction methods	Improve project sustainability during and after construction	
Design safe maintenance of traffic to accommodate phasing	Resolve utility conflicts and facilitate third party approvals	Maximize project scope to meet CDOT goals	
Optimize lifecycle value through the term	Facilitate operations and maintenance	Improve performance levels of the completed project	

Additionally, the design team members will support all post-design service needs for the construction team by reviewing shop drawings and answering RFIs to ensure that the work is constructible and meets the project specifications.

Collaboration and integration will be aided by both formal (and informal) partnering. Partnering creates a basis of effective communication and teamwork that leads to efficient resolution of project issues and builds an atmosphere of cooperation with shared goals. 5280 Connectors is committed to formal partnering with CDOT and has harnessed the benefits this provides on large, complex projects with many stakeholders.

A detailed risk register will be developed, maintained, and updated on a regular basis. 5280 Connectors will meet at least monthly with CDOT (and informally more frequently) to evaluate active project risks and determine ways to eliminate or minimize any obstacles or challenges to our ability to safely meet all Project Goals on time and on budget while taking advantage of opportunities to improve or enhance the Project.

## 2.1.4.b) Facilitating Project Implementation

As previously discussed, the members of 5280 Connectors are accustomed to working under PPP delivery frameworks similar to that anticipated to be in the Project Agreement. When implemented, our structure will "flow down" the responsibilities and risks to the party that is best equipped to manage them. The structure also provides for incentives, disincentives, guarantees, dispute resolution and other mechanisms necessary to focus the participants on achieving the Project Goals while providing the necessary assurances and protections for the Procuring Authorities and lenders that the Project will be designed and constructed on time and on budget, as well as operated and maintained in a quality manner.

Opportunities such as this "bring out the best" in industry leaders like Plenary, Skanska, Zachry, HDR and Transfield, which leads to the pursuit of innovation and efficiencies. For example, our structure will provide methods for the Procuring Authorities, the Lenders Technical Advisor ("LTA") and 5280 Connectors to closely monitor and track the progress of construction along with incentives designed for Skanska-Zachry to see the Project completed on or ahead of schedule. In preparation, even at this RFQ stage, Skanska-Zachry has begun identifying and addressing potential risks to the construction schedule so that during execution such risks can be managed (Vol.1, Sec.5.b), workarounds implemented or opportunities for acceleration realized.

In a similar manner, relevant requirements of the Project Agreement will be "flowed down" to Transfield with specific, key performance indicators for operations and maintenance that can be tracked by 5280 Connectors and the Procuring Authorities. This arrangement, as Plenary and Transfield currently employ on US 36, will drive the implementation and refinement of best practices.

By placing experienced key managers in the areas of finance, design, construction, operations and maintenance and establishing the proper structure and reporting lines, 5280 Connectors will promote teamwork and collaboration amongst the team members, CDOT and stakeholders. The benefit of this approach will be seen through all phases of the Project and facilitate achievement of the goals set forth.



I-4 Ultimate

## **2. TEAM BACKGROUND INFORMATION**

## 2.1 Corporate, Organizational and Management Information

2.1.5 Senior Personnel Involved

# 2.1.5.a) Financial, Technical, Insurance, Legal, Public Relations, and Other Specialist Advisors

5280 Connectors has already engaged several advisors to provide strategic counsel and specialist advice on the Project.

Advisors engaged by the Equity Members:

- Financial Advisory: With their vast experience in arranging financings for PPP projects, the Equity Members will be performing financial advisory internally. Plenary has a long history of advises on its pursuits, including US projects such as Penn Bridges and US 36 and Skanska ID has several internal project finance experts with a substantial experience with providing financial advisor services for PPP projects.
- Lender's Technical Advisor: BTY Group will serve as the LTA.

- Legal Counsel: Hogan Lovells will serve as legal counsel to the Equity Members.
- **Public Relations:** ZoZo Group will advise 5280 Connectors on public relations matters.
- Quality and Environmental: Kleinfelder will advise 5280 Connectors on Quality and Environmental matters as well as second personnel to 5280 Connectors for the Quality Manager and Environmental Manager roles.

Additionally, Skanska-Zachry and HDR have engaged several advisors to provide technical advisory and design services to 5280 Connectors on the Project. These firms and their roles are outlined in the table below:

ADVISORS ENGAGED BY THE EQUITY MEMBERS					
Legal Name	Role	Exclusivity	Lead Person	Title of lead Person	
BTY Consultancy Group, Inc.	Lender's Technical Advisor	Exclusive			
Hogen Lovells US LLP	Legal Counsel	Exclusive			
Zozo Group, LLC	Public Relations	Exclusive			
Kleinfelder, Inc.	Quality and Environmental	Exclusive			
ADVISORS ENGAGED BY THE LEAD CONTRACTOR					
Weidlinger Associates, Inc.	SOE, Construction Engineering	Exclusive			
ADVISORS ENGAGED BY THE LEAD ENGINEER					
Apex Design PC	ITS, Tolling, MOT	Non-Exclusive*			
Brierley Associates Corporation	Ground Support, Geotechnical	Exclusive			
Enginuity Engineering Solutions, LLC	Drainage & Floodplain	Exclusive			
Harris Kocher Engineering Group, Inc.	Street Design	Exclusive			
Hatch Mott MacDonald Group, Inc	Project Controls, Ground Support Engineering	Exclusive			
Huitt Zollars Inc.	Civil & Roadway Support	Exclusive			
Merrick & Company	Utility & Street Design	Exclusive			


ADVISORS ENGAGED BY THE EQUITY MEMBERS						
Pinyon Environmental, Inc	Environmental	Non-Exclusive*				
Survey and Mapping, LLC	Survey, Utility Coordination, SUE	Exclusive				

\*All advisors listed in the table above that are identified as Non-Exclusive to 5280 Connectors have been or will be required to institute Information Barriers in accordance with the Project requirements prior to commencement of any work for 5280 Connector on the Project.

## 2.1.5.b) Banks, Arrangers, Underwriters, Placement Agents

### 2.1.5.b) i. Bond Underwriters

5280 Connectors has named JP Morgan Securities ("JP Morgan"), Wells Fargo Securities ("Wells Fargo"), and TD Securities ("TD") to serve as bond underwriters for the consortium. JP Morgan and Wells Fargo have been engaged by 5280 Connectors on an exclusive basis, while TD is engaged on a non-exclusive basis, and will be required to institute Information Barriers in accordance with the Project requirements prior to commencing any work for 5280 Connectors on the Project.

The underwriting team selected by 5280 Connectors brings significant institutional knowledge of transportation, and more specifically, HPTE/BE's finances.

has worked

with transportation and infrastructure clients on innovative financing and advisory assignments.

as served as

senior investment banker on over \$12 billion of transportation financings. His experience includes a diverse mix of delivery methods (availability payment, traffic risk, etc.), transportation modes (toll roads, rail lines, airports), and regions.

as been actively involved in arranging private placements and broadly-marketed transactions since 1999 and, in the last five years, has led over \$10 billion in project-related financings for first-time and infrequent issuers in the US and Canada.

Contact information for the underwriting senior personnel is included below:



The Equity Members of 5280 Connectors have a long history and strong working relationship with the underwriting team. Vol.2, Sec.2 highlights Plenary and Skanska ID's past US pursuits with JP Morgan, Wells Fargo, and TD.

## 2.1.5.b) ii. Short to Medium-Term Bank Lenders

The Equity Members have had discussions with several banks to gauge interest in the Project. The following banks have indicated their support for 5280 Connectors on a non-exclusive basis, and will be required to institute Information Barriers in accordance with the Project requirements prior to commencing any work for 5280 Connectors on the Project.

TD Bank

Both Plenary and Skanska have a long history of partnering with these banks, and specifically the senior personnel listed above, on previous pursuits. has partnered with Skanska on I-4 and M25.

has partnered with Skanska on 1-4 and 1025. has partnered with Skanska on the M25 project and I-4 Ultimate project as indicated in Vol.1, Sec.4.1.a. has partnered with Plenary on five pursuits.



### 2.1.5.b) iii. Taxable Bond 4(2) Private Placement Investors

The Equity Members and the underwriters will assess the need to incorporate a private placement solution during the RFP process. Should a taxable bond be beneficial, either in combination or in entirety, significant emphasis will be placed on selecting a strong, committed senior lender group. The Equity Members have approached the private placement market to canvass interest in and support for the Project. The following investors have indicated their general interest towards potentially participating in providing financing for 5280 Connectors, however they have made no commitments to do so, nor are any of these investors engaged on an exclusive basis:

Investor	Description	Projected Commitment
Manulife	With over \$500 billion in assets under management, Manulife is one of the largest life insurance companies in the world, with size and scale that translates into strong capital levels, a diversified operating platform and the capacity to fund growth opportunities.	Short-term and long-term financing
Canada Life	Founded in 1847 and with over \$108 billion in consolidated assets under administration.	Short-term and long-term financing
Sun Life	Founded in 1865, Sun Life Financial Inc. is an international financial services company with over \$494 billion in assets under management.	Short-term and long-term financing





### 2. TEAM BACKGROUND INFORMATION

#### 2.2 **Capacity and Resources**

5280 Connectors will bring resources with bestin-class knowledge that the Core Proposer Team Members have gathered through their vast experience with PPP projects and complex construction projects in delivering a successful project for the Procuring Authorities and the communities.

The organizational structure shown in Vol.1, Sec.2.1.3 is based on establishing and maintaining the resources to meet all project requirements on a daily basis, from bid to completion. Several positions on the team provide an element of overlap, both in terms of moving from one phase to the next, as well as between the members of 5280 Connectors. This overlap provides internal quality control and continuity between project phases, while also ensuring sufficiency of personnel to undertake the work.

### 2.2.a Each Equity Member



Plenary Current and Expected Equity Member, Plenary is

active in the RFP stage on two projects, shortlisted but yet to receive the RFP on another one, with one other progressing or potentially progressing toward financial close. Plenary's projected US workload is based on an anticipated project pipeline. Using conservative estimates over the next three years, Plenary anticipates it will pursue approximately ten US projects.

Non-Financial Resources. Plenary employs 16 (and counting) professionals in its US operations, and has the capacity to bid, negotiate and close approximately four to five PPPs per year without stretching resources. Pursuing and delivering PPPs is Plenary's sole line of business with all company resources focused on delivering projects to the fullest satisfaction of its clients. Plenary is also fully supported by the financial and non-financial resources of its Financially Responsible Party, Plenary Canada, as further described in subsection (e) of this section.

As part of Plenary's Denver-based resources, Matt Girard, Chief Operating Officer of Plenary Concessions (an Affiliate of Plenary) and head of delivery for civil projects and operations in North America, will be available to serve on 5280 Connectors' Technical Advisory Team. Matt leads the design and construction areas of Plenary, which includes teaming and pursuing new opportunities as well as overseeing delivery and operations of projects, such as US 36 and Penn Bridges. In addition to Matt, Terry Ostrom, Vice President for Plenary Concessions, who is currently serving as the Project Delivery Director for Plenary Roads Denver on US 36, will oversee the design, construction, operations, maintenance, and rehabilitation of the Project.

Given current and projected workloads, Plenary will have more than sufficient resources available for the pursuit and development of the Project.

SKANSKA Current and Expected Workloads. Currently, Equity Member, Skanska ID is active in the RFP stage on one project and is preferred bidder for the Terminal Replacement Project at LaGuardia Airport in New York. Looking forward, Skanska ID projects to undertake two to four separate pursuits in the US per year over the next two to three years.

Non-Financial Resources. Skanska ID has 32 employees in the US. Each project that Skanska ID pursues has, on average, a dedicated team of 3-4 individuals working solely on that pursuit. The number of resources on a pursuit will vary depending on the procurement stage, from one to two people in the pre-development and RFQ, to five to six during the RFP and preferred bidder stage. Of the 22 US based project development personnel, ten have the requisite experience to lead a bid team for a project such as I-70 East, thereby ensuring we always have the needed management resources.

In addition to the 32 employees in the US, Skanska ID has over 80 employees in Europe dedicated to the pursuit and delivery of PPP projects. Combined, these resources include specialists in project finance, operations and maintenance, lifecycle,

design, sustainability, and asset management. Skanska ID routinely dedicates its specialist resources based in Europe to projects in the US, and will do so for 5280 Connectors delivery of the I-70 East Project, as needed. Given current and projected workloads. Skanska ID will have more than sufficient resources available for the pursuit and development of the Project.

Combined, the Equity Members of 5280 Connectors have some of the largest and most experienced project development teams in North America and the collective depth of resources ensures that the Procurement Authorities can rest easy knowing that the I-70 East Project will have the resources required in order for 5280 Connectors to deliver a signature project.

### 2.2.b Lead Contractor

**SKANSKA** Lead Contractors, Skanska-ZACHRY Zachry I-70 East Constructors ("Skanska-Zachry") is a fully

integrated, jointly and severally liable joint venture, comprised of Skanska Civil (65%) and Zachry (35%). The Skanska Group's heavy civil business unit in the US, Skanska Civil, operates as a single integrated business unit with all subsidiaries being managed by a common senior management team and share all support functions. Skanska personnel are also managed centrally with resources being distributed as needed to projects across the country.

Zachry is centrally managed from its corporate headquarters in San Antonio, Texas with regional offices in strategic markets including an Area Office in Westminster, Colorado.

Current and Expected workloads. Skanska Civil will act as managing partner (65%) for Skanska-Zachry. In 2014, Skanska Civil's total revenue was over \$2.444 billion, with a backlog of \$5.316 billion, while Zachry's total revenue was over \$437 million, with a backlog of \$811 million.

Based on 5280 Connectors understanding of the Project (from the RFQ plus independent investigation), we estimate that the workload associated with delivering the Project over four years of design and construction would represent less than 8% of Skanska-Zachry's actual, proven

capacity. Individually, Skanska Civil and Zachry would each have no difficulty delivering the Project together there is absolutely no concern that Skanska-Zachry will have more than sufficient capacity to deliver the Project.

Non-Financial Resources. Skanska Civil and Zachry combined have 2,326 salaried employees across the country, including 240 Project Managers, 431 Discipline Superintendents, and 350 engineers and estimators specializing in roads, structures, dams, rail, and other forms of public transportations. In addition, Skanska Civil and Zachry have a combined hourly workforce consisting of 6,570 employees across the country, which are mobile and can support projects across the country. Skanska-Zachry's Colorado workforce is currently over 500 employees which combined with, a strong local hire and workforce development program (please see Vol.1, Sec.4.3, Form H, question 6), will allow us to staff the project with a highly skilled, local construction team.

Skanska-Zachry has over 2,770 pieces of heavy construction equipment (including specialized bridge demolition equipment) and over 2,550 trucks, trailers, tractors and vehicles around the nation. Skanska's large fleet of heavy equipment in Colorado will be coming available from existing projects as this project moves through procurement. If required, both firms have national agreements with companies such as Caterpillar and Manitowoc where they can quickly source additional needed equipment.

From this extensive resource pool, the joint-venture will draw equipment and skilled management resources with the expertise needed to complete the I-70 East Project. Skanska-Zachry senior management will continually assess progress and project needs to determine if and when additional resources are needed from corporately available pool of resources, whether for specialty or shortterm assistance. Because Skanska-Zachry is local and has the capacity to self-perform the majority of the work, the joint-venture can plan for, rather than react to, project demands and will be positioned to add or replace personnel before progress is affected.

As a result, given current and projected workloads, Skanska-Zachry will have more than sufficient resources (including equipment) available for the development and construction of the Project.

### 2.2.c Lead Engineer

Having been founded in 1917 and working in Colorado for almost 60 years, HDR is one of the largest

and most experienced engineering companies in the US and Colorado.

Current and Expected Workloads. In 2014, HDR's revenue from its US operations was \$1.37 billion HDR's backlog was approximately \$1.24 billion. Of the \$1.24 billion in backlog roughly \$550 million came from its transportation business line.

Non-Financial Resources. With close to 10,000 employees worldwide, of which approximately 8,000 are located in the US, HDR has sufficient resources to undertake a project of I-70 East's size. HDR personnel dedicated to 5280 Connectors to complete the anticipated scope of work were carefully selected not only for their expertise, but also for their availability to work on the Project for its duration. HDR's Colorado based resources, which count more than 475 strong, will be supplemented by HDR's personnel currently working on I-4 Ultimate and Eagle P3 in order to transfer knowledge and experience from these complex PPP projects. Furthermore, HDR has approximately 2,000 licensed professional engineers and close to 600 bridge and structure experts that can be called upon to assist with the design and engineering of the Project.

Given current and projected workloads, HDR will have more than sufficient resources available for the design and construction of the Project.

### HDR

40 Design-Build and PPP projects valued over \$7 billion.

### 2.2.d Lead Operator



 Transfield provides comprehensive asset management services
 throughout North America, maintaining more than 13,500 lane
 ary and interstate roadways

miles of primary and interstate roadways.

Current and Expected Workloads. Transfield has a current workload of \$1.7 billion across 25 projects and has Work In Hand ("WIH") contracts stretching to year 2045, showcasing its commitment to the North America market. More specifically, Transfield currently holds one contract in Colorado as the Lead Operator of US 36 and is dedicated to increasing its Colorado portfolio of contracts over the next 3-5 years.

Non-Financial Resources. With a North America based staff of more than 500, Transfield has, and will continue to have, trained asset management staff available for this Project. Additionally, Transfield has 650 pieces of fleet and equipment available for use. Given current and projected workloads, Transfield will have more than sufficient resources available to facilitate pursuit of the Project and to ultimately provide all required O&M services.

### 2.2.e Each Financially Responsible Party

As stated in Vol.1, Sec.2.1.2, the following Core Proposer Team Members have Financially Responsible Parties.

### 2.2.e.i) Plenary Group (Canada) Ltd. – Financially Responsible Party for Plenary Group USA Ltd.

Plenary Group USA Ltd., Equity Member (50%) of 5280 Connectors, is a wholly owned subsidiary of Plenary Group (Canada) Ltd. ("Plenary Canada") and together with Plenary Group USA Ltd. ("Plenary Group") which is the Financially Responsible Party.

Current and Expected Workloads. Plenary's projected Canadian workload is based on their anticipated project pipeline. Using conservative estimates over the next three years, Plenary Canada anticipates they will pursue approximately 20 Canadian projects. Non-Financial Resources. Plenary Canada (including all subsidiaries) employs more than 80 professionals and has the capacity to bid, negotiate and close approximately 12 to 14 PPPs per year without stretching resources. Currently, Plenary Canada is active in the RFP stage on four projects, shortlisted and awaiting RFP issuance on another four projects, and has two others progressing or potentially progressing toward financial close. Pursuing and delivering PPPs is Plenary Group's sole line of business with all company resources focused on delivering projects to the fullest satisfaction of its clients.

All management resources will be available – in the past ten years Plenary Group has only had one senior manager/executive leave the company (for personal reasons), so this is a stable leadership group committed to supporting the delivery of Plenary's projects. In addition, as mentioned above, the Plenary Denver office is home to Plenary's North American civil projects group, which ensures close focus on Colorado based projects.

### 2.2.e.ii) Skanska AB – Financial Responsible Party for Skanska ID and Skanska Civil

Skanska ID, Equity Member (50%) of 5280 Connectors, and Skanska Civil (65%) of the Lead Contractor, are both wholly owned subsidiaries of Skanska AB, which is the Financially Responsible Party.

Current and Expected Workloads. Skanska AB is one of the world's largest development and construction companies with annual revenues of \$20.8 billion in 2014. Globally, Skanska has approximately 10,000 ongoing projects and an order backlog of \$21.9 billion at year end 2014.

### SKANSKA AB

Annual Revenues of \$20.8 billion

Non-Financial Resources. Skanska has over 57,800 employees' worldwide of which approximately 10,000 are in the US. The Skanska Group has a long history performing construction in the US having entered the market in 1971. In addition to its heavy civil construction and infrastructure development units (respectively Skanska Civil and Skanska ID), the Skanska Group has a building business unit and a commercial development business unit in the US.

The Skanska Group is managed by a joint executive management team that oversees all aspects of the company's performance with large projects such as I-70 East getting particular attention. As part of Skanska's extensive risk management procedures, high risk structures and construction means and methods are independently review by Skanska Group's technical experts both during the RFP phase and construction.

### 2.2.e.iii) Zachry Construction & Materials, Inc. – Financial Responsible Party for Zachry Construction Corporation

Zachry Construction Corporation is a member (35%) of the Lead Contractor and is a wholly owned subsidiary of Zachry Construction & Materials, Inc. which is the Financially Responsible Party.

Zachry Construction & Materials, Inc. is primarily a holding company for the family of Zachry business lines, including Zachry Construction Corporation. As a result, it has no work load in the sense of having other draws on its non-financial resources. Zachry Construction & Materials, Inc. role on the Project is provide financial backing and support for Zachry Construction Corporation. Please see Vol.2, Sec.1.2 for discussion regarding Zachry Construction & Materials, Inc. financial capacity and support for the Project.

### 2.2.e.iv) Transfield Services Ltd. – Financial Responsible Party for Transfield Services Infrastructure, Inc.

Transfield Services Infrastructure, Inc., Lead Operator, is a wholly owned subsidiary of Transfield Services Ltd., which is the Financially Responsible Party. With an Australia and New Zealand employee base of more than 15,000, Transfield Services Ltd. has the capacity to continue to, provide many levels of support to North American based Transfield Services Infrastructure, Inc. Transfield Services Ltd. earned \$3.5 billion revenue in FY14 and is targeting a similar amount of revenue in FY15 – approximately \$3.5 billion revenue that will be earned across approximately 250 contracts.

Transfield Services Ltd. generally derives revenue between of \$3.3 to \$3.8 billion annually and generally holds around 250 contracts at any point in time.

Current and Expected Workloads. Given Transfield Services Ltd. is a publicly listed company on the Australian Stock Exchange, it is unable to disclose price sensitive information for projected workloads or to otherwise make speculative statements about future business. However, Transfield Services Ltd. does not expect, given the nature of its business and the resource levels of Transfield Services Infrastructure, that it will have problems meeting the resource requirements for the Project.

Non-Financial Resources. In Australia and New Zealand, Transfield Services Ltd. runs approximately 36,065 of plant and equipment units. If purchased new, this equipment carries a replacement value of approximately \$547.1 million. At 30 June 2014, Transfield Services Ltd. held \$361.3 million carrying value of plant and equipment globally.

5280 Connectors Key P	ersonnel	Available from	Available to	Dedication
Design-Build Manager	Wade Watson	RFP	Total Construction Completion	100%
Design Manager	John Kalvelage	RFP	Total Construction Completion	100%
O&M Manager	Christian Guevara	Commercial Close*	End of Project Agreement Term	100%
Quality Manager	Danny Bennett	Commercial Close	End of Project Agreement Term	100%
Environmental Manager	Matthew Zoss	Commercial Close	Second Anniversary of Total Construction Completion	100%
Utilities Manager	Emil Dzuik	RFP	Total Construction Completion	100%
Community and Public Relations Manager	Pauline Haberman	RFP	Second Anniversary of Total Construction Completion	100%

\*See description below for availability during Proposal phase

## 2.2.f Each of the Proposed Key Personnel Key Personnel Identified

5280 Connectors have put forth Key Personnel with a long track-record of delivering large complex infrastructure PPP projects. In addition to the personnel listed in this proposal, senior personnel from all Core Proposer Team Members have already been heavily involved in the pursuit of this project and preparation of this SOQ. 5280 Connectors senior personnel will continue to be heavily involved as the Project moves forward.

### **Design-Build Manager**

To lead the construction, 5280 Connectors and Skanska-Zachry have selected Wade Watson as the Design-Build Manager for the Project. As shown in Vol.1, Sec.4.4.a, Wade is currently serving the same capacity as manager of the Skanska-led construction joint-venture undertaking the construction of ERT in Norfolk, Virginia. Please see Vol.1, Sec.4.1.b for more information. With ERT's major civil construction components winding down at the end of 2015, Wade's role will near completion and allow him to be fully dedicated to I-70 East during the RFP phase. Wade will bring instrumental lessons learned and best practices from his experience leading and managing mega projects, with complex environmental, MOT, and technical challenges like those on I-70 East.

### Design Manager

To lead the design of the Project, 5280 Connectors and HDR have selected John Kalvelage as Design Manager. As shown in Vol.1, Sec.4.4.b. John is currently the Design Manager on Eagle P3 in Denver. Please refer to Vol.1, Sec.4.1.c for more information on Eagle P3. With Eagle P3 design services scheduled for completion towards mid-2015, this schedule allows John to be fully dedicated to the Project starting from the RFP phase. Prior to Eagle P3, John served as Design Manager and structures task lead in the designbuild group of a large contractor on multiple billion dollar project pursuits. This gives John a very valuable irreplaceable combination of experience and knowledge of designing for construction, as well as knowledge of key issues that need to be addressed on I-70 East.

### **O&M Manager**

To lead the operations and maintenance, 5280 Connectors and Transfield have selected Christian Guevara as the O&M Manager as shown in Vol.1, Sec.4.4.v. Christian is currently the O&M Manager for US 36, managing mobilization efforts and overseeing operations on I-25 since March 2014. With his experience and lessons learned from US 36, Christian will participate through the proposal effort by transferring his knowledge to the design of the I-70 East Project. Christian has worked with Transfield since 2013 and has successfully managed a number of projects with prescriptive operations, maintenance, and rehabilitation obligations that also require significant consideration of strategies for sustainability and local involvement. Christian's experience assisting local agencies throughout Colorado in managing and executing their maintenance plans will prove beneficial for reducing lifecycle expenditures for the Project.

### **Quality Manager**

To oversee the quality program for the Project, 5280 Connectors has selected Danny Bennett to be its Quality Manager as shown in Vol.1, Sec.4.4.d. Danny is the Construction Quality Assurance Manager on Eagle P3 in Denver. With Eagle P3 scheduled for construction completion early in 2016, it will allow Danny to be fully dedicated to I-70 East from commercial close. Danny has vast experience leading quality assurance and quality control efforts both from the contractor's side as well as a client representative and consultant.

### **Environmental Manager**

To oversee the environmental management and compliance work for the Project, 5280 Connectors has selected Matthew Zoss as its Environmental Manager as shown in Vol.1, Sec.4.4.e. Matthew is the Environmental Compliance Manager on Eagle P3 in Denver. With Eagle P3 scheduled for construction completion early in 2016, it will allow Matthew to be fully dedicated to I-70 East from commercial close. Matthew's local knowledge and work with groundwater issues, as demonstrated on the Region 1, I-70 Peak Period Shoulder Lane project, together with Skanska-Zachry's collective experience with groundwater and environmental remediation, will be key in addressing the Project's unique environmental challenges.

### **Utilities Manager**

To lead the utilities management and coordination work on the Project, 5280 Connectors and Skanska-Zachry have selected Emil Dzuik as the Utilities Manager as shown in Vol.1, Sec.4.4.f. Emil is currently the Utility Coordinator and Manager for Zachry on its SH 99 Grand Parkway project. With that project's major civil construction components winding down at the end of 2015, Emil's role will near completion and allow him to be fully dedicated to I-70 East during the RFP phase. In addition to working as Utilities Manager, Emil also has invaluable experience from a career working on the utility side of many utility relocation projects giving him unique insight and perspective that will be brought to the Project.

### Community and Public Relations Manager

To lead the community outreach and public relations work on the Project, 5280 Connectors have selected Pauline Haberman, as the Community and Public Relations Manager. As shown in Vol.1, Sec.4.4.g, Pauline is currently the Senior Public Information Coordinator of ZoZo Group, LLC. Pauline has a strong connection with the local communities that will be impacted by the project and is already heavily involved in the project pursuit for 5280 Connectors. Pauline has 11 years of experience



with highway construction projects, including a number of CDOT transportation projects of varying size. Her past experience working with CDOT

### Additional 5280 Connectors Key Personnel

In addition to the Key Personnel listed above, 5280 Connectors will dedicate the following individuals in important roles as part of its pursuit of the Project in order to deliver a successful project that achieves the Project Goals:

Construction Manager. In addition to Wade Watson as the Design-Build Manager for the Skanska-Zachry, Brian Freund will serve as the Construction Manager. Brian is an experienced manager of design-build project's and is currently working as Design-Build Manager for Skanska on the Exposition LRT Phase 2 ("Expo LRT") project in California as shown in Vol.1, Sec.4.1.b. With Expo LRT nearing completion, Brian will be involved in 5280 Connectors' proposal development and will ensure a smooth transition from the RFP phase through total construction completion together with Wade.

DBE Outreach. In addition to the community outreach and public relations work that will be managed by Pauline Haberman, 5280 Connectors will bring its additional knowledge and experience with community outreach and DBE participation by having George Hanible support the project through proves she is very familiar with CDOT's outreach standards and protocols.

the procurement and into construction. George's experience with working with key community leaders, organizations stakeholders and special interest groups on large design-build projects, such as the Expo Phase 2 and VTA Berryessa Extension, will be an invaluable asset to 5280 Connectors. Please see Vol.1, Sec.4.3, Form H, Question 5.

Safety Manager. Safety will be the number one project priority for 5280 Connectors. Both Skanska Civil and Zachry have proven track records of implementing successful safety programs, please see Vol.1 Sec.4.2.a. We have enlisted Scott Thompson to oversee and administer the site safety program for the I-70 East. Scott, a safety professional with 24 years of experience in the construction industry, brings extensive background in managing the safety programs for large complex design-build projects. Scott brings experience managing the safety program on Skanska's \$589 million Expo Phase 2, where his efforts resulted in achieving over 1 million man-hours without a lost time incident. Scott will implement safety from the start of the design phase through constructability and safety reviews.

Experience	Gene	eral	Technical Experience					
Name	Available for project	P3 – experience	Road Expansion /Interchange Construct.	Groundwater and Drainage	Complex Urban MOT	Ventilation / Fire- Life Safety	Rail / Utility Coordination	Implementing DBE programs
Κ	ey Person	nel						
Design-Build Manager Wade Watson	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Design Manager John Kalvelage	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
O&M Manager Christian Guevara	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Quality Manager Danny Bennett	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$

#### Key Personnel Experience Table



### I-70 EAST PROJECT

Experience	Gene	eral	Technical Experience					
Name	Available for project	P3 – experience	Road Expansion / Interchange Construct.	Groundwater and Drainage	Complex Urban MOT	Ventilation / Fire- Life Safety	Rail / Utility Coordination	Implementing DBE programs
Environmental Manager Matthew Zoss	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Utilities Manager Emil Dzuik	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Community and Public Relations Manager Pauline Haberman	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Other Key	<sup>,</sup> Technica	I Perso	nnel					
Construction Manager Brian Freund	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
DBE Outreach George Hanible	~		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Safety Manager Scott Thompson	~		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
5280 Connectors Technical Lead David Boss	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
5280 Connectors Technical Terry Ostrom	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
5280 Connector	s Technic	al Advis	sory Team				-	
Technical Advisory Matt Girard	~	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Technical Advisory John Schwab	~	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Technical Advisory James Melvin	~		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Technical Advisory Paul Newman	~	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
5280 Connectors Technical Director form Commercial Close Simon Stachnik	~	~	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	~



Penn Bridges

### 5280 Connectors Developer Personnel Table

Experience	Ger	neral		PPP Finance Experience					
Name	Available for Project	P3 – Experience	TIFIA	PABs	Bank	Availability Payment	Transportation Deals Closed		
Project Director Brian Clark	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	US 36, Winnipeg, Disraeli, Bus Rapid Transit Concession		
Project Director (Deputy) Frederick Burman	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	ERT, I-4		
Project Finance Lead Brian Budden	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	US 36, Penn Bridges		
Project Finance Amando Madan	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	ERT, I-4, Antofagasta Highways (Chile)		
Commercial Lead Eivind Dueland	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	ERT, I-4		
Commercial Chris Jauregui	$\checkmark$	$\checkmark$		$\checkmark$		$\checkmark$	Penn Bridges, SH 183		
Steering Committee Magnus Eriksson	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	ERT, I-4, E39 (Norway), A1 (Poland)		
Steering Committee Karl Reichelt	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	ERT, I-4		
Steering Committee Paul Dunstan	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	US 36, Penn Bridges, SH 183, Disraeli		
Steering Committee Matt Girard	$\checkmark$	$\checkmark$		$\checkmark$		$\checkmark$	Penn Bridges, SH 183, US 36		



I-4 Ultimate

### I-70 EAST PROJECT





I-4 Ultimate

### 3.1 Organizational Conflicts of Interest

In accordance with Part B, Section 5.3.1.a. and Part D, Volume 1 Submission Requirement, Section 3.1 of the I-70 East Request for Qualifications ("RFQ"), 5280 Connectors and its Core Proposer Team Members confirm the absence of any organizational conflicts of interest in its pursuit of the I-70 East Project.

In accordance with Part B, Section 5.3.1.c. of the RFQ, 5280 Connectors submitted a Preliminary Organizational Conflicts of Interest Disclosure to the Procuring Authorities on April 24, 2015 ("Preliminary Disclosure"). In the Preliminary Disclosure, 5280 Connectors raised matters that it believes are not organizational conflicts of interest, but that could potentially be perceived as organizational conflicts of interest how 5280 Connectors would avoid, manage and/or eliminate any such perceived organizational conflicts of interest.

In accordance with Part B, Section 5.3.1.b, if 5280 Connectors becomes aware of any future organizational conflicts of interest it will, notify the Procuring Authorities accordingly.

### 3.2 Legal Disclosures and Certifications

### 3.2.1 Form D

Please refer to the following pages for Form D (Legal Disclosures).

### Form D: Legal Disclosures

#### Proposer Name: 5280 Connectors

#### Form D: Summary of Legal Liabilities and Proceedings

#### Question 1:

List and briefly describe all instances during the last five years involving Reference Projects in relation to which any Core Proposer Team Member or any Affiliate of any of them:

- (a) was determined by a court of law or in an arbitration proceeding, a dispute review board proceeding or any other dispute resolution proceeding to be liable for a material breach of contract;
- (b) was otherwise acknowledged in writing to be liable for a material breach of contract;
- (c) had a contract terminated for cause or convenience; or
- (d) received a written waiver of another party's right to terminate a contract for cause.

	Equity Member: Plenary Group U	SA Ltd.
(1)	Description:	None Applicable
	Owner's or Counterparty's	None Applicable
	Representative:	
	Equity Member: Skanska Infrastr	ucture Development Inc.
(2)	Description:	As stated in Form B (Confidential Contents Index), this section
	Owner's or Counterparty's	has been redacted in accordance with Section 5.7.3 of the
	Representative:	RFQ and C.R.S. § 24-72-204.
	Joint venturer in Lead Contracto	or: Skanska USA Civil West Rocky Mountain District Inc.
(3)	Description:	As stated in Form B (Confidential Contents Index), this section
	Owner's or Counterparty's	has been redacted in accordance with Section 5.7.3 of the
	Representative:	RFQ and C.R.S. § 24-72-204.
	Joint venturer in Lead Contractor	or: Zachry Construction Corporation
(4)	Description:	None Applicable
	Owner's or Counterparty's	None Applicable
	Representative:	
	Lead Engineer: HDR Inc.	
(5)	Description:	None Applicable
	Owner's or Counterparty's	None Applicable
	Representative:	
	Lead Operator: Transfield Service	es Infrastructure, Inc.
(6)	Description:	As stated in Form B (Confidential Contents Index), this section
	Owner's or Counterparty's	has been redacted in accordance with Section 5.7.3 of the
1	Depresentatives	RFQ and C.R.S. § 24-72-204.
	Representative:	
		pr Equity Member: Plenary Group USA Ltd: Plenary Group

#### Response to Question 1



(7)	Description:	None Applicable		
	Owner's or Counterparty's	None Applicable		
	Representative:			
	Financially Responsible Party fo	r Equity Member: Skanska Infrastructure Development		
	Inc.: Skanska AB			
(8)	Description:	As stated in Form B (Confidential Contents Index), this section		
	Owner's or Counterparty's	has been redacted in accordance with Section 5.7.3 of the		
	Representative:	RFQ and C.R.S. § 24-72-204.		
	Financially Responsible Party fo	r Joint venturer in Lead Contractor: Skanska USA Civil		
	West Rocky Mountain District In	<u>c.:</u> Skanska AB		
(9)	Description:	As stated in Form B (Confidential Contents Index), this section		
	Owner's or Counterparty's	has been redacted in accordance with Section 5.7.3 of the		
	Representative:	RFQ and C.R.S. § 24-72-204.		
	Financially Responsible Party for Joint venturer in Lead Contractor: Zachry Construction			
	Corporation: Zachry Construction	& Materials, Inc.		
(10)	Description:	None Applicable		
	Owner's or Counterparty's	None Applicable		
	Representative:			
	Financially Responsible Party for	r Lead Operator: Transfield Services Infrastructure,		
	Inc.: Transfield Services Limited			
(11)	Description:	As stated in Form B (Confidential Contents Index), this section		
	Owner's or Counterparty's	has been redacted in accordance with Section 5.7.3 of the		
	<u>Representative</u> :	RFQ and C.R.S. § 24-72-204.		

### Question 2:

List and briefly describe (including as to the resolution) each arbitration, litigation, dispute review board and other dispute resolution proceeding (including to the extent settled prior to completion of the proceeding) occurring during the last five years related to Reference Projects, which involved:

- (a) a claim or dispute between the project owner(s) (or any public-private partnership project company, concessionaire, developer or the equivalent), on the one hand, and any Core Proposer Team Member or any Affiliate of any of them, on the other hand; and
- (b) an amount in excess of the lesser of:
  - (i) 2% of the original contract value; or
  - (ii) \$500,000 on projects with an original contract value in excess of \$25 million.

### Response to Question 2

	Equity Member: Plenary Group U	SA Ltd.		
(12)	Description:	None Applicable		
	Owner's or Counterparty's	None Applicable		
	Representative:			
	Equity Member: Skanska Infrastructure Development Inc.			
(13)	Description:	As stated in Form B (Confidential Contents Index), this section		
	Owner's or Counterparty's	has been redacted in accordance with Section 5.7.3 of the		

I-70 EAST PROJECT

	ASTPROJECT	
	Representative:	RFQ and C.R.S. § 24-72-204.
	Joint venturer in Lead Contracto	or: Skanska USA Civil West Rocky Mountain District Inc.
(14)	Description:	As stated in Form B (Confidential Contents Index), this section
	Owner's or Counterparty's	has been redacted in accordance with Section 5.7.3 of the
	Representative:	RFQ and C.R.S. § 24-72-204.
	Joint venturer in Lead Contracto	or: Zachry Construction Corporation
(15)	Description:	None Applicable
	Owner's or Counterparty's	None Applicable
	Representative:	
	Lead Engineer: HDR Inc.	
(16)	Description:	None Applicable
	Owner's or Counterparty's	None Applicable
	Representative:	
	Lead Operator: Transfield Service	
(17)	Description:	As stated in Form B (Confidential Contents Index), this section
	Owner's or Counterparty's	has been redacted in accordance with Section 5.7.3 of the
	Representative:	RFQ and C.R.S. § 24-72-204.
		or Equity Member: Plenary Group USA Ltd: Plenary Group
	(Canada) Ltd.	
(18)	Description:	None Applicable
	Owner's or Counterparty's	None Applicable
	Representative:	
		or Equity Member: Skanska Infrastructure Development
	Inc.: Skanska AB	
(19)	Description:	As stated in Form B (Confidential Contents Index), this section
	Owner's or Counterparty's	has been redacted in accordance with Section 5.7.3 of the
	Representative:	RFQ and C.R.S. § 24-72-204.
		or Joint venturer in Lead Contractor: Skanska USA Civil
(20)	West Rocky Mountain District In	As stated in Form B (Confidential Contents Index), this section
(20)	<u>Description</u> : <u>Owner's or Counterparty's</u>	has been redacted in accordance with Section 5.7.3 of the
	Representative:	RFQ and C.R.S. § 24-72-204.
		for Joint venturer in Lead Contractor: Zachry Construction
	Corporation: Zachry Construction	-
(21)	Description:	None Applicable
(= · )	Owner's or Counterparty's	None Applicable
	Representative:	
		or Lead Operator: Transfield Services Infrastructure,
	Inc.: Transfield Services Limited	
(22)	Description:	As stated in Form B (Confidential Contents Index), this section
	Owner's or Counterparty's	has been redacted in accordance with Section 5.7.3 of the
L		

5280 Connectors
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Representative:

RFQ and C.R.S. § 24-72-204.

### 3.2 Legal Disclosures and Certifications

### 3.2.2 Form E (Part A)

Please refer to the following pages for Part A (Summary of Certifications) of Form E (Certifications)

### FORM E: CERTIFICATIONS

Proposer Name: 5280 Connectors

Form E

Part A: Summary of Certifications

No.	Entity Providing a completed Part B of Form E	Role of such Entity on Proposer	Answered Yes to One or through (8) of Part B?	r More of Questions (1)
(1)	Plenary Group USA Ltd.	Equity Member	Yes	🖂 No
(2)	Skanska Infrastructure Development Inc.	Equity Member	🛛 Yes	🗌 No
(3)	Skanska USA Civil West Rocky Mountain District Inc.	Joint venturer in Lead Contractor	🛛 Yes	🗌 No
(4)	Zachry Construction Corporation	Joint venturer in Lead Contractor	🛛 Yes	🗌 No
(5)	HDR Engineering Inc.	Lead Engineer	Yes	🖂 No
(6)	Transfield Services Infrastructure, Inc.	Lead Operator	🛛 Yes	🗌 No
(7)	Plenary Group (Canada) Ltd.	Financially Responsible Party to Equity Member Plenary Group USA Ltd.	Yes	🖂 No
(8)	Skanska AB	Financially Responsible Party to Equity Member Skanska Infrastructure Development Inc.	🖾 Yes	□ No
(9)	Skanska AB	Financially Responsible Party to Joint venturer in Lead Contractor Skanska USA Civil West Rocky Mountain District Inc.	🖾 Yes	□ No
(10)	Zachry Construction & Materials, Inc.	Financially Responsible Party to Joint venturer in Lead Contractor Zachry Construction Corporation	🛛 Yes	□ No
(11)	Transfield Services Ltd.	Financially Responsible Party to Lead Operator Transfield Services Infrastructure, Inc.	🛛 Yes	□ No

### 3.2 Legal Disclosures and Certifications

### 3.2.3 Form E (Part B)

Please refer to the following pages for Part B (Certifications) of Form E (Certifications).



# Form E (Part B)

### 3.2 Legal Disclosures and Certifications

### 3.2.3 Form E (Part B)

Please refer to the following pages for Part B (Certifications) of Form E (Certifications).

As stated in Form B (Confidential Contents Index), this section has been redacted in accordance with Section 5.7.3 of the RFQ and C.R.S. § 24-72-204. This redacted section includes Certifications for the following Core Proposer Team Members:

- Plenary Group USA Ltd.
- Skanska Infrastructure Development Inc.
- Skanska USA Civil West Rocky Mountain District.
- Zachry Construction Corporation
- HDR
- Transfield Services Infrastructure
- Plenary Group (Canada) Ltd.
- Skanska AB
- Zachry Construction & Materials, Inc.
- Transfield Services Limited.

### 3.3 Legal Issues

In accordance with Part D, Volume 1 Submission Requirement, Section 3.3 of the I-70 East Request for Qualifications ("RFQ"), 5280 Connectors confirms that neither 5280 Connectors, nor any of its Core Proposer Team Members, have identified any anticipated legal issues relating to, affecting, or that are anticipated to affect, 5280 Connectors', or any of its Core Proposers Team Members, that need to be resolved in order for:

- i. 5280 Connectors, assuming it is selected as a Shortlisted Proposer, to deliver a Proposal in response to the RFP; or
- ii. 5280 Connectors or any of its Core Proposer Team Members, assuming 5280 Connectors is selected as Preferred Proposer, to perform its and their anticipated obligations under the Project Agreement, or any related agreements, as applicable.

### **4. TECHNICAL EXPERIENCE**

### 4.1 **Project Experience**

Please refer to the following pages for Form F (Project Experience) for the Equity Members, Lead Contractor, Lead Engineer and Lead Operator.



#### Proposer Name: 5280 Connectors

#### Core Proposer Team Members(s) Involved:

## Equity Member: Skanska Infrastructure Development Inc.

- Lead Contractor:
- Lead Engineer: HDR Engineering Inc.
- Lead Operator:
- Joint venturer in Lead Contractor: Skanska USA Civil West Rocky Mountain District Inc.
- Affiliate of Equity Member (Skanska Infrastructure Development Inc.) and Joint venturer in Lead Contractor: (Skanska USA Civil West Rocky Mountain District Inc.): Skanska USA Civil Southeast Inc., see box 9 below.

#### Form F: Project/Transaction Description

No.	Required Information	Response				
I. Bac	I. Background Information					
(1)	Project Name:	<section-header></section-header>				



(2)	Type of Facility:	Urban Interstate Highway and Interchanges with Managed Lanes	
(3)	Owner/Procuring Authority:	Florida Department of Transportation ("FDOT")	
(4)	Brief Description of Project:	<ul> <li>Similar to the I-70 East project, the I-4 Ultimate project is a 40 year P3 for the finance, design, reconstruction, operations and maintenance of 21 miles of a highly congested urban interstate. With an Average Annual Daily Traffic (AADT) of over 180,000 the I-4 is the most important corridor in Central Florida. The project is located in the greater Orlando area with a population of 2.1 million / over 50 million visitors per year, and crosses five cities/ towns in two counties, impacting hundreds of businesses and to a larger extent Central Florida's economy.</li> <li>Variable priced express lanes will be constructed in the median of the facility and the general use lanes will be completely reconstructed. The project includes the reconstruction of 15 interchanges and 140 bridges: 53 new, 74 replacements and 13 modifications (widening). The large scale of this project includes 3 million CY of excavation, 6 million CY of embankment, 3.5 million SF of MSE walls, 630 thousand CY of concrete, 550 thousand SY of concrete pavement, 2 million TN for ad base, and over 1 million TN of asphalt pavement. Bridge construction will require approximately 57 miles of prestressed concrete beams, 370 miles of piling and 3.6 million SF of bridge deck. Much of the production and phase shifts will be done at night.</li> <li>14-Mobility Partners has co-located with FDOT and the Quality Assurance Firm in a central location and will also operate from four area field offices along the 21 miles. Variable tolls will be adjusted throughout the day to optimize traffic flow. Given the importance of tourism to the region, the design will foster the re-integration of the east and west side of Orlando's downtown which was divided by the original I-4 construction, and has been praised by FDOT for highlighting landscaping, aesthetics and lighting to deliver a signature corridor which will qualify for an Envision Platinum Certification.</li> </ul>	
(5)	Contract Term:	Term length: 40 years Start date: September 4, 2014 End date: September 4, 2054	
(6)	Current Status:	The project is under construction and is approximately 17.3% complete as of May 31, 2015. The developer is also responsible for operations.	
(7)	Key Dates and Milestones:	Contract execution: September 4, 2014 (contracted); September 4, 2014 (actual) Commencement of design: 1 month (contracted); 1 month (actual) Commencement of construction: 5 months (contracted); 5 months (actual)	



		Achievement of Substantial Completion: 75 months (anticipated/contracted) Service/Operations Commencement: 5 months (contracted); 5 months (actual) Achievement of Final Completion: 78 months (anticipated/contracted) End of Service/Operations: 40 years (anticipated/contracted)				
	Relevance to the Project:	The US I-4 Ultimate project is relevant to the I-70 East Project where check marks indicate common project features below (see also boxes 4, 10, 22, 26 and 27):				
		<u>Criteria</u>	Common Feature?	Relevance		
		Roadway expansion and reconstruction and interchange reconstruction	~	The 21 miles of urban and downtown reconstruction of the I-4 Ultimate, together with the 408 interchange closely resembles the I-70 project in size and complexity of the elements being built.		
		Demolition of existing infrastructure in urban environments	~	The current I-4 will be demolished and rebuilt through urban downtown, business and residential settings.		
		Major excavation work, including; groundwater considerations and drainage requirements	~	The project will require the excavation of 3 million CYs and placement of 6 million CY of embankment. Groundwater consideration is necessary at on-site and off-site excavations sites.		
		Complex traffic management in urban areas	1	AADT on the I-4 exceeds 180,000. The same number of lanes open prior to construction will be maintained during construction. Service patrols with strict performance requirements are included on the contract.		
(8)		Construction staging in confined spaces	~	The downtown segment includes a major interchange between I-4 and SR 408 as well as the bridge district represents approximately \$1 billion of construction work in a confined setting.		
		Structures that include ventilation and/or fire life safety considerations	~	Special fire life safety considerations have been made for 3 <sup>rd</sup> , 4 <sup>th</sup> and 5 <sup>th</sup> level bridges on the SR 408 and I-4 interchange.		
		Coordination with rail and utility companies	~	There are approximately 3,275 conflicts with utilities and the Project team is coordinating with 32 utility companies.		
		Roadway pavement and associated infrastructure under environmental conditions that are similar to those affecting the project				
		Interfaces with adjacent road operators	~	The project interfaces with SR 408 operated by the Central Florida Expressway Authority and with the Florida Turnpike operated by Florida's Turnpike Enterprise.		
		Workforce development programs, including: partnerships with local community organizations and apprenticeship programs	~	As part of the Developer's equal employment opportunity affirmative action program, training will be provided for 250 hires.		
		Achievement of or exceeding goals relating to participation of: disadvantaged businesses small businesses other business that are subject to equivalent programs	¥	The project is on track to meet the 9% DBE and 3% non-DBE SBE goals. To achieve these goals the project team started the outreach program during the bid phase by holding multiple events and is continuing to work post award to exceed such goals.		
----------	--	---	---------------	--	--	--
		Air quality monitoring and mitigation in urban environments	~	The project crosses urban areas which require monitoring and mitigation plans.		
		Noise monitoring and mitigation in urban environments	~	The project crosses urban areas which require monitoring and mitigation plans.		
		The project's financing included a TIFIA loan that was closed by the project developer and not a public authority	~	Two TIFIA tranches: Short term \$148.3 million and long term \$937.9 million were closed by the developer.		
		The project's financing used PAB's				
		The financed project was a highway or road project	~	The project is for an interstate highway.		
		The financed project was located in North America	~	The project is located in Central Florida.		
II. Des	cription of Team Member I	nvolvement				
		Skanska Infrastructure Development invested 50% of the equity for the I-4		Proposer Team Member for 5280 Connectors, ect.		
(9)	Proposer Team Member(s) (or	Personnel from Skanska Infrastructure Development Inc. who were involved with I-4 Ultimate project are also involved with 5280 Connectors. This will enable the experience to be available and to be applied by 5280 Connectors in the delivery of I-70 East.				
	Affiliate(s)) Involved:	Please see Form F for I-4 Ultimate under the Lead Contractor tab for further description of the role of Skanska USA Civil Southeast Inc.				
		Please see Form F for I-4 Ultimate under the Lead Engineer tab for further description of the role of HDR Engineering Inc.				
		Equity Member Skanska Infrastructure Mobility Partners the company acting Development Inc. is involved in all as	as the develo	nt Inc. holds a 50% direct equity investment in I-4 pper for I-4 Ultimate. Skanska Infrastructure roject.		
(10)	Role of Proposer Team Member(s) (or Affiliate(s)):	Lead Engineer HDR Engineering Inc. (65% share) is the lead for the design joint venture working for SGL Constructors. HDR Engineering Inc. has been involved in the design aspects of the project throughout all phases.				
	Skanska is the managing partner (40%) in the joint venture, which is responsible for design, construction, and operations and maintenance during construction.					
(11)	Key Personnel Involved, Roles & Responsibilities:	N/A				
III. Ref	erence					
(12)	Name:	Loreen Bobo, PE				



(13)	Title & Employer (current):	Construction Program Manager   Florida Department of Transportation
(14)	Title & Employer (at time of project/transaction):	Construction Program Manager   Florida Department of Transportation
(15)	Phone & Email:	(386) 956-4193   loreen.bobo@dot.state.fl.us
(16)	Location & Time Zone:	Orlando, Florida   Eastern Time Zone
(17)	Other:	N/A
<u>IV. Te</u>	chnical Information	
(18)	Construction Value:	\$2.323 billion
(19)	Completion within/above Budget:	The project is currently within budget.
(20)	O&M Value:	Approximately \$8.7 million Annual Service Payment starting in the first year after Substantial Completion
(21)	Length of Road under Operation (centerline miles):	Approximately 24 centerline miles are under operation.
		Maintenance of Traffic The high traffic volumes and strict performance requirements during construction and operation of project required our team to plan and hold pre-actives meetings to maximize safety while minimizing delays. Proper sizing, the location of the service patrols and project wide approach to scheduling of maintained crews guarantee the contractual level of service is maintained.
		647 are disabled vehicles and another 285 are crashes. To date our team has not had a single noncompliance related to traffic management.
	Key Technical	The project is currently within budget.         Approximately \$8.7 million Annual Service Payment starting in the first year after Substantial Completion         Approximately 24 centerline miles are under operation.         Maintenance of Traffic The high traffic volumes and strict performance requirements during construction and operation of project required our team to plan and hold pre-actives meetings to maximize safety while minimizing delays. Proper sizing, the location of the service patrols and project wide approach to scheduling of maintained crews guarantee the contractual level of service is maintained.         Currently service patrols operations have averaged over 1,600 incident Reponses per month, of which 647 are disabled vehicles and another 285 are crashes. To date our team has not had a single noncompliance related to traffic management.         DBE and community outreach. Coordinating public awareness of the impacts of the project is achieved by our co-located project team. The communication team interacts and communitaes in English and Spanish with the hundreds of local businesses, several hospitals /emergency services and law enforcement. The team also ensures the economic impact to the communities is minimized. Additionally the team, logether with the design team ensures the project environmental; community and other design commitments are met.         Ground condition, excavation and drainage. The 7,000 plus commitments made during the project development by FDOT are being addressed by project team task forces and local stakeholder engagement.         FDOT created bonus work elements which have a fast-tracked schedule and are part of the project commitments. Our team has developed a schedule to meet all the project goals.         The design of temporary
(22)	Challenges and Solutions Implemented:	Ground condition, excavation and drainage. The 7,000 plus commitments made during the project development by FDOT are being addressed by project team task forces and local stakeholder engagement.
		FDOT created bonus work elements which have a fast-tracked schedule and are part of the project commitments. Our team has developed a schedule to meet all the project goals.
		The design of temporary and permanent drainage systems along with their proper maintenance will minimize flooding of the corridor during heavy rainfall.
		Foundations design has included live loads to account for sinkholes which are common in the area.
	Foundations design has included live loads to ad Managing a project of such length in urban set delivery team has been subdivided in four areas staff responsible for safety, quality, schedule an located with FDOT and the Quality Assurance F	Managing a project of such length in urban setting requires extensive coordination and logistics. The delivery team has been subdivided in four areas. Each area has its own office with project management staff responsible for safety, quality, schedule and the project commitments. The project leaders are co-located with FDOT and the Quality Assurance Firm at the 42,000 SF Hub Office to ensure consistency of the delivery and oversee the resources as required to uphold the overall schedule.



		Lifecycle considerations. Major maintenance of the managed lanes during the operating period will be critical and can impact revenue. The design included a concrete pavement solution for the managed lanes to optimize lifecycle. Innovations and sustainability. The project team adapted its design and construction plans so that the project's community, environmental, and economic benefits would qualify for Envision™ Platinum Certification under the rating system developed by the Institute for Sustainable Infrastructure. This system evaluates, grades, and gives recognition to infrastructure projects that use transformational,
V. Fin	ancial Information	collaborative approaches to assess the sustainability indicators over the course of the project's lifecycle.
		This is an availability based payment mechanism whereby FDOT retains the tolling risk and revenues. During construction FDOT will pay \$1.035 billion in 17 period payments starting 630 days after financial close. These progress payments equate to approximately 45% of the total construction cost.
(23)	Payment Mechanism:	FDOT will also pay two final acceptance payments totaling \$688.3 million the first is payable upon achievement of final acceptance, the second payable on the first day of the next fiscal year following achievement of final acceptance.
	i ajnon woonanish.	During the operating period, FDOT will make monthly disbursements for availability payments. The availability payments consist of two tranches one fixed and one indexed to CPI (31.5%). The contract includes a deduction regime for adjustments due to unavailability or due to operation and maintenance non-compliance points.
(24)	Source(s) of Revenues or Payments:	The progress payments and final acceptance payments to the developer have been allocated in FDOT's long term capital plan. Future availability payments from FDOT to the Developer are subject to appropriations by the State of Florida.
(25)	Proposer Team Member(s) Equity Investment:	The projects total long-term equity investment is approximately \$60.2 million and Skanska holds 50% at \$30.1 million. Additionally Skanska provided 100% of the needed short-term equity for the project. The \$43.2 million short term equity was structured as a subordinated equity loan to the project company. Skanska's total equity contribution is therefore \$73.4 million divided into \$30.1 million of pure long term equity and \$43.2 million of subordinated equity loan. The full equity investment was committed at financial close and supported by an irrevocable letter of credit.
(26)	Financing Method(s) and Value(s):	Two TIFIA tranches: i. Short Term \$148.3 million and; ii. a Long Term \$937.9 million. In addition to, a six bank Senior Bank Construction Facility of \$485.8 million. The Short Term TIFIA tranche and the Senior Bank Construction Facility will be totally repaid by the last final acceptance payments.
(27)	Key Financial and Funding Challenges and Solutions Implemented:	The Financial Plan developed was robust and offered a number of levels of protection from market disruptions, changes in interest rates and credit rating downgrades by key banks. In addition to the full utilization of the TIFIA allocation, the cornerstone in the financing was a fully underwritten Senior Bank Construction Facility, mitigating costs of carry during the funding period. Given the stringent credit rating requirements for banks providing hedges in the TIFIA Term Sheet, the hedge commitments were "oversized" in order to have additional flexibility should a prospective hedge provider be downgraded between bid and financial close such that it would not qualify. The financing solution provided execution certainty by utilizing high rated banks and redundancy through advancement of a back-up bond solution of Private Activity Bonds during the bid stage on terms and conditions that largely mirrored those in the bank facility. Our project financing solution was the lowest proposed solution and optimized the use of FDOT's periodic and final acceptance payments together with short term bank financing. At the time of closing, the project included the largest P3 TIFIA transportation loan.



Core Proposer Team Members(s) Involved:

- Equity Member: Plenary Group USA Ltd.
- Lead Contractor:
- Lead Engineer: HDR Engineering Inc.
- Lead Operator: Transfield Services Infrastructure, Inc.
- Joint venturer in Lead:
- Affiliate(s):

No.	Required Information	Response	
I. Bad	kground Information		
(1)	Project Name:	US-36 Managed Lanes (Phase 2) Project	
(2)	Type of Facility:	US Highway with managed lanes, High Occupancy Vehicles (HOV), commuter bikeways, Bus Rapid Transit ("BRT")	
(3)	Owner/Procuring Authority:	Colorado Department of Transportation, High Performance Transportation Enterprise ("HPTE")	
(4)	Brief Description of Project:	The project includes the addition of a managed lane in each direction of US 36, for use by Bus Rapid Transit ("BRT"), High Occupancy Vehicles ("HOV") and tolled vehicles. Additionally, it includes the reconstruction of all existing pavement on US 36 and the widening of the highway to accommodate 12 foot inside and outside shoulders; improvements to the BRT system, including new electronic display signage at stations and bus priority improvements at ramps; the installation of a separated commuter bike path along the corridor; the installation of ITS and ATM for tolling, transit, traveler information and incident management; and improvements to corridor RTD stations, including new canopies with enhanced weather protection. In addition to constructing new express lanes, widening and reconstructing existing general purpose lanes, and other improvement elements as listed above, the concessionaire will operate and maintain the entire US	



		36 corridor from Boulder to I-25 as well as be responsible for the reversible lanes on I-25 from US 36 to downtown Denver under a 50-year agreement.					
		Term length: 50 years (operations)					
(5)	Contract Term:						
		End date: December 2065					
(6)	Current Status:	The project is currently under construction and is approximately 60% complete.					
		Contract execution: June 27, 2013 (contracted	); June 27, 2013 (ad	ctual)			
		Commencement of design: 0 months (contract	ed); 0 months (actu	al)			
		Commencement of construction: 0 months (con	ntracted); 0 months	(actual)			
		Achievement of substantial completion: 30 more	nths (anticipated/co	ntracted)			
(7)	Key Dates and	Service/Operations commencement:					
(7)	Milestones:	• I-25 portion: 0 months (contracted);	0 months (actual)				
		Phase 1 portion: 24 months (contra	cted)				
		Phase 2 portion: 30 months (contra	cted)				
		Achievement of final completion: 30 months (a	nticipated/contracte	d)			
		End of Service/Operations: 50 years (anticipate	ed/contracted)				
		The US 36 project is relevant to the I-70 East Project where check marks indicate common project features below (see also boxes 4, 10, 22, 26 and 27):					
		Criteria	Common Feature?	<u>Relevance</u>			
		Roadway expansion and reconstruction and interchange reconstruction	V	US 36 being expanded to include managed lanes in the center; interchange reconstruction (e.g. DDI at McCaslin).			
		Demolition of existing infrastructure in urban environments	$\checkmark$	Partial bridge demolition.			
(8)	Relevance to the Project:	Major excavation work, including; groundwater considerations and drainage requirements	~	Permitting complex haul routes in an urban environment.			
		Complex traffic management in urban areas	$\checkmark$	High volumes on US 36 and I-25. Coordination with Phase 1 as well as with separate I-25 N project.			
		Construction staging in confined spaces	~	Construction area is long and narrow with limited access and requires detailed phasing planning.			
		Structures that include ventilation and/or fire life safety considerations					
		Coordination with rail and utility companies	✓	Coordination with rail and utility companies.			



		Roadway pavement and associated infrastructure under environmental conditions that are similar to those affecting the project	~	Expandable clays and existing pavement sections that can be utilized to reduce the costs in the improved pavement sections.		
		Interfaces with adjacent road operators	~	Interfaces with CDOT Maintenance and CDOT ITS, CDOT O&M snow and ice contractor and CDOT courtesy patrol contractor		
		Workforce development programs, including: partnerships with local community organizations and apprenticeship programs	~	33 trainees are currently enrolled in the Colorado Contractors Association apprenticeship and professional services program. The team is forecasting 120,000 man hours of training opportunities and are on track to achieve this goal.		
		Achievement of or exceeding goals relating to participation of: disadvantaged businesses small businesses other business that are subject to equivalent programs	~	On track to meet and potentially exceed DBE goal requirements of 11%		
		Air quality monitoring and mitigation in urban environments	✓	As needed for confined space entry and permitting of batch plants.		
		Noise monitoring and mitigation in urban environments	$\checkmark$	As needed for key activities such as night work and batch plant operations.		
		The project's financing included a TIFIA loan that was closed by the project developer and not a public authority	~	\$60 million TIFIA loan procured for Phase 2.		
		The project's financing used PAB's	~	\$20.6 million PABs issuance		
		The financed project was a highway or road project	$\checkmark$	US Highway 36		
		The financed project was located in North America	$\checkmark$	Located in Denver, Colorado.		
<u>II. De</u>	escription of Team Mem	ber Involvement				
	Proposer Team	Equity Member Plenary Group, a Core Propos project equity and is involved in all aspects of		r 5280 Connectors, invested 100% of the		
(9)	Member(s) (or Affiliate(s)) Involved:	Leader Engineer HDR, a Core Proposer Team Member for 5280 Connectors, was responsible for 100% of the design of the project.				
		Lead Operator Transfield, a Core Proposer Te the project's operations and maintenance wor				
	Role of Proposer	Equity Member Plenary Group holds a 100% of acting as the developer. Plenary Group was in				
(10)	Team Member(s) (or Affiliate(s)):	Please see the Form F for US 36 under the Le	ead Engineer tab for	a further description of HDR's role.		
		Please see the Form F for US 36 under the Le	ead Operator tab for	a further description of Transfield's role.		



(11)	Key Personnel Involved, Roles & Responsibilities:	5280 Connectors' O&M Manager Christian Guevara is the O&M Project Manager throughout all phases of the US 36 project.	
III. Re	eference		
(12)	Name:	Mark Gosselin, P.E.	
(13)	Title & Employer (current):	Project Director   High Performance Transportation Enterprise	
(14)	Title & Employer (at time of project/transaction):	Project Director   High Performance Transportation Enterprise	
(15)	Phone & Email:	(303) 404-7020   mark.gosselin@state.co.us	
(16)	Location & Time Zone:	Broomfield, CO   Mountain Time Zone	
(17)	Other:	N/A	
<u>IV. Te</u>	echnical Information		
(18)	Construction Value:	\$121.5 million	
(19)	Completion within/above Budget:	Currently within budget	
(20)	O&M Value:	\$4.5 million Annual Service Payment starting in the first year after Substantial Completion of Phase 2	
(21)	Length of Road under Operation (centerline miles):	Currently, 7 miles are under operation. At substantial completion (2016), 23 miles will be under operations.	
(22)	Key Technical Challenges and Solutions Implemented:	<ul> <li>Tolling with Minimum Travel Speeds: The project involves the construction of one managed lane in each direction along the US 36 median and the Bus Rapid Transit system is expected to run within the managed lane. As part of the concession agreement Plenary is required to guarantee minimum travel speeds for buses within the managed lane. Transfield, with primary responsibility for on-site O&amp;M activities, is required to keep the managed lanes free from obstructions (debris, stalled cars, etc.) to enable the free flow of traffic. To meet this challenge, Transfield hired locally-sourced operators and provided training. This team is supported locally and has proven its responsiveness and capability several times already through prompt accident responses and coordination with HPTE/CDOT and local emergency responders.</li> <li>"Plenary and Transfield have provided great leadership and guidance in the delivery and execution of CDOT's first P3 project, they are proven to be an excellent partnership for future projects within the State of Colorado."</li> <li>Mark Gosselin   CDOT, Project Director, US 36 Express Lanes Project</li> <li>Lifecycle Consideration in Design: In PPP projects, Transfield actively participates during the design phase by being involved with the Task Force groups to ensure maintainability, accessibility and also incorporate lifecycle analysis. This has resulted in an asset that is designed and constructed to perform well throughout the service life with effective maintenance practices.</li> <li>Operation of the reversible gate infrastructure: Upon Financial Close, Transfield became responsible for the operations and maintenance of the time-sensitive I-25 reversible gate system which controls access to the reverse-flow Express Lanes. Prior to the transition of operations, Transfield worked closely with the CDOT personnel to understand all aspects of operating practices and troubleshooting for the gate system.</li> </ul>	

		Transfield currently has operated the system for over a year with no major issues or delays caused by the
		gate system.
		I-25 Express Lanes existing infrastructure: The I-25 facility includes 14 bridge structures, and 7 center- lane miles of pavement (both HMA and PCCP) that are over 20 years old and facing deterioration. Transfield worked in collaboration with CDOT, HPTE, Plenary Group, and HDR to maximize the allotted initial works budget to provide an adequate scope of maintenance work to effectively rehabilitate the existing infrastructure and provide baseline standards for measurement during the 50 year term.
		Interface with CDOT at maintenance boundary locations: A key challenge at project boundaries is the interface with adjacent O&M efforts. Improperly performed, this can lead to differential performance, causing issues to the travelling public when moving from one zone to the adjacent zone. Transfield has worked with CDOT maintenance patrols, CDOT superintendents and local agency operators adjacent to the current operations to ensure that maximum efficiency and coordination is realized at all transition zones, such that motorists are not aware that they are exiting a Transfield managed zone and entering a CDOT managed zone.
		<b>Toll Services Provider</b> : Providing tolling services to a private sector managed lane developer, implementing dual position transponder technology and employing segment tolling methodology were new endeavors for E470. Plenary worked with its HPTE and E470 partners to develop a three-way Toll Services Agreement (TSA) that can be replicated by HPTE on future state managed lane projects. Plenary assumed the lead role in writing, developing and negotiating "business rules" for use on US 36 and every other managed lane project HPTE is planning to build, whether or not these business rules would apply to Plenary's US 36 project. Plenary has invested the time to develop the E470 relationships and knowledge base to manage the toll systems and back office integration.
<u>V. Fir</u>	ancial Information	
(23)	Payment Mechanism:	All payments for the duration of the concession in regard to Operations and Maintenance are contained within a monthly payment schedule within the Operating Agreement. All payments are subject to indexing based on CPI. Any deductions in the form of non-compliance penalties or compensation events are deducted from the monthly payment.
(24)	Source(s) of Revenues or Payments:	Revenue from toll collections
(25)	Proposer Team Member(s) Equity Investment:	Total equity investment of \$20.6 million of which Plenary contributed 100%. The full equity investment was committed at financial close and supported by an irrevocable letter of credit
(26)	Financing Method(s) and Value(s):	Tax-Exempt Private Activity Bonds: \$20.6 million; and \$60.0 million of TIFIA loan; \$20.6 million of subordinate debt
(27)	Key Financial and Funding Challenges and Solutions	TIFIA Loan: TIFIA was not directly accessible to bidders at the RFP stage. A key challenge was bidders only having access to a limited term sheet during the RFP stage that would then be negotiated during the preferred proponent stage. To work through these challenges, Plenary analyzed several TIFIA precedents ahead of the bid submission to "fill in the blanks" from the limited term sheet TIFIA provided. In addition, once selected as preferred proponent, Plenary worked closely with TIFIA as well as HPTE and its advisors to absorb or otherwise adjust to the changes from the TIFIA term sheet, and ultimately agree to terms. Given the complexities involved with revenue risk and the assumption of a prior TIFIA loan (from Phase 1) this was arguably the most complex TIFIA arrangement closed in a PPP project.
	Implemented:	PABs / TIFIA / Subordinated Debt: The funding solution for this DBFOM showcases Plenary's experience in combining financing instruments to achieve an extremely efficient cost of funds on PPP projects similar to the I-70 East Project. Plenary Roads Denver, the Plenary-led consortium, employed a sophisticated arrangement to finance Phase 2 of the project, consisting of four tranches of debt on two liens in addition to the Sponsor's Equity. As part of this financing package, Plenary Roads Denver has assumed HPTE's existing obligations from the project's first phase, a \$54 million TIFIA loan (TIFIA 1), and issued approximately \$20 million of additional parity PABs. Plenary Roads Denver has also entered into a new \$60



debt and is contributing additional equity into the project.			million TIFIA loan (TIFIA 2). Finally, Plenary Roads Denver issued approximately \$20 million of subordinate debt and is contributing additional equity into the project.
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## Core Proposer Team Members(s) Involved:

## Equity Member: Skanska Infrastructure Development Inc.

- Lead Contractor:
- Lead Engineer:
- Lead Operator:
- Joint venturer in Lead Contractor: Skanska USA Civil West Rocky Mountain District Inc.
- Affiliate of Equity Member (Skanska Infrastructure Development Inc.) and Joint venturer in Lead Contractor: (Skanska USA Civil West Rocky Mountain District Inc.): Skanska USA Civil Southeast Inc., see box 9 below.

No.	Required Information	Response
I. Bac	kground Information	
		Elizabeth River Tunnels Project
(1)	Project Name:	





(2)	Type of Facility:	Road tunnel and highway / interstate interchange
(3)	Owner/Procuring Authority:	Virginia Department of Transportation ("VDOT")
(4)	Brief Description of Project:	<ul> <li>The project is a Public Private Partnership (PPP) to design, construct, finance, operate and maintain the Elizabeth River Tunnels project (also known as the Downtown Tunnel/Midtown Tunnel/Martin Luther King Freeway (MLK) Extension). The project includes a new two-lane tunnel tube under the Elizabeth River between Norfolk and Portsmouth, associated interchange improvements at each portal, extension of the MLK on new alignment to a new interchange with I-264 in Portsmouth, and maintenance and safety improvements to the existing three tunnel tubes.</li> <li>The existing single-tube Midtown Tunnel (US 58) is the most heavily traveled two-lane roadway in Virginia. The new parallel tube, comprised of 11 segments of immersed concrete tubes, will double the roadway capacity across the river at the Midtown location and alleviate severe morning and evening congestion.</li> <li>The project also consists of the southbound extension of the six-lane Martin Luther King Freeway (mostly on structure), which will connect Western Freeway (VA 164) and US 58 to I-264, with an additional interchange at High Street. On the Norfolk side, interchange ramps are being configured to the twin tunnel portals. Additional works included major maintenance, new jet fan ventilation and fire life safety improvements to the existing Midtown Tunnel tube and to the existing two tubes of the Downtown Tunnel (I-264).</li> <li>Under a comprehensive agreement VDOT will maintain ownership of the infrastructure and oversee the project company's activities. The company, Elizabeth River Crossings OpCo, will finance and build the facilities, then operate and maintain them for a 58-year term.</li> </ul>
		Term length: 58 years
(5)	Contract Term:	Start date: April 13, 2012 End date: April 2070
(6)	Current Status:	The project is currently under construction and is approximately 70% complete.
(7)	Key Dates and Milestones:	Contract execution: April 13, 2012 (contracted); April 13, 2012 (actual) Commencement of design: 0 months (contracted); 0 months (actual) Commencement of construction: 5 months (contracted); 5 months (actual) Achievement of Substantial Completion: 55 months (anticipated/contracted) Service/Operations Commencement (on the existing tunnels and surrounding road network): 3 months



		(contracted); 3 months (actual)				
		Achievement of Final Completion: 78 months (anticipated/contracted)				
		End of Service/Operations: 58 years (anticipated/contracted)				
		The Elizabeth River Tunnels project is relevant to th common project features below (see also boxes 4, 7				
		Criteria	<u>Common</u> Feature?	Relevance		
		Roadway expansion and reconstruction and interchange reconstruction	~	MLK extended and interchange with I-264 constructed		
(8)		Demolition of existing infrastructure in urban environments	~	Demolition work in existing tunnel tubes to accommodate new tunnel ventilation system		
		Major excavation work, including; groundwater considerations and drainage requirements	~	Support of excavation and dewatering in U-wall and cut and cover sections		
		Complex traffic management in urban areas	~	Maintenance of traffic on I-264 MLK and US 58		
	Relevance to the Project:	Construction staging in confined spaces	~	Confined work spaces for new tunnel construction and existing tunnel refurbishment		
		Structures that include ventilation and/or fire life safety considerations	~	New ventilation, fire life safety and ITS in all 4 tunnel tubes.		
		Coordination with rail and utility companies	~	Relocation of utilities for new tunnel and MLK extension		
		Roadway pavement and associated infrastructure under environmental conditions that are similar to those affecting the project	~	O&M scope includes snow/ice removal		
		Interfaces with adjacent road operators	~	O&M interfaces established with VDOT at project limits		
		Workforce development programs, including: partnerships with local community organizations and apprenticeship programs	~	Project requirement for 70 on-the - job trainees as part of formal VDOT program period. The program is on track with 35 graduates to date.		
		Achievement of or exceeding goals relating to participation of: disadvantaged businesses small businesses other business that are subject to equivalent programs	~	On track to meet goals of 12% DBE and 23% Small Women and Minority for construction, annual O&M goals 15%/25% being met.		
		Air quality monitoring and mitigation in urban environments	~	Particular focus on air quality and rehabilitation of tunnel ventilation		
		Noise monitoring and mitigation in urban environments	~	Contractor managing and mitigating time of day noise		



				restrictions in urban area with nearby hospital.	
		The project's financing included a TIFIA loan that was closed by the project developer and not a public authority	✓	\$422 million TIFIA loan was used	
		The project's financing used PAB's	~	\$675 million of PAB's were used	
		The financed project was a highway or road project	~	The project is a road tunnel and highway extension/interchange	
		The financed project was located in North America	✓	The project is in Virginia	
II. Des	cription of Team Member Inv	<u>volvement</u>			
		Skanska Infrastructure Development Inc., a Core Pr invested 50% of the equity for the Elizabeth River	oposer Team unnels project.	Member for 5280 Connectors,	
(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	m Tunnels project are also involved with 5280 Connectors. This will enable the experience to be available and to be applied by 5290 Connectors in the delivery of 1.70 Fact			
	Anniac(3)) involved.	Please see Form F for Elizabeth River Tunnels under the Lead Contractor tab for further description of the role of Skanska USA Civil South East Inc. and affiliate of Skanska USA Civil West Rocky Mountain District Inc.			
<ul> <li>(10)</li> <li>(11)</li> <li< td=""><td>which included preliminary design, frastructure Development Inc. is now ngs OpCo which is self-performing</td></li<></ul>			which included preliminary design, frastructure Development Inc. is now ngs OpCo which is self-performing		
	Affiliate(s)):	Skanska USA Civil Southeast Inc. is the managing partner (45% share) in the Lead Contractor SKW Constructors which is responsible for the design, construction, operations and maintenance during construction.			
(11)	Key Personnel Involved, Roles & Responsibilities:	Wade Watson, Design-Build Manager for 5280 Connectors, is construction project manager for Elizabeth River Tunnels.			
III. Ref	ference				
(12)	Name:	Charlie Kilpatrick			
(13)	Title & Employer (current):	VDOT Commissioner   VDOT			
(14)	Title & Employer (at time of project/transaction):	VDOT Deputy Commissioner   VDOT			
(15)	Phone & Email:	(804) 786-2701   charlie.kilpatrick@vdot.virginia.gov	1		
(16)	Location & Time Zone:	Richmond, VA   Eastern Standard Time			
(17)	Other:	N/A			



<u>IV. Te</u>	chnical Information	
(18)	Construction Value:	\$1.468 billion
(19)	Completion within/above Budget:	Project on-going – fixed price, date certain, lump sum contract, less than \$10 million change orders to date due to minor adjustments.
(20)	O&M Value:	\$15 million per year
(21)	Length of Road under Operation (centerline miles):	8.5 miles (3.0 on I-264, 3.5 on MLK and 2.0 on VA 164/US 58)
(22)	Key Technical Challenges and Solutions Implemented:	<ul> <li>Construction of MLK Freeway extension. The six-lane MLK is constructed mostly on structure, however, bridge approach embankments on soft soils required extended pre-loading to take out settlement. The new interchange at 1-264 includes 4 direct connections of which 2 cross over 1-264 requiring complex MOT.</li> <li>Tight Tolerances in Urban Environment. The project includes complex construction with tight tolerances in heavily traveled urban environments. Skanska conducted an extensive public outreach program with education and outreach to the public related to all-electronic tolling and construction impacts. Open houses were held for specific areas of work and used radio, television, newspaper, bus advertisements and billboards. To minimize disruption to traffic and the public, the team performed delivery of large materials and some major construction activities during off-peak hours.</li> <li>Concrete Design for Tunnel Tube Sections. The project included mass concrete pours with sophisticated mix formulated for 120 year design life, which requires tight controls. Skanska supplied two on-site batch plants to provide redundancy and minimize dossibility of cold joints. Several different "mock ups" of tube sections were poured as practice to gain insight into formwork, rebar, and concrete pour methods.</li> <li>Complicated Support of Excavation ("SOE") in Cut and Covers and Open Cut Sections. The project included SOE on both sides of the new tunnel, consisting of 2 cut and cover sections and 2 open cut sections. The project also during the groundwater surface in the dry. The size of the systems tutilized At 236 sheets up to 75 long with internal bracing.</li> <li>Portsmouth Approach (cut &amp; cover) – 210' X 70' with depth of excavation up to 30'. SOE system utilized AZ 36 sheets up to 75' long with internal bracing.</li> <li>Norfolk approach (cut &amp; cover) – 210' X 55' with depth of excavation up to 30'. SOE system utilized AZ 36 sheets up to 55' long with internal bracing.</li>     &lt;</ul>



		<ul> <li>Implementing onsite treatment of lead contaminated soil which reduced hazardous waste and saved the project over \$100,000 in disposal costs</li> </ul>
		<ul> <li>Adopting environmentally-friendly oil for all marine equipment and the use of waste concrete to make oyster boxes to foster oyster spats in the Elizabeth River</li> </ul>
		- Generating "Environmental Excellence Reports" to share the ERT Project environmental processes and outcomes with personnel, parent companies, and regulatory agencies with the ultimate goal of using the reports as tools to educate the heavy construction industry on ways that construction can be done to help benefit the environment while saving the project money.
<u>V. Fina</u>	ancial Information	
		Traffic and revenue risk. Toll collection is from the existing tunnels, and the newly developed tunnel and network of roads. Toll rates escalate at the higher of 3.5% and CPI.
(23)	Payment Mechanism:	In order to lower tolls a State contribution of \$309 million (approximately 20% of Construction Value) was made available upfront and utilized as a source of funds during construction.
		Industry standard non-compliance point regime governs the measurement of operations and maintenance performance.
	Source(s) of Revenues or Payments:	100% Toll revenues from both during construction (approximately \$363 million) and operations.
(24)		State contribution during construction of \$309 million was from State issued bonds with proceeds forwarded to the Developer.
(25)	Proposer Team Member(s) Equity Investment:	Total equity investment was approximately \$270 million and Skanska holds 50% at \$135 million. The equity investment was committed at financial close and was supported by Letters of Credit.
(26)	Financing Method(s) and Value(s):	The total financing size at the end of the construction period will be \$2.08B. Excluding the State contribution, revenues during construction, and equity commitments by Skanska and its co-sponsor, the financing solution includes: \$675M is senior Private Activity Bonds ("PABs") and \$463M in Transportation Infrastructure Finance and Innovation Act ("TIFIA") loan from the Federal Highway Administration. The project achieved investment grade rating (BBB-) by S&P and Fitch at financial close.
		The key financial challenge was the toll affordability. The developer and VDOT closed the affordability gap by a number of means including; instituting tolling on the existing tunnels during construction, changing the toll rate escalation mechanism increasing the concession term, reduced the capital cost, and a competitive financing solution.
(27)	Key Financial and Funding Challenges and Solutions Implemented:	The combination of PABs and TIFIA provided the most competitive financing solution for the project. The long-term amortizing PABs is one of the largest amounts ever raised for a transportation PPP project and were competitively priced at financial close. Moreover, the TIFIA loan had a front-ended accretion and back-ended repayment profile, and was negotiated and closed significantly ahead of the official 8 month schedule. This financing solution supplemented the other measures (stated above) increases the project's affordability, and the result was a 40% reduction in toll rates to those originally proposed.
		The project has received the 2012 North American Toll Road Deal of the Year Award by Project Finance Magazine.

Core Proposer Team Members(s) Involved:	Core	Proposer	Team	Members(s)	Involved:
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- Equity Member: Plenary Group USA Ltd.
- Lead Contractor:
- ☐ Lead Engineer: HDR Engineering Inc.
- Lead Operator:
- Joint venturer in Lead:
- Affiliate:

No.	Required Information	Response			
<u>I. Bac</u>	Background Information				
		Pennsylvania Rapid Bridge Replacement Project			
(1)	Project Name:				
(2)	Type of Facility:	558 geographically dispersed bridges			
(3)	Owner/Procuring Authority:	Pennsylvania Department of Transportation ("PennDOT")			
(4)	Brief Description of Project:	The project includes the replacement of 558 bridges across Pennsylvania, making a big commitment to reducing the large backlog of structurally deficient bridges in the Commonwealth. There are strict availability, performance, and handback requirements on all of the bridges, ensuring a rigorous maintenance regime for the life of the contract. In addition to construction, the developer will operate and maintain the bridges for under a 25-year agreement.			
(5)	Contract Term:	Term length: 27 Years Start date: January 8, 2015 End date: December 31, 2042			
(6)	Current Status:	The project is currently under construction and is approximately 9% complete.			



(7)	Key Dates and       Contract execution: January 8, 2015 (contracted); January 8, 2015         Key Dates and       Commencement of design: 0 months (contracted); 0 months (actual)         Achievement of substantial completion: 36 months (anticipated/contracted)         Service/Operations commencement: 36 months (anticipated/contracted)         Achievement of final completion: 36 months (anticipated/contracted)         Achievement of final completion: 36 months (anticipated/contracted)         End of Service/Operations: 27 years (anticipated/contracted)         The Penn Bridges project is relevant to the I-70 East Project where check marks indicate common project				
		features below (see also boxes 4, 10, 22, 26 and 2 <u>Criteria</u>		Relevance	
		Roadway expansion and reconstruction and interchange reconstruction			
		Demolition of existing infrastructure in urban environments	$\checkmark$	130 bridges on the project have an urban function class.	
		Major excavation work, including; groundwater considerations and drainage requirements	~	The majority of the 558 bridges are over waterways	
	Relevance to the Project:	Complex traffic management in urban areas			
		Construction staging in confined spaces	~	116 bridges in the program have mandatory staging requirements	
		Structures that include ventilation and/or fire life safety considerations			
(8)		Coordination with rail and utility companies	✓	29 bridges coordinated with railroads, with 10 different RR lines. Estimated 2,800 utility impacts with an average of 5 per bridge	
		Roadway pavement and associated infrastructure under environmental conditions that are similar to those affecting the project			
		Interfaces with adjacent road operators	~	Every bridge has to be coordinated with adjacent road operators including detours during construction.	
		Workforce development programs, including: partnerships with local community organizations and apprenticeship programs			
		Achievement of or exceeding goals relating to participation of: disadvantaged businesses small businesses other business that are subject to equivalent programs	~	Team is currently performing extensive outreach to the DBE & small business communities to meet the project goals.	
		Air quality monitoring and mitigation in urban environments			



		Noise monitoring and mitigation in urban	<ul> <li>✓</li> </ul>	Monitoring and mitigation will be utilized		
		environments	•	were appropriate in urban areas.		
		The project's financing included a TIFIA loan that was closed by the project developer and not a public authority				
		The project's financing used PAB's	$\checkmark$	\$793 million PABs		
		The financed project was a highway or road project	✓	Bridge, Highway and Road project.		
		The financed project was located in North America	$\checkmark$	The Project is located in Pennsylvania		
II. De	scription of Team Me	mber Involvement				
	Proposer Team	Equity Member Plenary Group USA Ltd., a Core Pr of the project equity and is involved in all aspects c	roposer Team Me	ember for 5280 Connectors, is investing 80%		
(9)	Member(s) (or Affiliate(s)) Involved:	Lead Engineer HDR Engineering Inc., a Core Prop		per for 5280 Connectors, is responsible for		
		100% of the design of the project.				
(10)	Role of Proposer Team Member(s)	Plenary Group USA Ltd. is investing 80% of the pro				
	(or Affiliate(s)):	HDR Engineering Inc. is responsible for 100% of the design of the project.				
(11)	Key Personnel Involved, Roles & Responsibilities:	d, Roles &				
III. Re	eference					
(12)	Name: Gary Kleist, PE					
(13)	Title & Employer (current):	Program Manager   PennDOT				
(14)	Title & Employer (at time of project / transaction):	Program Manager   PennDOT				
(15)	Phone & Email:	(717) 783-6410   gkleist@pa.gov				
(16)	Location & Time Zone:	Harrisburg, PA   Eastern Time Zone				
(17)	Other:	N/A				
<u>IV. Te</u>	echnical Information					
(18)	Construction Value:	\$899 million				
(19)	Completion within/above Budget:					



(20)	O&M Value:	\$2.2 million Annual Service Payment starting in the first year after Project Substantial Completion
(21)	Length of Road under Operation (centerline miles):	N/A
		<b>Demolition and Replacement of Bridges:</b> The project requires the full demolition and replacement of 558 bridges, which are located throughout Pennsylvania, prior to December 31, 2017. Construction includes primarily single and multi-span bridges on the Pennsylvania highway system crossing over minor waterways, including crossing over roadways and railroads.
(22)	Key Technical Challenges and Solutions	<b>Construction Schedule</b> : Due to a defined schedule of construction milestone payments based on the number of bridges completed (see additional information in response 27), minimizing the construction schedule at certain periods of time allowed for the Plenary-led consortium to maximize the efficiency of public funding and thereby reduce the overall costs on the project.
	Implemented:	Maintenance of Traffic: MOT is required for each of the 558 bridges during the construction phase within detour and lane maintenance.
		<b>Operations and Maintenance for Multi-Assets:</b> The Plenary-led consortium is responsible for maintenance of each replacement bridge for 25 years. The O&M scope includes damage repair, structural maintenance, asphalt maintenance (for the first five years after substantial completion), stream channel maintenance within 50 feet of each bridge, and handback.
<u>V. Fir</u>	nancial Information	
		The payment mechanism is availability based with deductions for performance and unavailability. The payment is indexed against annual CPI.
(23)	Payment Mechanism:	Monthly Availability Payments are calculated based on the proportional number of bridges to have achieved Substantial Completion (and not yet handed back), along with a deduction factor during the construction phase to incentivize full Project Completion
		Construction Milestone Payments will be paid according to a defined schedule and, while subject to deductions for non-performance, are not linked to the achievement of certain aspects of the D&C Work (except that the aggregate Milestone Payments at any time shall not exceed 50% of aggregate amount of private capital paid to the D&C Contractor prior to such time)
(24)	Source(s) of Revenues or Payments:	PennDOT expects to make payments under the Project Agreement with money from the Motor License Fund allocated in its capital budget, federal transportation funds (if required), and monies in the General Fund could also be used if appropriated by the General Assembly.
(25)	Proposer Team Member(s) Equity Investment:	Total equity investment of \$58.5 million of which Plenary contributed 80% (\$46.8 million). The full equity investment was committed at financial close and supported by an irrevocable letter of credit.
(26)	Financing Method(s) and Value(s):	The total financing size at the end of construction period was \$1.1 billion. Excluding the Construction Milestone Payments, revenues during construction, and equity commitments by Plenary Group and its co-sponsor, the financing solution includes: \$793 million in senior Private Activity Bonds. The project achieved investment grade rating (BBB) by S&P at financial close.
	Key Financial and Funding	The funding solution for this DBFOM showcases Plenary's experience in raising the largest ever PABs financing to achieve an extremely efficient cost of funds on PPP projects similar to the I-70 East Project. The Plenary-led consortium employed a sophisticated arrangement to finance the project, maximizing availability payments and construction milestone payments by optimizing the construction schedule to target cash inflows from PennDOT.
(27)	Challenges and Solutions Implemented:	The project was also able to receive the lowest yields to maturity of any uninsured BBB level P3 bond issuance to date.
	mpiementeu.	The project has received the 2014 PPP Deal of the Year North America Award by Infrastructure Investor Magazine.



## Core Proposer Team Members(s) Involved:

# Equity Member: Skanska Infrastructure Development Inc.

- Lead Contractor:
- Lead Engineer:
- Lead Operator:
- Joint venturer in Lead:
- Affiliate of Equity Member (Skanska Infrastructure Development Inc.) and Joint venturer in Lead Contractor: (Skanska USA Civil West Rocky Mountain District Inc.): Skanska USA Civil Southeast Inc., see box 9 below.

No.	Required Information	Response	
I. Bac	kground Information		
(1)	Project Name:		
(2)	Type of Facility:	Motorway loop (expressway), tunnel, interchanges	
(3)	Owner/Procuring Authority:	UK Highways England (UKHE) previously known as the Highways Agency.	
(4)	Brief Description of Project:	The project was undertaken in two phases: the Initial Upgraded Section ("IUS") and the Later Upgraded Section ("LUS"). The IUS was undertaken ahead of London 2012 Olympic games to add capacity for increased traffic volumes during the games and accommodate future growth. The project was carried out by a joint venture including Skanska ID and Atkins known as Connect Plus. The project is an availability payment-based design, build, finance and operate (DBFO) Public Private Partnership (PPP).	



		The M25, London's orbital motorway, which carries vehicles a day. The construction project includes for		motorway traffic, or 200,000	
		• Widening 38 miles of highway to four lanes in	Widening 38 miles of highway to four lanes in three consecutive phases		
		Refurbishing a three quarter mile, two-bore tunnel to meet new European tunnel stand			
		• Widening and converting a further 28 miles to a four lane "smart highway" with Intelligent Transportation Systems ("ITS").			
		Removal of the toll plazas and obligation to macrossing by introducing ANPR and associated		ection at the Dartford River Thames	
		The concession also includes operation and maintenance of the whole 117 miles of the M25's existing and widened road, as well as a further 117 miles of connecting motorways into London and to two of the world's busiest airports, plus 1,800 structures, including 750 bridges and 150 gantries, five tunnels and one major cable stayed long span bridge over the River Thames. The benefits of the project include: improved and more reliable journey times, reduced congestion, enhanced motorway safety, better driver information and faster flowing traffic, plus continuous whole life costing and professionally managed lifecycle investment over 30 years.			
		Term length: 30 years			
(5)	Contract Term:	Start date: May 2009			
		End date: September 2039			
(6)	Current Status:	The project is in operation. Construction is complete	ed.		
	Key Dates and Milestones:	Contract execution: May 20, 2009 (contracted); May	/ 20, 2009 (actua	al)	
		Commencement of design: 0 months (contracted); 0 months (actual)			
		Commencement of construction: 0 months (contracted); 0 months (actual)			
(7)		Achievement of substantial completion: IUS 36 months (contracted); 36 months (actual) and LUS 78 months (contracted); 78 months (actual)			
		Service/Operations commencement: 0 months (contracted); 0 months (actual)			
		Achievement of financial completion: IUS 40 months (contracted); 40 months (actual) and LUS 71 months (contracted); 71 months (actual)			
		End of Service/Operations: 30 years (contracted/an	ticipated)		
		The M25 project is relevant to the I-70 East Project features below (see also boxes 4, 10, 22, 26 and 27		arks indicate common project	
		Criteria	Common Feature?	Relevance	
		Roadway expansion and reconstruction and interchange reconstruction	~	The M25 was widened from 6 to 8 lanes.	
(8)	Relevance to the Project:	Demolition of existing infrastructure in urban environments	~	Existing gantries were demolished and replaced along the entire route.	
		Major excavation work, including; groundwater considerations and drainage requirements	~	Deep drainage was installed. New batters and cuttings were constructed to as part of the new road.	
		Complex traffic management in urban areas	~	During construction Skanska kept the traffic flowing at all times.	



	Construction staging in confined spaces	✓	Managed lane construction took place in a narrow environment immediately adjacent to live traffic flows.
	Structures that include ventilation and/or fire life safety considerations	$\checkmark$	Refurbishment of a tunnel along the route of the M25.
	Coordination with rail and utility companies	$\checkmark$	Coordination with utility companies and rail companies was included in the contract.
	Roadway pavement and associated infrastructure under environmental conditions that are similar to those affecting the project	~	A key part of the O&M obligation is keeping the M25 open during winter; including removal of snow and spreading of salt on the road.
	Interfaces with adjacent road operators	✓	Interface took place with the Highways Agency and their contractors at project limits.
	Workforce development programs, including: partnerships with local community organizations and apprenticeship programs	~	Project included Structured apprenticeship program accredited with the UK National Vocational Qualification ("NVQ").
	Achievement of or exceeding goals relating to participation of: disadvantaged businesses small businesses other business that are subject to equivalent programs	~	Small business participation was met throughout the project program.
	Air quality monitoring and mitigation in urban environments	~	Air quality was consistently monitored. Mitigation was achieved through modern methods of construction and value engineering.
	Noise monitoring and mitigation in urban environments	~	Noise was monitored and mitigated through the use of sound barriers and modern equipment.
	The project's financing included a TIFIA loan that was closed by the project developer and not a public authority		
	The project's financing used PAB's		
	The financed project was a highway or road project	$\checkmark$	The M25 Motorway.
	The financed project was located in North America		
cription of Team Member	Involvement		
Proposer Team Member(s) (or Affiliate(s)) Involved:	<ul> <li>Skanska Infrastructure Development Ltd. is a wholly owned subsidiary of Skanska AB which is the ultimate parent company of Skanska Infrastructure Development Inc. a Core Proposer Team Member and Equity Member of 5280 Connectors. Skanska UK Plc was the Lead Contractor responsible for 50% of the construction of the M25. Skanska UK Plc. is also a wholly owned subsidiary of Skanska AB.</li> <li>Skanska Infrastructure Development Ltd. invested 40% of the project equity into Connect Diverted the company of the development as the M25.</li> </ul>		
	Proposer Team Member(s) (or	safety considerations         Coordination with rail and utility companies         Roadway pavement and associated infrastructure under environmental conditions that are similar to those affecting the project         Interfaces with adjacent road operators         Workforce development programs, including: partnerships with local community organizations and apprenticeship programs         Achievement of or exceeding goals relating to participation of: disadvantaged businesses small businesses other business that are subject to equivalent programs         Achievement of or exceeding goals relating to participation of: disadvantaged businesses small businesses other business that are subject to equivalent programs         Achievement of or exceeding goals relating to participation of: disadvantaged businesses small businesses other business that are subject to equivalent programs         Achievement of or exceeding goals relating to participation of: disadvantaged businesses small businesses other business that are subject to equivalent programs         Air quality monitoring and mitigation in urban environments         The project's financing included a TIFIA loan that was closed by the project developer and not a public authority         The project's financing used PAB's         The financed project was a highway or road project         The financed project was located in North America         scription of Team Member rovolvement         i.       Skanska Infrastructure Development Ltd. is the utimate parent company of Skansk Team Member and Equity Member of 522 Contractor responsible for	safety considerations         ✓           Coordination with rail and utility companies         ✓           Roadway pavement and associated infrastructure under environmental conditions that are similar to those affecting the project         ✓           Interfaces with adjacent road operators         ✓           Workforce development programs, including: partnerships with local community organizations and apprenticeship programs         ✓           Achievement of or exceeding goals relating to participation of: disadvantaged businesses small businesses other business that are subject to equivalent programs         ✓           Achievements         ✓         ✓           Noise monitoring and mitigation in urban environments         ✓           Noise monitoring and mitigation in urban environments         ✓           The project's financing included a TIFIA loan that was closed by the project developer and not a public authority         ✓           The project's financing used PAB's         ✓           The financed project was a highway or road project         ✓           The financed project was located in North America         ✓           scription of Team Member Involvement         I           Proposer Team Affiliate(s) (or Affiliate(s) (or         I           Affiliate(s) (nor with of the construction of the construction of the wholy owned subsidiary of Skanska AB.



		iii. While Skanska Infrastructure Development Ltd. and Skanska Infrastructure Development Inc. are separate legal entities Skanska's entire PPP project activates are run by a single global business unit within the Skanska Group and have a common executive management team and share all support functions. This common executive management team ensures that staff and other resources are distributed as needed to projects throughout North America and Europe. Consequently the necessary experience will be made available and applied by Skanska Infrastructure Development Inc. as a Core Proposer Team Member for 5280 Connectors for the delivery of the I-70 East Project Skanska Infrastructure Development transfers knowledge by maintaining a centralized technical resource team which compiles data and best practice from ongoing projects.	
(10)	Role of Proposer Team Member(s) (or Affiliate(s)):	Skanska Infrastructure Development Ltd. (affiliate of Equity Member Skanska Infrastructure Development Inc.) holds a 40% direct equity investment in Connect Plus the company acting as the developer for the M25 Widening project. Skanska Infrastructure Development Ltd. is involved in all aspects pf the project. Skanska UK Plc (a subsidiary of Skanska AB) was responsible for 50% of the construction phase of the M25 project.	
(11)	Key Personnel Involved, Roles & Responsibilities:	N/A	
III. Re	ference		
(12)	Name:	Simon Jones	
(13)	Title & Employer (current):	Regional Director   South East & London	
(14)	Title & Employer (at time of project/transaction):	Regional Director   Highways Agency	
(15)	Phone & Email:	simon.jones@highwaysengland.co.uk	
(16)	Location & Time Zone:	London, United Kingdom   UK GMT	
(17)	Other:	N/A	
<u>IV. Te</u>	chnical Information		
(18)	Construction Value:	\$2 billion (£1.4billion)	
(19)	Completion within/above Budget:	An approximate 12% saving on the original Highways Agency construction budget was achieved and shared with the client through value engineering, lean planning, and active risk management. This was shared with the client through a 50/50 pain/gain mechanism.	
(20)	O&M Value:	Annual service payment is approximately \$200 million per year.	
(21)	Length of Road under Operation (centerline miles):	117 centerline miles of road are under operation by the Developer (the centerline length was not changed before and after construction as the facility was widened).	
(22)	Key Technical Challenges and Solutions Implemented:	<ul> <li>Solutions have been developed to replace major bridge movement joints in successive short night time closures, maintaining normal traffic through day operations.</li> <li>Road worker crossings were eliminated to establish traffic management.</li> <li>Fine milling concrete pavement, and asphalt preservation to bituminous surfacing.</li> <li>Engineering, undertaking and eliminating significant legacy problems associated with two major</li> </ul>	



	steel viaduct structures, and one major concrete viaduct.					
		• Slip formed retaining walls for motorway widening developed from concrete barrier slip forming.				
<u>V. Fin</u>	V. Financial Information					
		The construction cost for the IUS was paid for by a mixture of bank drawdowns (90%) and shareholder funds (10%). This in turn is repaid by a monthly unitary charge (100% indexed to RPI) from the UK government to the concessionaire, Connect Plus. This is spread over the lifetime of the concession (2009 – 2039).				
(23)	Payment Mechanism:	100% of the construction cost of LUS (a variation to the original contract and was separate to the original financing structure) was covered by staged government construction payments.				
		The unitary charge also covers all operation and maintenance costs for IUS and LUS and the rest of the M25.				
(24)	Source(s) of Revenues or Payments:	The construction payments and availability payments are made by the UK government through UK Highways England.				
(24)		Any client instructed highways improvement schemes undertaken during O&M are funded directly by Government payments to Connect Plus.				
(25)	Proposer Team Member(s) Equity Investment:	Skanska ID invested \$114 million (£80 million) or 40% of the project equity. Other Shareholder stakes are; 40%, 10% and 10%.				
(26)	Financing Method(s) and Value(s):	The \$2 billion of project funding was made up of \$1.43 billion of floating rate senior debt provided by 16 commercial banks, a separate \$285 million facility from the European Investment Bank and \$309 million provided by the shareholders of Connect Plus. A complex series of interest rate swaps saved \$465 million on the cost of borrowing.				
		Financing this immense project was challenging, as negotiations took place in the teeth of the global financial crisis and immediately after the collapse of Lehmann Brothers. With the cost of debt soaring and the appetite for risk low, Skanska took the lead in negotiations, bringing together a wide group of lenders and developing a risk profile that satisfied the Highways Agency.				
(27)	Key Financial and Funding Challenges and Solutions Implemented:	Part of the challenge at the time of financial close in May 2009 was working with 29 banks (including the European Investment Bank) and 15 swap counter parties (fixed interest rate and inflation swaps). During the financial crisis a number of institutions failed to maintain their ratings resulting in new institutions having to be found to replace them.				
		Through the cost savings implemented (shown above in Section 19) Skanska has had to continuously work with the Lenders on sign-off on all major variations. All this has been managed on a smooth and timely basis.				



## Core Proposer Team Members(s) Involved:

- Equity Member: Skanska Infrastructure Development Inc.
- Lead Contractor:
- Lead Engineer: HDR Engineering Inc.
- Lead Operator:
- Joint venturer in Lead Contractor: Skanska USA Civil West Rocky Mountain District Inc.
- Affiliate of Equity Member (Skanska Infrastructure Development Inc.) and Joint venturer in Lead Contractor: (Skanska USA Civil West Rocky Mountain District Inc.): Skanska USA Civil Southeast Inc., see box 9 below.

No.	Required Information	Response
<u>I. Bac</u> l	kground Information	
(1)	Project Name:	<image/>



(2)	Type of Facility:	Interstate highway and interchanges with managed lanes.
(3)	Owner/Procuring Authority:	Florida Department of Transportation ("FDOT")
(4)	Brief Description of Project:	Similar to the I-70 East project, the I-4 Ultimate project is a 40 year P3 for the finance, design, reconstruction, operations and maintenance of 21 miles of a highly congested urban interstate. With an Average Annual Daily Traffic (AADT) of over 180,000 the I-4 is the most important corridor in Central Florida. The project is located in the greater Orlando with a population of 2.1 million / over 50 million visitors per year, and crosses five cities/ towns in two counties, impacting hundreds of businesses and to a larger extent Central Florida's economy. Variable priced express lanes will be constructed in the median of the facility and the general use lanes will be completely reconstructed. The project includes the reconstruction of 15 interchanges and 140 bridges: 53 new, 74 replacements and 13 modifications (widening). The large scale of this project includes 3 million CY of excavation, 6 million CY of embankment, 3.5 million SF of MSE walls, 630 thousand CY of concrete, 550 thousand SY of concrete pavement, 2 million TN of road base, and over 1 million TN of asphalt pavement. Bridge construction will require approximately 57 miles of prestressed concrete beams, 370 miles of piling and 3.6 million SF of bridge deck. Much of the production and phase shifts will be done at night. The CJV has co-located with FDOT's team and the Quality Assurance Firm in a central location and will also operate from four area field offices along the 21 miles. Variable tolls will be adjusted throughout the day to optimize traffic flow. Given the importance of tourism to the region, the design will foster the re-integration of the east and west side of Orlando downtown which was divided by the original I-4 construction, and has been praised by FDOT for highlighting landscaping, aesthetics and lighting to deliver a signature corridor, which will qualify for an Envision Platinum Certification.
(5)	Contract Term:	Term length: 40 years Start date: September 4, 2014 End date: September 4, 2054
(6)	Current Status:	The project is under construction and is approximately 17.3% complete as of May 31, 2015. The developer is also responsible for operations.
(7)	Key Dates and Milestones:	Contract execution: September 4, 2014 (contracted); September 4, 2014 (actual) Commencement of design: 1 month (contracted); 1 month (actual) Commencement of construction: 5 months (contracted); 5 months (actual)



		Achievement of Substantial Completion: 75 months Service/Operations Commencement: 5 months (cor Achievement of Final Completion: 78 months (antici End of Service/Operations: 40 years (anticipated/co <i>Anticipated construction duration: 73 months</i>	nths (contracted); 5 months (actual) hs (anticipated/contracted) ipated/contracted)		
		The US I-4 Ultimate project is relevant to the I-70 Ea project features below (see also boxes 4, 10, 22, 26		re check marks indicate common	
		Criteria	<u>Common</u> Feature?	<u>Relevance</u>	
		Roadway expansion and reconstruction and interchange reconstruction	~	The 21 miles of urban reconstruction of I-4, together with the 408 interchange closely resembles the I-70 project in size and complexity.	
		Demolition of existing infrastructure in urban environments	✓	The current I-4 will be demolished and rebuilt through downtown, business and residential settings.	
	Relevance to the Project:	Major excavation work, including; groundwater considerations and drainage requirements	~	The project will require the excavation of 3 million CYs and placement of 6 million CY of embankment. Groundwater consideration is necessary at on- site and off-site excavations sites.	
(8)		Complex traffic management in urban areas	~	AADT on the I-4 exceeds 180,000. The same number of lanes open prior to construction will be maintained during construction. Service patrols with strict performance requirements are included on the contract.	
		Construction staging in confined spaces	~	The downtown segment includes a major interchange between I-4 and SR 408 as well as the bridge district represents approximately \$1 billion of construction work in a confined setting.	
		Structures that include ventilation and/or fire life safety considerations	~	Special fire life safety considerations have been made for 3 <sup>rd</sup> , 4 <sup>th</sup> and 5 <sup>th</sup> level bridges on the SR 408 and I-4 interchange.	
		Coordination with rail and utility companies	~	There are approximately 3,275 conflicts with utilities and 32 utility companies.	
		Roadway pavement and associated infrastructure under environmental conditions that are similar to those affecting the project			



			~	The project interfaces with SR 408 operated by the Central Florida
		Interfaces with adjacent road operators		Expressway Authority and with the Florida Turnpike operated by Florida's Turnpike Enterprise
		Workforce development programs, including: partnerships with local community organizations and apprenticeship programs	1	As part of the Developer's equal employment opportunity affirmative action program, training will be provided for 250 trainees.
		Achievement of or exceeding goals relating to participation of: disadvantaged businesses small businesses other business that are subject to equivalent programs	✓	The project is on track to meet the 9% DBE and 3% non-DBE, SBE goals. To achieve these goals the project team started the outreach program during the bid phase by holding multiple events and is continuing to work post award to exceed such goals.
		Air quality monitoring and mitigation in urban environments	~	The project crosses urban areas which require monitoring and mitigation plans.
		Noise monitoring and mitigation in urban environments	~	The project crosses urban areas which require monitoring and mitigation plans.
		The project's financing included a TIFIA loan that was closed by the project developer and not a public authority	V	Two TIFIA tranches: Short term \$148.3 million and long term \$937.9 million were closed by the developer.
		The project's financing used PAB's		
		The financed project was a highway or road project	~	The project is for an interstate highway.
		The financed project was located in North America	~	The project is located in Central Florida.
II. Des	cription of Team Member In	volvement		
		i. The Lead Contractor for the project is Sk subsidiary of Skanska USA Civil Inc., the USA. Skanska USA Civil West Rocky Me and member of the Lead Contractor for S Skanska USA Civil Inc.	e Skanska Grou ountain District	up heavy civil business unit in the Inc. a Core Proposer Team Member
(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	<ul> <li>Skanska USA Civil Southeast Inc. is the of the construction. The requirements for Rocky Mountain District Inc. and 5280 C West Rocky Mountain District Inc. and S subsidiaries of Skanska USA Civil Inc. P Skanska USA Civil Inc. is managed.</li> </ul>	r a Reference F onnectors are s kanska USA So	Project for Skanska USA Civil West satisfied as both Skanska USA Civil putheast Inc. are both wholly owned
		iii. Skanska USA Civil Inc. operates as an ir managed by a common management tea spread technical experience, best practic also managed centrally with resources b	am and sharing ces and meet p	all support functions. In order to roject needs Skanska personnel are



		country. The experience of any subsidiary of Skanska USA Civil Inc. is continually spread to the entire organization.
		Please see Form F for I-4 Ultimate under the Equity Member tab for further description of the role of Skanska Infrastructure Development Inc.
		Please see Form F for I-4 Ultimate under the Lead Engineer tab for further description of the role of HDR Engineering, Inc.
		Equity Member Skanska Infrastructure Development Inc. holds a 50% direct equity investment in I-4 Mobility Partners the company acting as the developer for I-4 Ultimate. Skanska Infrastructure Development Inc. is involved in all aspects of the project.
(10)	Role of Proposer Team Member(s) (or Affiliate(s)):	Lead Engineer HDR Engineering, Inc. (65% share) is the lead for the design joint venture working for SGL Constructors. HDR Engineering, Inc. has been involved in the design aspects of the project throughout all phases
		Skanska USA Civil Southeast Inc. is the managing partner (40%) of the joint venture, which is responsible for design, construction, and operations and maintenance during construction.
(11)	Key Personnel Involved, Roles & Responsibilities:	N/A
III. Re	ference	
(12)	Name:	Loreen Bobo, PE
(13)	Title & Employer (current):	Construction Program Manager   Florida Department of Transportation
(14)	Title & Employer (at time of project/transaction):	Construction Program Manager   Florida Department of Transportation
(15)	Phone & Email:	(386) 956-4193   loreen.bobo@dot.state.fl.us
(16)	Location & Time Zone:	Orlando, Florida   Eastern Time Zone
(17)	Other:	N/A
<u>IV. Te</u>	chnical Information	
(18)	Construction Value:	\$2.323 billion
(19)	Completion within/above Budget:	The project is currently within budget.
(20)	O&M Value:	Approximately \$8.7 million Annual Service Payment starting in the first year after Substantial Completion
(21)	Length of Road under Operation (centerline miles):	Approximately 24 centerline miles are under operation.
(22)	Key Technical Challenges and Solutions Implemented:	Maintenance of Traffic. The high traffic volumes and strict performance requirements during construction and operation of project required our team to plan and hold pre-actives meetings to maximize safety while minimizing delays. Proper sizing, the location of the service patrols and project wide approach to scheduling of maintained crews guarantee the contractual level of service is maintained. Currently service patrol operations have averaged over 1,600 incident responses per

		month, of which 647 are disabled vehicles and another 285 are crashes. To date our team has not had a single noncompliance related to traffic management.
		<b>DBE and community outreach.</b> Coordinating public awareness of the impacts of the project is achieved by our co-located project team. The communications team interacts and communicates in English and Spanish with the hundreds of local businesses, several hospitals /emergency services and law enforcement. The team also ensures the economic impact to the communities is minimized. Additionally the team, together with the design team ensures the project environmental; community and other design commitments are met.
		<b>Ground condition, excavation and drainage.</b> The 7,000 plus commitments made during project development by FDOT are being addressed by project team taskforces and local stakeholder engagement. FDOT created bonus work elements which have a fast-tracked schedule and are part of the project commitments. The team has developed a schedule to meet all the project goals. Foundations design has included live loads to account for sinkholes which are common in the area. The design of temporary and permanent drainage systems along with their proper maintenance will minimize flooding of the corridor during heavy rainfall. The 7,000 plus commitments made during the project development by FDOT are being addressed by project team taskforces and local stakeholder engagement. FDOT created bonus work elements which have a fast-tracked schedule and are part of the project commitments. The team has developed a schedule to meet all the project goals.
		Managing a project of such length in urban setting requires extensive coordination and logistics. The delivery team has been subdivided in four areas. Each area has its own office with project management staff responsible for safety, quality, schedule and the project commitments. The project leaders are co-located with FDOT and the Quality Assurance Firm at the 42,000 SF Hub Office to ensure consistency of the delivery and oversee the resources as required to uphold the overall schedule. The design of temporary and permanent drainage systems along with their proper maintenance will minimize flooding of the corridor during heavy rainfall.
		Lifecycle considerations. Major maintenance of the managed lanes during the operating period will be critical and can impact revenue. The design included a concrete pavement solution for the managed lanes to optimize lifecycle.
		Innovations and sustainability. The project team adapted its design and construction plans so that the project's community, environmental, and economic benefits would qualify for Envision <sup>™</sup> Platinum Certification under the rating system developed by the Institute for Sustainable Infrastructure. This system evaluates, grades, and gives recognition to infrastructure projects that use transformational, collaborative approaches to assess the sustainability indicators over the course of the project's lifecycle.
<u>V. Fin</u>	ancial Information	
		This is an availability based payment mechanism whereby FDOT retains the tolling risk and revenues. During construction FDOT will pay \$1.035 billion in 17 period payments starting 630 days after financial close. These progress payments equate to approximately 45% of the total construction cost.
(23)	Payment Mechanism:	FDOT will also pay two final acceptance payments totaling \$688.3 million the first is payable upon achievement of final acceptance, the second payable on the first day of the next fiscal year following achievement of final acceptance.
		During the operating period, FDOT will make monthly disbursements for availability payments. The availability payments consist of two tranches one fixed and one indexed to CPI (31.5%). The contract includes a deduction regime for adjustments due to unavailability or due to operation and maintenance non-compliance points.
(24)	Source(s) of Revenues or Payments:	The progress payments and final acceptance payments to the developer have been allocated in FDOT's long term capital plan. Future availability payments from FDOT to the Developer are subject to appropriations by the State of Florida.
(25)	Proposer Team Member(s) Equity Investment:	The projects total long-term equity investment is approximately \$60.2 million and Skanska holds 50% at \$30.1 million.
	1	



		Additionally Skanska provided 100% of the needed short-term equity for the project. The \$43.2 million short term equity was structured as a subordinated equity loan to the project company.		
		Skanska's total equity contribution is therefore \$73.4 million divided into \$30.1 million of pure long term equity and \$43.2 million of subordinated equity loan.		
		The full equity investment was committed at financial close and supported by an irrevocable letter of credit.		
(26)	Financing Method(s) and Value(s):	Two TIFIA tranches: i. Short Term \$148.3 million and; ii. a Long Term \$937.9 million. Additionally a six bank Senior Bank Construction Facility of \$485.8 million. The Short Term TIFIA tranche and the Senior Bank Construction Facility will be totally repaid by the last final acceptance payments.		
	Key Financial and Funding Challenges and Solutions Implemented:	The Financial Plan developed was robust and offered a number of levels of protection from market disruptions, changes in interest rates and credit rating downgrades by key banks. In addition to the full utilization of the TIFIA allocation, the cornerstone in the financing was a fully underwritten Senior Bank Construction Facility, mitigating costs of carry during the funding period.		
(27)		Given the stringent credit rating requirements for banks providing hedges in the TIFIA Term Sheet, the hedge commitments were "oversized" in order to have additional flexibility should a prospective hedge provider be downgraded between bid and financial close such that it would not qualify.		
		The financing solution provided execution certainty by utilizing high rated banks and redundancy through advancement of a back-up bond solution of Private Activity Bonds during the bid stage on terms and conditions that largely mirrored those in the bank facility.		
		Our project financing solution was the lowest proposed solution and optimized the use of FDOT's periodic and final acceptance payments together with short term bank financing. At the time of closing, the project included the largest P3 TIFIA transportation loan.		



Core Proposer Team Members(s) Involved:

- Equity Member: Skanska Infrastructure Development Inc.
- Lead Contractor:
- Lead Engineer:
- Lead Operator:
- Joint venturer in Lead Contractor: Skanska USA West Rocky Mountain District Inc.
- Affiliate of Equity Member (Skanska Infrastructure Development Inc.) and Joint venturer in Lead Contractor: (Skanska USA Civil West Rocky Mountain District Inc.): Skanska USA Civil Southeast Inc., see box 9 below.

No.	Required Information	Response				
I. Bac	I. Background Information					
(1)	Project Name:	<image/>				
(1)	Project Name:					



(2)	Type of Facility:	Road tunnel and highway / interstate interchange		
(3)	Owner/Procuring Authority:	Virginia Department of Transportation ("VDOT")		
(4)	Brief Description of Project:	<ul> <li>The project is a Public Private Partnership (PPP) to design, construct, finance, operate and maintain the Elizabeth River Tunnels project (also known as the Downtown Tunnel/Midtown Tunnel/Martin Luther King Freeway (MLK) Extension). The project includes a new two-lane tunnel tube under the Elizabeth River between Norfolk and Portsmouth, associated interchange improvements at each portal, extension of the MLK on new alignment to a new interchange with I-264 in Portsmouth, and maintenance and safety improvements to the existing three tunnel tubes.</li> <li>The existing single-tube Midtown Tunnel (US 58) is the most heavily traveled two-lane roadway in Virginia. The new parallel tube, comprised of 11 segments of immersed concrete tubes, will double the roadway capacity across the river at the Midtown location and alleviate severe morning and evening congestion.</li> <li>The project also consists of the southbound extension of the six-lane Martin Luther King Freeway (mostly on structure), which will connect Western Freeway (VA 164) and US 58 to I-264, with an</li> </ul>		
		<ul> <li>additional interchange at High Street. On the Norfolk side, interchange ramps are being configured to the twin tunnel portals. Additional works included major maintenance, new jet fan ventilation and fire life safety improvements to the existing Midtown Tunnel tube and to the existing two tubes of the Downtown Tunnel (I-264).</li> <li>Under a comprehensive agreement VDOT will maintain ownership of the infrastructure and oversee the project company's activities. The company, Elizabeth River Crossings OpCo, will finance and build the facilities, then operate and maintain them for a 58-year term.</li> </ul>		
(5)	Contract Term:	Term length: 58 years Start date: April 13, 2012		
(~)		End date: April 2070		
(6)	Current Status:	The project is currently under construction and is approximately 70% complete.		
(7)	Key Dates and Milestones:	Contract execution: April 13, 2012 (contracted); April 13, 2012 (actual) Commencement of design: 0 months (contracted); 0 months (actual) Commencement of construction: 5 months (contracted); 5 months (actual) Achievement of Substantial Completion: 55 months (anticipated/contracted)		



		Service/Operations Commencement (on the ex	kisting tunnels	and surrounding road network): 3 months	
		(contracted); 3 months (actual)			
		Achievement of Final Completion: 78 months (	anticipated/coi	ntracted)	
		End of Service/Operations: 58 years (anticipate	ed/contracted)		
		Anticipated construction duration: 73 months			
		The Elizabeth River Tunnels project is relevant common project features below (see also boxe			
		<u>Criteria</u>	Common Feature?	Relevance	
		Roadway expansion and reconstruction and interchange reconstruction	~	MLK extended and interchange with I- 264 constructed	
		Demolition of existing infrastructure in urban environments	~	Demolition work in existing tunnel tubes to accommodate new tunnel ventilation system	
		Major excavation work, including; groundwater considerations and drainage requirements	~	Support of excavation and dewatering in U-wall and cut and cover sections	
		Complex traffic management in urban areas	~	Maintenance of traffic on I-264 MLK and US 58	
		Construction staging in confined spaces	✓	Confined work spaces for new tunnel construction and existing tunnel refurbishment	
(8)	Relevance to the Project:	Structures that include ventilation and/or fire life safety considerations	~	New ventilation, fire life safety and ITS in all 4 tunnel tubes.	
		Coordination with rail and utility companies	~	Relocation of utilities for new tunnel and MLK extension	
		Roadway pavement and associated infrastructure under environmental conditions that are similar to those affecting the project	~	O&M scope includes snow/ice removal	
		Interfaces with adjacent road operators	✓	O&M interfaces established with VDOT at project limits	
		Workforce development programs, including: partnerships with local community organizations and apprenticeship programs	~	Project requirement for 70 on-the -job trainees as part of formal VDOT program period. The program is on track with 35 graduates to date.	
		Achievement of or exceeding goals relating to participation of: disadvantaged businesses small businesses other business that are subject to equivalent programs	~	On track to meet goals of 12% DBE and 23% Small Women and Minority for construction, annual O&M goals 15%/25% being met.	
		Air quality monitoring and mitigation in urban environments	√	Particular focus on air quality and rehabilitation of tunnel ventilation	


		Noise monitoring and mitigation in urban environments	~	Contractor managing and mitigating time of day noise restrictions in urban area with nearby hospital.	
		The project's financing included a TIFIA loan that was closed by the project developer and not a public authority	~	\$422 million TIFIA loan was used	
		The project's financing used PAB's	~	\$675 million of PAB's were used	
		The financed project was a highway or road project	~	The project is a road tunnel and highway extension/interchange	
		The financed project was located in North America	~	The project is in Virginia	
II. Des	scription of Team Member I	nvolvement			
		subsidiary of Skanska USA Čivil Ind USA. Skanska USA Civil West Roc	c. the Skanska ky Mountain Di	USA Civil Southeast Inc. a wholly owned Group heavy civil business unit in the istrict Inc. a Core Proposer Team Member nectors, is wholly owned subsidiary of	
(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	ii. Skanska USA Civil Southeast Inc. was the lead member of the JV and was responsible for 45% of the construction. The requirements for a Reference Project for Skanska USA Civil West Rocky Mountain District Inc. and 5280 Connectors are satisfied as both Skanska USA Civil West Rocky Mountain District Inc. and Skanska USA Southeast Inc. are both wholly owned subsidiaries of Skanska USA Civil Inc. Please see (iii) below to for more detail on how Skanska USA Civil Inc. is managed.			
		iii. Skanska USA Civil Inc. operates as integrated Business Unit with all subsidiaries being managed by a common management team and sharing all support functions. In order to spread technical experience, best practices and meet project needs Skanska personnel are also managed centrally with resources being distributed as needed to projects across the country. The experience of any subsidiary of Skanska USA Civil Inc. is continually spread to the entire organization.			
		Please see Form F for Elizabeth River Tunnels under the Equity Member tab for further description of Skanska ID Inc. role.			
	Role of Proposer Team	Skanska USA Civil Southeast Inc. is the mana Constructors which is responsible for the desig construction.			
(10)	Member(s) (or Affiliate(s)):	Skanska Infrastructure Development Inc. was a member of the developer team and worked with its partners and VDOT through an Interim Agreement which included preliminary design, O&M planning, traffic studies and financial structuring. Skanska Infrastructure Development Inc. is now 50% owner of the project company named Elizabeth River Crossings OpCo which is self-performing O&M and toll collection while overseeing design and construction.			
(11)	Key Personnel Involved, Roles & Responsibilities:	Wade Watson, Design-Build Manager for 5280 Connectors, is construction project manager for Elizabeth River Tunnels.			
III. Re	ference				
(12)	Name:	Charlie Kilpatrick			
(13)	Title & Employer (current):	VDOT Commissioner			



(14)	Title & Employer (at time of project/transaction):	VDOT Deputy Commissioner	
(15)	Phone & Email:	(804) 786-2701   charlie.kilpatrick@vdot.virginia.gov	
(16)	Location & Time Zone:	Richmond, VA   Eastern Standard Time	
(17)	Other:	N/A	
<u>IV. Te</u>	chnical Information		
(18)	Construction Value:	\$1.468 billion	
(19)	Completion within/above Budget:	Project on-going – fixed price, date certain, lump sum contract, less than \$10 million change orders to date	
(20)	O&M Value:	\$15 million per year	
(21)	Length of Road under Operation (centerline miles):	8.5 miles (3.0 on I-264, 3.5 on MLK and 2.0 on VA 164/US 58)	
(22)	Key Technical Challenges and Solutions Implemented:	<ul> <li>Construction of MLK Freeway extension. The six-lane MLK is constructed mostly on structure, however, bridge approach embankments on soft soils required extended pre-loading to take out settlement. The new interchange at I-264 includes 4 direct connections of which 2 cross over I-264 requiring complex MOT.</li> <li>Tight Tolerances in Urban Environment. The project includes complex construction with tight tolerances in heavily traveled urban environments. Skanska conducted an extensive public outreach program with education and outreach to the public related to all-electronic tolling and construction impacts. Open houses were held for specific areas of work and used radio, television, newspaper, bus advertisements and billboards. To minimize disruption to traffic and the public, the team performed delivery of large materials and some major construction activities during off-peak hours.</li> <li>Concrete Design for Tunnel Tube Sections. The project included mass concrete pours with sophisticated mix formulated for 120 year design life, which require tight controls. Skanska supplied two on-site batch plants to provide redundancy and minimize possibility of cold joints. Several different 'mock ups' of tube sections were poured as practice to gain insight into formwork, rebar, and concrete pour methods.</li> <li>Complicated Support of Excavation in Cut and Covers and Open Cut Sections. The project included SOE on both sides of the new tunnel, consisting of 2 cut and cover sections and 2 open cut sections. The project also included Marine SOE of approximately 2,500 If of sheet support of excavation. All sections required the use of extensive SOE systems to be able to construct the works that were below the groundwater surface in the dry. The size of the systems utilized at each section were as follows:</li> <li>Portsmoth Approach (cut &amp; cover) – 210' X 70' with depth of excavation up to 30'. SOE system utilized AZ 36 sheets up to 75' long with internal bracing.</li> <li>Norfolk approa</li></ul>	



		well as the load in the tie backs. It was important to limit deflections and movement to protect the adjacent existing tunnel.
		• In addition to the aforementioned engineering and construction Technical Challenges the project was the recipient of the <b>Silver Environmental Projects Award</b> under the Virginia Governor's Environmental Excellence Awards for 2015. Skanska and its JV partner received the Silver Environmental Projects award based on a number of achievements within their Environmental Management Program and Plan on the ERT Project, including:
		- Realizing a recycling/reuse rate of 99% - with only 1% of project waste going to landfills
		<ul> <li>Implementing onsite treatment of lead contaminated soil which reduced hazardous waste and saved the project over \$100,000 in disposal costs</li> </ul>
		- Adopting environmentally-friendly oil for all marine equipment and the use of waste concrete to make oyster boxes to foster oyster spats in the Elizabeth River
		- Generating "Environmental Excellence Reports" to share the ERT Project environmental processes and outcomes with personnel, parent companies, and regulatory agencies with the ultimate goal of using the reports as tools to educate the heavy construction industry on ways that construction can be done to help benefit the environment while saving the project money.
<u>V. Fin</u>	ancial Information	
		Traffic and revenue risk. Toll collection is from the existing tunnels, and the newly developed tunnel and network of roads. Toll rates escalate at the higher of 3.5% and CPI.
(23)	Payment Mechanism:	In order to lower tolls a State contribution of \$309 million (approximately 20% of Construction Value) was made available upfront and utilized as a source of funds during construction.
		Industry standard non-compliance point regime governs the measurement of operations and maintenance performance.
	Source(s) of Revenues	100% Toll revenues from both during construction (approximately \$363 million) and operations.
(24)	or Payments:	State contribution during construction of \$309 million was from State issued bonds with proceeds forwarded to the Developer.
(25)	Proposer Team Member(s) Equity Investment:	Total equity investment was approximately \$270 million and Skanska holds 50% at \$135 million. The equity investment was committed at financial close and was supported by Letter of Credits from each of the sponsors.
(26)	Financing Method(s) and Value(s):	The total financing size at the end of the construction period will be \$2.08B. Excluding the State contribution, revenues during construction, and equity commitments by Skanska and its co-sponsor, the financing solution includes: \$675M is senior Private Activity Bonds ("PABs") and \$463M in Transportation Infrastructure Finance and Innovation Act ("TIFIA") loan from the Federal Highway Administration. The project achieved investment grade rating (BBB-) by S&P and Fitch at financial close.
		The key financial challenge was the toll affordability. The developer and VDOT closed the affordability gap by a number of means including; instituting tolling on the existing tunnels during construction, changing the toll rate escalation mechanism increasing the concession term, reduced the capital cost, and a competitive financing solution.
(27)	Key Financial and Funding Challenges and Solutions Implemented:	The combination of PABs and TIFIA provided the most competitive financing solution for the project. The long-term amortizing PABs is one of the largest amounts ever raised for a transportation PPP project and were competitively priced at financial close. Moreover, the TIFIA loan had a front-ended accretion and back-ended repayment profile, and was negotiated and closed significantly ahead of the official 8 month schedule. This financing solution supplemented the other measures (stated above) increases the project's affordability, and the result was a 40% reduction in toll rates to those originally proposed.



	The project has received the 2012 North American Toll Road Deal of the Year Award by Project Finance Magazine.



Core Proposer Team Members(s) Involved:		Equity Member:
		Lead Contractor:
		Lead Engineer:
		Lead Operator:
	$\square$	Joint venturer in Lead Contractor: Zachry Construction Corporation
		Affiliate(s):

No.	Required Information	Response			
I. Bacl	I. Background Information				
(1)	Project Name:	SH 130 Projects, Segments 5 and 6			
(2)	Type of Facility:	Four-lane divided controlled access toll road			
(3)	Owner/Procuring Authority:	Texas Department of Transportation ("TxDOT")			
(4)	Brief Description of Project:	SH130 is a 41-mile, four-lane, divided toll road was divided into three equal sections for design and construction management. The work consisted of grading, pavement, base, asphalt, bridges, retaining walls, signing, and illumination. Project elements include 75 bridges consisting of 36 overpass structures, eight underpass structures, 20 stream crossings, 12 ramps/direct connectors, plus 16 million cubic yards of earthwork, and the acquisition of 312 parcels totaling more than 3,000			



		acres of right-of-way.		
		Term length: 73 months (Design-build only)		
(5)	Contract Term:	Start date: November 12, 2007		
		End date: November 12, 2012		
(6)	Current Status:	Construction is 100% complete and the project is	s in operation.	
		Contract execution: March, 2007 (contracted); M	larch, 2007 (ac	tual)
		Commencement of design: 4 months (contracted	d); 4 months (a	ctual)
(7)	Key Dates and Milestones:	Commencement of construction: 8 months (cont	racted); 8 mont	hs (actual)
		Achievement of Substantial Completion: 67 mon	ths (contracted	); 67 months (actual)
		Achievement of Final Completion: 73 months (co	ontracted); 73 n	nonths (actual)
		The SH 130, Segments 5 and 6 project is releva indicate common project features below (see als	nt to the I-70 E to boxes 4, 10,	ast Project where check marks 22, 26 and 27):
		<u>Criteria</u>	<u>Common</u> <u>Feature?</u>	<u>Relevance</u>
		Roadway expansion and reconstruction and interchange reconstruction		
		Demolition of existing infrastructure in urban environments		
		Major excavation work, including; groundwater considerations and drainage requirements	~	The SH 130 project had over 16 million cubic yards of earthwork
		Complex traffic management in urban areas		
		Construction staging in confined spaces		
(8)	Relevance to the Project:	Structures that include ventilation and/or fire life safety considerations		
		Coordination with rail and utility companies	~	Coordination and relocation of 41 utilities costing over \$40 million
		Roadway pavement and associated infrastructure under environmental conditions that are similar to those affecting the project		
		Interfaces with adjacent road operators		
		Workforce development programs, including: partnerships with local community organizations and apprenticeship programs	1	TxDOT awarded Zachry the Small Business Advocacy Award for their Mentor Protégé Program implemented on the SH 130 project.
		Achievement of or exceeding goals relating to participation of: disadvantaged businesses small businesses other business that are subject to equivalent programs	~	The project had a 12.54% goal and achieved 14.49% DBE participation; the largest dollar amount going to DBEs in Texas at



				the time.	
		Air quality monitoring and mitigation in urban environments			
		Noise monitoring and mitigation in urban environments			
		The project's financing included a TIFIA loan that was closed by the project developer and not a public authority	~	\$493 million subordinated TIFIA loan procured.	
		The project's financing used PAB's			
		The financed project was a highway or road project	~	Texas State Highway 130.	
		The financed project was located in North America	~	This project is in Texas	
II. Des	scription of Team Member Inv	olvement		·	
(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	responsible for 50% of the construction of SH 13	Zachry Construction Corporation, a Core Proposer Team Member for 5280 Connectors was responsible for 50% of the construction of SH 130 segments 5 and 6 in addition, Zachry Construction Corporation affiliate of ZTR is 35% equity member (please see box 25).		
(10)	Role of Proposer Team Member(s) (or Affiliate(s)):	Zachry Construction Corporation was lead and 50% joint venture partner for the design-build contract. The design-build contract is with the developer, SH 130 Concession Company.			
(11)	Key Personnel Involved, Roles & Responsibilities:	5280 Connectors Utility Manager, Emil Dzuik, was the Utility Coordinator of the SH 130 Segments 5 and 6 project.			
III. Re	ference				
(12)	Name:	Frank Holzmann, PE			
(13)	Title & Employer (current):	Director, Strategic Project Division   TxDOT			
(14)	Title & Employer (at time of project/transaction):	Area Engineer, Central Texas & Strategic Projects Division   TxDOT			
(15)	Phone & Email:	(210) 615-6015   Frank.Holzmann@txdot.gov			
(16)	Location & Time Zone:	San Antonio, Texas   Central Standard Time	San Antonio, Texas   Central Standard Time		
(17)	Other:	N/A			
<u>IV. Te</u>	chnical Information				
(18)	Construction Value:	\$924.2 million (original contract amount) \$952.3 million (completion amount)			
(19)	Completion within/above Budget:	The project was completed above the original budgeted amount due to additional scope added through Owner initiated change orders.			
(20)	O&M Value:	N/A			



(21)	Length of Road under Operation (centerline miles):	N/A
(22)	Key Technical Challenges and Solutions Implemented:	<ul> <li>Coordination of Complex Utility Relocation. The Federal Highway Administration recognized Zachry's achievements in 2011 with the Excellence in Utility Relocation and Accommodation Award, Incentives category. One of the biggest challenges faced was the coordination and relocation of 41 utilities costing over \$40 million. The team met this challenge by assigning a dedicated, on-site utility relocation manager who was a licensed professional engineer. This Zachry individual provided expertise for both the design and construction and ensured that the utility agreements were accurate for timely sign-off by TxDOT. The utility relocation manager was also supported by a Texas subconsultant whose sole business practice is Texas utility relocations.</li> <li>In addition as part of the utility relocation process, the SH 130 utility team relocated 12,873 feet of petroleum-gas pipelines ranging from 3 inches to 36 inches. Zachry met this challenge through early coordination with pipeline owners to determine relocation outage limitations due to service requirements of owners. Through close coordination with the design team, the team minimized the number and magnitude of relocations by designing around pipelines. Through open and transparent communication, the utility team built relationships of mutual trust with the pipeline owners and will bring this same approach to the I-70 East project.</li> <li>Environmental Permitting. With 98 jurisdictional stream and wetland crossings, expedited Section 404 permit. Success was facilitated through 1) a well-planned and coordinated process, 2) an accurate jurisdictional delineation that was field verified immediately prior to permitting. 3) expedited quantification of impacts and required mitigation by prioritizing initial design and value engineering at stream and wetland crossings, 4) focused monitoring during construction to limit temporary and permanent impacts, and 5) generating buy-in from the USACE to allow deferral of final mitigation commitments until comp</li></ul>
<u>V. Fina</u>	ancial Information	
(23)	Payment Mechanism:	Payments to the design-build contractor were based upon a lump sum contract price using percentage of completion.
(24)	Source(s) of Revenues or Payments:	The developer, SH 130 Concession Company, LLC, funded its payments to the design-build- contractor from a combination of project equity, senior debt and subordinated TIFIA debt.
(25)	Proposer Team Member(s) Equity Investment:	The design-build Contractor did not provide equity for the Project. However, a Zachry affiliate, Zachry Toll Road – 56, L.P., is a 35% member of SH130 Concession Company, LLC.
(26)	Financing Method(s) and Value(s):	SH 130 Concession Company, LLC funded the \$1.588 billion project through a combination of \$375 million equity, \$720 million senior debt, and \$493 million TIFIA debt.
(27)	Key Financial and Funding Challenges and Solutions Implemented:	N/A



Core Proposer Team Members(s) Involved:

Equity Member:

Lead Contractor:

Lead Engineer:

Lead Operator:

Joint venturer in Lead Contractor: Skanska USA Civil West Rocky Mountain District Inc.

Affiliate of joint venturer (Skanska Infrastructure Development Inc.) and Joint venturer in Lead Contractor: (Skanska USA Civil West Rocky Mountain District Inc.): Skanska USA Civil Southeast Inc., see box 9 below.

No.	Required Information	Response			
I. Back	. Background Information				
(1)	Project Name:	11th Street Corridor Design-Build ProjectImage: Street Corri			
(2)	Type of Facility:	Interstate interchange and local streets			
(3)	Owner/Procuring Authority:	District of Columbia Department of Transportation ("DDOT")			
(4)	Brief Description of Project:	The design-build project by the District Department of Transportation ("DDOT") involves reconstruction of the 11th Street bridges and adjacent I-295/I-395 interchanges in the Anacostia District in the District of Columbia. The project includes the construction of 20 bridges, with three over water. The Skanska-led CJV installed 57,000 linear feet of piling, 32,000 cubic yards of concrete, over 17 million pounds of structural steel, 24,000 linear feet of drainage pipe, and placed 185,000 square feet of MSE walls. Responsibilities included program management, providing guidance, direction and oversight for the design and construction teams, quality control and			

assurance, safety, environmental management, subcontractor and materials acquisition and



		management, scheduling, training, managing the DBE, and on-the-job (OJT) and employment programs, supporting public relations, and maintenance of traffic for up to 146,000 vehicles a day.				
(5)	Contract Term:	Term length: 62 months Start date: July 17, 2009 End date: September 10, 2015				
(6)	Current Status:	The project is under construction and	is approximate	ely 85% complete.		
(7)	Key Dates and Milestones:	Contract execution: July 17, 2009 (contracted); July 17, 2009 (actual) Commencement of design: 0 months (contracted); 0 months (actual) Commencement of construction: 0 months (contracted); 0 months (actual) Achievement of Substantial Completion: 58 months (contracted); 58 months (actual) Achievement of Final Completion: 62 months (anticipated/contracted)				
		The 11th Street Corridor project is rel common project features below (see		0 East Project where check marks indicate 0, 22, 26 and 27):		
		Criteria	<u>Common</u> Feature?	Relevance		
	Relevance to the Project:	Roadway expansion and reconstruction and interchange reconstruction	V	Two interchanges, fifteen bridges were included and 16 lane miles of roadway/bridge were added.		
		Demolition of existing infrastructure in urban environments	~	The bridges were constructed on new alignments while traffic was maintained on existing bridges. When the new bridges were complete, traffic was shifted onto the new structures and the old bridges were demolished.		
		Major excavation work, including; groundwater considerations and drainage requirements				
(8)		Complex traffic management in urban areas	~	70% of construction was achieved without affecting the existing traffic flows. Upwards of 106,000 vehicles a day passed through the construction zone.		
		Construction staging in confined spaces	~	Two critical highway ramp connections that were important to the local communities were completed six months early. The CJV also worked with DDOT to reduce construction phasing to complete the work in only two major traffic shifts.		
		Structures that include ventilation and/or fire life safety considerations				
		Coordination with rail and utility companies	~	Skanska worked closely with CSXT to ensure that construction operations did not interfere with their normal operations, especially when preforming demolition over the tracks. All Skanska employees completed CSX safety training.		

		Roadway pavement and associated infrastructure under environmental conditions that are similar to those affecting the project Interfaces with adjacent road		
		operators Workforce development programs, including: partnerships with local community organizations and apprenticeship programs	~	The CJV exceeded the original OJT goal of nine trainee positions and achieved 20 OJT/apprenticeship positions. On Phase II, the goal of 23 trainee positions is being met.
		Achievement of or exceeding goals relating to participation of: disadvantaged businesses small businesses other business that are subject to equivalent programs	~	The project included a 6% DBE goal for construction and 15% goal for design. The CJV achieved 7.8% for construction and 16.3% for design.
		Air quality monitoring and mitigation in urban environments		
		Noise monitoring and mitigation in urban environments	~	Many construction activities were performed at night when traffic volumes were significantly lower to reduce disruption.
		The project's financing included a TIFIA loan that was closed by the project developer and not a public authority		
		The project's financing used PAB's		
		The financed project was a highway or road project		
		The financed project was located in North America		
II. Des	cription of Team Member Invol	<u>vement</u>		
			s unit in the US. ember and mer	
(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	(ii) Skanska USA Civil Southeast Inc. was a 70% member of the construction joint venture for the 11th Street Corridor Project. The requirements for a Reference Project for Skanska USA Civil West Rocky Mountain District Inc. and 5280 Connectors are satisfied as a both Skanska USA Civil Southeast Inc. and Skanska USA Civil West Rocky Mountain District Inc. are wholly owned subsidiary of Skanska USA Civil Inc. Please see (iii) below for more detail on how Skanska USA Civil Inc. is managed.		
		personnel are also managed centrally	gement team ar with resources f any subsidiary	siness unit with all subsidiaries being nd share all support functions. Skanska s being distributed as needed to projects y of Skanska USA Civil Inc. is therefore



Role of Proposer Team Member(s) (or Affiliate(s)):	Skanska USA Civil Southeast Inc. is the lead joint venture member with 70% membership interest in the construction joint venture for the project and has overall management responsibility of all aspects of the project.	
Key Personnel Involved, Roles & Responsibilities:	N/A	
ference		
Name:	Ravindra D. Ganvir	
Title & Employer (current):	Deputy Chief Engineer, District Department of Transportation	
Title & Employer (at time of project/transaction):	Deputy Chief Engineer, District Department of Transportation	
Phone & Email:	202.671.4689, ravindra.ganvir@dc.gov	
Location & Time Zone:	Washington, D.C.   Eastern Time Zone	
Other:	N/A	
chnical Information		
Construction Value:	\$381 million	
Completion within/above Budget:	The original budget was \$260 million with change orders raising the original budget to \$381 million. The contracted includes an owner initiated \$90 million change order to design and construct additional work.	
O&M Value:	N/A	
Length of Road under Operation (centerline miles):	N/A	
Key Technical Challenges and Solutions Implemented:	<ul> <li>Urban Area Highway Construction. Approximately 25% of the project was constructed in live traffic conditions, while a portion was constructed over an active CSX rail line. The CJV constructed two interchanges at each end of the river bridges for this project. Fifteen bridges were constructed as part of the interchanges, and 16 lane miles of roadway/bridge were added. On the south side of the river, the team reconstructed the interchange to accommodate all regional and local connections between the Anacostia Freeway (I-295/DC 295), the new river bridges and I-695 on the west side of the river, providing interstate route continuity.</li> <li>Innovative materials included use of geofoam and geo-concrete columns. The CJV reused piers from the original bridges as the bases for pedestrian observation decks. Precast, post-tensioned, 6-ft-diameter concrete pilings were created, minimizing impact to the riverbed and fish migration by driving the piles through a barge template, accelerating the schedule. Stay-in-place forms, (a first for DDOT), saved over \$1 million.</li> <li>ITS Infrastructure Installation. Though the highway is not tolled, the project included two CCTV cameras that tied back into the traffic controller loops and four counting stations. It also included ten new IP addressable CCTV cameras, each with four ACTELIS devices. The CJV ran a 2-strand fiber cable from each camera back to two ITS enclosures that were located within the project limits. The CJV also installed two RWIS systems that were connected with a 25 pair hardwired connection, four Wavetronix Smart Senor HD radar sensing devices including (15) MS SEDCO Intersectors, which are motion and presence sensors, located at different traffic intersections.</li> </ul>	
	Member(s) (or Affiliate(s)):         Key Personnel Involved, Roles & Responsibilities:         Éerence         Name:         Title & Employer (current):         Title & Employer (at time of project/transaction):         Phone & Email:         Location & Time Zone:         Other:         Construction Value:         Completion within/above Budget:         O&M Value:         Length of Road under Operation (centerline miles):         Key Technical Challenges and Solutions	



		Urban Area Bridge Construction. The bridges were constructed on new alignments while traffic was maintained on existing bridges. When the new bridges were complete, traffic was shifted onto the new structures and the old bridges were demolished. Two separate four-lane bridges provide inbound and outbound regional movements (with lengths between 850 and 930 feet, with the longest span of 234 feet), and a single four-lane bridge serves inbound and outbound local movements. The local bridge includes a shared use path for pedestrian and bicycle traffic, and was built to accommodate a streetcar. DDOT and the CJV worked with the community on a sixmonth detour that took four months off the work schedule. Access to a bridge that went over the CSX railroad was completely shut off to traffic, reducing a two-phased plan down to one.
		<b>Environmental Mitigation Concerns.</b> The CJV reduced its environmental profile by reutilizing construction debris in roadway base foundations, reducing several thousand trucking-hours on heavily traveled local roadways. The CJV also crushed and reused all concrete and asphalt demolition materials on-site as fill material. The use of recovered site waste materials on the 11th Street project will save thousands of dollars from avoiding the disposal and the sourcing of virgin materials.
		<b>Public and DBE Outreach.</b> The CJV provided support for customer (DDOT) initiatives, including attendance at neighborhood association meetings. Suggestions led to changes in the design. The CJV also supported relocation of association facilities that were in the right of way for the new bridges. Continuing and extensive outreach to DBE firms and various neighborhood organizations was also conducted both for informational purposes and to keep them apprised of contracting opportunities on the project.
<u>V. Fina</u>	ancial Information	
(23)	Payment Mechanism:	N/A
(24)	Source(s) of Revenues or Payments:	N/A
(25)	Proposer Team Member(s) Equity Investment:	N/A
(26)	Financing Method(s) and Value(s):	N/A
(27)	Key Financial and Funding Challenges and Solutions Implemented:	N/A



Core Proposer Team Members(s) Involved:		Equity Member:
		Lead Contractor:
		Lead Engineer:
		Lead Operator:
	$\boxtimes$	Joint venturer in Lead Contractor: Zachry Construction Corporation
		Affiliate(s):

No.	Required Information	Response				
I. Bac	I. Background Information					
(1)	Project Name:	<image/>				
(2)	Type of Facility:	DB major highways and interchanges				
(3)	Owner/Procuring Authority:	Texas Department of Transportation ("TxDOT")				
(4)	Brief Description of Project:	NorthGate Constructors, with Zachry Construction Corporation (Zachry) as a joint venture member, contracted with TxDOT to develop, design, and construct nearly \$1 billion worth of improvements to the SH 114 and SH 121 corridors north of Dallas/ Fort Worth International Airport (DFW Airport). Under a comprehensive development agreement, the DFW Connector consists of 8.4 miles of roadway, including four highways, two interchanges, five overpasses, 37 bridges, new direct connect ramps, and continuous frontage roads. At its widest point, SH 114 highway will be 24 lanes wide. Major quantities include 1.6 million square yards of concrete paving, 130,000 linear feet of				



		drainage installation, 2.9 million cubic yards of excavation, 2.1 million cubic yards of embankment, and 725,000 square feet of mechanically stabilized earth wall installation. In June 2013, NorthGate Constructors received a \$162 million change order to design and reconstruct approximately 1 mile of FM 2499, from the town of Flower Mound to the city of Grapevine.			
(5)	Contract Term:	Term length: 57 months Start date: October 6, 2009 Completion date: April 3, 2019			
(6)	Current Status:	The project is in operation.			
(7)	Key Dates and Milestones:	Contract Execution: October 6, 2009 (contracted); October 6, 2009 (actual) Commencement of design: 0 months (contracted); 0 months (actual) Commencement of construction: 0 months (contracted); 0 months (actual) Achievement of substantial completion: 49 months (contracted); 49 months (actual) Service/operations commencement: 32 months (contracted); 32 months (actual) Achievement of final completion: 57 months (contracted); 57 months (actual) End of service/operations: N/A			
	Relevance to the Project:	The DFW Connector project is relevant to common project features below (see also <u>Criteria</u>			
		Roadway expansion and reconstruction and interchange reconstruction	√	8.4 miles of roadway with two interchanges	
		Demolition of existing infrastructure in urban environments	~	Demolition of 4 existing bridges over SH 114 main lanes and 2 over HWY 26 within the Grapevine city limits. Bridges were removed in halves to construct new bridges and maintain traffic.	
(8)		Major excavation work, including; groundwater considerations and drainage requirements	~	The project had over 2.9 million cubic yards of earthwork	
		Complex traffic management in urban areas	~	SH 114 and SH 121 converge north of DFW to produce very high traffic volumes. Daily and nightly closures coordinated during off peak hours to complete schedule.	
		Construction staging in confined spaces	~	Confined work areas were carefully planned to achieve a safe environment for both workers and the public. Materials were delivered during off peak hours to provide just-in-time delivery to coincide with operations.	
		Structures that include ventilation			



	and/or fire life safety considerations		
	Coordination with rail and utility companies	✓	Coordination and relocation of 91 utilities with 13 utility owners costing \$22 million
	Roadway pavement and associated infrastructure under environmental conditions that are similar to those affecting the project	✓	The DFW area experiences multiple snow and ice events each winter with ice on bridges being common.
	Interfaces with adjacent road operators	✓	Area of maintenance responsibility adjoins with TxDOT areas at multiple interface points.
	Workforce development programs, including: partnerships with local community organizations and apprenticeship programs	✓	The project initiated a work zone safety scholarship program for high school students in the three affected school districts. Students were encouraged to submit applications in a variety of formats to inspire drivers to drive the posted 50 mph speed limit and limit cell phone usage within the work zone. Winners were given \$5,000 scholarships.
	Achievement of or exceeding goals relating to participation of: disadvantaged businesses small businesses other business that are subject to equivalent programs	✓	Initial project goal was 6%. We achieved DBE project goal of 12.75%.
	Air quality monitoring and mitigation in urban environments	✓	To minimize dust on the project, water trucks were driven through each operation and sprayed water to moisten the ground.
	Noise monitoring and mitigation in urban environments	✓	A noise assessment was completed before the start of project for potential impacts from construction activities and demolition.
	The project's financing included a TIFIA loan that was closed by the project developer and not a public authority		
	The project's financing used PAB's		
	The financed project was a highway or road project		
	The financed project was located in North America		
II. Description of Team Member Inve	olvement		



(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	Zachry Construction Corporation, a Core Proposer Team Member for 5280 Connectors, is a member of the construction joint venture.		
(10)	Role of Proposer Team Member(s) (or Affiliate(s)):	Zachry Construction Corporation was responsible for 35% of the design-build-maintain contract.		
(11)	Key Personnel Involved, Roles & Responsibilities:	N/A		
III. Rei	ference			
(12)	Name:	Mr. Brian Barth, PE		
(13)	Title & Employer (current):	District Engineer, Fort Worth District   TxDOT		
(14)	Title & Employer (at time of project):	Fort Worth District Deputy District Engineer   TxDOT		
(15)	Phone & Email:	(817) 370-6514   brian.barth@txdot.gov		
(16)	Location & Time Zone:	Fort Worth, TX   Central Time Zone		
(17)	Other:	N/A		
<u>IV. Te</u>	chnical Information			
(18)	Construction Value:	\$916.9 million (original contract value)		
(,		\$1.097 billion (completion value)		
(19)	Completion within/above Budget:	The project was completed 19.7% above the original budget due to additional scope added through owner initiated change orders.		
(20)	O&M Value:	N/A		
(21)	Length of Road under Operation (centerline miles):	N/A		
		The key technical challenges and solutions implemented for DFW Connector project included the following:		
(22)	Key Technical Challenges and Solutions Implemented:	<ul> <li>A Design Build Project within a Congested, Urban Area. The highly congested area surrounding the DFW Connector made maintenance of traffic an essential element to the project's success. The long, linear layout of the project's alignment allowed the design-build team to secure multiple staging areas along the corridor and enabled them to effectively reroute traffic and pave larger stretches of roadway at a time. Because the size and complexity of the alignment required intense MOT coordination, the designer was in constant communication with the construction team to ensure that the MOT plan would be consistent with how the roadway and bridges were constructed. The design-build delivery method also enabled the design team to standardize all bridges as concrete structures with pre-cast girder fabrication.</li> <li>Public and Private Stakeholder Coordination. Coordination with DFW Airport was one of the key elements to the project's success. The DB team redesigned the SH-114/SH-121 interchange to create a new, one-mile-long direct connection into the five-terminal airport. SH 121 and International Parkway (the airport access road) were merged into a three-lane airport entrance. Construction was phased to keep access open to the airport and adjacent businesses while</li> </ul>		



		continuing to provide safe travel for heavy traffic throughout the construction period. The team was also required to obtain FAA permits and follow restrictions on airport clearances. The team also coordinated with several railroads including FW&W, DART and the FWTA. The project alignment crossed DART tracks twice, and DFW Connector's design had to accommodate DART's future commuter line and its eventual connection to the airport. The cities of Grapevine and Southlake also required high level coordination, as the construction greatly impacted traffic flow within the cities. Tarrant County, Dallas County, and the North Central Texas Council of Governments' Regional Transportation Council all gave significant input on many of the project's details, such as the managed lane toll policy.
		<b>Complex Utility Interfaces</b> - The project presented more than 1,000 possible utility conflicts. Major, shallow, underground electrical transmission lines between Texan Trail and DFW International Airport limited the depth with which the team could depress the freeway. Coordination and teamwork were critical for utility relocations and adjustments to assure work was done in a timely manner. The joint venture prepared 13 Master Utility Adjustment Agreements (MUAAs) and 58 supplemental agreements with local utility stakeholders. Utility relocations and adjustments have not impacted the schedule, and the project completed ahead of schedule. To avoid utility impacts, the team re-phased certain portions of the work and coordinated with utility stakeholders and other agencies to fast-track many of the supplemental agreements. The DFW Connector project received an FHWA Excellence Award for Project Development for demonstrating the ability to plan and design surface transportation projects involving complex utility coordination.
		<b>Texas Operated Tolling Facility.</b> The DFW Connector included design and construction of four miles of two-by-two managed lanes along SH 114 with all-electronic toll collection that will keep traffic flowing at least 50 mph. The toll-managed lanes encourage carpooling and transit. Tolls will be charged at different rates depending on the type of vehicle, the number of passengers in the vehicle, and traffic conditions.
<u>V. Fina</u>	ancial Information	
(23)	Payment Mechanism:	Lump Sum Design-Build-Maintain Contract Price
(24)	Source(s) of Revenues or Payments:	N/A
(25)	Proposer Team Member(s) Equity Investment:	N/A
(26)	Financing Method(s) and Value(s):	N/A
(27)	Key Financial and Funding Challenges and Solutions Implemented:	N/A



Core Proposer Team Members(s) Involved:

- Equity Member:
- Lead Contractor:
- ☐ Lead Engineer:
- Lead Operator:
- Joint venturer in Lead Contractor: Skanska USA Civil West Rocky Mountain District Inc.
- Affiliate of Equity Member (Skanska Infrastructure Development Inc.) and Joint venturer in Lead Contractor: (Skanska USA Civil West Rocky Mountain District Inc.): Skanska USA Civil Southeast Inc., see box 9 below.

Form F: Project/Transaction Description	

No.	Required Information	Response				
<u>I. Bac</u>	I. Background Information					
(1)	Project Name:	Exposition LRT Project Phase 2 Design-Build				
(2)	Type of Facility:	Urban light-rail transit line extension with seven stations and associated cross-street modifications, ending near the Santa Monica Pier.				
(3)	Owner/Procuring Authority:	Los Angeles Exposition Construction Authority				
(4)	Brief Description of Project:	The 6.6 mile Light Rail project has an urban location running through Culver City and Santa Monica. Extensive MOT and modifications to the surrounding street network were included. The project has 7 bridge structures and Mechanically Stabilized Earth (MSE) walls. The project required over 55,000 cubic yards of concrete and over 9.5 million pounds of rebar.				



		Term length: 57 months				
(5)	Contract Term:	Start date: May 13, 2011				
		End date: June 14, 2016				
(6)	Current Status:	The project is under construction and is approxin	nately 85% con	nplete		
		Contract execution: May 13, 2011 (contracted); May 13, 2011 (actual)				
		Commencement of design: 0 months (contracted	); 0 months (ac	tual)		
		Commencement of construction: 0 months (contr	acted); 0 month	ns (actual)		
(7)	Key Dates and Milestones:	Achievement of Substantial Completion: 50 mont initiated changes)	hs (contracted)	; 55 months (anticipated due to owner		
		Service/Operations Commencement: N/A				
		Achievement of Final Completion: 56 months (con changes)	ntracted); 61 m	onths (anticipated due to owner initiated		
		End of Service/Operations: N/A				
		The Exposition LRT Project Phase 2 is relevant to common project features below (see also boxes 4		Project where check marks indicate		
	Relevance to the Project:	<u>Criteria</u>	Common Feature?	<u>Relevance</u>		
		Roadway expansion and reconstruction and interchange reconstruction	~	This project runs down the center of Colorado Boulevard requiring extensive traffic handling. Lanes and traffic patterns were modified providing reduced capacity during off- peak hours to accommodate work activities.		
		Demolition of existing infrastructure in urban environments	~	The project includes the demolition of Motor Bridge, which occurred over a weekend closure.		
(8)		Major excavation work, including; groundwater considerations and drainage requirements	V	Aerial guideways required excavation 2 feet below the existing grade. Excavation was also required for the foundations of the 6 bridges and 7 stations as well as the 16 roadway intersections.		
		Complex traffic management in urban areas	~	Each bridge along the alignment had multiple phases of MOT for false work erection, formwork, crane operations and material deliveries.		
		Construction staging in confined spaces	V	The project spans through busy local streets in the Cities of Los Angeles, Culver City and Santa Monica.		
		Structures that include ventilation and/or fire life safety considerations				



		Coordination with rail and utility companies	~	The project required coordination of over 600 utilities. The CJV coordinated with each utility company and the Cities of LA and Santa Monica.
		Roadway pavement and associated infrastructure under environmental conditions that are similar to those affecting the project		
		Interfaces with adjacent road operators		
		Workforce development programs, including: partnerships with local community organizations and apprenticeship programs	V	The project includes a 30% local hire requirement, with 10% being disadvantaged workers. We exceeded the local hire goal with a total of 49.5% and the goal of disadvantaged worker hours with a total 25.3%.
		Achievement of or exceeding goals relating to participation of: disadvantaged businesses small businesses other business that are subject to equivalent programs	~	The project includes a 20% SBE and local hiring goal. The CJV is exceeding the goal and is currently achieving 25%.
		Air quality monitoring and mitigation in urban environments	V	Air monitoring and sampling was performed on a daily basis at sensitive areas, including schools, day cares and residential areas when construction operations involved excavation and/or earth moving operations in contaminated areas.
		Noise monitoring and mitigation in urban environments	~	The project includes multiple music studios along the alignment. The CJV coordinated with the studios to incorporate recording schedules into the construction work plan.
		The project's financing included a TIFIA loan that was closed by the project developer and not a public authority		
		The project's financing used PAB's		
		The financed project was a highway or road project		
		The financed project was located in North America		
II. Des	scription of Team Member Invol	vement		
(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	(i) Skanska USA Civil West California District Inc., the Skanska Group's heavy civil business ur Mountain District Inc., a Core Propose Team Mer Connectors, is also a wholly owned subsidiary of	hit in the USA. Some should be the second seco	Skanska USA Civil West Rocky per of the Lead Contractor for 5280
<u> </u>	(ii) Skanska USA Civil West California District Inc. is a 70% member of the construction joint venture for			



	the Exposition LRT Project Phase 2. The requirements for a Reference Project for Skanska USA Civil West Rocky Mountain District Inc. and 5280 Connectors are satisfied as both Skanska USA Civil West California District Inc. and Skanska USA Civil West Rocky Mountain District Inc. are wholly owned subsidiaries of Skanska USA Civil Inc. Please see (iii) below for more detail on how Skanska USA Civil Inc. is managed. (iii) Skanska USA Civil Inc. operates as an integrated business unit with all subsidiaries being managed by a common senior management team and share all support functions. Skanska personnel
	are also managed centrally with resources being distributed as needed to projects across the country. The experience of any subsidiary of Skanska USA Civil Inc. is therefore continually spread to the entire organization.
Role of Proposer Team Member(s) (or Affiliate(s)):	Lead Contractor Skanska USA Civil West California District Inc. is the lead joint venture member with 70% membership interest in the construction joint venture for the project and has overall management responsibility of all aspects of the project.
Key Personnel Involved, Roles & Responsibilities:	N/A
ference	
Name:	Eric Olson
Title & Employer (current):	Chief Operating Officer   Los Angeles Exposition Construction Authority
Title & Employer (at time of project/transaction):	Chief Operating Officer   Los Angeles Exposition Construction Authority
Phone & Email:	(213) 243-5537   eolson@exporail.net
Location & Time Zone:	Los Angeles, California   Pacific Time Zone
Other:	N/A
chnical Information	
Construction Value:	\$594.2 million
Completion within/above Budget:	<ul> <li>The original budget was for \$546.9 million. The additional money was for:</li> <li>Dry Utility Provisional Sums: \$16.5 million;</li> <li>Provisional Sums: \$7.8 million; and</li> <li>Change Orders and Modifications: \$38.0 million.</li> </ul>
O&M Value:	N/A
Length of Road under Operation (centerline miles):	N/A
Key Technical Challenges and Solutions Implemented:	Complicated MOT Phasing: This project runs down the center of Colorado Boulevard requiring extensive traffic handling. Lanes and traffic patterns were modified during off-peak hours to accommodate material deliveries, work activities, and utility relocations that happened throughout the corridor. Additionally, each bridge along the alignment had multiple phases of MOT for false-work erection, formwork, crane operations and material deliveries. Finally, street and signal modifications were constructed. Utility Investigation and Relocation. The project required coordination of over 600 utilities. Two large
	Member(s) (or Affiliate(s)):Key Personnel Involved, Roles & Responsibilities:GerenceName:Title & Employer (current):Title & Employer (at time of project/transaction):Phone & Email:Location & Time Zone:Other:Construction Value:Completion within/above Budget:O&M Value:Length of Road under Operation (centerline miles):Key Technical Challenges and Solutions



		<ul> <li>begin work, which would take almost three years to develop. The CJV coordinated with each utility company and City of Los Angeles and Santa Monica civil agencies to divide utilities into smaller packages. This allowed LADWP and SCE to begin design and complete the whole package within 10 months, resulting in a savings of more than two years.</li> <li>Multiple Community Meetings: The project team took an approach that focused on sharing information about the project through a variety of means. At the beginning of the project, phone calls were received daily about people wanting the construction team to come and speak at their organization or businesses. The team provided additional information about the project, upcoming work, and an overall understanding of the 6.6 mile alignment. At every meeting held, the team would present the overall project and updates, and then the design-build personnel would be available to answer questions. This was done an informal session, allowing the community to meet the staff and interact in a more personal manner. Outreach for the entire project in the first two years included creating a bike liaison committee and working with local cyclists to gathering design and construction input for the bike lanes; 1,090 business outreaches (large employers, entertainment industry, production/sound studios and property management companies); 104 construction notices generated, distributed more than 200,000; 92 presentations with more than 3800 stakeholders in attendance; with 1324 students, parents or teachers contacted; 10 annual large meetings, with more than 1400 stakeholders attending; providing a quarterly newsletter, available on Expo 2's website.</li> <li>Working with the Community and the City: A relationship was established with the City of Santa Monica built on trust and communication. Weekly meetings were held with the same seven construction and design personnel attending. Coordination was conducted to ensure fire and police departments, vendors for haul rou</li></ul>
<u>V. Fina</u>	ancial Information	
(23)	Payment Mechanism:	N/A
(24)	Source(s) of Revenues or Payments:	N/A
(25)	Proposer Team Member(s) Equity Investment:	N/A
(26)	Financing Method(s) and Value(s):	N/A
(27)	Key Financial and Funding Challenges and Solutions Implemented:	N/A



#### Core Proposer Team Members(s) Involved:

- Equity Member: Skanska Infrastructure Development Inc.
- Lead Contractor:
- ➢ Lead Engineer: HDR Engineering Inc.
- Lead Operator:
- Joint venturer in Lead Contractor: Skanska USA Civil West Rocky Mountain District Inc.
- Affiliate of Equity Member (Skanska Infrastructure Development Inc.) and Joint venturer in Lead Contractor: (Skanska USA Civil West Rocky Mountain District Inc.): Skanska USA Civil Southeast Inc., see box 9 below.

No.	Required Information	Response	
<u>I. Bac</u>	. Background Information		
(1)	Project Name:	<image/>	



(2)	Type of Facility:	Interstate highway and interchanges with managed lanes.
(3)	Owner/Procuring Authority:	Florida Department of Transportation ("FDOT")
(4)	Brief Description of Project:	Similar to the I-70 East project, the I-4 Ultimate project is a 40 year P3 for the finance, design, reconstruction, operations and maintenance of 21 miles of a highly congested urban interstate. With an Average Annual Daily Traffic (AADT) of over 180,000 the I-4 is the most important corridor in Central Florida. The project is located in the greater Orlando with a population of 2.1 million / over 50 million visitors per year, and crosses five cities/ towns in two counties, impacting hundreds of businesses and to a larger extent Central Florida's economy. Variable priced express lanes will be constructed in the median of the facility and the general use lanes will be completely reconstructed. The project includes the reconstruction of 15 interchanges and 140 bridges: 53 new, 74 replacements and 13 modifications (widening). The large scale of this project includes 3 million CY of excavation, 6 million CY of embankment, 3.5 million SF of MSE walls, 630 thousand CY of concrete, 550 thousand SY of concrete pavement, 2 million TN of road base, and over 1 million TN of asphalt pavement. Bridge construction will require approximately 57 miles of prestressed concrete beams, 370 miles of piling and 3.6 million SF of bridge deck. Much of the production and phase shifts will be done at night. The CJV co-located with FDOT's team and the Quality Assurance Firm in a central location and will also operate from four area field offices along the 21 miles. Variable tolls will be adjusted throughout the day to optimize traffic flow. Given the importance of tourism to the region, the design will foster the re-integration of the east and west side of Orlando downtown which was divided by the original I-4 construction, and has been praised by FDOT for highlighting landscaping, aesthetics and lighting to deliver a signature corridor, which will qualify for an Envision Platinum Certification.
(5)	Contract Term:	Term length: 40 years Start date: September 4, 2014 End date: September 4, 2054
(6)	Current Status:	The project is under construction and is approximately 17.3% complete as of May 31, 2015. The developer is also responsible for operations.
(7)	Key Dates and Milestones:	Contract execution: September 4, 2014 (contracted); September 4, 2014 (actual) Commencement of design: 1 month (contracted); 1 month (actual) Commencement of construction: 5 months (contracted); 5 months (actual)



		Achievement of Substantial Completion: 75 months Service/Operations Commencement: 5 months (cor Achievement of Final Completion: 78 months (antici End of Service/Operations: 40 years (anticipated/co <i>Anticipated construction duration: 73 months</i>	ntracted); 5 mol ipated/contracted intracted)	nths (actual) ed)	
		The US I-4 Ultimate project is relevant to the I-70 East Project where check marks indicate common project features below (see also boxes 4, 10, 22, 26 and 27):			
		<u>Criteria</u>	Common Feature?	<u>Relevance</u>	
		Roadway expansion and reconstruction and interchange reconstruction	~	The 21 miles of urban reconstruction of I-4, together with the 408 interchange closely resembles the I-70 project in size and complexity.	
	Relevance to the Project:	Demolition of existing infrastructure in urban environments	~	The current I-4 will be demolished and rebuilt through downtown, business and residential settings.	
(8)		Major excavation work, including; groundwater considerations and drainage requirements	~	The project will require the excavation of 3 million CYs and placement of 6 million CY of embankment. Groundwater consideration is necessary at on- site and off-site excavations sites.	
		Complex traffic management in urban areas	~	AADT on the I-4 exceeds 180,000. The same number of lanes open prior to construction will be maintained during construction. Service patrols with strict performance requirements are included on the contract.	
		Construction staging in confined spaces	~	The downtown segment includes a major interchange between I-4 and SR 408 as well as the bridge district represents approximately \$1 billion of construction work in a confined setting.	
		Structures that include ventilation and/or fire life safety considerations	V	Special fire life safety considerations have been made for 3 <sup>rd</sup> , 4 <sup>th</sup> and 5 <sup>th</sup> level bridges on the SR 408 and I-4 interchange.	
		Coordination with rail and utility companies	~	There are approximately 3,275 conflicts with utilities and 32 utility companies.	
		Roadway pavement and associated infrastructure under environmental conditions that are similar to those affecting the project			



			✓	The project interfaces with SR 408
		Interfaces with adjacent road operators		operated by the Central Florida Expressway Authority and with the Florida Turnpike operated by Florida's Turnpike Enterprise
		Workforce development programs, including: partnerships with local community organizations and apprenticeship programs	~	As part of Developers' equal employment opportunity affirmative action program, training will be provided for 250 trainees.
		Achievement of or exceeding goals relating to participation of: disadvantaged businesses small businesses other business that are subject to equivalent programs	~	The project is on track to meet the 9% DBE and 3% non-DBE SBE goals. To achieve these goals the project team started the outreach program during the bid phase by holding multiple events and is continuing to work post award to exceed such goals.
		Air quality monitoring and mitigation in urban environments	~	The project crosses urban areas which require monitoring and mitigation plans.
		Noise monitoring and mitigation in urban environments	~	The project crosses urban areas which require monitoring and mitigation plans.
		The project's financing included a TIFIA loan that was closed by the project developer and not a public authority	~	Two TIFIA tranches: Short term \$148.3 million and long term \$937.9 million were closed by the developer.
		The project's financing used PAB's		
		The financed project was a highway or road project	~	The project is for an interstate highway.
		The financed project was located in North America	~	The project is located in Central Florida.
II. Des	II. Description of Team Member Involvement			
	Proposer Team Member(s) (or Affiliate(s)) Involved:	<ul> <li>The Lead Contractor for the project is Sk subsidiary of Skanska USA Civil Inc., the USA. Skanska USA Civil West Rocky Mo and member of the Lead Contractor for 5 Skanska USA Civil Inc.</li> </ul>	e Skanska Grou ountain District	up heavy civil business unit in the Inc. a Core Proposer Team Member
(9)		<ul> <li>Skanska USA Civil Southeast Inc. is the of the construction. The requirements for Rocky Mountain District Inc. and 5280 C West Rocky Mountain District Inc. and S subsidiaries of Skanska USA Civil Inc. P Skanska USA Civil Inc. is managed.</li> </ul>	r a Reference F onnectors are s kanska USA So	Project for Skanska USA Civil West satisfied as both Skanska USA Civil outheast Inc. are both wholly owned
		iii. Skanska USA Civil Inc. operates as an ir managed by a common management tea spread technical experience, best praction also managed centrally with resources b	am and sharing ces and meet p	all support functions. In order to roject needs Skanska personnel are



		-	
		country. The experience of any subsidiary of Skanska USA Civil Inc. is continually spread to the entire organization.	
		Please see Form F for I-4 Ultimate under the Equity Member tab for further description of the role of Skanska Infrastructure Development Inc.	
		Please see Form F for I-4 Ultimate under the Lead Engineer tab for further description of the role of HDR Engineering, Inc.	
		Equity Member Skanska Infrastructure Development Inc. holds a 50% direct equity investment in I-4 Mobility Partners the company acting as the developer for I-4 Ultimate. Skanska is involved in all aspects of the project.	
(10)	Role of Proposer Team Member(s) (or Affiliate(s)):	Lead Engineer HDR Engineering Inc. (65% share) is the lead for the design joint venture working for SGL Constructors. HDR Engineering, Inc. has been involved in the design aspects of the project throughout all phases.	
		Skanska USA Civil Southeast Inc. is the managing partner (40%) of the joint venture, which is responsible for design, construction, and operations and maintenance during construction.	
(11)	Key Personnel Involved, Roles & Responsibilities:	N/A	
III. Rei	ference		
(12)	Name:	Loreen Bobo, PE	
(13)	Title & Employer (current):	Construction Program Manager   FDOT	
(14)	Title & Employer (at time of project/transaction):	Construction Program Manager   FDOT	
(15)	Phone & Email:	(386) 956-4193   loreen.bobo@dot.state.fl.us	
(16)	Location & Time Zone:	Orlando, Florida   Eastern Time Zone	
(17)	Other:	N/A	
<u>IV. Te</u>	chnical Information		
(18)	Construction Value:	\$2.323 billion	
(19)	Completion within/above Budget:	The project is currently within budget.	
(20)	O&M Value:	Approximately \$8.7 million Annual Service Payment starting in the first year after Substantial Completion	
(21)	Length of Road under Operation (centerline miles):	Approximately 24 centerline miles are under operation.	
(22)	Key Technical Challenges and Solutions Implemented:	Maintenance of Traffic. The high traffic volumes and strict performance requirements during construction and operation of project required our team to plan and hold pre-actives meetings to maximize safety while minimizing delays. Proper sizing, the location of the service patrols and project wide approach to scheduling of maintained crews guarantee the contractual level of service is maintained. Currently service patrol operations have averaged over 1,600 incident responses per month, of which 647 are disabled vehicles and another 285 are crashes. To date our team has not had a single noncompliance related to traffic management.	



		DBE and community outreach. Coordinating public awareness of the impacts of the project is achieved by our co-located project team. The communications team interacts and communicates in English and Spanish with the hundreds of local businesses, several hospitals /emergency services and law enforcement. The team also ensures the economic impact to the communities is minimized. Additionally the team, together with the design team ensures the project environmental; community and other design commitments are met. Ground condition, excavation and drainage. The 7,000 plus commitments made during project development by FDOT are being addressed by project team taskforces and local stakeholder engagement. FDOT created bonus work elements which have a fast-tracked schedule and are part of the project commitments. The team has developed a schedule to meet all the project goals. Foundations design has included live loads to account for sinkholes which are common in the area. The design of the corridor during heavy rainfall. The 7,000 plus commitments made during the project development by FDOT are being addressed by project team taskforces and local stakeholder engagement. FDOT created bonus work elements which have a fast-tracked schedule and are part of the project downline these and eveloped a schedule to meet all the project goals. Managing a project to fsuch length in urban setting requires extensive coordination and logistics. The delivery team has been subdivided in four areas. Each area has its own office with project management staff responsible for safety, quality, schedule and the project commitments. The teaing of the project during the essign of the corridor during the systems along with their proper maintenance will minimize flooding of the corridor during system along with their proper maintenance will minimize flooding of the corridor during the systems along with their project teaders are co-located with FDOT and the Quality Assurance Firm at the 42,000 SF Hub Office to ensure consistency of the delivery
<u>V. Fina</u>	ancial Information	
(23)	Payment Mechanism:	This is an availability based payment mechanism whereby FDOT retains the tolling risk and revenues. During construction FDOT will pay \$1.035 billion in 17 period payments starting 630 days after financial close. These progress payments equate to approximately 45% of the total construction cost. FDOT will also pay two final acceptance payments totaling \$688.3 million the first is payable upon achievement of final acceptance, the second payable on the first day of the next fiscal year following
(23)		achievement of final acceptance. During the operating period, FDOT will make monthly disbursements for availability payments. The availability payments consist of two tranches one fixed and one indexed to CPI (31.5%). The contract includes a deduction regime for adjustments due to unavailability or due to operation and maintenance non-compliance points.
(24)	Source(s) of Revenues or Payments:	The progress payments and final acceptance payments to the developer have been allocated in FDOT's long term capital plan. Future availability payments from FDOT to the Developer are subject to appropriations by the State of Florida.
(25)	Proposer Team Member(s) Equity Investment:	The projects total long-term equity investment is approximately \$60.2 million and Skanska holds 50% at \$30.1 million. Additionally Skanska provided 100% of the needed short-term equity for the project. The \$43.2 million short term equity was structured as a subordinated equity loan to the project company.



	Skanska's total equity contribution is therefore \$73.4 million divided into \$30.1 million of equity and \$43.2 million of subordinated equity loan.		
		The full equity investment was committed at financial close and supported by an irrevocable letter of credit.	
(26)	Financing Method(s) and Value(s):	Two TIFIA tranches: i. Short Term \$148.3 million and; ii. a Long Term \$937.9 million. Additionally a six bank Senior Bank Construction Facility of \$485.8 million. The Short Term TIFIA tranche and the Senior Bank Construction Facility will be totally repaid by the last final acceptance payments.	
	Key Financial and Funding Challenges and Solutions Implemented:	The Financial Plan developed was robust and offered a number of levels of protection from market disruptions, changes in interest rates and credit rating downgrades by key banks. In addition to the full utilization of the TIFIA allocation, the cornerstone in the financing was a fully underwritten Senior Bank Construction Facility, mitigating costs of carry during the funding period.	
(27)		Given the stringent credit rating requirements for banks providing hedges in the TIFIA Term Sheet, the hedge commitments were "oversized" in order to have additional flexibility should a prospective hedge provider be downgraded between bid and financial close such that it would not qualify.	
		The financing solution provided execution certainty by utilizing high rated banks and redundancy through advancement of a back-up bond solution of Private Activity Bonds during the bid stage on terms and conditions that largely mirrored those in the bank facility.	
		Our project financing solution was the lowest proposed solution and optimized the use of FDOT's periodic and final acceptance payments together with short term bank financing. At the time of closing, the project included the largest P3 TIFIA transportation loan.	



 Core Proposer Team Members(s) Involved:
 Equity Member:

 Lead Contractor:
 Lead Contractor:

 Lead Engineer: HDR Engineering, Inc.
 Lead Operator:

 Joint venturer in Lead:
 Affiliate(s):

# **Required Information** No. Response I. Background Information The New NY Bridge (Replacement of the Tappan Zee) Project Project Name: (1) **Photo Credit:** All images are owned by the New York State Thruway Authority and may be reproduced only in connection with the New NY Bridge project with an appropriate


		Photo Credit: New York State Thruwa	ay Authority.		
(2)	Type of Facility:	Parallel interstate toll highway bridges			
(3)	Owner/Procuring Authority:	New York State Thruway Authority ("1	New York State Thruway Authority ("NYSTA")		
(4)	Brief Description of Project:	The New NY Bridge will replace the existing Tappan Zee Bridge which handles more than 138,000 vehicles every day—far more than its design capacity. This design-build project will increase capacity and improve safety on the crossing, where the accident rate is double the average accident rate on the rest of the 574-mile thruway. The new bridge is designed for a 100-year service life and will be mass-transit-ready for bus rapid transit, or for commuter or light rail on structures between the two spans. It features parallel three-mile structures, each with 1,200-foot cable-stayed main spans and 350-foot steel girder approach spans. The new bridge provides eight general traffic lanes, plus emergency lanes and extra-wide shoulders for immediate express bus service. New tolling facilities with all-electronic toll collection will be implemented.			
(5)	Contract Term:	Term length: 5 years Start date: January 2013 End date: April 2018			
(6)	Current Status:	The design is substantially complete a	and the project	is now under construction.	
(7)	Key Dates and Milestones:	Contract Execution: January 2013 Commencement of design: Actual: 10 Months Commencement of construction: Actual: 12 Months Achievement of substantial completion: Anticipated/Contracted: 62 Months Achievement of final completion: Anticipated/Contracted: 66 Months			
	Relevance to the Project:	The New NY Bridge project is relevant to the I-70 East Project where check marks indicate common project features below (see boxes 4, 10, 22, 26 and 27):			
		<u>Criteria</u>	Common Feature?	Relevance	
		Roadway expansion and reconstruction and interchange reconstruction	V	The new bridge provides eight general traffic lanes, plus emergency lanes and extra-wide shoulders for immediate express bus service.	
(8)		Demolition of existing infrastructure in urban environments	~	The existing bridge will be demolished after the new bridge is constructed. HDR will provide peer review and environmental compliance services	
		Major excavation work, including; groundwater considerations and drainage requirements	~	Drainage design at landings to convey large surface runoff area of bridge	
		Complex traffic management in urban areas	~	Due to heavy traffic volumes, stringent traffic criteria was developed with strict limitation on lane closures with an emphasis on minimizing traffic delays.	
		Construction staging in confined spaces			



	Structures that include ventilation and/or fire life safety considerations	V	Fire protection features are designed into the bridge crossing. Temporary and permanent facilities for NYSTA and NY State Police are part of HDR's scope and require appropriate ventilation and fire/life safety.
	Coordination with rail and utility companies	✓	HDR coordinated with Metro-North Commuter Railroad for Westchester County approaches which cross over an active commuter line. Extensive utility coordination was performed to address landings in Westchester and Rockland Counties
	Roadway pavement and associated infrastructure under environmental conditions that are similar to those affecting the project		
	Interfaces with adjacent road operators		
	Workforce development programs, including: partnerships with local community organizations and apprenticeship programs	✓	Program developed by construction contractor.
	Achievement of or exceeding goals relating to participation of: disadvantaged businesses small businesses other business that are subject to equivalent programs	~	Based on the number of executed contracts signed, HDR expects to meet the goal by project completion. Additional change orders are pending approval and will increase the overall DBE project commitment.
	Air quality monitoring and mitigation in urban environments	✓	State-of-the-art environmental monitoring stations were installed near both shorelines allowing the team to monitor, minimize and
	Noise monitoring and mitigation in urban environments	~	mitigate potential adverse effects related to construction noise, vibration and air quality. The team is following strict environmental performance commitments to protect the Hudson River Estuary.
	The project's financing included a TIFIA loan that was closed by the project developer and not a public authority		
	The project's financing used PAB's		
	The financed project was a highway or road project		
	The financed project was located in North America		
II. Description of Team Member In	volvement		



(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	HDR is responsible for 100% of the design.
(10)	Role of Proposer Team Member(s) (or Affiliate(s)):	HDR is Lead Designer and is responsible for 100% of the design of New NY Bridge.
(11)	Key Personnel Involved, Roles & Responsibilities:	N/A
III. Re	ference	
(12)	Name:	David Capobianco
(13)	Title & Employer (current):	Engineering Manager   New York State Thruway Authority
(14)	Title & Employer (at time of project/transaction):	Engineering Manager   New York State Thruway Authority
(15)	Phone & Email:	(914) 789-3200   David.Capobianco@newnybridge.com
(16)	Location & Time Zone:	New York   Eastern Time Zone
(17)	Other:	N/A
<u>IV. Te</u>	chnical Information	
(18)	Construction Value:	\$3.14 billion
(19)	Completion within/above Budget:	TBD: Ongoing
(20)	O&M Value:	N/A
(21)	Length of Road under Operation (centerline miles):	N/A
		<b>Environmental Performance:</b> The team is following strict environmental performance commitments to protect the Hudson River Estuary. State-of-the-art environmental monitoring stations were installed near both shorelines allowing the team to monitor, minimize and mitigate potential adverse effects related to construction noise, vibration and air quality.
		Service Life and Potential Future Loading: The bridge is designed for a 100-year service life and will be mass-transit-capable for bus rapid transit on the span, or for commuter or light rail on structures between the two spans.
(22)	Key Technical Challenges and Solutions Implemented:	<b>Roadways:</b> The design of the new crossing included over 30 lane miles of highway to interstate standards in accordance with NY State and Federal guidance including the AASHTO – A Policy on Geometric Design of Highways and Streets. The new roadways accommodate a design year (2047) and AADT of 218,551 to a high level of service with improved safety and operations.
		<b>Pavement and Drainage:</b> On the landings, full depth Portland Cement Concrete pavement and shoulders was designed to meet the 50 year pavement service life requirement. Roadway drainage design included storm water management facilities to meet NYSDEC permit requirements. All drainage systems were designed with provisions to ensure the performance of the system given the uncertainty of future rainfall intensities. A climate change factor of 1.1 was applied to all rainfall intensity values and unit hydrographs.



		Maintenance and Protection of Traffic: The staged replacement of the crossing required multiple and complex roadway phasing on the landings to maintain the existing traffic flow during peak hour periods throughout the duration of construction. The limited ROW of the site and the need to maintain existing infrastructure and tolling capabilities contributed to the complexity of the phasing. Tolling at this location accounts for approximately 20% of NY State Thruway annual toll revenue. ITS: HDR developed an ITS Master Plan to provide a framework for the design, monitoring, testing
		and commissioning of all ITS elements throughout the Project. HDR delivered 100% Design Plans and Specifications, for both the installation of a temporary ITS system to be used during construction, and for the permanent ITS system to be installed on the new bridge.
<u>V. Fin</u>	ancial Information	
(23)	Payment Mechanism:	N/A
(24)	Source(s) of Revenues or Payments:	N/A
(25)	Proposer Team Member(s) Equity Investment:	N/A
(26)	Financing Method(s) and Value(s):	N/A
(27)	Key Financial and Funding Challenges and Solutions Implemented:	N/A



 Core Proposer Team Members(s) Involved:
 Equity Member: Plenary Group USA Ltd.

 Lead Contractor:
 Lead Contractor:

 Lead Engineer: HDR Engineering Inc.
 Lead Operator: Transfield Services Infrastructure, Inc

 Joint venturer in Lead:
 Affiliate(s):

No.	Required Information	Response	
I. Bac	Background Information		
(1)	Project Name:	US 36 Managed Lanes (Phase 2) Project	
(2)	Type of Facility:	US Highway with managed lanes, High Occupancy Vehicles ("HOV"), commuter bikeways, Bus Rapid Transit ("BRT")	
(3)	Owner/Procuring Authority:	Colorado Department of Transportation, High Performance Transportation Enterprise ("HPTE")	
(4)	Brief Description of Project:	The project includes the addition of a managed lane in each direction of US 36, for use by Bus Rapid Transit (BRT), High Occupancy Vehicles (HOV) and tolled vehicles. Additionally, it includes the reconstruction of all existing pavement on US 36 and the widening of the highway to accommodate 12 foot inside and outside shoulders; improvements to the BRT system, including new electronic display signage at stations and bus priority improvements at ramps; the installation of a separated commuter bike path along the corridor; the installation of ITS and ATM for tolling, transit, traveler information and incident management; and improvements to corridor RTD stations, including new canopies with enhanced weather protection. In addition to constructing new express lanes, widening and reconstructing existing general purpose lanes, and other improvement elements as listed above, the concessionaire will operate and maintain the	



		entire US 36 corridor from Boulder to I-25 as well as be responsible for the reversible lanes on I-25 from US 36 to downtown Denver under a 50-year agreement.				
		Length: 31 months				
(5)	Contract Term:	Start date: June 27, 2013				
		End Date: December 2015				
(6)	Current Status:	The project is currently under construction and i	s approximately 60°	% complete.		
		Key Dates/Milestones:				
		Contract execution: June 27, 2013 (contracted);	June 27, 2013 (act	tual)		
		Commencement of design: 0 months (contracte	d); 0 months (actua	l)		
		Commencement of construction: 0 months (con	tracted); 0 months (	(actual)		
		Achievement of substantial completion: 30 mon	hs (anticipated/con	tracted)		
(7)	Key Dates and	Service/Operations commencement:	•			
( )	Milestones:	<ul> <li>I-25 portion: 0 months (contracted); 0</li> </ul>	) months (actual)			
		Phase 1 portion: 24 months (contract				
		<ul> <li>Phase 2 portion: 30 months (contracted)</li> <li>Achievement of final completion: 30 months (anticipated/contracted)</li> </ul>				
		End of Service/Operations: 50 years (anticipated		·/		
		The US 36 project is relevant to the I-70 East Project where check marks indicate common project features below (see also boxes 4, 10, 22, 26 and 27):				
		<u>Criteria</u>	<u>Common</u> Feature?	Relevance		
		Roadway expansion and reconstruction and interchange reconstruction	~	US 36 being expanded to include managed lanes in the center; interchange reconstruction (e.g. DDI at McCaslin).		
		Demolition of existing infrastructure in urban environments	~	Partial bridge demolition.		
(8)	Relevance to the Project:	Major excavation work, including; groundwater considerations and drainage requirements	~	Permitting complex haul routes in an urban environment.		
		Complex traffic management in urban areas	~	High volumes on US 36 and I-25. Coordination with Phase 1 as well as with separate I-25 N project.		
		Construction staging in confined spaces	~	Construction area is long and narrow with limited access and requires detailed phasing planning.		
		Structures that include ventilation and/or fire life safety considerations				
		Coordination with rail and utility companies	✓	Coordination with rail, utility and		



				companies.
		Roadway pavement and associated infrastructure under environmental conditions that are similar to those affecting the project	~	The eastern limits of I-70 East are similar to US 36 with expandable clays and existing pavements sections that can be utilized to reduce the costs in the improved pavement sections.
		Interfaces with adjacent road operators	~	Interfaces with CDOT Maintenance and CDOT ITS, CDOT 0&M snow and ice contractor and CDOT courtesy patrol contractor
		Workforce development programs, including: partnerships with local community organizations and apprenticeship programs	~	33 trainees are currently enrolled in the Colorado Contractors Association apprenticeship and professional services program. The team is forecasting 120,000 man hours of training opportunities and is on track to achieve this goal.
		Achievement of or exceeding goals relating to participation of: disadvantaged businesses small businesses other business that are subject to equivalent programs	~	On track to meet and potentially exceed DBE goal requirements of 11%
		Air quality monitoring and mitigation in urban environments	$\checkmark$	As needed for confined space entry and permitting of batch plants.
		Noise monitoring and mitigation in urban environments	~	As needed for key activities such as night work and batch plant operations.
		The project's financing included a TIFIA loan that was closed by the project developer and not a public authority	~	\$60 million TIFIA loan procured for Phase 2.
		The project's financing used PAB's	~	\$20.6 million PABs issuance
		The financed project was a highway or road project	$\checkmark$	US Highway 36
		The financed project was located in North America	✓	Located in Denver, Colorado.
II. Des	scription of Team Membe	er Involvement		
		Leader Engineer HDR, a Core Proposer Team Member for 5280 Connectors, was responsible for 100% of the design of the project.		
(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	Equity Member Plenary Group, a Core Proposer Team Member for 5280 Connectors, invested 100% of the project equity and is involved in all aspects of the project.		
		Lead Operator Transfield, a Core Proposer Teal the project's operations and maintenance work.		
(10)	Role of Proposer Team Member(s) (or	Leader Engineer HDR, a Core Proposer Team Member for 5280 Connectors, was responsible for 100% of the design of the project.		

	Affiliate(s)):	Please see the Form F for US 36 under the Equity Member tab for a further description of Plenary Group's role.
		Please see the Form F for US 36 under the Lead Operator tab for a further description of Transfield's role.
(11)	Key Personnel Involved, Roles & Responsibilities:	5280 Connectors O&M Manager Christian Guevara is the O&M Project Manager throughout all phases of the US 36 project.
III. Re	ference	
(12)	Name:	Mark Gosselin, P.E.
(13)	Title & Employer (current):	Project Director   High Performance Transportation Enterprise
(14)	Title & Employer (at time of project/transaction):	Project Director   High Performance Transportation Enterprise
(15)	Phone & Email:	(303) 404-7020   mark.gosselin@state.co.us
(16)	Location & Time Zone:	Broomfield, CO   Mountain Time Zone
(17)	Other:	N/A
<u>IV. Te</u>	chnical Information	
(18)	Construction Value:	\$121.5 million
(19)	Completion within/above Budget:	Currently within budget
(20)	O&M Value:	N/A
(21)	Length of Road under Operation (centerline miles):	N/A
(22)	Key Technical Challenges and Solutions Implemented:	<ul> <li>Tolling with Minimum Travel Speeds: The project involves the construction of one managed lane in each direction along the US 36 median and the Bus Rapid Transit system is expected to run within the managed lane. As part of the concession agreement Plenary is required to guarantee minimum travel speeds for buses within the managed lane. Transfield, with primary responsibility for on-site O&amp;M activities, is required to keep the managed lanes free from obstructions (debris, stalled cars, etc.) to enable the free flow of traffic. To meet this challenge, Transfield hired locally sourced operators and provided training. This team is supported locally and has proven its responsiveness and capability several times already through prompt accident responses and coordination with HPTE/CDOT and local emergency responders.</li> <li> "Plenary and Transfield have provided great leadership and guidance in the delivery and execution of CDOT's first P3 project, they are proven to be an excellent partnership for future projects within the State of Colorado."         <ul> <li>Mark Gosselin   CDOT, Project Director, US 36 Express Lanes Project</li> <li>Lifecycle Consideration in Design: In PPP projects, Transfield actively participates during the design phase by being involved with the Task Force groups to ensure maintainability, accessibility and also incorporate lifecycle analysis. This has resulted in an asset that is designed and constructed to perform well throughout the service life with effective maintenance practices.</li> </ul> </li> </ul>



		<b>Operation of the reversible gate infrastructure</b> : Upon Financial Close, Transfield became responsible for the operations and maintenance of the time-sensitive I-25 reversible gate system which controls access to the reverse-flow Express Lanes. Prior to the transition of operations, Transfield worked closely with the CDOT personnel to understand all aspects of operating practices and troubleshooting for the gate system. Transfield currently has operated the system for over a year with no major issues or delays caused by the gate system.
		I-25 Express Lanes existing infrastructure: The I-25 facility includes 14 bridge structures, and 7 center- lane miles of pavement (both HMA and PCCP) that are over 20 years old and facing deterioration. Transfield worked in collaboration with CDOT, HPTE, Plenary Group, and HDR to maximize the allotted initial works budget to provide an adequate scope of maintenance work to effectively rehabilitate the existing infrastructure and provide baseline standards for measurement during the 50 year term.
		Interface with CDOT at maintenance boundary locations: A key challenge at project boundaries is the interface with adjacent O&M efforts. Improperly performed, this can lead to differential performance, causing issues to the travelling public when moving from one zone to the adjacent zone. Transfield has worked with CDOT maintenance patrols, CDOT superintendents and local agency operators adjacent to the current operations to ensure that maximum efficiency and coordination is realized at all transition zones, such that motorists are not aware that they are exiting a Transfield managed zone and entering a CDOT managed zone.
		<b>Toll Services Provider:</b> Providing tolling services to a private sector managed lane developer, implementing dual position transponder technology and employing segment tolling methodology were new endeavors for E470. Plenary worked with its HPTE and E470 partners to develop a three-way Toll Services Agreement (TSA) that can be replicated by HPTE on future state managed lane projects. Plenary assumed the lead role in writing, developing and negotiating business rules for use on US 36. Plenary has invested the time to develop the E470 relationships and knowledge base to manage the toll systems and back office integration. Plenary is uniquely qualified to comprehend the intricacies of the TSA and the thousands of pages of business rules which can have server schedule and budget consequences if not understood or managed properly.
<u>V. Fin</u>	ancial Information	
(23)	Payment Mechanism:	N/A
(24)	Source(s) of Revenues or Payments:	N/A
(25)	Proposer Team Member(s) Equity	HDR is not investing equity. Please see Form F for US 36 under the Equity Member tab for further description of the role of Plenary Group USA Ltd. regarding equity investment.

HDR is not part of the project funding. Please see Form F for US 36 under the Equity Member tab for further description of the role of Plenary Group USA Ltd. regarding financing.

HDR is not part of the project funding. Please see Form F for US 36 under the Equity Member tab for further description of the role of Plenary Group USA Ltd. regarding financing.

Investment:

and Value(s):

Implemented:

(26)

(27)

Financing Method(s)

Key Financial and Funding Challenges and Solutions



Core Proposer Team Members(s) Involved:	Equity Member:
	Lead Contractor:
	☑ Lead Engineer: HDR Engineering, Inc.
	Lead Operator:
	Joint venturer in Lead:
	Affiliate(s):

No.	Required Information	Response	
I. Back	. Background Information		
(1)	Project Name:	I-15 Corridor Expansion Design-Build Project ("I-15 CORE")	
(2)	Type of Facility:	Interstate highway and interchanges	
(3)	Owner/Procuring Authority:	Utah Department of Transportation ("UDOT")	
(4)	Brief Description of Project:	HDR was the lead designer on the design-build team for the I-15 CORE project that extended over a 24-mile stretch of the major north-south commuter route between Salt Lake City and the Provo/Orem Region of Utah County. The project expanded the freeway by two lanes in both directions; rebuilt and reconfigured 10 freeway interchanges; replaced and restored 55 bridges; and provided additional improvements to meet or exceed travel demands through the year 2030. HDR managed a team of 15 design firms as part of a consortium of sub-consultants and contractors known as Provo River Constructors ("PRC"). The PRC team successfully competed in a fixed-price, variable-scope procurement process where teams were told the budget and then had to determine the extent and quality of the improvements that could be delivered for the fixed contract amount of \$1.1 billion. PRC provided the greatest value solution with the following benefits: • Maintain traffic on the current number of southbound and northbound lanes during the majority of construction	



		Provide 40-year-life concre	ete pavement	along the entire corridor	
		Deliver on an aggressive construction schedule from Spring 2010 to December 2012, 2 years ahead of UDOT's original schedule			
		<ul> <li>Add a 13.2-mile southward extension beyond UDOT's originally budgeted project, including significant improvements to interchanges at US 6 and Spanish Fork Main Street, an important benefit for residents of the Spanish Fork area that are currently served by outdated and congested interchanges</li> </ul>			
(5)	Contract Term:	Term length: 96 months Start date: December 2009			
		End date: December 2017 (expiration	of warranty	period)	
(6)	Current Status:	The project is 100% complete.			
		Contract execution: December 2009 (	contracted);	December 2009 (actual)	
		Commencement of design: 0 months	(contracted);	0 months (actual)	
(7)	Key Dates and Milestones:	Commencement of construction: 4 mo	onths (contra	cted); 4 months (actual)	
	Milesiones.	Achievement of Substantial Completion	on: 36 month	s (contracted); 36 months (actual)	
		Achievement of Final Completion: 36	months (coni	tracted); 36 months (actual)	
		The I-15 CORE project is relevant to the I-70 East Project where check marks indicate common project features below (see also boxes 4, 10, 22, 26 and 27):			
	Relevance to the Project:	Criteria	Common Feature?	Relevance	
		Roadway expansion and reconstruction and interchange reconstruction	~	23.5-mile stretch of the major north-south interstate	
		Demolition of existing infrastructure in urban environments	~	Reconstruction of 55 bridges in urban environment required demolition of existing structures in phased approach	
(8)		Major excavation work, including; groundwater considerations and drainage requirements	~	Significant excavations were required throughout the corridor to facilitate the reconstruction of mainline and arterial cross streets. Consideration of sensitive wetland areas, streams and rivers was required. Temporary and permanent drainage considerations were also required as part of excavation work throughout corridor.	
		Complex traffic management in urban areas	~	More than 90% of lane and exit closures were scheduled during overnight hours to reduce traffic delays. Lane shifts and split traffic patterns were used to keep as many lanes open as possible during construction.	
		Construction staging in confined spaces	~	Tight right-of-way and environmental factors (wetlands, rivers, and streams) required that construction, including staging, be performed in limited space throughout corridor.	
		Structures that include ventilation and/or fire life safety considerations			



		Coordination with rail and utility companies	~	Extensive coordination was performed with Union Pacific Railroad and Utah Transit Authority resulting from 8 bridges crossing either UPRR or UTA railroads.
		Roadway pavement and associated infrastructure under environmental conditions that are similar to those affecting the project		
		Interfaces with adjacent road operators		
		Workforce development programs, including: partnerships with local community organizations and apprenticeship programs		
		Achievement of or exceeding goals relating to participation of: disadvantaged businesses small businesses other business that are subject to equivalent programs		
		Air quality monitoring and mitigation in urban environments		
		Noise monitoring and mitigation in urban environments	¥	Extensive noise analysis was conducted throughout the corridor in accordance with UDOT and FHWA requirements to determine length and height of required noise mitigation. Noise walls were designed and constructed.
		The project's financing included a TIFIA loan that was closed by the project developer and not a public authority		
		The project's financing used PAB's		
		The financed project was a highway or road project		
		The financed project was located in North America		
II. Desc	cription of Team Membe	r Involvement		
(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	HDR Engineering Inc., a Core Propos responsible for 50% of the design of I		nber for 5280 Connectors is the lead designer and oject.
(10)	Role of Proposer Team Member(s) (or Affiliate(s)):	HDR Engineering Inc. is responsible for leading the roadway design; drainage design; environmental permitting; traffic design, including analysis and traffic signals at warranted intersections; signing and striping design; maintenance of traffic; monitoring environmental mitigation commitments affecting both design and construction; landscape and irrigation design for the entire corridor, including plants, aesthetic treatments, and decorative rock and ground cover; arterial lighting design along the cross streets and interchange locations, and high-mast lighting along I-15; and utility design and third-party coordination.		



(11)	Key Personnel Involved, Roles & Responsibilities:	N/A	
III. Refe	III. Reference		
(12)	Name:	Robert Stewart, P.E.	
(13)	Title & Employer (current):	Statewide Quality Manager   Utah Department of Transportation	
(14)	Title & Employer (at time of project / transaction):	I-15 CORE Construction Manager   Utah Department of Transportation	
(15)	Phone & Email:	(801) 440-5746   rstewart@utah.gov	
(16)	Location & Time Zone:	Utah   Mountain time zone	
(17)	Other:	N/A	
<u>IV. Tec</u>	hnical Information		
(18)	Construction Value:	\$1.7 billion (total program costs for UDOT) \$1.1 billion (DB contract)	
(19)	Completion within/above Budget:	Completed \$13 million under budget	
(20)	O&M Value:	N/A	
(21)	Length of Road under Operation (centerline miles):	24 miles	
(22)	Key Technical Challenges and Solutions Implemented:	<ul> <li>Aggressive design schedule. HDR coordinated design resources to design the entire project in just 14 months. During the peak, 300 full-time engineers were involved in the design, with another 400 in support roles. HDR's structural designers provided 12 temporary bridge widening's to maintain traffic during construction, 15 new bridge designs from Provo to Spanish Fork, and seven new box culvert structures.</li> <li>Accelerated Bridge Construction ("ABC"). The project included the design and construction of four bridges utilizing ABC to minimize impacts to traffic, enhance safety and maximize quality. Each bridge was constructed off-line and then moved into its final location via self-propelled modular transporters (SPMTs). The Sam White bridge move set a record for longest two-span structure moved into place via SPMTs in the Western Hemisphere.</li> <li>Accelerated construction schedule. This was accomplished by advancing construction of all segments concurrently rather than in phases. Traffic was kept moving through a considerable investment in temporary pavement and bridge widening's, and with staged construction of interchanges. In portions of the project where, HOV lanes were converted to general-purpose lanes, shoulder widths were reduced, and existing lanes reconfigured to avoid lane reduction and keep traffic moving. This approach responded to UDOT's priority for maintaining as much capacity in the corridor; traffic patterns at each interchange location were closely evaluated in order to understand which movements were most critical. HDR completed design for two of the interchanges. The Center Street interchange in Provo was refined during final design to better respond to the city's future land-use plans, ultimately leading to a</li> </ul>	



		<ul> <li>split-diamond interchange. A continuous-flow intersection was implemented at the University Parkway/Sandhill interchange in Orem to optimize level of service and traffic flow at the intersection.</li> <li>Maintenance of Traffic. Innovative traffic patterns were used to maintain traffic flow and lanes open; majority of closures were planned during overnight hours.</li> <li>Environmental Services. Environmental services include preconstruction survey of wetlands, rare plant, migratory nesting bird surveys, and preparing a USACE 404 permit modification. The modification required updating the survey and visual assessment of all wetlands that were a part of the original 404 permit, developing the 404 modification document, and coordinating with the design-builders on wetland impact issues.</li> </ul>
		<ul> <li>The project received the following awards for the solutions implemented:</li> <li>2014 - Award of Merit, Outstanding Civil Engineering Achievement Awards, American Society of Civil Engineers</li> <li>2013 - Grand Prize, America's Transportation Awards</li> <li>2013 - National Design-Build Award, Transportation Projects, Design-Build Institute of America</li> </ul>
<u>V. Fina</u>	ncial Information	
(23)	Payment Mechanism:	N/A
(24)	Source(s) of Revenues or Payments:	N/A
(25)	Proposer Team Member(s) Equity Investment:	N/A
(26)	Financing Method(s) and Value(s):	N/A
(27)	Key Financial and Funding Challenges and Solutions Implemented:	N/A



 Core Proposer Team Members(s) Involved:
 Equity Member:

 Lead Contractor:
 Lead Contractor:

 Lead Engineer: HDR Engineering, Inc.
 Lead Operator:

 Joint venturer in Lead:
 Affiliate(s):

No.	Required Information	Response	
I. Back	I. Background Information		
(1)	Project Name:	IH 35E Managed Lanes Project (IH 35E)	
(2)	Type of Facility:	Interstate highway with managed lanes, general purpose lanes and frontage roads	
(3)	Owner/Procuring Authority:	Texas Department of Transportation ("TxDOT")	
(4)	Brief Description of Project:	The project consists of the redevelopment of 28 miles of IH 35E from IH 635 to US 380 in Dallas and Denton Counties, one of the state's most congested highways. The existing IH 35E is being reconstructed and widened to incorporate additional general purpose lanes, managed lanes and frontage roads. Project limits traverse nine separate cities. The corridor is a major urban freeway, handling approximately 200,000 total vehicles daily.	



(5)	Contract Term:	Term length: 54 months Start date: May 2013 End date: November 2017		
(6)	Current Status:	The design phase is nearing comp approximately 20% complete.	letion, at 93% c	omplete. Construction has commenced and is
(7)	Key Dates and Milestones:	Contract Execution: May 2013 (contracted); May 2013 (actual) Commencement of design: 0 months (contracted); 0 months (actual) Commencement of construction: 6 months (contracted); 6 months (actual) Achievement of substantial completion: 48 months (anticipated/contracted) Achievement of final completion: 53 months (anticipated/contracted)		
		The IH 35E Managed Lanes project indicate common project features b		the I-70 East Project where check marks boxes 4, 10, 22, 26 and 27):
		<u>Criteria</u>	Common Feature?	Relevance
	Relevance to the Project:	Roadway expansion and reconstruction and interchange reconstruction	~	Reconstruction and widening of the existing IH 35E to incorporate additional general purpose lanes, managed lanes and frontage roads.
		Demolition of existing infrastructure in urban environments	~	Existing bridges and pavement being demolished to allow for construction of new, wider, reconfigured, bridges and pavement structures in the same footprint.
(8)		Major excavation work, including; groundwater considerations and drainage requirements	4	Groundwater considerations are not an issue. However, silt fences, and other best management practices being used. The new bridge over Lake Lewisville has a requirement to collect and treat the "first flush" in a rain event. Runoff is collected on bridge mounted treatment separators before being released.
		Complex traffic management in urban areas	~	Extensive traffic control plans to keep existing interchanges open during construction of new interchanges.
		Construction staging in confined spaces	~	Very limited right-of-way width to allow staging equipment, MOT phasing, and structure relocation.
		Structures that include ventilation and/or fire life safety considerations		
		Coordination with rail and utility companies	¥	The project includes a bridge structure going over Dallas Area Rapid Transit (DART) controlled freight rail (Madill and Cotton Belt lines), drainage work along Kansas City Southern controlled track and roadway work crossing DART light rail track. Every franchise



				utility in the corridor is impacted.
		Roadway pavement and associated infrastructure under environmental conditions that are similar to those affecting the project		
		Interfaces with adjacent road operators		
		Workforce development programs, including: partnerships with local community organizations and apprenticeship programs	~	Project has a well-documented and comprehensive DBE mentoring and training program in place and is in full compliance with all federal and state regulations, providing formal mentoring and on-the-job training aimed at increasing the skills of local workers. DBE firms were given major segment design tasks in addition to corridor wide utility design, coordination, and all general survey needs.
		Achievement of or exceeding goals relating to participation of: disadvantaged businesses small businesses other business that are subject to equivalent programs	V	Overall project goal is 6%. Goal is based on the overall JV goal for total project. The design JV current number is 14.52%.
		Air quality monitoring and mitigation in urban environments		
		Noise monitoring and mitigation in urban environments	~	A noise study was performed to determine the location of sound walls along the corridor.
		The project's financing included a TIFIA loan that was closed by the project developer and not a public authority		
		The project's financing used PAB's		
		The financed project was a highway or road project		
		The financed project was located in North America		
II. Des	cription of Team Member Invol	vement		
(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	HDR Engineering Inc., a Core Prop of the design of IH 35E Managed L		mber of 5280 Connectors is responsible for 50%
(10)	Role of Proposer Team Member(s) (or Affiliate(s)):	design management, roadway, drai	nage, and utiliti cquisition activi	ngineering Inc. is responsible for leading the ies, half of the bridge design, MOT/traffic ities. In addition, HDR Engineering Inc. is mination design, and environmental



(11)	Key Personnel Involved, Roles & Responsibilities:	N/A		
III. Ref	III. Reference			
(12)	Name:	Varuna Singh		
(13)	Title & Employer (current):	IH 35E Project Manager   TxDOT		
(14)	Title & Employer (at time of project/transaction):	IH 35E Project Manager   TxDOT		
(15)	Phone & Email:	(214) 483-7600   Varuna.singh@txdot.gov		
(16)	Location & Time Zone:	Carrollton, TX   Central time zone		
(17)	Other:	N/A		
<u>IV. Teo</u>	chnical Information			
(18)	Construction Value:	\$1.4 billion		
(19)	Completion within/above Budget:	Currently within budget		
(20)	O&M Value:	N/A		
(21)	Length of Road under Operation (centerline miles):	N/A		
		Constructability Improvements. Alternative technical concepts including an enhanced design of IH35E/Beltline Road Interchange to improve constructability, is providing TxDOT with a savings of \$58 million and shortening the schedule by nine months. Long span, structural steel, plate girder units were minimized by the incorporation of post-tensioned concrete straddle bents. Composite steel tub straddle bent caps with concrete top flanges are implemented in the design of the NB/SB wishbone ramp bridges that connect the IH 635 managed lanes to the IH3E managed lanes. At the wishbone ramps, the composite straddle bents allow the Contractor to construct the entire bent cap on the ground, either at a shop or in the field, and then lift it into place on two columns. No formwork is necessary to be set over live traffic. Additionally, traffic impacts are minimized by utilizing night closures to set caps.		
(22)	Key Technical Challenges and Solutions Implemented:	TxDOT and affected stakeholders. Without reducing current travel lanes, portions of the existing IH35E bridge have to be demolished in order for the new bridge to be constructed. Careful analysis resulted in reducing shoulder and lane widths to be able to keep three lanes in each direction operating at full capacity. On Beltline Road, traffic is shifted to the north and to the south in multiple stages to allow for "portal" bents to be constructed. As the portals were constructed, traffic was shifted to allow for a portal in the opposite traffic direction to be built. Close coordination between the MOT and bridge designers made this possible when the bridge was laid out.		
		At the IH3E/SRT Interchange, the technical provisions limited the amount of lanes that can be closed for traffic control purposes. Additional pavement did not need to be constructed to move IH35E main lane traffic through the interchange. The use of post-tensioned concrete straddle bents limited the amount of shore towers that needed to be erected, and lanes closed, for construction purposes. The absence of structural steel in the interchange reduces the phases.		
		<b>Bridges:</b> Among the more than 90 structures was a new 1.5-mile-long bridge over Lake Lewisville, a restacked, redesigned, interchange between IH 35E and Beltline Road, four new direct connector bridges at the interchange between IH35E and the SRT, two new direct connector bridges at the interchange between IH35E and IH635, a collector/distributor bridge system to		



		connect the President George Bush Turnpike and the SRT, and elevated managed lanes connectivity via a wishbone configuration between the IH 635 Managed Lanes and IH35E Express managed lanes. Public Involvement/Coordination with Multiple Stakeholders: The team created a comprehensive public information and communication plan for the project that establishes two-way
		communication flow with core customer groups throughout the area. <b>ATC Cost Savings:</b> Selective use of pavement overlay versus full depth pavement reconstruction.
		<b>Environmental Constraints:</b> The project requires environmental compliance according to Federal, State, and City regulations where applicable.
		<ul> <li>The project crosses over Lake Lewisville - requiring US Army Corps of Engineers (USACE) mitigation and environmental compliance in addition to other state and city requirements. USACE requires the first flush from any rain event be captured and treated before being released into the lake. This requires a bridge mounted treatment system that has to be incorporated into the bridge drainage system.</li> </ul>
		<ul> <li>Development and implementation of different environmental compliance plans and procedures including SWPPP, environmental documentation, permitting and field monitoring, require coordination with many governmental and service entities along the corridor.</li> </ul>
		<b>Utility Relocations/Conflicts:</b> Coordination with approximately 40 different utility owners and government agencies. These owners manage over 1,100 different facilities within the project limits.
<u>V. Fina</u>	ancial Information	
(23)	Payment Mechanism:	N/A
(24)	Source(s) of Revenues or Payments:	N/A
(25)	Proposer Team Member(s) Equity Investment:	N/A
(26)	Financing Method(s) and Value(s):	N/A
(27)	Key Financial and Funding Challenges and Solutions Implemented:	N/A



 Core Proposer Team Members(s) Involved:
 Equity Member:

 Lead Contractor:
 Lead Contractor:

 Lead Engineer: HDR Engineering, Inc.
 Lead Operator:

 Joint venturer in Lead:
 Affiliate(s):

No.	Required Information	Response	
<u>I. Back</u>	I. Background Information		
(1)	Project Name:	Eagle P3 Commuter Rail Project (Eagle P3)	
(2)	Type of Facility:	Commuter Rail with bridges, stations and maintenance facility	
(3)	Owner/Procuring Authority:	Regional Transportation District ("RTD")	
(4)	Brief Description of Project:	The project is a DBFOM that is comprised of elements from the East Corridor, Gold Line, Northwest Electrified Segment, and Commuter Rail Maintenance Facility. It will extend commuter rail from the Denver City Center on three new lines to multiple suburban locations and the Denver International Airport ("DIA").	



		system planning and design. Design elem associated with over 36 miles of commute	ients include er rail track, 3	structors Team, HDR is responsible for all rail drainage and grading in urban environments 6 bridges, relocation of roadways, new maintenance facility, and relocation of four
		Term length: 70 months		
(5)	Contract Term:	Start date: August 12, 2010		
		End date: June, 2016		
(6)	Current Status:	The project is under construction and is a	pproximately	85% complete
		Contract Execution: August 12, 2010 (con	itracted); Aug	ust 12, 2010 (actual)
		Commencement of design: 2 months (cor	ntracted); 2 m	onths (actual)
(7)	Key Dates and Milestones:	Commencement of Construction: 2 month	s (contracted	l); 2 months (actual)
		Achievement of substantial completion: 58	3 months (cor	ntracted); 58 months (actual)
		Achievement of final completion: 70 mont	hs (contracte	d/anticipated)
		The Eagle P3 project is relevant to the I-7 project features below (see boxes 4, 10, 2		
	Relevance to the Project:	<u>Criteria</u>	Common Feature?	<u>Relevance</u>
		Roadway expansion and reconstruction and interchange reconstruction	~	New and relocated roadways were designed and constructed along the 36-mile corridor.
		Demolition of existing infrastructure in urban environments	~	Existing roadways and infrastructure were demolished.
		Major excavation work, including; groundwater considerations and drainage requirements	~	Construction of the DIA entrance tunnel required a soil nail wall. 100-year storm analysis was conducted in critical flood zone urban areas.
(8)		Complex traffic management in urban areas	~	Smith Road relocation was accomplished adjacent to local businesses.
		Construction staging in confined spaces	~	Staging required for DIA entrance tunnel.
		Structures that include ventilation and/or fire life safety considerations	✓	Rail stations, maintenance facilities, and cut and cover elements included such considerations.
		Coordination with rail and utility companies	~	Coordination was performed with BNSF and UPRR, as well as utility companies.
		Roadway pavement and associated infrastructure under environmental conditions that are similar to those affecting the project		
		Interfaces with adjacent road operators		



		Workforce development programs, including: partnerships with local community organizations and apprenticeship programs	~	Program developed by construction contractor.
		Achievement of or exceeding goals relating to participation of: disadvantaged businesses small businesses other business that are subject to equivalent programs	~	HDR actively participated in exceeding DBE project goals by integrating DBE sub- contractors into the design team. HDR exceeded both small and disadvantaged business goals for design.
		Air quality monitoring and mitigation in urban environments	✓	HDR inspected local properties, identified for demolition and for hazardous materials that required mitigation measures before, during and after demolition activities so as not to affect local community.
		Noise monitoring and mitigation in urban environments	~	HDR analyzed noise levels from station and roadway at-grade crossings warning devices and train wayside horns for their effect on the local community. Mitigation of commuter and freight train wayside horn was undertaken via Quiet Zone implementation.
		The project's financing included a TIFIA loan that was closed by the project developer and not a public authority		
		The project's financing used PAB's		
		The financed project was a highway or road project		
		The financed project was located in North America		
II. Des	cription of Team Member Invol	vement		
(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	Lead Engineer HDR Engineering Inc., a C contract for 95% of the work and has prim	ore Proposei ary responsit	Team Member of 5280 Connectors is under bility for the project's design and engineering.
(10)	Role of Proposer Team Member(s) (or Affiliate(s)):	Lead Engineer HDR Engineering Inc., a C under contract for 95% of the work and ha engineering.		
(11)	Key Personnel Involved, Roles & Responsibilities:	John Kalvelage, who is Design Manager f P3. He has successfully closed out final d construction.		nectors, is the Design Manager for the Eagle completing design services during
III. Ref	III. Reference			
(12)	Name:	Greg Straight		
(13)	Title & Employer (current):	Design-Build Manager   RTD		



(14)	Title & Employer (at time of project/transaction):	Design-Build Manager   RTD		
(15)	Phone & Email:	(303) 299-6906   greg.straight@rtd-denver.com		
(16)	Location & Time Zone:	Colorado   Mountain time zone		
(17)	Other:	N/A		
<u>IV. Te</u>	chnical Information			
(18)	Construction Value:	<ul><li>\$ 2.2 billion (Total Cost)</li><li>\$1.0 billion (Design-build portion)</li></ul>		
(19)	Completion within/above Budget:	TBD – Currently under construction		
(20)	O&M Value:	N/A		
(21)	Length of Road under Operation (centerline miles):	N/A		
(22)	Key Technical Challenges and Solutions Implemented:	<ul> <li>Bridge structure construction under traffic in urban areas. 31 of the bridges carry the commuter rail line over highways, streets and active freight lines. Five bridges were constructed over waterways. Bridges over streets, highways, and active rail lines were coordinated with all affected agencies and third-party stakeholders to minimize impacts. Innovative approaches that were used include:</li> <li>Alternate phasing and temporary construction to accelerate BNSF and UPRR access to areas of relocation prior to construction.</li> <li>Accommodating unanticipated geotechnical conditions by adjusting bridge lengths to minimize approach fill heights.</li> <li>Modifying reinforcing designs to allow base slabs in hardened track areas to be slip-formed.</li> <li>A gantry system being developed and fabricated that accelerated direct-fixation track installation.</li> <li>An at-grade crossing pedestrian warning device.</li> <li>A method for applying 25kV insulation to messenger wire and hangers for the overhead catenary system to the underside of an existing Union Pacific railroad bridge.</li> <li>A traffic analysis of at-grade crossings with signal pre-emption that accounts for commuter rail and freight rail traffic simultaneously coordinated with nearby signalized intersections.</li> </ul>		
<u>V. Fina</u>	V. Financial Information			
(23)	Payment Mechanism:	N/A		
(24)	Source(s) of Revenues or Payments:	N/A		
(25)	Proposer Team Member(s) Equity Investment:	N/A		
(26)	Financing Method(s) and Value(s):	N/A		



(27)	Key Financial and Funding Challenges and Solutions Implemented:
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Core Proposer Team Members(s) Involved:	Equity Member: Plenary Group USA Ltd.
	Lead Contractor:
	Lead Engineer: HDR Engineering Inc.
	Lead Operator: Transfield Services Infrastructure, Inc.
	Joint venturer in Lead:
	Affiliate(s):

No.	Required Information	Response	
I. Back	I. Background Information		
(1)	Project Name:	US-36 Managed Lanes (Phase 2) Project	
(2)	Type of Facility:	US Highway with managed lanes, High Occupancy Vehicles (HOV), commuter bikeways, Bus Rapid Transit (BRT)	
(3)	Owner/Procuring Authority:	Colorado Department of Transportation, High Performance Transportation Enterprise ("HPTE")	
(4)	Brief Description of Project:	The project includes the addition of a managed lane in each direction of US 36, for use by Bus Rapid Transit (BRT), High Occupancy Vehicles (HOV) and tolled vehicles. Additionally, it includes the reconstruction of all existing pavement on US 36 and the widening of the highway to accommodate 12 foot inside and outside shoulders; improvements to the BRT system, including new electronic display signage at stations and bus priority improvements at ramps; the installation of a separated commuter bike path along the corridor; the installation of ITS and ATM for tolling, transit, traveler information and incident management; and improvements to corridor RTD stations, including new canopies with enhanced weather protection.	



Current Status: Key Dates and Milestones:	Commencement of design: 0 months (contracted) Commencement of construction: 0 months (contra Achievement of substantial completion: 30 month Service/Operations commencement: I-25 portion: 0 months (contracted); 0 m Phase 1 portion: 24 months (contracted) Phase 2 portion: 30 months (contracted)	lune 27, 2013 (a ); 0 months (actu acted); 0 months s (anticipated/co months (actual)	ctual) (al) (actual)
Key Dates and Milestones:	Commencement of design: 0 months (contracted) Commencement of construction: 0 months (contra Achievement of substantial completion: 30 month Service/Operations commencement: I-25 portion: 0 months (contracted); 0 m Phase 1 portion: 24 months (contracted) Phase 2 portion: 30 months (contracted)	); 0 months (actu acted); 0 months is (anticipated/co months (actual)	ial) (actual)
	Contract execution: June 27, 2013 (contracted); June 27, 2013 (actual) Commencement of design: 0 months (contracted); 0 months (actual) Commencement of construction: 0 months (contracted); 0 months (actual) Achievement of substantial completion: 30 months (anticipated/contracted) Service/Operations commencement: • I-25 portion: 0 months (contracted); 0 months (actual) • Phase 1 portion: 24 months (contracted) • Phase 2 portion: 30 months (contracted) Achievement of final completion: 30 months (anticipated/contracted) End of Service/Operations: 50 years (anticipated/contracted)		
Relevance to the Project:	The US 36 project is relevant to the I-70 East Project East Project East Project East Proje		Relevance         US 36 being expanded to include managed lanes in the center; interchange reconstruction (e.g. DDI at McCaslin).         Partial bridge demolition.         Partial bridge demolition.         Permitting complex haul routes in an urban environment.         High volumes on US 36 and I-25. Coordination with Phase 1 as well as with separate I-25 N project.         Construction area is long and narrow with limited access and requires detailed phasing planning.
	life safety considerations		Coordination with rail, utility and
R	elevance to the Project:	elevance to the Project:       considerations and drainage requirements         Complex traffic management in urban areas         Construction staging in confined spaces         Structures that include ventilation and/or fire	elevance to the Project:       considerations and drainage requirements       ✓         Complex traffic management in urban areas       ✓         Construction staging in confined spaces       ✓         Structures that include ventilation and/or fire life safety considerations



		Roadway pavement and associated infrastructure under environmental conditions that are similar to those affecting the project	~	The eastern limits of I-70 East are similar to US 36 with expandable clays and existing pavements sections that can be utilized to reduce the costs in the improved pavement sections.	
		Interfaces with adjacent road operators	¥	Interfaces with CDOT Maintenance and CDOT ITS, CDOT 0&M snow and ice contractor and CDOT courtesy patrol contractor	
		Workforce development programs, including: partnerships with local community organizations and apprenticeship programs	~	33 trainees are currently enrolled in the Colorado Contractors Association apprenticeship and professional services program. The team is forecasting 120,000 man hours of training opportunities and is on track to achieve this goal.	
		Achievement of or exceeding goals relating to participation of: disadvantaged businesses small businesses other business that are subject to equivalent programs	✓	On track to meet and potentially exceed DBE goal requirements of 11%	
		Air quality monitoring and mitigation in urban environments	✓	As needed for confined space entry and permitting of batch plants.	
		Noise monitoring and mitigation in urban environments	✓	As needed for key activities such as night work and batch plant operations.	
		The project's financing included a TIFIA loan that was closed by the project developer and not a public authority	✓	\$60 million TIFIA loan procured for Phase 2.	
		The project's financing used PAB's	~	\$20.6 million PABs issuance	
		The financed project was a highway or road project	~	US Highway 36	
		The financed project was located in North America	$\checkmark$	Located in Denver, Colorado.	
II. Des	II. Description of Team Member Involvement				
	Proposer Team Member(s) (or Affiliate(s)) Involved:	Lead Operator Transfield Services Infrastructure Inc., a Core Proposer Team Member for 5280 Connectors, is responsible for 93% for the project's operations and maintenance work. Plenary Group USA Ltd. is responsible for the remaining 7%.			
(9)		Equity Member Plenary Group USA Ltd., a Core Proposer Team Member for 5280 Connectors, invested 100% of the project equity and is involved in all aspects of the project.			
		Leader Engineer HDR Engineering Inc., a Core P responsible for 100% of the design of the project.		lember for 5280 Connectors, was	



-				
(10)	Role of Proposer Team Member(s) (or Affiliate(s)):	Lead Operator Transfield Services Infrastructure Inc. is responsible for 93% of the project's operations and maintenance work. Equity Member Plenary Group is responsible for 7% of the maintenance. Please see the Form F for US 36 under the Lead Engineer tab for a further description of the role of HDR Engineering Inc. Please see the Form F for US 36 under the Equity Member tab for a further description of the role of Plenary Group USA Ltd.		
(11)	Key Personnel Involved, Roles & Responsibilities:	5280 Connectors O&M Manager Christian Guevara is the O&M Project Manager throughout all phases of the US 36 project.		
III. Reference				
(12)	Name:	Mark Gosselin, P.E.		
(13)	Title & Employer (current):	Project Director   High Performance Transportation Enterprise		
(14)	Title & Employer (at time of project/transaction):	Project Director   High Performance Transportation Enterprise		
(15)	Phone & Email:	(303) 404-7020   mark.gosselin@state.co.us		
(16)	Location & Time Zone:	Broomfield, CO   Mountain Time Zone		
(17)	Other:	N/A		
<u>IV. Te</u>	IV. Technical Information			
(18)	Construction Value:	\$121.5 million		
(19)	Completion within/above Budget:	Currently within budget		
(20)	O&M Value:	\$4.5 million Annual Service Payment starting in the first year after Substantial Completion		
(21)	Length of Road under Operation (centerline miles):	Currently, 7.5 miles are under operation. At substantial completion (2016), 30 miles will be under operations.		
(22)	Key Technical Challenges and Solutions Implemented:	<ul> <li>Tolling with Minimum Travel Speeds: The project involves the construction of one managed lane in each direction along the US 36 median and the Bus Rapid Transit system is expected to run within the managed lane. As part of the concession agreement Plenary is required to guarantee minimum travel speeds for buses within the managed lane. Transfield, with primary responsibility for on-site O&amp;M activities, is required to keep the managed lanes free from obstructions (debris, stalled cars, etc.) to enable the free flow of traffic. To meet this challenge, Transfield hired locally sourced operators and provided training. This team is supported locally and has proven its responsiveness and capability several times already through prompt accident responses and coordination with HPTE/CDOT and local emergency responders.</li> <li> "Plenary and Transfield have provided great leadership and guidance in the delivery and execution of CDOT's first P3 project, they are proven to be an excellent partnership for future projects within the State of Colorado."         <ul> <li>Mark Gosselin   CDOT, Project Director, US 36 Express Lanes Project</li> <li>Lifecycle Consideration in Design: In PPP projects, Transfield actively participates during the design phase by being involved with the Task Force groups to ensure maintainability, accessibility</li> </ul> </li></ul>		



	1			
		and also incorporate lifecycle analysis. This has resulted in an asset that is designed and constructed to perform well throughout the service life with effective maintenance practices.		
		<b>Operation of the reversible gate infrastructure</b> : Upon Financial Close, Transfield became responsible for the operations and maintenance of the time-sensitive I-25 reversible gate system which controls access to the reverse-flow Express Lanes. Prior to the transition of operations, Transfield worked closely with the CDOT personnel to understand all aspects of operating practices and troubleshooting for the gate system. Transfield currently has operated the system for over a year with no major issues or delays caused by the gate system.		
		I-25 Express Lanes existing infrastructure: The I-25 facility includes 14 bridge structures, and 7 center-lane miles of pavement (both HMA and PCCP) that are over 20 years old and facing deterioration. Transfield worked in collaboration with CDOT, HPTE, Plenary Group, and HDR to maximize the allotted initial works budget to provide an adequate scope of maintenance work to effectively rehabilitate the existing infrastructure and provide baseline standards for measurement during the 50 year term.		
		Interface with CDOT at maintenance boundary locations: A key challenge at project boundaries is the interface with adjacent O&M efforts. Improperly performed, this can lead to differential performance, causing issues to the travelling public when moving from one zone to the adjacent zone. Transfield has worked with CDOT maintenance patrols, CDOT superintendents and local agency operators adjacent to the current operations to ensure that maximum efficiency and coordination is realized at all transition zones, such that motorists are not aware that they are exiting a Transfield managed zone and entering a CDOT managed zone.		
		<b>Toll Services Provider:</b> Providing tolling services to a private sector managed lane developer, implementing dual position transponder technology and employing segment tolling methodology were new endeavors for E470. Plenary worked with its HPTE and E470 partners to develop a three-way Toll Services Agreement (TSA) that can be replicated by HPTE on future state managed lane projects. Plenary assumed the lead role in writing, developing and negotiating business rules for use on US 36. Plenary has invested the time to develop the E470 relationships and knowledge base to manage the toll systems and back office integration. Plenary is uniquely qualified to comprehend the intricacies of the TSA and the thousands of pages of business rules which can have server schedule and budget consequences if not understood or managed properly.		
<u>V. Fina</u>	V. Financial Information			
(23)	Payment Mechanism:	100% revenue risk. All payments for the duration of the concession in regard to Operations and Maintenance are contained within a monthly payment schedule within the Operating Agreement. All payments are subject to indexing based on CPI. Any deductions in the form of non-compliance penalties or compensation events are deducted from the monthly payment.		
(24)	Source(s) of Revenues or Payments:	Revenue risk collections		
(25)	Proposer Team Member(s) Equity Investment:	Transfield is not investing equity. Please see Form F for US 36 under the Equity Member tab for further description of the role of Plenary Group USA Ltd. regarding equity investment.		
(26)	Financing Method(s) and Value(s):	Transfield is not part of the project funding. Please see Form F for US 36 under the Equity Member tab for further description of the role of Plenary Group USA Ltd. regarding financing.		
(27)	Key Financial and Funding Challenges and Solutions Implemented:	Transfield is not part of the project funding. Please see Form F for US 36 under the Equity Member tab for further description of the role of Plenary Group USA Ltd. regarding financing.		



 Core Proposer Team Members(s) Involved:
 □
 Equity Member:

 □
 Lead Contractor:

 □
 Lead Engineer:

 □
 Lead Operator: Transfield Services Infrastructure, Inc.

 □
 Joint venturer in Lead:

 □
 Affiliate(s):

No.	Required Information	Response	
I. Back	I. Background Information		
(1)	Project Name:	Port Miami Tunnel (formerly Port of Miami) Project	


(2)	Type of Facility:	Urban tunnel and roadway
(3)	Owner/Procuring Authority:	Florida Department of Transportation ("FDOT")
(4)	Brief Description of Project:	The project provides a new vehicular connection between Watson Island and Dodge Island, running beneath the main shipping channel in Biscayne Bay (Government Cut) providing direct access to the port. The connection to 1-395 is designed to eliminate port traffic from downtown Miami streets. The approximate length of the Project is two miles with the 2 tunnel tubes being each just less than 1 mile in length. Each tunnel provides two lanes for unidirectional traffic and is equipped with a state of the art traffic management system and safety features such as: Pan Tilt Zoom ("PTZ") Closed-Circuit Television ("CCTV") cameras; Fixed CCTV cameras running an Automatic Video Incident Detection ("AVID") system; Longitudinal jet fan ventilation system (22 reversible fans per tube); Deluge sprinkler fire suppression system; Backup and standby diesel power generators with 72 hours of fuel; Flood gate hurricane protection system; Fire standpipe system; Pressurized egress passages; Two-way FM radio system; Carr quality monitoring system (CO, NOx, Haze, temperature); Over-Height Vehicle Detection and management ("OHVD"); Fully lined passive fire protection system; Drainage and spill collection and retention system; Lane Use Signals ("LUS"); Dynamic Message Signs ("DMS");



		Portal Traffic Closure Signals (	("PTCS");			
		Traffic Control Gates ("TCG");				
		Radio Rebroadcast with break	-in functionalit	v ("RRB"):		
		Tunnel lighting and emergency lighting.				
		The Port Miami Tunnel, portals and facilities will be operated, maintained and rehabilitated under a 30 year agreement.				
		Term length: 30 years				
(5)	Contract Term:	Start date: October 2009				
		End date: October 2044				
(6)	Current Status:	The project is in operation.				
		Contract execution: October 2009 (contra	cted); Octobe	r 2009 (actual)		
		Commencement of design: 0 months (cor				
		Commencement of construction: 7 months				
(7)	Key Dates and Milestones:	Achievement of Substantial Completion: 5				
		Service/Operations Commencement: 53 r				
		Achievement of Final Completion: 57 months (contracted); 57 months (actual)				
		End of Service/Operations: 30 years (anti				
		<u>Criteria</u>	Common Feature?	<u>Relevance</u>		
		Roadway expansion and reconstruction and interchange reconstruction				
		Demolition of existing infrastructure in urban environments				
		Major excavation work, including; groundwater considerations and drainage requirements				
(8)	Relevance to the Project:	Complex traffic management in urban areas				
		Construction staging in confined spaces				
		Structures that include ventilation and/or fire life safety considerations	~	The tunnel incorporates complex ventilation and Fire and Life Safety Systems designed and operated by Transfield in accordance with NFPA standards and best practices.		
		Coordination with rail and utility companies				
		Roadway pavement and associated infrastructure under environmental conditions that are similar to those affecting the project				



		Interfaces with adjacent road operators	~	Interfaces with the FDOT TMC and the Port of Miami.
		Workforce development programs, including: partnerships with local community organizations and apprenticeship programs		
		Achievement of or exceeding goals relating to participation of: disadvantaged businesses small businesses other business that are subject to equivalent programs	V	Engagement with local subcontractors and other businesses to provide required contract level of service, 8% target across the life of the Project.
		Air quality monitoring and mitigation in urban environments	~	Eight air quality monitoring stations are installed in the tunnel providing real time data and management to the tunnel operator.
		Noise monitoring and mitigation in urban environments		
		The project's financing included a TIFIA loan that was closed by the project developer and not a public authority		
		The project's financing used PAB's		
		The financed project was a highway or road project		
		The financed project was located in North America		
II. Des	cription of Team Member Involv	vement		
(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	Transfield Infrastructure Services, Inc., responsible for 100% of the project's oper		oser Team Member for 5280 Connectors, is aintenance work.
(10)	Role of Proposer Team Member(s) (or Affiliate(s)):	Lead Operator Transfield Infrastructure Services, Inc.is the lead operator for Miami Access Tunnel ("MAT"), the company acting as the developer. Transfield was involved in the design aspects of the project prior to commercial close completing maintainability, accessibility and lifecycle analysis, and has a long-term operating contract.		
(11)	Key Personnel Involved, Roles & Responsibilities:	N/A		
III. Reference				
(12)	Name:	Gus Pego		
(13)	Title & Employer (current):	District Six Secretary   Florida Department of Transportation		
(14)	Title & Employer (at time of project / transaction):	District Six Secretary   Florida Department of Transportation		
(15)	Phone & Email:	(305) 470-5197   gus.pego@dot.state.fl.us		



(16)	Location & Time Zone:	Miami, FL   Eastern Standard Time Zone
(17)	Other:	N/A
<u>IV. Te</u>		
(18)	Construction Value:	\$700 million
(19)	Completion within/above Budget:	N/A
(20)	O&M Value:	\$8 million annually
(21)	Length of Road under Operation (centerline miles):	4 miles
(22)	Key Technical Challenges and Solutions Implemented:	<ul> <li>Throughout the design and construction phase of this project, Transfield was actively involved in design review, and maintainability, accessibility and lifecycle analysis to ensure a whole of life approach was taken. Lead Operator technical challenges addressed to date:</li> <li>Development of extensive Emergency Management Plan to ensure safety of workforce and traveling public. Transfield's approved Emergency Management Plan includes development of an Incident Response Plan, Emergency Response Plan and 22 Specific Incident Management Plans to ensure all scenarios are planned and trained for. The Emergency Response Plan incorporates all of the NFPA502 requirements and was developed in collaboration with the dedicated Fire &amp; Life Safety Committee (FLSC). The FLSC represents numerous agencies such as the police, Fire Department, US Coast Guard and FDOT.</li> <li>Scheduling and programming all preventive and corrective maintenance within a finite number of available tunnel availability work hours. Given the high importance of traffic flow through the tunnels, Transfield must complete all preventive and corrective maintenance works within established available work hours. Accurate scheduling and execution of work is required to ensure additional lane closures are avoided. The development and implementation of an inventory management module within the Computerized Maintenance Management System provides the necessary data for efficient management.</li> <li>Coordination of traffic flow with neighboring communities. Port Miami is the area's second largest economic generator, therefore reduced traffic flow or incidents can have a significant impact. Transfield staff must consistently liaise and coordinate with FDOT District 6 and Port of Miami TMC's to ensure traffic flow is continuous and any incidents are managed in accordance with procudures.</li> <li>Development of integrated tunnel control system. Ensuring that during the design and development of the Tunnel Control System (TCS) monito</li></ul>
		<ul> <li>SCADA/TSCS Event Log Report including histories and other pertinent records used to log and track operations, events, and activities;</li> <li>SCADA/TSCS Tunnel Sensor Data Report summarizing the daily traffic per Segment including; total count, total automobiles, and total heavy vehicles</li> </ul>



		<b>24/7 tunnel operations.</b> Transfield operates the Port Miami Tunnels 24 hours, 7 days a week through a dedicated Traffic Management Center and trained tunnel operators.		
<u>V. Fina</u>	V. Financial Information			
(23)	Payment Mechanism:	The payment mechanism is availability based with deductions for performance and unavailability. The payment is indexed against annual CPI.		
(24)	Source(s) of Revenues or Payments:	N/A		
(25)	Proposer Team Member(s) Equity Investment:	N/A		
(26)	Financing Method(s) and Value(s):	N/A		
(27)	Key Financial and Funding Challenges and Solutions Implemented:	N/A		



Proposer Name: 5280 Connectors

 Core Proposer Team Members(s) Involved:
 □
 Equity Member:

 □
 Lead Contractor:

 □
 Lead Engineer:

 □
 Lead Operator: Transfield Infrastructure Services Inc.

 □
 Joint venturer in Lead:

 □
 Affiliate(s):

#### Form F: Project/Transaction Description

No.	Required Information	Response
I. Back	ground Information	
(1)	Project Name:	<image/>
(2)	Type of Facility:	Urban roadway, bridge replacements, ramp expansions, and addition of three tunnels to existing infrastructure
(3)	Owner/Procuring Authority:	California Department of Transportation ("Caltrans")



(4)	Brief Description of Project:	<ul> <li>The Presidio Parkway consists of a 3.2 mile 6-lane roadway and southbound auxiliary lane, 4 cut-and-cover tunnels, 2 high viaducts, a low causeway and landscaped medians located in a highly congested area of San Francisco. The current Annual Average Daily Traffic is approximately 110,000.</li> <li>Since beginning O&amp;M services during construction, Transfield has provided 24/7 service to manage all operations. Transfield's scope of work includes bridge inspections and maintenance with collision damage repair and rehabilitation repair; structures inspection and maintenance, including drainage and retaining walls; lighting; ITS maintenance, deluge systems, ventilation and all tunnel systems maintenance; and traffic incident management.</li> <li>Transfield, as the Lead Operator, operates under a performance based contract and self performs the majority of services. Subcontractors are utilized either to i) perform specialized services, or ii) provide work packages to Disadvantaged Business Enterprises (DBE's) where possible.</li> <li>Once construction is fully complete, the entire Presidio Parkway will be operated, maintained and rehabilitated under a 30 year agreement.</li> </ul>		
(5)	Contract Term:	Term Length: 30 years Start date: November 2012 End date: September 2045		
(6)	Current Status:	Phase I Operational / Phase II Under Constructio	n	
(7)	Key Dates and Milestones:	Key Dates/Milestones:         Contract execution: June 2012 (contracted); June 2012 (actual)         Commencement of design: - 14 months (contracted); -14 months (actual)         Commencement of construction: 5 months (contracted); 5 months (actual)         Achievement of Substantial Completion: 39 months (anticipated/contracted)         Service/Operations Commencement: 11 months (contracted); 11 months (actual)         Achievement of Final Completion: 46 months (anticipated/contracted)         End of Service/Operations: 30 years (anticipated/contracted)		
		The Presidio Parkway project is relevant marks indicate common project features and 27):	to the I-70 E below (see a	ast Project where check also boxes 4, 10, 22, 26
		<u>Criteria</u>	<u>Common</u> Feature?	<u>Relevance</u>
(8)	Relevance to the Project:	Roadway expansion and reconstruction and interchange reconstruction		
(~)		Demolition of existing infrastructure in urban environments		
		Major excavation work, including; groundwater considerations and drainage requirements		
		Complex traffic management in urban areas	~	Responsibilities include incident response and complete traffic



		detouring should the need arise.
Construction staging in confined spaces	~	Responsible for moveable barrier. Laydown and staging areas currently shared with contractor.
Structures that include ventilation and/or fire life safety considerations	✓	The tunnels are equipped with Fire Life Safety Systems.
Coordination with rail and utility companies		
Roadway pavement and associated infrastructure under environmental conditions that are similar to those affecting the project		
Interfaces with adjacent road operators	~	Interfaces are maintained with CalTrans, the Golden Gate Bridge and the city.
Workforce development programs, including: partnerships with local community organizations and apprenticeship programs		
Achievement of or exceeding goals relating to participation of: disadvantaged businesses small businesses other business that are subject to equivalent programs		
Air quality monitoring and mitigation in urban environments	~	An Air Quality Monitoring Plan as it relates to all future rehabilitation has been prepared and is being implemented during the Project.
Noise monitoring and mitigation in urban environments	V	A Noise Monitoring Plan as it relates to all future rehabilitation has been prepared and is being implemented during the Project.
The project's financing included a TIFIA loan that was closed by the project developer and not a public authority		



		The project's financing used PAB's		
		The financed project was a highway or road project		
		The financed project was located in North America		
<u>II. De</u>	scription of Team Member In	volvement		
(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:	Transfield Infrastructure Services, Inc., a Core Proposer Team Member for 5280 Connectors, is responsible for 100% of the project's operations and maintenance work.		
(10)	Role of Proposer Team Member(s) (or Affiliate(s)):	Transfield Infrastructure Services, Inc. is the lead operator for Golden Link Concessionaire (GLC), the company acting as the developer. Transfield was involved in the design aspects of the project prior to commercial close completing maintainability, accessibility and lifecycle analysis, and has a long- term operating contract.		
(11)	Key Personnel Involved, Roles & Responsibilities:	N/A		
<u>III. Re</u>	eference			
(12)	Name:	Ramses Sargiss		
(13)	Title & Employer (current):	Chief / Maintenance Division - Caltrans		
(14)	Title & Employer (at time of project / transaction):	Chief / Maintenance Division – Caltrans		
(15)	Phone & Email:	(510) 286-4500 / ramses_sargiss@dot.ca.gov		
(16)	Location & Time Zone:	San Francisco, CA / Pacific Time Zone		
(17)	Other:	N/A		
<u>IV. Те</u>	echnical Information			
(18)	Construction Value:	\$360 million		
(19)	Completion within/above Budget:	N/A		
(20)	O&M Value:	\$3 million annually		
(21)	Length of Road under Operation (centerline miles):	3.2 miles		
(22)	Key Technical Challenges and Solutions Implemented:	Throughout the design and construction phase of this project, Transfield was actively involved in design review, and maintainability, accessibility and lifecycle analysis to ensure a whole of life approach was taken.		
	1	Lead Operator technical challenges addressed to date:		



		<ul> <li>Development of extensive Emergency Management Plan to ensure safety of workforce and traveling public. Transfield's approved Emergency Management Plan includes development of an Incident Response Plan, Emergency Response Plan and 22 Specific Incident Management Plans to ensure all scenarios are planned and trained for. The Emergency Response Plan incorporates all of the NFPA502 requirements and was developed in collaboration with the State Fire Marshal and California Highway Patrol.</li> <li>Maintenance of Traffic (MOT) throughout Construction Phase. Transfield Services manages the alignment of the 2.5 mile long moveable barrier in order to ensure traffic is managed and diverted efficiently and safety. This MOT technique requires use of specialized equipment and precise planning and scheduling.</li> <li>Coordination with of traffic flow with neighboring communities. San Francisco is a bustling city and its tourism industry is a major revenue producer with 16.9 million visitors spending over \$9 million in 2014. Incidents and/or delays on and around the Golden Gate Bridge can greatly impact travel schedules and overall tourist experience resulting in potentially significant impacts. Coordination between Transfield's O&amp;M Center and the Golden Gate Bridge and the CalTrans TMC is essential to ensuring that traffic flow is maintained and any incidents are managed in accordance with procedures.</li> <li>24/7 tunnel operations. Transfield currently operates the Presidio Parkway Tunnels 24 hours, 7 days a week. Safety of the traveling public as well as economic importance of available tunnels is safeguarded through Transfield's 24/7 tunnel operations and incident response.</li> <li>Tunnel Lighting Upgrades. Through technical meetings with designers and lighting suppliers, it was determined an enhanced lighting control would provide best return on investment. The efficiencies in power consumption anticipated for the lighting control system range between 40-50% and after</li> </ul>
		investment payback, it is projected that there will be approximately \$290,000 per year in savings. Safety of the traveling public as well as economic importance of available tunnels is safeguarded through Transfield's 24/7 tunnel operations and incident response.
<u>V. Fir</u>	nancial Information	
(23)	Payment Mechanism:	The payment mechanism is availability based with deductions for performance and unavailability. The payment is indexed against annual CPI.
(24)	Source(s) of Revenues or Payments:	N/A
(25)	Proposer Team Member(s) Equity Investment:	N/A
(26)	Financing Method(s) and Value(s):	N/A
(27)	Key Financial and Funding Challenges and Solutions Implemented:	N/A



Proposer Name: 5280 Connectors

 Core Proposer Team Members(s) Involved:
 □
 Equity Member:

 □
 Lead Contractor:

 □
 Lead Engineer:

 □
 Lead Operator: Transfield Infrastructure Services Inc.

 □
 Joint venturer in Lead:

 □
 Affiliate(s):

#### Form F: Project/Transaction Description

No.	Required Information	Response		
I. Bacl	I. Background Information			
(1)	Project Name:	Route 1 Gateway Project     Image: Stateway Project        Image: Stateway Project		
(2)	Type of Facility:	DBFOM 148 mile 4-lane undivided highway		
(3)	Owner/Procuring Authority:	Province of New Brunswick, New Brunswick Highway Corporation		
(4)	Brief Description of Project:	The project involves operations, maintenance and rehabilitation of the Route 1 highway located between St. Stephen and River Glade New Brunswick, a 148 mile (237km) 4-lane undivided highway. Route 1 passes through major cities and communities of Saint John, St. Stephen, Rothesay, Sussex, Moncton, St. George, Quispamsis, Petitcodiac, Digdeguash and Penobsquis resulting in both urban and rural environments.		



		Gateway Operations is delivering operations, maintenance and rehabilitation services under a 30 year agreement.			
(5)	Contract Term:	Term Length: 30 years Start date: June 2011 End date: June 2040			
(6)	Current Status:	The project is in operation.			
(7)	Key Dates and Milestones:	Contract execution: March, 2010 (contracted); March, 2010 (actual) Commencement of design: 1 months (contracted); 1 months (actual) Commencement of construction: 1 months (contracted); 1 months (actual) Achievement of Substantial Completion: 32 months (contracted); 32 months (actual) Service/Operations Commencement: 15 months (contracted); 15 months (actual) Achievement of Final Completion: 32 months (contracted); 32 months (actual) End of Service/Operations: 30 years (anticipated/contracted)			
(0)	Delevance to the Draiget	Criteria         Roadway expansion and reconstruction and interchange reconstruction         Demolition of existing infrastructure in urban environments         Major excavation work, including; groundwater considerations and drainage requirements         Complex traffic management in urban areas         Construction staging in confined	<u>Common</u> <u>Feature?</u>	Relevance	
(8)	Relevance to the Project:	spaces         Structures that include ventilation and/or fire life safety considerations         Coordination with rail and utility companies         Roadway pavement and associated infrastructure under environmental conditions similar to those affecting the project	✓	Ongoing coordination with New Brunswick Southern Rail and various utility companies throughout the 30 year concession period. All operations, maintenance, and rehabilitation works are conducted year- round including the winter in New Brunswick, Canada.	
		Interfaces with adjacent road operators	~	Interfaces exist with all adjacent road operators as well as municipalities, cities and local authorities.	



	Workforce development programs, including: partnerships with local community organizations and apprenticeship programs       Lead Operator was required to engage and educate the traveling public on public private partnerships, levels of services ar best practices.							
		Achievement of or exceeding goals relating to participation of: disadvantaged businesses small businesses other business that are subject to equivalent programs	✓	Engagement with local subcontractors and other businesses to provide required contract level of service.				
		Air quality monitoring and mitigation in urban environments						
		loise monitoring and mitigation in rban environments Project financing included TIFIA loan hat was closed by the project leveloper and not a public authority						
		The project's financing used PAB's	he project's financing used PAB's					
		The financed project was a highway or road project						
		The financed project was located in North America						
II. Description of Team Member Involvement								
(9)	Proposer Team Member(s) (or Affiliate(s)) Involved:         Transfield Infrastructure Services, Inc., a Core Proposer Team Member for 5280 Connectors, is responsible for 50% of the project's operations and maintenance work.							
(10)	Role of Proposer Team	Lead Operator Transfield is a 50/50 Joi New Brunswick.	Lead Operator Transfield is a 50/50 Joint Venture partner for the lead operator for the Province of New Brunswick.					
(10)	Member(s) (or Affiliate(s)):	Transfield was involved in the design as contract.	Transfield was involved in the design aspects of the design/build and has a long-term operating contract.					
(11)	Key Personnel Involved, Roles & Responsibilities:	N/A						
III. Re	ference							
(12)	Name:	Fred Blaney	Fred Blaney					
(13)	Title & Employer (current):	Assistant Deputy Minister Partnerships	New Brunswick	Transportation				
(14)	Title & Employer (at time of project/transaction):	Assistant Deputy Minister Partnerships	New Brunswick	Transportation				
(15)	Phone & Email:	(506) 453-3939   fred.blaney@gnb.ca						
(16)	Location & Time Zone:	Fredericton, New Brunswick   Atlantic T	ime Zone					
(17)	Other:	N/A						



<u>IV. Te</u>	chnical Information	
(18)	Construction Value:	N/A
(19)	Completion within/above Budget:	N/A
(20)	O&M Value:	\$20.8 million annually
(21)	Length of Road under Operation (centerline miles):	148 miles
(22)	Key Technical Challenges and Solutions Implemented:	<ul> <li>The Route 1 Gateway project has many operational challenges given the length of the roadway and extensive number of structures.</li> <li>The primary challenge faced on the project is maintenance during the extreme winter conditions: <ul> <li>The average annual snow precipitation accumulation is 300cm (120 inches);</li> <li>The average number of snow day events is 80;</li> <li>The average temperature range during the winter months is a high of -4° C to Low -15° C (25°F to 5°F); and</li> <li>The winter period extends from 15<sup>th</sup> October – 15<sup>th</sup> April.</li> </ul> </li> <li>Gateway Operations has developed a robust and successful winter maintenance program that is built on the following key components:</li> <li>Performance measures: <ul> <li>Bare pavements within 4 to 24 hours depending on location following a storm event.</li> <li>Continuous plow coverage of all lanes and shoulders during a storm event.</li> <li>Plowing cycles based on a 1.8 hour.</li> <li>Snow removed in front of guiderails and barriers within 72 hours.</li> </ul> </li> <li>Fleet and equipment: <ul> <li>Plan, procure and maintain a fleet of combination plows for de-icing operations complete with on-board pre-wetting capacities and telescopic plows.</li> <li>Plan, procure and maintain a fleet of anti-icing equipment.</li> <li>Develop semi-automated brine production units complete with liquid storage.</li> <li>Production of salt brine as well as pre-wetting material comprised of organics mixed with various chlorides.</li> </ul> </li> <li>Methodology: <ul> <li>Anti-icing operations scheduled within 24 hours in advance of a storm event using salt brine via specialized anti-icing equipment.</li> <li>Devicing operations scheduled within 24 hours in advance of a storm event using salt brine via specialized anti-icing equipment.</li> </ul> </li> </ul>
		148 miles         The Route 1 Gateway project has many operational challenges given the length of the roadway a extensive number of structures.         The primary challenge faced on the project is maintenance during the extreme winter conditions:         • The average annual snow precipitation accumulation is 300cm (120 inches);         • The average number of snow day events is 80;         • The average temperature range during the winter months is a high of -4° C to Low -15 (25°F to 5°F); and         • The winter period extends from 15 <sup>th</sup> October – 15 <sup>th</sup> April.         Gateway Operations has developed a robust and successful winter maintenance program that is built on the following key components: <b>Performance measures:</b> • Bare pavements within 4 to 24 hours depending on location following a storm event.         • Continuous plow coverage of all lanes and shoulders during a storm event.         • Plowing cycles based on a 1.8 hour.         • Snow removed in front of guiderails and barriers within 72 hours. <b>Fleet and equipment:</b> • Plan, procure and maintain a fleet of combination plows for de-icing operations comple with on-board pre-wetting capacities and telescopic plows.         • Plan, procure and maintain a fleet of anti-icing equipment.         • Develop semi-automated brine production units complete with liquid storage.         • Production of salt brine as well as pre-wetting material comprised of organics mixed wi various chlorides.         Methodology:
		This winter maintenance program is continually reviewed and improved each year.



<u>V. Fin</u>	ancial Information	
(23)	Payment Mechanism:	The payment mechanism is availability based with deductions for performance and unavailability. The payment is indexed against annual NBCPI.
(24)	Source(s) of Revenues or Payments:	N/A
(25)	Proposer Team Member(s) Equity Investment:	N/A
(26)	Financing Method(s) and Value(s):	N/A
(27)	Key Financial and Funding Challenges and Solutions Implemented:	N/A

# **4. TECHNICAL EXPERIENCE**

# 4.2 Safety Record

Please refer to the following pages for Form G (Safety Questionnaire) for the Lead Contractor, Lead Engineer and Lead Operator.

Proposer Name: 5280 Connectors

Name of Team Member: Skanska USA Civil West Rocky Mountain District Inc.

Core Proposer Team Members(s) Involved:

Lead Contractor

Lead Operator

 $\ensuremath{\boxtimes}$  Joint venturer in Lead Contractor

# Form G: Safety Questionnaire

## A. <u>Required Statistics</u>

## (1) Please provide the following information:

Data Series	2011	2012	2013	2014
Fatalities				
Total Number of Fatalities (Workers):	0	0	0	0
Fatal Injury Rate:	0	0	.35	0
Total Number of Fatalities (Members of the Public):	0	0	0	0
Other Incidents				
Total Number of Non-fatal Recordable Cases:	7	1	6	2
- Cases with Days Away from Work:	2	0	1	1
- Cases with Job Transfer or Restriction:	2	0	0	0
- Other Non-fatal Recordable Cases:	3	1	4	1
OSHA Incident Rate:	1.48	.30	2.07	.69
DART Rate:	.85	0	1.04	.34
Total Number of Non-fatal Injuries to Members of the Public:	0	0	0	0
Lost Work Days				
Total Lost Work Days:	78	0	34	12
Lost Workday Index:	16.5	0	11.74	4.12
Cost of Accidents				
Cost of Accident per Employee:				
Cost of Accidents involving Members of the Public:				
Safety Metrics				
EMR:	.61	.58	.57	.62



#### Where:

- (a) <u>Fatal Injury Rate</u> = (Number of fatal work injuries x 200,000,000) / total employee hours worked during the calendar year.
- (b) <u>Non-fatal Recordable Cases</u> refers to non-fatal occupation injuries and illnesses for Heavy and Civil Engineering Construction, as defined by the North American Industry Classification System (NAICS 237).
- (c) <u>OSHA Incident Rate</u> = (Number of cases of injury and illness x 200,000) / total employee hours worked during the calendar year.
- (d) <u>DART Rate</u> = (Number of recordable incidents of injury or illness that resulted in days away (lost), restricted or transferred during the calendar year) / 100 full time employees.
- (e) <u>Lost Workday Index</u> = (Number of lost workdays x 200,000) / total employee hours worked during the calendar year.
- (f) <u>Cost of Accident per Employee</u> = Total cost of accidents / average number of employees.
- (g) <u>EMR</u> refers to the National Council on Compensation Insurance (NCCI) Experience Modification Rating.

### B. Questions Regarding Safety Record and Approach

(1) How is your entity's management included in the accident reduction process?

*Response:* At the field level, it is the responsibility of the most senior level person at the project to ensure that our Safety Health Environmental Management system (SHEMS) is being implemented. Project Managers must sign off on the risk acceptance sheet for every Construction Work Plan (CWP). This demands that project management have responsibility for hazard recognition and encourages development of alternate solutions to reduce the potential exposure to the workforce. A crew review schedule is implemented so that every crew is engaged with management to ensure communication of risk and to make sure that a change in scope hasn't occurred that would necessitate a change in planning. All executives are required to perform Executive Site Safety Visits (ESSV's) to engage with our craft workers and evaluate planning and execution processes. The project is required to hold a Monthly Management Review meeting and Safety Committee. These provide opportunities to give feedback for continual improvement.

(2) How often do you hold site meetings for supervisors for a typical Reference Project? If you do not hold meetings, why not?

*Response*: Daily safety meetings are held with the entire project team, including supervisors. All work planning is done holistically to always integrate safety into the plan as the primary objective. See Construction Work Plans under question 4 below.

(3) How often do you conduct project safety inspections? Who conducts these inspections? If you do not, why not?

*Response*: Daily, Weekly, Monthly, Quarterly, and Annually. The inspections are carried out starting at the foreman level all the way up to Corporate Executive level. Craft level employees participate in inspections as part of project safety committee meetings.

(4) Please describe your written safety program. If you do not have one, explain why.

*Response*: Safety Health Environmental Management System ("SHEMS"): Skanska has adopted a comprehensive SHEMS to achieve zero Incident safety and environmental performance on all of our worksites. The SHEMS is certified to the ISO 14001 and OHSAS 18001 standard. (See attached Certificates) The SHEMS provides a structure for meeting regulatory and legal requirements as well as the expectation of our customers and Skanska's internal safety policies. The SHEMS enables every Skanska work location to systematically identify safety and environmental risk and put necessary controls in place to prevent potential accidents or environmental incidents from occurring. The SHEMS is a common safety platform that promotes best practices and effective communication throughout the organization. Skanska expects all employees and subcontractors to proactively implement the SHEMS.

The management system enables identification and control of potential occupational hazards and environmental impacts on our projects. Means for measurement and evaluation to assess performance are incorporated to ensure potential problems are corrected and opportunities for improvement are recognized.

Within the SHEMS, planning for environmental protection and occupational health and safety is performed on a common platform. Safety Health and Environmental Management Programs ("SHEMP'") are developed addressing each significant environmental aspect and Occupational Hazard. Tools such as Construction Work plans, Daily Pre-job Briefings, and Task Training are used to implement the SHEMP'S.

The SHEMP's are project specific. Each SHEMP addresses 14 different items, including objectives and targets, and performance indicators. Specific documentation and records associated with the specific safety aspects and hazards identified. Roles and responsibilities are defined along with performance indicators.

**Construction Work Plans ("CWP")**: The construction work plan is the foundation of the Skanska safety program. No work activity will begin without an associated construction work plan. The CWP includes the specific Emergency Action Plan ("EAP") for each location. A written narrative detailing the sequential steps of the task will be created as part of each CWP. For each CWP, triggers are identified for the task environment, materials, tools, equipment, and environmental aspects. Once a trigger is identified, the controls for each trigger are generated using the hierarchy of controls. The expectation is that the residual risk after implementing the controls will be minimal. Competent persons shall be identified for each control. Each plan will be reviewed by the Project Management team. No CWP shall be put into place until it has been reviewed and the risk acceptance sheet signed off.

**Crew Pre-Task Briefing**: Prior to the start of work each day, the foremen will review the CWP for that day's activities with the crew and discuss the associated hazards. This review and discussion will allow the crew members to discuss and identify any additional hazards that may be associated with that day's activities and ensure that a plan is in place to mitigate the hazard. This morning briefing also enables the crew to become part of the planning process and to provide valuable insight into the hazards associated with the day's planned activities. It is also an opportunity to address any new hazards caused by changing conditions, such as rain the previous night.

**Management Review/Audit**: We understand that the construction process is dynamic and requires continuous review and revision to ensure the safety of all parties involved. To ensure that all construction work plans remain relevant, the project management team will perform regularly

scheduled audits of the current construction work plans and ensure that all required revisions are incorporated immediately. This program not only ensures that all construction work plans remain relevant, but it also provides an avenue for the entire management team to be a part of the safety process. We will reward workers, supervisors and managers based on their proactive participation and visible leadership in our safety program.

**Employee Training**: Skanska regards the safety training of our employees as our most important tool. All Skanska craft supervisors and management will have the 30-hour OSHA certification and will be first aid and CPR trained in addition to the required MSHA training. Skanska takes our responsibility of training our employees on safe work practices seriously. We accomplish this through the following types of training: Orientation, Competence Training, General Awareness Trainings, and Competent Person Training:

**Orientation Training**: Each new employee will receive new hire orientation training. This training includes an introduction to our safety plan, addressing our safety fundamentals, emergency response procedures, and Chevron Mining standards.

**Competence Training**: Competence training is the minimum training that each employee must complete before beginning an assigned task. Key trainings include:

- Surface Powered Haulage
- Excavation and Trenching
- Confined space entry
- Hazardous materials
- · Fall protection.

This is accomplished by reviewing our work plans, Take 5s and daily toolbox meetings, prior to beginning work. All employees are trained in: the scope of work hazards they may be exposed to; environmental aspects; control measures; specific personal protective equipment ("PPE") requirements; and emergency requirement controls.

General Awareness Training: This training focuses on making all employees aware of the importance of conformance with the safety, health and environmental policy and procedures and with the requirements of the Safety, Health and Environmental Management System. Additional objectives are to identify the employees' roles and responsibilities in achieving conformance. These objectives also include emergency preparedness and response requirements and the potential consequences of departure from all relevant procedures. For example, non-conformance with Chevron mining safety training could result in serious injury.

**Competent Person Training**: The objective of competent person training is to ensure designated employees have demonstrated a minimum level of technical knowledge in the subject they are assigned

(5) Please describe your preferred methods for securing worksites in urban environments, including as such methods may promote the safety of members of the local community.

*Response*: During the design of the project, task force members will address safety in the context of the worksite for each construction phase. Risk identification and analysis will be used to engineer out safety risks to both the public and the construction work force as the design is developed. The

implementation of permanent safety features early in the project will be included in the phasing plan development. During construction, the project team will create a project site security plan. The preferred method of securing worksites is to have physical barriers between the work areas and public areas along with designated security personnel stationed at point of ingress. Potential points of conflict between the public and the construction are minimized. Where potential conflicts exist, proper lighting, signage and clearly delineated access routes will be provided. Skanska works very closely with project public relations personnel in order to inform the public of project developments and safe methods of getting through the project

(6) Please describe your orientation or training program for new hires and for newly promoted individuals (including foremen), including any safety related elements. If you do not have such a program, explain why.

*Response*: All employees (craft and salary) are required to attend a comprehensive new hire orientation class. It is conducted at the project level for craft workers and at our main offices for salaried employees. After the new hire and job specific orientation is completed all employees are required to attend a 4 hour Injury Free Environment ("IFE") orientation. IFE is the cultural soft side of safety focusing on leadership, personal responsibility and the idea that all accidents are preventable. Employees at the foreman level and above are required to complete a comprehensive training covering our SHEMS program. All supervisory personnel above the foreman level are required to complete the OSHA 30-hour course within 90 days of hire and some are trained to become certified IFE trainers.

Торіс	Yes	No
Safety Work Practices	$\boxtimes$	
Safety Supervision	$\boxtimes$	
On-site Meetings	$\boxtimes$	
Emergency Procedures	$\boxtimes$	
Accident Investigation	$\boxtimes$	
Fire Protection and Prevention	$\boxtimes$	
New Worker Orientation	$\boxtimes$	

(7) With respect to no. (6) above, for any program that relates to foremen, indicate whether it includes instruction on the following:

(8) How often does your entity hold safety meetings which extend to the laborer level, and how does this vary by type of project? If you do not hold such meetings, explain why not.

*Response*: We hold daily safety meetings to the laborer level. It does not vary by type of project. It is required on all Skanska projects. Our workforce all participates in daily work planning and pre-task briefings to assure proper communication and understanding of how the work is to be performed safely. See question 4 above.

(9) Please explain any program or written practices that expressly address the safety of the traveling public and the safety of personnel within the construction area. If the entity has no such program or practices, explain why not.

*Response*: It first starts during the design of the project to phase the construction in a way to limit conflicts that pose a safety risk to the travelling public or employees. The safety of personnel in the construction area is addressed in the individual Construction Work Plan for the specific activity. Traffic Control Plans ("TCP") or Maintenance of Traffic Plans ("MOT") addresses the safety of the traveling public by analyzing the entire context of each traffic phase including geometry, signing, striping and hazard protection. Also, please see the response to questions 4 and 5 above.

(10) Please describe any differences between the entity's standard or typical safety program or practices as described in your responses to (1) through (9) above and (a) the entity's safety program or practices on projects similar to this Project in size and scope and/or (b) the anticipated safety program or practices for this Project as may be preliminarily anticipated in the statement of technical approach included in the SOQ in accordance with <u>Section 5</u> of the <u>Volume 1 Requirements</u>.

*Response*: As the lead member of the construction joint venture, we will implement our ISO 14001 and OHSAS 18001 certified Safety Health Environmental Management System on this project. During the proposal phase, we will perform a comparative analysis of Skanska and Zachry's safety programs and assure that all Best Practices are incorporated into the program. None of our policies or programs change based on the size of a project.

The individual risk of an activity is unique to each project. The safety aspects of construction activities and planned means and methods for I-70 East construction will each be evaluated during the task force process, again at the construction work plan stage and finally as part of daily pre-task briefings. Anticipated key areas for I-70 include the deep excavation, hazardous materials, work near the railroads, demolition, traffic staging, underground utility work and other activities common to heavy civil construction.

The SHEMS provides the consistent framework in which risk is assessed, triggers identified, operational controls created, execution happens, and review provides feedback for continual improvement. Each task shall have its own stand-alone risk assessment which may vary the type of controls used to eliminate or mitigate the exposure. So while the means and methods could vary from project to project, the risk mitigation process does not.

The SHEMS will be implemented for all activities on the project, including the solutions discussed in the statement of technical approach as part of Vol.1, Sec.5. Each technical challenge discussed will be broken down into discrete activities of work and a CWP created. (See question 4 above for details on the CWP).

	Proposer	Name:	5280	Connectors
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Name of Team Member: HDR Engineering, Inc.

Core Proposer Team Members(s) Involved:

Lead Contractor

∑ Lead Engineer

Lead Operator

Joint venturer in Lead Contractor

# Form G: Safety Questionnaire

# A. <u>Required Statistics</u>

## (1) Please provide the following information:

Data Series	2011	2012	2013	2014
Fatalities				
Total Number of Fatalities (Workers):	0	0	0	0
Fatal Injury Rate:	0	0	0	0
Total Number of Fatalities (Members of the Public):	0	0	0	0
Other Incidents				
Total Number of Non-fatal Recordable Cases:	48	37	41	35
- Cases with Days Away from Work:	16	11	10	4
- Cases with Job Transfer or Restriction:	3	2	6	1
- Other Non-fatal Recordable Cases:	29	24	25	30
OSHA Incident Rate:	.68	.52	.57	.53
DART Rate:	.27	.18	.22	.08
Total Number of Non-fatal Injuries to Members of the Public:	0	0	0	0
Lost Work Days				
Total Lost Work Days:	178	250	123	105
Lost Workday Index:	2.51	3.54	1.71	1.58
Cost of Accidents				
Cost of Accident per Employee:				
Cost of Accidents involving Members of the Public:				
Safety Metrics				
EMR:	.64	.67	.70	.73



#### Where:

- (a) <u>Fatal Injury Rate</u> = (Number of fatal work injuries x 200,000,000) / total employee hours worked during the calendar year.
- (b) <u>Non-fatal Recordable Cases</u> refers to non-fatal occupation injuries and illnesses for Heavy and Civil Engineering Construction, as defined by the North American Industry Classification System (NAICS 237).
- (c) <u>OSHA Incident Rate</u> = (Number of cases of injury and illness x 200,000) / total employee hours worked during the calendar year.
- (d) <u>DART Rate</u> = (Number of recordable incidents of injury or illness that resulted in days away (lost), restricted or transferred during the calendar year) / 100 full time employees.
- (e) Lost Workday Index = (Number of lost workdays x 200,000) / total employee hours worked during the calendar year.
- (f) <u>Cost of Accident per Employee</u> = Total cost of accidents / average number of employees.
- (g) <u>EMR</u> refers to the National Council on Compensation Insurance (NCCI) Experience Modification Rating.

### B. <u>Questions Regarding Safety Record and Approach</u>

(1) How is your entity's management included in the accident reduction process?

*Response:* Supervisors are involved in the investigation and root cause analysis of all reported near miss and injury/illness incidents and are responsible for corrective action implementation. In addition, Regional Managers are notified of all incidents at the time of occurrence and track and follow reports through closure.

For field projects, Project Managers ("PM") are involved in accident reduction through the identification and control of potential site hazards. PMs are responsible for identifying project hazards and developing project-specific safety documents to address them.

(2) How often do you hold site meetings for supervisors for a typical Reference Project? If you do not hold meetings, why not?

*Response*: Project meetings with all supervisors and field team leaders are typically held at minimum, on a weekly basis. On project sites, the field team leader conducts daily meetings.

(3) How often do you conduct project safety inspections? Who conducts these inspections? If you do not, why not?

*Response*: Daily inspections are conducted by the on-site Health & Safety Officer. In addition, Field Managers from Corporate H&S conduct periodic site inspections and audits depending on the field scope and duration.

(4) Please describe your written safety program. If you do not have one, explain why.

*Response*: HDR requires the development of a Site-Specific Safety and Health Plan ("SSHP") for each of its field projects prior to project mobilization. The SSHP includes anticipated site hazards and measures to control the hazards, identification of required training, identification of Personal Protective Equipment, a list of emergency contacts, and the location of the nearest medical facility.

HDR also has health and safety protocols and specific instruction established based on HDR's Corporate Health and Safety Program Manual, which governs daily business operations

(5) Please describe your preferred methods for securing worksites in urban environments, including as such methods may promote the safety of members of the local community.

*Response*: Design services and on-site project role does not put HDR in a position of controlling site safety or security. HDR will always follow safety instructions and requirements implemented by the lead contractor on construction projects. HDR also takes an active approach to designing for safety so that potential safety issues are mitigated ahead of time. Designing for proper phasing to facilitate safe passage of bicycle and foot traffic through the project and construction of permanent engineering controls such as barriers or walls early in the project are examples.

(6) Please describe your orientation or training program for new hires and for newly promoted individuals (including foremen), including any safety related elements. If you do not have such a program, explain why.

*Response*: All new hires complete HDR's mandatory New Employee H&S Orientation and General Safety Awareness courses. Additional safety courses based on the person's job role and project assignments are determined by the supervisor and PM (e.g., OSHA 10-HR Construction Safety, Permit Required Confined Spaces, etc.).

All Project Managers complete a two-day workshop upon assignment as a PM and complete annual refresher training thereafter.

(7) With respect to no. (6) above, for any program that relates to foremen, indicate whether it includes instruction on the following:

HDR does not specifically employ on-site foremen; but the items checked in the table below are applicable to all of HDR's field teams and PMs.

Торіс	Yes	No
Safety Work Practices	$\boxtimes$	
Safety Supervision	$\boxtimes$	
On-site Meetings	$\boxtimes$	
Emergency Procedures	$\boxtimes$	
Accident Investigation	$\boxtimes$	
Fire Protection and Prevention	$\boxtimes$	
New Worker Orientation	$\boxtimes$	

(8) How often does your entity hold safety meetings which extend to the laborer level, and how does this vary by type of project? If you do not hold such meetings, explain why not.

*Response*: For HDR Projects where HER personnel are in the field, the PM holds an orientation meeting with the field team to review the H&S Plan prior to site work. Once on site, field team leaders

conduct daily safety meetings. In addition, HDR participates in all onsite safety meetings held by the Lead Contractor. In HDR offices, each office has a safety committee that includes staff from all levels of the organization. These committees meet, at minimum, on a quarterly basis.

(9) Please explain any program or written practices that expressly address the safety of the traveling public and the safety of personnel within the construction area. If the entity has no such program or practices, explain why not.

*Response*: Design services and on-site project roles do not put HDR in a position of controlling site safety or security. HDR also takes an active approach to designing for safety so that potential safety issues are mitigated ahead of time. Designing for proper phasing to facilitate safe passage of bicycle and foot traffic through the project and construction of permanent engineering controls such as barriers or walls early in the project are examples.

(10) Please describe any differences between the entity's standard or typical safety program or practices as described in your responses to (1) through (9) above and (a) the entity's safety program or practices on projects similar to this Project in size and scope and/or (b) the anticipated safety program or practices for this Project as may be preliminarily anticipated in the statement of technical approach included in the SOQ in accordance with Section 5 of the Volume 1 Requirements.

*Response*: HDR's safety program implementation for this project will be consistent with HDR's standard program and practices. HDR will comply with the Site Safety Plan implemented by the Lead Contractor and incorporate any elements or requirements from the Lead Contractor's plan that are above and beyond HDR's standard practice into the company's site-specific H&S plan.

A. <u>Required Statistics</u>

Proposer Name: 5280 Connectors

Name of Team Member: Transfield Services Infrastructure, Inc.

Core Proposer Team Members(s) Involved:

(1) Please provide the following information:

\* Incident Management System was not fully implemented and tracking properly in 2011

Data Series	2011	2012	2013	2014
Fatalities				
Total Number of Fatalities (Workers):	0	0	0	0
Fatal Injury Rate:	0	0	0	0
Total Number of Fatalities (Members of the Public):	0	0	0	0
Other Incidents				
Total Number of Non-fatal Recordable Cases:	17	13	13	12
- Cases with Days Away from Work:	1	2	0	0
- Cases with Job Transfer or Restriction:	0	3	5	6
- Other Non-fatal Recordable Cases:	16	8	8	6
OSHA Incident Rate:	3.17	2.08	3.08	2.84
DART Rate:	2.98	1.76	1.18	1.42
Total Number of Non-fatal Injuries to Members of the Public:	0	0	0	0
Lost Work Days				
Total Lost Work Days:	N/A*	41	0	0
Lost Workday Index:	N/A*	6.58	0	0
Cost of Accidents				
Cost of Accident per Employee:				
Cost of Accidents involving Members of the Public:				
Safety Metrics				
EMR:	1.07	1.13	1.32	1.20



Joint venturer in Lead Contractor

Lead Engineer

⋉ Lead Operator

Form G: Safety Questionnaire

#### Where:

- (a) <u>Fatal Injury Rate</u> = (Number of fatal work injuries x 200,000,000) / total employee hours worked during the calendar year.
- (b) <u>Non-fatal Recordable Cases</u> refers to non-fatal occupation injuries and illnesses for Heavy and Civil Engineering Construction, as defined by the North American Industry Classification System (NAICS 237).
- (c) <u>OSHA Incident Rate</u> = (Number of cases of injury and illness x 200,000) / total employee hours worked during the calendar year.
- (d) <u>DART Rate</u> = (Number of recordable incidents of injury or illness that resulted in days away (lost), restricted or transferred during the calendar year) / 100 full time employees.
- (e) Lost Workday Index = (Number of lost workdays x 200,000) / total employee hours worked during the calendar year.
- (f) <u>Cost of Accident per Employee</u> = Total cost of accidents / average number of employees.
- (g) <u>EMR</u> refers to the National Council on Compensation Insurance (NCCI) Experience Modification Rating.

### B. Questions Regarding Safety Record and Approach

(1) How is your entity's management included in the accident reduction process?

*Response:* Business and executive management meet monthly with operational and safety personnel to review and discuss near-misses and minor incidents that have occurred during the month. Action plans are developed from the review and implemented to reduce probability of re-occurrence.

Serious accidents are reviewed with the project management team immediately. Action plans are developed immediately from these reviews and implemented across the company to reduce the probability of re-occurrence.

(2) How often do you hold site meetings for supervisors for a typical Reference Project? If you do not hold meetings, why not?

*Response*: Site safety meetings are held, at minimum, on a weekly basis between senior operations management and project management – these become more frequent when changes in operation conditions require more frequent meetings, such as traffic shifts, phasing changes or whenever major lifecycle maintenance operations are undertaken.

(3) How often do you conduct project safety inspections? Who conducts these inspections? If you do not, why not?

*Response*: Project safety inspections are conducted weekly by on-site project management staff. Senior management also conducts safety inspections whenever they visit projects. Corporate safety personnel conduct regular site safety inspections on 3-6 monthly ongoing schedules as well as random inspections.

(4) Please describe your written safety program. If you do not have one, explain why.

*Response*: Transfield Services' safety program is documented within its internal Operations Systems Plan ("OSP") located on the company intranet. The OSP is broken down into sections that address: safety training, documentation, policies and procedures.

(5) Please describe your preferred methods for securing worksites in urban environments, including as such methods may promote the safety of members of the local community.

*Response*: Where and when required, Transfield Services barricades work sites using typical MUTCD approved safety devices such as concrete wall barrier, orange cones or drums in traffic and fencing or other barricades outside of traffic – all work zone activities are undertaken in accordance with OSHA requirements. Transfield Services ensures the area is safe from all potential hazards prior to leaving the work site.

(6) Please describe your orientation or training program for new hires and for newly promoted individuals (including foremen), including any safety related elements. If you do not have such a program, explain why.

*Response*: Upon starting employment with Transfield Services, each and every employee receives initial orientation training as well as an orientation binder that displays and details the company's orientation procedures. Project Managers and supervisors are responsible for providing ongoing weekly safety training to all site employees, and Transfield's Health Safety and Environmental department supports these trainings by communicating lessons learned on other projects and throughout the industry to share best practice and keep the trainings interesting and relevant.

(7) With respect to no. (6) above, for any program that relates to foremen, indicate whether it includes instruction on the following:

Торіс	Yes	No
Safety Work Practices	$\boxtimes$	
Safety Supervision	$\boxtimes$	
On-site Meetings	$\boxtimes$	
Emergency Procedures	$\boxtimes$	
Accident Investigation	$\boxtimes$	
Fire Protection and Prevention	$\boxtimes$	
New Worker Orientation	$\boxtimes$	

(8) How often does your entity hold safety meetings which extend to the laborer level, and how does this vary by type of project? If you do not hold such meetings, explain why not.

*Response*: On all projects, regardless of type, safety meetings are held with all personnel daily as well as whenever a change in operations dictates a revision to the work plans.

(9) Please explain any program or written practices that expressly address the safety of the traveling public and the safety of personnel within the construction area. If the entity has no such program or practices, explain why not.

*Response*: Transfield Services implements its ten Mandatory Safety Rules across the organization at all times including all subcontractors. These include:

- 1. Always verify and tag or lock all energy isolations.
- 2. Never remove another person's Danger Tag or Personal Lock without written authorization.
- 3. Always operate equipment and machinery within defined safety limits.
- 4. Never begin a skilled task or operate equipment and machinery unless qualified.
- 5. Always obtain authorization before entering a confined space.
- 6. Never disable or override a safety device without written authorization.
- 7. Always protect against falling where you can fall more than 2.0 meters (6 feet).
- 8. Never work or travel under a suspended load.
- 9. Always wear seatbelts when a vehicle is in motion.
- 10. Never consume or be under the influence of alcohol or illicit drugs while at work

Transfield Services ensures that all personnel, plant, equipment and vehicles are equipped with the required lighting, high visibility and reflectivity tools to allow the travelling public to see workers at all times. At night Transfield requires all personnel to wear full body high visibility apparel to allow for greater visibility for the travelling public.

When working on or by the road, all personnel are trained to always face traffic and to keep to one side of the road.

Personal Protective Equipment ("PPE") such as safety glasses, bump cap/hard hat, steel toed footwear, and high visibility apparel is mandatory at all times.

Transfield Services requires reverse parking at all times.

All subcontractors follow these safety requirements.

(10) Please describe any differences between the entity's standard or typical safety program or practices as described in your responses to (1) through (9) above and (a) the entity's safety program or practices on projects similar to this Project in size and scope and/or (b) the anticipated safety program or practices for this Project as may be preliminarily anticipated in the statement of technical approach included in the SOQ in accordance with <u>Section 5</u> of the <u>Volume 1 Requirements</u>.

*Response*: Transfield's commitment to safety and the level of program implementation remains the same on all sizes of projects. We will fully integrate into the Developer's safety program adding any best practices that will further strengthen the Project specific safety program.

Proposer Name: 5280 Connectors

Name of Team Member: Zachry Construction Corporation

Core Proposer Team Members(s) Involved:

Lead Engineer

Lead Contractor

Lead Operator

☑ Joint venturer in Lead Contractor

# Form G: Safety Questionnaire

## A. <u>Required Statistics</u>

## (1) Please provide the following information:

Data Series	2011	2012	2013	2014
Fatalities				
Total Number of Fatalities (Workers):	0	0	0	0
Fatal Injury Rate:	0	0	0	0
Total Number of Fatalities (Members of the Public):	0	0	0	0
Other Incidents				
Total Number of Non-fatal Recordable Cases:	8	8	11	20
- Cases with Days Away from Work:	2	1	0	0
- Cases with Job Transfer or Restriction:	1	2	2	13
- Other Non-fatal Recordable Cases:	5	5	9	7
OSHA Incident Rate:	.79	.85	1.07	1.47
DART Rate:	.30	.32	.19	.95
Total Number of Non-fatal Injuries to Members of the Public:	0	0	0	0
Lost Work Days				
Total Lost Work Days:	39	180	0	0
Lost Workday Index:	3.87	19.21	0	0
Cost of Accidents				
Cost of Accident per Employee:				
Cost of Accidents involving Members of the Public:				
Safety Metrics				
EMR:	.57	.29	.48	.40



#### Where:

- (a) <u>Fatal Injury Rate</u> = (Number of fatal work injuries x 200,000,000) / total employee hours worked during the calendar year.
- (b) <u>Non-fatal Recordable Cases</u> refers to non-fatal occupation injuries and illnesses for Heavy and Civil Engineering Construction, as defined by the North American Industry Classification System (NAICS 237).
- (c) <u>OSHA Incident Rate</u> = (Number of cases of injury and illness x 200,000) / total employee hours worked during the calendar year.
- (d) <u>DART Rate</u> = (Number of recordable incidents of injury or illness that resulted in days away (lost), restricted or transferred during the calendar year) / 100 full time employees.
- (e) <u>Lost Workday Index</u> = (Number of lost workdays x 200,000) / total employee hours worked during the calendar year.
- (f) <u>Cost of Accident per Employee</u> = Total cost of accidents / average number of employees.
- (g) <u>EMR</u> refers to the National Council on Compensation Insurance (NCCI) Experience Modification Rating.

### B. <u>Questions Regarding Safety Record and Approach</u>

(1) How is your entity's management included in the accident reduction process?

*Response:* Safe work is a derivative of proper planning. To ensure we have proper safe work planning management personnel, beginning in the estimating process and through the planning and execution of work, are actively engaged in identifying and addressing hazards and required safety resources to include training needed to safely accomplish work and ensure our jobsites are safe. Management actively participates in Job Hazard Analysis and Safety Task Assignment development and review as well as job site safety assessment and training of employees. Management also ensures that all subcontracts incorporate Zachry's safety policies and follows through with orientation and enforcement of these policies.

(2) How often do you hold site meetings for supervisors for a typical Reference Project? If you do not hold meetings, why not?

*Response*: Weekly jobsite meetings are held for the entire site and if a project is too large for one safety meeting to cover everyone, each segment will hold simultaneous meetings including each shift if more than one shift is occurring. These meetings are led by Safety Staff along with Forman, Superintendents, Segment Managers, and Project Managers.

(3) How often do you conduct project safety inspections? Who conducts these inspections? If you do not, why not?

*Response*: Weekly inspections are performed by a Job Operations Team (including Superintendents, Segment Managers and Project Manager). This team will perform safety inspections of each area of work. In addition, a Corporate Safety Manager conducts periodic safety inspections and audits.

(4) Please describe your written safety program. If you do not have one, explain why.

*Response*: The ZCC Safety program is a "front line" driven program. Job operations teams are responsible for the implementation and maintenance of the safety program with the assistance of the

safety department. It is based on proper planning and the development, monitoring and execution of safe work plans for each scope of work involved on a job. All major scopes of work will have a Job Hazard Analysis developed, covering the hazards involved and the preventative measures and precautions required to abate those hazards. In addition, each supervisor and crew will develop a Safety Task Assignment daily and/or by task assigned to address any hazards specific to their task at the time and in the location the task is to be done.

A Site Specific Safety Plan will be developed for each job based on the work and associated hazards specific to that work and the job site location. All subcontractors are required to comply with and adhere to the Safety policies of Zachry and the site specific polices of the Site Safety Plan.

Periodic Safety & Health Assessments will be conducted by a Corporate Assessment team and any noted safety deficiencies will be corrected and documented along with steps implemented, where necessary, to ensure no reoccurrence. In addition, job site teams perform weekly inspection of various areas of work and or crews. This team is made up of all members of the project team on a rotating basis. Any noted safety deficiencies will be corrected and documented along with steps implemented, where necessary, to ensure no recurrence. The weekly results will be compiled and reviewed with all the supervisors on the job and communicated to the field staff at weekly safety meetings.

(5) Please describe your preferred methods for securing worksites in urban environments, including as such methods may promote the safety of members of the local community.

*Response*: Zachry's preferred methods include regular inspections of all MOT/Traffic Control devices for condition and application as per the approved MOT plan; regular inspection of the work zone to identify and eliminate potential hazards or ensure proper identification and barricading of any hazards which cannot be eliminated to deter access and exposure to the public such as barricading excavations which must remain open for a time; and implementing provisions to ensure the safety of the public traveling through or adjacent to the work zone where required. This may include Flagging operations for vehicular and/or pedestrian traffic and/or other provisions to provide a safe means of passage such as barrier protected walkways, pedestrian signing, variable message boards and travel delineators.

(6) Please describe your orientation or training program for new hires and for newly promoted individuals (including foremen), including any safety related elements. If you do not have such a program, explain why.

*Response*: Zachry performs initial company Safety Orientation upon hiring for all new employees: A "Safety Training Facility" is set up on site providing hands on training for safety related aspects of the work to be done. Training is conducted by experienced personnel from both safety and operations, who have been trained by corporate Safety and Operations staff to facilitate the training. New Employees meet with their foremen and new foremen meet with their superintendent for initial safety instructions specific to their work. After 30 days a follow-up interview is conducted by the employee's foreman or, in the case of a foreman, by his superintendent to assess how they are doing and identify any training needs they may have and any ideas for improving safety. Further weekly and monthly training is ongoing on a continuous basis that supplements safety considerations for new operations and new areas of work.

(7) With respect to no. (6) above, for any program that relates to foremen, indicate whether it includes instruction on the following:

Торіс	Yes	No
Safety Work Practices	$\boxtimes$	
Safety Supervision	$\boxtimes$	
On-site Meetings	$\boxtimes$	
Emergency Procedures	$\boxtimes$	
Accident Investigation	$\boxtimes$	
Fire Protection and Prevention	$\boxtimes$	
New Worker Orientation	$\boxtimes$	

(8) How often does your entity hold safety meetings which extend to the laborer level, and how does this vary by type of project? If you do not hold such meetings, explain why not.

*Response*: Safety meetings are held weekly for all crews. Where project size permits, a mass (all employees) safety meeting is held weekly. On Projects where the size, number of employees and logistics make this infeasible safety meetings are held at the crew level or sometimes by work group or work area for example.

(9) Please explain any program or written practices that expressly address the safety of the traveling public and the safety of personnel within the construction area. If the entity has no such program or practices, explain why not.

*Response*: A part of the Site Specific Safety plan is the Work Zone Traffic Control policy. This addresses proper planning and implementation of Traffic Control plans to ensure safety for both the traveling public and personnel. It includes required training, Personal Protective Equipment, Inspection, Traffic Control Plan and maintenance. Special attention is also required for the protection of pedestrians who will be traveling along or across the construction site and clearly identified travel paths will be protected by barriers, fencing, delineators, signing and traffic signal crossing equipment.

(10) Please describe any differences between the entity's standard or typical safety program or practices as described in your responses to (1) through (9) above and (a) the entity's safety program or practices on projects similar to this Project in size and scope and/or (b) the anticipated safety program or practices for this Project as may be preliminarily anticipated in the statement of technical approach included in the SOQ in accordance with <u>Section 5</u> of the <u>Volume 1 Requirements</u>.

*Response*: The basic safety requirements will be the same no matter the project. The key is to also take into account any site specific requirements due to site specific conditions, scopes of work and or required phasing. Traffic and pedestrian control will be a top priority for this Project. The urban environment in which this Project is located will need a very comprehensive Traffic Management Plan that will be revisited and inspected daily for any corrections or improvements. The underground work and temporary shoring will also be a high priority in the lowered section and protection of these deep


excavations will be extremely important to have site specific Job Hazard Analysis completed and implemented for each phase. Due to the fact that Zachry is a minority joint venture partner the overall project management of the site will be based on a Skanska-led Safety Program. Please see Vol.1, Sec.4.2.a – Skanska Civil for more detail on the Skanska-Zachary's anticipated approach to the I-70 East Projects safety program. However, when drafting the site specific Safety Plan both Skanska and Zachry will combine the 'best practices" from each of their policies into one plan for the Project.

## FORM H: STAKEHOLDER AND ECONOMIC ENGAGEMENT QUESTIONNAIRE

The team members of 5280 Connectors strive to embrace the communities where they work. Project staff members often live in these communities and, are committed to delivering projects that improve the lives of local residents. The team members constantly interact with their community members and stakeholders through multiple forms of outreach, informational sessions, and one-on-one meetings with local businesses, schools, and organizations. Each community is different and requires a unique project approach by the project team.

Our responses to the six questions below will highlight the wide-ranging successful stakeholder engagement that our team members have carried out on large, high-impact infrastructure projects and describe our proposed plan for the I-70 East Project.



Proposer Name: 5280 Connectors

#### Form H: Stakeholder and Economic Engagement Questionnaire

(1) Describe your experience on Reference Projects located in neighborhoods designated as environmental justice communities.

#### <u>Response:</u>

The 5280 Connectors team shares the Procuring Authorities' commitment to the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws and policies, and will fully adopt CDOT's guidelines to ensure the fair distribution of the benefits and burdens associated with the Project activities:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations;
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process; and
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.
- The Reference Projects below highlight measures that team members have taken when environmental justice communities are affected.



#### I-70 EAST PROJECT

"The 11th Street Bridge celebration was a big success and we appreciate the work the Skanska team has done to bring this project forward. As Mayor Gray said, "The 11th Street Bridge connects the community in a way that has never been done before". We also want to recognize Skanska's team for the yeoman's job you have done in District hiring. Even though the federal funding structure for the 11th Street Bridge did not require Skanska to meet District of Columbia First Source requirements, your company voluntarily participated in the program and generated an exceptional performance in that 53% of all new hires on the 11th Street bridge were District residents. Thank you for stepping up to the plate in support of the District's social equity goals."





Skanska 11th St. Bridge Project Manager and local youth unload boxes of dried goods from Skanska truck at Ward 8 community center Children of Mine.

# Form F Reference Project: 11th Street Bridge Project (\$381 million, Completed May 2015, Design-Build)

The 11th Street Bridge project spans across the Anacostia River south of downtown Washington D.C. and connects two disparate communities:

- Capitol Hill to the north; and
- Ward 8 on the south.

Ward 8 is an environmental justice community and has chronically high unemployment; therefore, efforts by the construction joint venture to create jobs were essential to satisfying projects goals for both District of Columbia Department of Transportation ("DDOT") and local residents. Skanska Civil is a 70% member of the construction joint venture on this project. Please see Vol.1, Sec.4.1.b for more information about this project and the affiliate relationship.

**Local Hiring Requirements.** The Skanska-led team was committed to making sure that the project had a positive impact on its neighbors. They voluntarily implemented a local hiring program despite the fact that the contract did not require it. As a result, 53% of the project hires came from the local community.

**Food Drives.** On this project, Skanska organized food drives for various District organizations such as Children of Mine, a Ward 8 institution, Bread for the City and the Capital Area Food Bank. The team also participated in numerous community improvement projects such as Anacostia Green Day and DCBIA Community Improvement Day clean-up at Marvin Gaye Park & Congress Heights Recreation Center.

**Traffic Management.** The project typically had upwards of 106,000 vehicles a day passing through the construction zone. Because the interchanges were very close to residences and businesses, and passed through Anacostia Park, the local community had significant input into the design. The team modified two off-ramps in order to improve access for commuters and reduce traffic on local streets. One of the new interchanges has a lower overall height and is now located further away from the adjacent neighborhood.

The team completed two critical highway ramp connections six months early because of the ramps importance to local communities. Moreover, the team developed traffic solutions that enabled 70% of construction to be done without affecting existing traffic flows. The team also reduced the construction phasing to complete the work in only two major traffic shifts, allowing drivers to maintain known traffic patterns.

"My experience with Skanska was awesome! The lines of communication were always open and they were clear about what and how they expected work to be done. Most of all they seemed to have an understanding of the needs of a small firm."

Randy Stoddard, Moxy Miscellaneous Metals (11th Street Bridge DBE owner) **Community and Environmental Concerns.** The team held regular meetings with community groups and neighbors, and based upon discussions and suggestions, made changes to the design to lower the profile and move the approach ramps, lessening noise for nearby residents. The project also reduced its environmental impact by reusing construction debris in roadway base foundations, reducing several thousand trucking-hours on local roadways. Sustainability efforts included increasing the life span of the bridge, minimizing maintenance costs, recycling construction debris on the project site, and repurposing parts of the original bridge for pedestrian overlooks.

**Small Business Outreach.** Through consistent outreach and collaborative work with DDOT, Phase I was completed with 25 DBE firms contracted tripling the original number of local DBE firms benefiting from participation in the project.

#### Form F Reference Project: I-4 Ultimate Project (\$2.3 billion, Under Construction, PPP)

The I-4 Ultimate project includes the environmental justice communities of Angebilt, Holden Heights, Holden-Parramore and Griffin Park Historical District. During the EIS, it was determined that the removal of various community services in these neighborhoods would likely alter the character of the neighborhood. Measures are being undertaken to relocate community services within the general neighborhood area to avoid any adverse effects.

Skanska Civil is the lead of a 40-30-30 construction joint venture, Skanska ID is co-developer and HDR is the lead designer for the I-4 Ultimate project. Please see Vol.1, Sec.4.1.b and Vol.1, Sec.4.1.c for more information about this project and the affiliate relationship.

The project team adapted its design and construction plans as part of its proposal to Florida Department of Transportation ("FDOT") so that the project's community, environmental, and economic benefits would qualify for *Envision™* Platinum Certification. This system guided the Skanska-led team's approach to engagement throughout the bid and into execution (construction started this year).

"We need to do the right thing when it comes to the impact we are making on our future, and doing the right thing can start by having the conversation early in the project"

Loreen Bobo, FDOT's program manager who was quoted in the June 22, 2015 issue of Engineering News Record.

Skanska's team supports an already robust effort by FDOT and FHWA to gain a clear understanding of potential mitigation options desired by the affected residents, businesses, and organizations to help strengthen the community. FDOT conducted over 400 meetings with jurisdictions, neighborhoods, agencies, and special interest groups during the

project's preliminary phase to gather public input and the Skanska team continued to meet with stakeholders during the RFP process and after award. Mitigations include noise walls, urban design, pedestrian enhancements, and relocation efforts to help minimize residential and non-residential effects, and improve the quality of life in each affected neighborhood.

Like the I-70 East Project, the I-4 Ultimate improvements will help stimulate the urban renewal process and facilitate new development in economically depressed areas along the project alignment. This anticipated new development will be fueled by better neighborhood and community access, improved safety and mobility, provisions for maintaining public services, and enhancements to visual and audible environments. The proposed improvements in combination with the urban design amenities are intended to increase property values and improve the quality of life for area residents.

To minimize neighborhood and community cohesion impacts and improve the quality of life adjacent to the interstate, the use of urban design treatments, noise barrier walls, enhanced pedestrian access, and relocation efforts were considered for use including:

- Ensuring that bridge structures are architecturally compatible with the design and with all other design elements;
- Reducing visual effect of retaining walls and noise walls using landscaping, texture, and color;
- · Providing landscaping in appropriate areas;
- Including aquatic plantings and fountains for stormwater treatment ponds;
- · Coloring the right-of-way fence to blend into the surrounding context;



- •
- Placing utilities underground, and
- Ensuring that color and finish of sign columns compliment surrounding vertical structure elements.

As a community enhancement, all overpasses on I-4 are designed to ensure that crossing streets will have sufficient room to incorporate future bikeway, trail, greenway, and pedestrian facilities.

**Local Government.** During the pursuit, Skanska conducted extensive outreach with key project stakeholders, such as the City of Orlando, the Greater Orlando Aviation Authority and the Walt Disney and Universal resorts. As a result, the team added features beyond FDOT's project requirements including: ramps directly connecting the tolled I-4 express lanes to State Route 408 (a major east-west tolled highway); additional auxiliary lanes and turn lanes; pedestrian bridges; enhanced aesthetics, including bridge architecture and landscaping;

Additional stakeholder engagement activities being jointly managed by FDOT and the Skanska team include:

- Continuation of the 24 hour project telephone hotline to receive and respond to neighborhood concerns;
- An information booth in the construction vicinity to provide a communication line between construction management and residents. The booth disseminates information regarding specific construction activities and provides residents with the opportunity to express their concerns; and
- Direct mailings, electronic newsletters, and community postings of anticipated construction activity.

# Form F Reference Project: Elizabeth River Tunnels ("ERT") Project (\$1.5 billion, Under Construction and in Operation, PPP)

During the ERT project environmental review process, potential impact to environmental justice communities in Norfolk and Portsmouth, Virginia were evaluated. The re-imposition of tolls on the Downtown and Midtown tunnels to fund the project was an issue of concern in the community. To address this, a communications plan was developed that includes outreach to general and minority media outlets and minority interest groups. Virginia Department of Transportation ("VDOT") committed to hosting two community briefings in order to provide a project update and discuss the benefits of the project, as well as highlighting milestones and accomplishments, procurement schedule, congestion pricing and electronic toll collection. Other communication plan activities to support the environmental justice communities include DBE/ SWaM (small, women owned and minority businesses) outreach event, outreach to diverse community members via churches, religious community leaders, civic leagues and local organizations. Community business outreach events are also held.

Skanska Civil is the lead of a 45-40-15 construction joint venture and Skanska ID is a 50-50 equity investor on the ERT project. (Please see Vol.1, Sec.4.1.a and Vol.1, Sec.4.1.b for more information about this project and the affiliate relationship).

During construction and the transition of existing operations, the Skanska-led team provided extensive public outreach to keep locals informed of construction impacts, which included public information sessions and open house meetings for specific areas of work. The team also conducted extensive public education outreach related to the all-electronic tolling system in the form of:

- Radio, television, and newspaper advertisements;
- Advertising on buses, at gas stations, and billboards;
- A monthly newsletter and e-mail blasts;
- Active social media channels; and
- Targeted information sessions with large employers, municipalities, and the military.



**Environmental Concerns.** The PPP project enabled an integrated approach to design and construction, resulting in lower lifecycle costs and greater operational efficiencies. The team removed approximately \$1 million per year from the O&M budget through efficiencies such as the use of jet fans for tunnel ventilation and LED lights.

The Skanska-led team proactively identified materials that could be reused on-site or find off-site uses for them and achieved a recycle/reuse rate of 99%. Additionally, the team implemented onsite treatment of lead-contaminated soil, allowing the soil to be handled as treated waste – instead of hazardous waste – reducing trucking time and saving money on disposal costs.



Our Elizabeth River Tunnels team is using waste concrete to make oyster boxes for the Elizabeth River.

**Local Community.** The Skanska-led team also worked with the Elizabeth River project, a local non-profit, and the Lafayette Wetlands Partnership to develop an innovative way to make use of waste concrete while enhancing the local ecosystem. The solution identified was to utilize the waste concrete to make oyster habitats, mitigating one of the project impacts.

The project team also established a Community Resource Board that meets every 3 months to function as a liaison with the local communities to promote understanding and encourage diversity in procurement. Made up of community leaders and stakeholders, this Board is similar to the Community Advisory Team established as part of the Expo Phase 2 project described below.

Due to this and other initiatives, the project received a silver medal in the 2015 Virginia Governor's Environmental Excellence Awards based on the project's environmental benefits, our involvement with stakeholders, our focus on public outreach, and our innovativeness. This award included a proclamation from Virginia Governor Terry McAuliffe, and a congratulatory letter from Senator Mark Warner. The project also received the top designation in the Virginia Environmental Excellence Program ("VEEP") – the first construction project to do so.

**Workforce Development.** This project has a goal for 70 on-the-Job trainees with specified hours of training and pay rates. Thus far, 35 trainees have graduated and the project is on track to meet or exceed the goal.

**Small Business Engagement.** The Project team has engaged over 100 local small businesses and over 200 DBE/SWaM companies. In fact the majority of work on the MLK Freeway Extension, which passes through the heart of the most sensitive neighborhoods in Portsmouth, was contracted to DBE/SWaM companies.

Another example is Mid-Atlantic Pavement Markings ("MAPMS"), a DBE company based locally, is one of the local small businesses working on the ERT project. MAPMS was initially given the opportunity on a small project to evaluate performance. MAPMS proved to be both reliable and competitive, and by the end of the year had worked on seven separate tasks, ranging from crack sealing and pavement striping to bollard installation. MAPMS President Leslie Herring estimates that one-quarter of their new business in 2013 relates to ERT. As a true small business with only five employees, each opportunity has a significant impact.



(2) To the extent not addressed in the response to (1) above, describe Proposer's experience on Reference Projects where environmental concerns (including noise, air quality, ground water, and/ or hazardous materials management concerns), traffic management concerns, concerns regarding access to businesses, residences and other resources located within the affected community, and the generalized impacts of construction were among the primary concerns of the local community.

#### Response:

We have outlined above some of our experience with environmental justice communities on the reference projects that also encompassed issues from questions 2 thru 6 including local concerns, community engagement, local government interaction, S/DBE and workforce development. We outline below some additional projects that further demonstrate our applicable experience on projects where the communities were not specifically designated as environmental justice communities.

# Form F Reference Project: US 36 Managed Lanes ("US36") Project Phase 2 (\$121 million, 60% Complete with construction, PPP)

**Environmental Concerns.** Communities adjacent to US 36 are concerned about the impacts related to noise, air quality, ground water, and potential hazardous materials encountered during construction. Plenary Roads Denver, a team comprised of Plenary, Transfield and HDR, built trust by communicating early and often with stakeholders. Face-to-face communication is more frequent during design, however the team continues to implement and support public outreach strategies throughout the project.

Plenary Roads Denver is providing environmental compliance and oversight services on US 36 to assure commitments made to communities are implemented and tracked including noise, water quality, and air quality monitoring. In addition, the team tracks and reports back to the agencies and communities at regularly scheduled intervals. See Vol.1, Sec.4.1.a, Sec.4.1.b, and Sec.4.1.c for more information on this project.

#### I-70 Mountain Corridor Peak Period Shoulder Lane Project

**Environmental Concerns.** The community adjacent to the I-70 Mountain Corridor Peak Period Shoulder Lane project was concerned about particulate pollution during construction. HDR was able to use recent air quality monitoring data that they collected for the adjacent Twin Tunnels project to collaborate with the Air Pollution Control Division to address these concerns in the NEPA document. On the Twin Tunnels Project, HDR assisted CDOT in monitoring air quality and the team collaborated with representatives of Clear Creek County and the town of Idaho Springs to develop acceptable traffic management and business access solutions while maintaining an efficient construction schedule.

# Form F Reference Project: Exposition LRT Phase 2 ("Expo 2") Project (\$594 million, Under Construction, Design-Build)

**Local Community.** On Expo 2, the Skanska-led team participated in career day at Santa Monica High School and held a construction safety class at the Crossroads elementary school. By actively working with nearby schools, the team educated the teachers and facilitators in order for students to inform parents of safety and construction schedule impacts.



Skanska conducting a construction safety class at Crossroads Elementary School, Los Angeles for the Expo 2 Light Rail Extension

"Your team self performs traffic control, utilities, and concrete, allowing us to contact you easily when we need to change phasing on activities impacting the City. We've really enjoyed the flexibility Skanska Rados gives the City, residents, and businesses."

> Alex Nazarchuk, Construction Manager, City of Santa Monica, Expo 2 Project



**Traffic Management.** Within one mile of the Expo 2 rail corridor, there are 100,000 residents and approximately 1,000 businesses. In the first two years, an average of 2.4 complaints per week were received. More than 45% of these complaints were closed within the first 24 hours, with more than 85% closed after one week.

There are multiple music studios along the alignment and many of them were concerned about noise and vibrations during construction. After award, the Skanska-led team sat down with each studio and listened to their concerns and issues and communicated the work schedule. Understanding their recording schedules, the team was able to provide the studios with two weeks' notice of activities that could affect their work and adjust the project team's schedule to accommodate them. Skanska Civil is the lead of a 70/30 construction Joint Venture (Please see Vol.1, Sec.4.1.b for more information about this project and the affiliate relationship).

(3) Sharing information with the local community will be critical to a successful Project. Describe Proposer's preferred methods of (a) engagement with local communities, including with residents living in close proximity to a Reference Project, and (b) coordination of such activities with the owner.

#### Response:

5280 Connectors intends to exceed the local communities' expectations with respect to public information and outreach. Our method of engagement is to deliver the message the public needs and wants to hear via the medium where the messages are most effective. In collaboration with CDOT, we will develop creative and effective ways to address the concerns of a multicultural community.

**Coordination with Local Community.** Our team is experienced in delivering consistent informational messages across an integrated multimedia campaign. As an example, specific outreach and communication plans will be developed for road closures. Figure 2 provides an outline of a sample plan.

From observations at community meetings, direct local involvement and reviews of commissioned reports, 5280 Connectors has gained a strong understanding of



stakeholder concerns with topics varying among stakeholder groups. We will design a strategy and a medium for each group so that their respective areas of greatest concern will become the focus of communications with them.

We have identified six key audiences for inclusion in the stakeholder database that we feel should receive important, targeted updates:

- 1. Local neighborhood residents including property owners and renters, and parents of school age children;
- 2. Surrounding/regional residents on both sides (north and south) of I-70;
- 3. Local schools and associated bus transportation providers;
- 4. Approximately 1200 local businesses on both sides (north and south) of I-70;
- 5. Community leaders;
- 6. Traveling public/commuters/transportation service providers (e.g., taxis, airport shuttles and RTD); and
- 7. Emergency services organizations.



Local Business Communities. Through recent experience with a CDOT multiple-bridge repair project along the I-70 corridor between I-25 and Quebec St., ZoZo Group has experience coordinating with local groups and business establishments such as the National Western Stock Show campus, Safeway distribution center, Coca-Cola bottling plant, Purina plant, and Goodwill Industries. Recognizing this corridor employs over 20,000 people, 5280 Connectors will develop an outreach plan with these enterprises in mind. Due to the local business community's heavy reliance on truck deliveries, our method of communicating with business establishments will be over multiple channels.

Despite the extreme pressure to complete this project by the deadline, ZOPB [Zachry] has been willing to meet and work with local governments, community groups, businesses, developers and individuals to address concerns and the inevitable conflicts that arise when a project of this magnitude goes through existing communities... In summary, I am pleased to have ZOPB [Zachry] working in my precinct and would be glad to continue this relationship in the future, if conditions allow.

September 10, 2014, Ed Rinehart, Commissioner, Montgomery County Precinct 4, Zachry-led Grand Parkway F&G Project

An example that highlights the effectiveness of 5280 Connectors' preferred methods of engagement with local communities on a reference project, Zachry successfully incorporated and executed a comprehensive communications program on the SH 99 Grand Parkway project to keep the general public and stakeholders informed regarding progress and updates. The program includes bi-weekly public information task force meetings, maintenance of a 5,000 person stakeholder database, print and electronic newsletters, jobsite tours with elected officials and key stakeholders, and traffic advisory email alerts distributed to media and the general public.

Community Concern	Communication	Engagement Method
Increased	Traffic	Instantaneously - Variable message boards
neighborhood traffic	impacts	Daily - Email to subscribers, Social media postings,
Delays in work commute	Planned closures	
Loss of access to	Alternate	
grocery stores and	routes	Weekly - Email of lane closures planned
venues on other side of highway	Delay times	Monthly - Newspaper advertisement; Website update, Community
or highway		meeting presentation
		Monthly (summer season) -
		Quarterly Project update flyers, website update
		Annually -
Airborne	Air quality	Daily -
contaminated soil	levels	Quarterly
Airborne dust from		
construction		Monthly - Website update
		Monthly - (during the phase) Community Forum speaking events
Safety of children	Safety tips for children	Daily - Kid friendly warning signage around construction zone
during construction		Quarterly - Visits to schools and participation in community events
		Annual - Participate in Bike to School Day, and deliver
		Annual - Participate in Denver Public Schools 8th grade fair

The following table outlines 5280 Connectors preliminary communication plan. Additional details can be found in Vol.1, Sec.5.d.



Community Concern	Communication	Engagement Method
Creation of local jobs	Job opportunities Job training	Daily - Daily - Daily - Monthly - Monthly - Community meeting Annual - Host job fair inviting all business of corridor to participate.
Small business opportunities	Small business opportunity alerts Small business training	Monthly - Quarterly - Annual - Biannually - Weekly - Participate with local small business associations members in activities and at events

**Coordination with the Owner.** 5280 Connectors prefers and hopes to work very closely with CDOT in all aspects of community outreach and engagement. As described in Vol.1, Sec. 2.1.4.a., 5280 Connectors would like to undertake formal partnering sessions to facilitate open and transparent dialog so that the CDOT's Project Goals can be efficiently addressed.

In order for this close coordination to be implemented in day-to-day operations, 5280 Connectors will have the Community and Public Relations Manager function as the primary point of contact for

CDOT on Public Relations and Community Outreach efforts, as further described below in response to Question 4. The goal of having one point of contact for CDOT to go to for all questions relating to community outreach is to ensure that we are in lock-step with messaging and initiatives relating to community outreach and engagement.

To further this tight coordination, 5280 Connectors wants to utilize tools such as a jointly developed message and communications protocol. Based on the jointly developed message and communications protocol, 5280 Connectors would want to implement a jointly prepared schedule of outreach events. This schedule will be continuously updated and facilitate planning and transparency of the Project's collective outreach efforts.



Figure 3: Engaging the local community to communicate the value that Skanska's Elizabeth River Tunnels project brings to its stakeholders. The campaign was managed in close coordination with the client and distributed in multiple forms to local residents.





(4) Close coordination with affected local governments during all phases of the Project is expected. Describe Proposer's preferred methods of coordination with a closely involved local government partner.

#### Response:

5280 Connectors intends to be a resource for CDOT as the Department continues its engagement with the communities that will be directly affected by the Project. This will include partaking in any CDOT led outreach events, information session or equivalent and provide any needed support and information that CDOT requires for such events.

Members of 5280 Connectors have great relationships with CDOT government liaison personnel through previous project experience on US 36 and other projects. Our efforts will build on these existing relationships.

5280 Connectors' Community and Public Relations Manager Pauline Haberman will coordinate directly with CDOT's government liaison for regular outreach and update meetings to representatives of Regional Transit District ("RTD"), City and County of Denver Public Works, and City Council staff. Representatives of Commerce City, City of Brighton, and Adams County officials will also be included. They will also work with the CDOT government liaison to create a "methods of coordination matrix" defining our plan on how to maintain engagement with local government partners.

In addition to project updates, we will also provide status on DBE and Workforce Initiative Now ("WIN") goals, updates about workforce development efforts including specific construction training dollars/programs, job training classes and reporting on current job openings, number of jobs filled and small business contracts awarded. 5280 Connectors would also like to include CDOT in its' outreach events and job fares that the team will undertake to promote community participation and input into the project and its design

5280 Connectors will also implement a series of partnering workshops with CDOT, as outlined in Vol.1, Sec.2.1.4.a, and our local government partners. When partnering workshops are conducted,

the various agencies (as appropriate for the phase of the Project and topic of the workshop) will be invited to participate. Partnering is a proven way to accomplish complex tasks by building relationships with the stakeholders, co-workers, and local government partners. Coming out of these partnering sessions, relationships will be established and strengthened, upon which our delivery team and the local governments will develop agreed methods of coordination.

Local governments will also be invited to participate in over the shoulder design reviews as the task forces progress the design. Where the local governments are also issuers of required permits, these design reviews will go a long way in facilitating a smooth process to obtain such permits.

The Project's local government partners and other stakeholders will be kept informed on the progress by being copied on our 4-week look-ahead schedule and public relations updates.



#### I-70 EAST PROJECT



"We appreciate greatly the opportunity to work with an organization as large as the Skanska/Facchina team, and to find that as a Subcontractor, that our work is not only valued, but that we are truly made to feel we are part of the team constructing this project. We appreciate that we are treated fairly, and that everyone works together to solve any issues on the project, versus simply handing these issues off for someone else to deal with. The experience we have had while working on this project has been very positive and we'd welcome the opportunity to work on any other projects with which Skanska is involved."

*Karen Bass*, *Hardscapes* (11th Street Bridge DBE owner)



Skanska's Mixer Event with Small and Disadvantaged Business Community Leaders

#### Response:

5280 Connectors understands the importance of maximizing participation from the small and disadvantaged business community. This means not only working to find opportunities that best suit their expertise during the project, but also helping to grow their business in the long term.

5280 Connectors will partner with established community groups to ensure maximum outreach is achieved. Skanska recently held a mixer event at the ZoZo Group offices on April 29th with key members of the small business and DBE community. This meeting served as a "meet and greet" and also allowed Skanska to collectively assess the programs available

The next

The next will be held on June 25th. The focus of our initial training will be: how to bid effectively with Skanska, understanding Skanska's safety culture, how to get work with Skanska and Skanska's diversity inclusion commitment. Future will be developed from the feedback following this event and will be tailored to 5280 Connectors approach to the Project.

#### Form F Reference Project: Exposition Phase 2 Project

The Expo 2 project had a local SBE goal of 7% and a total SBE goal of 20%. The Skanska team exceeded both goals, with local SBE's performing 13.5% of the work and overall SBE's performing 25%. To date, we have worked with 302 SBEs with 71% of them being local DBEs.

The Skanska team established a Community Advisory Team ("CAT") on Expo 2 to function as a liaison with the local communities to promote understanding and encourage diversity in procurement.

CAT members are local leaders and advocates who are attuned to the needs of their communities. Most are small business owners while others represent local non-profit organizations and public transportation agencies. CAT meetings are a great vehicle to disseminate project information and engage all stakeholders, from job seekers to local contractors and suppliers.

In the last two years, Skanska has established teams in Los Angeles and Seattle. New groups are also forming in Riverside, Oakland, Washington D.C., New York, Atlanta, Portland and Houston. The teams meet every guarter and discuss ways to help local Disadvantaged Business Enterprises ("DBE") overcome challenges and increase their participation on Skanska's projects. A CAT will be established in Denver as a stakeholder and engagement tool for the I-70 East Project. Please also see questions 1 and 3 above for a description of other community engagement efforts.

During their meetings, CAT members discuss specific needs of the community and select topics to cover during Skanska's Small Business Academy, a hands-on workshop to mentor local small businesses. Through the CAT process, presentation topics are selected to build upon or bring together training programs already in place and usually focus on improving business communication skills, responding to RFPs, DBE/UDBE certification process, understanding specifications, etc. The academy is also a great networking opportunity for small businesses as CAT members help them connect with the project management.





CAT members support project management teams by providing valuable input about their community's priorities and interests. They also assist with conducting outreach to local residents seeking employment, as well as local contractors and suppliers.

#### Form F Reference Project: SH 130, Segments 5 and 6 (\$952 million, Nov 2012, PPP)

This project had a 12.54% DBE contract goal totaling \$121 million, and achieved 14.5% DBE contract participation with the largest dollar amount going to local DBEs. The project also included development and implementation of the first mentor protégé program on a Texas PPP project. Please see Vol.1, Sec.4.1.b for more information about this project.

#### Zachry Awarded Small Business Advocacy Award

Zachry Construction Corporation has been recognized for its Supplier Diversity Program and, more specifically, for a component of that program called the Mentor Protégé Program. The Mentor Protégé program was the first of its kind to be implemented on a TxDOT project by a prime contractor. Zachry, as part of a joint venture on the SH 130 project, significantly contributed to further building capacity with DBE firms throughout the state through education and training. This team successfully completed this one year program on August 12, 2010 and celebrated the graduation of 10 protégés.



Zachry awarded Small on SH 130

#### Reference Project: SH 99 Grand Parkway (Zachry (50%) is the lead member Business Advocacy Award of the Construction Joint-Venture, \$1.04 billion, 80% Complete Design-**Build highway transportation**)

The SH 99 project has a 6% DBE contract goal totaling \$62 million. There are currently 48 DBE certified subcontractors involved, with approximately 70% being local to the Houston area. In addition to internal and external small business outreach events, the project has collaborated with A.O. Phillips & Associates (TxDOT Alliance Program) and the Greater Houston Business Procurement Forum to assist in identifying gualified DBE firms.

#### Additional Reference Project Experience

Table 4 provides additional Reference Projects where a 5280 Connectors member achieved or exceeded its small and disadvantaged business goals.

Company	Project	Goal (Type & %)	Actual	Explanation
Skanska Civil and Skanska ID	Elizabeth River Tunnels	Construction DBE: 12% SBE: 23% O&M DBE: 15% SBE: 25%	Construction DBE: 8.5% SBE: 19% O&M DBE: 30% SBE: 30.3%	Project in progress; actual numbers are to- date. On-track to meet the goals for construction. It is likely that these goals will be exceeded in the later stages of construction as there is a greater proportion of the works that can be sub-contracted to DBE & SBE. Far exceeding DBE and SBE goals for
				O&M.
Zachry	DFW	DBE: 6%	DBE: 12.8%	Goals exceeded.
Zachry	SH 130	DBE: 12.54%	DBE: 14.5%	Goals exceeded.
Skanska Civil	11st Street (Phase 1 & 2)	Phase 1&2: Design DBE: 15% Construction DBE: 6%	Phase 1&2: Design DBE: 16.3% Construction: DBE: 7.8%	Goals exceeded.
Skanska Civil	Ехро 2	SBE: 20%	SBE: 25%	The project is in progress and is exceeding the goal.

Table 4: 5280 Connectors – Exceeding our Small and Disadvantaged Business Goals



Company	Project	Goal (Type & %)	Actual	Explanation
Skanska Civil, Skanska ID and HDR	I-4 Ultimate	DBE: 9%	DBE: 15.5%	Project in progress; actual numbers are to- date. On-track to meet these goals
Plenary and HDR	US 36	DBE: 12%	DBE: 15.9%	Goals exceeded.
HDR	Eagle P3	Design DBE: 19% SBE: 19%	Design DBE: 23% SBE: 37%	Exceeded design goal. Construction in progress - estimated to meet target goal by completion.
HDR	IH 35E	DBE: 6%	DBE: 14.52%	Goals exceeded.

(6) Describe your achievements in developing the workforce on Reference Projects, including whether you have met program requirements and/or electively implemented any non-required approaches to workforce development such as partnering and/or outreach.

#### <u>Response:</u>

5280 Connectors' workforce development program has three primary objectives:

- 1. Create hundreds of jobs that will have a lasting economic impact to the local community over the duration of the Project and provide career skillsets for the future;
- Streamline the job placement process for local applicants closing the gap for job searchers of quality jobs on the project; and
- 3. Replicate Skanska's successful construction job training program in southwest Colorado expanding and customizing it to fit the needs and characteristics of the Denver metro area.

As a team, we are passionate about workforce development and understand the importance of working with the three well established local workforce centers that surround the corridor such as the Denver, Arapahoe/Douglas and Adams County centers. For our programs to be a success it is also important to coordinate efforts with the Colorado Contractors Association and WIN. We also recognize the need for coordination that effectively bridges the silos between existing unemployment, workforce development and higher education programs. We suggest that our workforce specialist be that person to coordinate those efforts - connecting the dots to centralize the needs of the worker.

This outreach to the workforce centers, combined with an understanding of the needs of our contractors and subcontractors, and our orchestrated approach to multi-media marketing of the opportunities will streamline the job placement process. Our subcontractors and partners would be able to centralize their job postings through our outreach. The outreach would be designed to attract members of the community with advertising of job opportunities in a variety of online communities including AGC's BuildColorado.com and in local print media.

This program includes tracking and reporting on our progress such as the outreach that is being performed, and the number of people that are successfully employed within the project. As a result we are confident this program will have a positive economic impact that contributes to local residents, their families and communities as a whole while also helping CDOT be a leader in response to the new Workforce Initiative Opportunities Act.



#### Form F Reference Project: Exposition LRT Phase 2 Project

Skanska had a 30% local hire requirement, with 10% being disadvantaged workers. The local hire goal was exceeded by 19.5% for a total of 49.5%, and we more than doubled the goal of disadvantaged worker hours, with a total of 25.3%. To surpass the goals, Skanska used its proven construction careers process engaging the local community and assisting residents in obtaining construction careers. The management team was dedicated to being involved at all stages of this effort. Throughout the project, Skanska actively sought out personnel and assisted them in finding training and work opportunities.

Skanska was the first contractor to successfully work with LA Metro's Construction Career's Policy ("CCP") and the Project Labor Agreement ("PLA"). Skanska has successfully delivered the trades in compliance with the CCP and the PLA, with over 300 personnel dispatched through the CCP.

Skanska worked with more than 30 organizations to help build careers in Los Angeles County. The team attended 18 job fairs, held by the Expo Authority, Trade Tech and other organizations.

#### Form F Reference Projects: US 36 Managed Lanes Project and Eagle P3

Plenary (on US 36) and HDR (on US 36 and Eagle P3) worked with RTD in the creation and implementation of the regional WIN program. WIN is a collaborative partnership between RTD, Community College of Denver, and The Contractor and the Urban League of Metropolitan Denver. WIN helps job seekers, companies, and local communities through the creation of career opportunities in the transportation and construction industries in order to provide opportunities directly to the communities and neighborhoods within the project corridor.

#### Form F Reference Project: SH 99 Grand Parkway Project

Zachry's SH 99 project in Houston, Texas required a peak workforce of nearly 1,700 employees. Reaching this goal was extremely challenging due to the low unemployment rate, unprecedented shortage of skilled craft labor and large staffing requirements of competitor projects in the Houston area. Staffing the project is being accomplished through setting up a dedicated local employment office to recruit, orientate, provide safety training and ensure qualified workers are ready to report to work. To date, Zachry has accepted 10,752 employment applications, hired 3,313 skilled craft employees and 114 foremen to fulfill staffing requirements. Over 150,000 hours of safety and OJT has been conducted on this project.



Candidates discussing future work opportunities at Zachry's SH 99 Grand Avenue Parkway on-site project recruiting center

#### Form F Reference Project: 11th Street Bridge Project

On the 11th Street Bridge project, the Skanska team developed employment and hiring goals through a cooperative agreement with DDOT, the DC Department of Employment Services ("DOES"), and DC Apprenticeship Council. On Phase 1 they used the First Source requirement as a goal for the project with 53% of the new hires residing in the District.

On Phase 1 the team exceeded the original OJT goal of nine trainee positions, achieving 20 OJT/

Apprenticeship positions, and of those positions 19 were District residents. Several of the original trainees continued to work at the 11th Street project until its completion. On Phase 2, they are meeting the goal of 23 trainee positions. Of those OJT/Apprentice positions, 15 are District residents.

While training apprentices full time, the team financed full tuition for apprentices to attend trade school at ABC Craft Masters of Washington, DC. Courses lasted for 27 to 33 weeks, for which District residents were charged nothing.

"This project has exceeded our expectations by creating jobs in the District, and most importantly, connecting formerly disconnected communities,"

Mayor Vincent C. Gray, Sept. 24 Press for the Opening of the 11th Street Bridge





11th Street Bridge Construction Management Graduates receive jobs after completing on-site training program.

On this project, Skanska established relationships with several Community Based Organizations that provide candidates for employment including: GSA Building Futures, DOES, Transition Housing Corp., Court Services and Offender Supervision Agency for the District of Columbia (CSOSA), Goodwill, and DC Housing Authority.

#### Form F Reference Project: I-4 Ultimate Project

The Skanska-led team will be creating up to 2,000 construction jobs, and providing hundreds of local residents with job training. The project includes a trainee goal of 250. To fully develop full journeymen in their trades, the team, along with FDOT, established an OJT program that is tied to specific scopes of construction work. Skanska also participates in workforce development programs such as career source, good will and other groups and encourages subcontractor participation as well.

Please also see related commentary from the ERT project, under question 1 above.



Congresswoman Corrine Brown and the Skanska I-4 Team at DBE Outreach Event



# FORM I: LIST OF KEY PERSONNEL

### Proposer Name: 5280 Connectors

## Form I: List of Key Personnel

By submitting this completed form, Proposer is deemed to confirm that each of the below named individuals is, and is reasonably expected to remain, available to serve in the position indicated by their name in connection with the Project for the period for which such position will be required to be filled as specified below.

#### **Design-Build Manager Position Description:** The Design-Build Manager is responsible for overseeing all aspects of the design and construction work. From commercial close to total construction completion. Minimum Period of Availability: Name: WADE WATSON Title: VICE PRESIDENT Current Employer: SKANSKA USA CIVIL To be seconded to/employed by: Lead Contractor **Design Manager Position Description:** The Design Manager is responsible for the management of the design team, including ensuring all design requirements are met. Minimum Period of Availability: From commercial close to total construction completion. Name: JOHN KALVELAGE Title: PRINCIPAL PROJECT MANAGER Current Employer: HDR To be seconded to/employed by: Lead Engineer **O&M Manager Position Description:** The O&M Manager is responsible for all operations, maintenance and/or (at Proposer's election) rehabilitation work. Minimum Period of Availability: From commercial close to end of Project Agreement term. CHRISTIAN GUEVARA Name: **OPERATIONS & MAINTENANCE MANAGER** Title: TRANSFIELD SERVICE INFRASTRUCTURE Current Employer: To be seconded to/employed by: Lead Operator **Quality Manager Position Description:** The Quality Manager is responsible for ensuring that Developer (and all sub-contractors) satisfy all quality requirements on the Project, including, as a minimum, oversight of the establishment and maintenance of a quality maintenance system.

Minimum Period of Availability:	From commercial close to total construction completion; and separately through to the end of Project Agreement term.
Name:	DANNY BENNETT
Title:	CONSTRUCTION QUALITY CONTROL MANAGER
Current Employer:	KLEINFELDER
To be seconded to/employed by:	Developer
Environmental Manager	
Position Description:	The Environmental Manager is responsible for ensuring compli- ance with all environmental obligations.
Minimum Period of Availability:	From commercial close to the second anniversary of total con- struction completion.
Name:	MATTHEW ZOSS
Title:	ENVIRONMENTAL COMPLIANCE MANAGER
Current Employer:	KLEINFELDER
To be seconded to/employed by:	Developer
Utilities Manager	
Position Description:	The Utilities Manager is a management role with a minimum of five years of relevant experience on major infrastructure projects. This role is responsible for managing all required utility works and coordination with utility companies.
Minimum Period of Availability:	From commercial close to total construction completion.
Name:	EMIL DZUIK
Title:	UTILITY COORDINATOR AND MANAGER
Current Employer:	ZACHRY CONSTRUCTION
To be seconded to/employed by:	Lead Contractor
Community and Public Relations M	lanager
Position Description:	The Community and Public Relations Manager is responsible for media relations, crisis management and community engagement activities in coordination with HPTE and BE.
Minimum Period of Availability:	From commercial close to the second anniversary of total con- struction completion.
Name:	PAULINE HABERMAN
Title:	SENIOR PUBLIC INFORMATION COORDINATOR
Current Employer:	ZOZO GROUP
To be seconded to/employed by:	Developer

Please refer to the following pages for Form I (Key Personnel) for the Equity Members, Lead Contractor, Lead Engineer and Lead Operator.







WADE WATSON Design-Build Manager

## A) INTRODUCTORY NARRATIVE

Wade Watson has 36 years of experience in construction and management of major bridge and highway projects. He is nationally known for his successful management of the \$1.5 billion (construction value) Elizabeth River Tunnels public-private partnership (PPP) project to construct a new immersed tube tunnel connecting Portsmouth and Norfolk, VA, the \$540 million Arthur J. Ravenel Jr. (Cooper River) Bridge design-build project, and the \$73 million George P. Coleman Swing Bridge.

Through his involvement in numerous major heavy civil construction projects, he has demonstrated considerable expertise in the coordination of challenging highway, bridge, marine, and design-build contracts.

His superior ability in construction and management of construction encompasses design-build, bridges, foundations, grading and paving.

## **B) YEARS OF EXPERIENCE**

Wade has 36 years in heavy civil and transporation project construction.

## **C) EMPLOYMENT HISTORY**

Wade has been with Skanska since the start of his career and has been essential in the management and execution of mega projects for the company. Wade is currently the Project Manager on the Elizabeth River Tunnels PPP Project and a Vice President for Skanska USA Civil.

## D) RELEVANT PROJECTS

### **Experience directly related to I-70 East Project**

Wade has experience with: roadway and interchange reconstruction, demolition in urban environments, major excavation work, including groundwater and drainage considerations, complex urban MOT, staging in confined spaces, ventilation and/or fire life safety considerations, coordination with railroads and utilities, interfaces with adjacent operators, workforce development and DBE programs, achievement of DBE goals, urban air quality monitoring and mitigation, urban noise monitoring and mitigation.

### **Reference Projects included in Form F**

#### Vice President of Operations and Project Director | Skanska USA Civil | \$1.5 billion | VDOT | Elizabeth River Tunnels PPP Project | Portsmouth,VA | 2010-Present

Wade has overall responsibility for the execution of the \$1.5 billion design-build portion of this \$2.1 billion PPP, including ultimate responsibility for on-time and on-budget completion of the project. He manages top-level staff for accurate planning and execution and is the primary interface with the Developer and VDOT. Wade also provides oversight of all operations, including: schedule, budget, guality, safety, environmental, subcontractors, design, joint venture partners, and day-to-day operations at the construction site and the tunnel fabrication site. Wade worked closely with the design-build team and design-build coordination manager to develop the design management program and monitor the progress of the design teams. He participated in design management review meetings as well as constructability reviews and the details of particularly complex issues.

This project includes designing, constructing and installing a new two-lane tunnel under the Elizabeth River, parallel to the existing Midtown Tunnel; maintenance and safety improvements to the existing Midtown and Downtown Tunnels; and extending the MLK Expressway from London Blvd. to I-264 in Portsmouth. Fabrication of the new tunnel is taking place in Sparrows Point, MD. Tunnel sections will be towed down the Chesapeake Bay to their installation point. In addition to the challenges of installing this tunnel, the work will take place in one of the more active port areas on the Eastern Seaboard. Skanska is responsible for overall management of maintenance of traffic, guality, safety and environmental activities. This project's PPP delivery, complex MOT challenges, urban area challenges and environmental mitigation directly relate to the I-70 East Project.

#### **Other Relevant Reference Projects**

#### Principal-in-Charge | Skanska USA Civil | \$150 million | Delaware DOT | Indian River Inlet Bridge Replacement Design-Build | Bethany Beach, DE | 2008-2010

Wade managed this project during the bid and proposal and served as the Principal-in-Charge with full authority to make decisions, resolve and negotiate issues as well as monitor the progress of the project. He was the main point of contact for issue resolution with the authority.

The project includes a three-span, cable-stayed bridge (400'-950'-400') with flanking approach spans. The cable-stayed superstructure consists of cast-in-place ("CIP") concrete edge girders and a CIP concrete deck. The four approach spans are 106-ft. long and consist of 69-in.-deep prestressed concrete bulb-T girders. The design utilizes a singlemast pylon configuration and a semi-harped stay configuration. Erection of the cable-stayed bridge was accomplished using a combination of falsework and form travelers. The structure is over 2,600 ft. long with a minimal vertical clearance over the inlet of 45 ft.

#### Project Manager | Skanska USA Civil | \$540 million | South Carolina DOT | Cooper River Bridge Replacement Design-Build | Charleston, SC | 2001-2006

Wade managed this award-winning, design-build project to construct an eight-lane cable-stayed bridge over the Cooper River, and the single largest transportation infrastructure project in South Carolina history.

Under the direction of Wade, this landmark bridge was completed one year ahead of schedule and on budget, while taking into account the project's sensitive environmental and historical context. The bridge was constructed adhering to the most stringent seismic standards and will be able to withstand harsh hurricanes that are frequent in the area. In keeping with Skanska's care for the environment, heavy construction equipment was moved through the saltwater marshes on a temporary elevated structure. Through his leadership, the disruption to the surrounding communities was minimized by complete and effective communication with Federal, State, and local municipal governments. This project's designbuild delivery, complex MOT challenges, urban area challenges and environmental mitigation directly relate to the I-70 East Project.

### E) EDUCATION AND RELEVANT LICENSES/ REGISTRATIONS

- BS, Civil Engineering, Clemson University (1978)
- Negotiation and Decision Making, Chicago Business School (2006)
- Finance for Non-Financial Managers, Duke University (2006)
- Management for Design-Build Projects, DBIA (2001)
- Thinking Outside the Box, Skillpath Seminars (1998)
- Better Communicator, Skillpath Seminars (1998)
- OSHA 30 Hour, OSHA (2009)

# ANNEX A TO FORM I FORM FOR KEY PERSONNEL REFERENCES

## PROPOSER NAME: 5280 Connectors

## **POSITION:** Design-Build Manager

## INDIVIDUAL: Wade Watson

Required Information	Reference No. 1	Reference No. 2	Reference No. 3
Project(s)/Transaction(s) (name and cross-reference in SOQ to	Elizabeth River Tunnels P3 Project	Indian River Inlet Bridge Design-build	Cooper River Bridge Replacement Design-Build
relevant <u>Form F</u> (if applicable)):	This Reference Project is included in Vol.1, Sec.4.1.	This Reference Project is NOT included in Vol.1, Sec.4.1.	This Reference Project is NOT included in Vol.1, Sec.4.1.
Reference's Name:	Jay Neider	Barry Benton	Leland Colvin
Reference's Title (current):	Director of Mega Projects	Assistant Director of Bridges	Chief Engineer for Operations
Reference's Employer (current):	Virginia Department of Transportation	Delaware Department of Transportation	South Carolina Department of Transportation
Reference's Title (at time of project/transaction):	Director of Mega Projects	Assistant Director of Bridges	Chief Engineer for Operations
Reference's Employer (at time of project/transaction):	Virginia Department of Transportation	Delaware Department of Transportation	South Carolina Department of Transportation
Reference's Phone and Email:	(757) 932-4480 Jay.neider@vdot.virginia.gov	(302) 760-2299 Barry.Benton@state.de.us	(803) 737-5028 colvinld@scdot.org
Reference's Location and Time Zone:	Portsmouth, VA Eastern Time Zone	Dover, DE Eastern Time Zone	Columbia, SC Eastern Time Zone
Other:			





JOHN KALVELAGE Design Manager

## A) INTRODUCTORY NARRATIVE

John has provided project management and engineering services for DBFOM, design-build, design-bid-build, CM/GC, and emergency repair projects. He has managed multi-discipline design teams on interstate highway projects and complex transit design-build projects over \$1 billion in size. His experience ranges from conceptual design through preparation of contract documents, construction specifications, and field engineering services during construction.

John coordinates all aspects of project design, including environmental permitting, railroad coordination, and ROW acquisition. For two years, John served as a design manager and structures task lead in the Design Build group on multiple billion dollar project pursuits. Key tasks included managing design work of engineers and consultants, design second estimates, leading design innovations, quality reviews, and development of design innovations on active project and pursuits.

This level of accountability and creativity has gained John's design teams' multiple awards on previous projects, including the Society of American Military Engineers, ACEC Project of the year award in Oregon and a national APWA award.

## **B) YEARS OF EXPERIENCE**

John has 23 years of experience in engineering services and project management.

### **C) EMPLOYMENT HISTORY**

John is a Principal Project Manager, based in Denver, for HDR. He has been in this position for 3 years.

Prior to joining HDR, John was a Design Manager for Kiewit for two years. Prior to this, John was the Area Manager, based in Portland, OR, for OBEC Consulting Engineers for three years. Prior to OBEC, John was a Design Build Manager, based in Portland, OR for David Evans and Associates for eight years.

## **D) RELEVANT PROJECTS**

### **Experience directly related to I-70 East Project**

John has extensive experience with the design management of roadway and interchange reconstruction, demolition in urban environments, major excavation work (including groundwater drainage considerations), complex urban MOT, staging in confined spaces, ventilation and/or fire life safety considerations, coordination with railroads and utilities, O&M in similar environments, workforce development and DBE programs, achievement DBE goals, and urban noise monitoring and mitigation.

## **Reference Projects included in Form F**

### Design Manager | HDR, Inc. | \$1 billion | Denver RTD | Eagle P3 Project | Denver, CO | 2012-2015

The Eagle P3 project (Eagle P3) consists of 38 bridge structures, 13 stations, numerous grade crossings, intersection and streets, approximately 40 miles of new commuter rail line on three different line segments, and relocation of the UPRR and BNSF mainline. Since joining HDR, John has successfully closed out final design and is completing design services during construction as the Design Manager on the Eagle P3. John's bridge structures, understanding of the local terrain, and rail design experience is directly relevant to the I-70 East Project.

### **Other Relevant Reference Projects**

#### Design Project Manager | David Evans and Associates | \$92 million | WSDOT | I-405/I-5 to SR 169 Widening Design Build | King County, WA | 2006-2008

This project replaced the I-405 bridges over Springbrook Creek and Oakesdale Ave and rehabilitated multiple ramp connections at SR 167 and SR 181. The project accelerated timelines to achieve critical milestones for HOT and HOV lane operational goals for the corridor and included elements that improve the environment for people, wildlife, and habitat such as improved water guality, and restored and enhanced stream and wetland habitat along the Springbrook Creek Trail. John was the design project manager for this project that added one general purpose lane in each direction, added one auxiliary lane, and extended an HOV lane. This project is relevant to I-70 East because it required developing significant MOT and staging plans to minimize impact to the traveling public and corridor mobility.

#### Design Project Manager | David Evans and Associates | \$60 million | ODOT | McKenzie River to Goshen Grade Section Design Build | Lane County, OR | 2005-2007

This project included the replacement of six bridges, repair of two bridges on I-5, and total redesign and construction of the I-5/OR 58 Interchange in Eugene, OR. John's responsibilities included coordinating the work of the entire design team which performed bridge, traffic control, highway, drainage, landscape, foundation and hydraulic design as well as environmental permitting, ROW acquisition, survey, archeological studies, and context sensitive and sustainable solutions. This project is relevant to I-70 East as it required reconstruction of eight individual traffic phases and the construction of two, four-lane bridges, of which two of the I-5 bridges cross active railroad tracks and a two-lane surface street.

#### Design Project Manager | David Evans and Associates | \$51 million | ODOT | I-5: Weaver Road Design-Build - Bundle 306 | Douglas County, OR | 2006-2008

This project replaced six bridges and repaired two near Riddle, Oregon. The two I-5 bridges were replaced under staged construction and a new 2,500-foot northbound entrance route was added as part of this project. The project included wetland mitigation and extensive railroad coordination. John's responsibilities included coordinating the work of the design team; bridge, traffic control, highway, drainage, landscape, foundation and hydraulic design; as well as environmental permitting, ROW acquisition, survey, archeological studies, context sensitive and sustainable solutions. John's experiences in bridge design, traffic control, and environmental permitting are directly relevant to the I-70 East Project.

#### E) EDUCATION AND RELEVANT LICENSES/ REGISTRATIONS

- BS, Civil Engineering, Washington State University at Pullman (1992)
- Professional Engineer Civil, Registered in Colorado (2013), California (2000), Idaho, Oregon (1997), Washington (1997)
- Professional Engineer, Structural, Registered in Utah (2008)
- ACEC Project of the year award: Interstate MAX Light Rail Extension Line Section 10C Design-Build, Society of American Military Engineers (2004)

# ANNEX A TO FORM I FORM FOR KEY PERSONNEL REFERENCES

## PROPOSER NAME: 5280 Connectors

## **POSITION:** Design Manager

# INDIVIDUAL: John Kalvelage

Required Information	Reference No. 1	Reference No. 2	Reference No. 3
Project(s)/Transaction(s) (name and cross-reference in SOQ to	Eagle P3 Project This project is included in Vol.1, Sec.4.1.	I-405/I-5 to SR 169 Stage 1 – Widening DB	McKenzie River to Goshen Grade Section DB
relevant <u>Form F</u> (if applicable)):		This project is NOT included in Vol.1, Sec.4.1.	This project is NOT included in Vol.1, Sec.4.1.
Reference's Name:	Greg Straight	Lisa Hodgson, PE	Tim Dodson
Reference's Title (current):	Eagle P3 DB Manager	Design Manager	ODOT-BDU Senior Transportation Engineer, Region 2
Reference's Employer (current):	Regional Transportation District ("RTD")	Washington Department of Transportation ("WSDOT")	Oregon Department of Transportation ("ODOT")
Reference's Title (at time of project/transaction):	Eagle P3 DB Manager	Design Manager	ODOT-BDU Senior Transportation Engineer, Region 2
Reference's Employer (at time of project/transaction):	RTD	WSDOT	ODOT
Reference's Phone and Email:	(303) 299-6906 greg.straight@rtd-denver.com	(425) 420-99843 hodgsol@wsdot.wa.gov	(503) 986-3311 timothy.j.dodson@odot.state.or.us
Reference's Location and Time Zone:	Denver, CO Mountain Time Zone	Washington Pacific Time Zone	Oregon Pacific Time Zone
Other:			







CHRISTIAN GUEVARA Operations and Maintenance Manager

## A) INTRODUCTORY NARRATIVE

Christian is currently serving as the Operations and Maintenance Manager for the US 36 Managed Lanes project for the Colorado Department of Transportation (CDOT), the first PPP project delivery for CDOT. He is responsible for the mobilization and delivery of a long-term, performance based, Operating Agreement as the Lead Operator for the Plenary Roads Denver consortium.

Christian's background includes lifecycle review and analysis as well as structures management and inspection. He has assisted local agencies throughout Colorado in managing and executing maintenance plans to prolong the serviceability of their structures and effectively maintain lifecycle aspects and planning. Christian is a FHWA certified Bridge Inspection Team Leader.

Christian brings proven experience and capability to the Project through mobilizing and executing a large scale, long term operations and maintenance project with CDOT, and his background in lifecycle asset management will assist in prolonging the service life of the Project during design and operations through effective maintenance management and planning.

### **B) YEARS OF EXPERIENCE**

Christian has over 10 years of experience within the highway operations and maintenance and lifecycle field.

### **C) EMPLOYMENT HISTORY**

Christian is currently the Operations and Maintenance Manager for Lead Operator, Transfield Services Infrastructure, Inc. (Transfield), on the US 36 Managed Lanes Project in Denver, CO. He has been in this position for two years. Prior to joining Transfield, Christian was a Project Manager and Bridge Inspection Engineer with Stantec Consulting Services for six years. Prior to Stantec, Christian served CDOT as assistant project engineer and construction inspector for two years.

## **D) RELEVANT PROJECTS**

### **Experience directly related to I-70 East Project**

Christian has experience with: roadway and interchange reconstruction, demolition in urban environments, complex urban MOT, staging in confined spaces, coordination with railroads and utilities, O&M in similar environments, O&M interfaces with adjacent operators, workforce development and DBE programs and urban noise monitoring and mitigation.

## **Reference Projects included in Form F**

Operations and Maintenance Manager | Transfield Services Infrastructure, Inc. | \$4.5 million annual | CDOT/HPTE | US 36 Managed Lanes Project | Denver, Westminster, Broomfield, Louisville, Superior, Boulder, CO | 2013-2015

The project is a PPP project with CDOT and HPTE to design, construct and operate a highway corridor between Denver and Boulder, CO. As the Operations and Maintenance Manager, Christian has mobilized and implemented an operations and maintenance program to execute a 50-year Concession Agreement with CDOT and HPTE as the Lead Operator in a PPP. Through this project, Christian has worked together with Plenary, HDR, HPTE, and CDOT to optimize operations and lifecycle performance of the maintained elements. Additionally, within US 36, Christian is responsible for the execution of various scope items including:

- Lifecycle bridge and pavement management
- Managed lanes operations
- Reversible gate operations
- Infrastructure rehabilitation
- Snow and ice control services
- CDOT operations and dispatch from the Colorado Transportation Management Center ("CTMC")
- Courtesy patrol in accordance with the Mile High Courtesy Patrol Program
- Incident Response
- Working with adjacent roadway operators to ensure efficient operations at boundary areas
- Roadside appurtenance maintenance including, mowing, signs, barriers, attenuators
- Direct customer service responsibilities

All scope items are measured using strict performance requirements, and are monitored regularly by CDOT and HPTE. To date (or since commencing operations) the US 36 Managed Lanes project has incurred zero non-compliance penalties.

Christian has also completed the mobilization and transfer of maintenance responsibilities for portions of the I-25 and US36 corridor and has effectively assimilated the Private sector with CDOT to perform the Lead Operator role for the US 36 Managed Lanes project.

#### **Other Relevant Reference Project**

#### Project Manager | Stantec Consulting Services | \$1.4 million annual | CDOT | CDOT Off-system Bridge Inspection Program | Denver, CO | 2007-2013

Christian has provided consulting services to multiple local agencies and municipalities on the subject of lifecycle maintenance and asset management. Christian's work with these local agencies was directed toward maximizing the service life of bridge infrastructure through inspection and maintenance planning. Christian also managed the CDOT Off-system Bridge Inspection contract and has planned, scheduled, and executed more than 1,500 bridge inspections per year throughout the State of Colorado. His responsibilities included load rating of bridges for timber, steel, pre-stressed concrete and truss configurations; meeting with local agency directors to discuss their infrastructure and how to prolong the service life; presenting findings of inspections to city and county commissioners and public works directors; structural rehabilitation design; and assisting agencies in developing and implementing their own lifecycle planning and maintenance programs.

### E) EDUCATION AND RELEVANT LICENSES/ REGISTRATIONS

- BS, Civil Engineering, University of Colorado at Boulder (2007)
- Professional Engineer Civil, Registered in Colorado (2012)
- Certified Bridge Inspection Team Leader, FHWA



# ANNEX A TO FORM I FORM FOR KEY PERSONNEL REFERENCES

## PROPOSER NAME: 5280 Connectors

**POSITION:** Operations and Maintenance Manager

## **INDIVIDUAL:** Christian Guevara

Required Information	Reference No. 1	Reference No. 2	Reference No. 3
Project(s)/Transaction(s) (name	US 36 Managed Lanes	US 36 Managed Lanes	US 36 Managed Lanes
and cross-reference in SOQ to relevant <u>Form F</u> (if applicable)):	This Reference Project is included in Vol.1, Sec.4.1.	This Reference Project is included in Vol.1, Sec.4.1.	This Reference Project is included in Vol.1, Sec.4.1.
Reference's Name:	Mark Gosselin	Matt Rickard	Kari Grant
Reference's Title (current):	Project Director – US 36 Managed Lanes	Maintenance Manager – Intelligent Transportation Systems	HPTE Specialist
Reference's Employer (current):	High Performance Enterprise ("HPTE")	Colorado Department of Transportation ("CDOT")	High Performance Transportation Enterprise ("HPTE")
Reference's Title (at time of project/transaction):	Project Director – US 36 Managed Lanes	Maintenance Manager – Intelligent Transportation Systems	HPTE Specialist
Reference's Employer (at time of project/transaction):	CDOT, HPTE	CDOT	HPTE
Reference's Phone and Email:	(303) 656-5635 Mark.gosselin@state.co.us	(303) 512-5834 Matthew.rickard@state.co.us	(303)757-9380 Kari.grant@state.co.us
Reference's Location and Time Zone:	Broomfield, CO Mountain Time Zone	Golden, CO Mountain Time Zone	Denver, CO Mountain Time Zone
Other:			



KLEINFELDER



A) INTRODUCTORY NARRATIVE

Danny has a strong understanding of all aspects of construction from grading and paving, to structures and precast, to highways and airports, and has a long history of developing, implementing, and managing quality assurance/control programs. His responsibilities have included conducting quality audits, reporting on quality performance, developing action plans for continual improvement, working with sub-contractors to establish guality standards, communicating guality lessons learned,

and working with clients to gauge satisfaction with guality performance. Danny has managed up to four accredited laboratories (AMRL, CCRL, USACE) in asphalt, concrete and soils, and two non-accredited laboratories at the same time. Danny is competent in CDOT, MoDOT, ASTM, FAA, FTA, FHA, USACE, AASHTO and ISO standards.

Danny is currently the Construction Quality Assurance Manager on the \$1 billion RTD Eagle FasTracks project in Denver, CO.

### **B) YEARS OF EXPERIENCE**

Danny has 15 years construction experience in quality management, construction inspection, and materials testing.

### **C) EMPLOYMENT HISTORY**

Danny is currently acting as Construction Quality Control Manager for Denver Transit Partners on the Eagle P3 Project in Denver. He has held this position for four years and is employed by Kleinfelder. Prior to joining Kleinfelder, Danny was the Central District Quality Manager and managed a staff of 36 to ensure construction guality at various job sites spanning 12 states for Kiewit for nine years.

### **D) RELEVANT PROJECTS**

#### Experience directly related to I-70 East Project

Danny has extensive experience with: demolition in urban environments; major excavation work; including groundwater drainage considerations; complex urban MOT; staging in confined spaces; ventilation and/or fire life safety considerations; coordination with railroads and utilities; and urban noise monitoring and mitigation.

### **Reference Projects included in Form F**

#### Construction Quality Control Manger Kleinfelder | \$1 billion | Denver RTD | Eagle P3 Project | Denver, CO | January 2011 To Present

The Eagle P3 project consists of 40 miles of new commuter rail line and relocation of the UPRR and BNSF mainline. For this project, Danny has developed an effective quality assurance program. He communicates regularly with RTD representatives to ensure the quality assurance program meets and exceeds their expectations. He is managing an accredited laboratory and a staff of approximately 50 engineers, inspectors, and technicians. Danny's understanding of the local terrain in an urban setting and his management of a large QA team, are directly relevant to the I-70 East Project.

### **Other Relevant Reference Projects**

#### Project Quality Manager | Kiewit | \$245 million | MoDOT | Interstate 29/35 | Kansas City, MO | January 2008 to January 2009

The project is an interstate connection project to upgrade the interstate to six lanes, add an additional southbound lane from the Central Business District loop to Oak Street, reconstruct on-ramps/ off-ramps, and reconfigure several interchanges.

Danny served as the Project Quality Manager and designed/developed an effective quality assurance/ quality control program with two JV partners with no prior experience in design-build quality concepts, as well as, an owner with limited experience in this type of procurement method. Danny managed and implemented a project quality assurance/control program, supervised technicians and inspectors, and oversaw testing to applicable standards in a certified laboratory. He also worked with owner representatives on a daily basis for inspections and documentation of test results.

### Quality Control Manager | Kiewit | \$10 million | Aspen/Pitkin County Airport | Aspen, CO | March 2007 To July 2007

The project consisted of reconstruction of the runway and apron at Aspen County Airport that involved milling and overlay of the existing runway, two shoulders, excavation and embankment of new infield, installation of 72-in. and 36-in. pipe runs, a new service road, striping, seeding, topsoil, and concrete work. Danny served as the Quality Control Manager responsible for management of a soil and asphalt testing lab and a team of inspectors and technicians. He maintained an excellent working relationship with project owner's representatives through meetings and constant communication. Danny punched the entire project for closure and submitted final inspection and testing documentation.

#### Structures Quality Assurance Manager | Kiewit | \$1.3 billion | Transportation Expansion (T-REX) Project, Denver, CO | February 2002 to March 2007

As Structures Quality Assurance Manager: Danny led quality assurance for the finishing of 60 bridges, 8,800 feet of direct fixation bridges, stations, and garages. Additionally, Danny managed a team of inspectors and technicians that inspected and tested bridges, drilled shafts, PCC paving, asphalt paving, and buildings. He was also responsible for resolving non-conformance issues and held daily meetings to complete punch list and non-conformance report issues.

Prior to his role as Structures Quality Assurance Manager on the T-REX project, Danny was Paving/ Grading Quality Assurance Manager.

### E) EDUCATION AND RELEVANT LICENSES/ REGISTRATIONS

• BA, Mathematics, State University of New York at Plattsburgh (1999)



# ANNEX A TO FORM I FORM FOR KEY PERSONNEL REFERENCES

## PROPOSER NAME: 5280 Connectors

## **POSITION:** Quality Manager

# INDIVIDUAL: Danny Bennett

Required Information	Reference No. 1	Reference No. 2	Reference No. 3
Project(s)/Transaction(s) (name and cross-reference in SOQ to relevant <u>Form F</u> (if applicable)):	Eagle P3 Project This Reference Project is included in Vol.1, Sec.4.1.	<b>I-25 Transportation Expansion</b> (TREX) and RTD Eagle P3 This Reference Project is NOT included in Vol.1, Sec.4.1.	I-29/I-35 Design-Build This Reference Project is NOT included in Vol.1, Sec.4.1.
Reference's Name:	Joe Christie, P.E.	Chris Hinton	Warren Roberts
Reference's Title (current):	Design-Build Manager	Quality Manager	Quality Manager / Construction Materials Engineer
Reference's Employer (current):	Regional Transportation District ("RTD")	Carter Burgess (TREX), RTD (RTD Eagle P3)	Missori Department of Transportation
Reference's Title (at time of project/transaction):	Design-Build Manager	Deputy Project Manager	Project Manager
Reference's Employer (at time of project/transaction):	RTD	RTD	Missori Department of Transportation
Reference's Phone and Email:	(303) 299-6989 Joe.christie@rtd-denver.com	(303) 489-1719 Chris.hinton@rtd-fastracks.com	(816) 841-616 warren.roberts@modot.mo.gov
Reference's Location and Time Zone:	Denver, CO Mountain Time Zone	Denver, CO Mountain Time Zone	Kansas City, MO Central Time Zone
Other:			



KLEINFELDER



A) INTRODUCTORY NARRATIVE

Matthew has over 13 years of environmental management, planning, and permitting experience including four years as environmental compliance manager on design-build transportation projects. Matthew also has planning and permitting experience in oil and gas energy infrastructure, electric transmission infrastructure, and commercial development. Matthew has a wide range of major, high profile public transportation projects such as the Eagle P3 project in Colorado.

Matthew has managed complex environmental compliance programs for transit projects in Colorado and has demonstrated leadership and professional excellence with the ability to manage multi-disciplinary projects, resolve complex issues, and build rapport among multiple regulatory agencies, non-governmental agencies, and private stakeholders with conflicting interests.

#### **B) YEARS OF EXPERIENCE**

Matthew has 13 years of experience in planning and permitting.

#### **C) EMPLOYMENT HISTORY**

Matthew is currently the Environmental Compliance Manager for Denver Transit Constructors, LLC, on the Eagle P3 Project in Denver. He has held this position for the last four years and has been employed by Kleinfelder for the last seven years.

Prior to joining Kleinfelder, Matthew was a Resource Specialist/Field Task Manager with Natural Resource Group, Inc. where he spent three years. Before moving to Resources Group, Matthew also spent three years again with Kleinfelder as an Environmental Scientist as well as three years with Corporation for Environmental Management, Inc.

## **D) RELEVANT PROJECTS**

#### **Experience directly related to I-70 East Project**

Matthew has extensive experience with: demolition in urban environments, major excavation work, including groundwater drainage considerations, complex urban MOT, staging in confined spaces, ventilation and/or fire life safety considerations, coordination with railroads and utilities, O&M in similar environments, urban noise monitoring and mitigation.

### **Reference Projects included in Form F**

#### Environmental Compliance Manager | Kleinfelder | \$1 billion | Denver RTD | Eagle P3 Project | Denver, CO | 2011-Present

The Eagle P3 project consists of 40 miles of new commuter rail line and relocation of the UPRR and BNSF mainline. Matthew is responsible for overall project environmental compliance, agency consultation, documentation of required NEPA mitigation actions, and management of the environmental compliance team ("ECT"). He monitors construction to verify implementation of environmental mitigation measures, reports quarterly mitigation requirements to RTD, and develops reevaluation reports for design/ construction changes deviating from the ROD requirements. Additionally, Matthew developed management plans and training for construction teams to assist in NEPA compliance, coordinated with regulatory agencies on NEPA compliance for field changes, ROD mitigations, and construction means and methods, and managed stormwater inspection teams (NPDES/MS4).

Matthew is responsible for stormwater compliance, construction in wetland/waterbody features, raptor surveys, migratory bird surveys, threatened and endangered species, contaminated soils/ groundwater, noise, asbestos abatement oversight,
asbestos in soils monitoring, and hazardous waste management. Matthew's mitigation measures on a complex project, understanding of the local terrain, and compliance with noise, asbestos, and hazardous waste material is directly relevant to the Project. Matthew's experience on the Eagle P3 Project has helped develop strong relationships with the state and local agencies as well as a familiarity with the regulatory expectations of those agencies, resulting in an added benefit to the I-70 East Project.

# **Other Relevant Reference Projects**

# Environmental Field Manager | Kleinfelder | \$100 million | CenterPoint Energy Field Services, Magnolia Project | Louisiana | 2009-2011

The project components included 15 separate gathering lines, access roads, valve sites, pig launchers, tie-ins, and meter sites. Matthew managed environmental field services and permitting for the development of over 100 miles right-of-way. These services were responsible for major savings related to boring and mitigation of wetland/waterbody and historical impacts. Matthew also performed surveying for biological and cultural field surveys including: threatened and endangered species evaluations, CWA section 404 permitting, archaeological and paleontological surveys, historical battlefield research, and supporting documents. Matthew's mitigation measures on a complex project, understanding to the local terrain, and compliance with noise, asbestos, and hazardous waste material is directly relevant to the I-70 East Project. Matthew's experience on this project developed a thorough understanding of federal permitting requirements with sensitive environmental resources. This experience will assist the project team during construction planning, managing environmental resources, and design review.

### Environmental Compliance Manager | Kleinfelder | \$40 million | CDOT | Region 1, I-70 Peak Period Shoulder Lane CM/GC Project | Denver, CO | 2014-Present

This project includes upgrading and re-paving 12 miles of the existing eastbound, two-lane segment of I-70 between US 40 at Empire Junction to the

western terminus of the Twin Tunnels, and also entails replacement of two bridges over I-70. Matthew's responsibilities include oversight of construction to ensure environmental compliance, coordinating environmental staff, management of contaminated soils/groundwater, documentation of NEPA mitigation measures, conducting necessary field surveys, and environmental permitting. Matthew coordinated with local regulatory agencies to permit and operate groundwater remediation treatment systems to facilitate construction activities within historic mine tailing areas. Matthew's experience on the CDOT I-70 PPSL project has developed relationships with local CDOT staff that will be coordinating the Project's compliance. These relationships will help the project team and CDOT communicate more effectively from the beginning.

# Environmental Manager | Natural Resource Group, Inc. | \$46 million | Questar Pipeline Company, Overthrust Loop Expansion Project | Wyoming | 2008-2011

The project is a 43 mile, 36-inch-diameter FERC regulated natural gas pipeline project in Wyoming. Matthew coordinated environmental field surveys including: wetland delineations, mountain plover surveys, sage grouse surveys, rare botanical presence evaluations, and restoration/erosion controls evaluation. This project experience provided Matthew with an understanding of regulatory agency coordination and permitting that will carry over to the I-70 East Project.

# E) EDUCATION AND RELEVANT LICENSES/ REGISTRATIONS

- BA, Environmental Management, Ball State University (2002)
- CDOT Erosion Control Supervisor, COT (2011)
- Air Sampling Certification #2002-01, NIOSH (2002)
- Asbestos Building Inspector, AHERA (2002)
- Wetland Delineator Certification, USACE (2002)



# ANNEX A TO FORM I FORM FOR KEY PERSONNEL REFERENCES

# PROPOSER NAME: 5280 Connectors

**POSITION:** Environmental Manager

# **INDIVIDUAL:** Matthew Zoss

Required Information	Reference No. 1	Reference No. 2	Reference No. 3
Project(s)/Transaction(s) (name and cross-reference in SOQ to relevant <u>Form F</u> (if applicable)):	Eagle P3 Project This Reference Project is included in Vol.1, Sec.4.1.	<b>CDOT I-70 Peak Period</b> <b>Shoulder Lane Project</b> This project is NOT included in Vol.1, Sec.4.1.	Eagle P3 Project This Reference Project is included in Vol.1, Sec.4.1.
Reference's Name:	Elizabeth Telford	David Singer	Ashland Vaughn
Reference's Title (current):	RTD FasTracks Environmental Manager	CDOT Environmental Program Manager	RTD FasTracks North Metro Project Manager
Reference's Employer (current):	Regional Transportation District ("RTD")	Colorado Department of Transportation ("CDOT")	Regional Transportation District ("RTD")
Reference's Title (at time of project/transaction):	RTD FasTracks Eagle P3 Environmental Manager	Environmental Program Manager	RTD FasTracks Eagle P3 Project Manager
Reference's Employer (at time of project/transaction):	RTD	CDOT	RTD
Reference's Phone and Email:	(303) 299-2437 Elizabeth.Telford@RTD-Denver. com	(720) 497-6960 david.singer@state.co.us	(303) 299-6986 Ashland.Vaughn@RTD-Denver. com
Reference's Location and Time Zone:	Denver, CO Mountain Time Zone	Denver, CO Mountain Time Zone	Denver, CO Mountain Time Zone
Other:			



ZACHRY



EMIL DZUIK Utility Manager

# A) INTRODUCTORY NARRATIVE

Emil has over 40 years experience in coordinating and solving complex utility adjustments on highway improvement projects. Emil has extensive utility coordination experience from complicated, large design-build projects. He has major experience in coordination with multiple utility stakeholders and has spent his long career working in utilities. Emil manages all utility agreements and the design and construction work related to all utility relocations, communicates utility knowledge with other disciplines to limit utility strikes, manages utility relocation subcontractors, supervises utility design engineers and coordinates with utility companies in order to complete any necessary relocations to facilitate project construction. His expertise was instrumental in the success of the utility adjustment team on the \$1.5 billion SH 130, Segments 5 and 6 design-build project and he is currently serving as the Utility Manager on the \$1.04 billion SH 99 Grand Parkway project.

# **B) YEARS OF EXPERIENCE**

Emil has over 40 years of experience in utility coordination and adjustments on highway improvement projects.

# **C) EMPLOYMENT HISTORY**

Emil is currently a Utility Manager for Zachry and has been in this position for eight years. Prior to joining Zachry, Emil was a Contract Utility Manager for Damage Prevention Solutions, LLC where he spent five years.

Prior to Damage Prevention Solutions, Emil served in various roles that included Contract Cable Inspector, Engineering Design Project Manager, and Damage Prevention Manager for Southwestern Bell for 32 years.

# **D) RELEVANT PROJECTS**

## **Experience directly related to I-70 East Project**

Emil has experience with: roadway and interchange reconstruction, demolition in urban environments, major excavation work (including groundwater and drainage considerations), complex urban MOT, staging in confined spaces, coordination with railroads and utilities, workforce development and DBE programs, urban air quality monitoring and mitigation as well as urban noise monitoring and mitigation.

# **Reference Projects included in Form F**

Utility Manager | Zachry Construction Corporation | \$1.5 billion | TxDOT | SH 130, Segments 5 and 6 P3 | Austin to Seguin, TX | 2007-2013

The SH 130, Segments 5 and 6 project is a 41-mile greenfield four-lane divided toll road project with multiple stakeholders; more than 3,000 acres of ROW acquisition; more than \$41 million worth of utility relocation; and environmental coordination, including Phase II environmental site assessments ("ESA") for 60 parcels.

Emil served as utility coordinator on the SH 130, Segments 5 and 6 project. One of the biggest challenges was the coordination and relocation of 41 utilities costing over \$40 million prior to construction start. Emil was instrumental in meeting the aggressive timeline of full design and relocation of all utilities in 24 months. The team relocated more than 23 miles of water lines, over 12,000 ft. of petroleum gas lines, more than 53 miles of electric lines, 470 poles, and more than 55 miles of telecommunication lines. Emil was responsible for all telecommunication utility owner negotiations and coordination of cable placements, water systems and petroleum/gas pipelines. This included the preparation of the Master Utility Adjustment Agreements ("MUAA") for each utility. He provided expertise on both the design and construction

and ensured that the MUAAs were accurate for timely signoff by TxDOT. The Federal Highway Administration recognized Emil and Zachry's achievements in 2011 with the Excellence in Utility Relocation and Accommodation Award, Incentives category.

# **Other Relevant Reference Projects**

# Utility Manager | Zachry Construction Corporation | \$1.04 billion | TxDOT | SH 99 Grand Parkway, Segments F and G Design-Build | Houston, TX | 2013-Present

The SH 99 Grand Parkway, Segments F and G project is a 37.8-mile limited access toll road project that is part of a 180 mile loop in Houston. The project intersects 19 major roads and includes the construction of four major interchanges with multiple stakeholders, 2,124 acres (435 parcels) of ROW acquisition, coordination with 48 utility owners with relocation responsibilities, and environmental coordination.

Emil is currently serving as utility manager and is responsible for managing all utility agreements and the design and construction work related to all utility relocations; communicating utility knowledge with other disciplines to limit utility strikes; managing utility relocation subcontractors; supervising utility design engineers; and coordinating with 48 utility companies in order to complete the 177 necessary relocations to facilitate project construction. In this role, Emil also works with TxDOT to ensure partnering among teams in order to maintain the project path and speed as well as with the Construction Quality Acceptance Firm to ensure all necessary testing and inspection is scheduled and reported.

# Utility Coordination Manager | Damage Prevention Solutions, LLC contract with Hunter Industries | \$300 million | TxDOT | IH 35 Widening | New Braunfels, TX | 2004-2006

The IH 35 Widening project included the construction of additional main lanes and reconstructed frontage roads and drainage from Highway 46 north to Highway 306 in New Braunfels, Texas. Emil served as utility coordination manager and was responsible for the relocation of all telecommunication, water-wastewater, and natural gas lines within the project area. Emil contracted directly with Hunter Industries of San Marcos, Texas who was under contract with TxDOT to perform the project scope. The project included the construction of additional main lanes and reconstructed frontage roads and drainage from Highway 46 north to Highway 306 in New Braunfels, Texas.

# Utility Coordinator | Damage Prevention Solutions, LLC contract with Foremost Paving | \$150 million | TxDOT | Highway 83 Widening and Drainage Project | Zapata, TX| 2003-2005

The Highway 83 Widening and Drainage project included the 3-mile-long road widening of Highway 83 in Zapata from two lanes to four lanes, including redesign and construction of drainage, in and through Zapata, Texas. Emil served as utility coordinator and was responsible for the coordination of relocation of all telecommunication, water-wastewater, and natural gas lines within the project area. Emil contracted directly with Foremost Paving from Weslaco, Texas who in turn was under contract with TxDOT to perform the project scope.

# E) EDUCATION AND RELEVANT LICENSES/ REGISTRATIONS

- San Antonio Junior College Coursework (1970)
- 3 term Chairman of the Central Texas Damage Prevention Council where he coordinated with other utility owners to reduce damages to buried facilities.

# ANNEX A TO FORM I FORM FOR KEY PERSONNEL REFERENCES

# PROPOSER NAME: 5280 Connectors

# **POSITION:** Utility Manager

# **INDIVIDUAL:** Emil Dzuik

Required Information	Reference No. 1	Reference No. 2	Reference No. 3
Project(s)/Transaction(s) (name and cross-reference in SOQ to relevant <u>Form F</u> (if applicable)):	SH 130, Segments 5 and 6 This Reference Project is included in Vol.1, Sec.4.1.	Grand Parkway, Segments F1, F2 and G This Reference Project is NOT included in Vol.1, Sec.4.1.	IH 35 Widening, FM 46 to FM 3009 This Reference Project is NOT included in Vol.1, Sec.4.1.
Reference's Name:	Donald C. Toner, Jr.	Mark Johnson	Gregory A. Malatek
Reference's Title (current):	Director – Strategic Projects, ROW	Special Projects Delivery Manager	District Engineer
Reference's Employer (current):	TxDOT Strategic Projects Division	TxDOT	TxDOT
Reference's Title (at time of project/transaction):	Director – Strategic Projects, ROW	Special Projects Delivery Manager	Area Engineer
Reference's Employer (at time of project/transaction):	TxDOT	TxDOT	TxDOT
Reference's Phone and Email:	(512) 531-5904 don.toner@txdot.gov	(713) 866-7066 Mark.Johnson@txdot.gov	(512) 832-7006 greg.malatek@txdot.gov
Reference's Location and Time Zone:	Texas Central Time Zone	Texas Central Time Zone	Texas Central Time Zone
Other:			







PAULINE HABERMAN Community and Public Relations Manager

# A) INTRODUCTORY NARRATIVE

Pauline is a national award-winning public relations professional with thirty years of experience in public and legislative relations and sixteen years of volunteer experience planning events and coordinating communications for public and private entities. She has demonstrated exceptional communication, project coordination and interpersonal skills.

Through consultancy, Pauline has worked with CDOT and Skanska on projects between \$3 million and \$69 million. Pauline has experience in public information and outreach, including: community coordination, public open house planning and facilitation, and media relations. From her experience working for CDOT as an employee, Pauline is familiar with CDOT's outreach standards and protocols, adding benefit to the I-70 East Project.

# **B) YEARS OF EXPERIENCE**

Pauline has 30 years of Public Relations ("PR") experience, 11 years with highway construction projects, and 16 years with volunteer PR work.

# **C) EMPLOYMENT HISTORY**

Pauline is currently the Senior Public Information Coordinator of ZoZo Group, LLC. and has been with ZoZo since 20112. She implements strategic communications and outreach keeping projects compliant and on schedule while allowing for maximum public awareness.

Prior to ZoZo, Pauline was employed with BrainWise, where she developed and managed communications strategies from 1996 to 2012.

# **D) RELEVANT PROJECTS**

## **Experience directly related to I-70 East Project**

Pauline has experience with community outreach and public relations on major roadway and interchange reconstruction projects. She has experience working with the communities for coordination and communication of construction notices, impacts to local streets, and CDOT outreach standards and protocols. She has planned and facilitated many public open houses, drafted press releases, traffic advisories and a variety of special notifications, developed and placed ads, developed media plans, project announcements, newsletters and website content. In addition, she has attended project meetings and fielded a high volume of hotline calls.

# Public Information and Outreach | Castle Rock Construction Company | \$37.6 million | CDOT | I-76 Brush to Fort Morgan | Brush, CO | 2013-2015

This 19 month project involved the repair and/or replacement of 13 bridges, 24 walls, one box culvert and the reconfiguration of two interchanges along a six-mile section of Interstate 76. Pauline attended weekly project meetings, drafted press releases and special notification, created and distributed bi-monthly flyers, and submitted timely website updates for this project.

Public Information and Outreach | CDOT, American Civil Construction and Kirkland Construction | \$20 million (approximate) | CDOT | US 36 Flood Repairs | Lyons to Estes Park | 2013-2015

# 5280 Connectors

Pauline fielded hundreds of hotline phone calls, expertly handling stakeholder concerns. Her crisis communication skills were applied during the aftermath of a large boulder falling in the road that caused an unexpected closure and demanded constant updates to the public and the media. She facilitated open houses, coordinated resident passes, attended project meetings, drafted press releases, and updated website information for this project. As a critical communications link on this highly visible project, Pauline helped CDOT and the construction teams successfully communicate traffic flow restrictions and manage access issues, resulting in minimal disruption during construction.

# Public Information and Outreach | Flatiron Constructors | \$69 million | CDOT | I-25 Over Ilex Street | Pueblo, CO | 2015-2017

Outreach has begun early on this major design/build project in which new bridges will be constructed, three existing bridges will be extensively rehabilitated, major drainage and landscaping work will be done, along with improving interchanges, ramps and acceleration/deceleration lanes and improved roadway curves and smoothness. Pauline attends weekly meetings, drafted a press release for the project open house, created an open house invitation, conducted an open house event for Pueblo residents, developed content for multiple project boards, and created a fact sheet handout for open house attendees.

# Public Information and Outreach | Flatiron Constructors | \$7.2 million | CDOT | I-70 Eagle Interchange | Eagle, CO | 2013-2014

Pauline played an integral role in the I-70 Eagle interchange public outreach campaign: a targeted, integrated media plan customized to reach multiple classifications of stakeholders and promote the I-70 Eagle project. The plan utilized distinctive outreach pieces to increase public acceptance of construction activities and improve public safety.

Pauline worked with the project team to provide outreach in advance of construction of a series of roundabouts in the Town of Eagle, and crafted an informational piece to explain to motorists how to navigate in the roundabouts. Pauline provided calls and notifications to local businesses in advance of overnight water shutoffs during construction.

# Public Information and Outreach | CDOT | \$8 million | CDOT | SH 9 Reconstruction | Breckenridge, CO | 2013-2015

Pauline provided early public outreach for the SH 9 widening and reconstruction project in Breckenridge, which is part of long term widening plan between Frisco and Breckenridge. This project involved expansion of SH 9 from two lanes into four lanes to accommodate an increase in traffic. Work included construction of a new bridge as well as a roundabout. Pauline provided a project announcement flyer and quarterly updates on the project. Prior to the start of construction, Pauline created special door hanger notifications and flyers that were delivered to affected residents.

# Public Information and Outreach | Skanska | \$12 million (approximate) | CDOT | SH 7 Emergency Flood Repairs | Lyons to Raymond, CO | Oct-Nov 2013

Following the damage that occurred from the severe flooding in 2013, Pauline provided information and outreach regarding emergency repairs to SH 7. Because the canyon was inaccessible during the reconstruction, Pauline coordinated an open house event to provide a place where displaced residents could meet to get information about the project. Pauline developed print ads to reach the target audience in the Boulder/Lyons areas, and developed a pocket card with a map of the project and project contact information for dissemination to local residents and motorists.

# E) EDUCATION AND RELEVANT LICENSES/ REGISTRATIONS

- BA, International Affairs, University of Colorado (1985)
- Emergency Response and Communications Training, Colorado Contractor's Association, Denver, CO (2015)
- Community Chair Volunteer: Denver-Area Schools
- 1st place, AASHTO Public Affairs Skills Contest "I-70 Glenwood Canyon: The Final Link" (1993)

# ANNEX A TO FORM I FORM FOR KEY PERSONNEL REFERENCES

# PROPOSER NAME: 5280 Connectors

**POSITION:** Community and Public Relations Manager

# **INDIVIDUAL:** Pauline Haberman

Required Information	Reference No. 1	Reference No. 2	Reference No. 3
Project(s)/Transaction(s) (name	I-76 Brush to Fort Morgan	US 36 Flood Repairs	I-25 Ilex St to City Center Drive
and cross-reference in SOQ to relevant <u>Form F</u> (if applicable)):	This project is NOT included in Vol. 1, Sec. 4.1.	This project is NOT included in Vol. 1, Sec. 4.1.	This project is NOT included in Vol. 1, Sec. 4.1.
Reference's Name:	Jared Fiel	Chris Boespflug	Bob Wilson
Reference's Title (current):	Regional Communications Manager	Regional Communications Manager; Resident Engineer	Regional Communications Manager
Reference's Employer (current):	Colorado Department of Transportation ("CDOT")	Colorado Department of Transportation ("CDOT")	Colorado Department of Transportation ("CDOT")
Reference's Title (at time of project/transaction):	Regional Communications Manager	Resident & Project Engineer	Regional Communications Manager
Reference's Employer (at time of project/transaction):	Colorado Department of Transportation	Colorado Department of Transportation	Colorado Department of Transportation
Reference's Phone and Email:	(970) 302-2846 jared.fiel@state.co.us	(303) 817-4668 chris.boespflug@state.co.us	(303) 916-1456 bob.j.wilson@state.co.us
Reference's Location and Time Zone:	Greeley, CO Mountain Time Zone	Greeley, CO Mountain Time Zone	Denver, CO Mountain Time Zone
Other:			

# STATEMENT OF TECHNICAL APPROACH



# **5. STATEMENT OF TECHNICAL APPROACH**

# 5.a. Summary of Technical, Project Management and Subcontracting Approach

The following schedule summarizes the technical, project management and subcontracting approaches that 5280 Connectors will apply for each phase of the I-70 East Project. These approaches have proven effective on large, complex projects such as US 36, I-4 Ultimate, Penn Bridges, and Elizabeth River Tunnels. Throughout all phases the Equity Members/Developer will provide overall coordination and the first-level interface with CDOT.

	Technical	Project Management	Subcontracting
Development			
Design			
Construction			
Operations and Maintenance			



# 5.b. Perceived Technical Challenges and Risks and Potential Innovations

5280 Connectors' Denver-based team has been closely following the development of the preferred alternative in the SDEIS. While providing many benefits to address the Project's purpose and need, the preferred alternative has inherent technical challenges and risks that are associated with any complex urban highway reconstruction. Additional complexity is introduced in the section where the existing I-70 viaduct would be replaced with a depressed section with a partial cover.

The Procuring Authorities seek to have these technical challenges addressed and the risks managed through a competitive procurement process. The Core Proposer Team Members of 5280 Connectors; Plenary, Skanska, Zachry, HDR and Transfield, have addressed similar challenges and risks on major PPP and design-build projects such as the Penn Bridges, I-4 Ultimate, Elizabeth River Tunnels, Eagle P3, the DFW Connector, Presidio Parkway and US 36. The team has already begun to identify potential innovations or applications of tested techniques that will be applicable to I-70 East. Further, greater project value can be realized when the opportunities associated with these challenges and risks are incorporated into the solution.

As described in Vol.1, Sec.2, beginning with the RFP stage the 5280 Connectors team will

o refine

our preliminary work or identify new innovations or techniques. This process is proven to take advantage of expertise across the breadth of the team including design, construction, operations and maintenance in order to optimize the benefits to the Project.

We recognize the list below is not exhaustive; however, it is a sample of the more critical design and construction technical challenges and risks as well as 5280 Connector's initial assessment of potential innovations or existing techniques to address each.

### Utilities.

In order to proactively formulate technical solutions and mitigate risk, 5280 Connectors will plan and implement

Geotechnical/Walls/Excavation. Lowering the profile of I-70 below grade will require structural walls with heights in excess of

To properly analyze this challenge, the 5280 Connectors team includes multiple expert firms including HDR, Kleinfelder, Hatch Mott MacDonald, and Brierley and Associates, each bringing their own unique strengths.

#### I-70 EAST PROJECT





Landscaped Cover. In addition to for several blocks the

landscaped cover (with a second location possible) over the highway which, in cities such as Seattle and Dallas, has proven effective in "re-linking" adjoining neighborhoods. The technical challenges involved with such covers include

he design must also accommodate unique operations and maintenance activities.



Klyde Warren Park over Woodall Rogers Freeway in Dallas, TX

Our team is familiar with similar covers around the country and will examine these to incorporate best practices to address the technical challenges as well as landscape and architectural amenities that best serve the needs and wants of the adjoining neighborhoods.



**Railroad Coordination**. HDR, Skanska and other Team Members possess extensive experience around the country coordinating highway projects



Skanska utilized heavy shoring for highway construction near an operating railroad during I-215 construction in San Bernardino, CA

with crossing Class 1 railroads.

Through early and frequent communication with and recent and relevant knowledge of their processes, the team can navigate not only technical approvals but help facilitate in order to minimize schedule risk and HDR's design on the and

### required

Drainage/Groundwater. Lowering the profile of I-70 below grade also presents challenges in how

By enlisting 5280 Connectors' national expert resources, along with sub-consultant local expertise, the team has already studied how

of these same issues were confronted on the and joined together to creatively meet the requirements of that project and improve





ITS/ATM/Tolling. To promote reliability, smooth operations and safety, the implemented on the I-70 East corridor must be consistent with the existing systems design on US 36, I-70 EB PPSL, and I-25 North in order to align with driver expectations and

Because of their extensive knowledge working on each of these corridors, with the support of 5280 Connectors' experts, is in a role to help expeditiously refine and employ these systems on the Project. Skanska and HDR are currently implementing a similar on the I-4 Ultimate project in Florida where is

Roadway Alignment. Optimizing the I-70 East

5280 Connectors has developed minimize



In one example of how the team will design for safe operation,

The team is striving to create integrated solutions which minimize , mitigate issues related

and result in optimized

Maintenance of Traffic ("MOT"). Reconstruction of aging, urban freeways under heavy traffic always presents challenges in safely and efficiently maintaining traffic. Additionally, significant challenges to maintain access for local communities and businesses will necessitate frequent community engagement, innovative construction techniques and detailed planning.

The 5280 Connectors team has experience devising innovative measures to streamline MOT. HDR was instrumental in the elimination of an entire MOT phase greatly reducing impacts to the traveling public. On I-4 Ultimate, Skanska and HDR have devised an MOT plan to meet FDOT's stringent requirements not to reduce the existing number of lanes during construction.

**O&M Elements.** In addition to design and construction, 5280 Connectors operations and maintenance team, led by Transfield directly applying relevant experience from US 36, has begun examining technical challenges and risks unique to I-70 East.

Transfield routinely conducts risk reviews for each project through its development and operational phases to ensure controls are incorporated into operating plans and training. Transfield will participate in design Task Forces, perform lifecycle costing analyses on specific design elements, and make recommendations to optimize solutions to technical challenges from an operations and maintenance and lifecycle perspective.



Weather Conditions & Safety. Due to regularly extreme winter conditions in the Denver area, roadway conditions during weather events must be managed attentively to avoid hazards. The eastwest alignment will leave depressed sections of the roadway with little sunlight in the winter making control of ice and snow more challenging. Transfield has worked on several projects, including four with similar conditions in Canada, and has developed successful programs for dealing with this challenge.

Winter maintenance operations must provide for the continuous, safe movement of traffic before, during and after weather events



The goal is to

minimize use of salt or other chemicals to achieve required results in order to limit impacts on the environment.

Emergency/Incident Response Coordination. 5280 Connectors' primary goal in incident response is to safely support freeway/managed lane operations thought the appropriate use of incident clearing and traffic management procedures to restore service as quickly as possible. All staff is trained and knowledgeable in incident response, including communications, decision making, maintenance of traffic, and hazardous materials identification.



Summary/Overview. These and other technical challenges will be thoroughly examined by the 5280 Connectors project team. The Critical Issues Map on the following page illustrates specific locations on the I-70 East Corridor where the 5280 Connectors team has identified technical challenges along with a high-level depiction of the anticipated construction phasing for the depressed roadway section of I-70 East.

Environmental/Sustainability. 5280 Connectors proposes using an approach to community engagement and environmental management







# 5.c. Project Plan: Proposer's Preliminary Project Plan

5280 Connectors will utilize a comprehensive Project Management Plan ("PMP") to organize, manage and control the design, construction, operations and maintenance of the Project in accordance with the requirements of the Project Agreement and industry best practices.

# 5.c.i Quality Management and Efficient and Effective Oversight

5280 Connectors' approach to quality management combines a systematic and measurable process to control and monitor quality with a management **approach that creates a "culture of accountability."** Quality staff will have independent lines of reporting and the necessary authority to check and oversee the work and ensure that quality is maintained. Key aspects include:



For operations and maintenance, 5280 Connectors' approach is based



# 5.c.ii Resource Management

The PMP will allocate responsibilities with detailed function descriptions and training/orientation requirements. The PMP will also include a detailed staffing and resources plan aligned with the project schedule which provides a blueprint for ramp up. During the project, the plan will be updated to address current needs for materials, equipment and subcontractors.

Being a fully integrated joint venture, Skanska-Zachry staff responsibilities will be defined by project role and work discipline, not member firm affiliation. Staff and equipment will be managed at the project level and the joint venture will have access to additional corporate resources.

Similarly, the operations and maintenance portion of the management plan will define allocation of responsibilities with detailed function descriptions and training/orientation requirements. Resources will be planned and allocated based on seasonal requirements and technical expertise.

# 5.c.iii Proposed Measures to Ensure Continuity of Personnel

5280 Connectors' Key Personnel are committed to this Project and this core leadership team will be supplemented with additional personnel who are equally committed. Team Members share a best practice to maintain staff continuity over project phases, including development, design, construction, O&M ramp-up, and steady state operations. Continuity of personnel is enhanced by identifying staff that are optimally qualified for their position and preparing contingency plans for sudden needs. Co-location has proven to support cross-training, optimal resource utilization and knowledge transfer.

Our proven staffing and management approach for operations and maintenance is built on the basis of a highly skilled management team, a well-conceived, detailed operations program, and experienced and well-trained personnel. Ongoing training and development of skills as well as promotion from within ensures that personnel remain dedicated and engaged, while limiting project staff turnover.

# 5.c.iv Safety Management

5280 Connectors PMP will apply stringent safety requirements for overall Project execution. During construction, Skanska-Zachry will implement an OHSAS 18001/ISO 14001 certified Safety Health and Environmental Management System ("SHEMS"). A key element is Skanska's Injury-Free Environment ("IFE") program of training for all personnel and subcontractors. IFE focuses on safety culture and attitudes at work and everyday life with the purpose of creating a culture and an individual mindset that the safety of oneself and others is everyone's responsibility.

Other elements include employee empowerment, mandatory orientation and training, detailed task planning, safety analysis in design, focused especially on MOT and pedestrian access, a traffic incident management plan, safety audits, loss-prevention observations, a safety recognition program, new hire monitoring, near hit/loss investigations and a drug-free workplace program. Regular SHEMS management reviews support the program.

Transfield's comprehensive health, safety, and environment strategy for operations and maintenance also focuses on employee training and education, empowerment, application of occupational safety and health systems and processes, management leadership, and continued research in these areas. The safety management plan is compliant with ISO 9001, 14001, and OHSAS 18001, and OSHA. A system of audits is used to provide assurance that the project staff routinely follows the program.

# 5.c.v Schedule Management

5280 Connectors will utilize

Dedicated scheduling staff will regularly input data to assure accurate and timely reporting to management, the Developer, CDOT and other stakeholders.



The project management team and subcontractors will attend schedule meetings each week to focus on activities in a detailed four week look-forward schedule. The look-forward also facilitates communication with the wider team and CDOT and informs resource allocation.

For maintenance, a program of regular inspections and patrols will be employed to assist with the development of routine and life-cycle maintenance schedules for the Project. The collected data is analyzed to define specific tasks both for immediate attention and for the 5-10 year lifecycle maintenance plans. All works are scheduled and tracked utilizing maintenance management system software.



# 5.d. Public Interest and Engagement Plan

5280 Connectors understands the importance of the communities along the I-70 East corridor. From the Stockyards to New Swansea, culture and sense of community makes this project a unique opportunity to connect with its highly engaged residents. The Communications and Public Relations Manager Pauline Haberman, through 5280 Connectors' dedicated subcontractor ZoZo Group, has 12 years of local community presence and outreach throughout the state.

Pauline and her team have already been active in the neighborhoods surrounding the I-70 East corridor listening to the community's concerns, attending community meetings and developing ideas for bi-lingual programs and outreach activities that will optimize engagement during project implementation. Understanding the concerns of the community, we are prepared to address them directly at all stages of the Project.

# 5.d.i Approach to Management of Construction Activities and Operations during Construction

#### Goals for Approaching Local Communities

Continuously canvass the community to understand local issues and concerns

Develop activities/events to draw the community into the  $\ensuremath{\mathsf{Projects}}$  progression

Adopt various methods of communication (see Vol.1, Sec.5(d)(iv)) to maximize penetration of our outreach

Utilize multilingual, culturally sensitive communications to ensure comprehension

Implement a dependable, frequent and regular delivery of information to the public

Establish quantitative benchmarks in order to regularly measure our effectiveness

# Approach to Community

5280 Connectors' objective is to develop creative and effective ways to address the concerns of the community. The table above demonstrates our goals when working within affected communities.

For example, a plan will be developed to communicate traffic impacts on at least three levels - neighborhood, regional and state.

This begins with developing a construction plan that minimizes the impact on the public. Our project staging and MOT plan will include consideration for reducing the impact on travelers, residents and businesses. Our considerations include:



# 5.d.ii Approach to Development and Maintenance of an Environmental, Health and Safety Management and Mitigation Program

We understand that safety and environmental quality around the Project is of high concern to the community and our plan will specifically address those aspects in detail. Providing an incidentfree Project for the public and our workers is our top priority. Particularly in the New Swansea neighborhoods where primary schools are adjacent to the Project site, public awareness will be a key element of our plan. Bi-lingual leaders from our team, together with local emergency workers, will dedicate time to school and community meetings in order to educate community members about the safety concerns on the Project. Typical safety questions the team has addressed through community outreach on previous projects include:

- Steps if Unsafe Conditions are Witnessed;
- Phone numbers and contact information for concerns; and
- Staying Safe While there is Active Construction.

While the list above is non-exhaustive, our SHEMS plan will address these and other site-specific issues.

As an example, 5280 Connectors understands that air guality is of great concern among the residents.

# 5.d.iii Approach to Community and Stakeholder Engagement and Communications

5280 Connectors realizes that different types of outreach and engagement activities are required to successfully engage and communicate with a wide cross-section of the community. The table below lists some potential engagement activities which can be utilized. Please also refer to Form H in Vol.1, Sec.4.3 for some examples of approaches and activities that the team has utilized on Reference Projects.





# 5.d.iv Promoting Public Interest Benefits

5280 Connectors leadership will actively participate in CDOT's public information program, communicating to the public and business community the benefits of the project and how the team is addressing their concerns. This requires active, at community-led engagement meetings and following up on commitments. The figure below illustrates several useful tools and methods of communication and the continuous nature of such activities so that they are mutually reinforcing.



Tools and Methods of Communication

# **1. FINANCIAL EXPERIENCE**

# **1.1 Organizational and Management Structure and Expertise**

The Equity Members of 5280 Connectors, Plenary and Skanska ID, have significant track-records structuring availability-payment based projects having closed 66 PPP projects globally worth \$42 billion in project value. The Equity Members have the organizational and management structure and experience necessary to successfully develop, integrate and execute competitive long-term financing for the Project. Please see Vol.1, Sec.2.1.2 for the team's overall organizational structure and Vol.2, Sec.1.3.a for the financing experience of the Equity Members.

# Organizational and Management Structure and Overall Developer Management Expertise

Organizational Structure. 5280 Connectors' organization is comprised of leading industry developers and financial institutions. Our organization for developing the financing solution includes the Equity Members, led by Plenary, bond underwriters, a club of commercial banks on a non-exclusive basis (should a bank structure provide more competitive cost of capital), TIFIA (should TIFIA be available), and rating agencies on a non-exclusive basis. In establishing this finance organization, the team's goal is to identify and execute the most cost effective financing that reduces ongoing availability payments from the Procuring Authorities, while successfully addressing the risk profile of the Project.

5280 Connectors Financial Team	Organizational Roles/Responsibilities	Overall Expertise
Plenary, Skanska ID	Equity Members (will manage the overall Project development and financing process)	Financed over 66 PPP projects globally worth over \$42 billion in project value.
		35+ dedicated project finance/commercial experts, over 25 asset management employees in North America
JP Morgan, Wells Fargo	Exclusive bond underwriters	Top tier PABs underwriters both nationally and in Colorado (see Vol.1, Sec.2.1.5.b for more detail)
TD Securities	Non-exclusive bond underwriters	Extensive experience raising PPP financing (19 projects) with Plenary
	Non-exclusive commercial bank facility providers (bridge loan or other products), if competitive	Experience financing large PPP projects across the US including with the Equity Members (such as the I-4 Ultimate led by Skanska)
Life Insurance Companies	Non-exclusive private placement investors, if competitive	Experience in Canada with long-term and short-term financing, with significant resources and appetite for US investments

Management Structure - Finance Task Force. As stated in Vol.1, Sec.2.1.3.a, 5280 Connectors will be supported by the Finance Task Force, comprised of senior management from Plenary and Skanska ID. The task force will work with prospective lenders, counsel and rating agencies to negotiate and secure all finance documentation for bid submission and financial close.

Finance Task Force Organization/Personnel & Relevant Experience		
Brian Budden (Plenary) Executive Vice President	Amando Madan (Skanska ID) Senior Vice President	
Brian led the successful bids and closings of several PPP projects, including the Penn Bridges project, representing over \$11 billion in aggregate project value, and currently sits on the Board of Directors for these projects. Brian will head up our financial advisory efforts.	Amando led the successful bids and closings of the Elizabeth River Tunnels and the I-4 Ultimate projects. He has raised over \$10 billion in committed financing for Skanska's North American PPP projects.	

How the Structure Facilitates Initial and Ongoing Financing. Throughout the RFP Phase, the Finance Task Force will lead the structuring and arranging of a financing solution that is closely integrated with 5280 Connectors' comprehensive technical proposal. The Task Force will work with the team's underwriters and utilize their global relationships with commercial banks to explore the full range of financing options available for the Project. The Equity Members have pioneered a number of financing structures in the PPP market, developing new and innovative solutions tailored to suit the particular needs of each project, such as financing for the Penn Bridges, US 36, I-4 Ultimate, and Elizabeth River Tunnels projects. Also, 5280 Connectors' underwriters (further described in Vol.2, Sec.2.b) have extensive experience developing and securing financing for PPP projects, both on the public market and private placement sides.

5280 Connectors will evaluate the debt markets and instruments most active in infrastructure projects of this type, including tax-exempt capital markets, project finance banks, taxable capital markets (including the private placement and 4(2) markets) and TIFIA, in each case complemented by equity as required to meet lender/rating agency threshold gearing and resiliency constraints. The bank market is typically most appropriate for shorter-term financing needs related to milestone or substantial completion payments. For longer-term financings, both tax-exempt and taxable capital markets have demonstrated an appetite for long-term project delivery and municipal risk and are able to provide 35+ year financing,

order to have a true

assessment of all competitive options.

The factors that will impact the markets Plenary and Skanska ID will access to finance the Project include the length of the concession term, profile of payments to be made by the Procuring Authorities, relative pricing and market capacity of various financing sources, security backing the prime subcontractors, and the availability of TIFIA and PABs for the Project, among other factors. After being named Preferred Bidder, 5280 Connectors will, as managed by Plenary and Skanska ID and with assistance from its lenders. raise the required debt capital, based on the optimal financial plan selected for the Project from lenders who have already entered into financing commitments at the RFP stage. The well-advanced due diligence, negotiation and documentation process and the preliminary investment grade ratings obtained during the RFP stage will maximize certainty of execution on competitive financing terms. Please see Vol.2, Sec.2 Figure 2.A.1 schedule and plan to reach financial close for a detailed list of activities the Finance Task Force will undertake in order to expediently and successfully reach financial close.

5280 Connectors' Equity Members will continue to provide project oversight and hands-on management after the Project reaches financial close, through their combined 25 dedicated and experienced individuals in asset management. The asset management group will be supplemented with leadership provided by Project Board Members composed of Plenary and Skanska ID senior executives. On-going financial management of the Project will be lead by experienced financial personnel. Additionally, the investment and performance of 5280 Connectors will be backed by equity commitments provided by the Equity Members, and bankable security packages provided by the experienced and financially strong DBJV and O&M members. Please see Vol.1, Sec.2.1.3 for 5280 Connectors' management structure during the construction and operations phases of the Project.



I-4 Ultimate Project - Project 1

# **1. FINANCIAL EXPERIENCE**

# **1.2 Available Financial Capacity**

5280 Connectors has assembled a team of industryleading firms dedicated to developing, financing, designing, constructing, and operating PPP projects around the world. The unrivalled experience and financial capacity of 5280 Connectors ensures that this critical infrastructure will be developed and financed competitively, delivered on-time and on-budget, and successfully operated, exceeding the performance requirements over the life of the Project Agreement.

# 1.2.a Each Equity Member

# 1.2.a.i) Plenary Group USA Ltd.

The equity commitment of Plenary Group USA Ltd. ("Plenary") will be satisfied from capital available to Plenary and its Financially Responsible Party, Plenary Canada, totaling This includes capital from



Vol.2, Sec.1.2.e, Sec.3.1, and Sec.4.1.e for more information. Plenary typically either funds its equity on financial close or backs its equity commitment

providing certainty that required funds will be available to the Project.

Plenary's forecasted future equity commitments are based on its known and anticipated project pipeline to the date of financial close for the Project. Using conservative estimates over the next two years, we anticipate approximately will be committed by Plenary for US PPP projects – significantly less than the capital available to Plenary to invest.

Plenary has extensive experience investing equity in PPPs with a portfolio of 23 projects across North America alone worth over \$11 billion in project value. Plenary has a manual in committed equity to its current US PPP projects, including US 36 and Penn Bridges. In addition to the I-70 East Project pursuit, Plenary is currently the preferred bidder on the Long Beach Civic Center project and is pursuing the UC Merced 2020 and Denver International Airport Great Hall projects. Plenary's anticipated equity commitments, set out in the prior paragraph, takes into account these future possible equity investments. While this activity attests to Plenary's appetite for growth in the US, Plenary's financial strength shows such equity commitments are manageable and do not impact Plenary's ability to commit equity to the Project at the expected financial close date.

# PLENARY GROUP



# 1.2.a.ii) Skanska Infrastructure Development Inc.

The equity commitment of Skanska Infrastructure Development Inc. ("Skanska ID") will be satisfied with capital available to Skanska AB, its ultimate parent company and Financially Responsible Party. Skanska AB has a strong balance sheet with approximately \$1.168 billion in cash and cash equivalents as of end of fiscal year 2014.

Please see Vol.2, Sec.1.2.e, Sec.3.1 and, Sec.4.1.e for more information.



Globally, Skanska ID has developed 31 PPPs, with cumulative project value over As of end of fiscal year 2014, it had \$523 million of committed equity to its global PPP portfolio. In the US, Skanska ID has been active since 2006 and its long term commitment to US PPPs is evidenced by equity commitments to Elizabeth River Tunnels in Virginia (approximately \$135 million, closed in April 2012) and I-4 Ultimate in Florida (approximately \$73) million, closed in September 2014). In addition to I-70 East, Skanska is the preferred bidder on the Terminal Replacement Project at LaGuardia Airport in New York, and is currently pursuing the Purple Line Project in Maryland. Based on the amount of capital available versus the total equity commitments potentially required for its current pursuits, Skanska ID is confident that it will have the required financial capacity - in terms of development capital and investment capital available for the Project.

# SKANSKA

Developed 31 PPPs Valued over \$20 billion Worldwide



# 1.2.b Lead Contractor - Skanska-Zachry, I-70 East Constructors

Skanska-Zachry I-70 East Constructors ("Skanska-Zachry"), as the Lead Contractor for 5280 Connectors, has for the lead Contractor for 5280 and has secured a letter of support from its sureties of this is supplemented by letters of support from financial institutions evidencing willingness to issue letters of credit for the Lead Contractor. (See

# Vol.2, Sec.3.2)

Skanska-Zachry Combined Bonding Capacity of

# 1.2.b.i) Skanska Civil

Skanska Civil has been in Colorado for 64 years, and is fully supported by Skanska AB, its Financially Responsible Party. Please see Vol.1, Sec.2.2, Vol.2, Sec.1.2.e and Vol.2, Sec.3.1. for more information about Skanska AB.

# **SKANSKA CIVIL**

Completed more than \$12 billion in Transportation Design-Build Projects

Nationally, Skanska Civil has completed over \$12 billion in transportation design-build projects, with 18 of those projects each valued more than \$500 million. As of the end of the fiscal year 2014, Skanska generated over \$7 billion in annual revenues from its construction business in the US, of which \$2.4 billion was heavy civil, and the company has in total bonding capacity. Skanska Civil is particularly well positioned to utilize the company's world class financial capacity in delivery of complex PPP projects, as evidenced by the I-4 Ultimate and the Elizabeth River Tunnels projects worth \$2.3 billion and \$1.5 billion, respectively (in Design-Build contract value). According to the ENR magazine's 2015 rankings, Skanska is #3 in the Top 50 Domestic Heavy Contractors. #5 in the Top Transportation Contractors, and #8 in the Top 400 Contractors.

# SKANSKA CIVIL ENR #3 Top Domestic Heavy Civil Contractors

# 1.2.b.ii) Zachry Construction Corporation

Zachry Construction Corporation ("Zachry") is a privately owned construction company, tracing its roots back to the first family company founded in 1924. The company is backed by Zachry Construction and Materials Inc., its Financially Responsible Party. For more information on Zachry Construction and Materials' financial capacity please see Vol.1, Sec.2.2, Vol.1, Sec.1.2.e and Vol.2, Sec.3.1. In the United States, Zachry has completed more than 1,455 transportation projects with a construction value of the state of the state

Together, Skanska and Zachry have the necessary nationwide financial and human resources for this Project and do not foresee any financial capacity issues taking into consideration existing commitments as well as anticipated commitments through the expected date of financial close under the Procurement Schedule. Skanska-Zachry's combined resources and past experiences create assurance that the lead contractor JV has the necessary resources and capability to successfully deliver the Project. Please see Vol.1, Sec.2.2.b for more information regarding the Lead Contractor's resources and capabilities.

LEAD CONTRACTOR

# 1.2.c Lead Engineer

# 1.2.c.i) HDR Engineering Inc.

In 2014, HDR Engineering Inc. ("HDR") had global revenue of

came from HDR's US operations. HDR's backlog at the end of 2014 was approximately worldwide of which the US contributed Please see Vol.2, Sec.4.1.c.



HDR's has a successful history of working on PPP projects throughout the United States, including Denver's Eagle P3 and US 36 projects, Penn Bridges, and I-4 Ultimate. Portfolio of DB/PPP projects including more than 40 projects valued at more than \$7 billion. Having consistently ranked among top design firms in transportation, bridges, and highways, HDR maintains.

As described in Vol.1, Sec.2.2.c, HDR has substantial global resources, with nearly 10,000 employees in more than 225 locations around the world. The firm has the financial strength and balance sheet required to support its obligations under a design contract with Skanska-Zachry. HDR is fully committed to a successful design and execution of the project. The firm does not foresee any financial capacity issues, taking into consideration existing commitments as well as anticipated commitments through the expected date of financial close under the Procurement Schedule.

# HDR

40 Design-Build & PPP Projects Valued at more than \$7 billion

# 1.2.d Lead Operator

# 1.2.d.i) Transfield Services Infrastructure Inc.

Transfield Services Infrastructure Inc. ("Transfield") has extensive experience in delivering operations and maintenance services throughout North America. With a current workload of across 25 contracts, 21 of which are located in the United States, and work in hand stretching out to the year 2045, Transfield has committed to a long-term strategy in North America.

As an operator (as opposed to being an equity investor or constructor), Transfield's financial obligations generally are limited to providing security for its annual obligations. With four current long-term PPP contracts in North America including US 36 with Plenary, Transfield has supplied security, in the form of Parent Company Guarantees, through its parent company Transfield Services Limited (please see Vol.2, Sec.1.2.e for more information),

As a result,

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Transfield anticipates being able to meet any and all financial commitments under this agreement as they become due.

21 O&M Contracts in the US

# 1.2.e Each Financially Responsible Party

#### 1.2.e.i) Plenary Group (Canada) Ltd. – Financially Responsible Party for Plenary Group USA Ltd.

Plenary Group (Canada) Ltd. ("Plenary Canada") is the Financially Responsible Party and the ultimate parent company for Plenary Group USA Ltd., (together with Plenary Canada referred to as "Plenary Group"), Plenary Canada will be providing financial guarantees for the equity commitments of Plenary. Please see Vol.2, Sec.3.1.

# Plenary's equity commitment will be satisfied from capital available to it totaling



Please see Vol.2.

Sec.3.3 – see the next paragraph for further information in respect of this facility. As a result, Plenary's capacity to fund equity for the Project is well in excess of its projected portion of (50%) the Project equity requirements including any requirements.

Plenary Canada has strong support from a select group of Institutional Partners ("IPs") that have provided funding behind several of Plenary's equity investments in its North American PPP projects.



The IPs collectively have billions of dollars under management and allocated to infrastructure investment. The IPs investment takes place at the Plenary Group parent company level, leaving Plenary Group entirely in charge of Plenary's equity decision making in the Project. Plenary Canada fully utilized its first such facility in Canada far ahead of schedule, resulting in the development of a second facility with the same group of IP's. Showing their strong support for Plenary Canada's PPP activities many of the same IP's have anchored the US facility – the third facility raised with this group. It is also important to note that this US facility is available to fund exclusively US PPP equity commitments, and cannot be utilized for Plenary's Canadian PPP obligations – as a result we have also stated this US Facility as being available to Plenary, as Plenary is the only entity within the Plenary Group structure that can source investments that would be funded from this facility.

More than American PPP's

in Committed Equity in North

Plenary's future equity commitments are based on the anticipated project pipeline. Using conservative estimates over the next two years, we anticipate approximately of equity will be committed by Plenary Canada for PPP projects in Canada, and through Plenary Group USA Ltd. approximately of equity will be committed to US projects. As mentioned in the preceding paragraph, Plenary Canada's arrangement with the IPs for Canadian projects is more than sufficient to cover our forecasted Canadian obligations, while our dedicated facility for US projects is more than sufficient to cover our forecasted US obligations. Given its strong financial capacity and support from IPs. Plenary is confident that it will have the required financial capacity available for the Project.

# 1.2.e.ii) Skanska AB – Financial Responsible Party for Skanska ID and Skanska Civil

Skanska AB is the Financially Responsible Party and the ultimate parent company for its wholly owned subsidiaries Skanska Infrastructure Development Inc. (Equity Member) and Skanska USA Civil West Rocky Mountain District Inc. (member of the Lead Contractor).

Skanska AB – listed on the Stockholm Stock Exchange ("SKAB") – was founded in 1887 in Sweden, and has over 57,866 employees worldwide. Skanska AB's global revenues were \$20.8 billion in 2014 with approximately 33% of its revenues from construction activities in the US. Skanska AB has a strong balance sheet with approximately \$1.168 billion in cash and cash equivalents (or approximately \$1.1 billion in net operating financial assets). As of end of fiscal year 2014, Skanska AB's order backlog was \$21.9 billion. (Vol.2,Sec.4.1.e)

# Skanska AB has strong support from its relationship financial institutions,

the Project. (Vol.2, Sec.3.2) In addition, as stated in Vol.2, Sec.1.2.b.i, the company's US bonding capacity is

# SKANSKA

Global PPP Equity Commitments of \$523 million

The Skanska Group has developed 31 PPPs worldwide, with cumulative project value over

Even with its ongoing investments in PPP and other project development activities, Skanska AB has maintained an average of approximately \$980 million in cash and cash equivalents over the past five years.

As a

for

publicly listed company, Skanska is unable to make speculative forward looking statements, however Skanska AB is confident that it will have the required financial capacity available for the Project, taking into consideration existing commitments as well as anticipated commitments through the expected date of financial close for the Project.

# 1.2.e.iii) Zachry Construction & Materials, Inc. – Financial Responsible Party for Zachry Construction Corporation

Zachry Construction Corporation is a member (35%) of the Lead Contractor and is a wholly owned subsidiary of Zachry Construction & Materials, Inc. which is Zachry Financially Responsible Party.

Zachry Construction & Materials, Inc., is a privately owned holding company that owns cement manufacturing, aggregate mining, and short-line railroad companies in addition to the construction company. While it provides financial support to its subsidiaries, with substantial surety and banking capacity to meet its financial obligations and those of Zachry Construction Corporation, the subsidiaries are operated autonomously. We reference the confidential financial statements submitted in Vol.2, Sec.4.1.e to highlight Zachry Construction & Materials Inc.'s strong financial wherewithal and cash position.

# LEAD CONTRACTOR

Over

in Surety Support Letters

# 1.2.e.iv) Transfield Services Ltd. – Financial Responsible Party for Transfield Services Infrastructure Inc.

Transfield Services Infrastructure Inc. is the Lead Operator for 5280 Connectors. Transfield Services Limited is the parent company of Transfield Services Infrastructure.

Transfield Services Limited is a multinational services company, listed on the Australian Stock Exchange (ASX: TSE), with a market capitalization of \$638.9 million, contractual revenue of \$9.72 billion as at 30 June 2014, and work-in-hand of \$8.8 billion. Transfield Services Limited has significant financial capacity and is continuously entering into new contracts which require working capital commitments. (Vol.2, Sec.4.1.e)

Transfield Services Limited is confident it will be able to meet any and all financial commitments under this contract as they become due.

# **1. FINANCIAL EXPERIENCE**

# **1.3 Project Financing Experience**

# 1.3.a Relevant Experience in Financing such Projects on a Project Finance Basis (both equity and debt)

Plenary and Skanska ID's Project Finance Track Record	
	Financed 66 PPPs valued at approx. \$42 billion globally
	Financed 25 PPPs valued at approx. \$15 billion in North America
	Developed and invested in 8 transportation PPP projects in North America and 17 globally worth over
	Closed two of the largest PABs issued in US (Penn Bridges, ERT)
	Closed over \$1.8 billion in TIFIA loans (I-4 Ultimate, ERT, US 36)

Plenary and Skanska ID have a strong track-record of structuring and financing PPP projects on a project finance basis, and have utilized various sources of debt such as PABs, TIFIA, commercial banks, and other taxable solutions, along with developer equity to finance the projects on a project finance basis. Our track-record includes 66 projects valued at approximately \$42 billion globally, of which 25 projects, valued at approximately are in North America. We have worked on the most "high-profile" US transportation PPPs to-date and our financial/technical strengths, significant experience with various sources of financing, and extensive relationships with the lending community will ensure competitive pricing and high certainty of execution to the Procuring Authorities. A summary of the financing profile for our most relevant Reference Projects with further details supplied in Vol.1, Sec.4.1.a includes:

Penn Bridges. A landmark availability payment based PPP project, this was the first US multi-site PPP project, and to date the largest PABs issuance on a single project at \$721 million. Working with the 5280 Connecors underwriters and embarking on an extensive road show, Plenary was able to close this financing with tight pricing, being almost four times oversubscribed. Plenary, as 80% equity sponsor, directly invested its required equity from available cash. This financing was rated investment grade (BBB) by S&P. I-4 Ultimate. This project is the largest availability payment based PPP project to achieve financial close in the US (\$2.3 billion Design-Build price). The debt financing included approximately \$1.09 billion in short-term and long-term TIFIA loans (the quickest TIFIA closing to-date), and approximately \$486 million in senior bank loans that bridged the milestone and completion payments by FDOT. Skanska ID also contributed approximately \$30 million – 50% share – in long-term equity and approximately \$43 million in short-term equity (in the form of subordinated debt). The project achieved investment grade rating by S&P (BBB) and Moody's (Baa1) and reached financial close in September 2014.

US 36. Considering its relative size, this was the most complicated PPP financing in the US, with ultimately two tranches of TIFIA loan (\$60 million Phase 2 loan, and assumption of Phase 1 of \$54 million loan), a PABs issuance (over \$20 million), subordinated debt (over \$20 million) and equity 100% funded by Plenary from available cash. This financing was rated investment grade (BBB-) by Fitch.

Elizabeth River Tunnels. The affordability of tolls made this revenue-risk project and the inherent financing very challenging, given the size of the transaction (approximately \$2.1 billion in total project value). The debt financing included \$675 million in senior PABs and a \$463 million TIFIA loan. The PABs isuance was at the time the largest PABs issuance for a PPP project. Skanska ID contributed approximately \$135 million – or 50% share – of the equity required. The project achieved an investment grade rating by S&P (BBB-) and Fitch (BBB-), and reached financial close in April 2012.

M25 London Orbital Motorway. This project was closed at the height of the global financial crisis, and showcases Skanska's extensive experience and relationships with commercial banks providing project finance loans to PPP projects. The ultimate debt financing included approximately \$1.43 billion from 16 commercial banks and approximately \$285 million from the European Investment Bank. Skanska ID contributed approximately \$114 million – or 40% - of the equity required. The project reached financial close in May 2009.

# 1.3.b Participation as an Equity Member in Such Projects Using an Availability Payment Model

Equity Investments in Availability Payment Projects
Plenary has invested or is committed to invest approximately in equity for PPPs of which in Availability Payment Projects, including approximately in availability based US PPPs.
Skanska ID has \$523 million equity commitments in PPPs globally, of which over \$350 million in Availability Payment Projects, including approximately \$73 million in availability based US PPPs.

The team has developed 53 Availability Payment PPP projects (32 for Plenary and 21 for Skanska)

As stated in the table in Vol. 2, Sec.1.3.a, the Equity Members of 5280 Connectors maintain a portfolio of diverse PPP assets across North America and globally. Combined, Plenary and Skanska ID have developed 53 availability-based PPPs. Such a strong track-record with developing and financing availability payment projects enables Plenary and Skanska ID to maximize the value to the Procuring Authorities. For example, the Equity Members' experience on the risk profile associated with availability payment structures will help with achieving the optimum leveraging, credit rating and ultimately cost of capital for the Project.

Moreover, Plenary and Skanska ID have made significant equity commitments into their PPP projects in North America and globally. The equity commitment by the Equity Members ensures that they are incentivized to meet or exceed the performance requirements in the Project Agreement, during construction and operations. Plenary had in e

in equity commitments in in Plenary Group's

its US portfolio and total North American portfolio, as of end of fiscal year 2015. Plenary is committed to maintaining its equity position on all PPP projects it invests in, and has not to date sold out of any of its equity positions on its projects. Plenary does not expect the total amount of equity finance to change during the 30 to 35-year term of the Project. Plenary is an independent long-term investor, developer and operator of public infrastructure, with 32 of its 35 global PPP projects having closed under an availability-payment structure. As such, Plenary adopts a holistic approach to delivering projects and actively managing them for the respective terms of the concessions. Currently, Plenary Group actively manages 23 infrastructure projects in North America with 13 in operations phase and has maintained its equity investment in every one of these projects.

Skanska had \$523 million in equity commitments in its portfolio globally, as of end of fiscal year 2014. More than \$208 million of those equity commitments are on US PPP projects closed to-date, which illustrates Skanska's strong commitment to growing its PPP portfolio and further supporting its ongoing construction activities in the US. The investment horizon for Skanska varies from project to project, depending on various factors, including the ongoing value provided by Skanska during the operations period, and the attractiveness of the asset to other investors. Skanska ID is one of the very few developers that have maintained its equity position in a project through to hand-back of the asset at the end of a concession. Skanska ID has also continued in its role as asset manager on several projects it has divested to the Skanska Group's independent pension funds, thereby continuing Skanska's stewardship of such PPP projects after divestment. Furthermore, out of the 31 PPP projects Skanska has closed to-date; two thirds have an availability payment structure, which highlights the company's significant experience with the availability payments.

In addition, both Plenary and Skanska ID are strictly developer based equity investors. We are not passive investors that purchase equity opportunities once the development work has been completed – we research, develop and invest in opportunities which we support with continued oversight and management during construction and operations, develop strong relationships with our clients, and focus on managing that investment to the mutual success of ourselves and our clients.

# 1.3.c TIFIA Financing, PABs and Other Credit and Financing Products Customarily used in the US

5280 Connectors has world-class experience in reaching financial close on-time and on competitive terms, and are well positioned to close projects with multiple sources of funding. Collectively and individually, we have experience with TIFIA financing, PABs, and other credit and financing products customarily used in the US, as well as financing products not customarily used in the US. As a result, we bring additional capabilities in developing highly competitive and innovative financial structures with high certainty of execution for the Project, thereby providing peace of mind to the Procuring Authorities.

# TIFIA

Plenary and Skanska ID have closed over \$1.8 billion in TIFIA loans (I-4 Ultimate, ERT, US 36). TIFIA is an extremely competitive source of capital for US transportation PPPs and has been utilized for the majority of the availability payment transportation PPP projects. This is mainly due to TIFIA's federally subsidized and cost efficient pricing (credit spread of one basis point), and the available long-term repayment profile, among other features. However, having TIFIA increases the complexity of the financial structure, such as the inter-creditor risks with senior lenders. In addition, TIFIA's application and approval process may prolong the financing execution period. Plenary and Skanska ID are well positioned to overcome the additional complexity with TIFIA financing: combined we have utilized over \$1.8 billion in TIFIA loans for financing our US projects, including the I-4 Ultimate, Elizabeth River Tunnels, and US 36.

Skanska ID's I-4 Ultimate project highlights 5280 Connectors' significant experience addressing key issues on a \$1.09 billion short-term and long-term TIFIA loan. Skanska ID led the TIFIA negotiations process and closed the project in 4.5 months, the auickest financial close on a PPP project involving a TIFIA loan. Immediately after the preferred bidder selection, the team took a proactive approach by providing all necessary documentation, such as full form Design-Build Agreement with all key exhibits, long form bank term sheets, full form drafts of LLC Agreements, rating agency presentations, the financial model and large parts of the bid. The team closely coordinated with TIFIA, FDOT and senior lenders, and expedited the TIFIA application, negotiation and closing process.



On US 36, Plenary managed to achieve closing with TIFIA on arguably the most difficult set of circumstances facing a TIFIA loan to date. Featuring a revenue-risk profile, the assumption of a prior TIFIA loan into the financing structure, and the dual role of TIFIA as a senior (on Phase 1) and subordinated lender (on Phase 2), the US 36 TIFIA loan was extremely complex. Having been through this with TIFIA and HPTE, Plenary brings some of the most battle-tested knowledge of TIFIA to the table. Combined with Skanska ID's experience on expediting TIFIA on the I-4 Ultimate and Elizabeth River Tunnels financings, our team is very well positioned to negotiate and achieve financial close with TIFIA quickly for this Project.

It should be noted that our exclusive underwriters, JP Morgan and Wells Fargo, have experience structuring bond offerings on projects with TIFIA lending, which further supports 5280 Connectors' ability to structure and manage TIFIA successfully.

# **Private Activity Bonds**

Private Activity Bonds ("PABs") have been a competitive source of capital to fund PPPs given that their tax-exemption (subject to Alternative Minimum Tax) and long-term repayment profile. PABs investors have offered attractive yields and have oversubscribed on the volume taken on recent PABs transaction. Plenary and Skanska ID plan to leverage their significant PABs financing experience in the financial structuring for the Project (as stated in Vol. 2, Sec 2.b). The Equity Members have three projects that include PABs, with a cumulative PABs issuance of approximately \$1.5 billion, and are well positioned to lead the rating agencies process, the due diligence efforts, and to negotiate and obtain competitive terms with its bond underwriters.

Plenary's Penn Bridges project is the first multiasset (558 bridges) PPP to be undertaken in the US, financed through a combination of milestone payments, PABs and private equity. This was the largest PPP PABs offering to date (\$721 million), and with attractive structuring managed to be almost over four times oversubscribed including over 60 buyers, driving significant savings for the client.

Plenary's US 36 toll-risk project was financed through PABs, TIFIA, subordinated debt, private equity and client contributions during construction. This project is a great example of structuring to incorporate client contributions in the most efficient way, managing intercreditor arrangements involving PABs and TIFIA, and structuring a financing that had a component of HPTE/CDOT credit risk involved.

Skanska's Elizabeth River Tunnels was also financed with PABs, TIFIA and equity. This PABs issuance was the largest achieved for the US PPPs at the time (\$675 million). The long-term PABs also featured a 5-year interest only profile, and had the typical 10-year call option at par, without a make-whole premium. Skanska and its equity partner successfully managed the inter-creditor issues with TIFIA and obtained two investment grade ratings. In addition, the investment ratings were achieved despite the complexities around project revenues (e.g. toll affordability) and technical challenges associated with construction of the highways, new submerged tunnel, and operations of the existing tunnels. Finally, it is also important to note that our exclusive PABs underwriters, JP Morgan and Wells Fargo, have underwritten over \$3.7 billion dollars in PABs for PPP projects and bring a wealth of bond structuring experience (please see Vol.2, Sec.2 and Vol.1, Sec.2.1.5) to 5280 Connectors and the Procuring Authorities.

# Other Credit and Financing Products Used in the Market

While 5280 Connectors anticipate TIFIA and PABs will provide all of the required debt financing for the project, we have significant experience and relationships with providers of other credit and financing products, such as commercial banks, taxable private placement underwriters/purchasers, utilization of monolines and sub-debt lenders in the US and elsewhere. We will explore these other sources of financing early in the RFP process to ensure that the necessary debt capacity exists for the Project, as well as to provide price tension among various sources of financing.

## Banks

The bank market has improved in recent years, spreads have come down and tenors have become longer relative to the financial crisis levels, even though long-term financing structures continue to be dominated by the bond market. In the recent PPP projects, where milestone and



. Plenary and Skanska ID have

extensive experience and global relationships with commercial banks on many projects, including projects where bank loans have been structured against the public sector milestone or completion contributions.



Skanska ID closed the I-4 Ultimate project with senior bank loans (\$486 million), TIFIA and equity. The senior bank facility provided by highly rated commercial banks offered very tight credit spreads and was oversubscribed. This was mainly due to the technical and financial strengths of the Skanska-led design/build joint venture and high creditworthiness of payments made by FDOT. The bank structure also mitigated negative carry costs that bonds would have faced, due to the delayed draw feature and long construction and completion payment periods. Moreover, Skanska's M25 Motorway financing package included \$1.43 billion in senior loan from a club of 16 commercial banks (out of 29 banks engaged) in the midst of the financial crisis.

of the banks who provided senior debt to both Skanska's

have expressed interest in supporting the 5280 Connectors on this Project. Please see Vol.1, Sec.2.1.5 and Vol.2, Sec.2.b for more information.

# **Taxable Private Placement Bonds**

While taxable private placement bonds, to date, have not been used in the closing of a US PPP financing, we have vast experience in other markets utilizing such private placements, and will evaluate them as they have the potential to provide benefit to the Project. The benefits include the availability of full underwrite (with price certainty, as opposed to volume commitment in the PABs market) and features such as delayed draws which would mitigate the negative carry costs. Our experience includes closing in excess of 10 availability PPP projects in Canada with private placements as the primary financing – with lenders that have significant investment capability and appetite for similar products in the US. Our experience includes both long term (30+ years) and short term (less than 5 years) private placements.



# Subordinated Debt

Prior to the global financial crisis, subordinated debt was not uncommon in PPP financings, including availability-based projects. This market dried up after the crisis, but has shown signs of re-appearing. Plenary utilized a tranche of third-party subordinated debt (deeply subordinated) on its US 36 financing. While that was a revenue risk project and the I-70 East Project is availability based, we have had indications that some lenders are interested in reviewing subordinated debt opportunities. Furthermore, as evidenced in the I-4 Ultimate project, Skanska ID has utilized sponsor subordinated-debt when such source provided structuring benefit to the project.



I-4 Ultimate - Courtesy of Orlando Sentinel



# STATEMENT OF FINANCIAL APPROACH



# **2. STATEMENT OF FINANCIAL APPROACH**

# 2.a. Conceptual Plan to Finance the Project

We confirm that, in the development of our conceptual plan to finance the Project (including all timelines and milestones), we have assumed the contracting, funding and payment structure, and procurement schedule, of the Project to the extent outlined in the RFQ.

5280 Connectors' conceptual plan of finance aims to deliver the most competitive cost of financing, for a financeable structure that has a high certainty of execution. Our plan is based on experience – please see Vol.1, Sec.2.1.5 and Vol.2, Sec.1.3 which highlights Plenary and Skanska ID's track record on PPP financings, including those involving TIFIA and PABs.

With the strength and experience of its Equity Members, Lead Contractor, Lead Engineer and Lead Operator, 5280 Connectors will be able to raise attractive financing from a wide range of potential investors in financial markets, especially given the expected investment grade financing solution for the Project. Please see page four of this Section 2 for a schedule that summarizes our conceptual plan, including a detailed list of anticipated timelines and milestones to obtain financial commitments and reach financial close.

### Key Funding Sources

Debt: TIFIA, PABs and other. Given the availability payment structure and the expected investment grade rating for the Project, we anticipate project gearing to be in the neighborhood of 90% debt.

Equity: Plenary and Skanska ID will each invest 50% of the required equity, be in a first loss position, and provide the Procuring Authorities with assurances for successful project delivery and performance.

### Structural Support

The Project will be supported by performance guarantees from Skanska/Zachry I-70 East Connectors (Skanska/ Zachry) for project delivery, and from Transfield, for longterm O&M performance. Skanska/Zachry and Transfield will utilize their strong balance sheets (Vol.2, Sec. 1.2) to support their performance guarantees as part of a robust performance security package based on established PPP industry best practice focused on reducing risk while driving low cost of capital.

# Key considerations, challenges and proposed solutions relevant to financing the Project

There are several considerations and challenges to account for given the complexity of PPP projects and associated financings. For conciseness, we have summarized four main considerations and details of solutions and strategies for mitigating them:

**Tight schedule from identification of preferred proponent to financial close.** The procurement schedule set out in Section 4.2 of the RFQ may be challenging to achieve, in particular if TIFIA funding is involved.

Solutions include:

 Utilize the lessons learned from projects such as the I-4 Ultimate (see case study below right) to proactively engage and expeditiously <u>negotiate and finalize the TIFIA agreement.</u>

### Case Study: I-4 Ultimate and TIFIA

Skanska was able to achieve the fastest financial close with a TIFIA on a PPP project to date (4.5 months). This was achieved by working collaboratively with FDOT to proactively engage TIFIA early.

Immediately following announcement of preferred bidder, the Skanska team sent over full documentation to enable TIFIA to immediately prepare for the formal application (e.g. complete Design-Build Agreement, long form bank term sheets, full form drafts of LLC Agreements, rating agency presentations, and the financial model). Within 2 weeks of preferred bidder, Skanska had undertaken the required formal presentation of the project to TIFIA. Throughout the process to financial close we had weekly coordination calls with the FDOT on the financing progress as well as having FDOT be part of all negotiations with TIFIA. The Skanska led team went to great lengths to provide frequent updates to all parties making sure that there was clarity on roles and responsibilities among FDOT, TIFIA, lenders and Sponsors.

# 5280 Connectors

2. Support the Procuring Authorities in establishing the initial financing plan, and in engaging with TIFIA, during the RFP phase. As the Project is structured as an availability-based payment project,



**Different funding process than is typically seen in other states.** A typical analysis performed by PPP lenders in availability projects relates to appropriations risk of the underlying payment obligor. This may be a more challenging analysis since CDOT's (and HPTE and BE's) funding process is different from typical appropriations processes in other states and may prove to be a due diligence issue for potential lenders in this first availability payment PPP sponsored by CDOT.

Solution: While we do not see this as a significant risk given our experience in Colorado, such history does tell us that it can be a challenge if lenders are not familiar with the CDOT funding process. We have engaged JP Morgan and Wells Fargo, both of whom have significant experience in Colorado and with the State's borrowing and budgeting process.

**Requirement for additional private debt beyond allocations received for TIFIA and PABs.** If TIFIA and PABs allocations are not available, or the aggregate amount of such financing is insufficient to meet financing needs of the Project (net of the required equity and the scheduled contributions to be made by HPTE and BE); the Project would not have sufficient funding to proceed.

### Solution:

should TIFIA and PABs allocations prove to be insufficient, or not available, to fully finance the Project.

Moreover, we have the experience to procure financing (e.g. TIFIA) on a negotiated basis post award, should the desired financing solution by the Procurement Authorities not be available during the RFP phase. Please see Vol.2, Sec.1.3 for more detail on the extensive combined experience of 5280 Connectors with TIFIA, PABs, bank and taxable bond financings.

# Potential delays or challenges to environmental

**approvals.** As the Procuring Authorities want to expedite the construction of the Project by concurrently completing the FEIS and the procurement process, there is a risk that lenders might hesitate to provide committed financing if lenders believe there is a risk that the ROD might be delayed or a legal challenge to the ROD is brought forward.

Solution: Having navigated from preferred proponent towards financial close on its Reference Projects both during turbulent market conditions (M25 immediately post the global financial crisis in 2008) and through unresolved legal challenges (US 36 and ERT with a then pending lawsuits), the Equity Members have the resume to effectively maneuver through potential financial close disruptions. 5280 Connectors' most important risk mitigant against delays

will be its team members' flexibility in addressing such issues and collaboratively working with the Procuring Authority to find solutions to any such challenges.

### Case Study

In 2011, JP Morgan worked with HPTE to evaluate all funding options for the US 36 Managed Lanes (Phase 1) project, including PABs, TIFIA, and a PPP process. JP Morgan worked extensively with HPTE to navigate the TIFIA process from application through financial close, and was able to incorporate flexibility for future debt issuance such that HPTE had the ability to pursue alternative procurement strategies for Phase 2, for which Plenary was the lead equity investor.





# 2.b. Preferred Approach to the Selection of Commercial Banks, Arrangers, Underwriters, etc.

As previously mentioned, 5280 Connectors will look to compete various funding sources in order to achieve the most competitive cost of capital for the Project. This will ensure competitive tension for pricing and provide redundant capacity should anticipated sources of funding (PABs and TIFIA) prove to either be insufficient in capacity (addressing one of the challenges mentioned in Vol.1, Sec.2.a).

5280 Connectors anticipates an investment grade financing package that will include a long-term PABs solution (to be developed with the team's underwriters, a long-term TIFIA loan (should TIFIA become available), and, if a completion payment is anticipated, a short to medium-term bank facility. We will also evaluate longer term bank facilities, bank/bond combinations, and monoline products to ensure competitive overall pricing. The investment grade structure will be supported by bankable security packages from the Lead Contractor and Lead Operator, and equity commitments from the Equity Members.

**Bond Underwriters Approach.** We have selected JP Morgan and Wells Fargo (exclusive) and TD Securities (non-exclusive) as underwriters.

Our selection criteria for the underwriters included:

 strong PABs experience, including municipal market presence in Colorado;

- experience and track record with surface transportation;
- experience with TIFIA;
- private placement capabilities;
- experience, capacity and flexibility to integrate with other potential solutions (e.g. TIFIA and bank); and
- successful prior partnerships with Equity Members, particularly on availability payment PPPs.



Bank and Taxable Bonds Approach. In addition to TIFIA and PABs, 5280 Connectors plans to compete bank and taxable bond solutions for part or all of the financing requirements, to drive the most competitive cost of capital. The team has preliminary indications of support from

n a non-exclusive basis. Vol.1, Sec.2.1.5 illustrates previous working experience between 5280 Connectors and lenders.

Our selection criteria for banks (and other taxable lenders) includes: creditworthiness; lending capacity; price competitiveness; availability payment PPP experience; and previous experience with the Equity members on comparable PPP projects. Upon issuance of the RFP and further clarity on the timing of payments made by the Procuring Authorities, we will diligently work with banks and other taxable lenders, to ensure that these financing options are utilized if they provide value for the Project.



#### Case Study: Penn Bridges

With Plenary, JP Morgan and Wells Fargo underwrote the largest (\$721.5 million) PABs issuance to date with the lowest yields to maturity of any uninsured BBB level PPP bond issuance. JP Morgan and Wells Fargo embarked on an extensive road show attracting over 60 PABs buyers for closing.

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