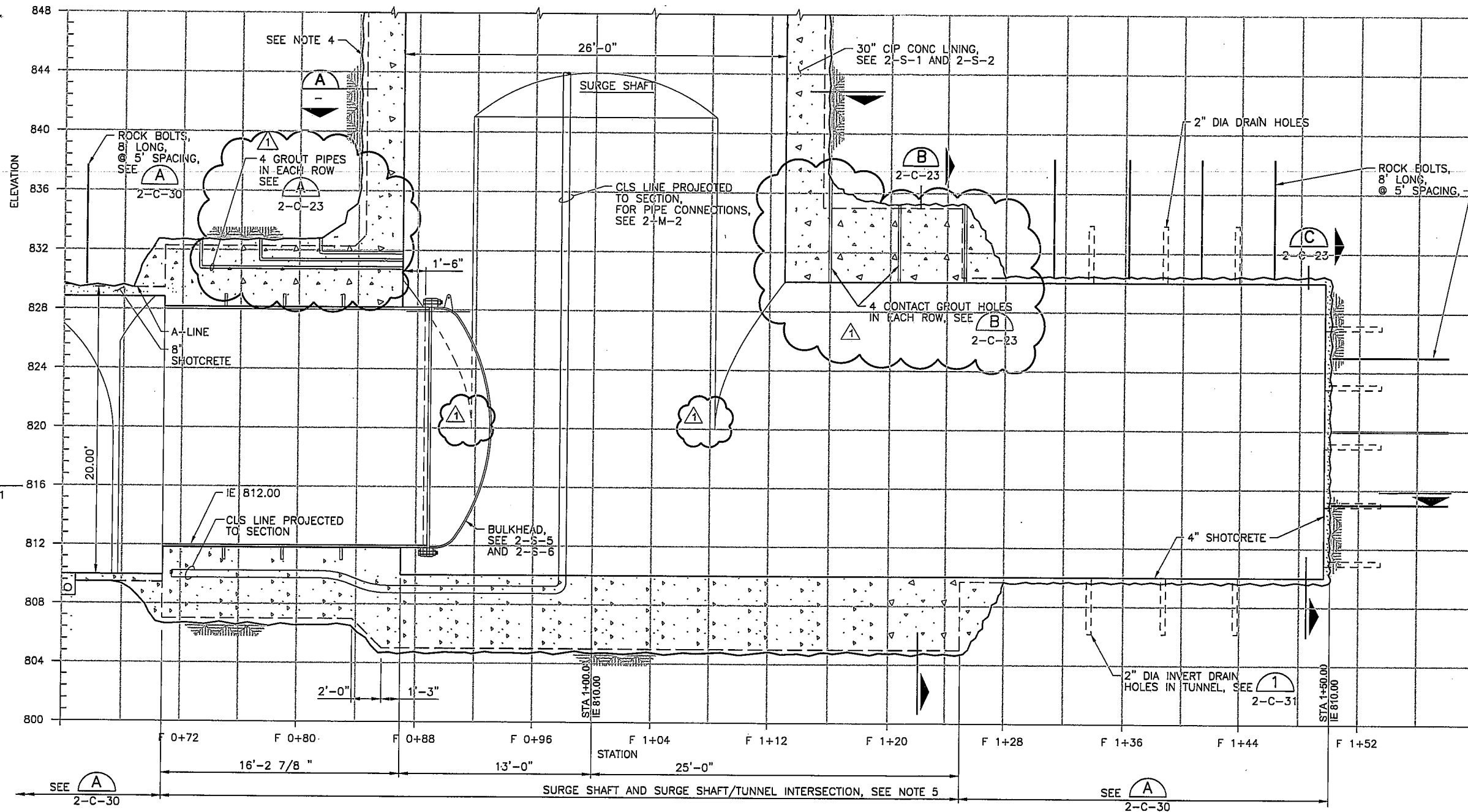


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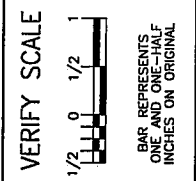
CI-070F02C2-C-24-2C20.dgn



NOTES:

1. THE A-LINE IS THE DIMENSIONAL LINE IN THE TUNNEL WITHIN WHICH ROCK PROJECTIONS ARE NOT PERMITTED. WHERE CIP CONCRETE LININGS ARE USED, SHOTCRETE SHALL NOT BE PERMITTED BEYOND THE A-LINE, AND ROCK BOLTS SHALL NOT EXTEND MORE THAN 12 INCHES BEYOND THIS LINE.
2. PANNING SHALL BE USED TO PROTECT FINAL CIP CONCRETE LINING FROM GROUND WATER DURING CONCRETE PLACEMENT.
3. AFTER GROUTING, PLACE STANDARD THREADED PIPE CAP AND PATCH THE HOLE IN ACCORDANCE WITH SECTION 03700, CONCRETE REPAIR AND REHABILITATION.
4. SHAFT TO BE LINED WITH CONCRETE, CONCURRENT WITH SINKING. MAXIMUM HEIGHT OF UNLINED SHAFT DURING CONSTRUCTION TO BE DETERMINED BY CONTRACTOR, BUT IN NO CASE SHALL IT EXCEED 60 FEET DURING SINKING.
5. INITIAL SUPPORT NOT SHOWN. INITIAL GROUND SUPPORT CONSISTING OF INITIAL SUPPORT ROCK BOLTS AND DOWELS, SPILES, MINE (STEEL) STRAPS, STEEL CHANNEL, SHOTCRETE AND ANY OTHER ELEMENTS SELECTED BY THE CONTRACTOR IN CONFORMANCE WITH SECTION 02340 - TUNNEL AND SHAFT SUPPORT. SYSTEM SHALL BE DESIGNED AND INSTALLED BY THE CONTRACTOR AS PART OF THE LUMP SUM WORK.
6. DRILL DRAIN HOLES IN SHAFT THROUGH 18-INCH CIP CONCRETE LINING AND 2 FEET INTO ROCK. DRILL THE DRAIN HOLES IN SHAFT LINING ONLY AT THE END OF CONSTRUCTION TO LIMIT GROUNDWATER INFLOW DURING CONSTRUCTION. SPACE AT 45' AROUND CIRCUMFERENCE OF LINING AND 10 FEET MAXIMUM VERTICALLY, FROM ELEVATION 885 TO ELEVATION 940.

SOUTHERN NEVADA WATER AUTHORITY
 100 CITY PARKWAY, SUITE 700
 LAS VEGAS, NEVADA 89106
 (702) 862-3400
 PROJECT LOCATION: CLARK CO. NV



INTAKE NO. 3 - CONNECTOR TUNNEL
 SURGE SHAFT SECTIONS

SCALE: 1/4" = 1'-0"

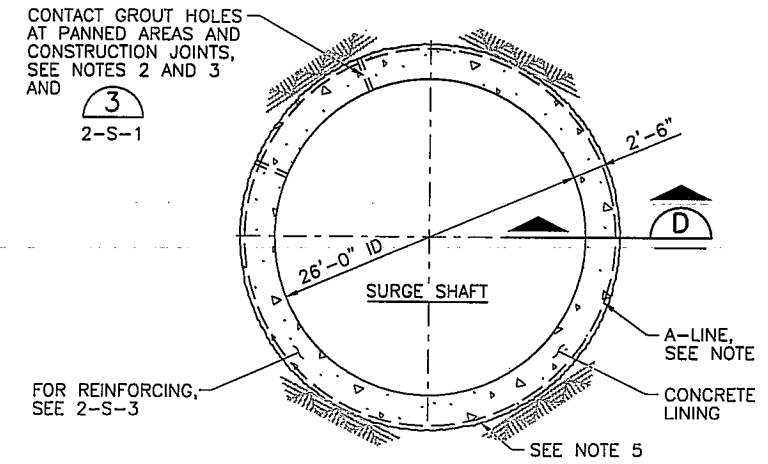
DATE: 4/30/2009

ADDENDUM NO. 2

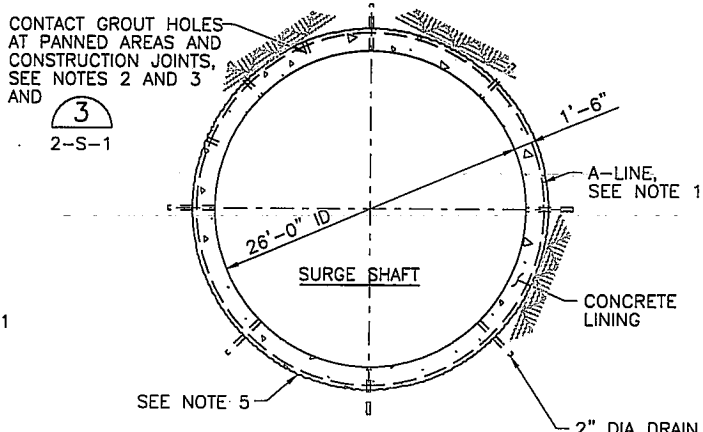
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FOREBAY TUNNEL AT SURGE SHAFT

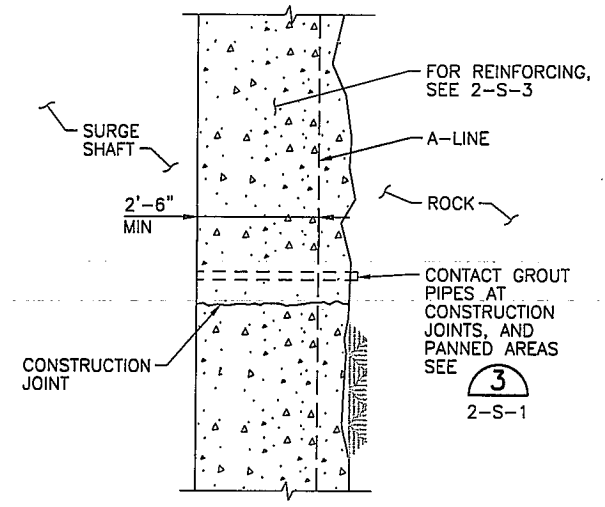
1/4" = 1'-0" (B) 2-C-19, 2-C-21



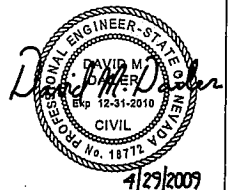
SURGE SHAFT SECTION (A) 1/8" = 1'-0" 2-C-19, 2-C-20



SURGE SHAFT SECTION (B) 1/8" = 1'-0" 2-C-19, 2-C-20



TYPICAL LINING SECTION (D) NTS



MW/HILL
 A Joint Venture
 3010 WEST CHARLESTON BLVD.
 LAS VEGAS, NEVADA 89102-1944

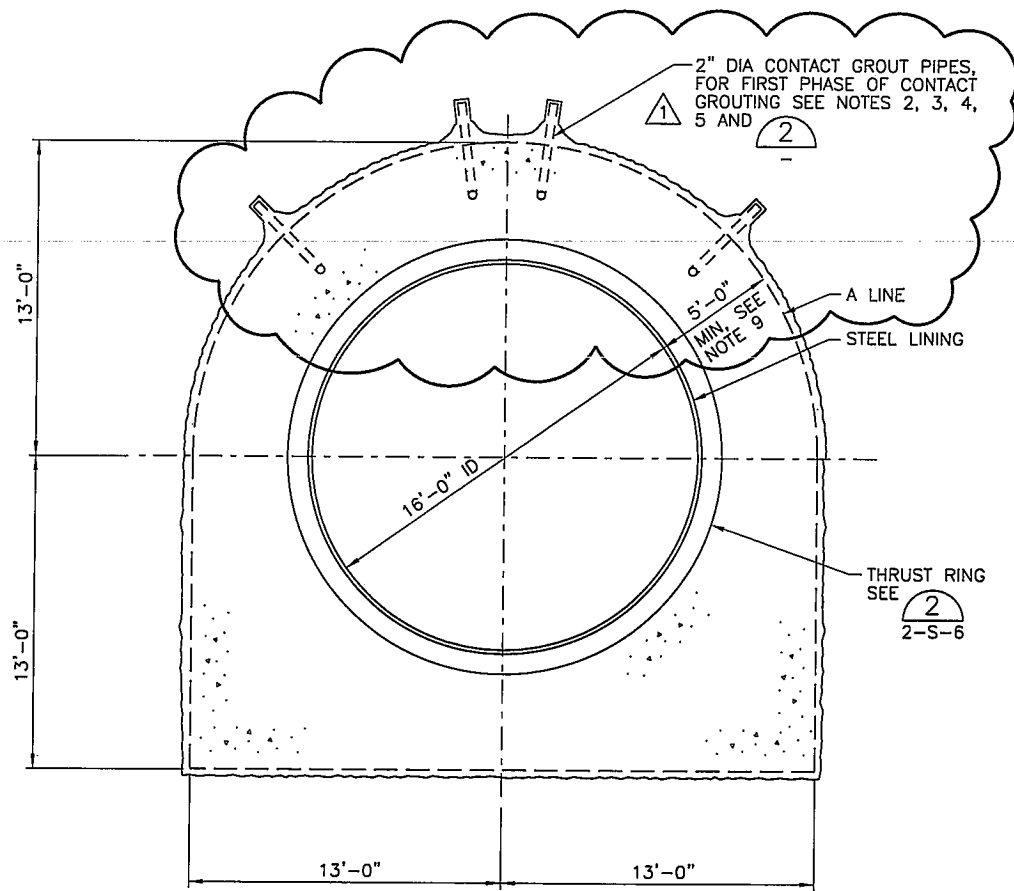
CHK: J. ESTERHUIZEN
 DSGN: R. BROWN
 DR: T. DAVIS

CONTRACT NO. 070F-02-C2
 DRAWING NO. 2-C-20
 SHEET 24 OF 59

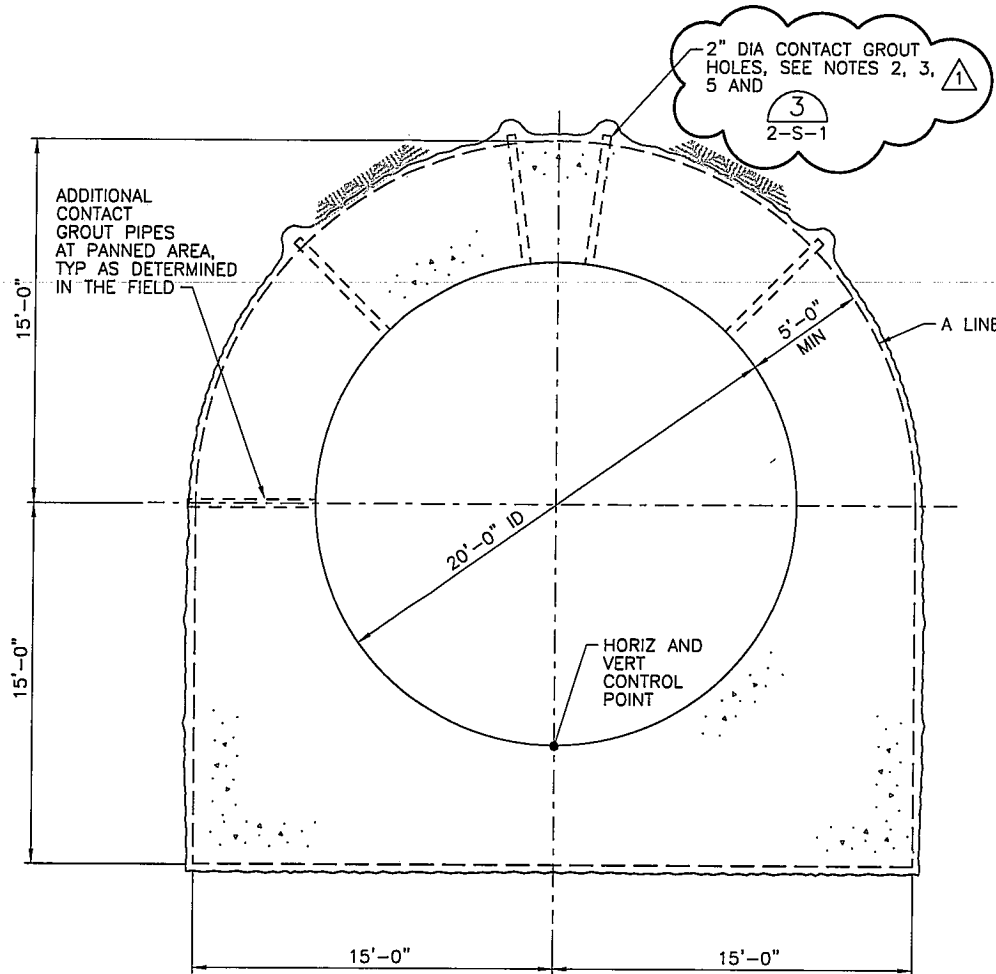
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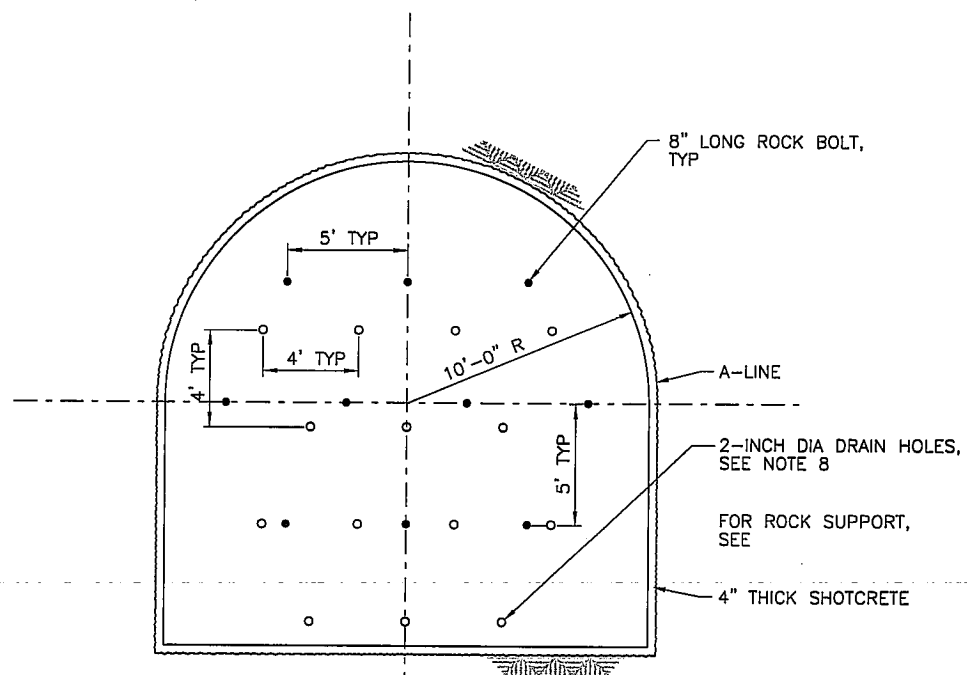
CI-070F02C2-C-27-2C23.dgn



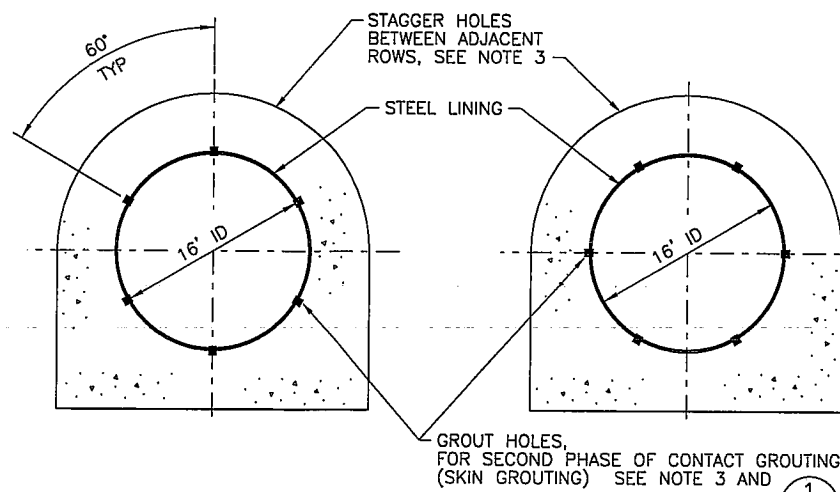
SECTION A
1/4" = 1'-0"
2-C-21



SECTION B
1/4" = 1'-0"
2-C-21

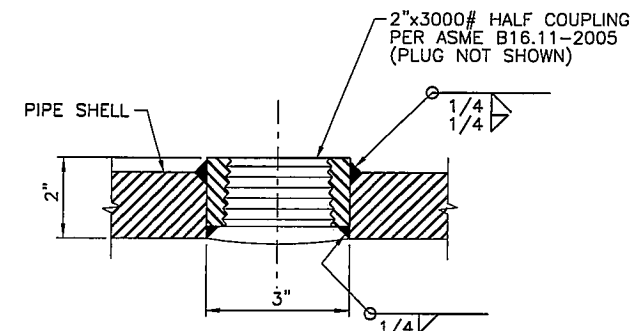


FOREBAY TUNNEL END WALL
AT STA F 1+50.00
1/4" = 1'-0"
2-C-20
2-C-21

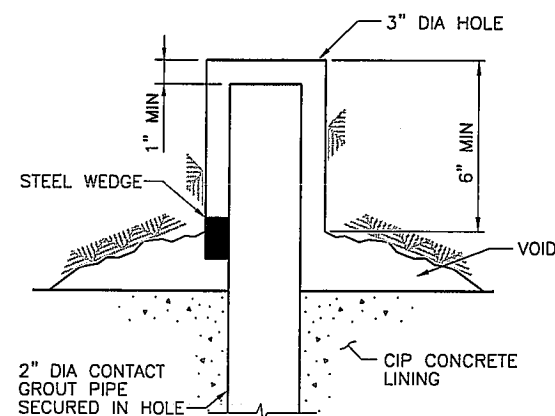


SKIN GROUT HOLE LOCATIONS
NTS

- NOTES:
- FOR STRUCTURAL REINFORCING AND CONSTRUCTION JOINTS, SEE DRAWINGS 2-S-1 THROUGHOUT 2-S-4.
 - INSTALL CONTACT GROUT PIPES AT MAXIMUM AT 5 FEET SPACING IN THE LONGITUDINAL DIRECTION. PERFORM CONTACT GROUTING AS SPECIFIED IN SECTION 03315, CONTACT GROUTING.
 - SPACE SKIN GROUT HOLES AT 60" AROUND PERIMETER OF STEEL LINING. INSTALL 4 ROWS IN LONGITUDINAL DIRECTION, SPACED TO PROVIDE COVERAGE BETWEEN AND OUTSIDE THE THRUST RINGS.
 - FINAL CONTACT GROUT HOLE SPACING, LOCATION AND ORIENTATION OF HOLES AND GROUT PIPING SHALL BE DETERMINED IN THE FIELD AND APPROVED BY THE CONSTRUCTION MANAGER.
 - PANNING SHALL BE USED TO PROTECT FINAL CIP CONCRETE LINING FROM GROUND WATER DURING CONCRETE PLACEMENT.
 - AFTER GROUTING, PLACE STANDARD THREADED PIPE CAP AND PATCH THE HOLE IN ACCORDANCE WITH SECTION 03700, CONCRETE REPAIR AND REHABILITATION.
 - FOR DRAIN HOLES AND ROCK BOLTS ON THE TUNNEL PERIMETER, SEE 2-C-30.
 - DRILL DRAIN HOLES THROUGH SHOTCRETE AND 2 FEET INTO ROCK.
 - THE 5' DIMENSION INCLUDES 0.5" CEMENT MORTAR, 1.5" STEEL LINING AND 4'-10" CIP CONCRETE LINING.



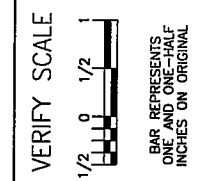
SKIN GROUT HOLE DETAIL
NTS



ROCK - CONCRETE INTERFACE DETAIL
NTS



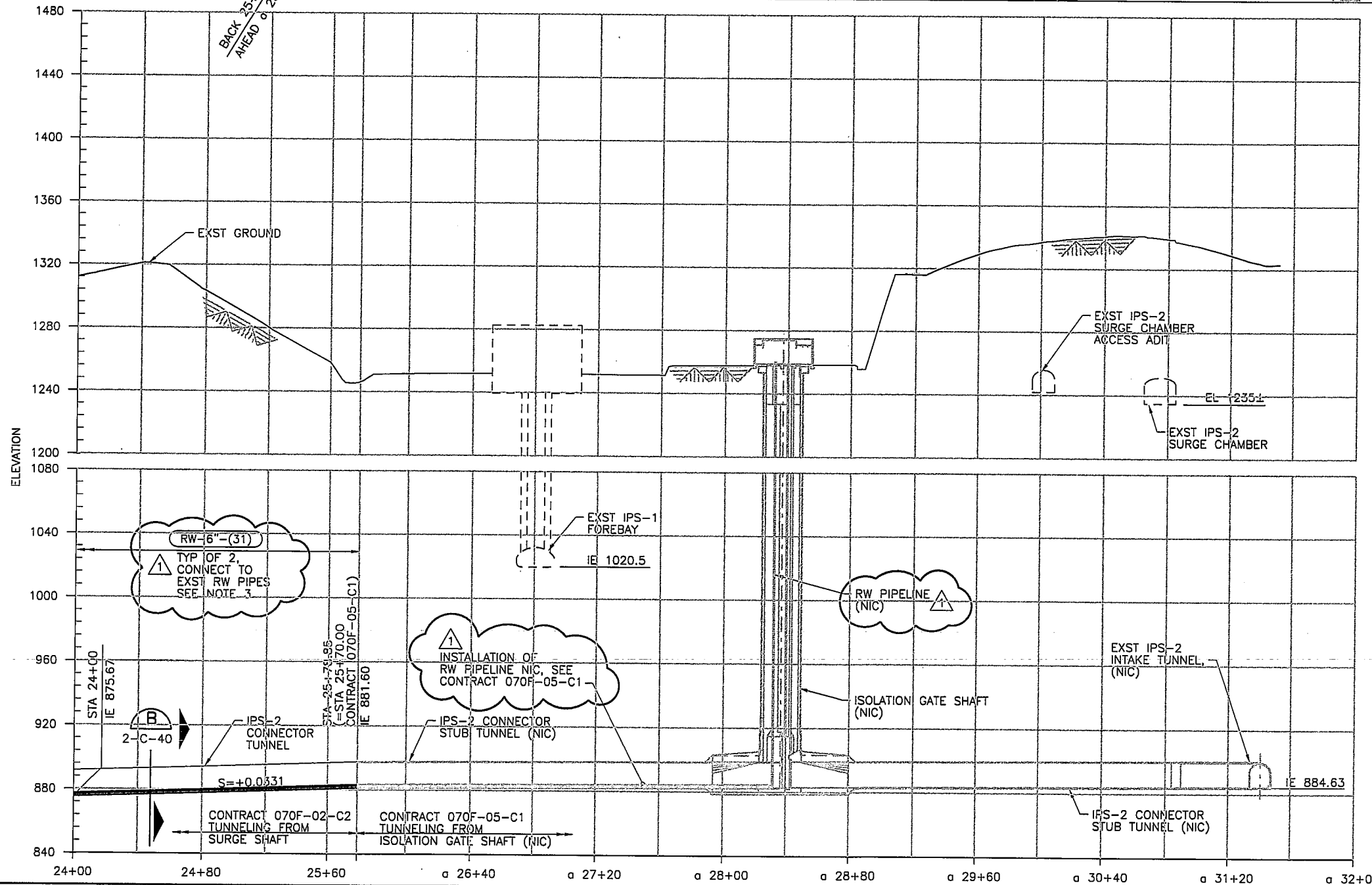
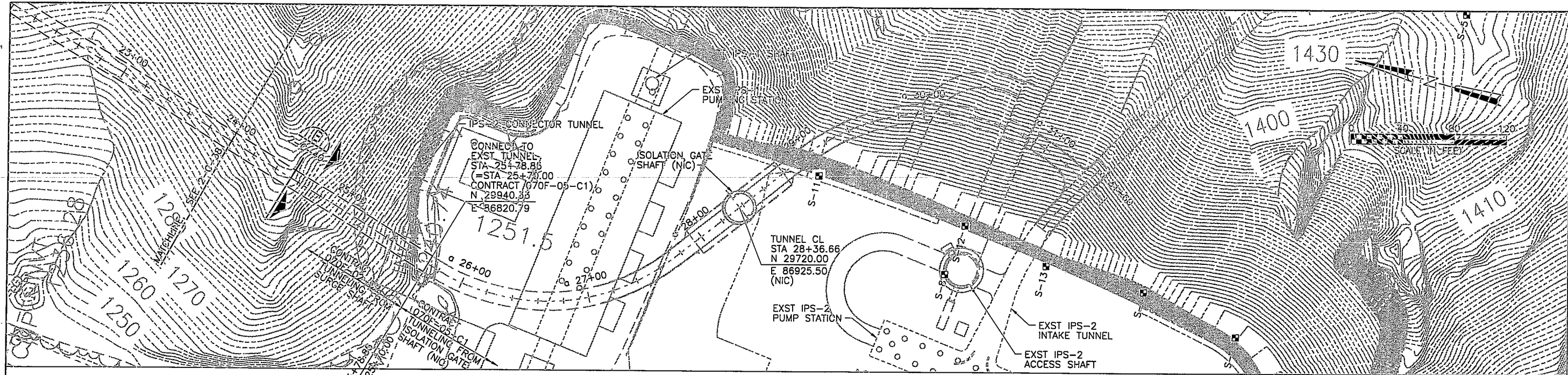
SOUTHERN NEVADA
WATER AUTHORITY
100 CITY PARKWAY, SUITE 700
LAS VEGAS, NEVADA 89106
(702) 862-3400
PROJECT LOCATION: CLARK CO. NV



INTAKE NO. 3 - CONNECTOR TUNNEL	SCALE	AS SHOWN
FOREBAY TUNNEL SECTIONS	DD	4/09
	JE	DATE: 4/30/2009
ADDENDUM NO. 2		
FILE: CI-070F02C2-C-27-2C23.dgn		

MW/HILL A Joint Venture 3010 WEST CHARLESTON BLVD. LAS VEGAS, NEVADA 89102-1944	CHK: D. DALER	APVD: T. DAVIS
DSGN: J. ESTERHUIZEN	DR: R. BROWN	

CONTRACT NO.
070F-02-C2
DRAWING NO.
2-C-23
SHEET 27 OF 59



LEGEND

- S-4 INDICATES BORINGS PERFORMED FOR IPS-2 CONSTRUCTION. FOR GEOTECHNICAL INFORMATION, SEE GEOTECHNICAL BASELINE REPORT.

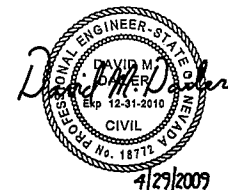
NOTES:

1. DRAIN THE STUB TUNNEL NORTH OF THE ISOLATION GATE SHAFT, PRIOR TO MAKING THE CONNECTION BETWEEN CONTRACTS 070F-02-C2 AND 070F-05-C1.
2. REPAIR ANY DAMAGE INCURRED TO THE 070F-05-C1 STUB TUNNEL LINING WHEN MAKING THE CONNECTION.
3. CONTRACTOR SHALL CONNECT 6-INCH RW PIPELINES TO EXISTING 6-INCH HDPE PIPELINES EXTENDING FROM THE ISOLATION GATE SHAFT. CONNECTION SHALL BE FLANGED, USING TYPE 316 SST HARDWARE. ALL FLANGES SHALL BE BUTT-FUSED TO THE PIPE.

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4/30/2009

CI-070F02C2-C-38-2C39.dgn



SOUTHERN NEVADA WATER AUTHORITY
 100 CITY PARKWAY, SUITE 700
 LAS VEGAS, NEVADA 89106
 PROJECT LOCATION: CLARK CO. NV

VERIFY SCALE
 1/2" = 10'
 1/2" = 10'
 BAR REPRESENTS ONE AND ONE-HALF INCHES ON ORIGINAL

INTAKE NO. 3 - CONNECTOR TUNNEL
IPS-2 CONNECTOR TUNNEL
PLAN AND PROFILE - 3

SCALE: 1"=40'

DATE: 4/30/2009

MW/HILL A Joint Venture
 3010 WEST CHARLESTON BLVD.
 LAS VEGAS, NEVADA 89102-1944

CHK: D. DALER
 APVD: T. DAVIS

DSGN: J. ESTERHUIZEN
 DR: R. BROWN

CONTRACT NO. 070F-02-C2
 DRAWING NO. 2-C-39
 SHEET 38 OF 59



SOUTHERN NEVADA
 WATER AUTHORITY
 100 CITY PARKWAY, SUITE 700
 LAS VEGAS, NEVADA 89106
 (702) 862-3400
 PROJECT LOCATION: CLARK CO. NV

VERIFY SCALE
 1/2" = 0' 1/2"
 BAR REPRESENTS ONE AND ONE-HALF INCHES ON ORIGINAL

INTAKE NO. 3 - CONNECTOR TUNNEL
 SURGE SHAFT AND TUNNEL SECTIONS
 SCALE: AS SHOWN
 N.W. 4/09 D.H.
 DATE: 4/30/2009
 APPENDUM NO. 2
 FILE: CI-070F02C2-S-48-2503.dgn

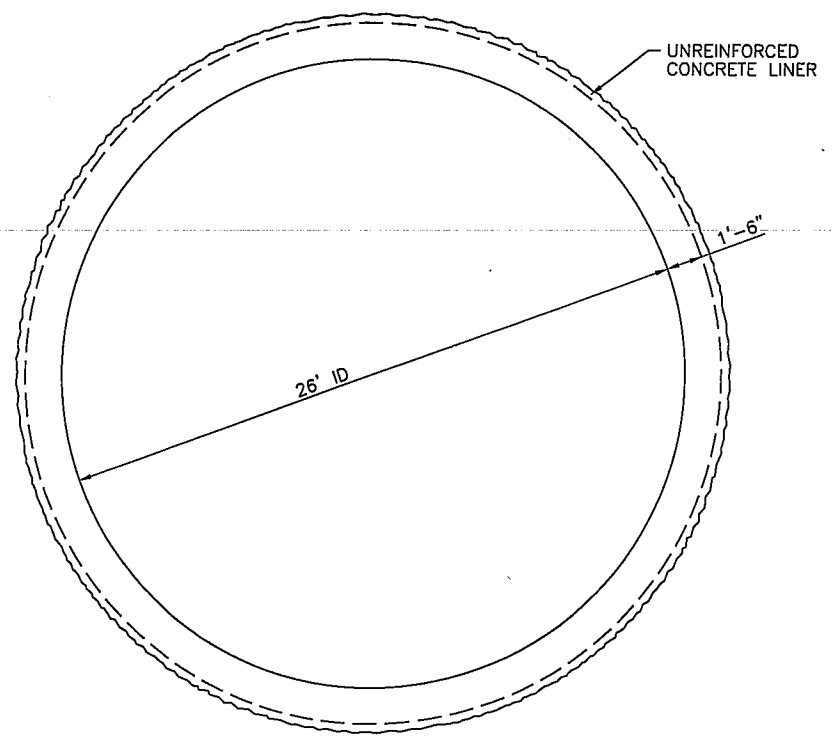
MW/HILL
 A Joint Venture
 3010 WEST CHARLESTON BLVD.
 LAS VEGAS, NEVADA 89102-1944
 DSGN: N. WALLACE R. FORREST A. FIRTH
 DR: R. BROWN
 CHK: R. FORREST
 APVD: A. FIRTH

CONTRACT NO.
 070F-02-C2
 DRAWING NO.
 2-S-3
 SHEET 48 OF 59

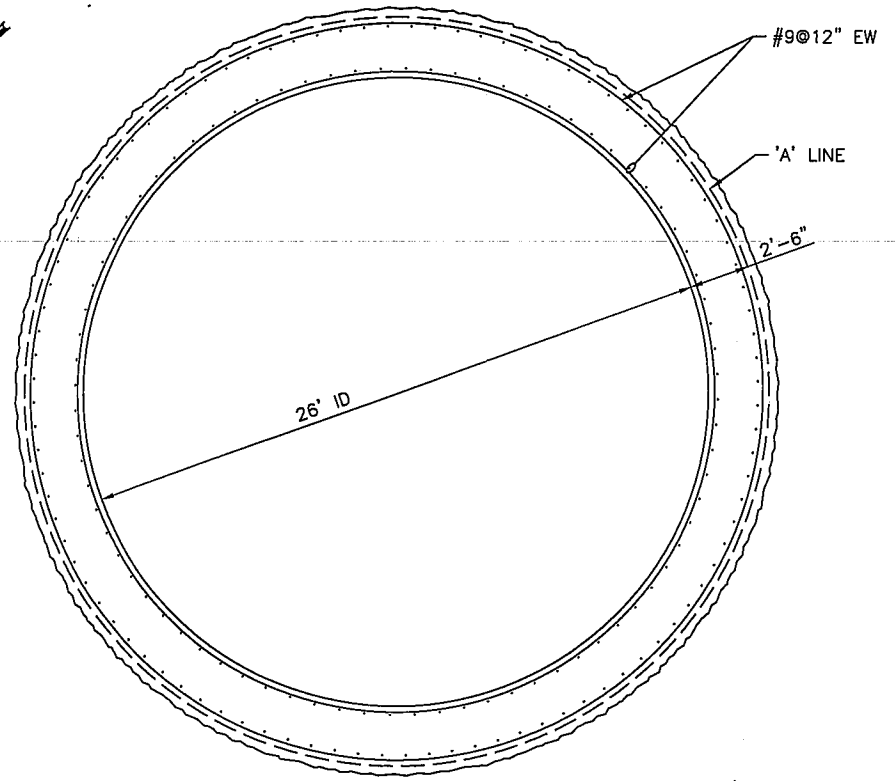
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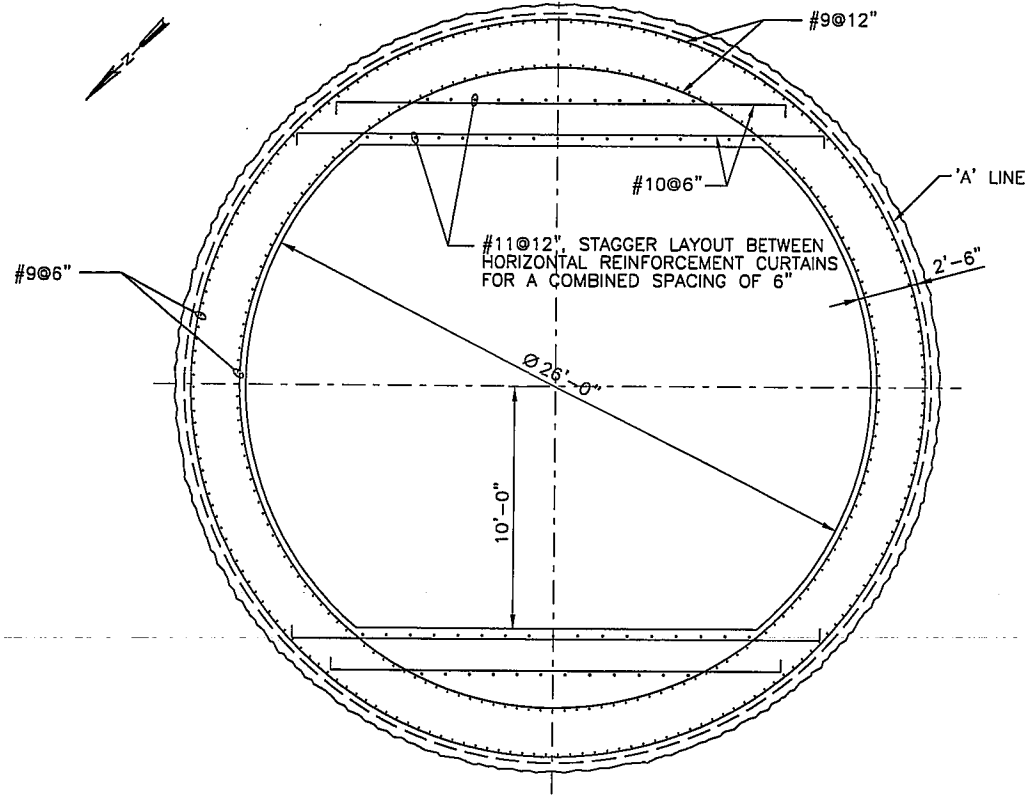
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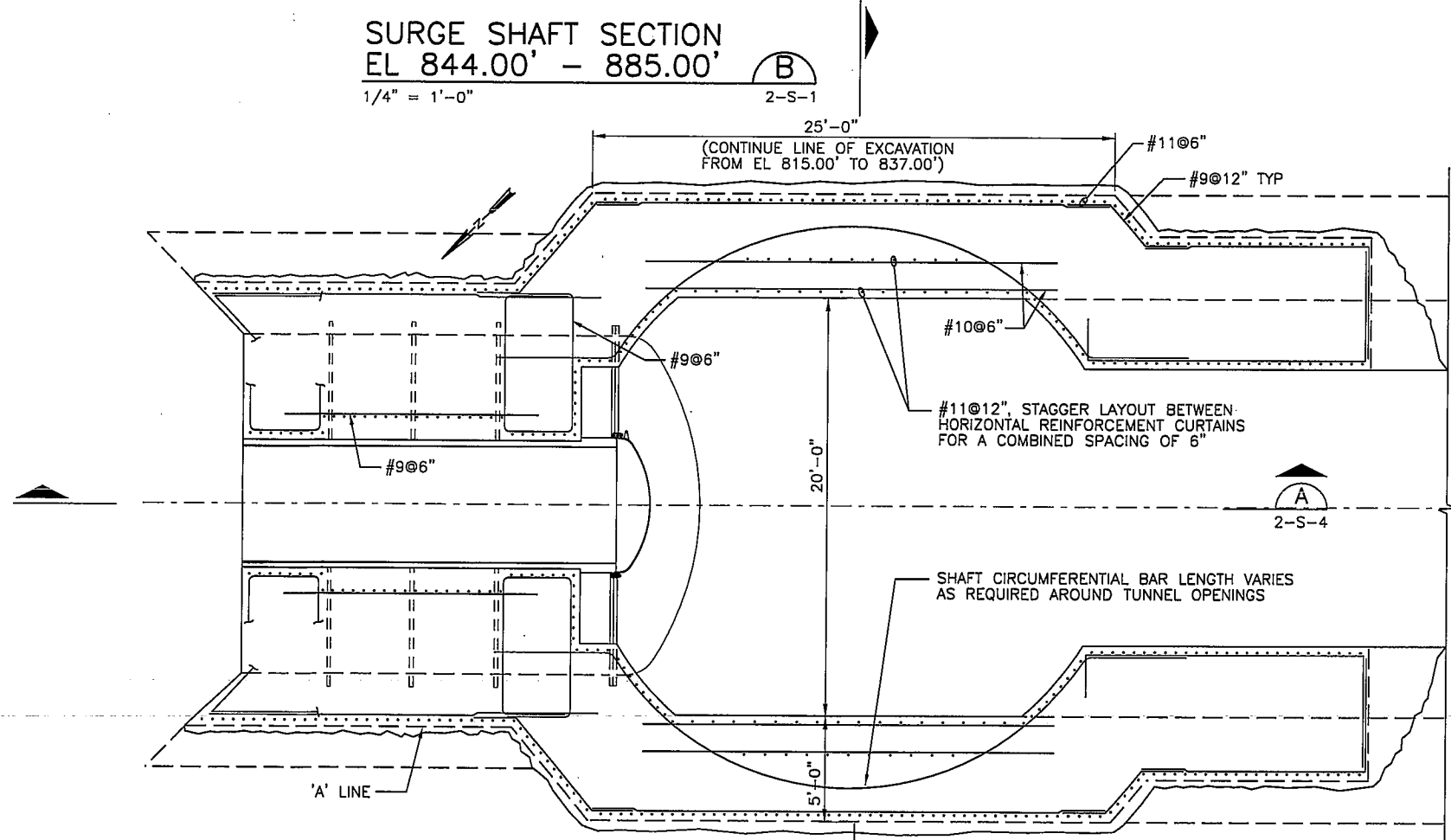
SURGE SHAFT SECTION
 EL 885.00' - 1214.00' **A**
 1/4" = 1'-0" 2-S-1



SURGE SHAFT SECTION
 EL 844.00' - 885.00' **B**
 1/4" = 1'-0" 2-S-1



SURGE SHAFT SECTION
 EL 835.00' **C**
 1/4" = 1'-0" 2-S-1



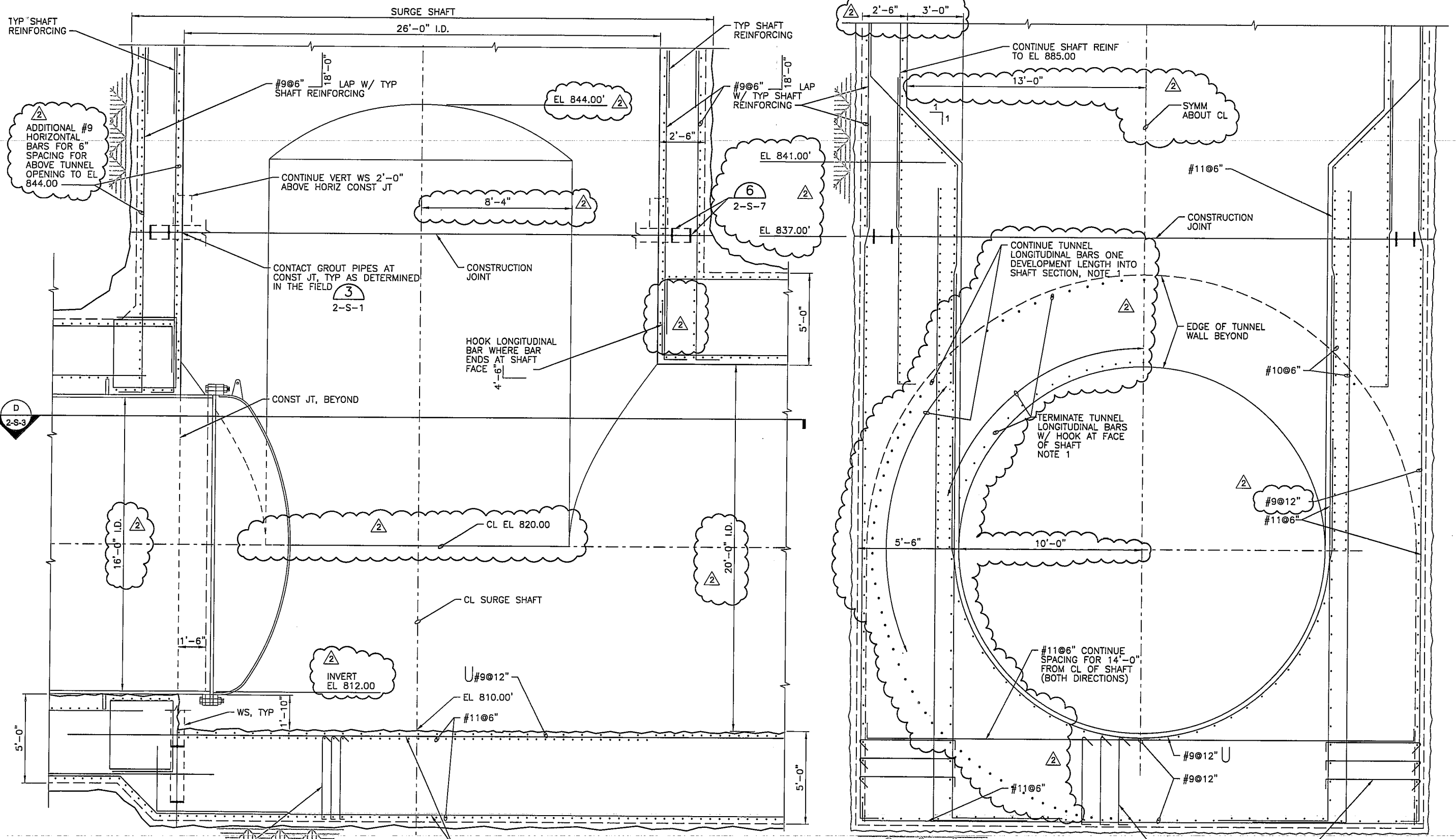
SURGE SHAFT SECTION
 EL 827.50' **D**
 1/4" = 1'-0" 2-S-4

REGISTERED PROFESSIONAL ENGINEER
 RICHARD A. HORNUNG
 CIVIL ENGINEER
 No. 12728
 APR 17 2009
 EXP. 6/30/09

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4/30/2009

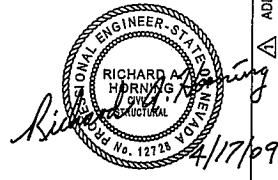
CI-070F02C2-S-49-25D4.dgn



- NOTES:**
1. BARS ARE SHOWN TO HELP CLARIFY LAYOUT ONLY. ACTUAL BARS TERMINATE BEYOND THIS SECTION.
 2. FOR WATERSTOP REQUIREMENTS, SEE 1

SECTION A
3/8" = 1'-0"
2-S-1
2-S-2

SECTION B
3/8" = 1'-0"
2-S-1
2-S-2



SOUTHERN NEVADA WATER AUTHORITY
100 CITY PARKWAY, SUITE 700
LAS VEGAS, NEVADA 89106
(702) 862-3400
PROJECT LOCATION: CLARK CO. NV

VERIFY SCALE
1/2" = 0' 1/2"
1" = 1'
BAR REPRESENTS ONE AND ONE-HALF INCHES ON ORIGINAL

SCALE AS SHOWN
N.W. 4/09
DATE: 4/30/2009

INTAKE NO. 3 - CONNECTOR TUNNEL
SURGE SHAFT AND TUNNEL SECTIONS
ADDENDUM NO. 2
FILE: CI-070F02C2-S-49-25D4.dgn

MW/HILL A Joint Venture
3010 WEST CHARLESTON BLVD.
LAS VEGAS, NEVADA 89102-1844
CHK: R. FORREST
APVD: A. FIRTH
DR: R. BROWN

CONTRACT NO. 070F-02-C2
DRAWING NO. 2-S-4
SHEET 49 OF 59
R.P. 6/30/09