# Seq

### Task/ QA Activity

# Specification Standard

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### Acceptance C'(iteria

I

### Certify Doc *I* Ref

**PFS**

### Engln11ring

Inspection and Test Plan Re\liewed

1. anfl AJ)provt!d by Cuslorncr

P,ojecl Stmcllll& Specification C0702 Rt:v. 01

IFC structu,e OWG

### Inspection and Tesl plan shall be submilled to the Engineer

Im review and t1pprnval hefore fahriclltion is cornmenced

IFC DWGs

PM/PE

### Submit the required documenls lo

1. Clie11I Im review

Project Struclurn Specification C0702 Rev. 01

### Site installatio11methodolog•, shall be submilled to the

Engineer for review

Erection Sequenci, Methodology

# PMIPE

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1. loslollolinn Proi:urermml. Casi in ilems

Project Strnctu10 Specification C0702 Rev. 01

IFC structwe DWG

Confirm Procuremen1and delivery of all Casi in llems:

### shear keys

-

* 1. uplift rnslrnints 011d ossociall':<I mils

m. plate washers

1. M.icnlloy Bars (ETA 0&'01/25) and coLJplers 'MU1 denso
2. Reidbar and couplers+ touch up protective coating.
3. t-Jyton wastiers arid rubber sleeves.
4. Trnn1m1nry he,1rin!J co1n1m11enls

## IFCDWC

PFS: 39028-3202-000-FABRC PFG: 39028-3201-000-FAORC

Mill Cells Compliance Documental1on

PMJPE

1. lnspectio11111>011 receipt al site

Prnjer:I St111t:tlllc Specification C0702 Rev. 01

IFC ::>hudure DWG

The mateual ,eceipt at site need lo be visually inspcc!ud fr>1

quantity and make swe no damage occurred during transport

## IFC DWG

## PM/PE

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Inspection upot) receipt al sile - Cast in

1. Items.

Preparation work- priOI to Spa11 Lifting forAll Spans

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Prnjed Stim:twe Specification C0702 Rev. 01

1FC shudure DWG

Site installation methodology P1ojecl Structuriei

Specification C0702 R1w.01

IFC stmchire DWG

ThH 111:-:JIH1i;il IHl'.1:!ipt ..itSltf:!need lo I)(! ViSLl.-llly inspected [Of

quanlity, make sure no damage occurred during transport.

All related documents have been received.

Make sure survey has been done and cenler marks on the frame'M>fk ns a rererence have been pro'lided by Downer lr11:,tall<1lio11ol 100x100 EA a!>a lilh11u aid mI ltm1fiC>1al'y struclme

Sptin unlotided from lruck ond placed on Dunnoge on 9m1mt'l prim It) rig9ing adjustment

All.iching lhe t.ig lines to Spans to prevent rotalion clur11\g inslc1llc11ion

### 1Fc owe

Lift plan

## PM/PE

Sile project Manager

Confirm all Ma11ufacIure documentation

1. has been completed to, Span #2
2. Installation of Span#2
3. Macalloy Ela,s inslallatioa fu1 Span *U2*

Project Stmcture Sp,:cilicntiun CD702 Rev. 01

Sile installatim1 methodology Project Stmcture Specif1cat1on C0702 Rev. 01

!FC struclLlle DWG

S1I1:inslallatum methodology Prnjt:d Struct111t!

Specific,1tion C0702 Rev. 01

IFC r,tmcll,rn OWG

Co11fi1ming that the fabricalion, coating,

a1ul fndo1y c11i1:1inn (indwling ha]uslrrnlt! n111J 1h 1:k11w1el bolting) wo1ks have been signed off.

Verify that the structural component is secwely rigged occo1<ling to U1e ri 1ging plan

Tn hll Span *n2* amt Pnsilivn 11\H ,;nrnpt,llU:!111J)IBCISE!ly flV(:!I

lhe pile and lower it slo y into its final placement on lempmary gircler st1ppoII slruclure

Chain block will be connected to llut Wesl end lo adjust

level.

,,.,,hen location is confirmed by surveyor <1fld PFS staff, span to be securect in place to the shm soldie1s.

To keep Macalloy bar aligned, a coupler lo lie lightened 10 nxlm1d the M.ic,dloy bi!r a11d TerniK>ry 1111! v.;U he mfcled lo Iha rod on the Span 2 high end. The nuts w!II be tighlened lo hold the f\l\acalloy bars in correct position.

QA Dor:111111i11!.ilin11

Lift pla11

tFC Orn\..,;llH

PMJPE

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Site projecl I Manager

## I

Site project Manager

Cnnlir111 fll1Mfl11ulc1clu1e do1:11111enlatior1

1. has he1e1n cornplet d for Span #3

Prnjec::tStmclme Spec1f1cal1on C0702 Rev. 01

Cm1fi11ninu that Urn fabricalion, coating,

and factory erection (including halustrmlc and decklland bol1mg) wmks ha'le been signed off.

QA Docurmmtaho11

PM/PE

1. lnsl.illalion of Span#J

Sile inslallalio11 methodology Project Structure Specification C0702 Rev. 01

IFC shucture DWG

Ve,ify that the structural compor1ent is securely rigged accordin!Jlo Ille lill plan

To lilt Span #J and Position !he component precisely over

the pile and lower fl slO\ 'f into ils final placement on t"'rnpcuary ui1cler support st1I11:luIe

wt1en localio11is confirmed by surveyor and PFS staff, span lo be secured in lllace to lhe slim soldiers.

Lift plan

Sile projecl Manager

Shear Keys,Hold Ooi,..n Doll and

1. Rcidbn1s lnslnllnlion for Span #J

Sile i11slall.itio11 methodology Project Stmcture Specification C0702 Re•.1. 01

lFC strncture DWG

TI1e longitudinal arld laHludinal Shear keys fire lo be 111stallt!d lo secIIre Urn position ol sr.);.m trnm mr:>ve,rnrnl during Head slock Pouring

Hold Down Bolt to be Installed

Nuls (111Rt.>idba, to be soug t1 Jhtcncd to help mininml loleml movement

Shear keys, H d Down bolls and Reidbars Ora'Mng

Site project Manager

Conhnn all Manufactmti documenlatio11 Pro1ee1 Stmcture

Confim1ing that the fab1icalion, coating,

1. has been completed for Span #4

Specificalion C0702

*Re'I,* 01

and lacloiy erection {including balustrade and deck panel bollino) works have been signed off.

QA Doc11menlation

PMIPE

1. lnslallallon of Span#4

Site inslallaliorl methodolog•, PrnJ Ct Slruclu1e

Specification C0702 Rev. 01

IFC slructurc DWG

V1:mt-y that the t;h111:t111al COllll)Ollfml 15 sec111el,yim:,ed according lo the lilt plan

To Ht Span #4 and Position the component precisely over lhe pile ,u,d !O'M'!r ii slov.ty 11)10 its fi11al plrti:E!lllt!fll on lemporary gilder suppon str1Ichue

* + -d1en loca1ion is confirmed by suweyor and PFS staff, span

to be 5ecmerl 111 pl.ice lo lhl! 5lim 5ul1l11!15

Lilt plan

Site project Manager

Shear Keys, Hold Down Boll and

1. Rei<lba1s Installation ro, S1x111#4

Sile installation melhodolo0y Project Slruclwe Spet:iricalion C0702 Rev. Ot

IFC slructure DWG

The longitudinal and latitudinal Shear keys are lo be installed lo secure lhe posilion of span from moveInenl during Head stock Powin 1

HoldDown Boll to be lnslallt!d

Nuls on Reidhar lo ba 6nug lighlenacl lo halp mnmnal lateral movement.

Shear keys, Hold Down bolls nf\d Rt!idba1s Oiawing

Sile project Manager

Confirm all Manufoclti1e docume11Ialion

1. has been completed for Span #5

Project Stmclme Specification C0702 Rev. 01

Confirming lhal the fabfication, coaling,

and facto1y e1eclion (including baluslfade and deck panel hollin□)wmks have hecn signed off.

QA Documentalion

P..\_\/PE

1. Installation of Span#S

Sile installation n1ell1odol01JV P1ojeC1Structure Spec1ficatio11C0702 Rev. 01

IFC s1nicture DWG

Verily thal Ille stmclmal componenl is sacurely ri!J(Jed

;u:co1din9 lo the lift p!im

To lill Span tlS and Position lhe component precisely ove, the pile and lower it slovAy into its final placement on temporary girder support structure

\",hen locahon is confirmed hy surveyor and PFS staff, srt.-in lo be secured in place lo the slim soldiers.

Lift plan

Sile project Manager

Shear Keys, Hold Dowu Boll and

1. Reidba1s lr stallation for Span #5

Site installation methodol0<Jy Pro1ecl SIrw;h11e Specification C0702 Rev. 01

IFC structure DWG

T11e longitudinal and lalitudinal Shea, keys are lo be installed lo secwe 11\e position of span from movement chuing Head slock Poum'!)

Mold DownBoll to be lnslalled

Nuts on Reidbar to be snug tighlened to help minlmal lateral movement.

Shear keys, Hold Down bolts ar11t Reidbars Drawing

Site project Manager

Confi1m ell Maru1f11clure docun.enlelion

1. has been completed ror Span #6

Project Structure Spec1lical1on C0702 Rev, 01

Confirming lhat the t brica1ion, coaling.

and factoIy erection (inchKli11g baluslraclC!rmd deck panel bolling) works have been signed oft.

QA Documentation

PM/PE

1. lnslallalion of Sp;:111#6

Sile installation methodology Project Slrncltue Specification C0702 Rev. 01

IFC struct111e DWG

Ve,ily lhal the structural cornpo11cnl is securely rigged according to lht1lift plau

To lift Span #G and Position the compo11ent precisely over the pile and lowe, 11slov.ty into its linal placement011 tempmaIy girde, s1Ippmt shuclu1e

*vmen* location is confiJmed by surveyor and PFS slalf, span

lo be secllled in place lo the slim soldiers.

Lift plan

Site project Manager

Shear Keys, Hold Dooo Bolt and

1. Reidbms lnstnllt1lio11fm Span #6
2. Dimensional s1111,ey By Downer

Site installation mell1odolngy P,ojecl Stmcture Specificalion C0702 Rev. 01

IFC strtrclure OWG

Sile mstallalion methodol0<Jy IFC 01avA11 s

The lorlgitudinal and lalitudinal Shea, keys are to be inslnl1ed lo secure lhe position of span rrom movement during Head stock Pouting

Hold Down Boll to be Installed

Tempora,y Bearing installation under IO'oYer encl

Nuts on Reidbar lo be snug tighte11ecJlo help minunal lalernl movement.

Conduct a thorough dimensinal s11rvay inspection to confirm lt1at lh0 co111pn11enl Is coneclly positiouecl and sectued b;ised on IFC Drawing.

Meas111ed dimerl:Sions shall be within slflled tolerances unless noted otherwise.

P,oject specification clause C0702.1.3

Fu1iclional Tolerances shall be class 2 as per ASfNZS S1:l1 Tahle F2.I to F2,10

Shear keys. Hold Down bolts and Reidba1s Ora ng

Marked up and Si!Jned IFC DWOs

Site project Manager

Sile project Manager

Record lhe lifting operation in t e project log, including any devi.ilinns 011equired adjuslme11ts to be made.

1. Remove Reid bar tension.

Site i11slallc1lio11 melhodology IFC o,av.ings

lussen Reidb;1rs In mak:h IFC drav.ill!J tltktil ;;1t ;-ill peir befo,e ,.ny headstock pours.

IFC DWGs

Site project Manager

1. R irl h..i, 1nuch up p.;rn1hr1u (If rn11uirwl)

Sile inslallalion r1ielhmlology IFC Dra ngs

Any coatirigs dtirnage lo ReK1bais touched up as pc, pain! spl'.!1:1licali<111, Co;:itings to r.omplv v.,n, note 1.2 on drawirig ST-3202.

Remove additional nuts. tape (maski11g <md double sided) used for atigmne,1I. Appl•{ 1ubbcr sleeves lo tl,e exposed lh1eads. Reinstall oversized washers, apply instulating

Prnject Parnt Specificalion

Site project Manager

Sile project

1. Hold Down Bolls li 1hteni11

Slandard operation

pror:edurt;! Im shml structure boll lightening 51-lEO-01-02-0038

,v-<1she1s and lighle11nuts down lo acl1ive a 1mm gap between washer and nut, lock nut lo he installed ns per delail C & Section 5 on ST-3202, Detail O on ST-3200.

Bolt Tightening report

M,rnager

1. Macallo11Bolls lightening

Sile instRllalion n1et1,ndnlouv IFC ora i111JS

Standard oparabon

procedure lor steel struclure bolt ti{Jh!ening SHEQ.01•02-0038

to Unclothe couple,, 1emove temIJ01<11y c11ig111ne11\ mil, i11stal1

Ille mbhm sleeves lo lhcxposed rod,111sk1Uthe washers, ruIts nnd snug lighlt!n the nut ( s thP.rere cm,,preMlble

components in contanc area)

Bolt T1ghl1011ing rlilporl

Site projecl Manager

1. Tem1101Rr,vestrainls 1e1110'IAI

Sile installation methodology IFC Drav.rngs

All temporal)' restraints lo the 1empora!)I shoring 10 be removed

AllImsilioni11g Ji!]s <mtl scre....-sappliecl ICJPTFE011Shea,

Kays to be rerno-ved

Team leader

1. lnst.1llalm11of G1anor 8ear1119

Site installation methodology IFC Drmvinns

Slandoml01:>eration

procedure for steel structure I.Joll ligl1le11ir19 SHE0-01-02-0038

The Ternporary Bearing to be,emoved and Granor Bearing 1o he 111stalle1! 111 lhe position

lhfl Bohs 11eed lo be sm,g lightened 10 lhe girders (lop) and scre\YSneed lo be snug tighte11ed into the base plate The keeper pl<1les' bolls (M20) fm upli1t reslrni11! lo lie

tiHhlened (hill Tensioned).

Bolt Tightenin!J report

Sile project Manager

lnsl<1llahon of re!nairnrnJ Decki11u

1. panels and wall pan,:,ls

Sill! inslallntior1 methodology lFC DravAngs

Carefully pos1tio11lhA D r:king ..irul wall pan1>.ls in ll1e co11ju11clion area according to the approved drawillgs.

IFC DWGs

Team leader

S11ug lightening ol Decking pa11cls and

### wall pan ls

$landard operatio11 procedmc for steel

StlLJClure halt ligllter\ill(I

## SHEO-01-02-0036

Fasteners of Der;kinu omt woll panel:; to Im inspected for snug light corldilion and marked v.ilh coloured paint pen lo confirm fixi condlion has been checked and verlf1ed.

Ool1Tightening reporl

Site project Manager

Installation of remaining handrails

1. bet1...een the spans

Sile installalion 11-iethodology IFC Orrn111nus

Carefully position the handrails in lhe conjunclion area ncco,ding lo the opprovccl drm tl!JS.

IFC OWGs

Team Leader

I

1. Snug lightening *o(* Cond11ti Brackets

Standard operation proce<1u1e for steel slnIcture boll lighlcrnrl!] SHEQ-01-02-0038

Fnshmms of h<rndrnils tt1Im i11spech:fl Im snun linhl cor,d1lion v.,th addilion of Loctite 01lockJJut lo prevent loosening and ma1ked \..,;t11colomed paint pen to confirm lhdng COll(ltiOll has heen cher.ked and ve,ille(I.

Note: The connections for the EA's spanning lhe pie, mo\lemen1joinls shall be hand tighlen&d, Ref CAN D63.

8'11lTighllming rc1mII

Site project Manager

1. Installation of Exp.:inslon plales

Sile 1m;t; llc1lio11 melhodology IFC DrnvAngs

The expansion pla1es to Ile inslallecl between Span 1 and 2 and between spar1 6 and 7

IFC DWGs

Team Leader

lnspeclion lo identify any damaga to

1. pain1ed surfar.eses requirill!J touchup

lr1spect painl for any required repair and touch up of pain! works (bolted connections ond any damage paint to

steeh-'YOrk). Repair metliod proposed shall be app10ved by lhe i11depender1I coaling inspector, Arecs repaired shall be 1einspe1;ted hy the cm1lin 1aprlicalo1m1rl inrleper1rlent inspec1or.

Note 1.2. o,a.,..,;ng ST.J202

Site proj!.!cl Manager

1. Site lnstall tion and Sign-off.

E1ection sequence melhodolocJy (EMS) IFC Drnv.mus

Visual and Dimensional inspections completed by PFS Proj€d Manage, lo confi1rn rmirmlaclured items ha•,c been completely installed.

Inspection of erected s1eelv10rk in accordance .,.\_;th ASINZS

5131 Sec:lion 13. 11 ;i f11lt 5r,edfir:.-1tion C0702.l .10. lns,peclions shall cover all relevant i1e111s.listed in clause 13.11.1.

l11sp1?din11s shall he 1fr.1c11m1mted in iuspeclion reporls HS

per clause 13.11.3 of AS/NZS5131, and included in the QA documentation.

lnspeclions studl be conducted by compele11t pe,sonnel.

Evidcnct: r>I cxpe1ic:ncc r>11111.1!ificalinns

to, nominated ind1vidual(s) shall be provided for review. An example or

quallf1calion ot competent pe1sonnel is a relevant !Jade

qLJahficalion and over tO

years experience in struclUral steel erection.

Following inspection on sIle, stioulc1a.11y modillcat1on or repairs be required a written procedure shall be submitted to the Engineer prio, to nnv work proceedir\g as per C0702.3.

IFC DWGs

Site projecl M.anage-r



1. Crunpile, IS'lit'!w a,ul suhlllll documentation

Project Strncture Spei:ilu;ali,111C07 Rav. 01

IFC structure DWG

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Orn:w11e11\ahnn mu! iepmls to s11ppml i11slallalion ol sleel slrucluie items

compiled i11to PFS Manulactures Data Repon

PFS Manulad111cs D.:ila Reprnl

Site projecl Manager