May 5, 2016

TO:  Marco Foster, MS47354
THRU:  T. Madden / K. Klingman, NB82-230
FROM:  P. Fuller / S. Beadle, NB 82-66
SUBJECT:  C8549
SR99, AWV Replacement North Access Connection
F.A. Project No: STPF-0099(122)

CHANGE ORDER 125
EN6, EN3A & EN3B Ductbank Changes

Attached for your review, approval and further processing is HQ executed Change Order #125, "EN6, EN3A & EN3B Ductbank Changes" for the subject project. The Change Order Checklist is attached (Attachment A).

**Description of the Change**

This Change Order compensates the Contractor for added work and extended overhead associated with new work. This change order adds new ductbanks EN6, EN3A and EN3B and also adds a new vault M-1 where the new ductbanks connect.

**EN6 Ductbank:**
Adds new ductbank EN6 from station EN6 260+00.00 to 262+20.20 as shown on plan sheets UPAL1, UPT3, UP1, UP9, UP16, UPR2-UPR3, UPR7, UPR10A, UPD10, and UPD28. This work consists of excavation and shoring, procuring ductbank materials and installing them, placing high strength FTB, forming materials, setting forms and stripping, placing low strength FTB, chipping overpour at existing V-834, coring at V-834, soil export and disposal, vactoring, dewatering the excavation area, 2ft overexcavation of trench and placing quarry spalls and bedding, importing quarry spalls and bedding, supporting existing utilities which involves crossing live ductbanks at Harrison St. vicinity and supporting existing foundations, mobilization and demobilization of equipment, survey and cleanup.

**EN3A and EN3B Ductbanks:**
Adds new ductbank EN3A from station EN3A 238+00.00 to 238+50.03 and adds new ductbank EN3B from station EN3B 239+00.00 to 239+43.37 as shown on plan sheets UPAL1, UPT3, UP1, UP9, UP16, UPR1, UPR9 and UPD10. This work consists of excavation and shoring, procuring ductbank materials and installing them, placing high strength FTB, forming materials, setting forms and stripping, placing low strength FTB, soil export and disposal, vactoring, dewatering the excavation area, supporting existing utilities and existing foundations, mobilization and demobilization of equipment, survey and cleanup.
M-I Vault:
Adds the installation of the new M-1 vault at Station H-Line 97+07.27, (27.67’ LT) as shown on UPN2, UP9, UP16, UPD19A, and UPD19B. This work consists of excavation, soil export and disposal, vactoring, dewatering the excavation area, 2 ft. vault overexcavation and placing quarry spalls and bedding, importing quarry spalls and bedding, supporting in place vault V-XX5, removing C-XX3 vault and replace in kind, installing shoring system and procuring shoring materials, loading and unloading shoring system, setting the vault, mudding the vault, constructing a custom riser, removing shoring and backfilling, purchasing and placing CDF for backfilling, supporting existing utilities, mobilization and demobilization of equipment, survey and cleanup. The procurement and the shoring design of the M-1 Vault is included in CO150.

Development of the Change
In RFI#365, transite ductbank was detailed for removal and its associated vault. The removal needed to occur in order to construct new Vault V-XX5 and ductbank ED3. This existing ductbank contained a 120/208V power source that was removed by Seattle City Light (SCL) weeks prior to this removal work. Upon further investigation, the Contractor noted that the vault scheduled to be removed was intended to be the future power service (588- M-1) for the City of Seattle Illumination system on Harrison St. from Taylor to SR99 and on 6th Ave. from Harrison St. to Mercer St.

WSDOT initially introduced a simple design involving 2-3 inch conduits which would connect V-834 to a new Type 6 vault in order to maintain a power source for city owned facilities. SCL responded on September 14, 2015 that new facilities to be owned and maintained by SCL would have to be constructed to Network standards to safely provide lighting service and other required loads in the vicinity. SCL confirmed on October 21, 2015 that a much larger ductbank cross section would be needed to run a secondary service to power street lighting and traffic signals. Upgrades required by SCL to meet current standards and future demands contributed to this significant cost increase. This added work is paid for by SCL. We received signed final plans from SCL on December 23, 2015 with all new ductbanks EN6, EN3A, EN3B and M-1 vault. Work did not begin until agreement was reached on the negotiated pricing.

Schedule Analysis
The Contractor claimed this added work would require an additional 40 working days. The work to construct the ductbank and vault are on the critical path and it is all new added work. We performed an independent analysis of the added work and we agreed with the Contractor’s assessment. All of the work included in this change order is on the critical path of the approved schedule (Attachment D).

Approvals
- PE Approval—Patrick Fuller gave approval on 4/29/2016 (Attachment B).
- Region Approval—Tom Madden gave approval on 5/3/2016 (Attachment B).
- HQ Approval—Marco Foster gave approval on 5/2/2016 (Attachment B).
- FHWA Approval—Anthony Sarhan gave approval on 5/2/2016 (Attachment B).
- Program Management—Mario Mathisen gave approval on 5/3/2016 (Attachment B).
• Engineer of Record—Monica Moravec signed plan sheets 12/22/2015 (See change order plans)
• City Funding Approval—Jon Gray approved direct costs on 3/4/2016 and approved extended overhead costs on 3/17/2016. (See Attachment B).

Entitlement & Price
The Contractor will be reimbursed for the added work as stated in the change order. This change results in a significant amount of added work to the Contract. The Contractor had to mobilize and demobilize their electrical subcontractor multiple times to build the new ductbank. (See Estimate – Attachment C).

Contract Time
This change order is adding 40 working days to the Contract. The added work was on the critical path. There are no changes to contract interim completion dates as a result of this change order.

PF: jp
Attachments
cc: File 8549 3(125)
WASHINGTON STATE
DEPARTMENT OF TRANSPORTATION

CHANGE ORDER

DATE: 04/29/16
Page 1 of 3

CONTRACT NO: 008549
FEDERAL AID NO: STPF-0099(122)

CONTRACT TITLE: SR 99, ALASKAN WAY VIADUCT - REPLACEMENT NORTH ACC

CHANGE ORDER NO: M-1, EN6, EN3A, EN3B DUCE BANK CHG

PRIME CONTRACTOR: GUY F. ATKINSON CONSTRUCTION, LLC.
707 SOUTH GRADY WAY STE 500
RENTON WA 98057-3224

( ) Ordered by Engineer under the terms of Section 1-04.4 of the Standard Specifications
( ) Change proposed by Contractor

ENDORSED BY: SURETY CONSENT:

CONTRACTOR ATTORNEY IN FACT

DATE

ORIGINAL CONTRACT AMOUNT: 41,640,622.60
CURRENT CONTRACT AMOUNT: 46,763,885.99
ESTIMATED NET CHANGE THIS ORDER: 1,204,577.86
ESTIMATED CONTRACT TOTAL AFTER CHANGE: 47,968,463.85

Approval Required: ( ) Region ( ) Olympia Service Center ( ) Local Agency

( ) APPROVAL RECOMMENDED ( ) EXECUTED
EXECUTED: 07/18/2016
STATE CONSTRUCTION ENGINEER

( ) APPROVAL RECOMMENDED ( ) EXECUTED
REGIONAL ADMIN:
BY: 05/12/16

OTHER APPROVAL WHEN REQUIRED
SIGNATURE
REPRESENTING

DATE

CC02v04 (revised Feb 2005)
All work, materials, and measurements to be in accordance with the provisions of the Standard Specifications and Special Provisions for the type of construction involved.

This contract is revised as follows:

DESCRIPTION
The change order compensates the Contractor for added work and extended overhead associated with new work. This change order adds new ductbanks EN6, EN3A and EN3B and also adds a new vault M-1 where the new ductbanks connect.

EN6 Ductbank:
Adds new ductbank EN6 from station EN6 260+00.00 to 262+20.20 as shown on plans sheets UPAL1, UPT3, UP1, UP9, UP16, UPR2-UPR3, UPR7, UPR10A, UFD10, and UFD28. This work consists of excavation and shoring, procuring ductbank materials and installing them, placing high strength FIB, forming materials, setting forms and stripping, placing low strength FIB, chipping overpour at existing V-834, coring at V-834, dirt export and disposal, vectoring, dewatering the excavation area, 2ft overexcavation of trench and placing quarrying spalls and bedding, importing quarry spalls and bedding, supporting existing utilities which involves crossing live ductbanks at Harrison St. vicinity and supporting existing foundations, mobilization and demobilization of equipment, survey and cleanup.

EN3A and EN3B Ductbanks:
Adds new ductbank EN3A from station EN3A 238+00.00 to 238+50.03 and adds new ductbank EN3B from station EN3B 239+00.00 to 239+43.37 as shown on plans sheets UPAL1, UPT3, UP1, UP9, UP16, UPR1, UPR9, and UFD10. This work consists of excavation and shoring, procuring ductbank materials and installing them, placing high strength FIB, forming materials, setting forms and stripping, placing low strength FIB, dirt export and disposal, vectoring, dewatering the excavation area, supporting existing utilities and existing foundations, mobilization and demobilization of equipment, survey and cleanup.

M-1 Vault:
Adds the installation of the new M-1 vault at Station H-Line 97+07.27, (27.67' LT) as shown on UFN2, UP9, UP16, UFD19A, and UFD19B. The procurement and the shoring design of the M-1 Vault is included in CD150. This work consists of excavation, dirt export and disposal, vectoring, dewatering the excavation area, 2 ft. vault overexcavation and placing quarry spalls and bedding, importing quarry spalls and bedding, supporting in place vault V-XX5, removing C-XX3 vault and replace in kind, installing shoring system and procuring shoring materials, loading and unloading shoring system, setting the vault, mudding the vault, constructing a custom riser, removing shoring and backfilling, purchasing and placing CDF for backfilling, supporting existing utilities, mobilization and demobilization of equipment, survey and cleanup.

This change order revises the following plan sheets UFN2, UPAL1, UPT3, UP1, UP9, UPR1UFR3, UPR7-UPR10, UPR12, UFD10, UFD28 and adds the following new
WASHINGTON STATE
DEPARTMENT OF TRANSPORTATION
CHANGE ORDER

CONTRACT NO: 008549
CHANGE ORDER NO: 125

plan sheets UP16, UPR10A, UPD19A, UPD19B.

MATERIALS
All materials incorporated into the project shall meet the requirements of all the Contract Documents.

MEASUREMENT
Measurement of the new lump sum item, "CO125 M-1, EN6, EN3A, EN3B Ductbank Changes", shall be in accordance with Standard Specification 1-09.1, Measurement of Quantities of Lump Sum Items.

PAYMENT
This change order creates a new lump sum item, "CO125 M-1, EN6, EN3A, EN3B Ductbank Changes" in the amount of $1,204,577.86. This amount shall be full payment for all labor, equipment and materials to perform the work as described above, including but not limited to engineering, planning, scheduling, and overhead for the added work per Section 1-09.1 of the Standard Specifications.

CONTRACT TIME
There are 40 working days added to the contract time as a result of this change order. No changes to contract interim milestones are made as a result of this change order.
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<th>ITEM DESCRIPTION</th>
<th>UNIT MEASURE</th>
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<td>0.00</td>
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1,204,577.86
NOTE:
1. REFER TO PROFILES FOR ELEVATIONS OF TOP OF BELOW-GRADE VAULTS. ALL AT GRADE VAULTS/HANDHOLES AND RISER ELEMENTS (RISERS, LOC, HATCHES, ETC.) SHALL BE ADJUSTED TO FINISH GRADE.
2. DOWEL ALL NEW DUCT BANKS INTO EXISTING VAULT WALLS TO PROVIDE SHEAR CONNECTION. DOWELS, MATRY STEEL REBAR INTO THE VAULT WALL WITH EPOXY (BY MAIL EMBEDMENT). FOUR DOWELS ARE REQUIRED FOR SIX CONDUITS OR LESS IN A DUCT BANK. SIX CONDUITS OR MORE IN A DUCT BANK.

SEATTLE CITY LIGHT VAULT/HANDHOLE SCHEDULE

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<th>VAULT NAME</th>
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<th>VAULT TYPE</th>
<th>DRAWING</th>
<th>VAULT DETAIL AND SHEET NO.</th>
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<th>STATION AND OFFSET</th>
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<td>UPI, UPI</td>
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SEATTLE CITY LIGHT TERMINATION POLE SCHEDULE

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NOTE: STATION AND OFFSET SHOWN IS CENTER OF POLE.

1. CONDUITS FOR POLE AND CONDUIT RISERS SHALL NOT BE INSTALLED UNTIL POLE HAS BEEN SET.

1. Conduit and pole set from points shown above. All elevations and alignments to be checked before digging.

ALASKAN WAY VIADUCT-REPLACEMENT
NORTH ACCESS CONNECTION

POWER NOTES
POWER ALIGNMENT PLAN

ALASKAN WAY VIADUCT-REPLACEMENT
NORTH ACCESS CONNECTION

GENERAL NOTES:
1. REFER TO SHEETS UP1-UP3 FOR POWER ALIGNMENT TABLES.
2. THE CONTRACTOR SHALL FIELD ADJUST THE DRY QUIT BANKS AS NEEDED TO FIT BETWEEN THE SUBSTATION WALLS, FOUNDING AND VAULT EMBERS.

SHEET KEY

CHANGE ORDER NO. 125
CONTRACT 8529

FILE NAME: X:\110029\110025\110028\plakasan Way, Viaduct North Access\CAD\Drawing\MAP\MAP01.dgn

DATE: 6/30/15
DRAWN BY: C. PARK
DESIGNED BY: C. PANCH
CHECKED BY: C. BAREL
REVISION: 1
REVISION DATE: 6/30/15

SCALE IN FEET

1:200 POWER ALIGNMENT PLAN

SR 99
ALASKAN WAY VIADUCT-REPLACEMENT
NORTH ACCESS CONNECTION

WASHINGTON STATE
DEPARTMENT OF TRANSPORTATION

801 FIFTH AVENUE, SUITE 200
SEATTLE, WASHINGTON 98104-3065
(206) 477-4000 • (800) 477-4001
FAX: (206) 477-4025
www.wsdot.wa.gov

MAPS (1) OF 23

1. REFER TO SHEETS UP1-UP3 FOR POWER ALIGNMENT TABLES.
2. THE CONTRACTOR SHALL FIELD ADJUST THE DRY QUIT BANKS AS NEEDED TO FIT BETWEEN THE SUBSTATION WALLS, FOUNDING AND VAULT EMBERS.

SHEET KEY

CHANGE ORDER NO. 125
CONTRACT 8529
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**NOTES:**
1. Refer to sheets UPS-A - UPS-A for power alignment plans.
2. P.I. northings/eastings are based on project coordinates, refer to alignment and right of way plans for project datum and horizontal control.

**Additional Information:**
- **Alaskan Way Viaduct-Replacement**
- **North Access Connection**
- **Columns:**
  - PI
  - #
  - Alignment Name
  - P.I. Northing
  - P.I. Easting
  - Bearing In
  - Bearing Out
  - Delta
  - Radius
  - Tangent
  - Length

**Date:**
- December 21, 2015

**Contact:**
- J. Linehan
- (206) 622-8130

**File Name:**
- X:\110000.1102501110159 (Alaskan Way Viaduct North;newcADDdesign003-MWNA-CPT.jpg

**Project Information:**
- **Contract:** 8549
- **Sheet:** 7 of 25
GENERAL NOTES:
1. ADVANCED NOTIFICATION IS NEEDED BEFORE ANY CONSTRUCTION OCCURS. CALL BEFORE YOU DIG 1-800-424-5555.
2. FOR SEATTLE CITY LIGHT UNDERGROUNDING NOTICES, LEGEND, AND STRUCTURE NOTES, REFER TO DRAWINGS UPN1-UPN2.
3. FOR DUCT BANK ALIGNMENT INFORMATION, REFER TO DRAWINGS UPAL1-UPAL6 AND UPT1-UPT3.
4. FOR DUCT BANK PROFILES, REFER TO THE FOLLOWING DRAWINGS:
   • ALIGNMENT ED1 - DRAWING UPR1
   • ALIGNMENT ED2 - DRAWING UPR2
   • ALIGNMENT ED3 - DRAWING UPR3
   • ALIGNMENT ED4 - DRAWING UPR4
   • ALIGNMENT EN1 - DRAWING UPR5
   • ALIGNMENT EN2 - DRAWING UPR6
   • ALIGNMENT EN3 - DRAWING UPR7
   • ALIGNMENT EN4 - DRAWING UPR8
   • ALIGNMENT EN5 - DRAWING UPR9
   • ALIGNMENT EP1 - DRAWING UPR10
   • ALIGNMENT EP2 - DRAWING UPR11
   • ALIGNMENT EP3 - DRAWING UPR12
   • ALIGNMENT EP4 - DRAWING UPR13

5. APPROXIMATE LOCATION OF WALL FOOTING AS ENCOUNTERED IN THE FIELD, PER SURVEY RECEIVED ON 11/16/15.

CONSTRUCTION NOTE:
REFER TO DRAWING UP1

CHANGE ORDER NO. 123

CONTRACT 8549
**GENERAL NOTES:**

1. ADVANCE NOTIFICATION IS NEEDED BEFORE ANY CONSTRUCTION OCCURS. CALL BEFORE YOU DIG 1-800-424-5555.

2. FOR SEATTLE CITY LIGHT UNDERGROUNDING NOTES, LEGEND, AND STRUCTURE NOTES, REFER TO DRAWINGS UPN1-UPN2.

3. FOR DUCT BANK ALIGNMENT INFORMATION, REFER TO DRAWINGS UPAL1-UPAL6 AND UPT1-UPT3.

4. FOR DUCT BANK PROFILES, REFER TO THE FOLLOWING DRAWINGS:
   - ALIGNMENT ED1 - DRAWING UPR1
   - ALIGNMENT ED2 - DRAWING UPR2
   - ALIGNMENT ED3 - DRAWING UPR3
   - ALIGNMENT ED4 - DRAWING UPR4
   - ALIGNMENT ED5 - DRAWING UPR5
   - ALIGNMENT ED6 - DRAWING UPR6
   - ALIGNMENT ED7 - DRAWING UPR7
   - ALIGNMENT ED8 - DRAWING UPR8
   - ALIGNMENT ED9 - DRAWING UPR9
   - ALIGNMENT ED10 - DRAWING UPR10
   - ALIGNMENT EN1 - DRAWING UPR11
   - ALIGNMENT EN2 - DRAWING UPR11
   - ALIGNMENT EN3 - DRAWING UPR12
   - ALIGNMENT EN4 - DRAWING UPR13

5. EXTEND 2.3" CONDUITS FOR STREETLIGHT SERVICE AND 2.5" CONDUITS FOR TRAFFIC SIGNAL SERVICE. REFER TO DRAWINGS U5 AND PST.

6. EXTEND 2.2" CONDUITS FOR TRAFFIC SIGNAL SERVICE. REFER TO DRAWING PST.

7. CONTRACTOR SHALL COORDINATE WITH THE ENGINEER FOR THE REMOVAL AND LIMITS OF REMOVAL OF THE ABANDONED DUCT BANKS NECESSARY FOR CONSTRUCTION OF THE NEW DUCT BANKS.

8. REFER TO UP1 FOR DUCT BANK INFORMATION.

**NEW SHEET**

**Sheet Key**
GENERAL NOTES:

1. ADVANCED NOTIFICATION IS NEEDED BEFORE ANY CONSTRUCTION OCCURS. CALL BEFORE YOU DIG 1-800-424-5555.

2. FOR SEATTLE CITY LIGHT UNDERGROUNDING NOTES, LEGEND, AND STRUCTURE NOTES, REFER TO DRAWINGS UPN1-UPN3.

3. FOR DUCT BANK ALIGNMENT INFORMATION, REFER TO DRAWINGS UPT1-UPT3.

4. WHERE DUCT BANK CROSS AUGUSTA AND PAID MAINS, INSTALL REINFORCING WITHIN THE DUCT BANK PER SCL CONSTRUCTION GUIDELINE (LI-21.2) AND A MINIMUM OF 10 FEET BEHIND THE CROSSING.

CONSTRUCTION NOTE REFER TO DRAWING UPN1

FILE NAME: X110500-112323719503 (Alaskan Way Viaduct North Annex)CAD21Design/ED1-MWNA_CH1.dwg

DATE: Dec-31-15

SHEET 11 OF 23

CHANGE ORDER NO: 105

CONTRACT: 8549

SR 99

ALASKAN WAY VIADUCT-REPLACEMENT
NORTH ACCESS CONNECTION

POWER PROFILE
GENERAL NOTES:
1. ADVANCED NOTIFICATION IS NEEDED BEFORE ANY CONSTRUCTION OCCURS. CALL BEFORE YOU DIG 1-800-424-5555.
2. FOR SEATTLE CITY LIGHT UNDERGROUNDING NOTES, LEGEND, AND STRUCTURE NOTES, REFER TO DRAWINGS UPN1-UPN2.
3. FOR DUCT BANK ALIGNMENT INFORMATION, REFER TO DRAWINGS UPB1-UPB6 AND UPT1-UPT3.
4. WHERE DUCT BANKS CROSS ABOVE PS AND PSD MAINS, INSTALL REINFORCING WITHIN THE DUCT BANK (PER SCL CONSTRUCTION GUIDELINE U2-11.2) A MINIMUM OF 10' BEYOND THE CROSSING

CONSTRUCTION NOTE REFER TO DRAWING UPI1


DATE: 12/5/15

PLotted BY: L. LEWIS

D Esigned BY: J. PARK

C hecked BY: S. BARTLETT

REDRAWN BY: S. SCALE

REVISION DATE: 12/7/15

SCALE IN FEET HORIZ. SCALE IN FEET VERT.

Washington State Department of Transportation

SR 99
ALASKAN WAY VIADUCT-REPLACEMENT
NORTH ACCESS CONNECTION

POWER PROFILE

kpfL consulting engineers

M33 PFA Avenue, Suite 903
Seattle, Washington 98101-3531
(206) 522-5822, Fax (206) 522-8030

FIELD PROTECTION


DATE: 12/5/15

PLotted BY: L. LEWIS

D Esigned BY: J. PARK

C hecked BY: S. BARTLETT

REDRAWN BY: S. SCALE

REVISION DATE: 12/7/15

SCALE IN FEET HORIZ. SCALE IN FEET VERT.

Washington State Department of Transportation

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FIELD PROTECTION
GENERAL NOTES:

1. ADVANCED NOTIFICATION IS NEEDED BEFORE ANY CONSTRUCTION OCCURS. CALL BEFORE YOU DIG 1-800-424-5555.

2. FOR SEATTLE CITY LIGHT UNDERGROUNDING NOTES, LEGEND, AND STRUCTURE NOTES, REFER TO DRAWINGS UPN1-UPN2.

3. FOR DUCT BANK ALIGNMENT INFORMATION, REFER TO DRAWINGS UPAL1-UPAL6 AND UPT1-UPT3.

4. WHERE DUCT BANKS CROSS ABOVE PS AND PSD MAINS, INSTALL REINFORCING WITHIN THE DUCT BANK (PER SCL CONSTRUCTION GUIDELINE U2-11.2) A MINIMUM OF 10' BEYOND THE CROSSING.

CONSTRUCTION NOTE REFER TO DRAWING UP7.

FILE NAME X:\110000-110250\1110159\Alaskan Wa Viaduct North Access\CAOD\Desln\005-MWNA.CPR1.
GENERAL NOTES:
1. ADVANCED NOTIFICATION IS NEEDED BEFORE ANY CONSTRUCTION OCCURS. CALL BEFORE YOU DIG 1-800-24-6555.
2. FOR SEATTLE CITY LIGHT UNDERGROUNDING NOTES, LEGENDS, AND STRUCTURE NOTES, REFER TO DRAWINGS UPN1-UPN2.
3. FOR DUCT BANK ALIGNMENT INFORMATION, REFER TO DRAWINGS UPA1-UPA6 AND UPT1-UPT3.
4. WHERE DUCT BANKS CROSS ABOVE PS AND PSD MAINS, INSTALL REINFORCING WITHIN THE DUCT BANK (PER SCL CONSTRUCTION GUIDELINE U2-11.2) A MINIMUM OF 10' BEYOND THE CROSSING.

CONSTRUCTION NOTE REFER TO DRAWING UPN1.

EXISTING DUCT BANK ALIGNMENT REQUIRES REMOVAL OF AN EXISTING DUCT BANK. CONTRACTOR SHALL VERIFY LOCATIONS OF CROSSING UTILITIES PRIOR TO CONSTRUCTION.

EXISTING GRADE

PROPOSED DUCT BANK ALIGNMENT

REQUIRES REMOVAL OF AN EXISTING DUCT BANK.

EXISTING DUCT BANK

RE-BUILT LOCATION

REV 11/5/15

1. FOR DUCT BANKS CROSS ABOVE PS AND PSD MAINS, INSTALL REINFORCING WITHIN THE DUCT BANK (PER SCL CONSTRUCTION GUIDELINE U2-11.2) A MINIMUM OF 10' BEYOND THE CROSSING.

CONSTRUCTION NOTE REFER TO DRAWING UPN1.

EXISTING DUCT BANK

RE-BUILT LOCATION

REV 11/5/15

1. FOR DUCT BANKS CROSS ABOVE PS AND PSD MAINS, INSTALL REINFORCING WITHIN THE DUCT BANK (PER SCL CONSTRUCTION GUIDELINE U2-11.2) A MINIMUM OF 10' BEYOND THE CROSSING.

CONSTRUCTION NOTE REFER TO DRAWING UPN1.
GENERAL NOTES:
1. ADVANCED NOTIFICATION IS NEEDED BEFORE ANY CONSTRUCTION OCCURS. CALL BEFORE YOU DIG 1-800-424-5555.
2. FOR SEATTLE CITY LIGHT UNDERGROUNDING NOTES, LEGEND, AND STRUCTURE NOTES, REFER TO DRAWINGS UPN1-UPN2.
3. FOR DUCT BANK ALIGNMENT INFORMATION, REFER TO DRAWINGS UPAL1-UPAL6 AND UPT1-UPT3.
4. WHERE DUCT BANKS CROSS ABOVE P.S. AND P.S.D. MAINS, INSTALL REINFORCING WITHIN THE DUCT BANK (PER SCL CONSTRUCTION GUIDELINE U2.11.2) A MINIMUM OF 10' BEYOND THE CROSSING.

CONSTRUCTION NOTE: REFER TO DRAWING UPN1!
CONTRACTOR SHALL VERIFY LOCATIONS OF CROSSING UTILITIES PRIOR TO CONSTRUCTION

GENERAL NOTES:
1. ADVANCED NOTIFICATION IS NEEDED BEFORE ANY CONSTRUCTION OCCURS. CALL BEFORE YOU DIG 1-800-424-5555.
2. FOR SEATTLE CITY LIGHT UNDERGROUNDING NOTES, LEGEND, AND STRUCTURE NOTES, REFER TO DRAWINGS UPN1-UPN2.
3. FOR DUCT BANK ALIGNMENT INFORMATION, REFER TO DRAWINGS UPAL1-UPAL6 AND UPT1-UPT3.
4. WHERE DUCT BANKS CROSS ABOVE PS AND PSD MAINS, INSTALL REINFORCING WITHIN THE DUCT BANK (PER SCL CONSTRUCTION GUIDELINE U2-11.2) A MINIMUM OF 10' BEYOND THE CROSSING

CONSTRUCTION NOTE REFER TO DRAWING UPN1
GENERAL NOTES:
1. ADVANCED NOTIFICATION IS NEEDED BEFORE ANY CONSTRUCTION OCCURS. CALL BEFORE YOU DIG 1-800-424-5555.
2. FOR SEATTLE CITY LIGHT UNDERGROUNDING NOTES, LEGEND, AND STRUCTURE NOTES, REFER TO DRAWINGS UPN1-UPN2.
3. FOR DUCT BANK ALIGNMENT INFORMATION, REFER TO DRAWINGS UPAL1-UPAL6 AND UPT1-UPT3.
4. WHERE DUCT BANKS CROSS ABOVE PS AND PSD MAINS, INSTALL REINFORCING WITHIN THE DUCT BANK (PER SCL CONSTRUCTION GUIDELINE U2-112) A MINIMUM OF 1' BEYOND THE CROSSING.

CONSTRUCTION NOTES:
REFER TO DRAWING UPN1.
EXISTING 120V DM INSTALLED ABOVE PROP 13.8kV ENS
EXISTING 0588V834 C/L ENS 260+00.00

CONTRACTOR SHALL VERIFY LOCATIONS OF CROSSING UTILITIES PRIOR TO CONSTRUCTION

260+00 261+00 262+00

EN Profile

GENERAL NOTES:
1. ADVANCED NOTIFICATION IS NEEDED BEFORE ANY CONSTRUCTION OCCURS. CALL BEFORE YOU DIG 1-800-424-5555.
2. FOR SEATTLE CITY LIGHT UNDERGROUNDING NOTES, LEGEND, AND STRUCTURE NOTES, REFER TO DRAWINGS UFN1-Upn2.
3. FOR DUCT BANK ALIGNMENT INFORMATION, REFER TO DRAWINGS UBN1-UBN3.
4. WHERE DUCT BANKS CROSS ABOVE J/E AND P/J MAINS, INSTALL REINFORCING WITHIN THE DUCT BANK (PER SCL CONSTRUCTION GUIDELINE U2-11.2) A MINIMUM OF 10' BEYOND THE CROSSING
5. THE EXISTING DUCT BANK HAS BEEN IDENTIFIED BY SCL TO BE AN ENERGIZED DUCT BANK. CONTRACTOR SHALL COORDINATE WITH SCL TO IDENTIFY OTHER ENERGIZED FACILITIES IN THE VICINITY, AND TO SUPPORT EXISTING DUCT BANKS TO REMAIN.

CONSTRUCTION NOTE REFER TO DRAWING UPHN

FILE NAME X:\110000-110250\1110159 Alaskan Way Viaduct North Access\CAD\Design\020 Vianna-CFPI.dwg

DATE Dec 21, 15
PLOTTED BY K.BOSTON
DESIGNED BY C.PARK
ENTERED BY K.BOSTON
CHECKED BY S.BARTLETT

SCALE IN FEET HORIZ. SCALE IN FEET VERT. NEW SHEET
GENERAL NOTES:

1. ADVANCED NOTIFICATION IS NEEDED BEFORE ANY CONSTRUCTION OCCURS. CALL BEFORE YOU DIG - 1-800-424-5555.

2. FOR SEATTLE CITY LIGHT UNDERGROUNDING NOTES, LEGEND, AND STRUCTURE NOTES, REFER TO DRAWINGS U-UN1-U-UN2.

3. FOR DUCT BANK ALIGNMENT INFORMATION, REFER TO DRAWINGS U-PAL1-U-PAL3 AND U-PT1-U-PT3.

4. WHERE DUCT BANKS CROSS ABOVE PE, INSTALL REINFORCING WITHIN THE DUCT BANK (PER SDL CONSTRUCTION GUIDELINE U2-11.2) A MINIMUM OF 10" BEYOND THE DIGGING.

CONSTRUCTION NOTE REFER TO DRAWING U-UN1.

SCALE IN FEET HORIZ.
SCALE IN FEET VERT.
DISTRIBUTION DUCT BANK SECTION NOTES

1. DIMENSIONAL ROUNDING: FOR DUCT BANK WIDTHS/HEIGHTS, DIMENSIONS HAVE BEEN ROUNDED UP TO THE NEAREST INCH. CONTRACTOR IS RESPONSIBLE FOR ENSURING THE BOTTOM, SIDE AND TOP MINIMUM ENCASEMENT DIMENSIONS ARE OBTAINED. ENCASEMENT OVERPOUR SHALL NOT EXCEED 6", UNLESS SPECIFICALLY NOTED.

2. ANCHOR SPACERS WITH #4 STEEL REINFORCEMENT AND STEEL WIRE TIES.
5/8" DRILLED HOLE FOR GROUNDING WIRE (EACH END WALL)

3'-0" (TYP) UND

V get wall

V AL E TYPIC AL DETAIL

SCL 818 PANEL VAULT TYPICAL DETAIL

SHEET 21 OF 23

CHANGE ORDER NO. 125

CONTRACT 8599

NEW SHEET


DATE 12/15/15

PAGE 1 OF 1

FILE AS PROJECT

1. REFER TO BUTTERFLY DETAILS AND PLANS FOR CONDUITS REQUIRED AT EACH VAULT. THE VAULT BUTTERFLY DETAILS WILL INDICATE THE VAULT OR FEATURE THAT THE CONDUITS COME FROM.

2. BYPASSING SCL COMMUNICATION CONDUITS SHALL NOT BE INSTALLED ABOVE THE VAULT Lid. UNLESS SPECIFICALLY NOTED AS THIS WOULD PREVENT FUTURE REMOVAL OF THE VAULT LID. REFER TO THE PLANS FOR COMMUNICATION CONDUIT BYPASS ROUTING.

3. PROVIDE PULLING IRONS FOR A MINIMUM OF 20K MAXIMUM WORKING TENSION AND 40K ULTIMATE STRENGTH.

4. MULTISECTION VAULTS SHALL INCORPORATE EITHER SHIPLAP OR TONGUE AND GROOVE JOINTS UTILIZING SILICONE, POLYMERIC, OR ELASTOMERIC SEALANTS.

5. VAULTS SHALL BE DESIGNED TO WITHSTAND EXTERNAL LOADINGS AS REQUIRED IN THE PROJECT SPECIFICATIONS AND SCL W-4.1-7-10 STANDARDS.

6. VAULT ACCESS COVER SHALL BE ROUND 42" DIAMETER FRAME AND COVER LABELLED "ELECTRIC." PULLING IRONS SHOWN FIGURATIVELY. VAULT MANUFACTURER SHALL ROTATE PULLING IRONS AS NEEDED BASED ON THEIR STRUCTURAL CALCULATIONS.

7. VAULT GROUNDING: V AL U T GROUNDING SHALL CONFORM WITH SCL CONSTRUCTION GUIDELINES/STANDARDS HWH-80 AND 0461.10.

NOTES:

V AL U T BUTTERFLY DETAILS SHOW (2) END WALLS,

ACCESS ON:

\[1'-6" \times 9'\]

ULTIMATE STRENGTH.

\[0'-6" \times 9'\]

TEXTUAL CONTENT:

- The drawing represents a typical detail for a panel vault in the Alaskan Way Viaduct Replacement project.
- The vault base and walls are shown with various details such as pulling irons, C-channels, and duct windows.
- Notes on the drawing include requirements for pulling irons, vault grounding, and communication conduit bypassing.
- Specific dimensions and material specifications are provided for each component of the vault system.
Prior to M-1 vault installation, contractor shall verify location of E03 and E04/5 duct banks to confirm the ENS profile, per drawing UFR10A.

NEW SHEET

FILE NAME: X:\10000-10250\110000-110250\Alaskan Way Viaduct North Access\CADD\Design\03-MWNA-CPD2.

TIME: 4:42am
DATE: Dec-21-15
PLOTTED BY: K. BOSTON
DESIGNED BY: C. PARK
ENTERED BY: K. BOSTON
CHECKED BY: S. BARTLETT
PROJ. ENGR.: S. BEADLE
REGIONAL ENG.: T. TREPANIER

CHANGE ORDER NO.: 125
CONTRACT NO.: 8549
1. TERMINATE THE CONDUITS WITHIN THE VAULTS' KNOCKOUT WINDOWS, IF POSSIBLE. CORE DRILLS SHALL NOT CUT INTO THE RING VAULT RB.

NOTES

DUCT BANK DOWEL DETAIL

SCALE: 1" = 1'}