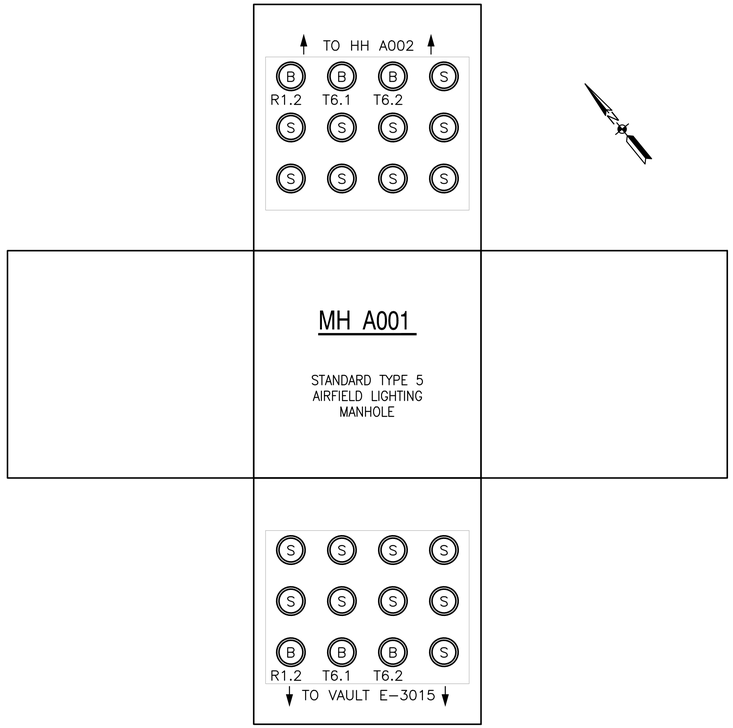

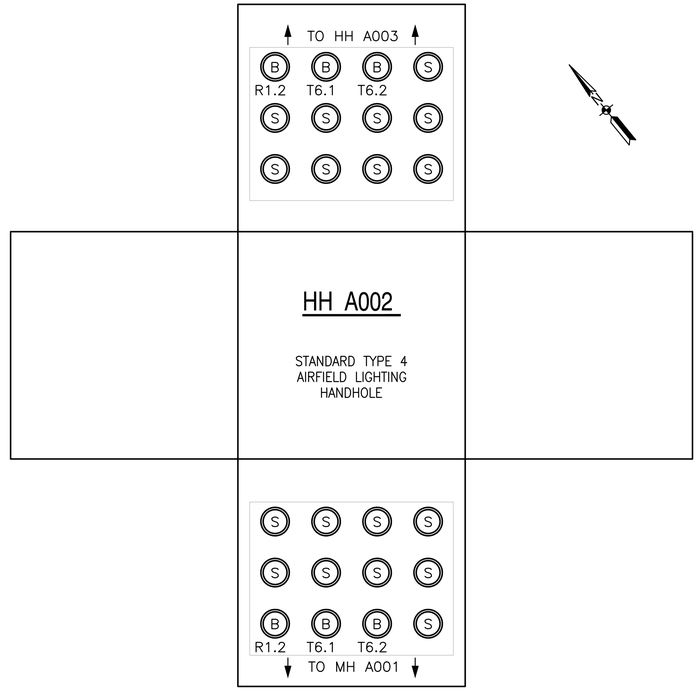

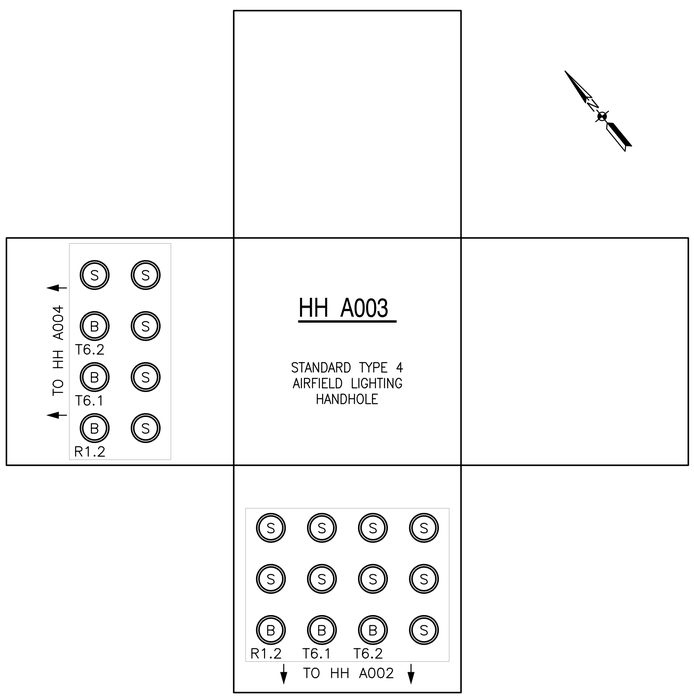

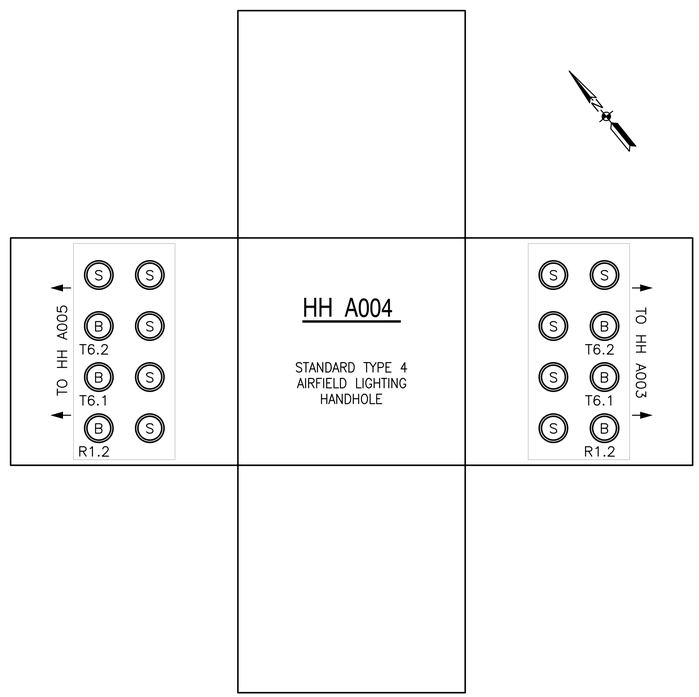

GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

A – 2" PVC SCHEDULE 40 CONDUIT WITH 1 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

B – 2" PVC SCHEDULE 40 CONDUIT WITH 2 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

S – SPARE 2" PVC SCHEDULE 40 CONDUIT.

SHEET KEYNOTES

1. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD LIGHT FIXTURE AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.
2. PROVIDE CONDUIT FROM HANDHOLE TO RUNWAY GUARD LIGHT AS SHOWN ON CONSTRUCTION PLANS. CABLE NOT INSTALLED IN THIS CONTRACT. SEE CONSTRUCTION SITE PLANS FOR ADDITIONAL INFORMATION.
3. PROVIDE CONDUIT FROM MANHOLE TO EXISTING APPROACH HANDHOLE AS SHOWN ON CONSTRUCTION PLANS. SPLICE NEW CABLES TO EXISTING CABLES FOR RUNWAY 32L APPROACH AND CENTERLINE LIGHTING. CIRCUIT DESIGNATION AS INDICATED.
4. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD SIGN AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.

SYM.	DESCRIPTION	DATE	APPR.

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
Lic. No. 45530
PROFESSIONAL ENGINEER

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WEB: WWW.JMT.COM

A/E INFO

APPROVED

CDR COMMANDER NAVFAC

FACILITY

SATISFACTORY TO: DATE

DES: SL DRN: SL CHK: DJP

PM/DM

BRANCH MANAGER

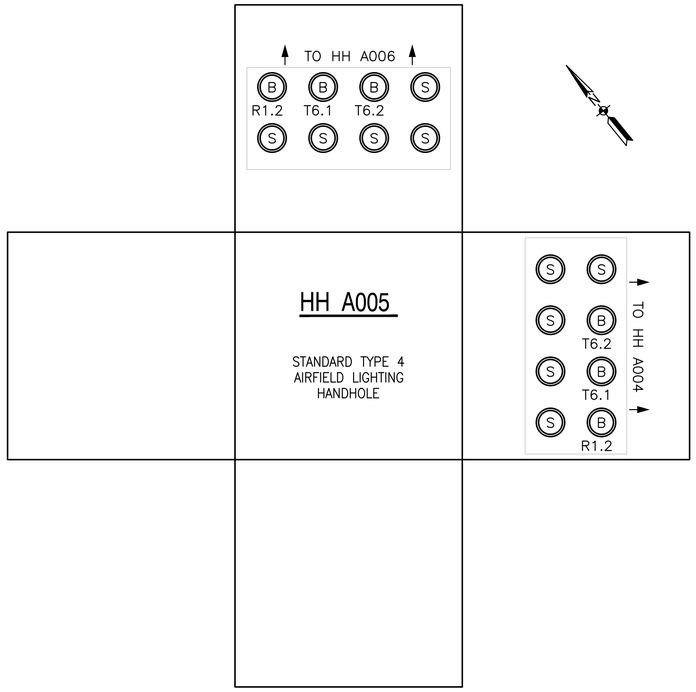
CHIEF ENG/ARCH

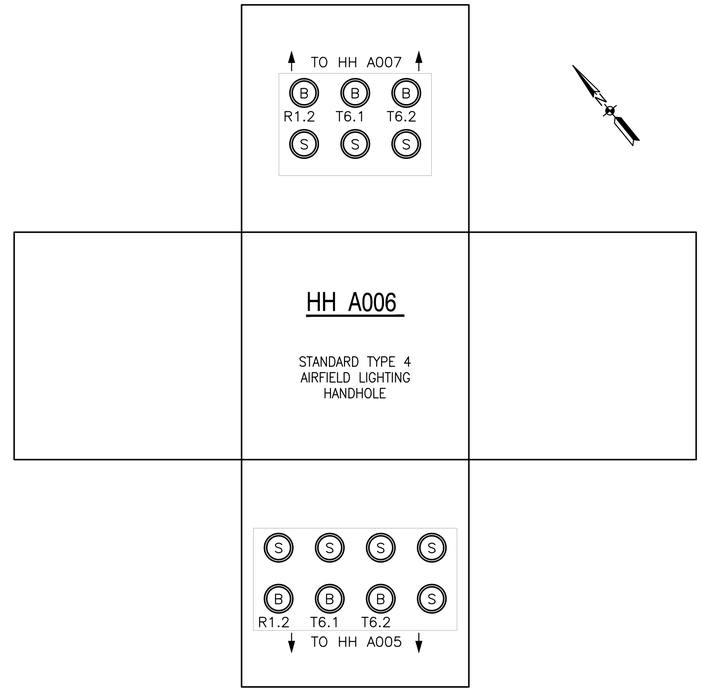
DEPARTMENT OF THE NAVY
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRIGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – AIRFIELD LTG.

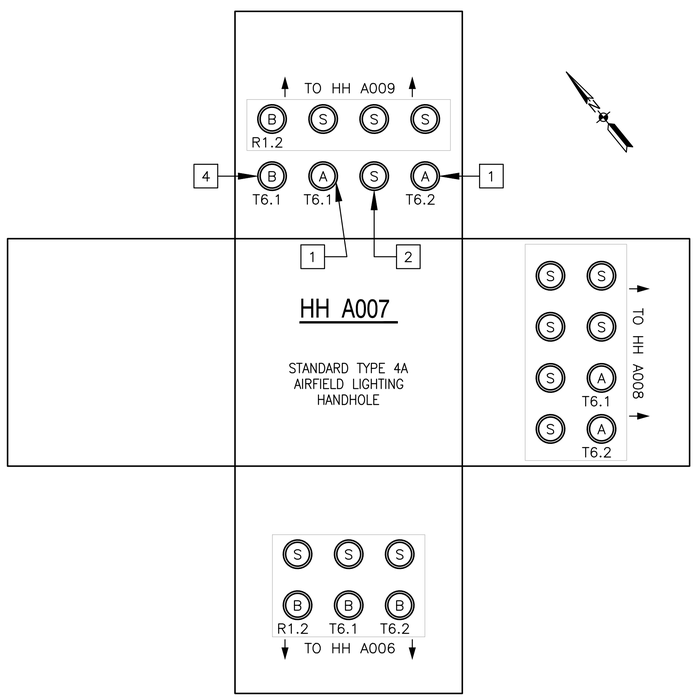
SCALE: NOT TO SCALE
PROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690251
SHEET 240 OF 315
EA701

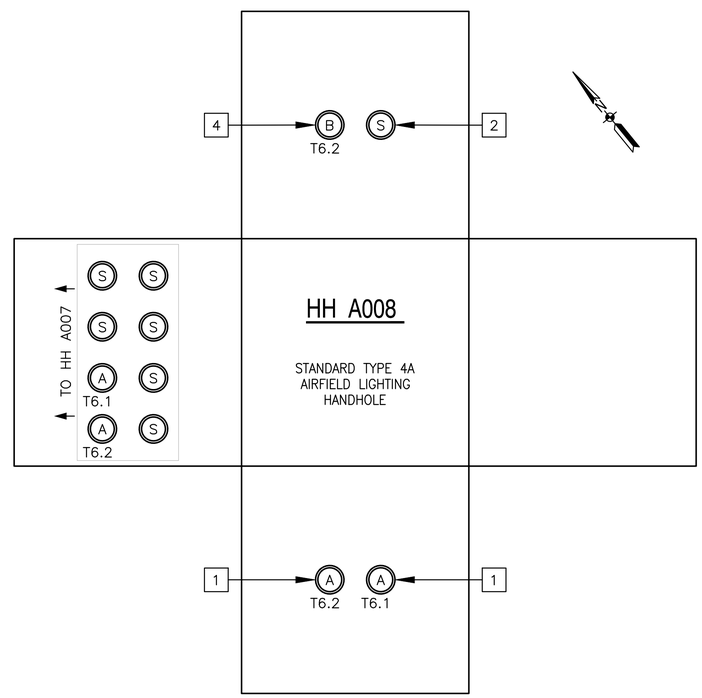
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\10863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA701.dwg LAYOUT NAME: EA701 PLOTTED: Monday, March 23, 2015 - 2:09pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

A – 2" PVC SCHEDULE 40 CONDUIT WITH 1 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

B – 2" PVC SCHEDULE 40 CONDUIT WITH 2 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

S – SPARE 2" PVC SCHEDULE 40 CONDUIT.

SHEET KEYNOTES

1. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD LIGHT FIXTURE AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.
2. PROVIDE CONDUIT FROM HANDHOLE TO RUNWAY GUARD LIGHT AS SHOWN ON CONSTRUCTION PLANS. CABLE NOT INSTALLED IN THIS CONTRACT. SEE CONSTRUCTION SITE PLANS FOR ADDITIONAL INFORMATION.
3. PROVIDE CONDUIT FROM MANHOLE TO EXISTING APPROACH HANDHOLE AS SHOWN ON CONSTRUCTION PLANS. SPLICE NEW CABLES TO EXISTING CABLES FOR RUNWAY 32L APPROACH AND CENTERLINE LIGHTING. CIRCUIT DESIGNATION AS INDICATED.
4. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD SIGN AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.

SYM.	DESCRIPTION	DATE	APPR.

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
Lic. No. 45530
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A/E INFO

APPROVED

CDR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO: DATE

DES: SL DRN: SL CHK: DJP

PM/DM

BRANCH MANAGER

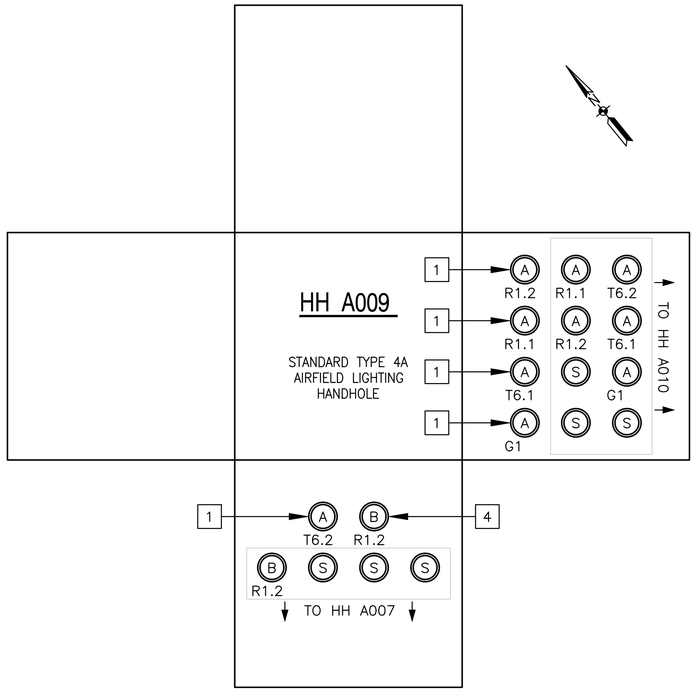
CHIEF ENG/ARCH

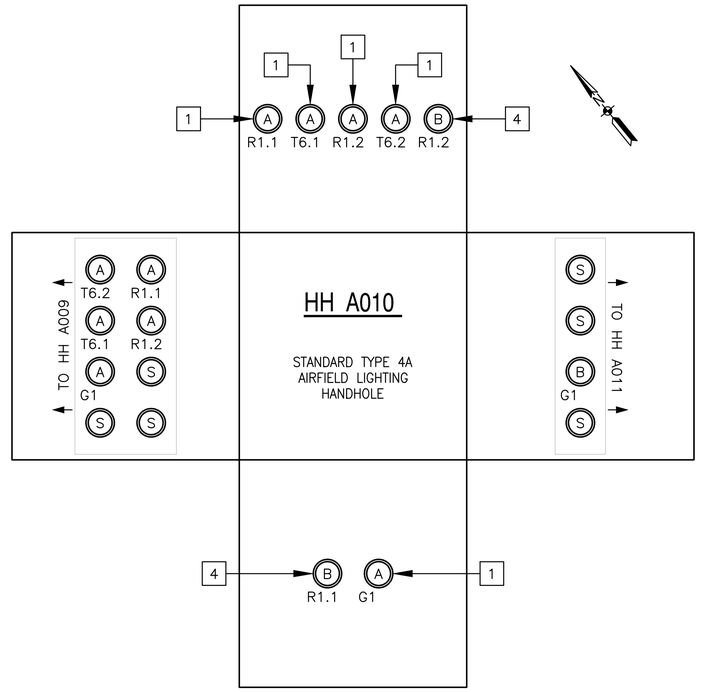
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRIGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – AIRFIELD LTG.

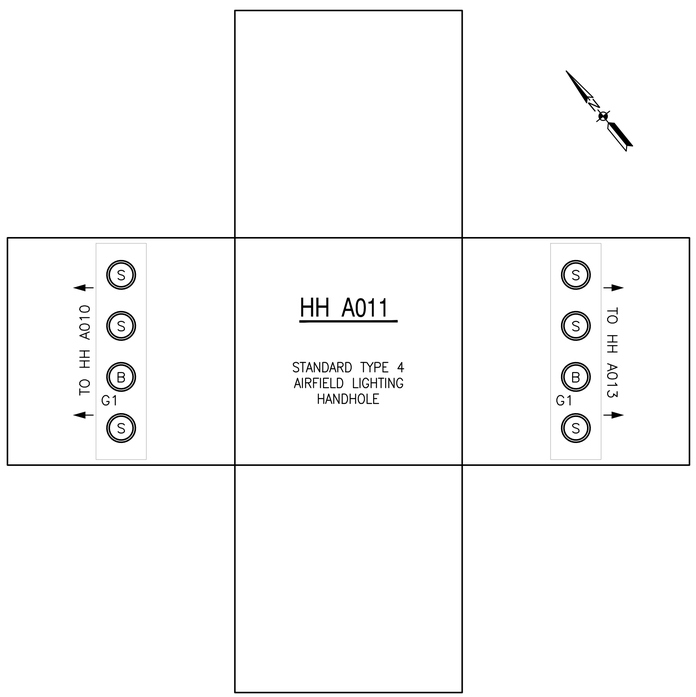
SCALE: NOT TO SCALE
PROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690252
SHEET 241 OF 315
EA702

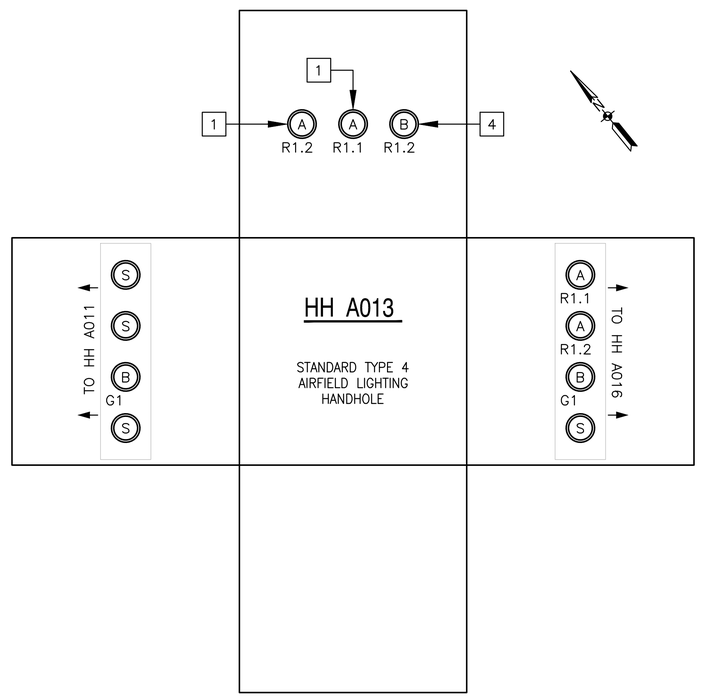
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\10863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA702.dwg LAYOUT NAME: EA702 PLOTTED: Monday, March 23, 2015 - 2:09pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

A – 2" PVC SCHEDULE 40 CONDUIT WITH 1 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

B – 2" PVC SCHEDULE 40 CONDUIT WITH 2 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

S – SPARE 2" PVC SCHEDULE 40 CONDUIT.

SHEET KEYNOTES

1. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD LIGHT FIXTURE AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.
2. PROVIDE CONDUIT FROM HANDHOLE TO RUNWAY GUARD LIGHT AS SHOWN ON CONSTRUCTION PLANS. CABLE NOT INSTALLED IN THIS CONTRACT. SEE CONSTRUCTION SITE PLANS FOR ADDITIONAL INFORMATION.
3. PROVIDE CONDUIT FROM MANHOLE TO EXISTING APPROACH HANDHOLE AS SHOWN ON CONSTRUCTION PLANS. SPLICE NEW CABLES TO EXISTING CABLES FOR RUNWAY 32L APPROACH AND CENTERLINE LIGHTING. CIRCUIT DESIGNATION AS INDICATED.
4. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD SIGN AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
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A/E INFO

APPROVED

CDR COMMANDER NAVFAC

ACTIVITY

CATEGEFACTION ID: DATE

DES: SL DRN: SL CHK: DJP

PM/DM

BRANCH MANAGER

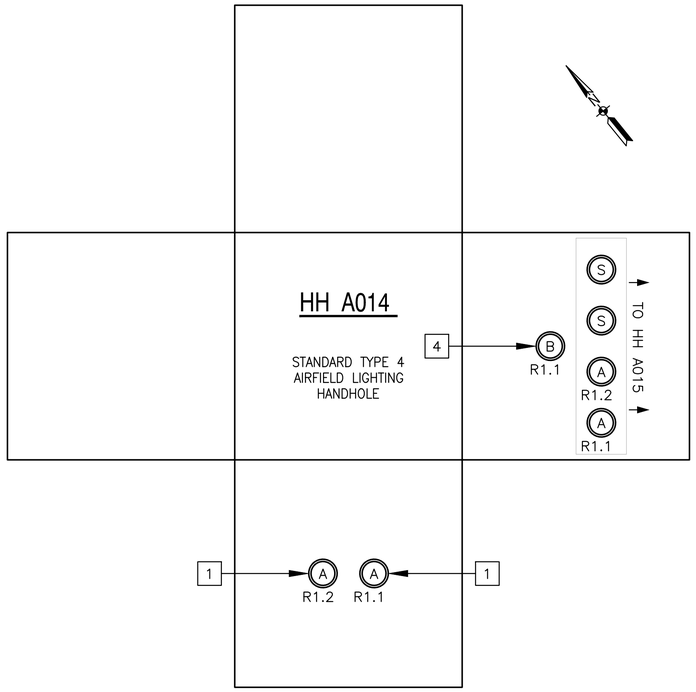
CHIEF ENG/ARCH

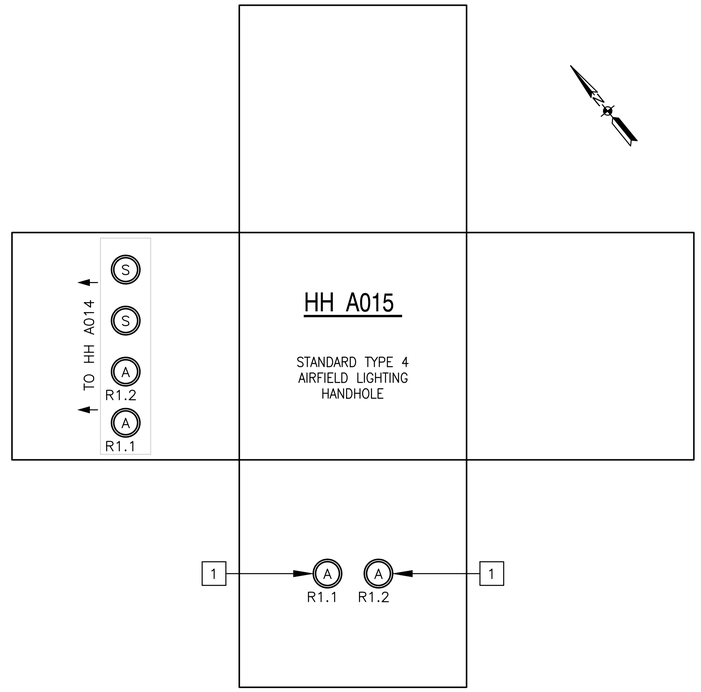
DEPARTMENT OF THE NAVY
HQ IPT
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAVAL AIR STATION OCEANA
VIRIGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – AIRFIELD LTG.

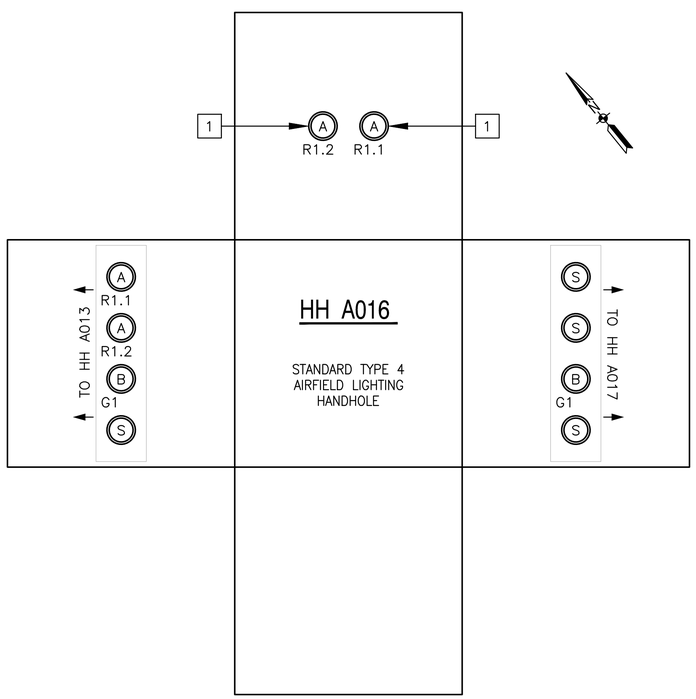
SCALE: NOT TO SCALE
PROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690253
SHEET 242 OF 315
EA703

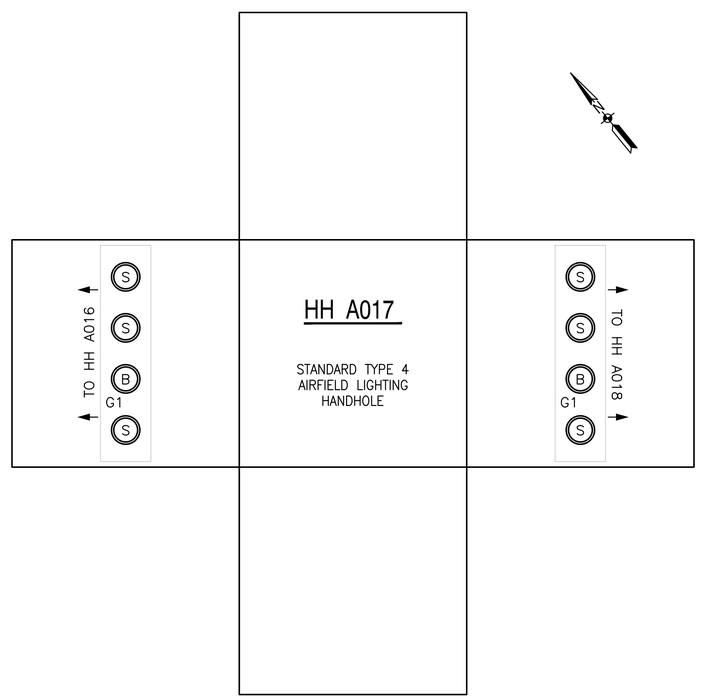
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA703.dwg LAYOUT NAME: EA703 PLOTTED: Monday, March 23, 2015 - 2:09pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

A – 2" PVC SCHEDULE 40 CONDUIT WITH 1 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

B – 2" PVC SCHEDULE 40 CONDUIT WITH 2 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

S – SPARE 2" PVC SCHEDULE 40 CONDUIT.

SHEET KEYNOTES

1. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD LIGHT FIXTURE AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.
2. PROVIDE CONDUIT FROM HANDHOLE TO RUNWAY GUARD LIGHT AS SHOWN ON CONSTRUCTION PLANS. CABLE NOT INSTALLED IN THIS CONTRACT. SEE CONSTRUCTION SITE PLANS FOR ADDITIONAL INFORMATION.
3. PROVIDE CONDUIT FROM MANHOLE TO EXISTING APPROACH HANDHOLE AS SHOWN ON CONSTRUCTION PLANS. SPLICE NEW CABLES TO EXISTING CABLES FOR RUNWAY 32L APPROACH AND CENTERLINE LIGHTING. CIRCUIT DESIGNATION AS INDICATED.
4. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD SIGN AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.

SYM.	DESCRIPTION	DATE	APPR.

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
Lic. No. 45530
PROFESSIONAL ENGINEER

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A/E INFO

APPROVED

CDR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO: DATE:

DES: SL DRN: SL CHK: DJP

PM/DM

BRANCH MANAGER

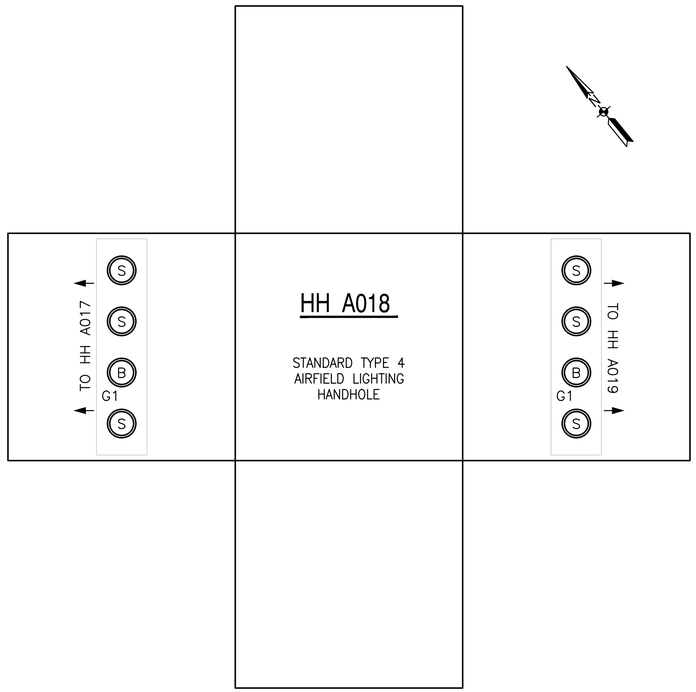
CHIEF ENG/ARCH

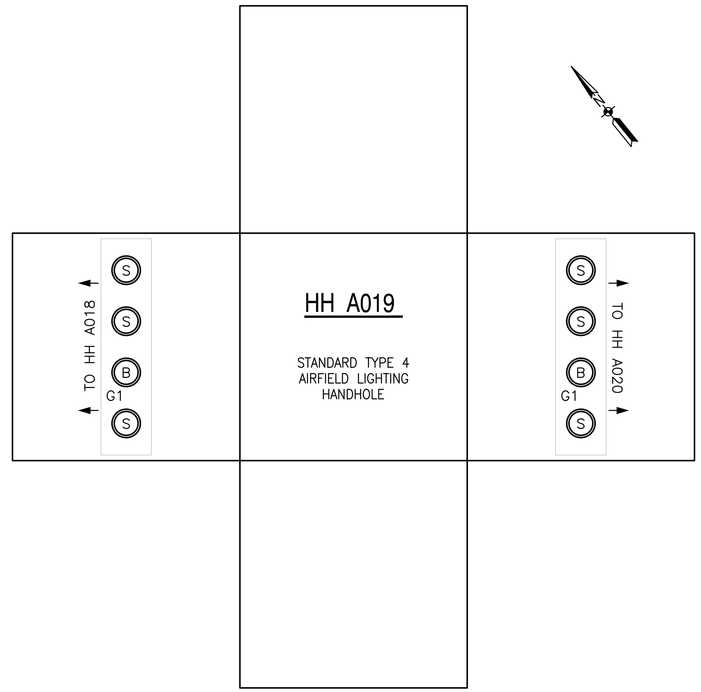
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – AIRFIELD LTG.

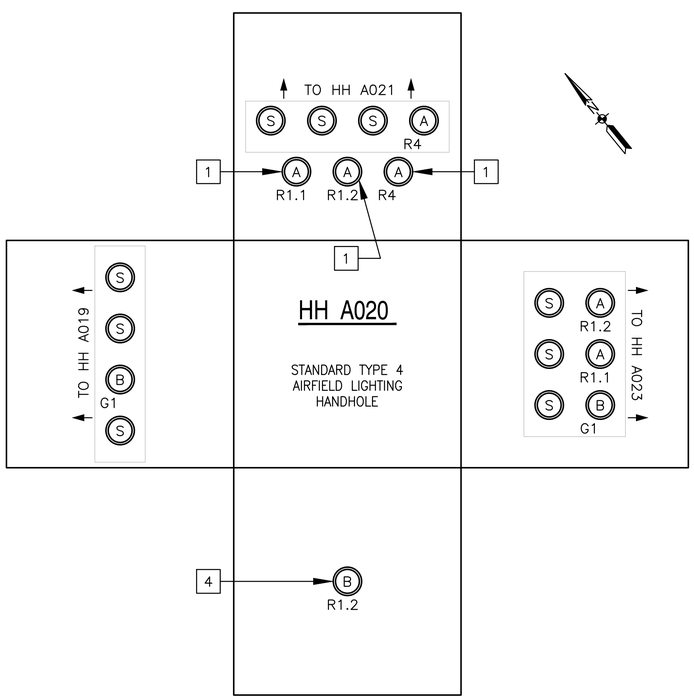
SCALE: NOT TO SCALE
PROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690254
SHEET 243 OF 315
EA704

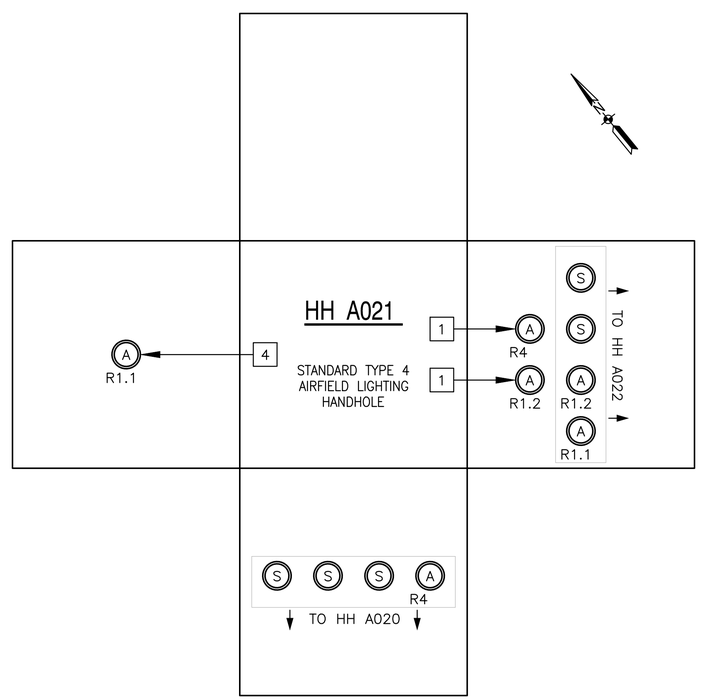
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\MID\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA704.dwg LAYOUT NAME: EA704 PLOTTED: Monday, March 23, 2015 - 2:09pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

A – 2" PVC SCHEDULE 40 CONDUIT WITH 1 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

B – 2" PVC SCHEDULE 40 CONDUIT WITH 2 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

S – SPARE 2" PVC SCHEDULE 40 CONDUIT.

SHEET KEYNOTES

1. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD LIGHT FIXTURE AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.
2. PROVIDE CONDUIT FROM HANDHOLE TO RUNWAY GUARD LIGHT AS SHOWN ON CONSTRUCTION PLANS. CABLE NOT INSTALLED IN THIS CONTRACT. SEE CONSTRUCTION SITE PLANS FOR ADDITIONAL INFORMATION.
3. PROVIDE CONDUIT FROM MANHOLE TO EXISTING APPROACH HANDHOLE AS SHOWN ON CONSTRUCTION PLANS. SPLICE NEW CABLES TO EXISTING CABLES FOR RUNWAY 32L APPROACH AND CENTERLINE LIGHTING. CIRCUIT DESIGNATION AS INDICATED.
4. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD SIGN AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
Lic. No. 45530
PROFESSIONAL ENGINEER

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A/E INFO

APPROVED

CDR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO: DATE

DES: SL DRN: SL CHK: DJP

PM/DM

BRANCH MANAGER

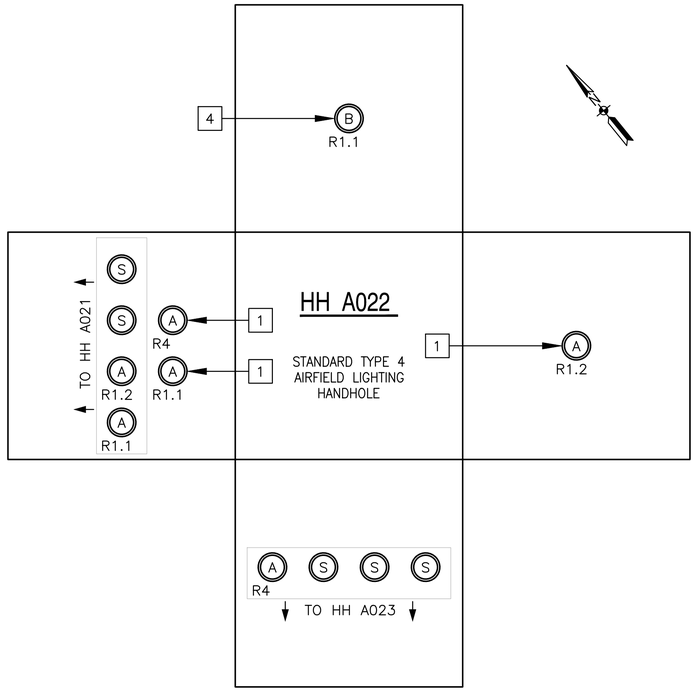
CHIEF ENG/ARCH

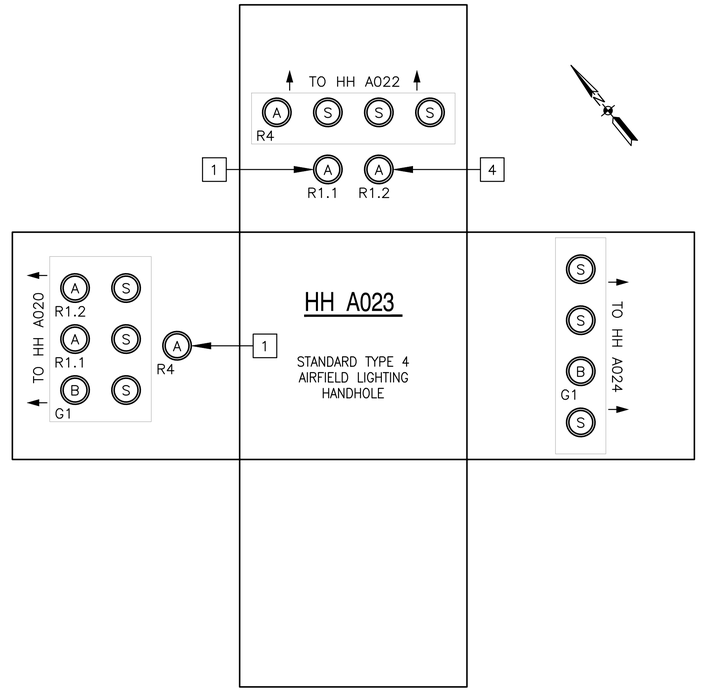
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – AIRFIELD LTG.

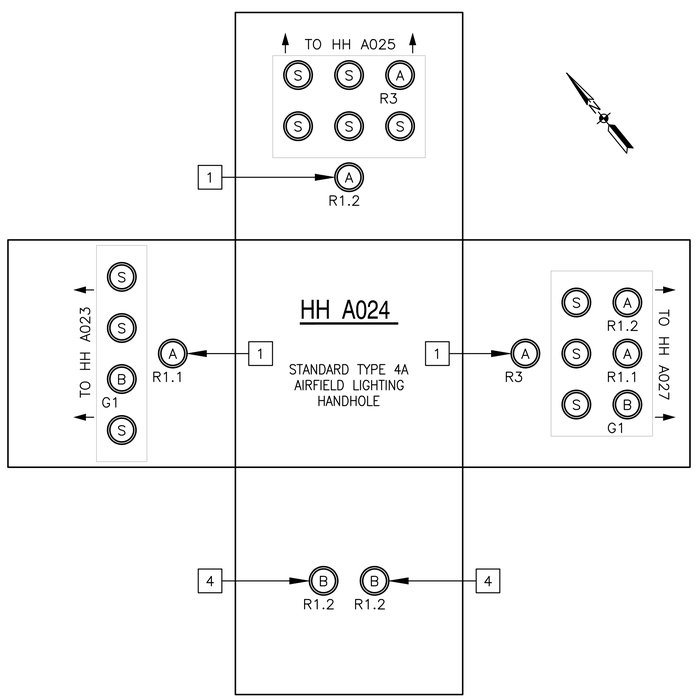
SCALE: NOT TO SCALE
PROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690255
SHEET 244 OF 315
EA705

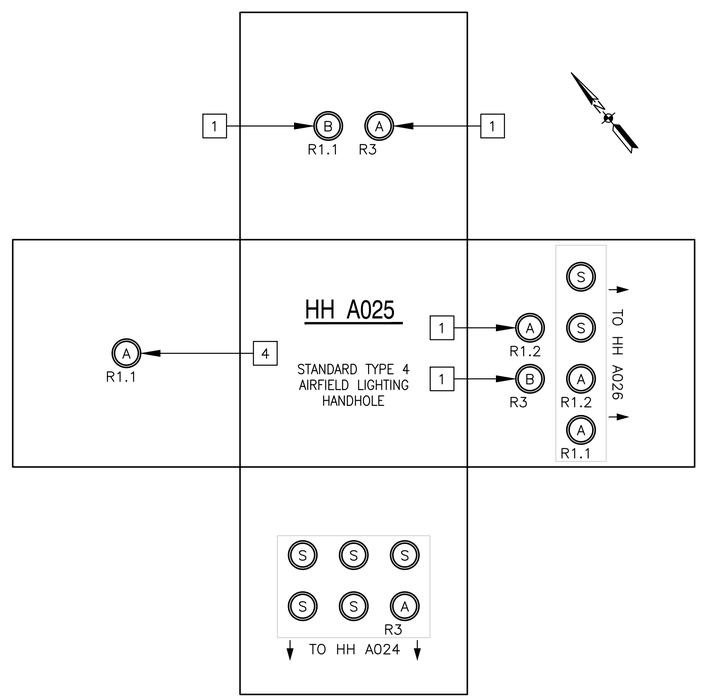
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\10863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA705.dwg LAYOUT NAME: EA705 PLOTTED: Monday, March 23, 2015 - 2:09pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

A – 2" PVC SCHEDULE 40 CONDUIT WITH 1 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

B – 2" PVC SCHEDULE 40 CONDUIT WITH 2 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

S – SPARE 2" PVC SCHEDULE 40 CONDUIT.

SHEET KEYNOTES

1. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD LIGHT FIXTURE AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.
2. PROVIDE CONDUIT FROM HANDHOLE TO RUNWAY GUARD LIGHT AS SHOWN ON CONSTRUCTION PLANS. CABLE NOT INSTALLED IN THIS CONTRACT. SEE CONSTRUCTION SITE PLANS FOR ADDITIONAL INFORMATION.
3. PROVIDE CONDUIT FROM MANHOLE TO EXISTING APPROACH HANDHOLE AS SHOWN ON CONSTRUCTION PLANS. SPLICE NEW CABLES TO EXISTING CABLES FOR RUNWAY 32L APPROACH AND CENTERLINE LIGHTING. CIRCUIT DESIGNATION AS INDICATED.
4. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD SIGN AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
Lic. No. 45530
PROFESSIONAL ENGINEER

JOHNSON, MIRMIRAN THOMPSON
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A/E INFO

APPROVED

CDR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES SL DRN SL CHK DJP

PM/DM

BRANCH MANAGER

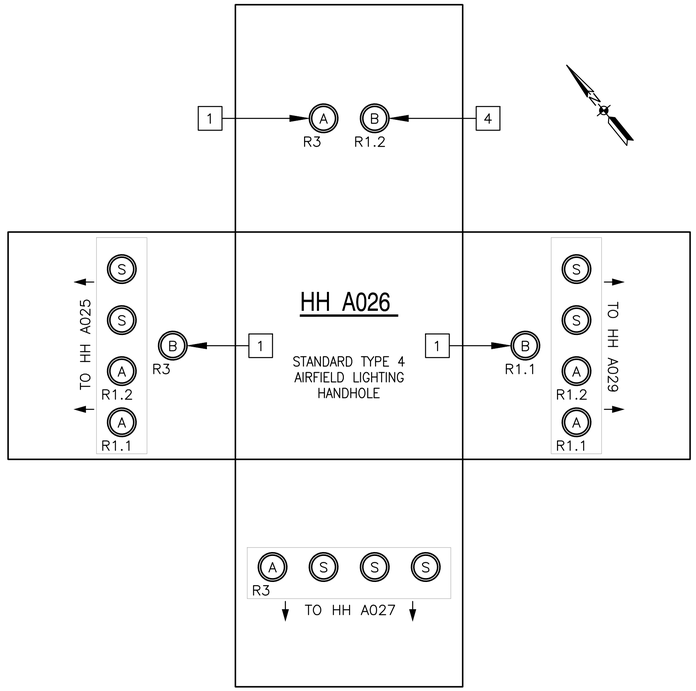
CHIEF ENG/ARCH

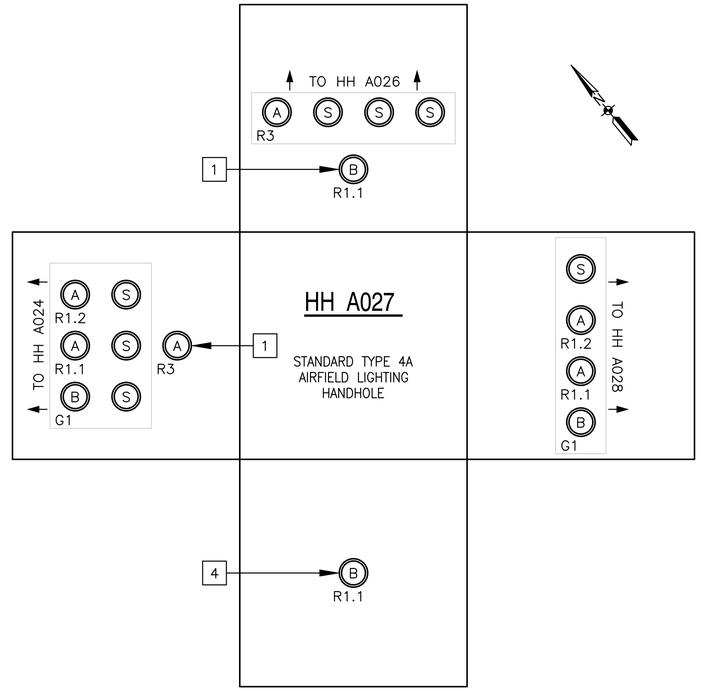
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRIGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – AIRFIELD LTG.

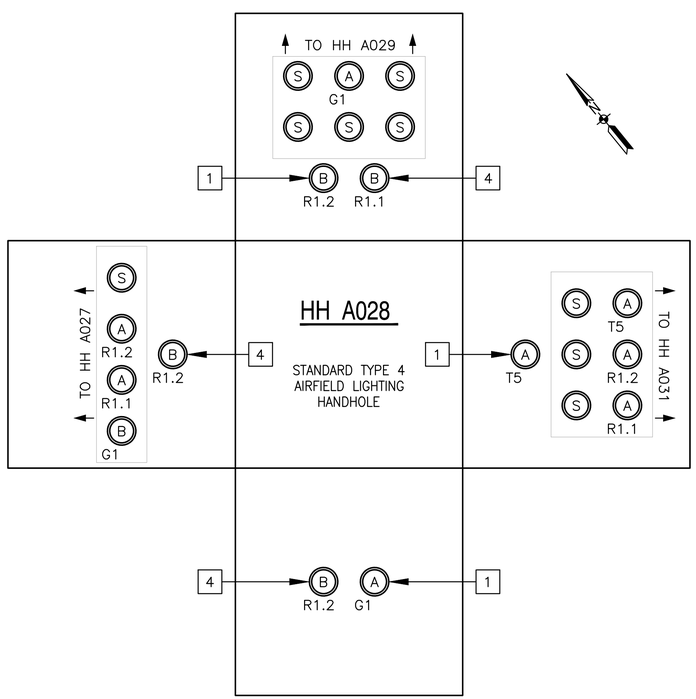
SCALE NOT TO SCALE
PROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690256
SHEET 245 OF 315
EA706

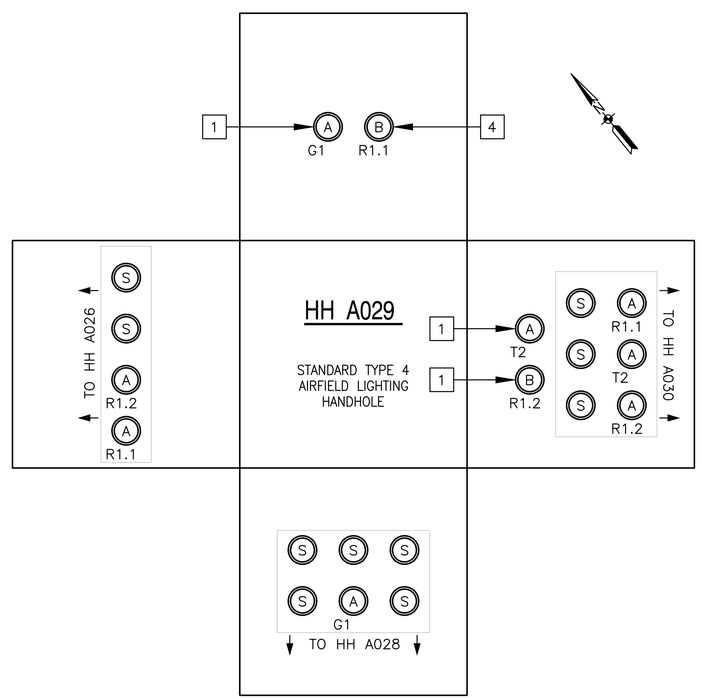
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\10861_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA706.dwg LAYOUT NAME: EA706 PLOTTED: Monday, March 23, 2015 - 2:09pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

A – 2" PVC SCHEDULE 40 CONDUIT WITH 1 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

B – 2" PVC SCHEDULE 40 CONDUIT WITH 2 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

S – SPARE 2" PVC SCHEDULE 40 CONDUIT.

SHEET KEYNOTES

1. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD LIGHT FIXTURE AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.
2. PROVIDE CONDUIT FROM HANDHOLE TO RUNWAY GUARD LIGHT AS SHOWN ON CONSTRUCTION PLANS. CABLE NOT INSTALLED IN THIS CONTRACT. SEE CONSTRUCTION SITE PLANS FOR ADDITIONAL INFORMATION.
3. PROVIDE CONDUIT FROM MANHOLE TO EXISTING APPROACH HANDHOLE AS SHOWN ON CONSTRUCTION PLANS. SPLICE NEW CABLES TO EXISTING CABLES FOR RUNWAY 32L APPROACH AND CENTERLINE LIGHTING. CIRCUIT DESIGNATION AS INDICATED.
4. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD SIGN AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.

SYM.	DESCRIPTION	DATE	APPR.

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
Lic. No. 45530
PROFESSIONAL ENGINEER

JOHNSON, MIRMIRAN THOMPSON
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Telephone: (757)499-1895
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A/E INFO

APPROVED

CDR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES SL DRN SL CHK DJP

PM/DM

BRANCH MANAGER

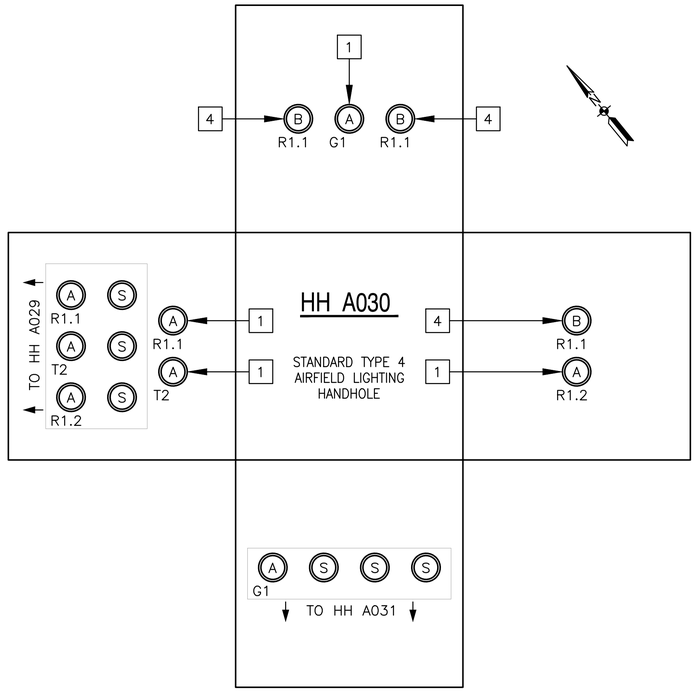
CHIEF ENG/ARCH

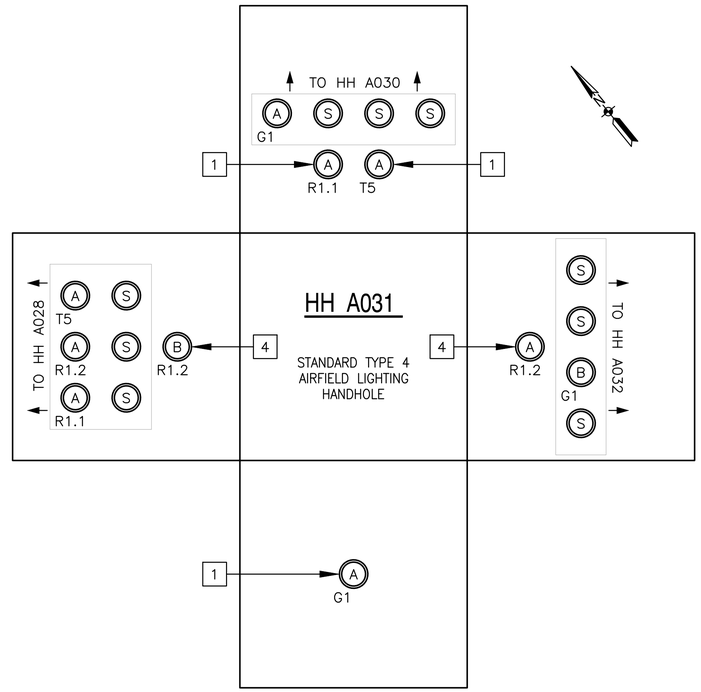
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRIGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – AIRFIELD LTG.

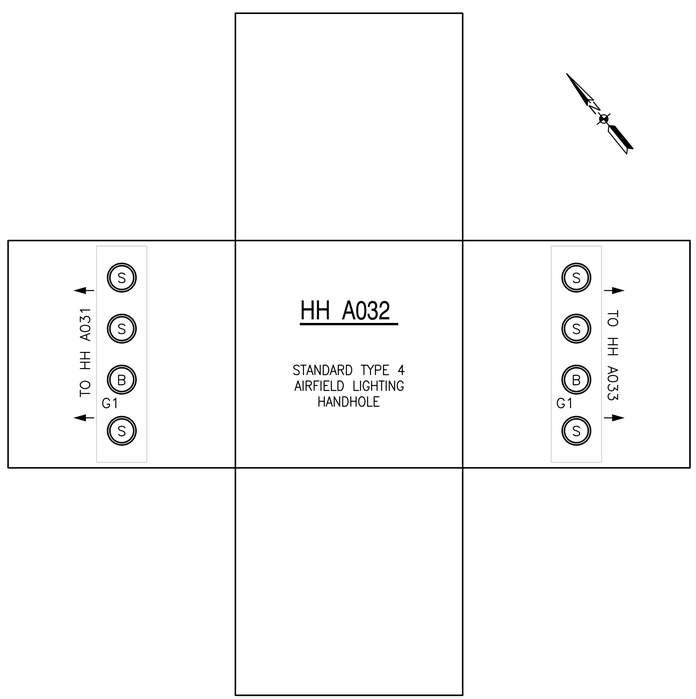
SCALE NOT TO SCALE
PROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690257
SHEET 246 OF 315
EA707

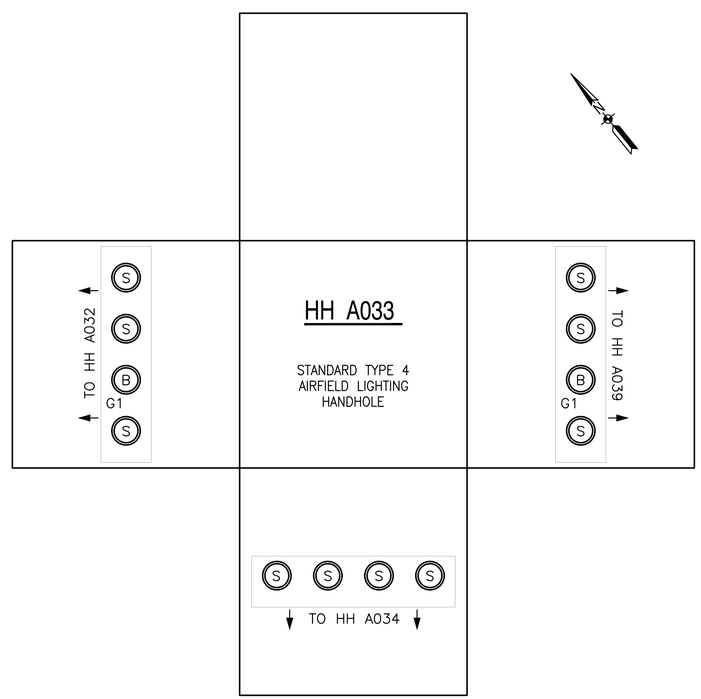
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\MID\10863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA707.dwg LAYOUT NAME: EA707 PLOTTED: Monday, March 23, 2015 - 2:10pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

A – 2" PVC SCHEDULE 40 CONDUIT WITH 1 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

B – 2" PVC SCHEDULE 40 CONDUIT WITH 2 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

S – SPARE 2" PVC SCHEDULE 40 CONDUIT.

SHEET KEYNOTES

1. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD LIGHT FIXTURE AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.
2. PROVIDE CONDUIT FROM HANDHOLE TO RUNWAY GUARD LIGHT AS SHOWN ON CONSTRUCTION PLANS. CABLE NOT INSTALLED IN THIS CONTRACT. SEE CONSTRUCTION SITE PLANS FOR ADDITIONAL INFORMATION.
3. PROVIDE CONDUIT FROM MANHOLE TO EXISTING APPROACH HANDHOLE AS SHOWN ON CONSTRUCTION PLANS. SPLICE NEW CABLES TO EXISTING CABLES FOR RUNWAY 32L APPROACH AND CENTERLINE LIGHTING. CIRCUIT DESIGNATION AS INDICATED.
4. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD SIGN AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.

SYM.	DESCRIPTION	DATE	APPR.

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
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A/E INFO

APPROVED

CDR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO: DATE:

DES: SL DRN: SL CHK: DJP

PM/DM

BRANCH MANAGER

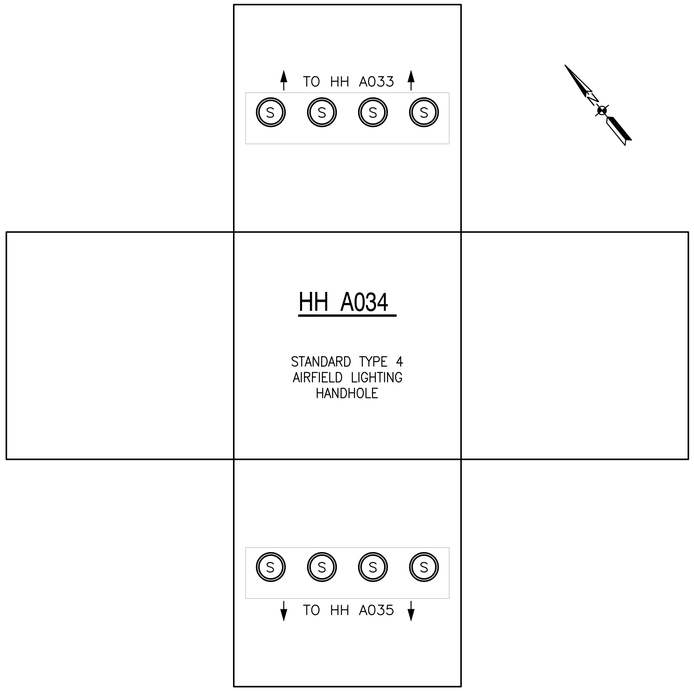
CHIEF ENG/ARCH

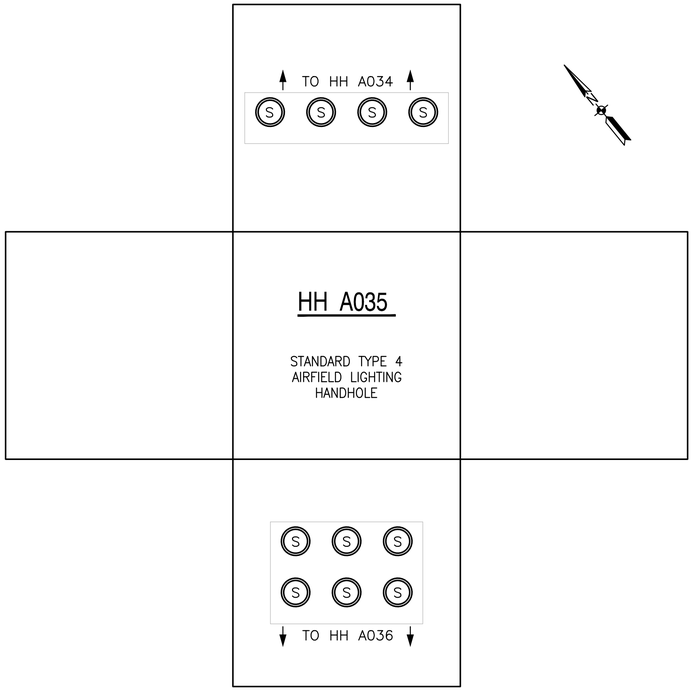
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – AIRFIELD LTG.

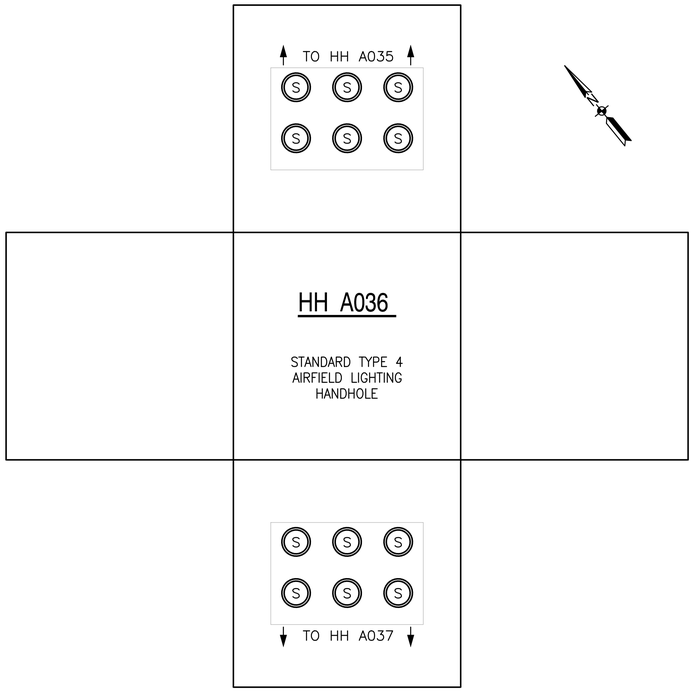
SCALE: NOT TO SCALE
PROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690258
SHEET 247 OF 315
EA708

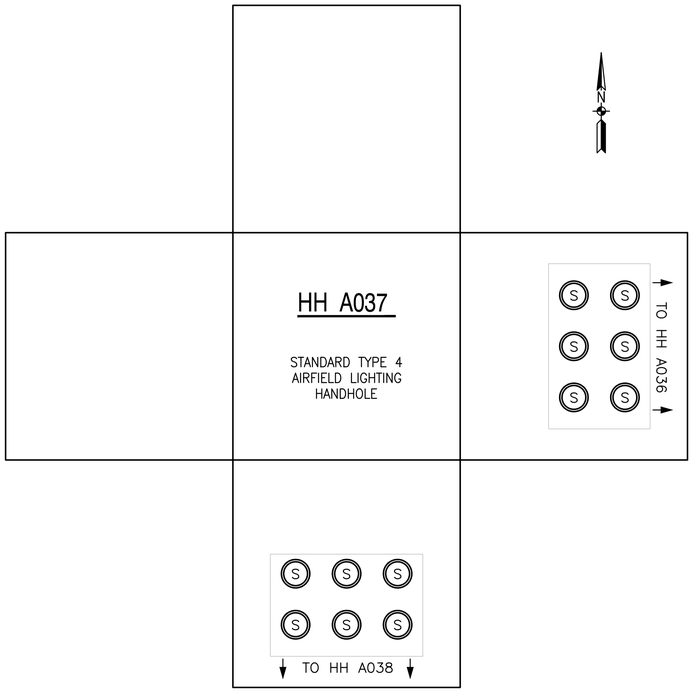
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\MID\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA708.dwg LAYOUT NAME: EA708 PLOTTED: Monday, March 23, 2015 - 2:10pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

A – 2" PVC SCHEDULE 40 CONDUIT WITH 1 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

B – 2" PVC SCHEDULE 40 CONDUIT WITH 2 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

S – SPARE 2" PVC SCHEDULE 40 CONDUIT.

SHEET KEYNOTES

1. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD LIGHT FIXTURE AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.
2. PROVIDE CONDUIT FROM HANDHOLE TO RUNWAY GUARD LIGHT AS SHOWN ON CONSTRUCTION PLANS. CABLE NOT INSTALLED IN THIS CONTRACT. SEE CONSTRUCTION SITE PLANS FOR ADDITIONAL INFORMATION.
3. PROVIDE CONDUIT FROM MANHOLE TO EXISTING APPROACH HANDHOLE AS SHOWN ON CONSTRUCTION PLANS. SPLICE NEW CABLES TO EXISTING CABLES FOR RUNWAY 32L APPROACH AND CENTERLINE LIGHTING. CIRCUIT DESIGNATION AS INDICATED.
4. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD SIGN AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
Lic. No. 45530
PROFESSIONAL ENGINEER

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A/E INFO

APPROVED

CDR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES SL DRN SL CHK DJP

PM/EM

BRANCH MANAGER

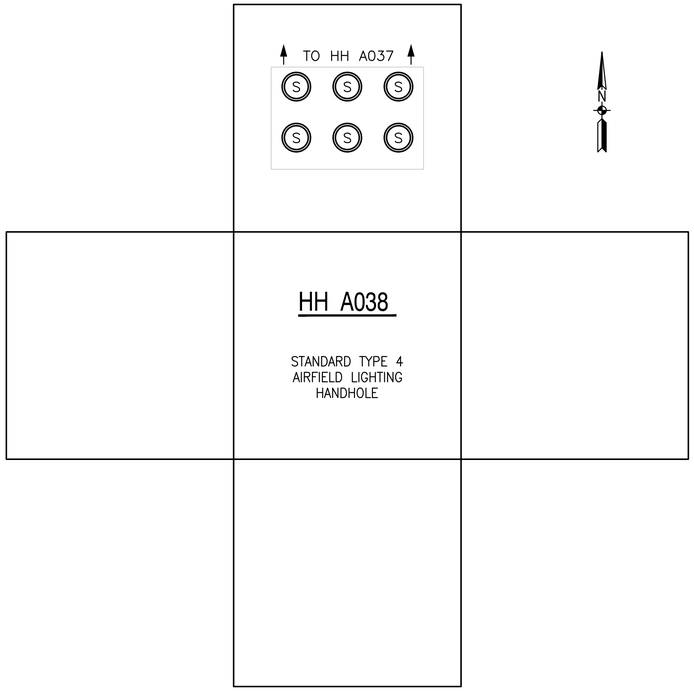
CHIEF ENG/ARCH

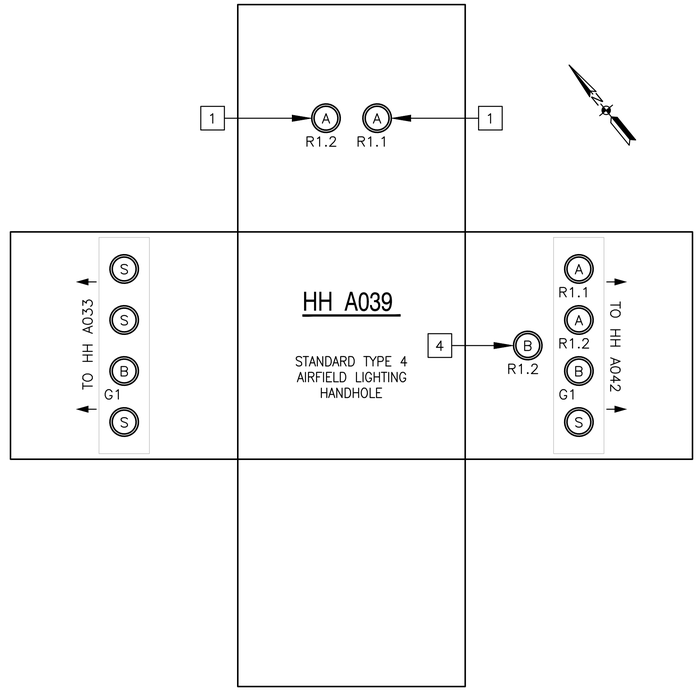
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRIGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – AIRFIELD LTG.

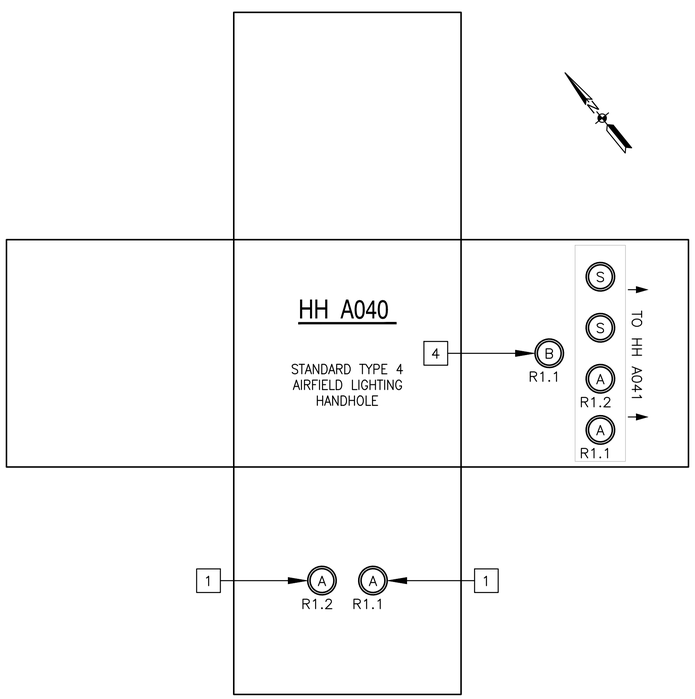
SCALE: NOT TO SCALE
PROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690259
SHEET 248 OF 315
EA709

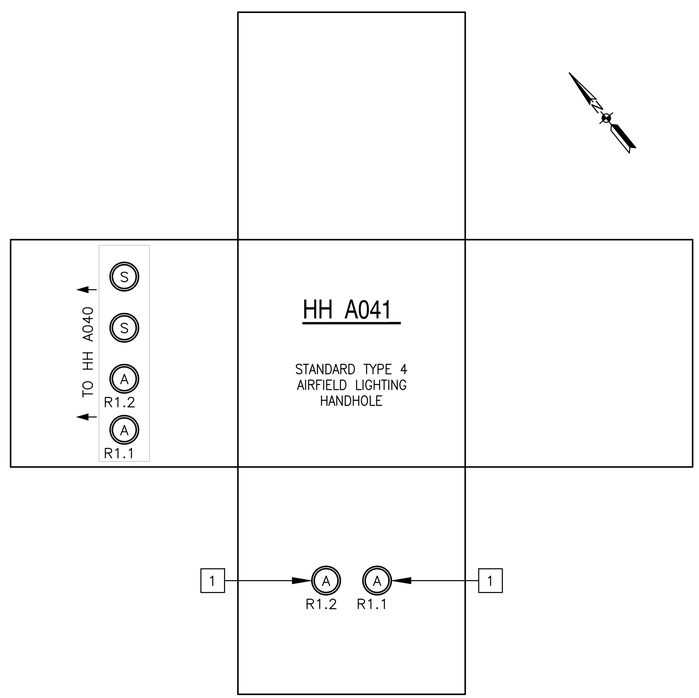
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\10863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA709.dwg LAYOUT NAME: EA709 PLOTTED: Monday, March 23, 2015 - 2:19pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

A – 2" PVC SCHEDULE 40 CONDUIT WITH 1 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

B – 2" PVC SCHEDULE 40 CONDUIT WITH 2 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

S – SPARE 2" PVC SCHEDULE 40 CONDUIT.

SHEET KEYNOTES

1. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD LIGHT FIXTURE AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.
2. PROVIDE CONDUIT FROM HANDHOLE TO RUNWAY GUARD LIGHT AS SHOWN ON CONSTRUCTION PLANS. CABLE NOT INSTALLED IN THIS CONTRACT. SEE CONSTRUCTION SITE PLANS FOR ADDITIONAL INFORMATION.
3. PROVIDE CONDUIT FROM MANHOLE TO EXISTING APPROACH HANDHOLE AS SHOWN ON CONSTRUCTION PLANS. SPLICE NEW CABLES TO EXISTING CABLES FOR RUNWAY 32L APPROACH AND CENTERLINE LIGHTING. CIRCUIT DESIGNATION AS INDICATED.
4. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD SIGN AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
Lic. No. 45530
PROFESSIONAL ENGINEER

JOHNSON, MIRMIRAN THOMPSON
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A/E INFO

APPROVED

CDR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO: DATE:

DES: SL DRW: SL CHK: DJP

PM/DM

BRANCH MANAGER

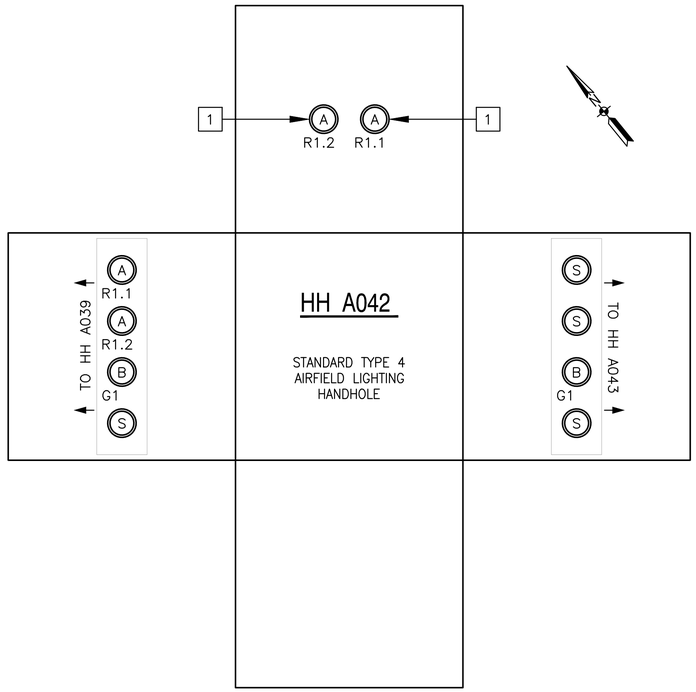
CHIEF ENG/ARCH

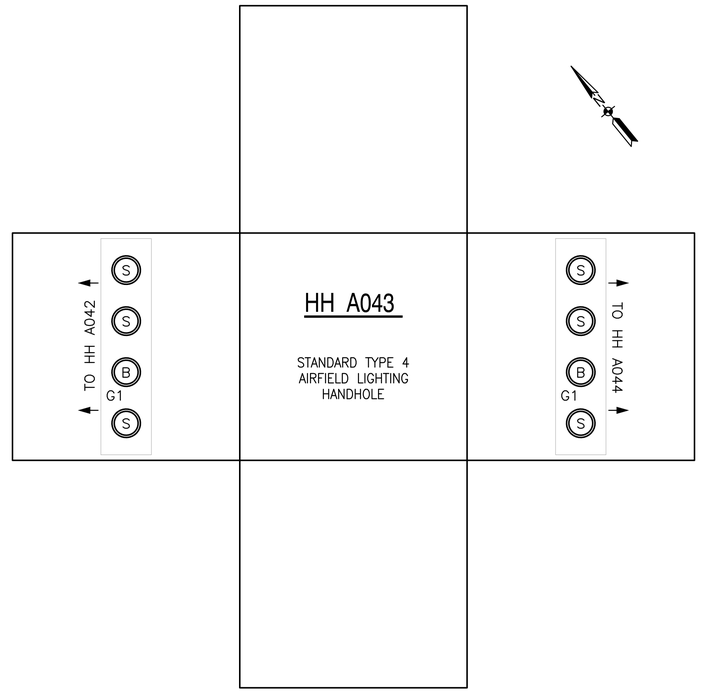
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – AIRFIELD LTG.

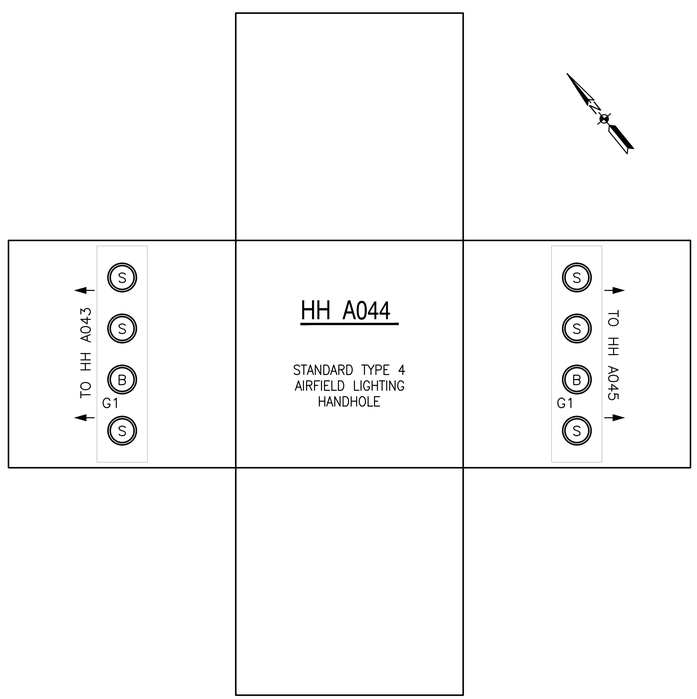
SCALE: NOT TO SCALE
PROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690260
SHEET 249 OF 315
EA710

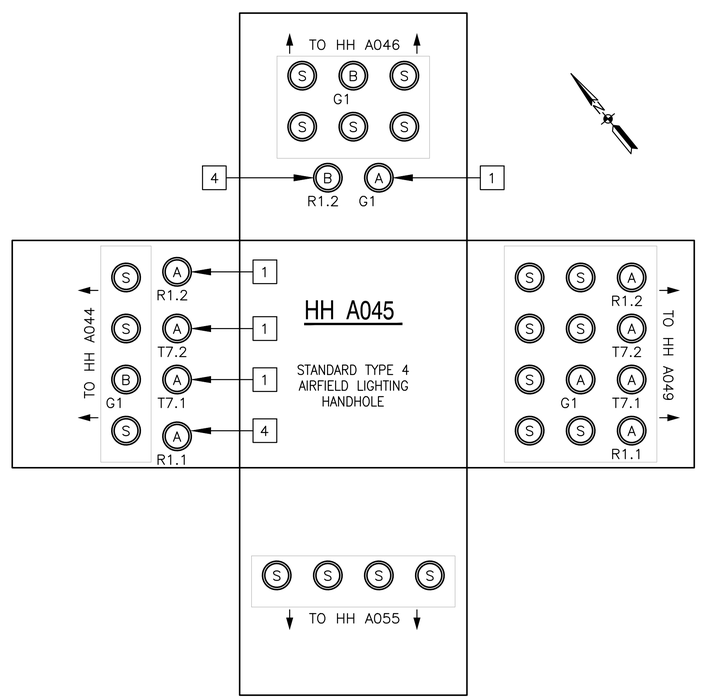
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\10863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA710.dwg LAYOUT NAME: EA710 PLOTTED: Monday, March 23, 2015 - 2:10pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

A – 2" PVC SCHEDULE 40 CONDUIT WITH 1 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

B – 2" PVC SCHEDULE 40 CONDUIT WITH 2 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

S – SPARE 2" PVC SCHEDULE 40 CONDUIT.

SHEET KEYNOTES

1. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD LIGHT FIXTURE AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.
2. PROVIDE CONDUIT FROM HANDHOLE TO RUNWAY GUARD LIGHT AS SHOWN ON CONSTRUCTION PLANS. CABLE NOT INSTALLED IN THIS CONTRACT. SEE CONSTRUCTION SITE PLANS FOR ADDITIONAL INFORMATION.
3. PROVIDE CONDUIT FROM MANHOLE TO EXISTING APPROACH HANDHOLE AS SHOWN ON CONSTRUCTION PLANS. SPLICE NEW CABLES TO EXISTING CABLES FOR RUNWAY 32L APPROACH AND CENTERLINE LIGHTING. CIRCUIT DESIGNATION AS INDICATED.
4. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD SIGN AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.

SYM.	DESCRIPTION	DATE	APPR.

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
Lic. No. 45530
PROFESSIONAL ENGINEER

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WEB: WWW.JMT.COM

A/E INFO

APPROVED

CDR COMMANDER NAVFAC

FACILITY

SATISFACTORY TO: DATE

DES: SL DRN: SL CHK: DJP

PM/DM

BRANCH MANAGER

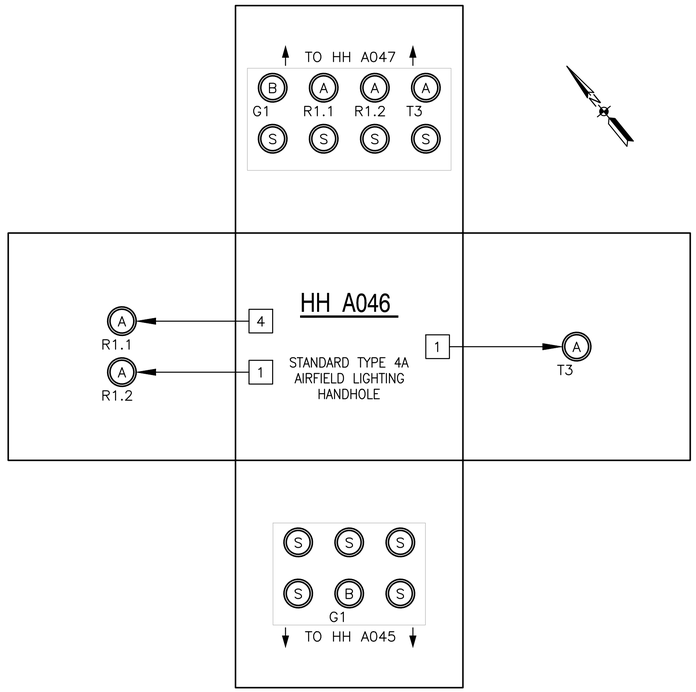
CHIEF ENG/ARCH

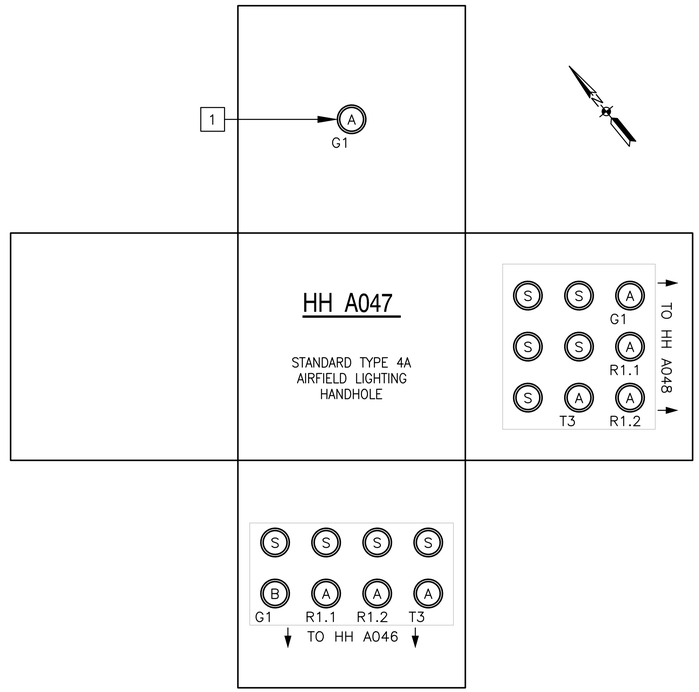
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRIGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – AIRFIELD LTG.

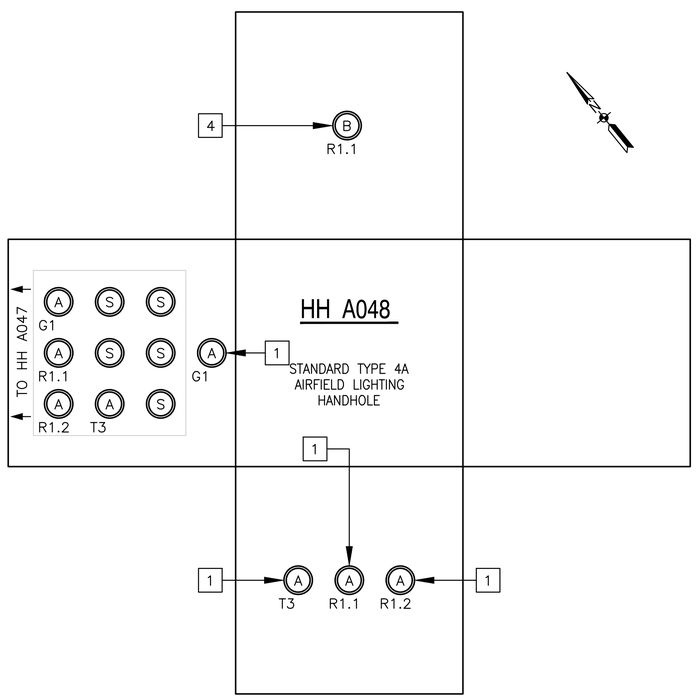
SCALE: NOT TO SCALE
PROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690261
SHEET 250 OF 315
EA711

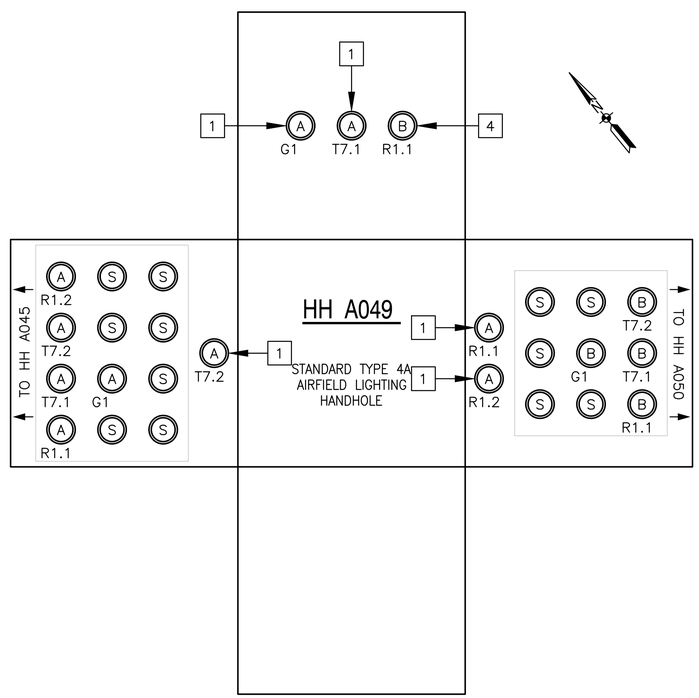
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\MID\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA711.dwg LAYOUT NAME: EA711 PLOTTED: Monday, March 23, 2015 - 2:10pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

A – 2" PVC SCHEDULE 40 CONDUIT WITH 1 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

B – 2" PVC SCHEDULE 40 CONDUIT WITH 2 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

S – SPARE 2" PVC SCHEDULE 40 CONDUIT.

SHEET KEYNOTES

1. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD LIGHT FIXTURE AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.
2. PROVIDE CONDUIT FROM HANDHOLE TO RUNWAY GUARD LIGHT AS SHOWN ON CONSTRUCTION PLANS. CABLE NOT INSTALLED IN THIS CONTRACT. SEE CONSTRUCTION SITE PLANS FOR ADDITIONAL INFORMATION.
3. PROVIDE CONDUIT FROM MANHOLE TO EXISTING APPROACH HANDHOLE AS SHOWN ON CONSTRUCTION PLANS. SPLICE NEW CABLES TO EXISTING CABLES FOR RUNWAY 32L APPROACH AND CENTERLINE LIGHTING. CIRCUIT DESIGNATION AS INDICATED.
4. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD SIGN AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
Lic. No. 45530
PROFESSIONAL ENGINEER

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A/E INFO

APPROVED

CDR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES SL DRN SL CHK DJP

PM/DM

BRANCH MANAGER

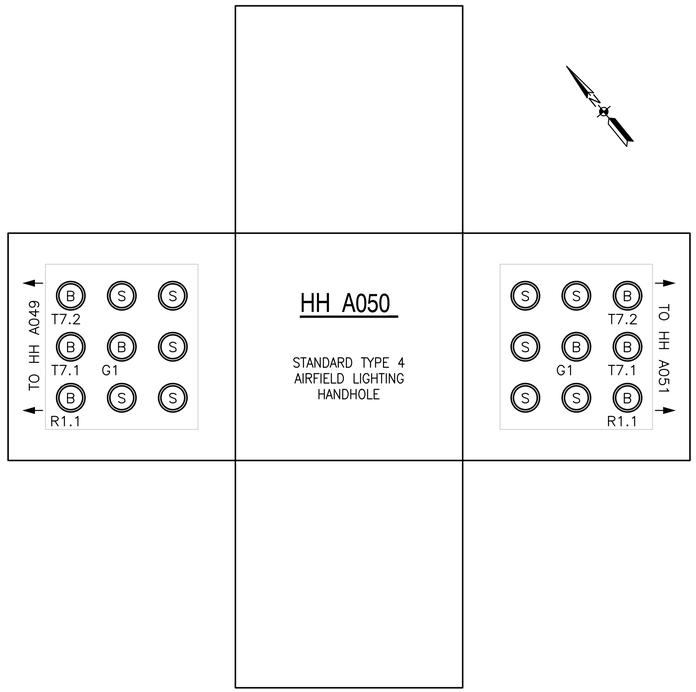
CHIEF ENG/ARCH

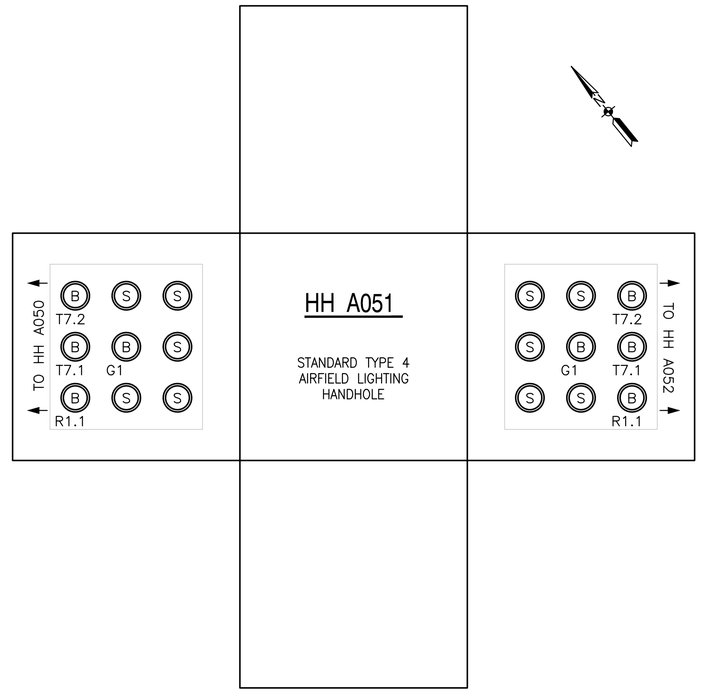
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – AIRFIELD LTG.

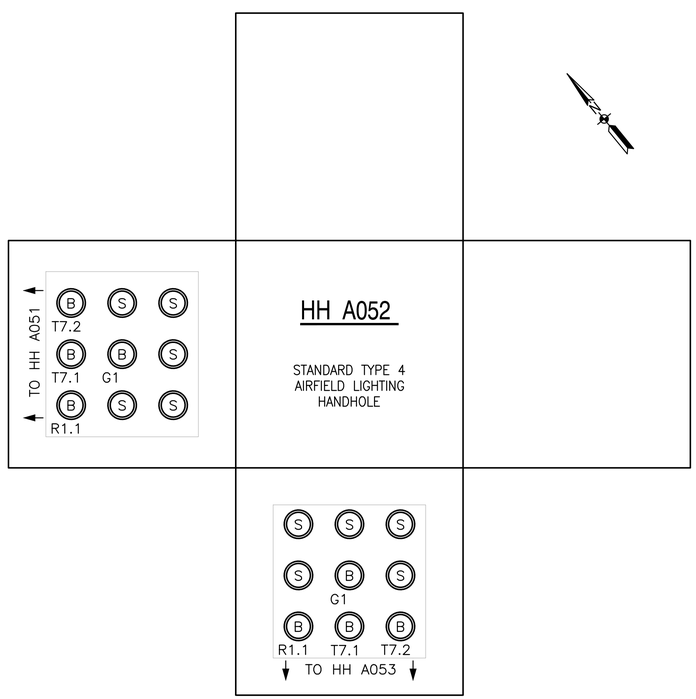
SCALE NOT TO SCALE
PROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690262
SHEET 251 OF 315
EA712

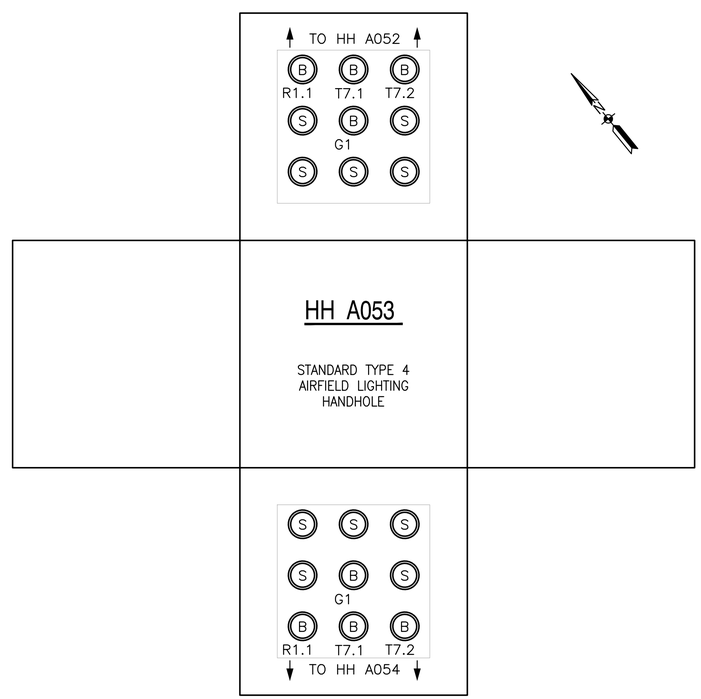
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\10863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA712.dwg LAYOUT NAME: EA712 PLOTTED: Monday, March 23, 2015 - 2:10pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

A – 2" PVC SCHEDULE 40 CONDUIT WITH 1 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

B – 2" PVC SCHEDULE 40 CONDUIT WITH 2 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

S – SPARE 2" PVC SCHEDULE 40 CONDUIT.

SHEET KEYNOTES

1. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD LIGHT FIXTURE AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.
2. PROVIDE CONDUIT FROM HANDHOLE TO RUNWAY GUARD LIGHT AS SHOWN ON CONSTRUCTION PLANS. CABLE NOT INSTALLED IN THIS CONTRACT. SEE CONSTRUCTION SITE PLANS FOR ADDITIONAL INFORMATION.
3. PROVIDE CONDUIT FROM MANHOLE TO EXISTING APPROACH HANDHOLE AS SHOWN ON CONSTRUCTION PLANS. SPLICE NEW CABLES TO EXISTING CABLES FOR RUNWAY 32L APPROACH AND CENTERLINE LIGHTING. CIRCUIT DESIGNATION AS INDICATED.
4. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD SIGN AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
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A/E INFO

APPROVED

CDR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES SL DRN SL CHK DJP

PM/DM

BRANCH MANAGER

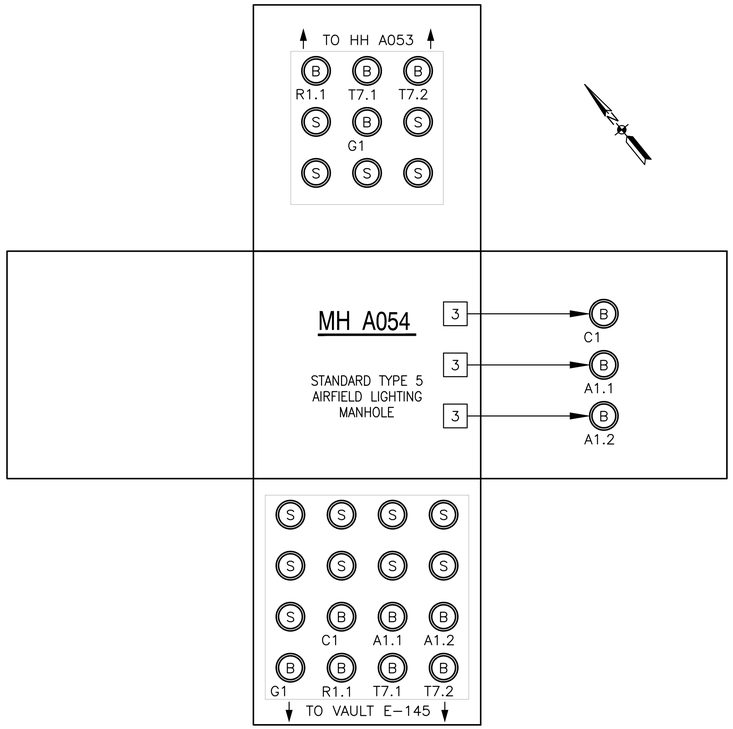
CHIEF ENG/ARCH

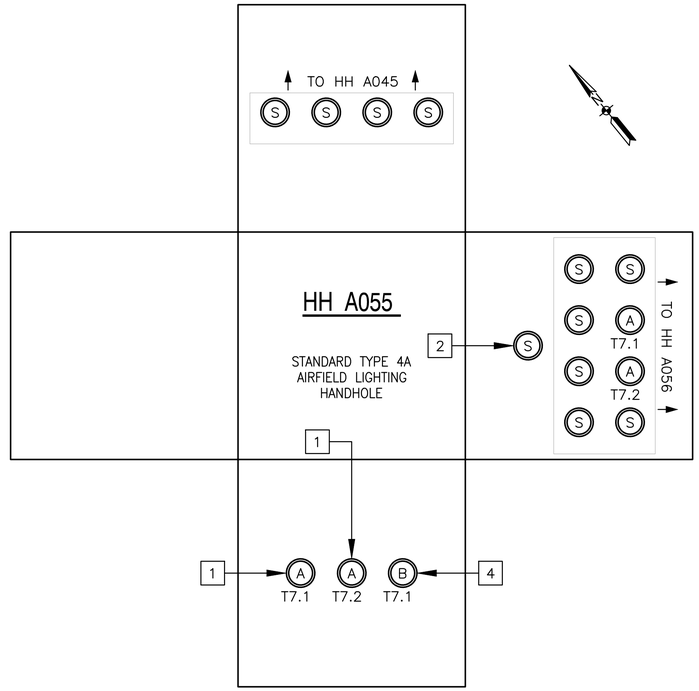
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – AIRFIELD LTG.

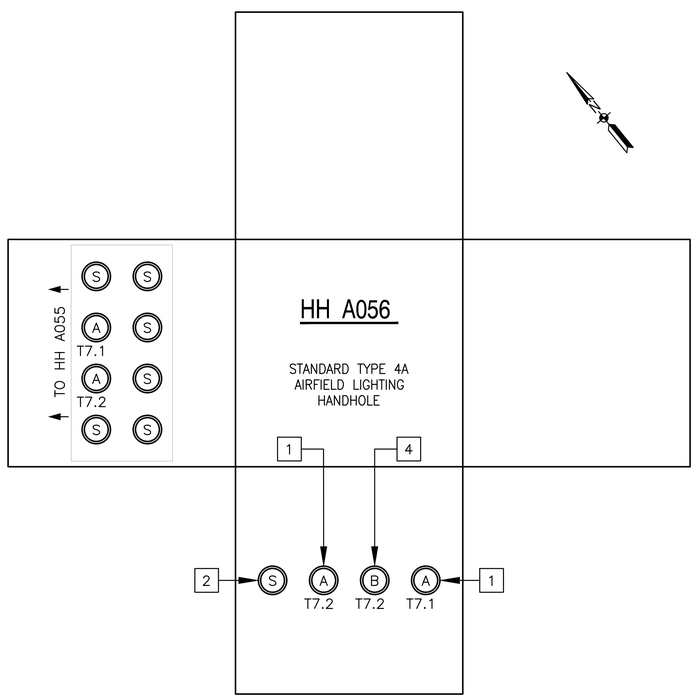
SCALE NOT TO SCALE
PROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690263
SHEET 252 OF 315
EA713

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\10863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA713.dwg LAYOUT NAME: EA713 PLOTTED: Monday, March 23, 2015 - 2:11pm USER: Rhurst







GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

A – 2" PVC SCHEDULE 40 CONDUIT WITH 1 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

B – 2" PVC SCHEDULE 40 CONDUIT WITH 2 – #6 AWG, 5KV, L-824 TYPE B CABLES. CIRCUIT DESIGNATION AS INDICATED.

S – SPARE 2" PVC SCHEDULE 40 CONDUIT.

SHEET KEYNOTES

1. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD LIGHT FIXTURE AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.
2. PROVIDE CONDUIT FROM HANDHOLE TO RUNWAY GUARD LIGHT AS SHOWN ON CONSTRUCTION PLANS. CABLE NOT INSTALLED IN THIS CONTRACT. SEE CONSTRUCTION SITE PLANS FOR ADDITIONAL INFORMATION.
3. PROVIDE CONDUIT FROM MANHOLE TO EXISTING APPROACH HANDHOLE AS SHOWN ON CONSTRUCTION PLANS. SPLICE NEW CABLES TO EXISTING CABLES FOR RUNWAY 32L APPROACH AND CENTERLINE LIGHTING. CIRCUIT DESIGNATION AS INDICATED.
4. PROVIDE CONDUIT FROM HANDHOLE TO AIRFIELD SIGN AS SHOWN ON CONSTRUCTION PLANS. CIRCUIT DESIGNATION AS INDICATED.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
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A/E INFO

APPROVED

CDR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO: DATE:

DES: SL DRN: SL CHK: DJP

PM/DM

BRANCH MANAGER

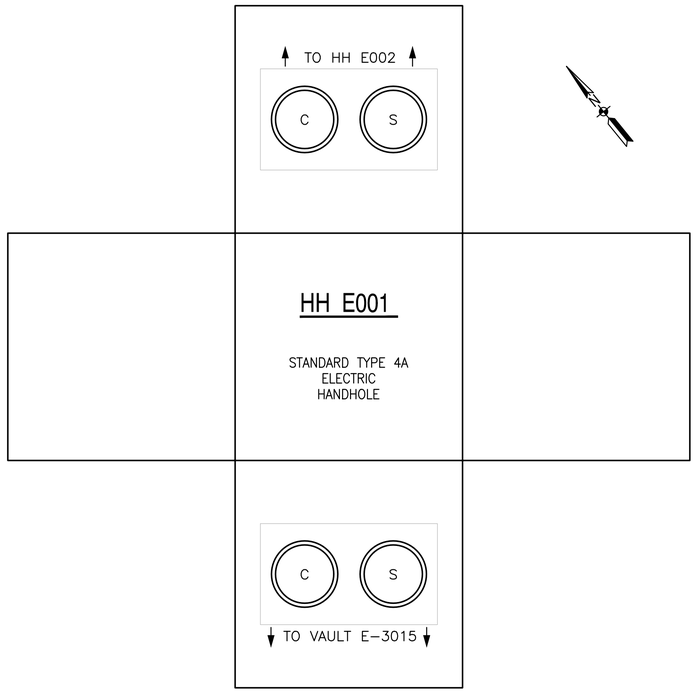
CHIEF ENG/ARCH

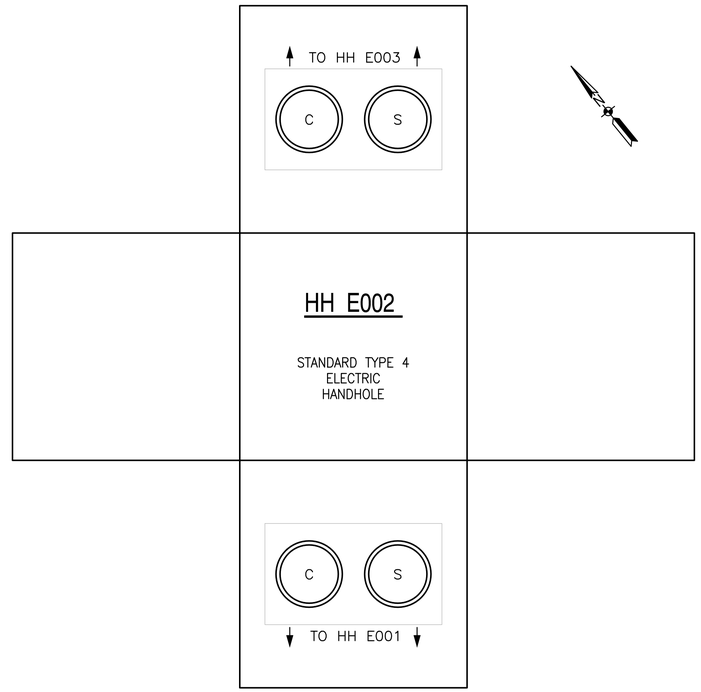
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – AIRFIELD LTG.

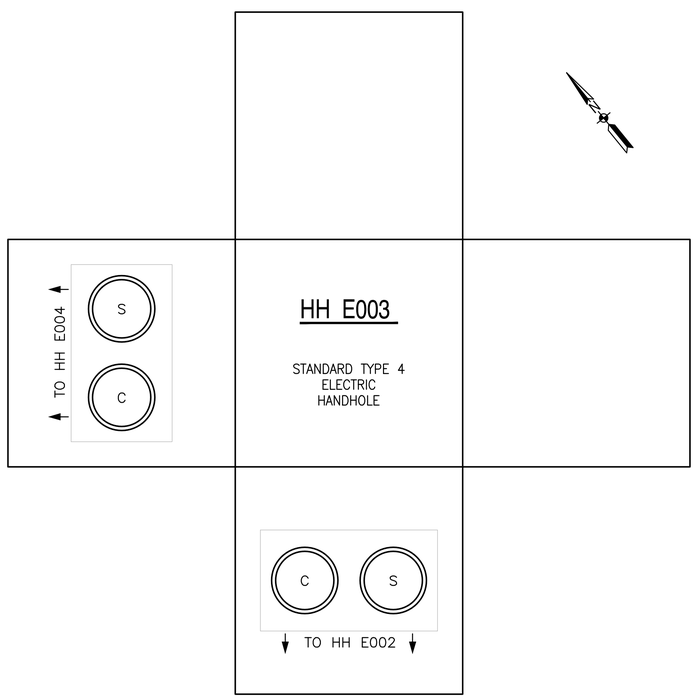
SCALE: NOT TO SCALE
PROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690264
SHEET 253 OF 315
EA714

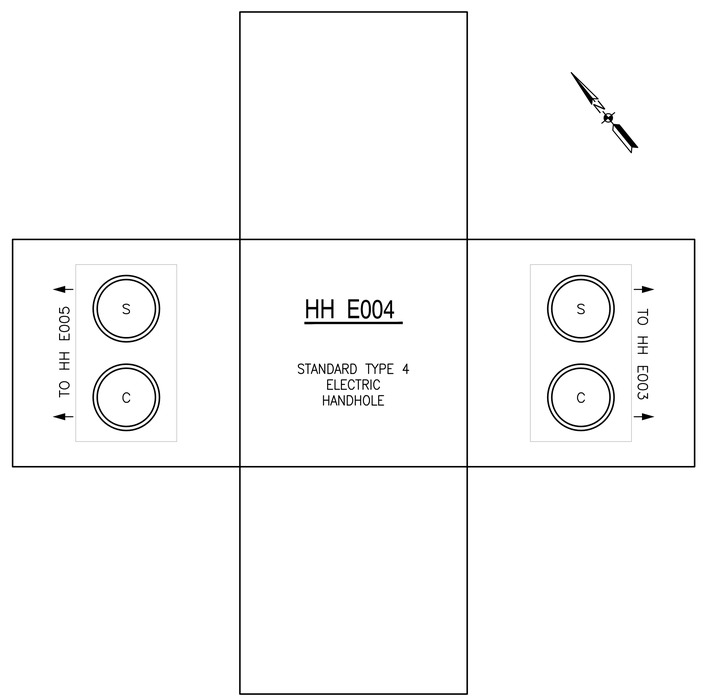
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA714.dwg LAYOUT NAME: EA714 PLOTTED: Monday, March 23, 2015 - 2:11pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

C – 5" PVC SCHEDULE 40 CONDUIT WITH 2 #8 AWG & #8G MEDIUM VOLTAGE FEEDER FROM ELECTRICAL/LIGHTING VAULT E-3015 FOR OPTICAL LANDING SYSTEM TRANSFORMERS ON RUNWAY 14 APPROACHES.

D – 5" PVC SCHEDULE 40 CONDUIT WITH 2 #8 AWG & #8G MEDIUM VOLTAGE FEEDER FROM ELECTRICAL/LIGHTING VAULT E-145 FOR OPTICAL LANDING SYSTEM TRANSFORMERS ON RUNWAY 32 APPROACHES.

S – SPARE 5" PVC SCHEDULE 40 CONDUIT.

SHEET KEYNOTES

1. PROVIDE CONDUIT AND CABLES FROM HANDHOLE TO RUNWAY 14L OPTICAL LANDING SYSTEM TRANSFORMER AS SHOWN ON CONSTRUCTION PLANS.
2. PROVIDE CONDUIT AND CABLES FROM HANDHOLE TO RUNWAY 32R OPTICAL LANDING SYSTEM TRANSFORMER AS SHOWN ON CONSTRUCTION PLANS.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO: DATE:

DES: SL DRW: SL CHK: DJP

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

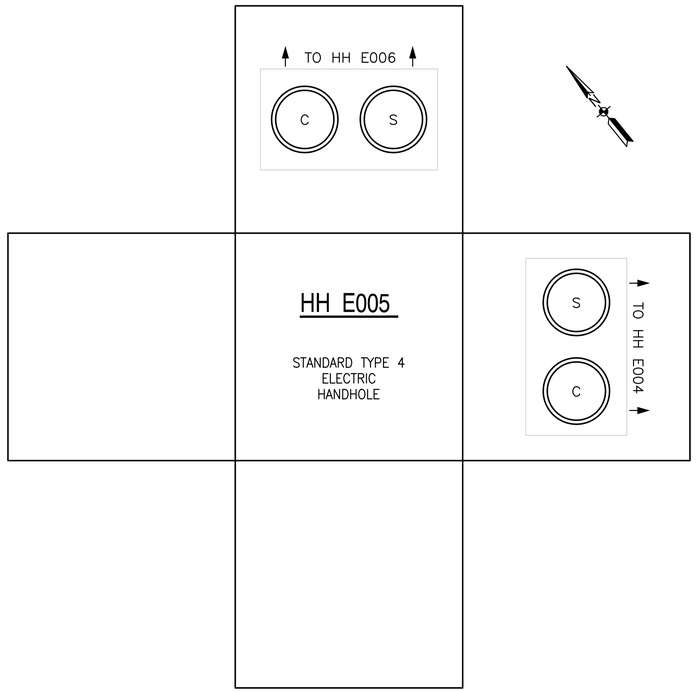
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – ELECTRIC

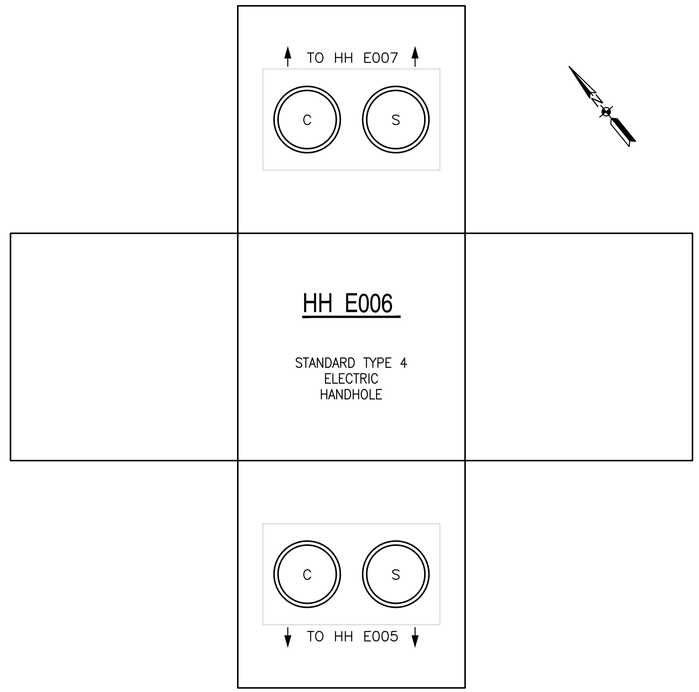
SCALE: NOT TO SCALE
PROJECT NO: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690265
SHEET 254 OF 315

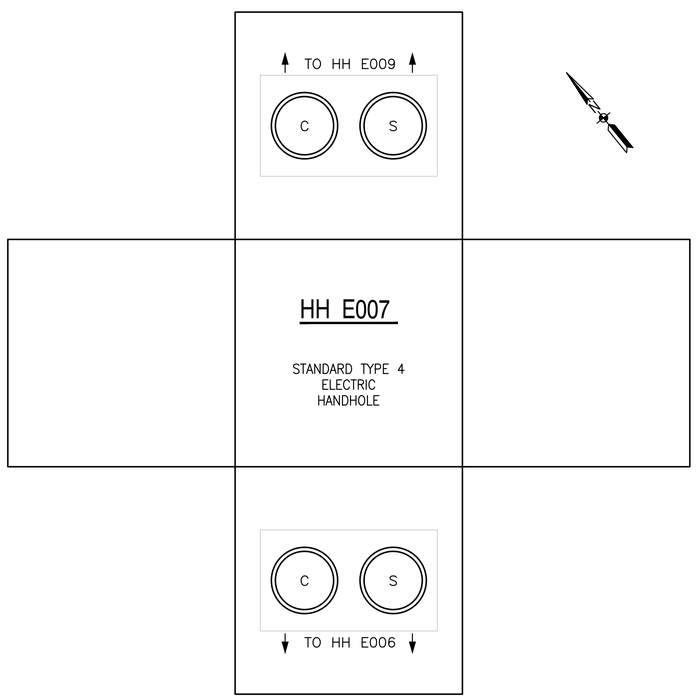
EA715

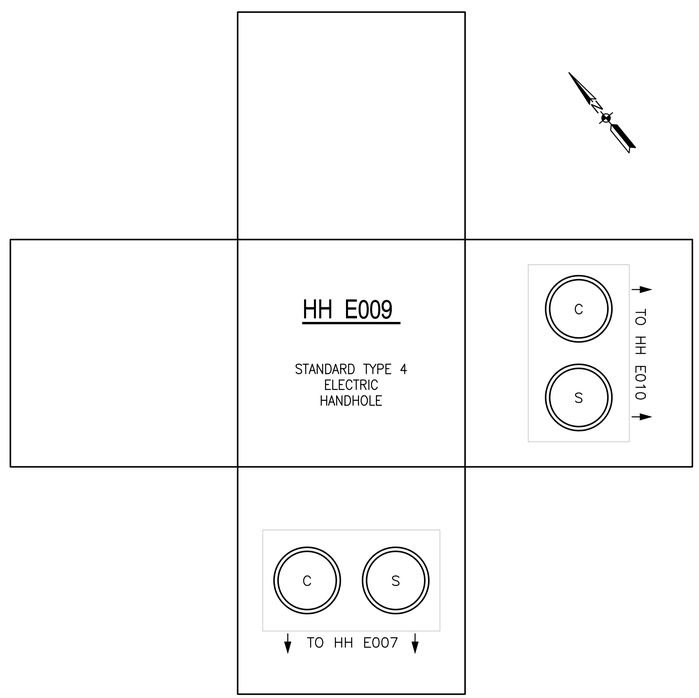
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA715.dwg LAYOUT NAME: EA715 PLOTTED: Monday, March 23, 2015 - 2:11pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

C – 5" PVC SCHEDULE 40 CONDUIT WITH 2 #8 AWG & #8G MEDIUM VOLTAGE FEEDER FROM ELECTRICAL/LIGHTING VAULT E-3015 FOR OPTICAL LANDING SYSTEM TRANSFORMERS ON RUNWAY 14 APPROACHES.

D – 5" PVC SCHEDULE 40 CONDUIT WITH 2 #8 AWG & #8G MEDIUM VOLTAGE FEEDER FROM ELECTRICAL/LIGHTING VAULT E-145 FOR OPTICAL LANDING SYSTEM TRANSFORMERS ON RUNWAY 32 APPROACHES.

S – SPARE 5" PVC SCHEDULE 40 CONDUIT.

SHEET KEYNOTES

1. PROVIDE CONDUIT AND CABLES FROM HANDHOLE TO RUNWAY 14L OPTICAL LANDING SYSTEM TRANSFORMER AS SHOWN ON CONSTRUCTION PLANS.
2. PROVIDE CONDUIT AND CABLES FROM HANDHOLE TO RUNWAY 32R OPTICAL LANDING SYSTEM TRANSFORMER AS SHOWN ON CONSTRUCTION PLANS.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
Lic. No. 45530
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A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES SL DRW SL CHK DJP
PM/DM
BRANCH MANAGER
CHIEF ENG/ARCH

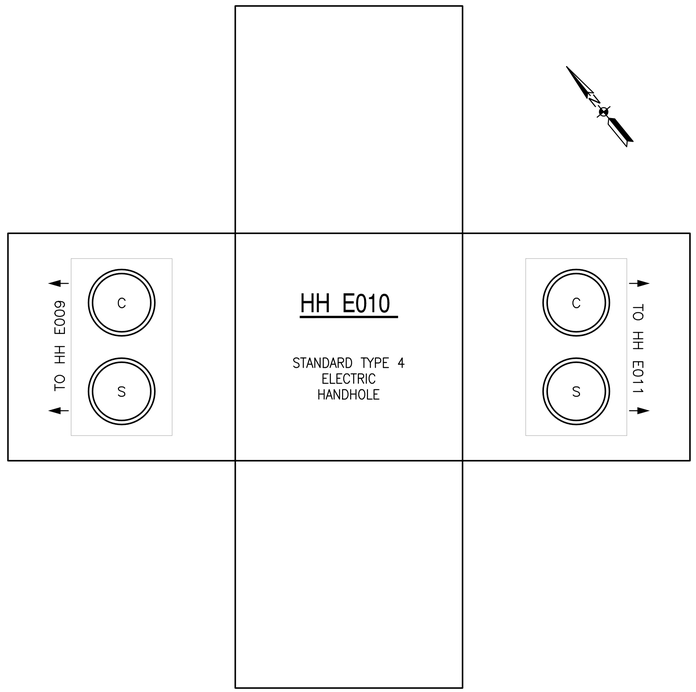
DEPARTMENT OF THE NAVY
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – ELECTRIC

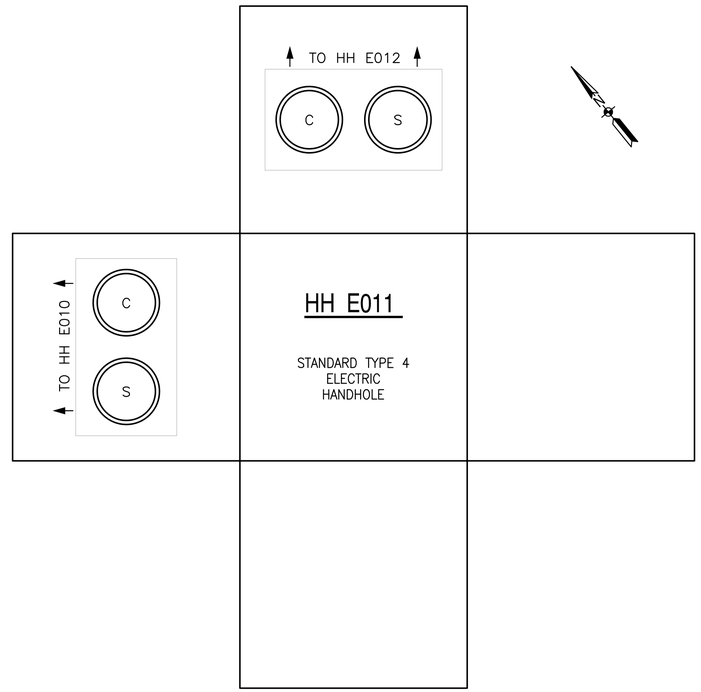
SCALE NOT TO SCALE
PROJECT NO. 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690266
SHEET 255 OF 315

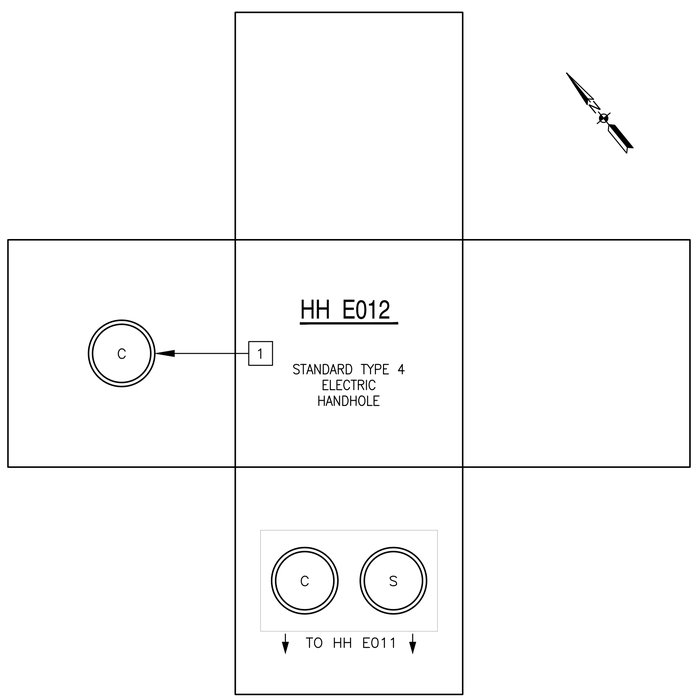
EA716

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA716.dwg LAYOUT NAME: EA716 PLOTTED: Monday, March 23, 2015 - 2:11pm USER: Rhurst







GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

C – 5" PVC SCHEDULE 40 CONDUIT WITH 2 #8 AWG & #8G MEDIUM VOLTAGE FEEDER FROM ELECTRICAL/LIGHTING VAULT E-3015 FOR OPTICAL LANDING SYSTEM TRANSFORMERS ON RUNWAY 14 APPROACHES.

D – 5" PVC SCHEDULE 40 CONDUIT WITH 2 #8 AWG & #8G MEDIUM VOLTAGE FEEDER FROM ELECTRICAL/LIGHTING VAULT E-145 FOR OPTICAL LANDING SYSTEM TRANSFORMERS ON RUNWAY 32 APPROACHES.

S – SPARE 5" PVC SCHEDULE 40 CONDUIT.

SHEET KEYNOTES

1 PROVIDE CONDUIT AND CABLES FROM HANDHOLE TO RUNWAY 14L OPTICAL LANDING SYSTEM TRANSFORMER AS SHOWN ON CONSTRUCTION PLANS.

2 PROVIDE CONDUIT AND CABLES FROM HANDHOLE TO RUNWAY 32R OPTICAL LANDING SYSTEM TRANSFORMER AS SHOWN ON CONSTRUCTION PLANS.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
Lic. No. 45530
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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO: DATE:

DES: SL DRW: SL CHK: DJP

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

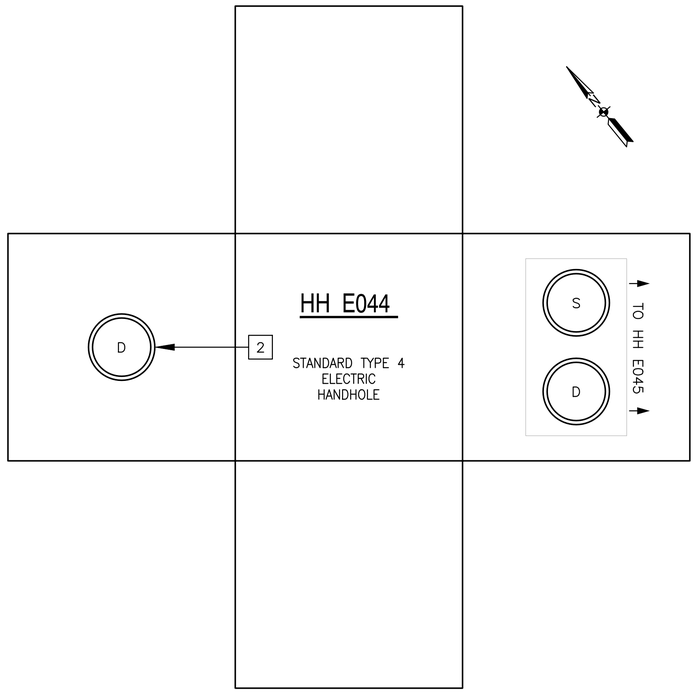
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – ELECTRIC

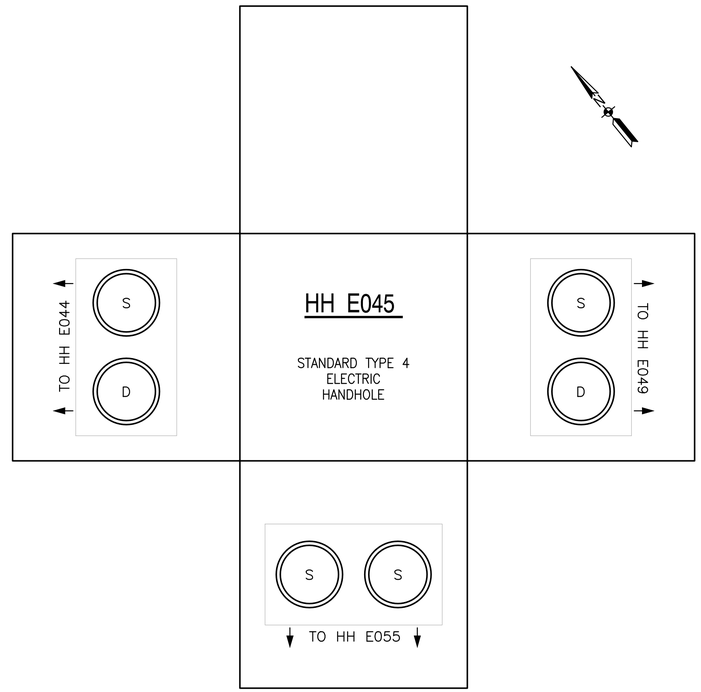
SCALE: NOT TO SCALE
PROJECT NO: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690267
SHEET 256 OF 315

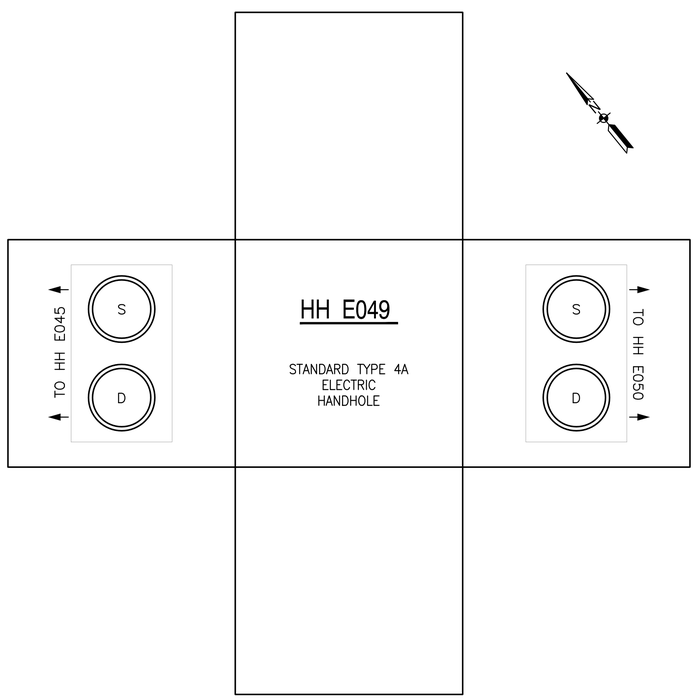
EA717

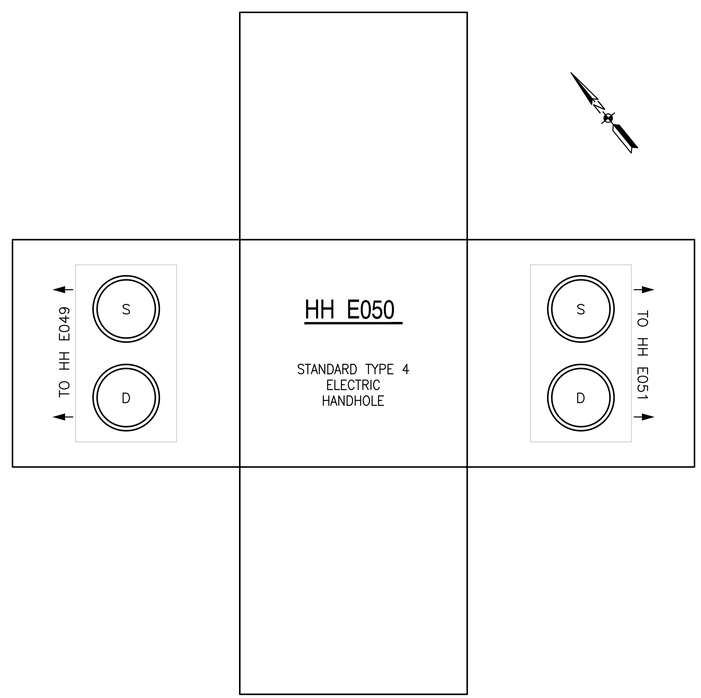
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA717.dwg LAYOUT NAME: EA717 PLOTTED: Monday, March 23, 2015 - 2:11pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

C – 5" PVC SCHEDULE 40 CONDUIT WITH 2 #8 AWG & #8G MEDIUM VOLTAGE FEEDER FROM ELECTRICAL/LIGHTING VAULT E-3015 FOR OPTICAL LANDING SYSTEM TRANSFORMERS ON RUNWAY 14 APPROACHES.

D – 5" PVC SCHEDULE 40 CONDUIT WITH 2 #8 AWG & #8G MEDIUM VOLTAGE FEEDER FROM ELECTRICAL/LIGHTING VAULT E-145 FOR OPTICAL LANDING SYSTEM TRANSFORMERS ON RUNWAY 32 APPROACHES.

S – SPARE 5" PVC SCHEDULE 40 CONDUIT.

SHEET KEYNOTES

1. PROVIDE CONDUIT AND CABLES FROM HANDHOLE TO RUNWAY 14L OPTICAL LANDING SYSTEM TRANSFORMER AS SHOWN ON CONSTRUCTION PLANS.
2. PROVIDE CONDUIT AND CABLES FROM HANDHOLE TO RUNWAY 32R OPTICAL LANDING SYSTEM TRANSFORMER AS SHOWN ON CONSTRUCTION PLANS.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO: DATE:

DES: SL DRW: SL CHK: DJP

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

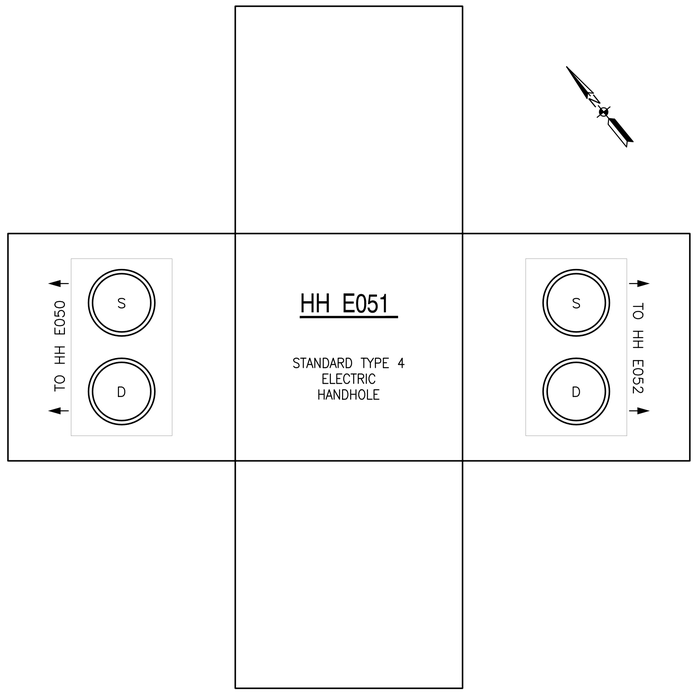
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – ELECTRIC

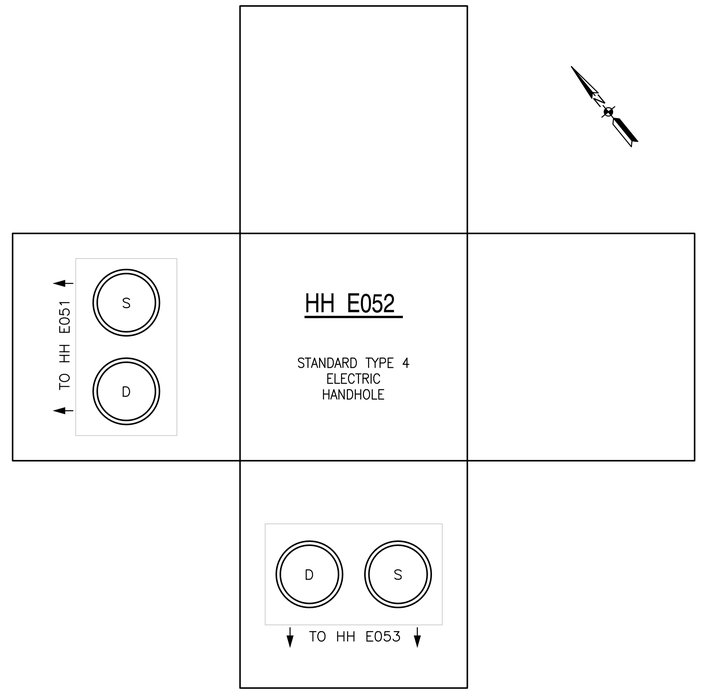
SCALE: NOT TO SCALE
PROJECT NO: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690268
SHEET 257 OF 315

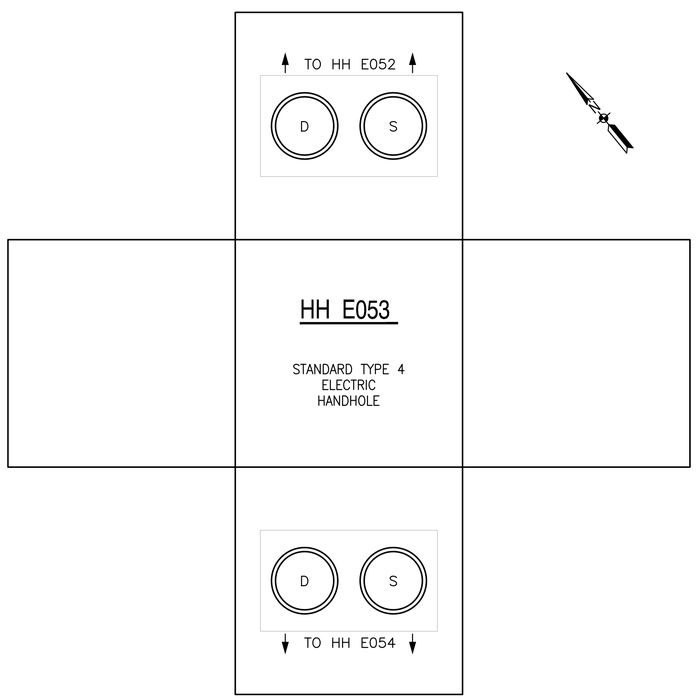
EA718

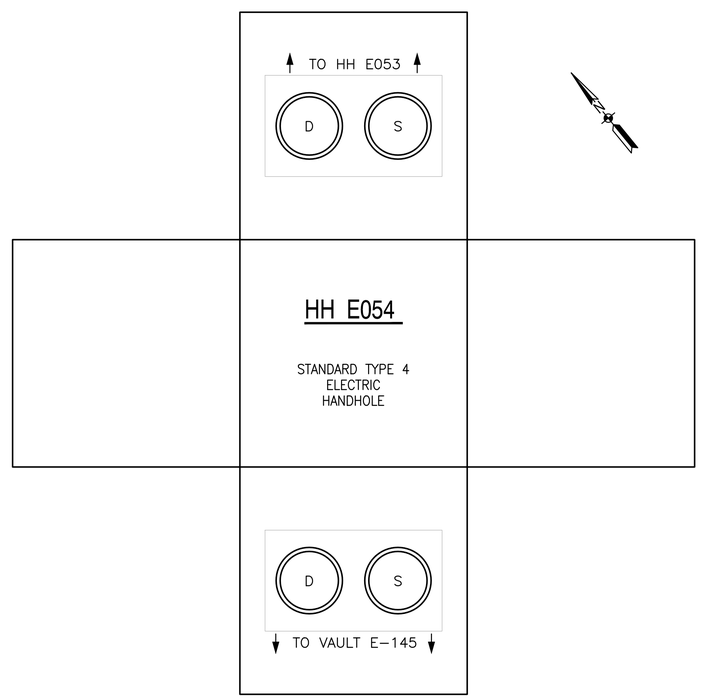
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA718.dwg LAYOUT NAME: EA718 PLOTTED: Monday, March 23, 2015 - 2:11pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

C – 5" PVC SCHEDULE 40 CONDUIT WITH 2 #8 AWG & #8G MEDIUM VOLTAGE FEEDER FROM ELECTRICAL/LIGHTING VAULT E-3015 FOR OPTICAL LANDING SYSTEM TRANSFORMERS ON RUNWAY 14 APPROACHES.

D – 5" PVC SCHEDULE 40 CONDUIT WITH 2 #8 AWG & #8G MEDIUM VOLTAGE FEEDER FROM ELECTRICAL/LIGHTING VAULT E-145 FOR OPTICAL LANDING SYSTEM TRANSFORMERS ON RUNWAY 32 APPROACHES.

S – SPARE 5" PVC SCHEDULE 40 CONDUIT.

SHEET KEYNOTES

1 PROVIDE CONDUIT AND CABLES FROM HANDHOLE TO RUNWAY 14L OPTICAL LANDING SYSTEM TRANSFORMER AS SHOWN ON CONSTRUCTION PLANS.

2 PROVIDE CONDUIT AND CABLES FROM HANDHOLE TO RUNWAY 32R OPTICAL LANDING SYSTEM TRANSFORMER AS SHOWN ON CONSTRUCTION PLANS.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

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FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

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PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

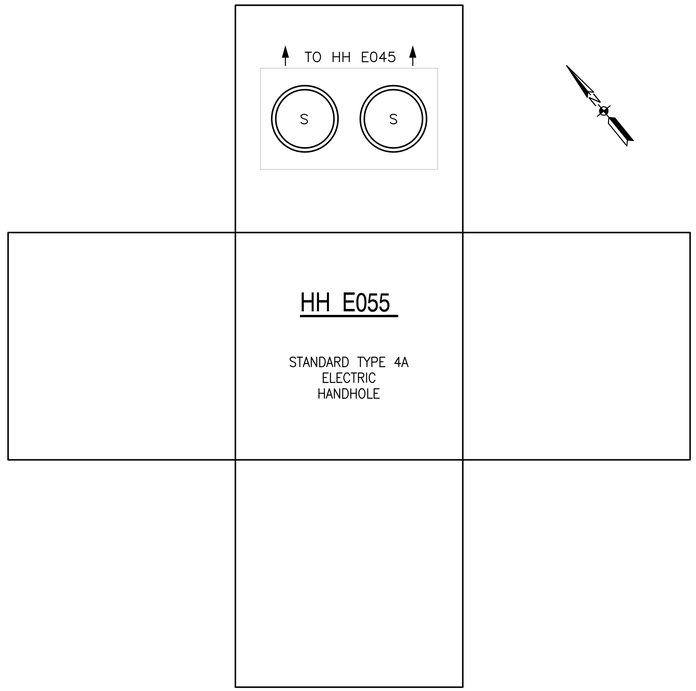
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAVFAC MID-ATLANTIC
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – ELECTRIC

SCALE NOT TO SCALE
PROJECT NO. 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690269
SHEET 258 OF 315

EA719

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA719.dwg LAYOUT NAME: EA719 PLOTTED: Monday, March 23, 2015 - 2:12pm USER: Rhurst



GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

C – 5" PVC SCHEDULE 40 CONDUIT WITH 2 #8 AWG & #8G MEDIUM VOLTAGE FEEDER FROM ELECTRICAL/LIGHTING VAULT E-3015 FOR OPTICAL LANDING SYSTEM TRANSFORMERS ON RUNWAY 14 APPROACHES.

D – 5" PVC SCHEDULE 40 CONDUIT WITH 2 #8 AWG & #8G MEDIUM VOLTAGE FEEDER FROM ELECTRICAL/LIGHTING VAULT E-145 FOR OPTICAL LANDING SYSTEM TRANSFORMERS ON RUNWAY 32 APPROACHES.

S – SPARE 5" PVC SCHEDULE 40 CONDUIT.

SHEET KEYNOTES

1 PROVIDE CONDUIT AND CABLES FROM HANDHOLE TO RUNWAY 14L OPTICAL LANDING SYSTEM TRANSFORMER AS SHOWN ON CONSTRUCTION PLANS.

2 PROVIDE CONDUIT AND CABLES FROM HANDHOLE TO RUNWAY 32R OPTICAL LANDING SYSTEM TRANSFORMER AS SHOWN ON CONSTRUCTION PLANS.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
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A/E INFO

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ACTIVITY

SATISFACTORY TO DATE

DES: SL DRW: SL CHK: DJP

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

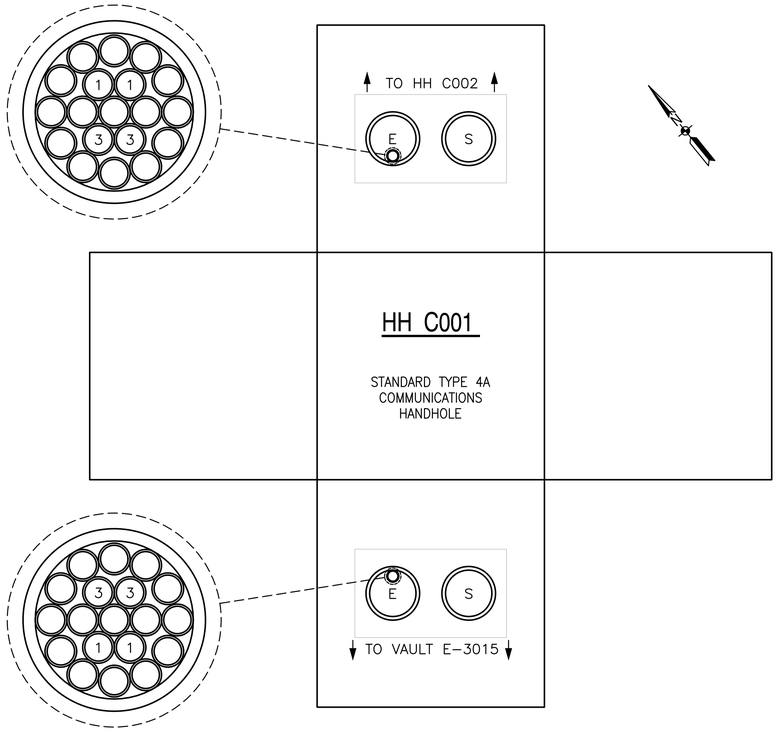
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – ELECTRIC

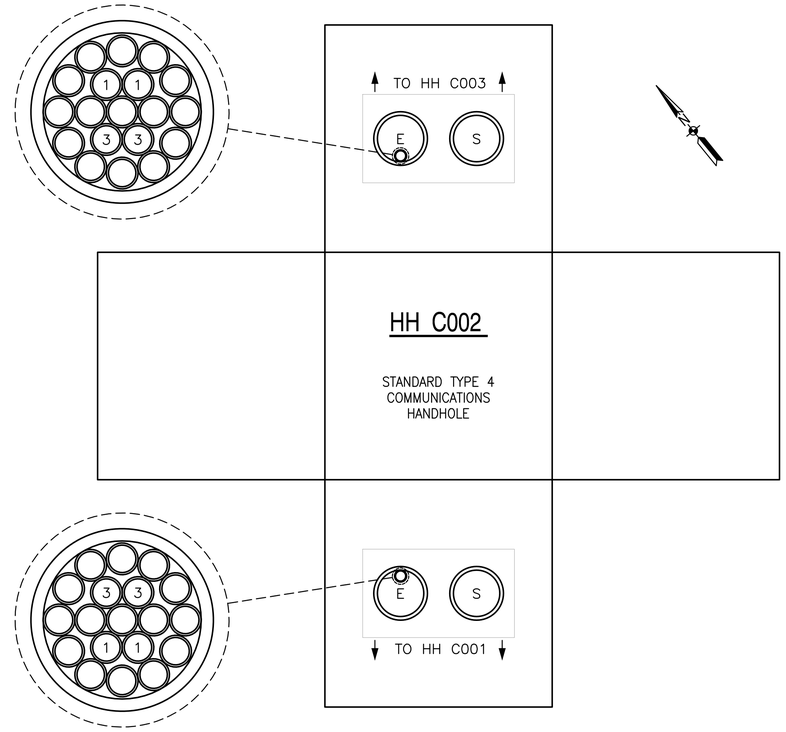
SCALE: NOT TO SCALE
PROJECT NO. 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690270
SHEET 259 OF 315

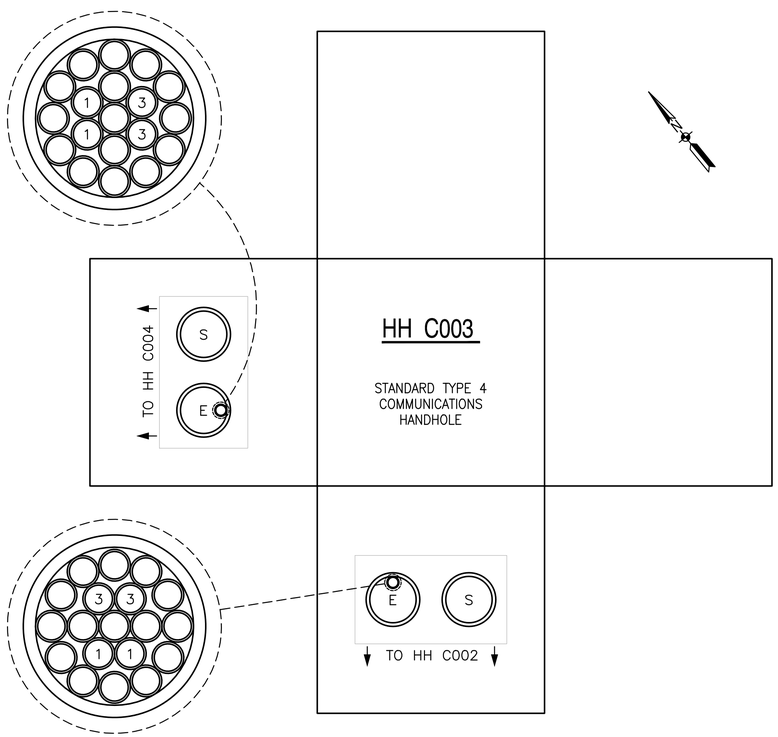
EA720

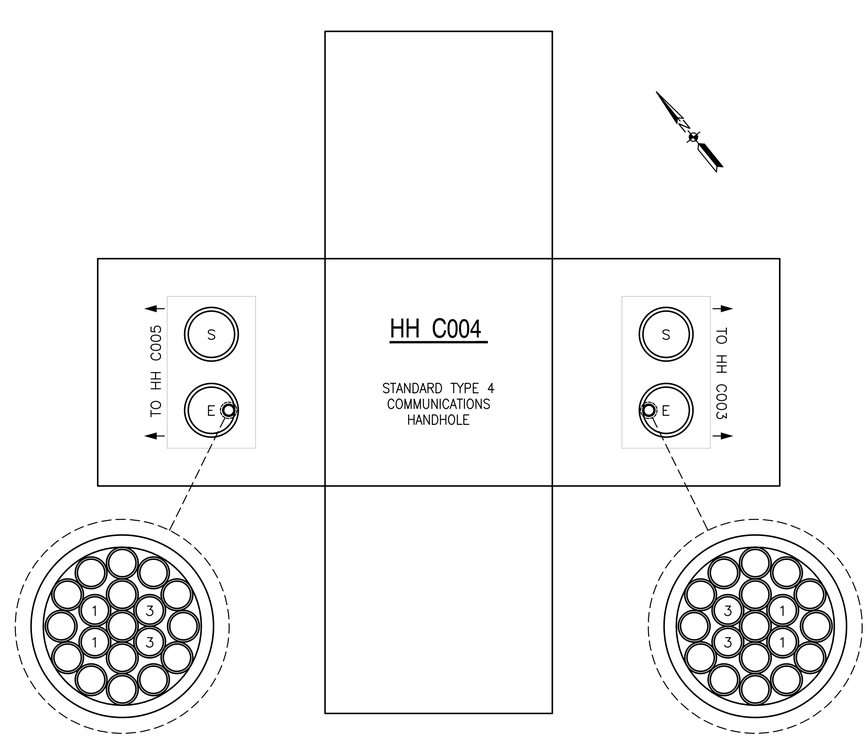
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA720.dwg LAYOUT NAME: EA720 PLOTTED: Monday, March 23, 2015 - 2:12pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

E – 4" PVC SCHEDULE 40 CONDUIT WITH A 19-TUBE INNERDUCT/TUBE CABLE. PROVIDE FIBER OPTIC CABLE AS INDICATED BY ENLARGED TUBE CABLE DETAILS SHOWN FOR EACH HANDHOLE.

S – SPARE 4" PVC SCHEDULE 40 CONDUIT.

TUBE CABLE DETAIL LEGEND

(1) (1) 6-STRAND, SINGLE-MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E-3015 TO LIGHTING/ELECTRICAL VAULT E-145.

(2) (1) 6-STRAND, SINGLE-MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E-145 TO AIRCRAFT CONTROL TOWER.

(3) (1) 6-STRAND, SINGLE-MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E-3015 TO RUNWAY 14L WAVE-OFF CONTROL PANEL.

(4) (1) 6-STRAND, SINGLE-MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E-145 TO RUNWAY 32R WAVE-OFF CONTROL PANEL.

◯ EMPTY/SPARE TUBE.

SHEET KEYNOTES

1 PROVIDE CONDUIT FROM HANDHOLE TO WAVE-OFF CONTROL PANEL AS SHOWN ON CONSTRUCTION PLANS.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
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A/E INFO

APPROVED
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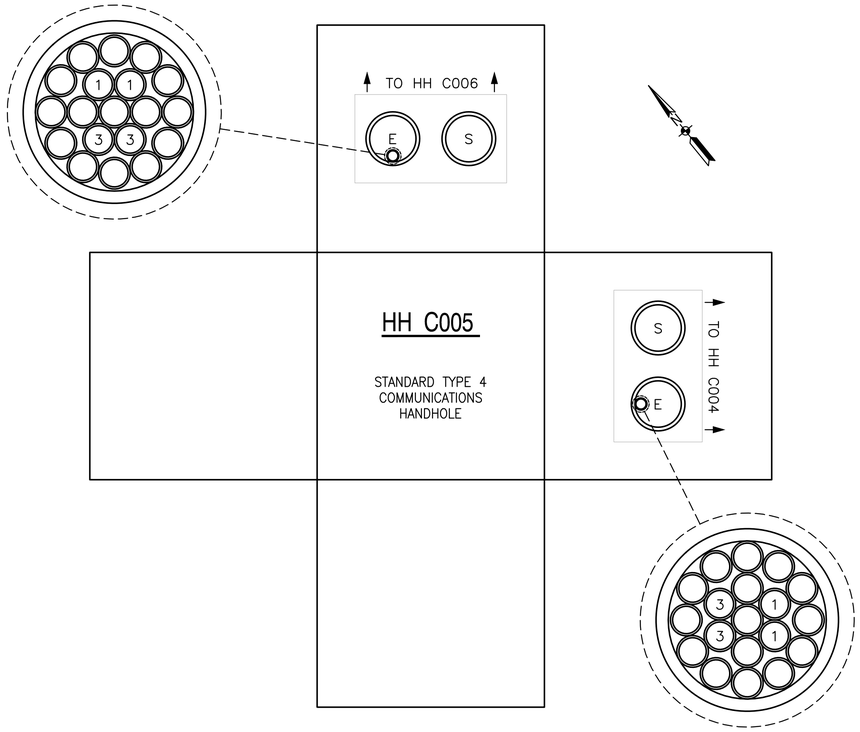
ACTIVITY
SATISFACTORY TO DATE
DES SL DRW SL CHK DJP
PM/DM
BRANCH MANAGER
CHIEF ENG/ARCH

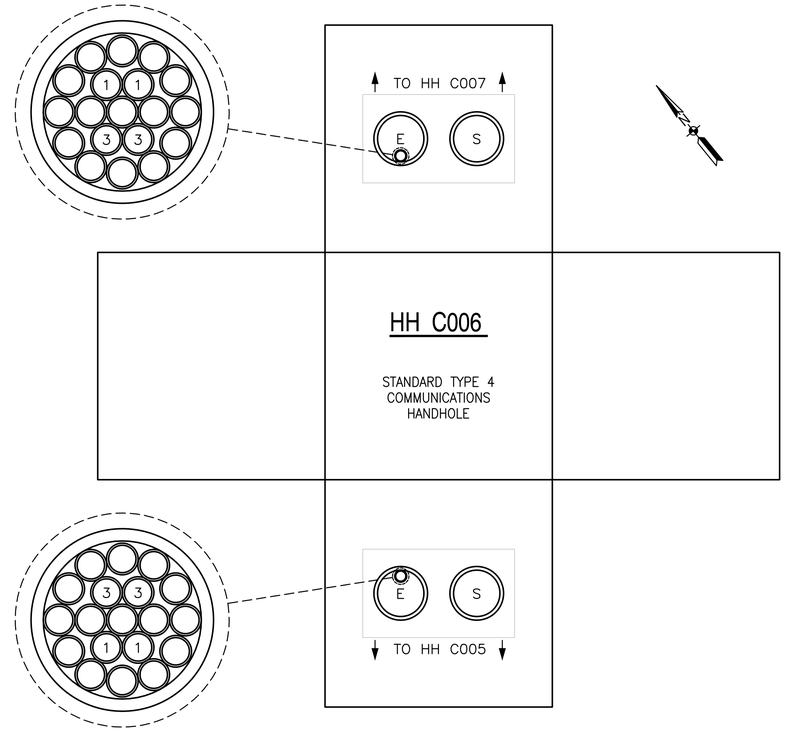
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
NR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – COMM.

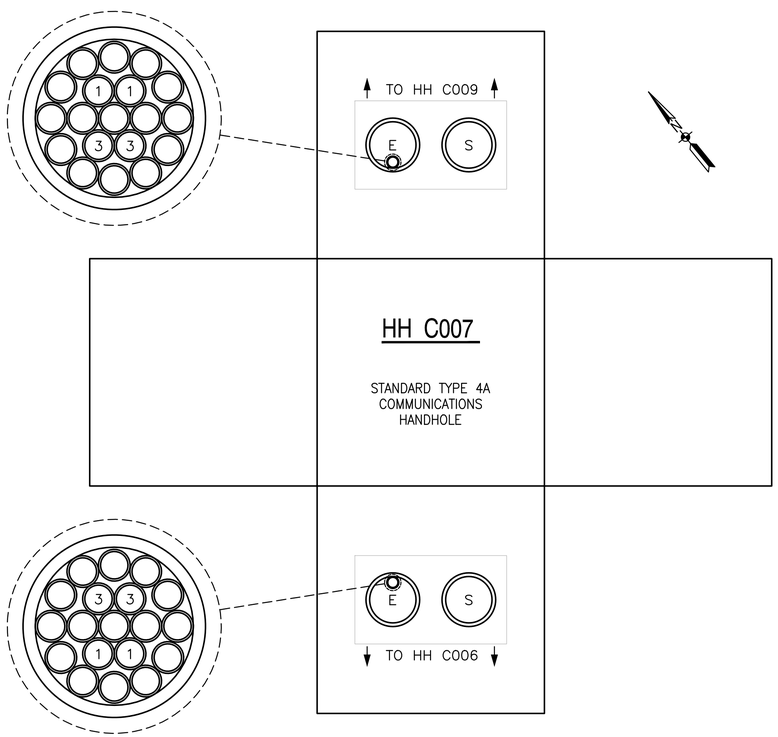
SCALE NOT TO SCALE
PROJECT NO. 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690271
SHEET 260 OF 315
EA721

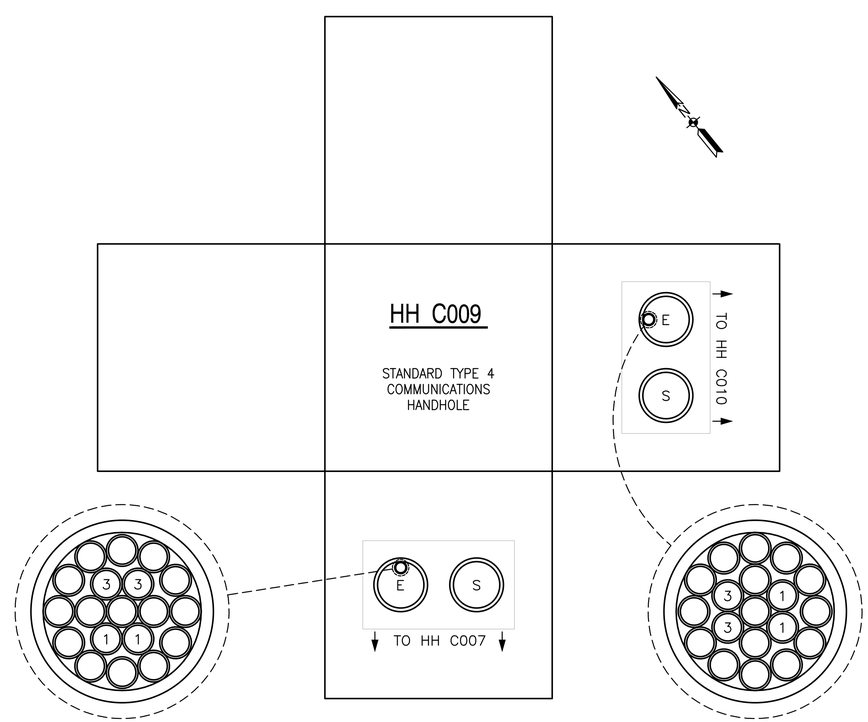
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA721.dwg LAYOUT NAME: EA721 PLOTTED: Monday, March 23, 2015 - 2:12pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

E – 4" PVC SCHEDULE 40 CONDUIT WITH A 19–TUBE INNERDUCT/TUBE CABLE. PROVIDE FIBER OPTIC CABLE AS INDICATED BY ENLARGED TUBE CABLE DETAILS SHOWN FOR EACH HANDHOLE.

S – SPARE 4" PVC SCHEDULE 40 CONDUIT.

TUBE CABLE DETAIL LEGEND

(1) (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–3015 TO LIGHTING/ELECTRICAL VAULT E–145.

(2) (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–145 TO AIRCRAFT CONTROL TOWER.

(3) (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–3015 TO RUNWAY 14L WAVE–OFF CONTROL PANEL.

(4) (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–145 TO RUNWAY 32R WAVE–OFF CONTROL PANEL.

◯ EMPTY/SPARE TUBE.

SHEET KEYNOTES

1 PROVIDE CONDUIT FROM HANDHOLE TO WAVE–OFF CONTROL PANEL AS SHOWN ON CONSTRUCTION PLANS.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
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A/E INFO

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FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES SL DRW SL CHK DJP
PM/DM
BRANCH MANAGER
CHIEF ENG/ARCH

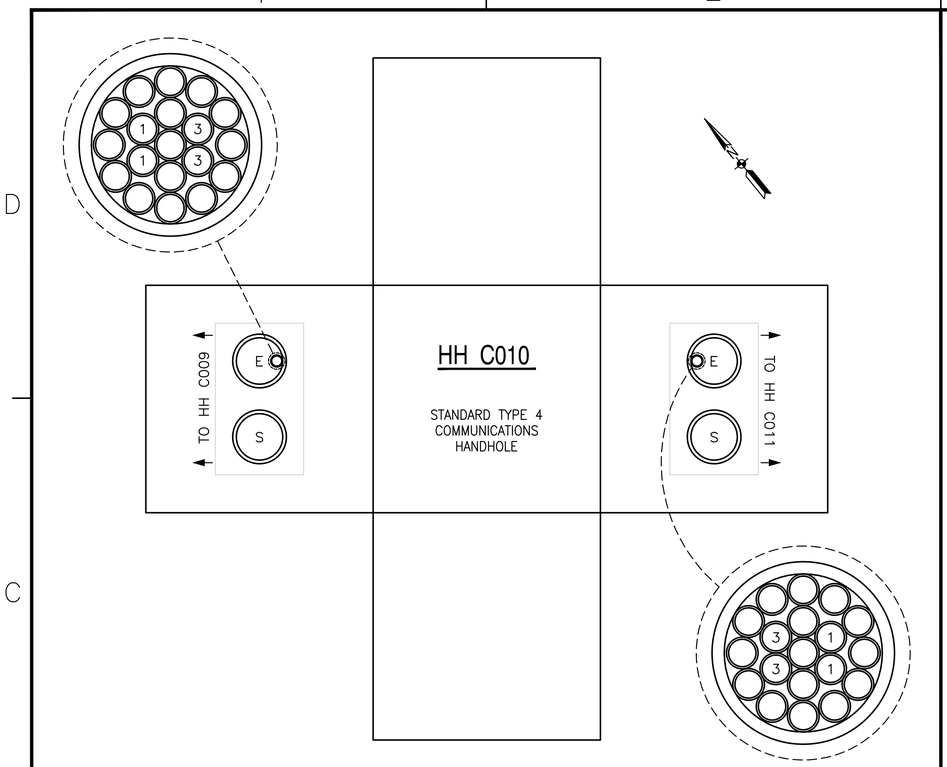
DEPARTMENT OF THE NAVY
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – COMM.

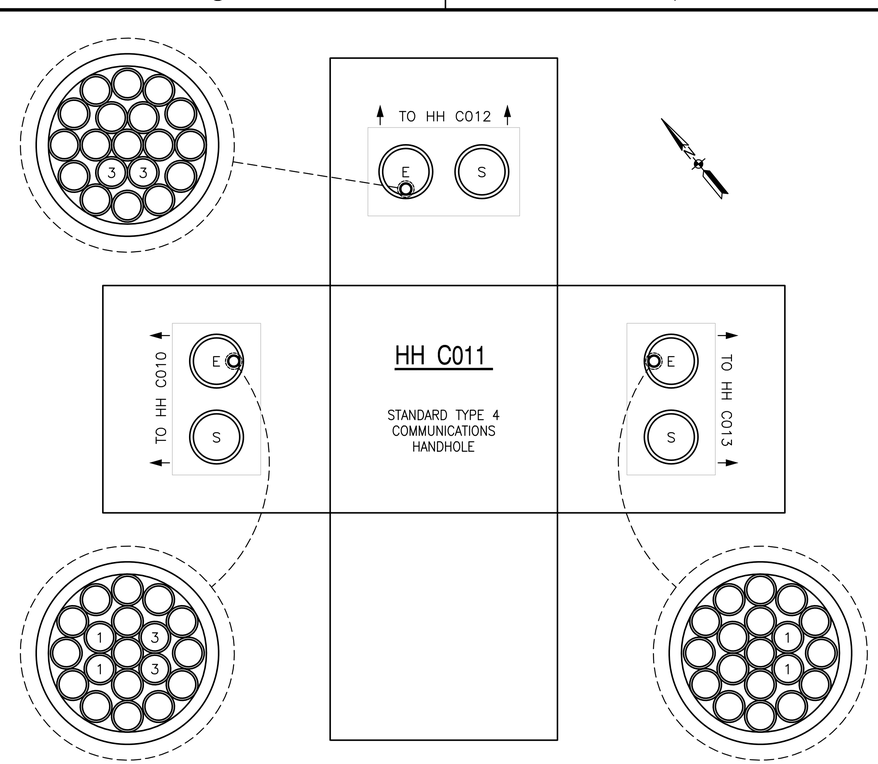
SCALE NOT TO SCALE
PROJECT NO. 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690272
SHEET 261 OF 315

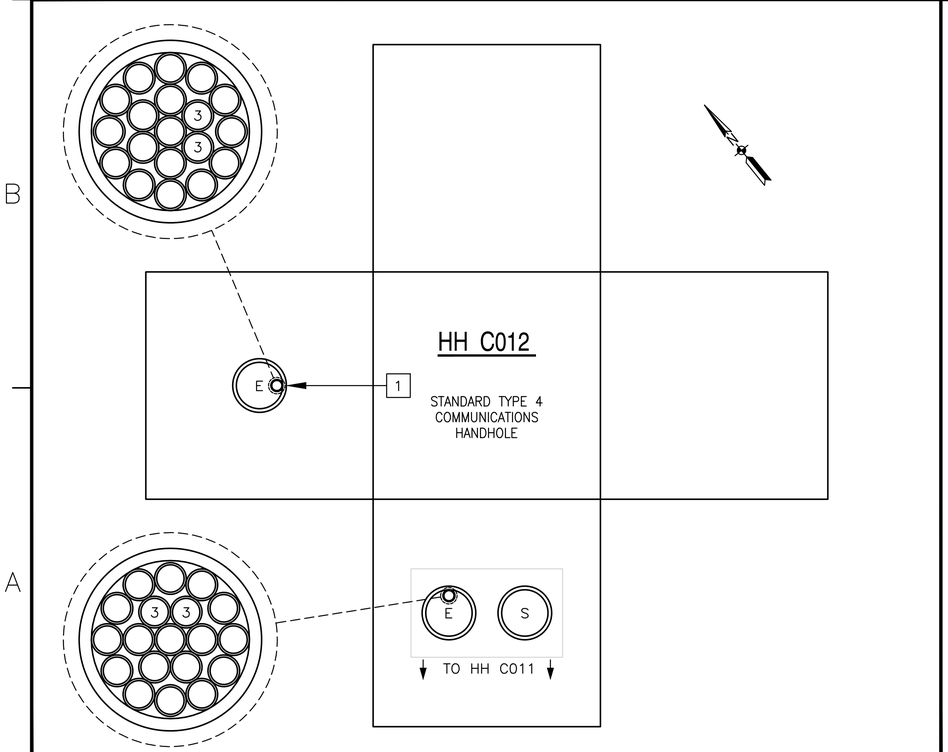
EA722

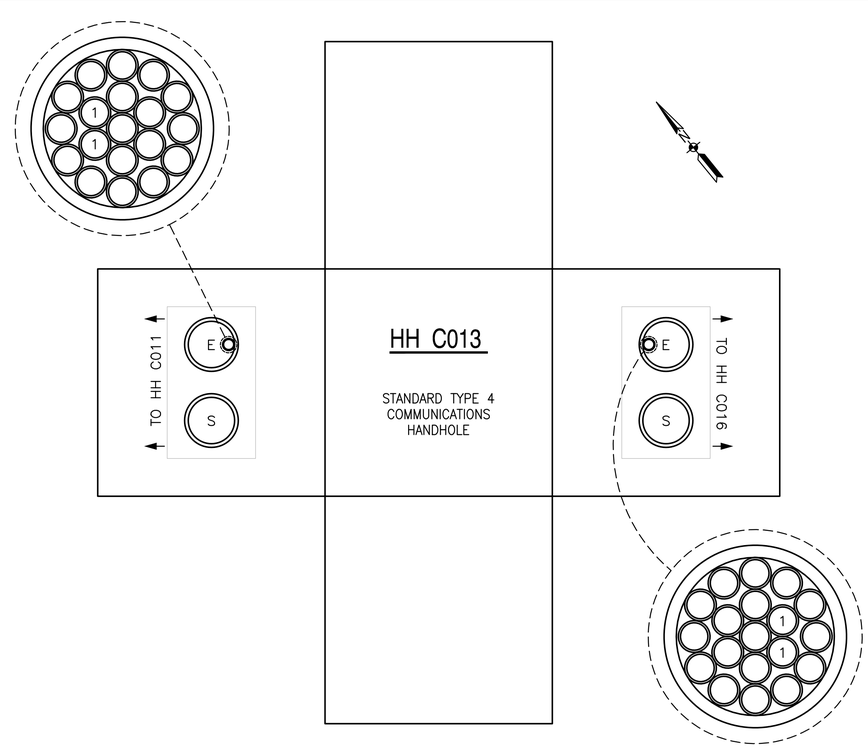
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA722.dwg LAYOUT NAME: EA722 PLOTTED: Monday, March 23, 2015 - 2:12pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

E – 4" PVC SCHEDULE 40 CONDUIT WITH A 19–TUBE INNERDUCT/TUBE CABLE. PROVIDE FIBER OPTIC CABLE AS INDICATED BY ENLARGED TUBE CABLE DETAILS SHOWN FOR EACH HANDHOLE.

S – SPARE 4" PVC SCHEDULE 40 CONDUIT.

TUBE CABLE DETAIL LEGEND

1. (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–3015 TO LIGHTING/ELECTRICAL VAULT E–145.
2. (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–145 TO AIRCRAFT CONTROL TOWER.
3. (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–3015 TO RUNWAY 14L WAVE–OFF CONTROL PANEL.
4. (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–145 TO RUNWAY 32R WAVE–OFF CONTROL PANEL.

EMPTY/SPARE TUBE.

SHEET KEYNOTES

1. PROVIDE CONDUIT FROM HANDHOLE TO WAVE–OFF CONTROL PANEL AS SHOWN ON CONSTRUCTION PLANS.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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BRANCH MANAGER
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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
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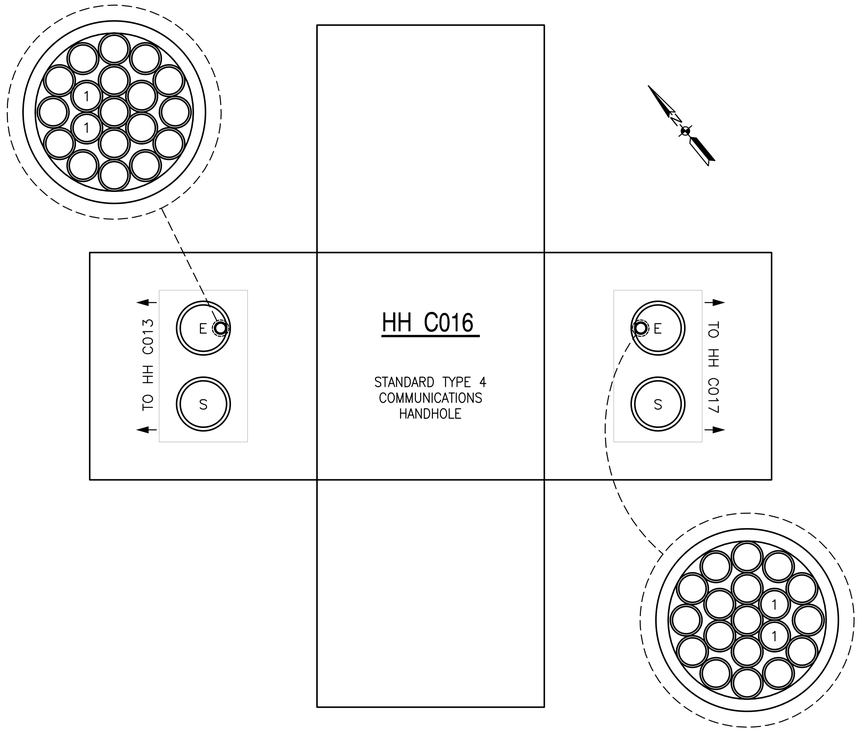
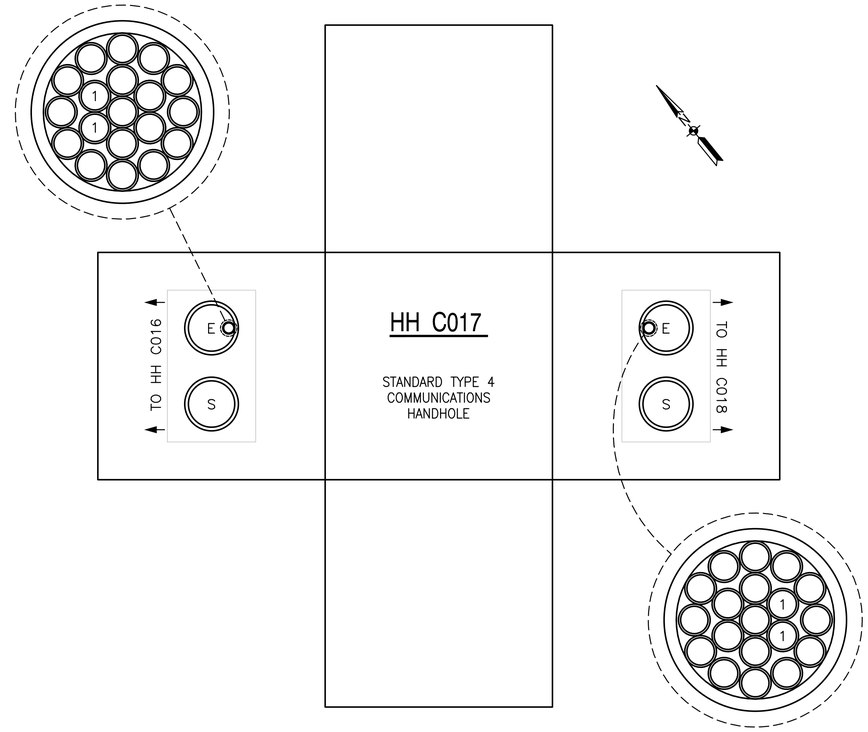
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – COMM.

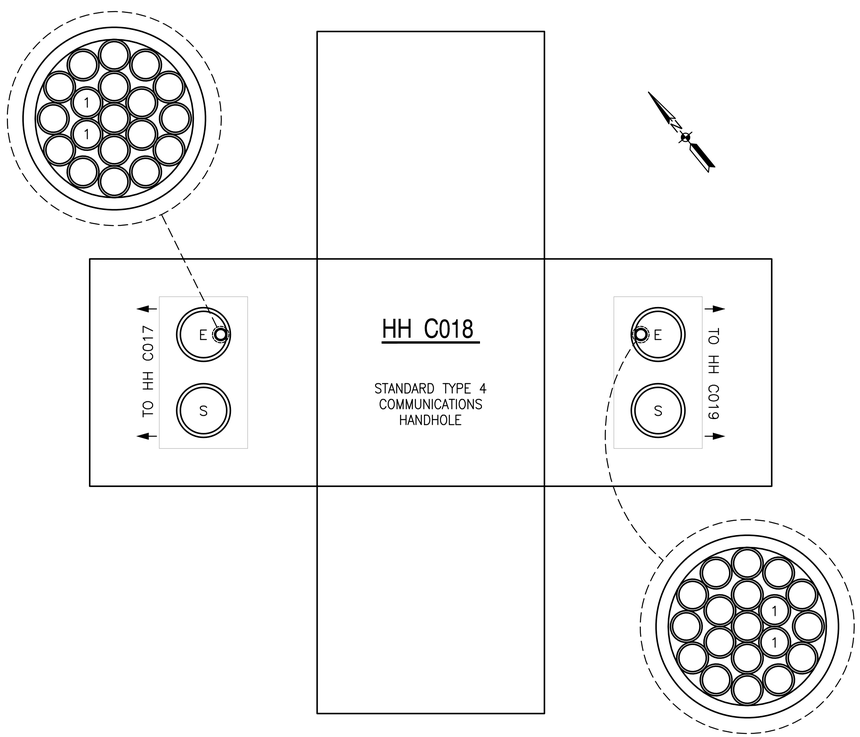
SCALE NOT TO SCALE
PROJECT NO. 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690273
SHEET 262 OF 315
EA723

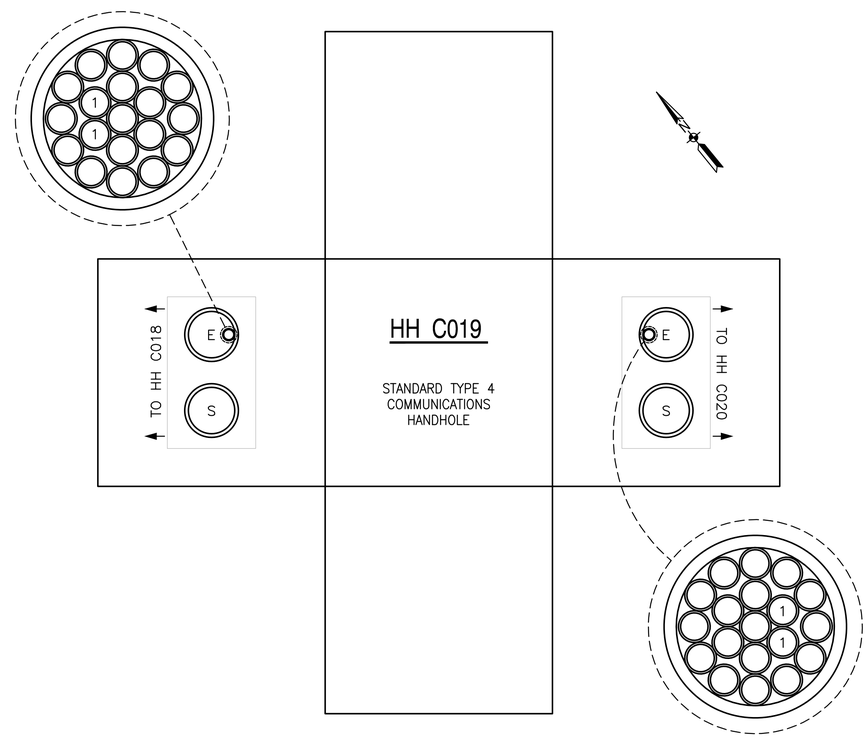
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA723.dwg LAYOUT NAME: EA723 PLOTTED: Monday, March 23, 2015 - 2:12pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

E – 4" PVC SCHEDULE 40 CONDUIT WITH A 19–TUBE INNERDUCT/TUBE CABLE. PROVIDE FIBER OPTIC CABLE AS INDICATED BY ENLARGED TUBE CABLE DETAILS SHOWN FOR EACH HANDHOLE.

S – SPARE 4" PVC SCHEDULE 40 CONDUIT.

TUBE CABLE DETAIL LEGEND

1. (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–3015 TO LIGHTING/ELECTRICAL VAULT E–145.
2. (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–145 TO AIRCRAFT CONTROL TOWER.
3. (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–3015 TO RUNWAY 14L WAVE–OFF CONTROL PANEL.
4. (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–145 TO RUNWAY 32R WAVE–OFF CONTROL PANEL.

EMPTY/SPARE TUBE.

SHEET KEYNOTES

1. PROVIDE CONDUIT FROM HANDHOLE TO WAVE–OFF CONTROL PANEL AS SHOWN ON CONSTRUCTION PLANS.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
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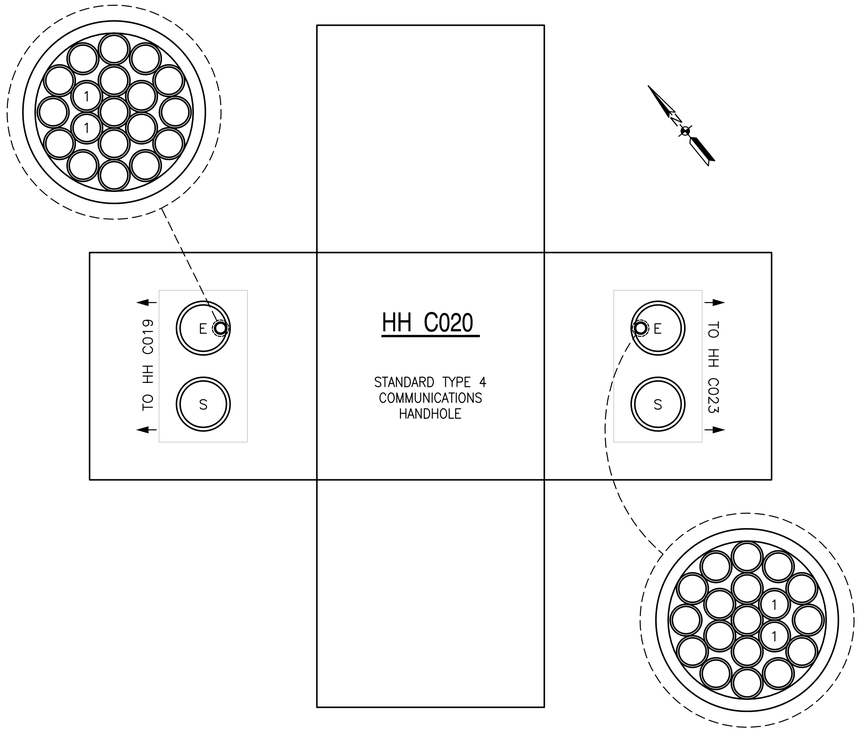
ACTIVITY
SATISFACTORY TO DATE
DES SL DRW SL CHK DJP
PM/DM
BRANCH MANAGER
CHIEF ENG/ARCH

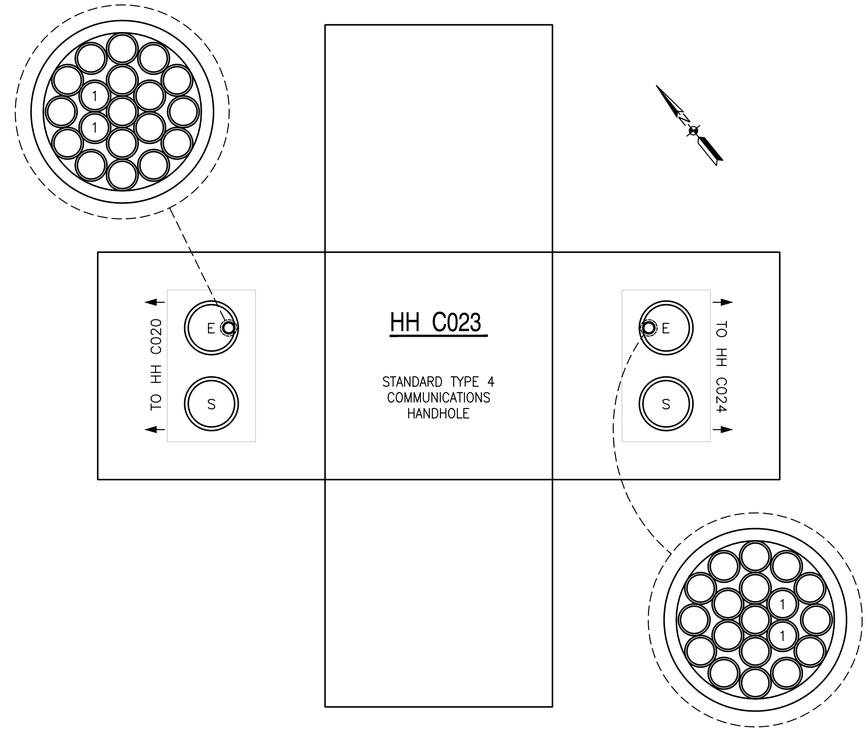
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
NR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – COMM.

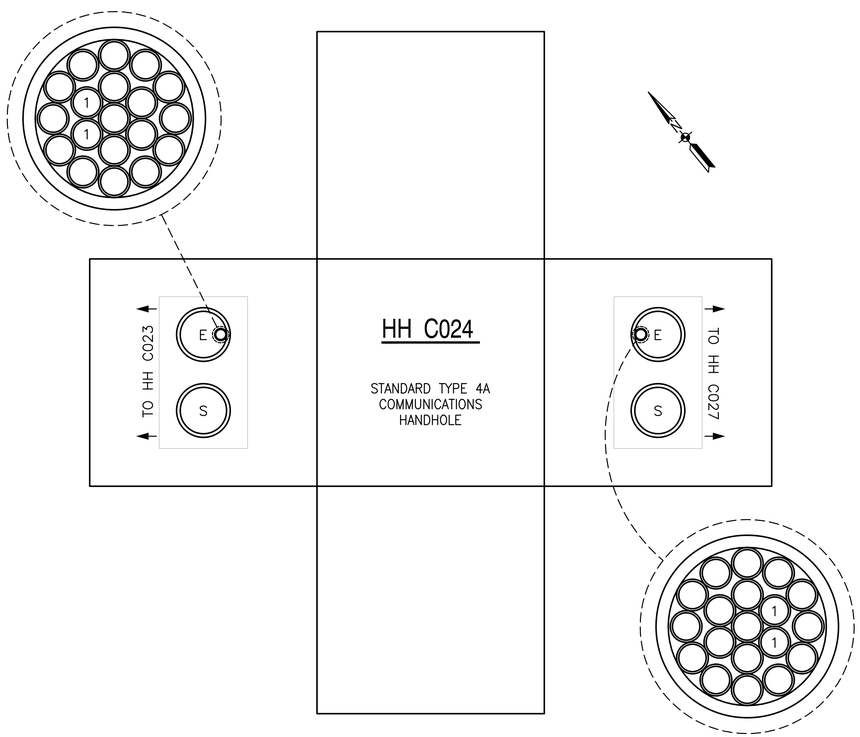
SCALE: NOT TO SCALE
PROJECT NO. 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690274
SHEET 263 OF 315
EA724

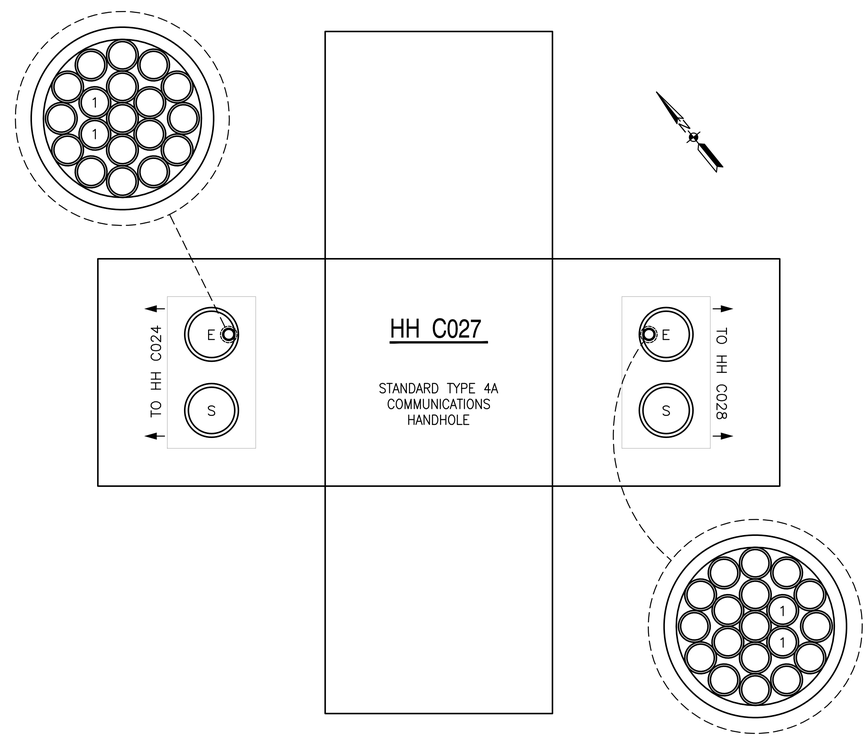
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA724.dwg LAYOUT NAME: EA724 PLOTTED: Monday, March 23, 2015 - 2:12pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

E – 4" PVC SCHEDULE 40 CONDUIT WITH A 19–TUBE INNERDUCT/TUBE CABLE. PROVIDE FIBER OPTIC CABLE AS INDICATED BY ENLARGED TUBE CABLE DETAILS SHOWN FOR EACH HANDHOLE.

S – SPARE 4" PVC SCHEDULE 40 CONDUIT.

TUBE CABLE DETAIL LEGEND

1. (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–3015 TO LIGHTING/ELECTRICAL VAULT E–145.
2. (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–145 TO AIRCRAFT CONTROL TOWER.
3. (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–3015 TO RUNWAY 14L WAVE–OFF CONTROL PANEL.
4. (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–145 TO RUNWAY 32R WAVE–OFF CONTROL PANEL.

EMPTY/SPARE TUBE.

SHEET KEYNOTES

1. PROVIDE CONDUIT FROM HANDHOLE TO WAVE–OFF CONTROL PANEL AS SHOWN ON CONSTRUCTION PLANS.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
Lic. No. 45530
PROFESSIONAL ENGINEER

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A/E INFO

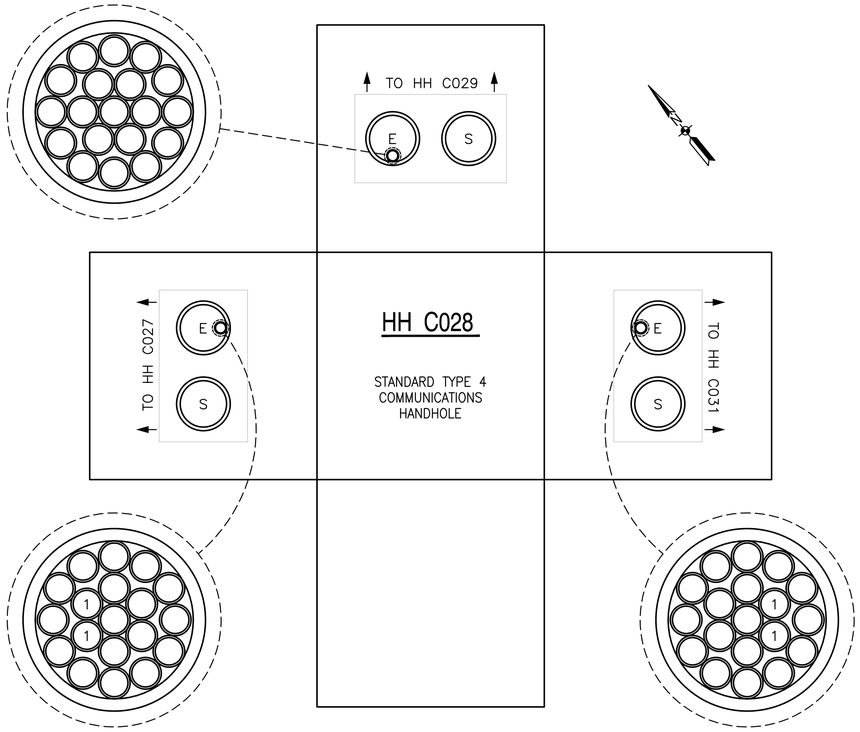
APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES SL DRW SL CHK DJP
PM/DM
BRANCH MANAGER
CHIEF ENG/ARCH

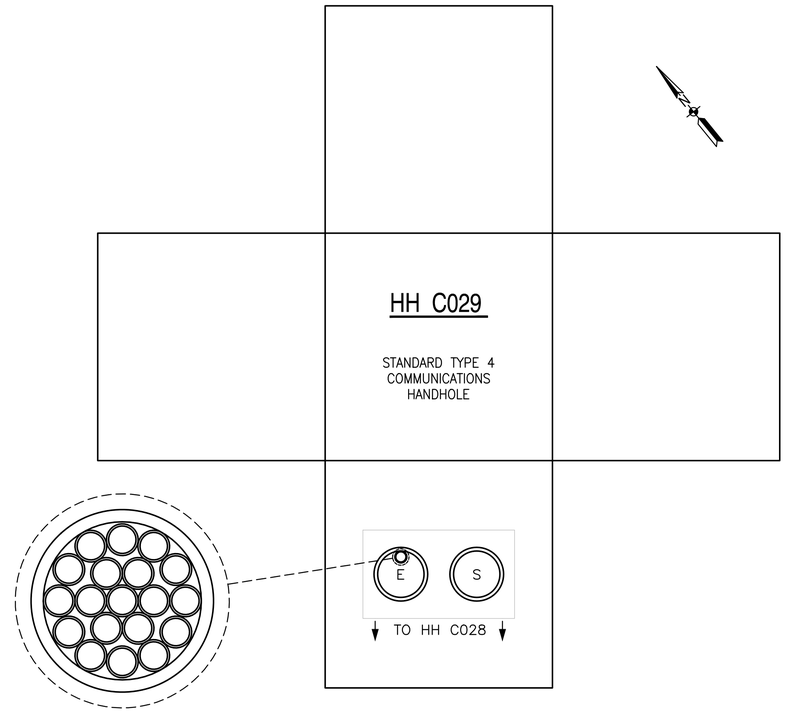
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
NR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – COMM.

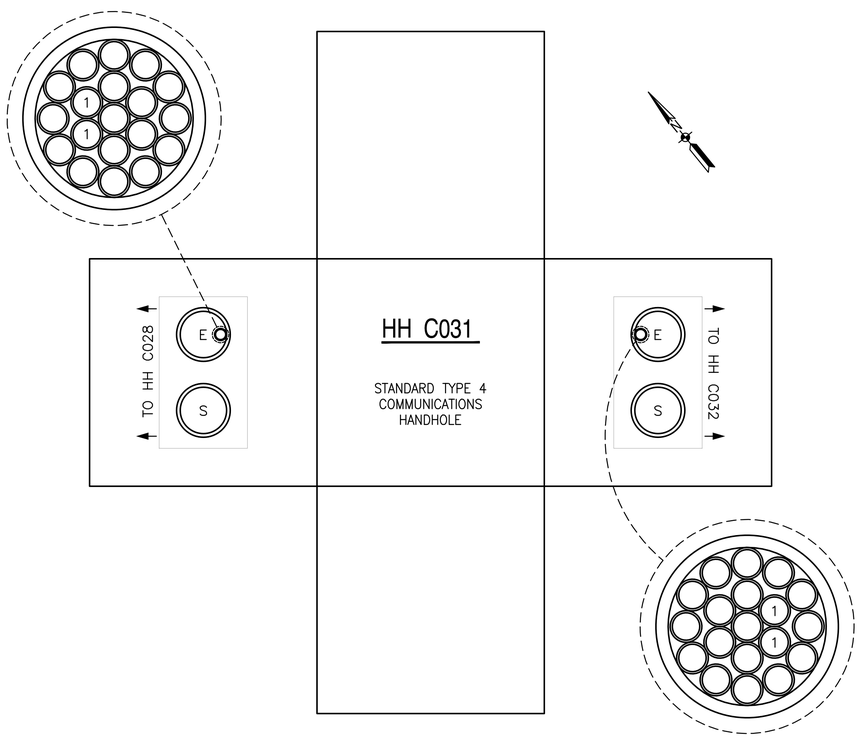
SCALE NOT TO SCALE
PROJECT NO. 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690275
SHEET 264 OF 315
EA725

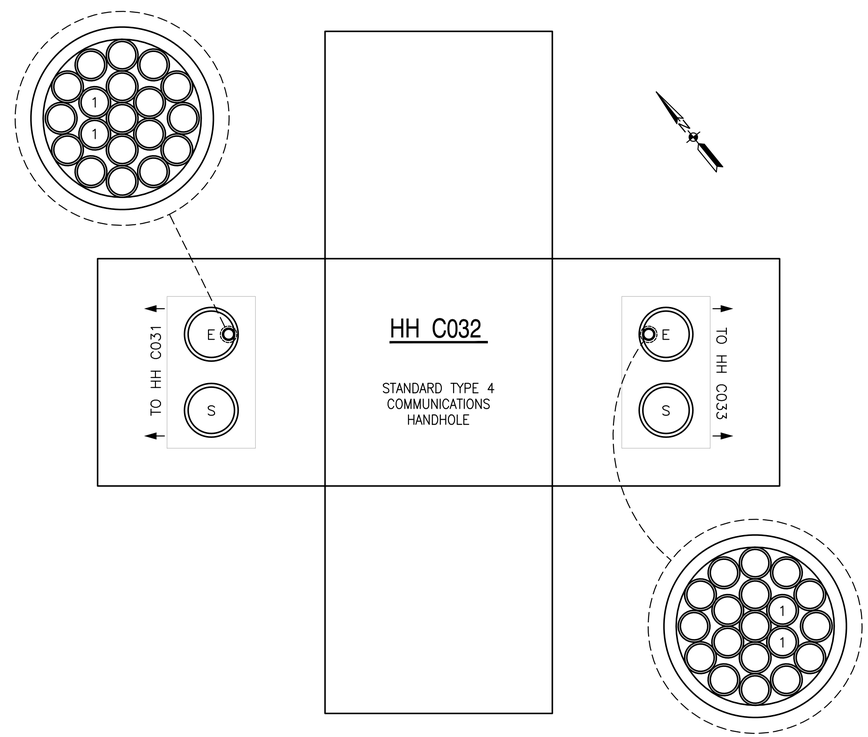
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA725.dwg LAYOUT NAME: EA725 PLOTTED: Monday, March 23, 2015 - 2:13pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

E – 4" PVC SCHEDULE 40 CONDUIT WITH A 19–TUBE INNERDUCT/TUBE CABLE. PROVIDE FIBER OPTIC CABLE AS INDICATED BY ENLARGED TUBE CABLE DETAILS SHOWN FOR EACH HANDHOLE.

S – SPARE 4" PVC SCHEDULE 40 CONDUIT.

TUBE CABLE DETAIL LEGEND

1. (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–3015 TO LIGHTING/ELECTRICAL VAULT E–145.
2. (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–145 TO AIRCRAFT CONTROL TOWER.
3. (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–3015 TO RUNWAY 14L WAVE–OFF CONTROL PANEL.
4. (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–145 TO RUNWAY 32R WAVE–OFF CONTROL PANEL.

◯ EMPTY/SPARE TUBE.

SHEET KEYNOTES

1. PROVIDE CONDUIT FROM HANDHOLE TO WAVE–OFF CONTROL PANEL AS SHOWN ON CONSTRUCTION PLANS.

SYM.	DESCRIPTION	DATE	APPR.

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
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A/E INFO

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ACTIVITY
SATISFACTORY TO DATE
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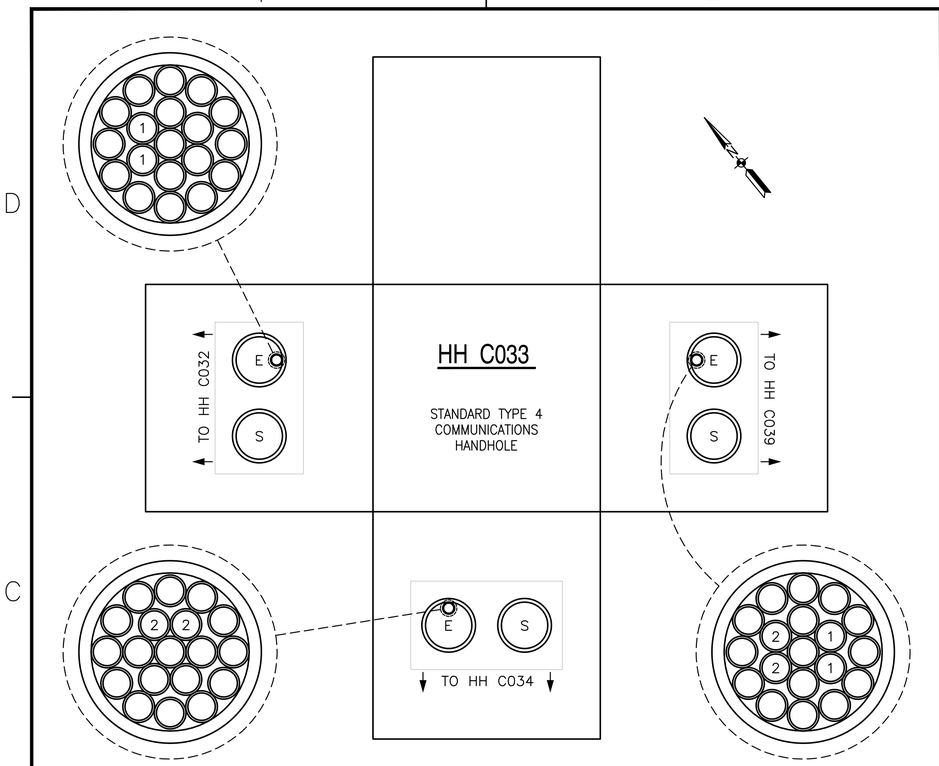
PM/DM
BRANCH MANAGER
CHIEF ENG/ARCH

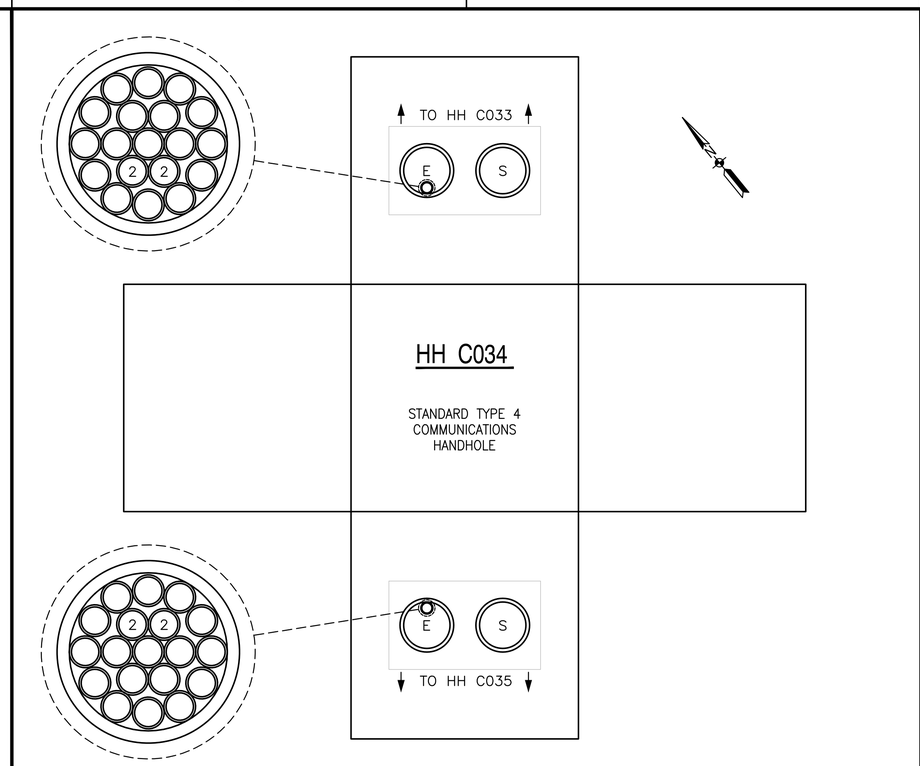
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – COMM.

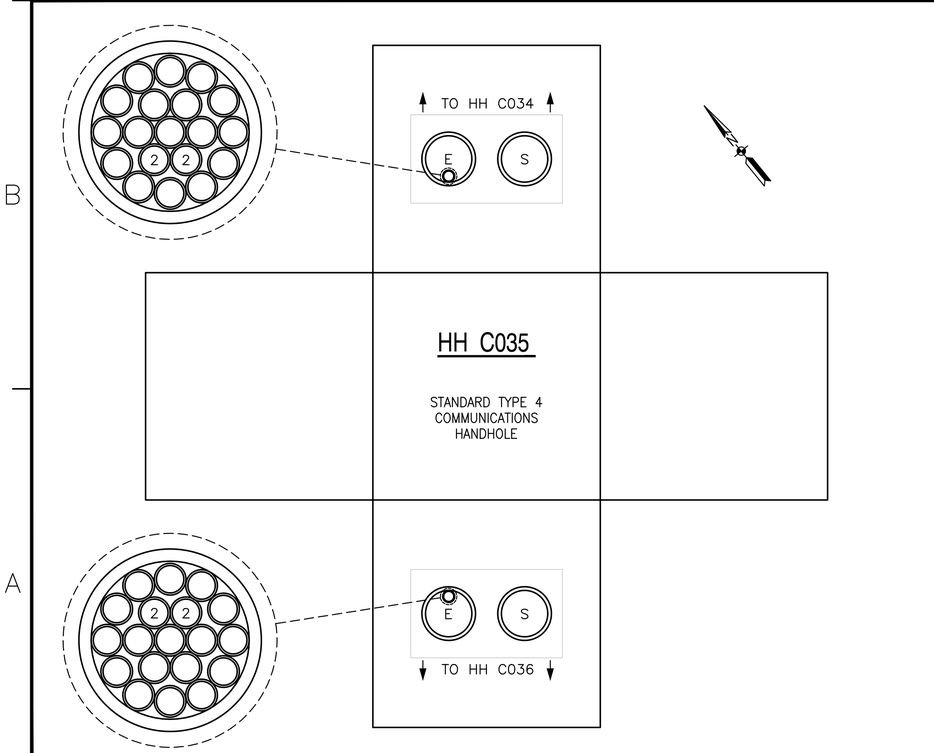
SCALE: NOT TO SCALE
PROJECT NO. 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690276
SHEET 265 OF 315
EA726

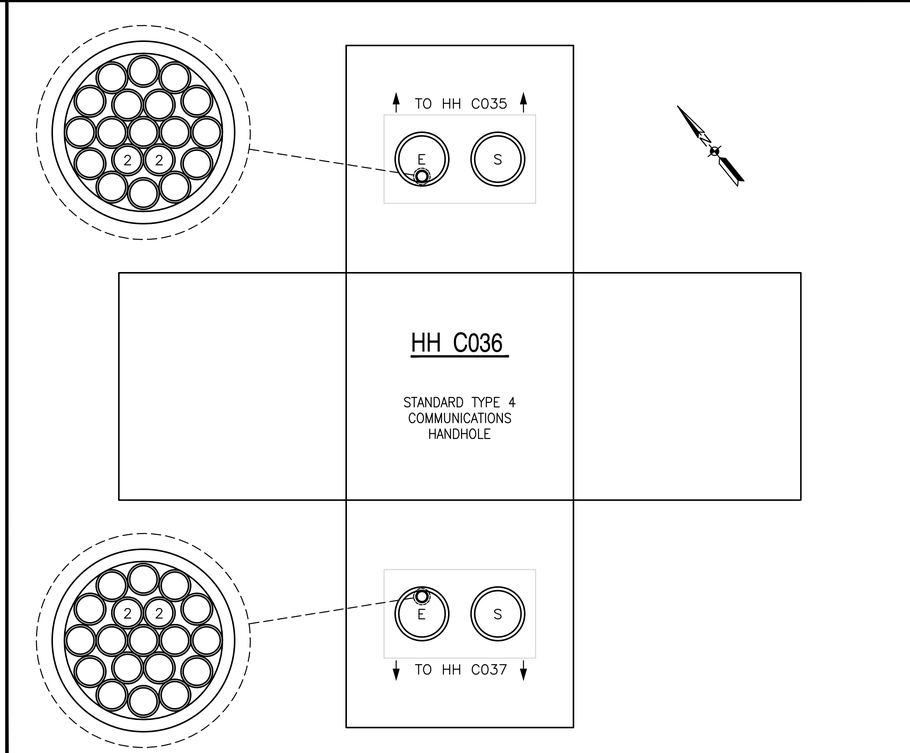
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA726.dwg LAYOUT NAME: EA726 PLOTTED: Monday, March 23, 2015 - 2:13pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

E – 4" PVC SCHEDULE 40 CONDUIT WITH A 19–TUBE INNERDUCT/TUBE CABLE. PROVIDE FIBER OPTIC CABLE AS INDICATED BY ENLARGED TUBE CABLE DETAILS SHOWN FOR EACH HANDHOLE.

S – SPARE 4" PVC SCHEDULE 40 CONDUIT.

TUBE CABLE DETAIL LEGEND

(1) (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–3015 TO LIGHTING/ELECTRICAL VAULT E–145.

(2) (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–145 TO AIRCRAFT CONTROL TOWER.

(3) (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–3015 TO RUNWAY 14L WAVE–OFF CONTROL PANEL.

(4) (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–145 TO RUNWAY 32R WAVE–OFF CONTROL PANEL.

◯ EMPTY/SPARE TUBE.

SHEET KEYNOTES

1 PROVIDE CONDUIT FROM HANDHOLE TO WAVE–OFF CONTROL PANEL AS SHOWN ON CONSTRUCTION PLANS.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
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A/E INFO

APPROVED
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ACTIVITY
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PM/DM
BRANCH MANAGER
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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
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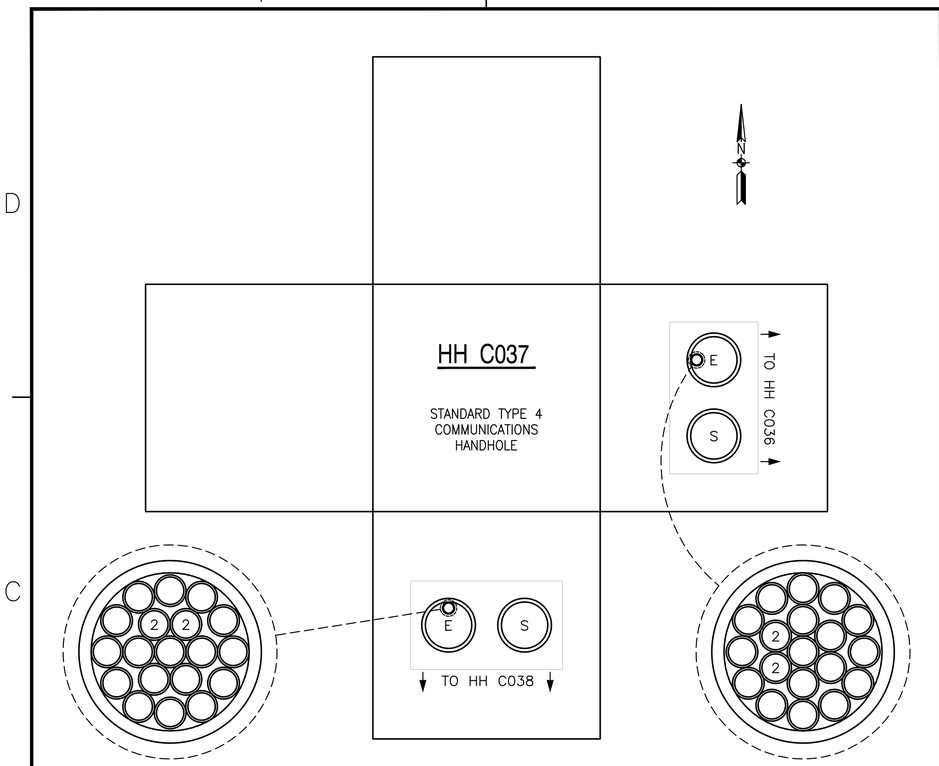
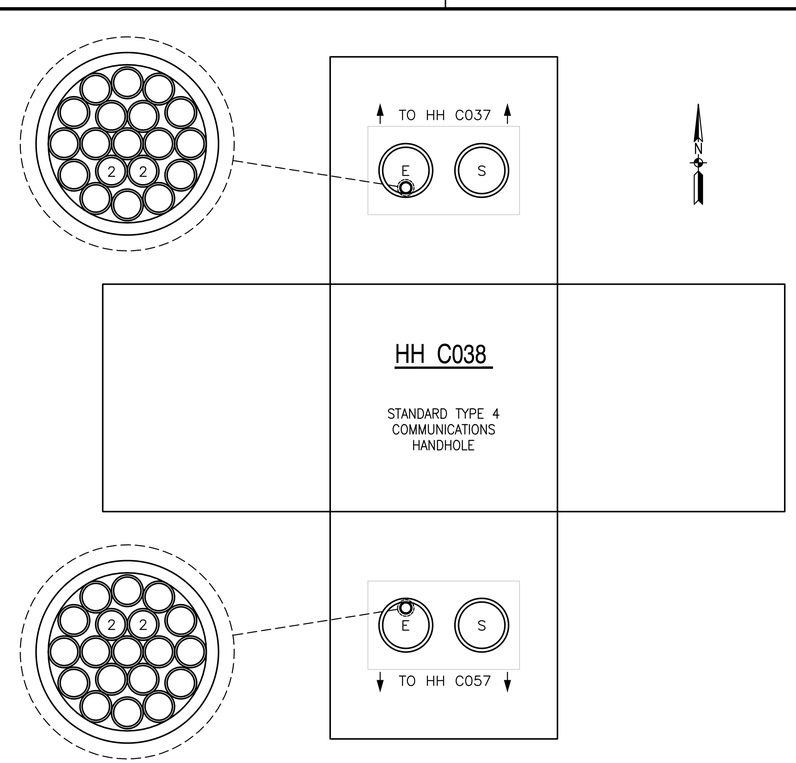
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – COMM.

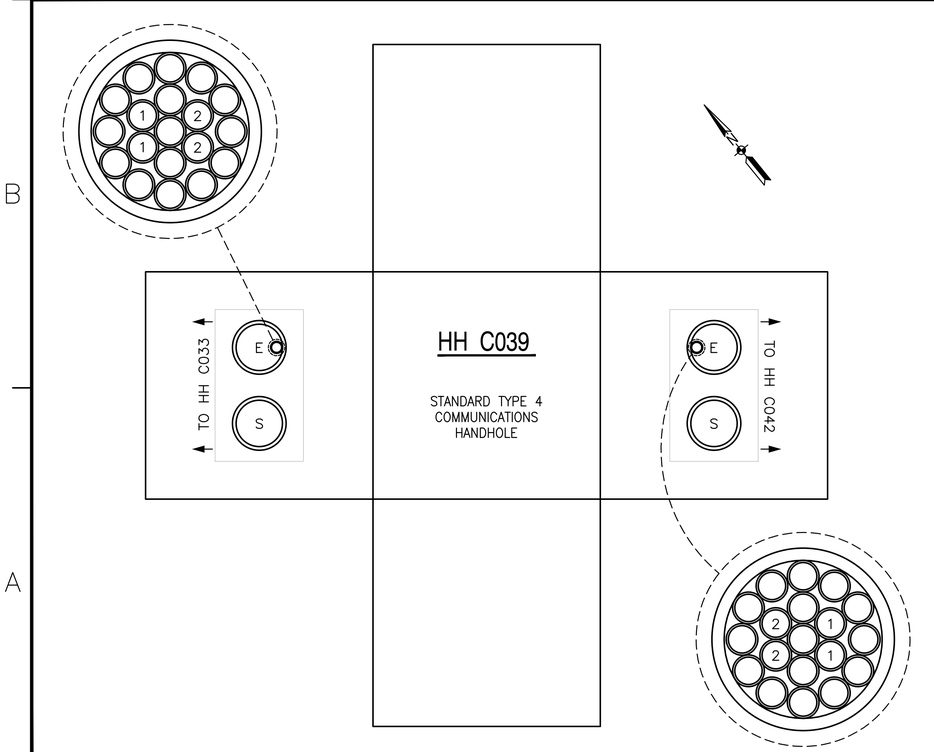
SCALE NOT TO SCALE
PROJECT NO. 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690277
SHEET 266 OF 315
EA727

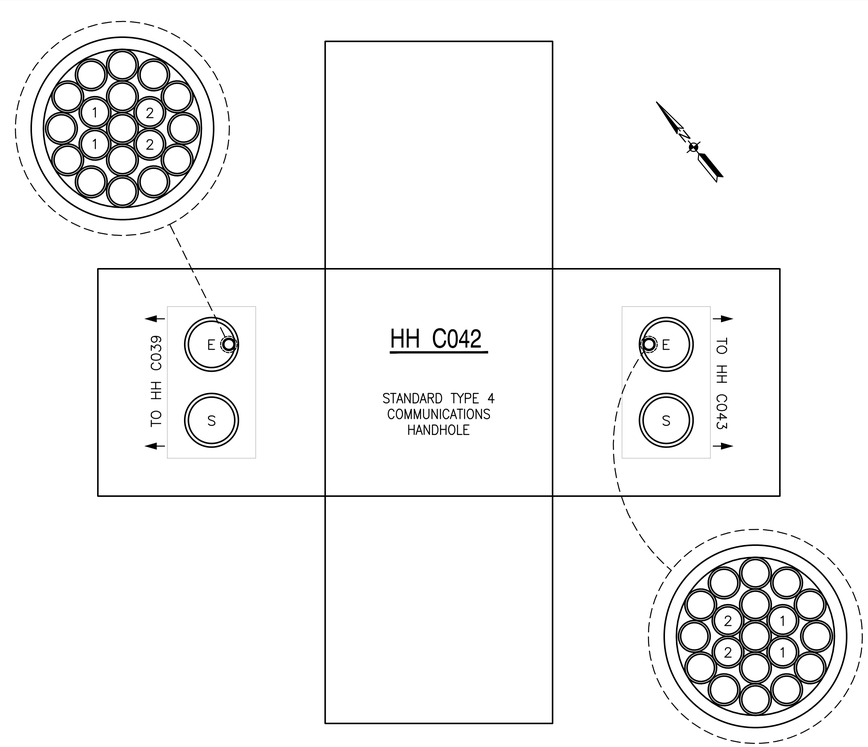
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA727.dwg LAYOUT NAME: EA727 PLOTTED: Monday, March 23, 2015 - 2:13pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

E – 4" PVC SCHEDULE 40 CONDUIT WITH A 19–TUBE INNERDUCT/TUBE CABLE. PROVIDE FIBER OPTIC CABLE AS INDICATED BY ENLARGED TUBE CABLE DETAILS SHOWN FOR EACH HANDHOLE.

S – SPARE 4" PVC SCHEDULE 40 CONDUIT.

TUBE CABLE DETAIL LEGEND

1. (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–3015 TO LIGHTING/ELECTRICAL VAULT E–145.
2. (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–145 TO AIRCRAFT CONTROL TOWER.
3. (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–3015 TO RUNWAY 14L WAVE–OFF CONTROL PANEL.
4. (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–145 TO RUNWAY 32R WAVE–OFF CONTROL PANEL.

EMPTY/SPARE TUBE.

SHEET KEYNOTES

1. PROVIDE CONDUIT FROM HANDHOLE TO WAVE–OFF CONTROL PANEL AS SHOWN ON CONSTRUCTION PLANS.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
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A/E INFO

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BRANCH MANAGER
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
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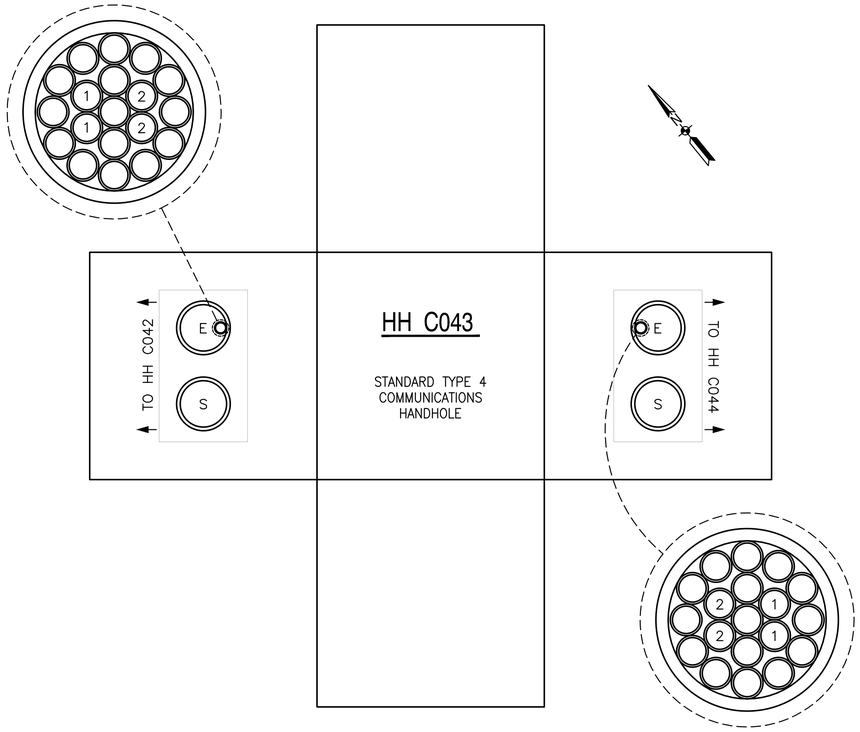
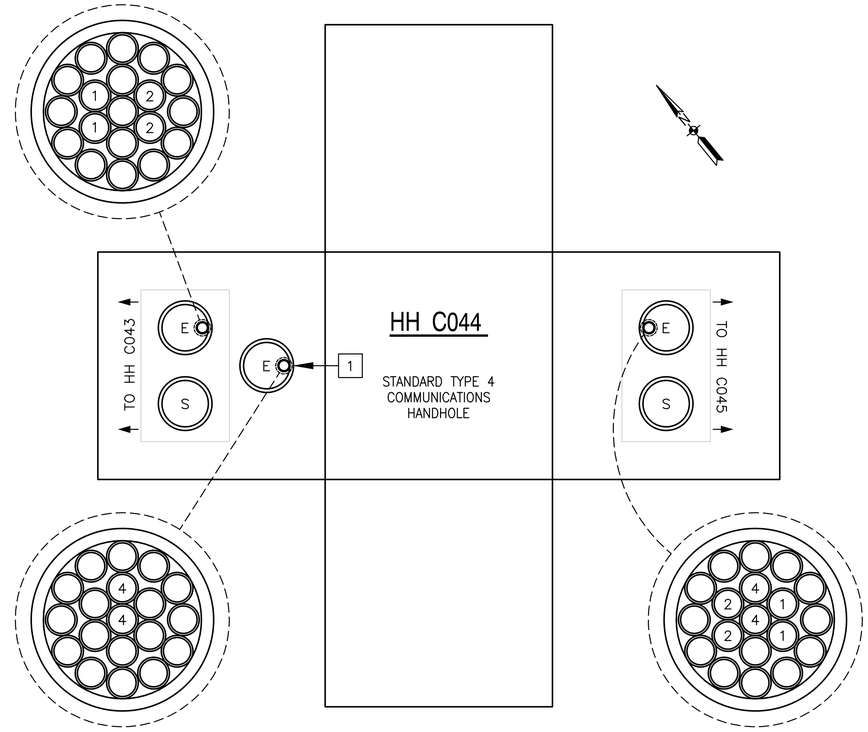
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – COMM.

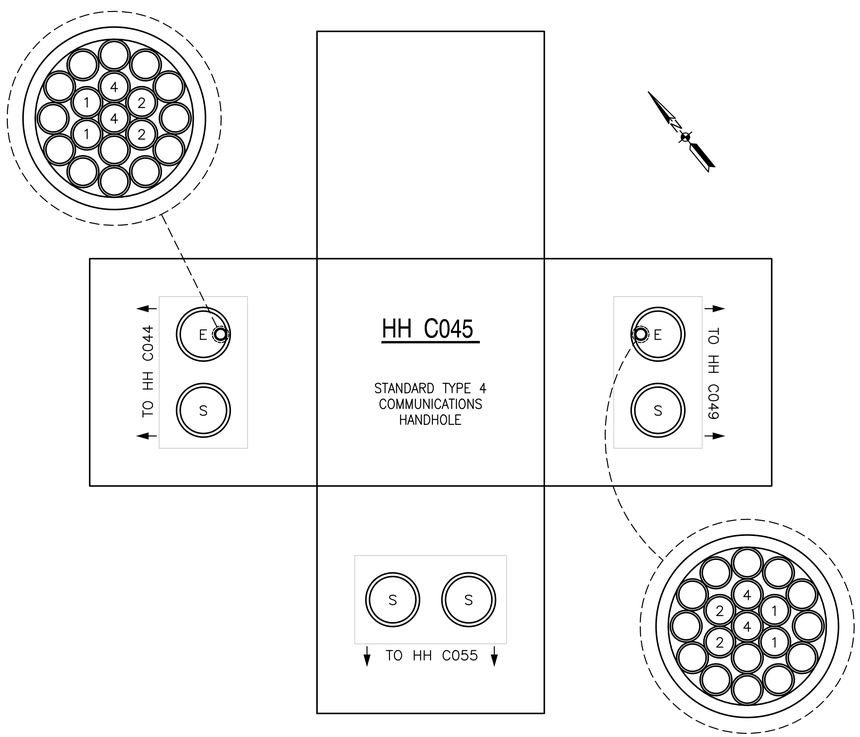
SCALE: NOT TO SCALE
PROJECT NO. 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690278
SHEET 267 OF 315
EA728

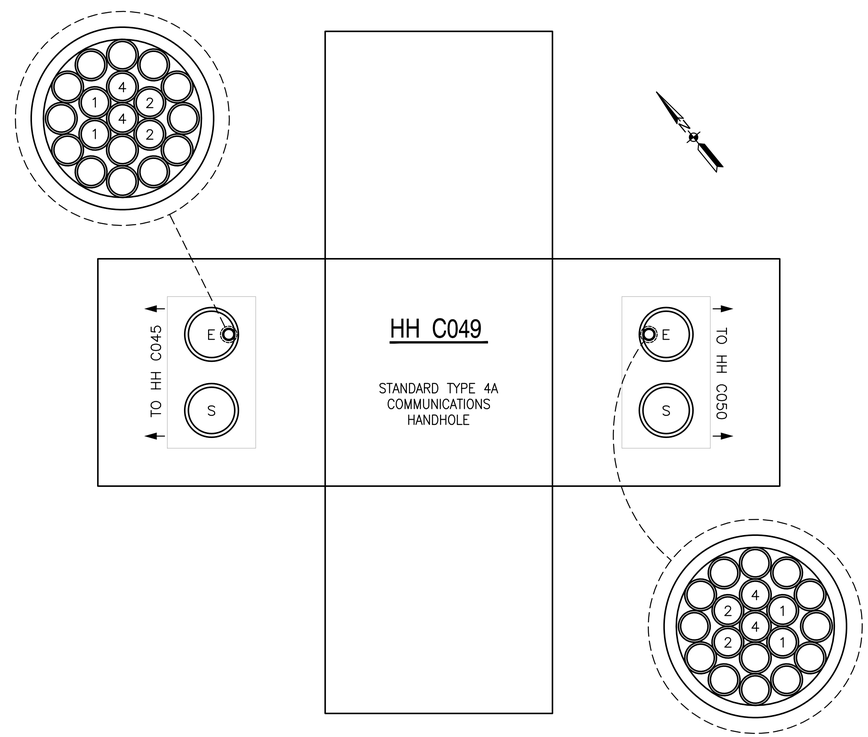
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA728.dwg LAYOUT NAME: EA728 PLOTTED: Monday, March 23, 2015 - 2:13pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

E – 4" PVC SCHEDULE 40 CONDUIT WITH A 19–TUBE INNERDUCT/TUBE CABLE. PROVIDE FIBER OPTIC CABLE AS INDICATED BY ENLARGED TUBE CABLE DETAILS SHOWN FOR EACH HANDHOLE.

S – SPARE 4" PVC SCHEDULE 40 CONDUIT.

TUBE CABLE DETAIL LEGEND

1. (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–3015 TO LIGHTING/ELECTRICAL VAULT E–145.
2. (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–145 TO AIRCRAFT CONTROL TOWER.
3. (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–3015 TO RUNWAY 14L WAVE–OFF CONTROL PANEL.
4. (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–145 TO RUNWAY 32R WAVE–OFF CONTROL PANEL.

EMPTY/SPARE TUBE.

SHEET KEYNOTES

1. PROVIDE CONDUIT FROM HANDHOLE TO WAVE–OFF CONTROL PANEL AS SHOWN ON CONSTRUCTION PLANS.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
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A/E INFO

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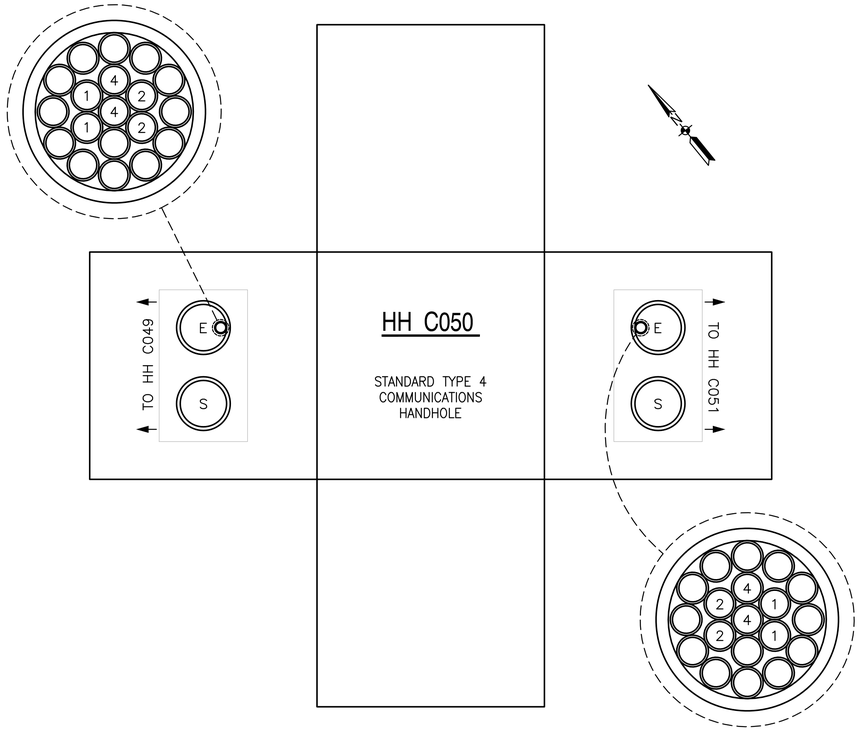
ACTIVITY
SATISFACTORY TO DATE
DES SL DRW SL CHK DJP
PM/DM
BRANCH MANAGER
CHIEF ENG/ARCH

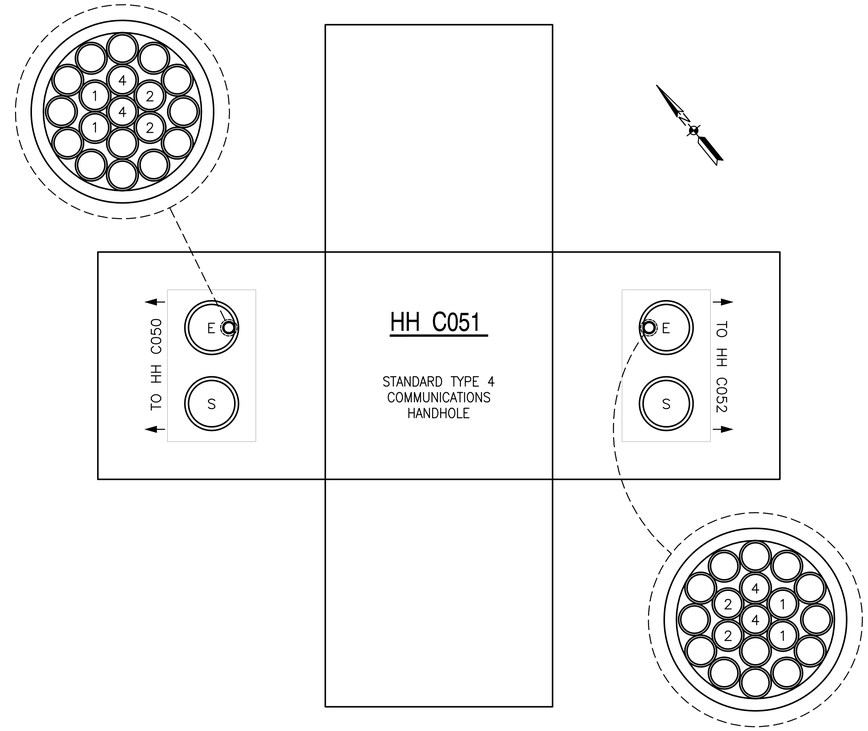
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – COMM.

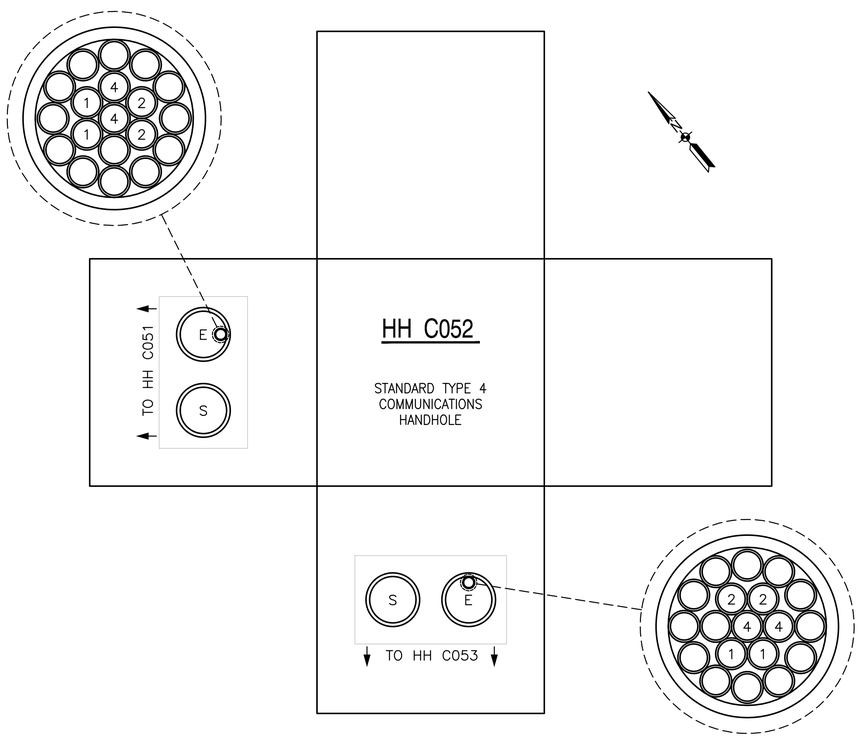
SCALE: NOT TO SCALE
PROJECT NO. 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690279
SHEET 268 OF 315
EA729

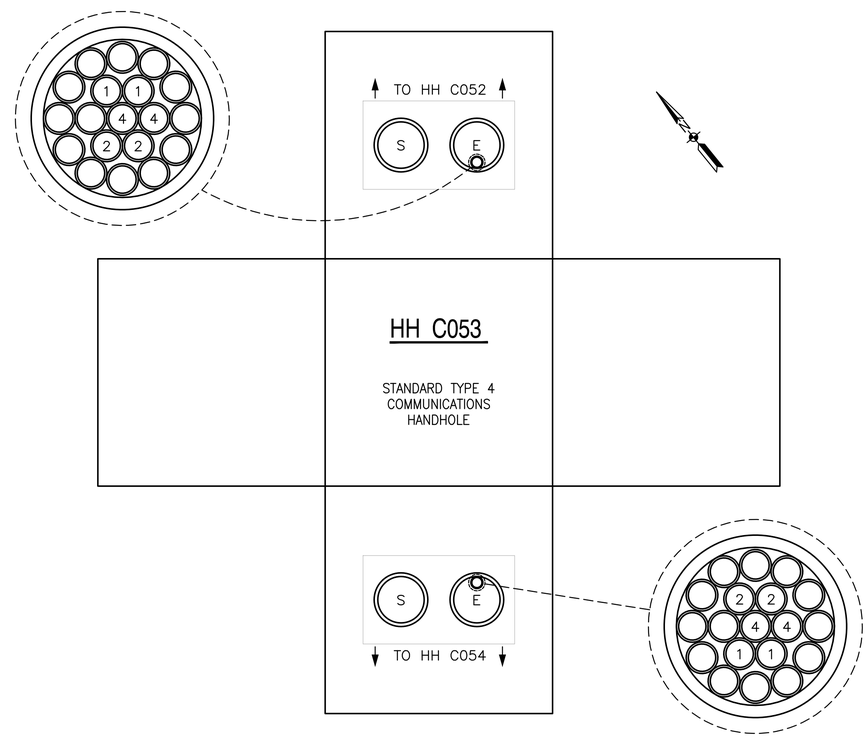
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA729.dwg LAYOUT NAME: EA729 PLOTTED: Monday, March 23, 2015 - 2:13pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

E – 4" PVC SCHEDULE 40 CONDUIT WITH A 19–TUBE INNERDUCT/TUBE CABLE. PROVIDE FIBER OPTIC CABLE AS INDICATED BY ENLARGED TUBE CABLE DETAILS SHOWN FOR EACH HANDHOLE.

S – SPARE 4" PVC SCHEDULE 40 CONDUIT.

TUBE CABLE DETAIL LEGEND

(1) (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–3015 TO LIGHTING/ELECTRICAL VAULT E–145.

(2) (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–145 TO AIRCRAFT CONTROL TOWER.

(3) (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–3015 TO RUNWAY 14L WAVE–OFF CONTROL PANEL.

(4) (1) 6–STRAND, SINGLE–MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E–145 TO RUNWAY 32R WAVE–OFF CONTROL PANEL.

◯ EMPTY/SPARE TUBE.

SHEET KEYNOTES

1 PROVIDE CONDUIT FROM HANDHOLE TO WAVE–OFF CONTROL PANEL AS SHOWN ON CONSTRUCTION PLANS.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

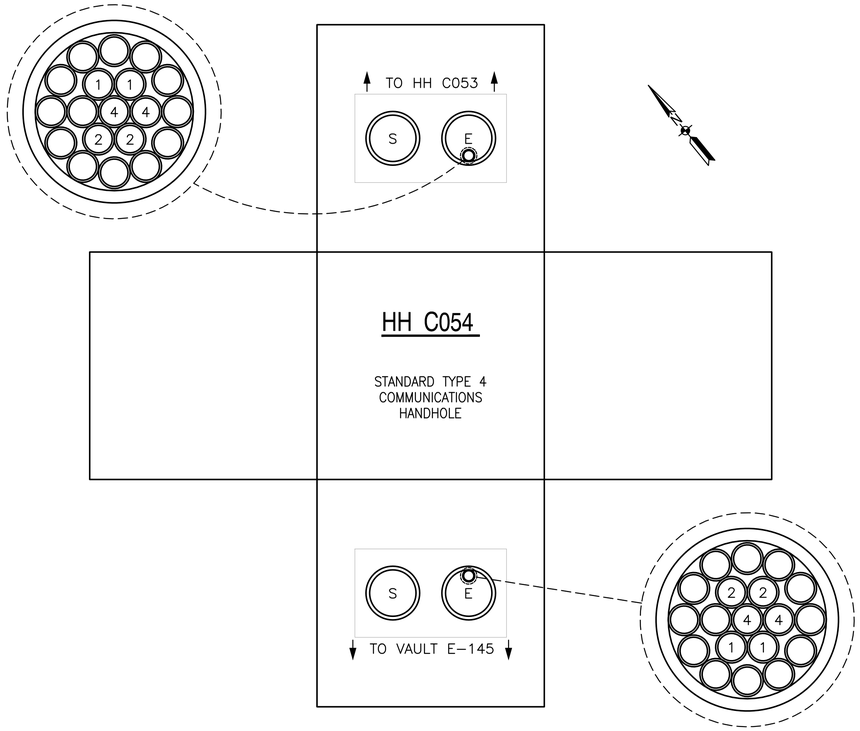
APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES SL DRW SL CHK DJP
PM/DM
BRANCH MANAGER
CHIEF ENG/ARCH

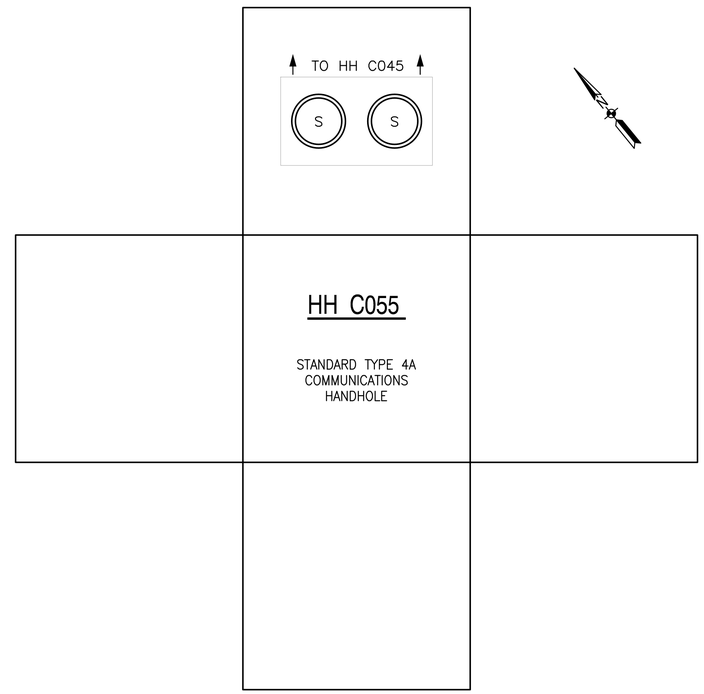
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – COMM.

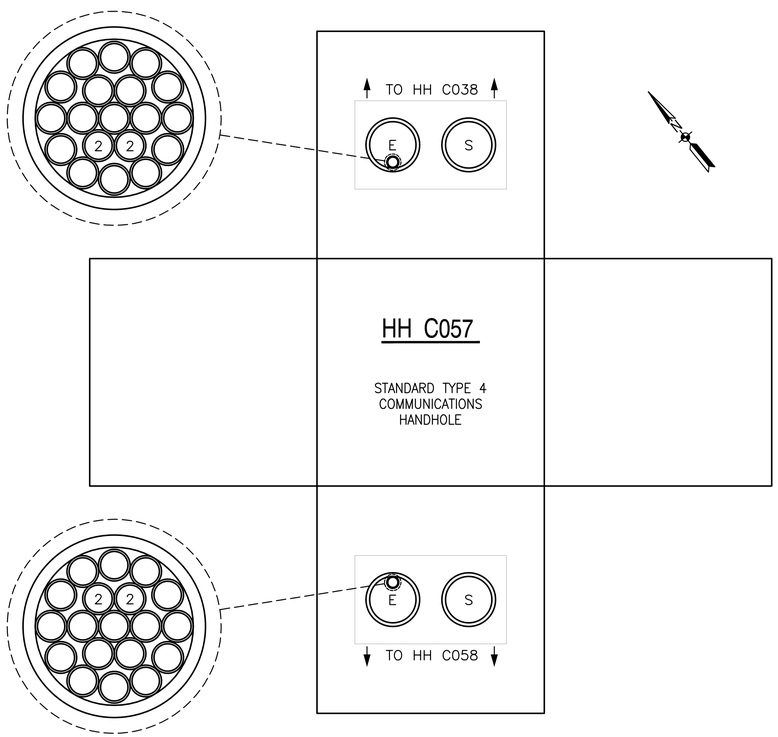
SCALE NOT TO SCALE
PROJECT NO. 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690280
SHEET 269 OF 315
EA730

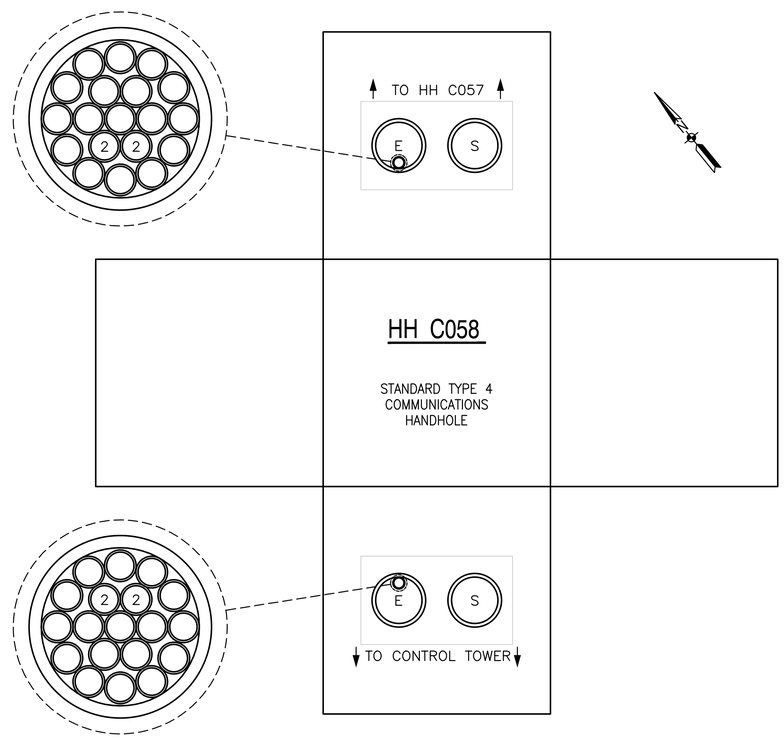
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA730.dwg LAYOUT NAME: EA730 PLOTTED: Monday, March 23, 2015 - 2:13pm USER: Rhurst









GENERAL NOTES

1. SEE STANDARD MANHOLE/HANDHOLE DETAILS ON DRAWING EA503.
2. HANDHOLE AND MANHOLE DIAGRAMS SHOWN ON THIS DRAWING ARE NOT TO SCALE AND ARE FOR COORDINATION PURPOSES ONLY.
3. SEE CCR SCHEDULES FOR COMPLETE CIRCUIT DESCRIPTIONS.

DUCTBANK CONDUIT LEGEND

E – 4" PVC SCHEDULE 40 CONDUIT WITH A 19-TUBE INNERDUCT/TUBE CABLE. PROVIDE FIBER OPTIC CABLE AS INDICATED BY ENLARGED TUBE CABLE DETAILS SHOWN FOR EACH HANDHOLE.

S – SPARE 4" PVC SCHEDULE 40 CONDUIT.

TUBE CABLE DETAIL LEGEND

1. (1) 6-STRAND, SINGLE-MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E-3015 TO LIGHTING/ELECTRICAL VAULT E-145.
2. (1) 6-STRAND, SINGLE-MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E-145 TO AIRCRAFT CONTROL TOWER.
3. (1) 6-STRAND, SINGLE-MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E-3015 TO RUNWAY 14L WAVE-OFF CONTROL PANEL.
4. (1) 6-STRAND, SINGLE-MODE FIBER OPTIC CABLE FROM LIGHTING/ELECTRICAL VAULT E-145 TO RUNWAY 32R WAVE-OFF CONTROL PANEL.

EMPTY/SPARE TUBE.

SHEET KEYNOTES

1. PROVIDE CONDUIT FROM HANDHOLE TO WAVE-OFF CONTROL PANEL AS SHOWN ON CONSTRUCTION PLANS.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES SL DRW SL CHK DJP
LN/DM
BRANCH MANAGER
CHIEF ENG/ARCH

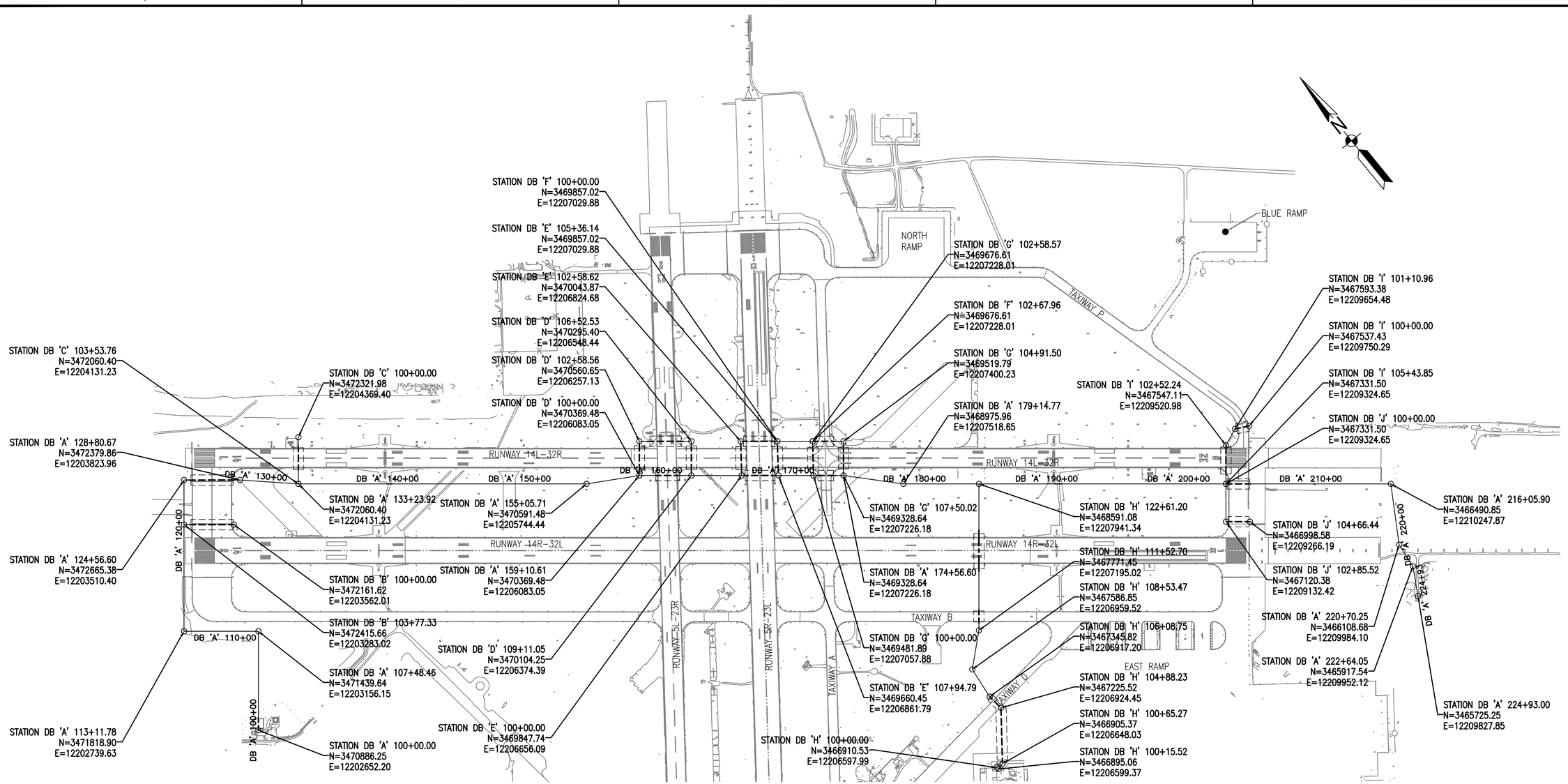
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
HANDHOLE & MANHOLE DIAGRAMS – COMM.

SCALE NOT TO SCALE
PROJECT NO. 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690281
SHEET 270 OF 315

EA731

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA731.dwg LAYOUT NAME: EA731 PLOTTED: Monday, March 23, 2015 - 2:14pm USER: Rhurst



LEGEND

CONCRETE ENCASED DUCTBANK WITH 1–#4 COUNTERPOISE WIRE ABOVE DUCTBANK. DUCTBANK CONDUIT QUANTITY AND SIZE AS NOTED ON CONSTRUCTION PLANS.

DIRECT BURIED DUCTBANK WITH 1–#4 COUNTERPOISE WIRE ABOVE DUCTBANK. DUCTBANK CONDUIT QUANTITY AND SIZE AS NOTED ON CONSTRUCTION PLANS.

DIRECTIONALLY DRILLED DUCTBANK WITH 1–#4 COUNTERPOISE WIRE ABOVE DUCTBANK. DUCTBANK CONDUIT QUANTITY AND SIZE AS NOTED ON CONSTRUCTION PLANS.

DUCTBANK ALIGNMENT PLAN

1" = 400'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES JB DRW RRR CHK DJP

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
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NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
DUCTBANK ALIGNMENTS

SCALE: 1" = 400'

EPROJECT NO.: 1312624

CONSTR. CONTR. NO.

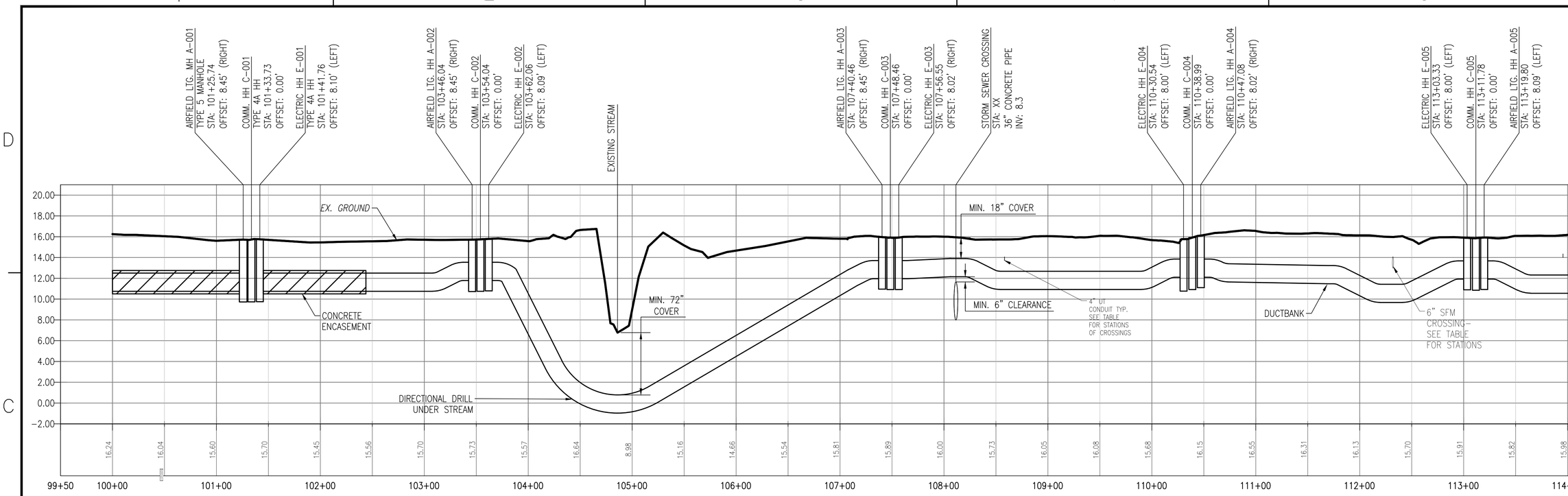
NAVFAC DRAWING NO.
12690282

SHEET 271 OF 315

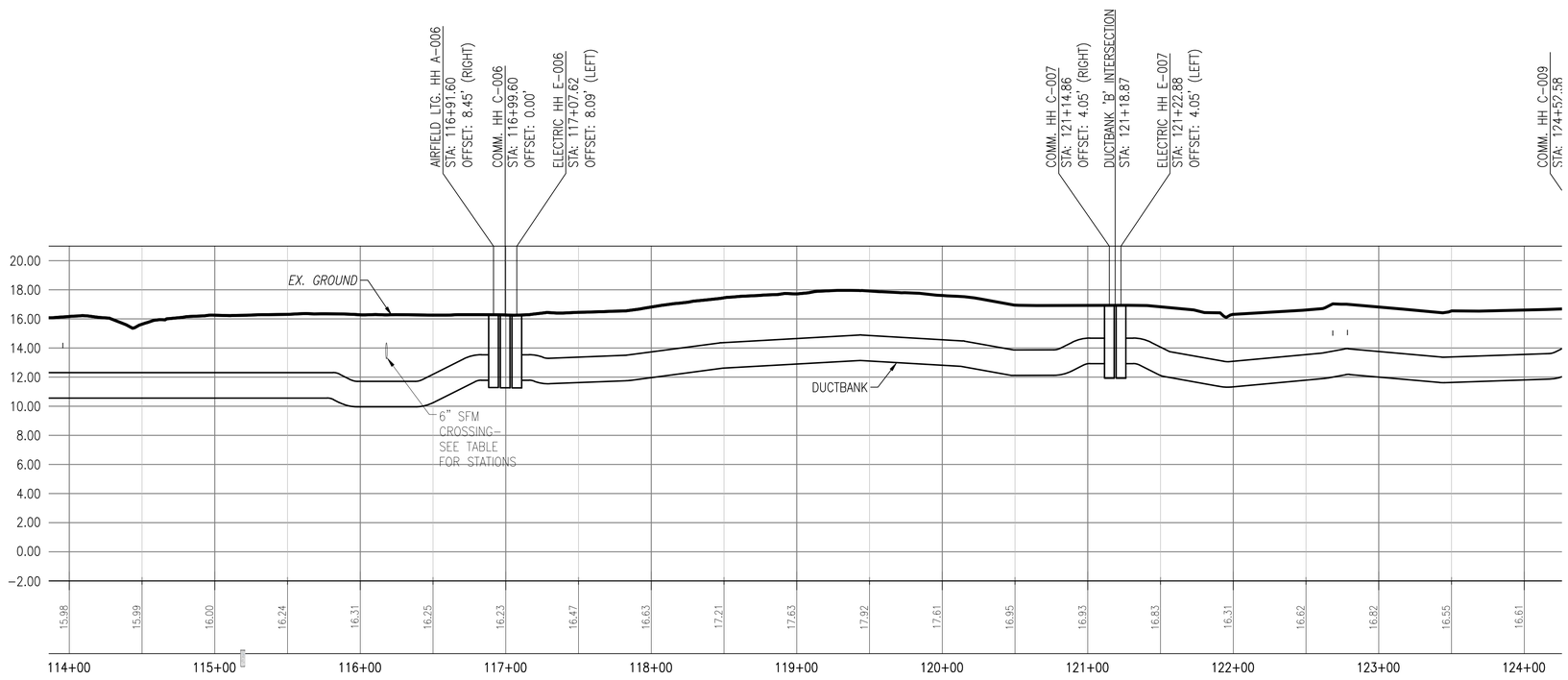
EA801

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: O:\PHPA\99_ Misc\Aviation\Oceana\Task 007\GENERAL-CIVIL\10-0683-007-EA801.dwg LAYOUT NAME: C-109 PLOTTED: Monday, March 23, 2015 - 12:22pm USER: ddoshlie



DUCTBANK 'A' PROFILE



DUCTBANK 'A' PROFILE
(CONTINUED)

Ductbank 'A'	
Station	Utility Crossing
108+58.27	UT
112+32.03	SFM
113+95.61	UT
116+18.01	SFM
122+68.45	UE
122+78.49	UE

Utility Legend:	
UE	Underground Electric
UT	Underground Telephone
UNK	Unknown
SFM	Force Main
W	Water

NOTE:
CONTRACTOR SHALL CUT, REMOVE, AND CAP ALL TRANSITE PIPE TO AVOID CONFLICTS WITH THE DUCTBANK.

GRAPHIC SCALE

VERTICAL 1"=5' — 0 5' 10' 20'

HORIZONTAL 1"=50' — 0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

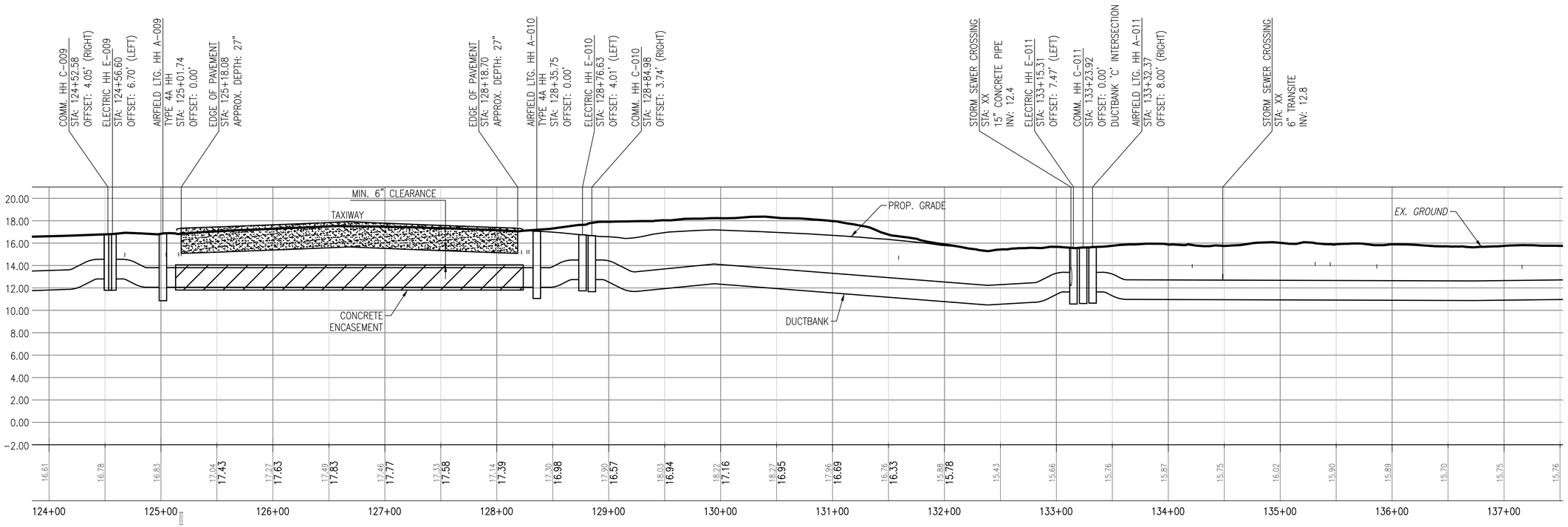
APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
DUCTBANK PROFILES

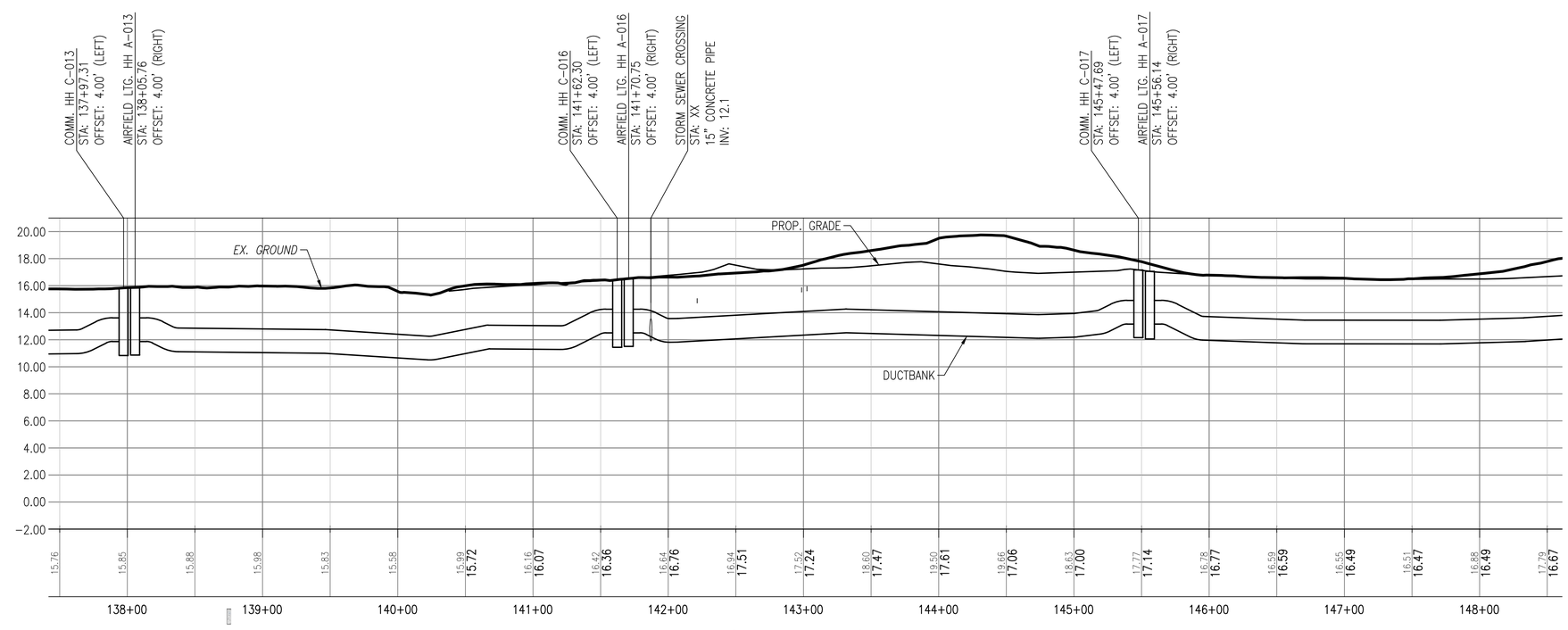
SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690283
SHEET 272 OF 315
EA802

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA802.dwg LAYOUT NAME: EA802 PLOTTED: Monday, March 23, 2015 - 9:07am USER: dsmujski



DUCTBANK 'A' PROFILE
(CONTINUED)



DUCTBANK 'A' PROFILE
(CONTINUED)

Ductbank 'A'	
Station	Utility Crossing
124+67.60	UE
125+04.58	UE
125+15.74	UE
125+18.06	UE
128+22.18	UE
128+22.92	UE
128+26.93	UE
128+28.68	UE
131+59.04	UE
134+21.42	UE
135+31.29	UNK
135+44.88	UNK
135+86.34	UNK
137+16.08	UNK
142+21.42	UE
142+98.70	UE
143+02.61	UT

Utility Legend:	
UE	Underground Electric
UT	Underground Telephone
UNK	Unknown
SFM	Force Main
W	Water

NOTE:
CONTRACTOR SHALL CUT, REMOVE, AND CAP ALL TRANSITE PIPE TO AVOID CONFLICTS WITH THE DUCTBANK.

GRAPHIC SCALE

VERTICAL 1"=5' 0 5' 10' 20'

HORIZONTAL 1"=50' 0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER

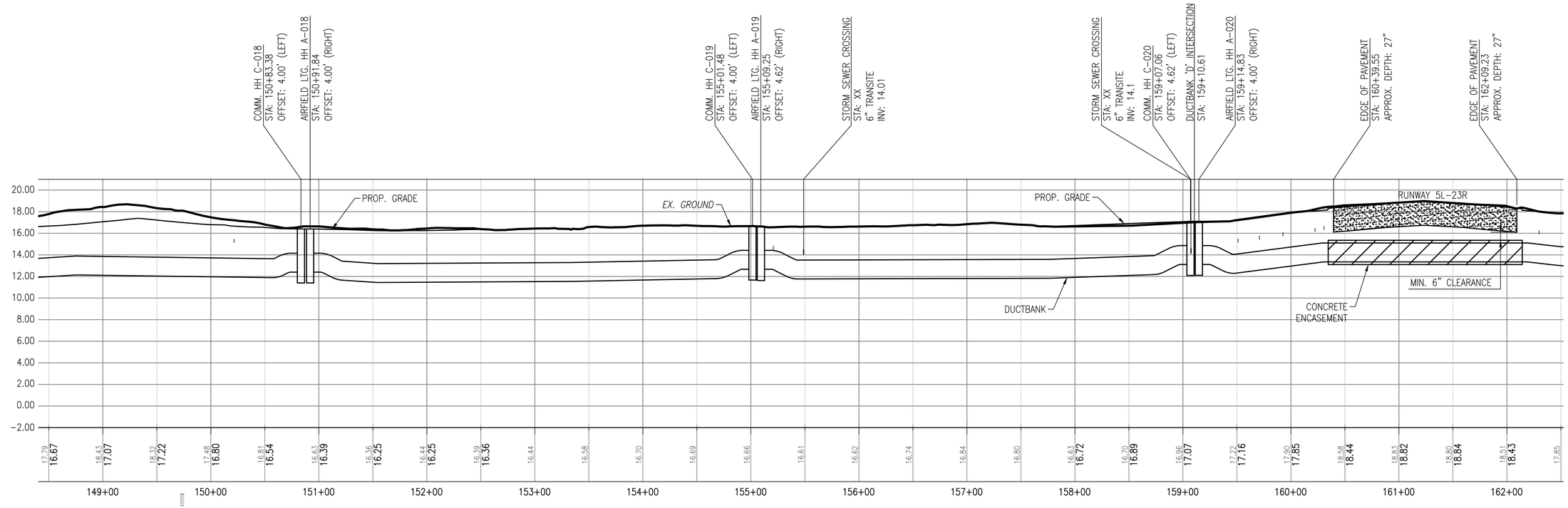
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
DUCTBANK PROFILES

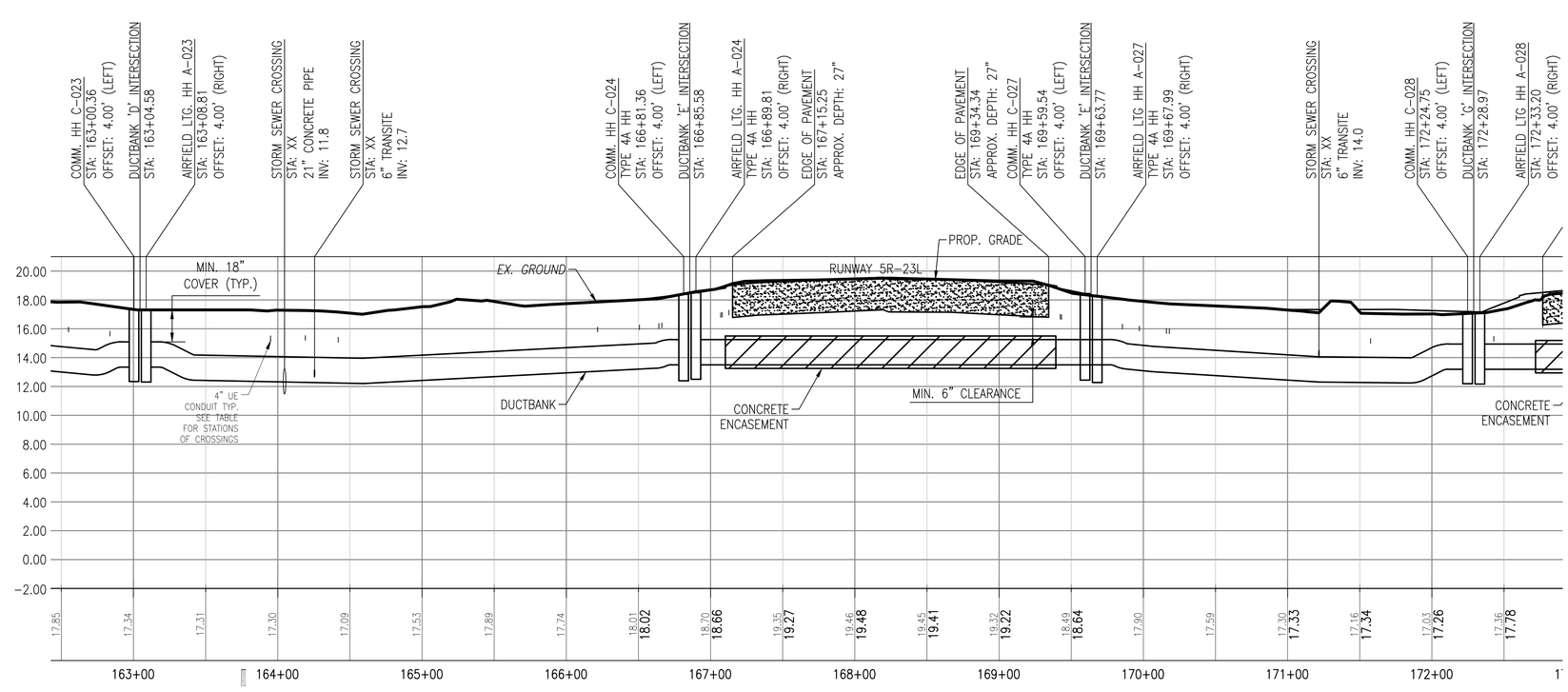
SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690284
SHEET 273 OF 315
EA803

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA803.dwg LAYOUT NAME: EA803 PLOTTED: Monday, March 23, 2015 - 8:57am USER: dsmulski



DUCTBANK 'A' PROFILE
(CONTINUED)



DUCTBANK 'A' PROFILE
(CONTINUED)

Ductbank 'A'	
Station	Utility Crossing
150+21.42	UE
155+20.68	UE
159+51.15	UE
159+70.90	UE
159+92.62	UE
160+22.37	UE
160+30.65	UE
160+39.55	UE
162+09.23	UE
162+29.88	UE
162+54.94	UE
162+83.75	UE
163+95.07	UE
164+19.14	UE
164+41.98	UE
166+21.71	UE
166+50.68	UE
166+64.17	UE
166+66.28	UE

Ductbank 'A'	
Station	Utility Crossing
167+07.09	UE
167+08.07	UE
167+12.69	UE
167+15.25	UE
169+34.34	UE
169+42.33	UE
169+43.27	UE
169+85.39	UE
169+97.22	UE
170+16.01	UE
170+17.97	UE
171+57.51	UE
172+42.90	UE

Utility Legend:	
UE	Underground Electric
UT	Underground Telephone
UNK	Unknown
SFM	Force Main
W	Water

NOTE:
CONTRACTOR SHALL CUT, REMOVE, AND CAP ALL TRANSITE PIPE TO AVOID CONFLICTS WITH THE DUCTBANK.

GRAPHIC SCALE

VERTICAL 1"=5' 0 5' 10' 20'

HORIZONTAL 1"=50' 0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

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ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA

HR IPT

NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING

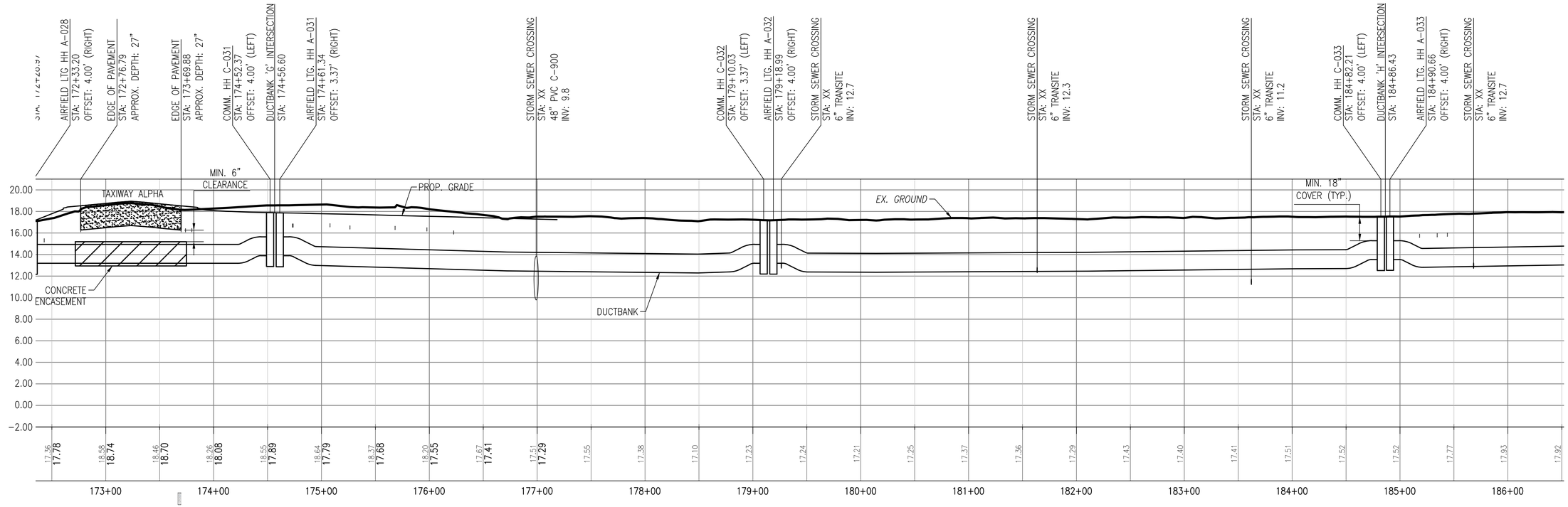
DUCTBANK PROFILES

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690285
SHEET 274 OF 315

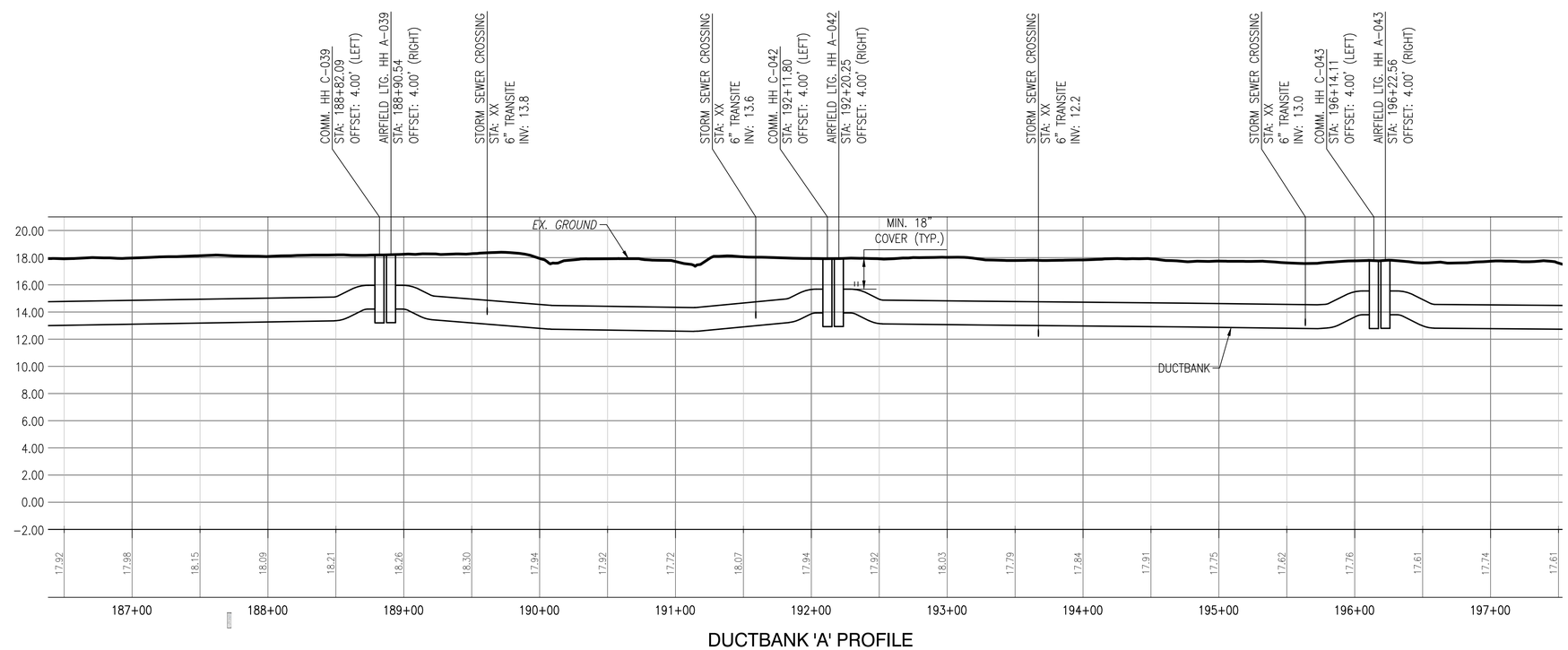
EA804

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA804.dwg LAYOUT NAME: EA804 PLOTTED: Monday, March 23, 2015 - 8:49am USER: dsmulski



DUCTBANK 'A' PROFILE
(CONTINUED)



DUCTBANK 'A' PROFILE
(CONTINUED)

Ductbank 'A'	
Station	Utility Crossing
172+76.82	UE
173+69.88	UE
173+73.96	UE
173+79.81	UE
174+73.18	UE
174+73.75	UE
175+07.96	UE
175+26.40	UE
175+68.29	UE
175+97.79	UE
176+22.58	UE
185+18.13	UE
185+34.45	UE
185+43.87	UE
192+31.83	UE
192+34.33	UE

Utility Legend:	
UE	Underground Electric
UT	Underground Telephone
UNK	Unknown
SFM	Force Main
W	Water

NOTE:
CONTRACTOR SHALL CUT, REMOVE, AND CAP ALL TRANSITE PIPE TO AVOID CONFLICTS WITH THE DUCTBANK.

GRAPHIC SCALE

VERTICAL 1"=5' 0 5' 10' 20'

HORIZONTAL 1"=50' 0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
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A/E INFO

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ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER

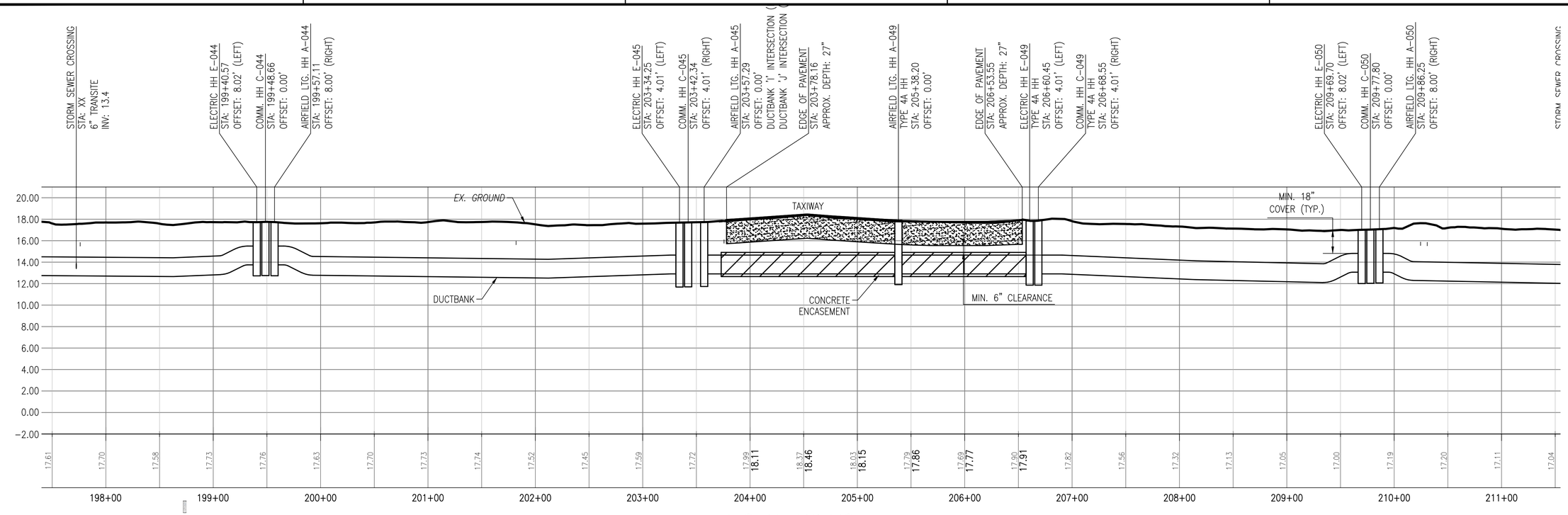
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
DUCTBANK PROFILES

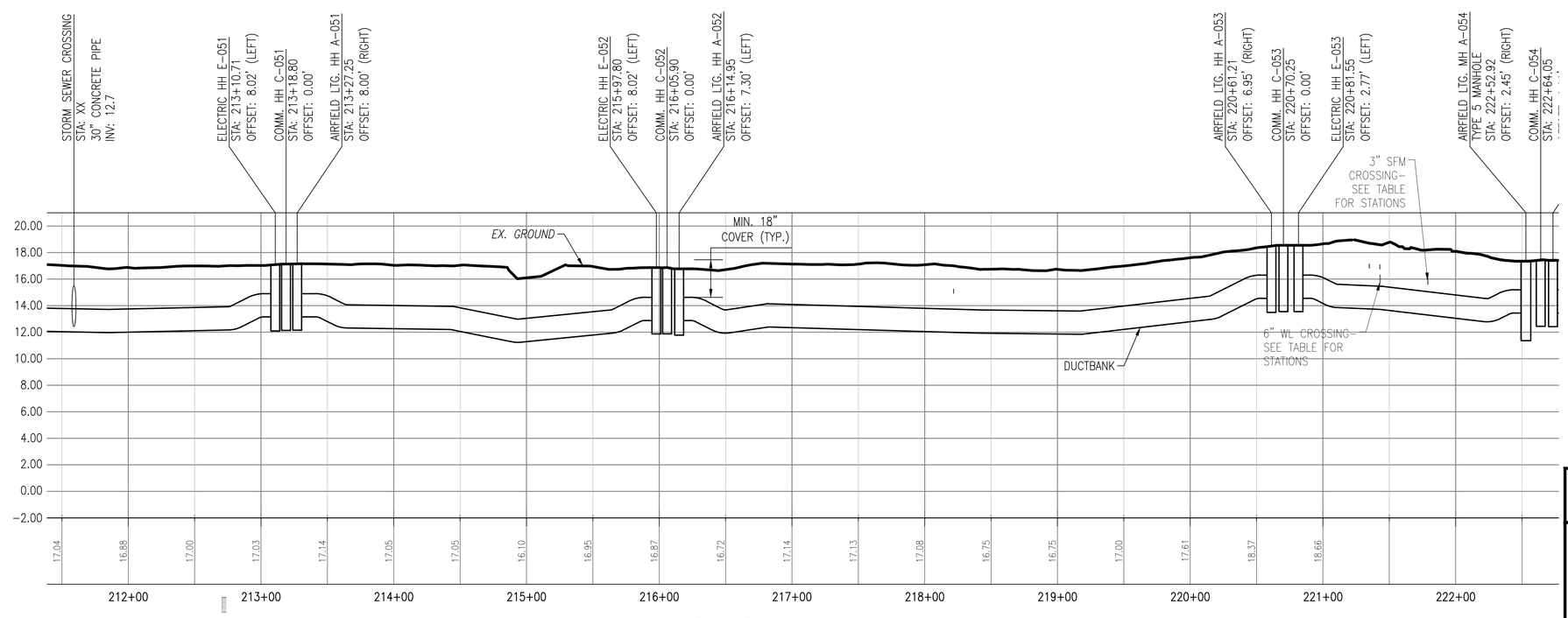
SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690286
SHEET 275 OF 315
EA805

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA805.dwg LAYOUT NAME: EA805 PLOTTED: Monday, March 23, 2015 - 8:44am USER: dsmulski



DUCTBANK 'A' PROFILE
(CONTINUED)



DUCTBANK 'A' PROFILE
(CONTINUED)

Ductbank 'A'	
Station	Utility Crossing
197+76.09	UE
201+82.14	UE
203+75.81	UE
205+30.29	UE
210+24.53	UE
210+30.80	UE
218+21.73	UE
221+34.85	UE
221+42.92	W
221+79.16	SFM

Utility Legend:	
UE	Underground Electric
UT	Underground Telephone
UNK	Unknown
SFM	Force Main
W	Water

NOTE:
CONTRACTOR SHALL CUT, REMOVE, AND CAP ALL TRANSITE PIPE TO AVOID CONFLICTS WITH THE DUCTBANK.

GRAPHIC SCALE

VERTICAL 1"=5' 0 5' 10' 20'

HORIZONTAL 1"=50' 0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
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A/E INFO

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ACTIVITY

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DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA

HR IPT

NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

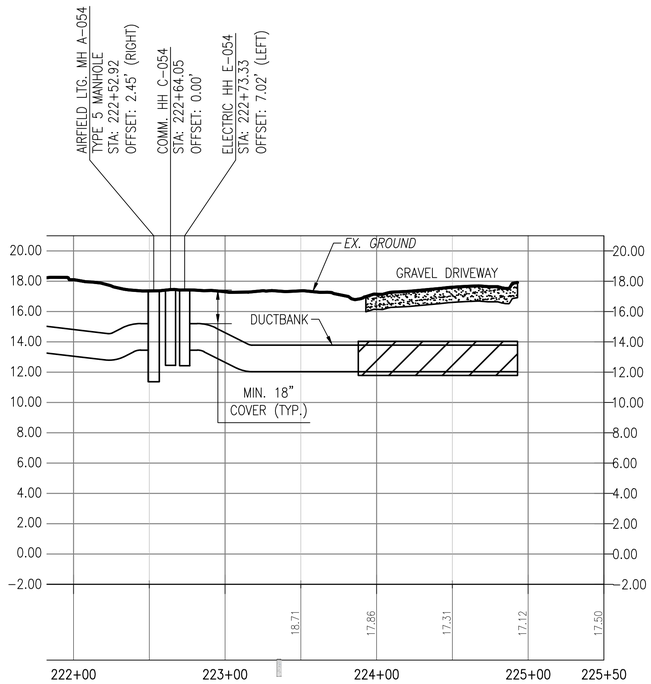
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING

DUCTBANK PROFILES

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690287
SHEET 276 OF 315
EA806

DRAWFORM REVISION: 10 MARCH 2009

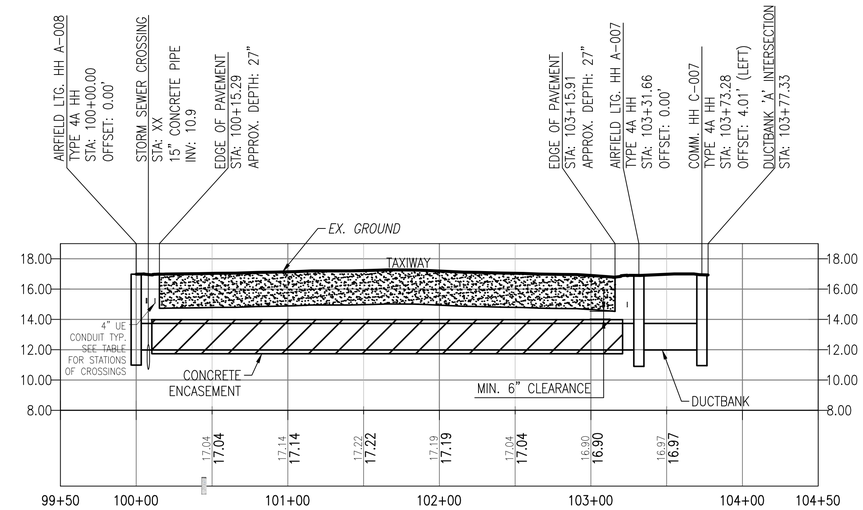
FILE NAME: G:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA806.dwg LAYOUT NAME: EA806 PLOTTED: Monday, March 23, 2015 - 8:39am USER: dsmulski



DUCTBANK 'A' PROFILE
(CONTINUED)

Ductbank 'B'	
Station	Utility Crossing
100+06.55	UE
100+07.07	UE
100+12.38	UE
103+24.00	UE

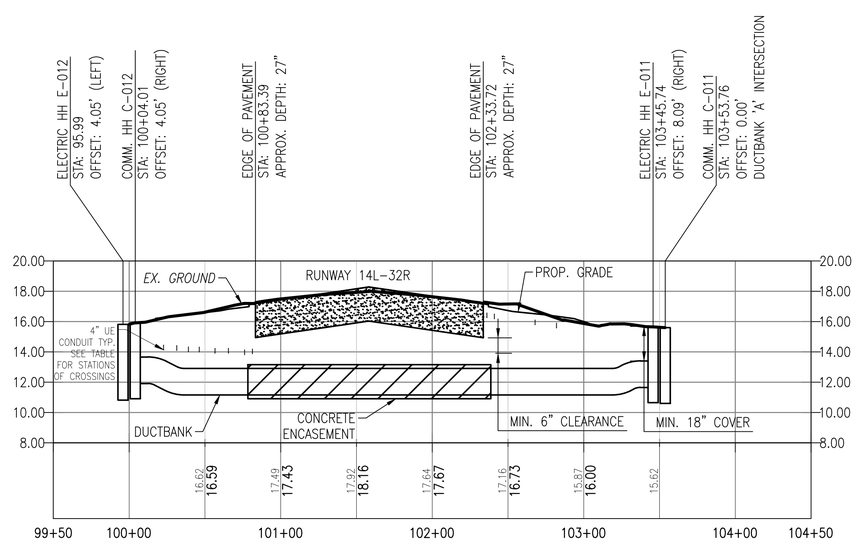
Utility Legend:	
UE	Underground Electric
UT	Underground Telephone
UNK	Unknown
SFM	Force Main
W	Water



DUCTBANK 'B' PROFILE

Ductbank 'C'	
Station	Utility Crossing
100+22.67	UE
100+31.44	UE
100+39.11	UE
100+39.76	UE
100+46.28	UE
100+56.74	UE
100+65.51	UE
100+76.23	UE
100+81.38	UE
102+36.09	UE
102+41.00	UE
102+67.90	UE
102+82.03	UE

Utility Legend:	
UE	Underground Electric
UT	Underground Telephone
UNK	Unknown
SFM	Force Main
W	Water



DUCTBANK 'C' PROFILE

NOTE:
CONTRACTOR SHALL CUT, REMOVE, AND CAP ALL TRANSITE PIPE TO AVOID CONFLICTS WITH THE DUCTBANK.

GRAPHIC SCALE

VERTICAL 1"=5' — 0, 5', 10', 20'

HORIZONTAL 1"=50' — 0, 50', 100', 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
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PROFESSIONAL ENGINEER

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WEB: WWW.JMT.COM

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER

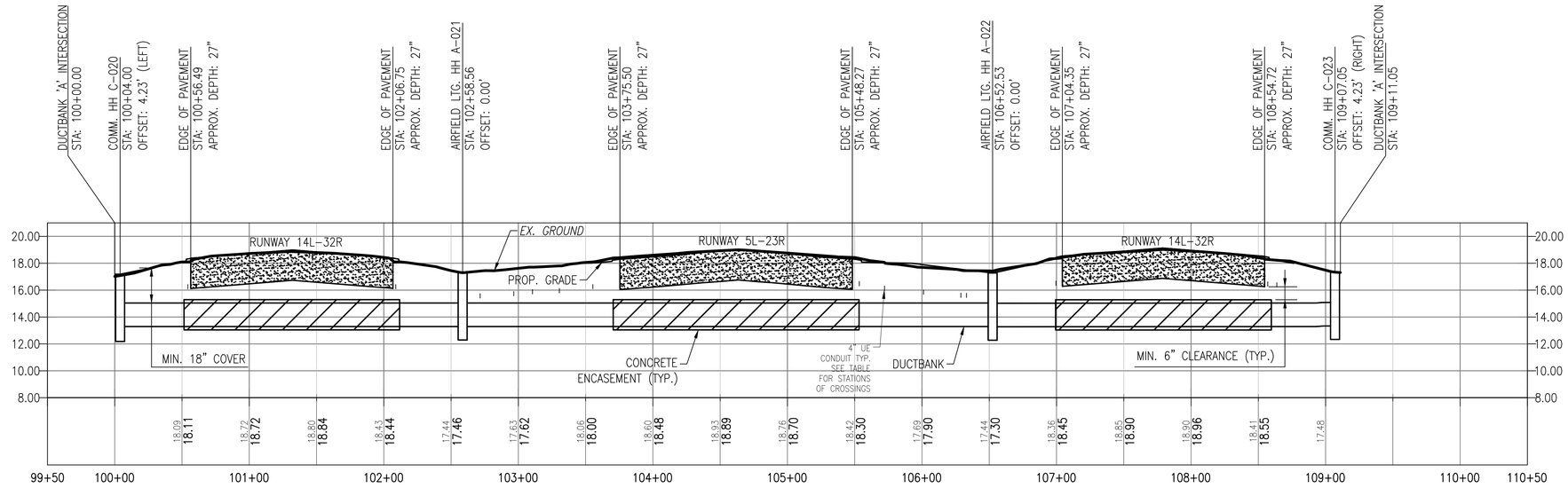
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
DUCTBANK PROFILES

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690288
SHEET 277 OF 315
EA807

DRAWFORM REVISION: 10 MARCH 2009

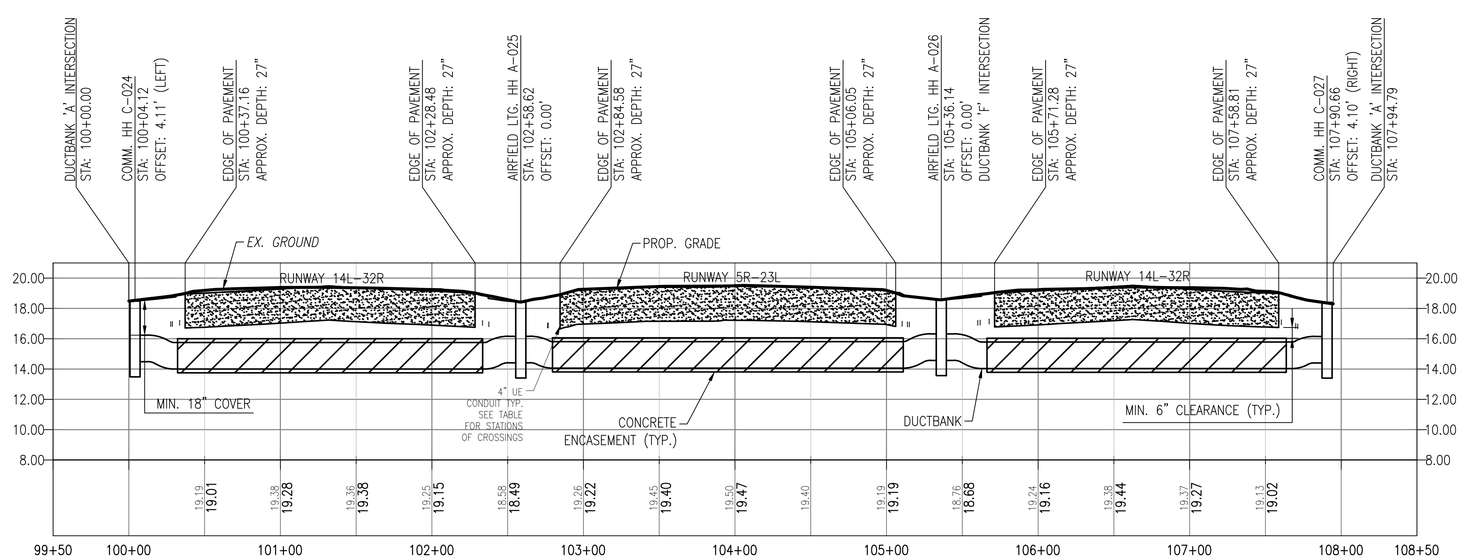
FILE NAME: G:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA807.dwg LAYOUT NAME: EA807 PLOTTED: Monday, March 23, 2015 - 8:45am USER: ekirsch



DUCTBANK 'D' PROFILE

Ductbank 'D'	
Station	Utility Crossing
100+54.26	UE
100+56.49	UE
102+06.75	UE
102+08.85	UE
102+71.53	UE
102+96.57	UE
103+10.45	UE
103+30.50	UE
103+55.36	UE
103+75.50	UE
105+48.27	UE
105+53.43	UE
105+72.15	UE
105+72.15	UE
106+01.13	UE
106+28.89	UE
106+33.08	UE
106+99.62	UE
107+04.35	UE
108+54.72	UE
108+57.05	UE
108+63.80	UE

Utility Legend:	
UE	Underground Electric
UT	Underground Telephone
UNK	Unknown
SFM	Force Main
W	Water



DUCTBANK 'E' PROFILE

Ductbank 'E'	
Station	Utility Crossing
100+27.66	UE
100+28.75	UE
100+33.47	UE
100+37.16	UE
102+28.48	UE
102+33.43	UE
102+37.56	UE
102+76.28	UE
102+76.69	UE
102+84.58	UE
105+06.05	UE
105+10.29	UE
105+13.82	UE
105+15.06	UE
105+60.18	UE
105+61.81	UE
105+67.71	UE
107+58.81	UE
107+60.51	UE
107+69.96	UE
107+71.27	UE

Utility Legend:	
UE	Underground Electric
UT	Underground Telephone
UNK	Unknown
SFM	Force Main
W	Water

NOTE:
CONTRACTOR SHALL CUT, REMOVE, AND CAP ALL TRANSITE PIPE TO AVOID CONFLICTS WITH THE DUCTBANK.

GRAPHIC SCALE

VERTICAL 1"=5' 0 5' 10' 20'

HORIZONTAL 1"=50' 0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER

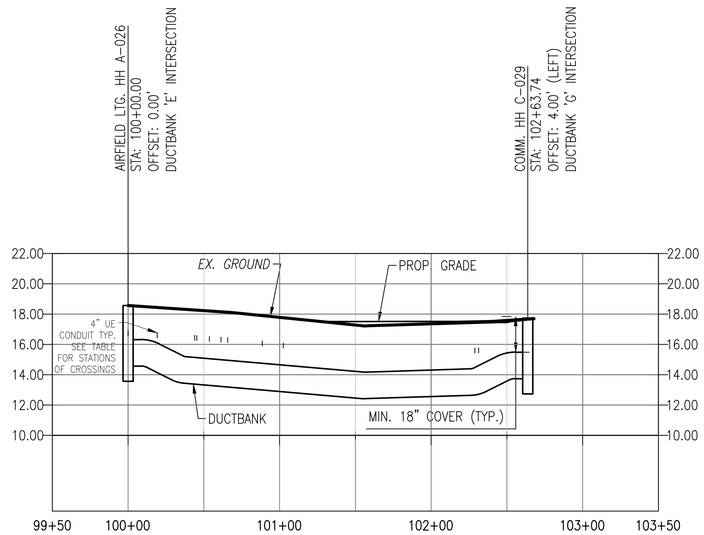
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
HR IPT
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
DUCTBANK PROFILES

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690289
SHEET 278 OF 315
EA808

DRAWFORM REVISION: 10 MARCH 2009

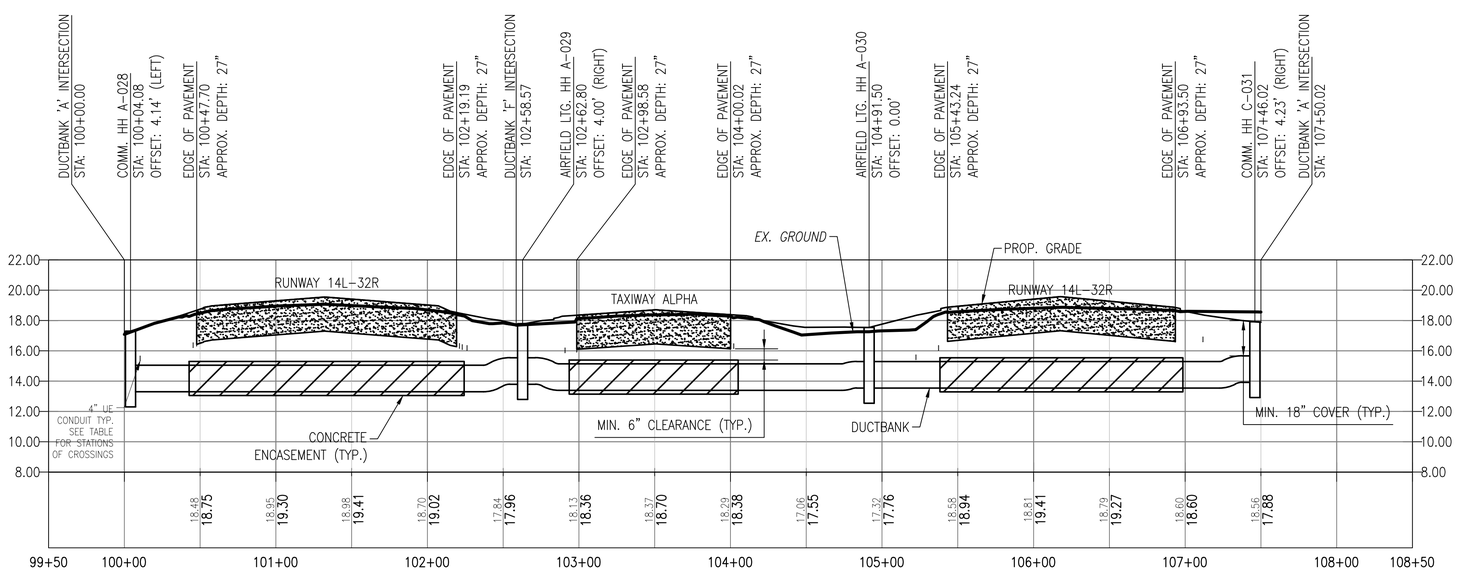
FILE NAME: G:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-00863-007-EA808.dwg LAYOUT NAME: EA808 PLOTTED: Monday, March 23, 2015 - 9:07am USER: ekirsch



DUCTBANK 'F' PROFILE

Ductbank 'F'	
Station	Utility Crossing
0+19.31	UE
0+43.97	UE
0+45.38	UE
0+53.71	UE
0+61.33	UE
0+65.74	UE
0+88.51	UE
1+02.51	UE
2+28.87	UE
2+31.37	UE

Utility Legend:	
UE	Underground Electric
UT	Underground Telephone
UNK	Unknown
SFM	Force Main
W	Water



DUCTBANK 'G' PROFILE

Ductbank 'G'	
Station	Utility Crossing
100+10.40	UE
100+45.37	UE
100+47.70	UE
102+19.19	UE
102+21.16	UE
102+23.01	UE
102+26.14	UE
102+26.14	UE
102+90.80	UE
102+98.58	UE
102+98.58	UE
104+00.02	UE
104+02.16	UE
105+22.39	UE
105+37.32	UE
107+11.75	UE

Utility Legend:	
UE	Underground Electric
UT	Underground Telephone
UNK	Unknown
SFM	Force Main
W	Water

NOTE:
CONTRACTOR SHALL CUT, REMOVE, AND CAP ALL TRANSITE PIPE TO AVOID CONFLICTS WITH THE DUCTBANK.

GRAPHIC SCALE

VERTICAL 1"=5' — 0, 5', 10', 20'

HORIZONTAL 1"=50' — 0, 50', 100', 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

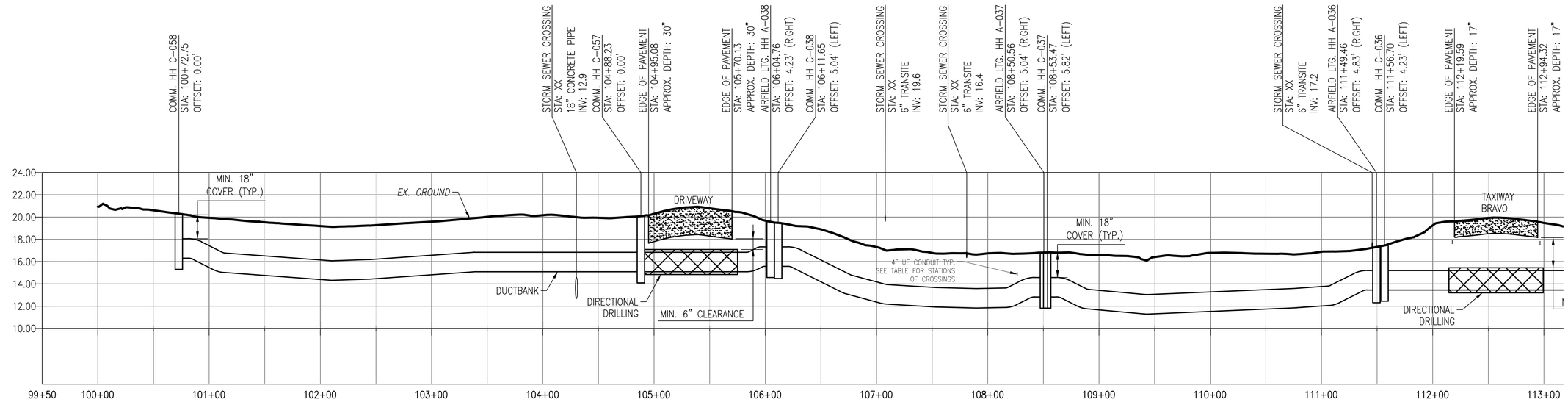
BRANCH MANAGER

CHIEF ENG/ARCH

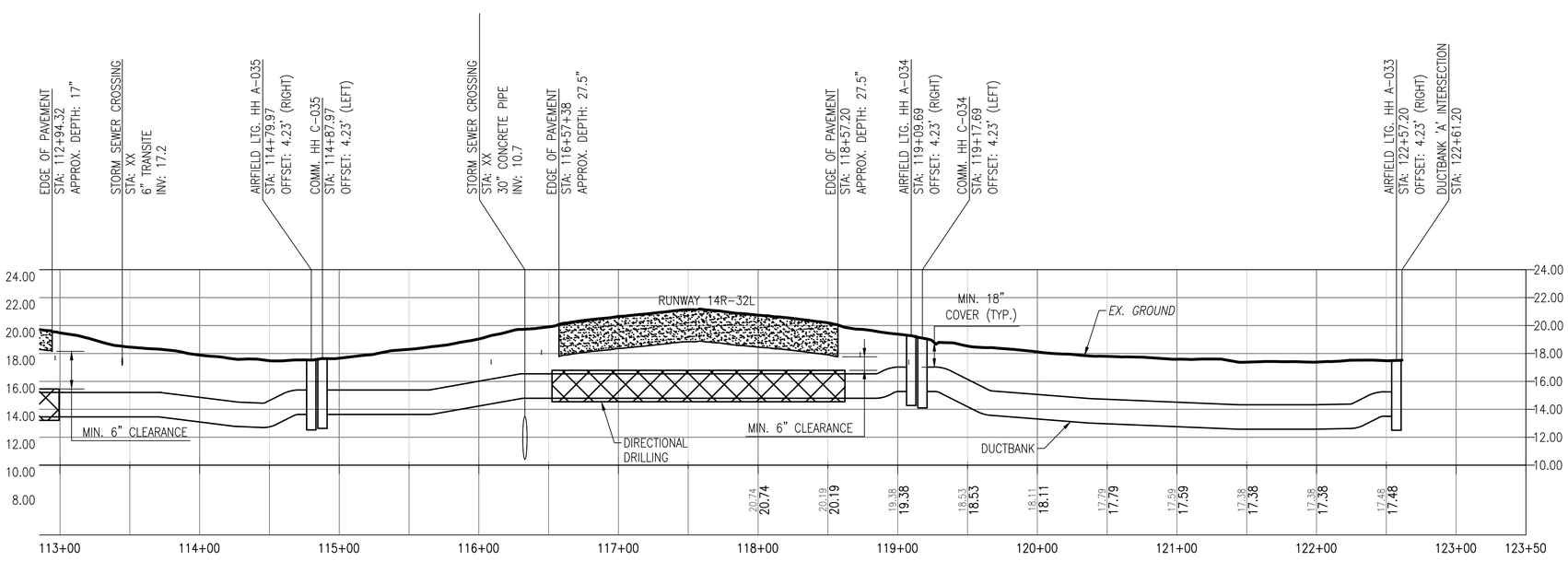
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
DUCTBANK PROFILES

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690290
SHEET 279 OF 315
EA809
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA809.dwg LAYOUT NAME: EA809 PLOTTED: Monday, March 23, 2015 - 9:19am USER: ekirsch



DUCTBANK 'H' PROFILE



DUCTBANK 'H' PROFILE
(CONTINUED)

Ductbank 'H'	
Station	Utility Crossing
108+26.55	UE
112+17.57	UE
112+96.51	UE
116+08.81	UE
116+44.80	UE
116+57.38	UE
117+57.78	UE
118+57.20	UE
118+73.10	UE
119+07.93	UE

Utility Legend:	
UE	Underground Electric
UT	Underground Telephone
UNK	Unknown
SFM	Force Main
W	Water

NOTE:
CONTRACTOR SHALL CUT, REMOVE, AND CAP ALL TRANSITE PIPE TO AVOID CONFLICTS WITH THE DUCTBANK.

GRAPHIC SCALE

VERTICAL 1"=5' — 0, 5', 10', 20'

HORIZONTAL 1"=50' — 0, 50', 100', 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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Telephone: (757)499-1895
WEB: WWW.JMT.COM

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER

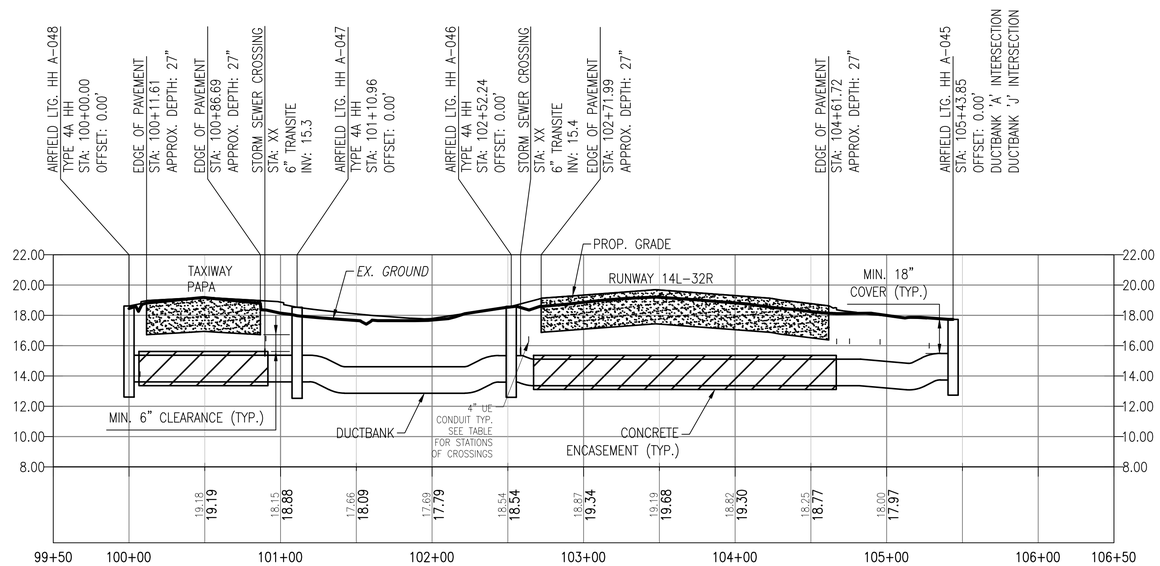
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
HQ: IPT
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
DUCTBANK PROFILES

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690291
SHEET 280 OF 315
EA810

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA810.dwg LAYOUT NAME: EA810 PLOTTED: Monday, March 23, 2015 - 9:27am USER: ekirsch



DUCTBANK 'I' PROFILE

Ductbank 'I'	
Station	Utility Crossing
100+07.35	UE
100+90.34	UE
102+63.77	UE
104+66.97	UE
104+75.47	UE
104+95.70	UE
105+28.05	UE

Utility Legend:	
UE	Underground Electric
UT	Underground Telephone
UNK	Unknown
SFM	Force Main
W	Water

NOTE:
CONTRACTOR SHALL CUT, REMOVE, AND CAP ALL TRANSITE PIPE TO AVOID CONFLICTS WITH THE DUCTBANK.

GRAPHIC SCALE

VERTICAL 1"=5' — 0, 5', 10', 20'

HORIZONTAL 1"=50' — 0, 50', 100', 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
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Telephone: (757)499-1895
WEB: WWW.JMT.COM

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
HQ IPT
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

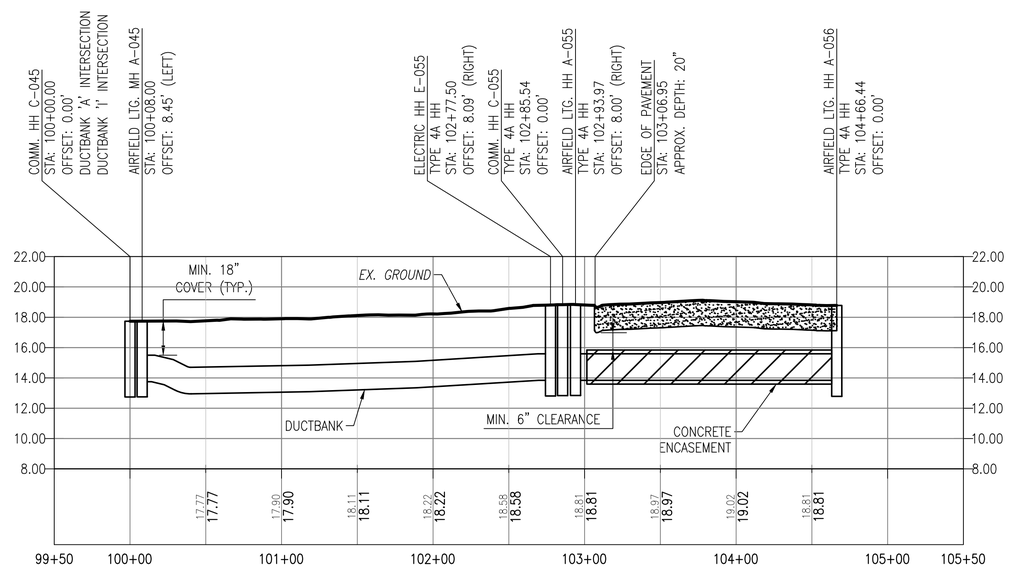
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING

DUCTBANK PROFILES

SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690292
SHEET 281 OF 315
EA811

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA811.dwg LAYOUT NAME: EA811 PLOTTED: Monday, March 23, 2015 - 9:25am USER: dsmulski



DUCTBANK 'J' PROFILE

NOTE:
CONTRACTOR SHALL CUT, REMOVE, AND CAP ALL TRANSITE PIPE TO AVOID CONFLICTS WITH THE DUCTBANK.

GRAPHIC SCALE

VERTICAL 1"=5' — 0, 5', 10', 20'

HORIZONTAL 1"=50' — 0, 50', 100', 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
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Telephone: (757)499-1895
WEB: WWW.JMT.COM

A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE

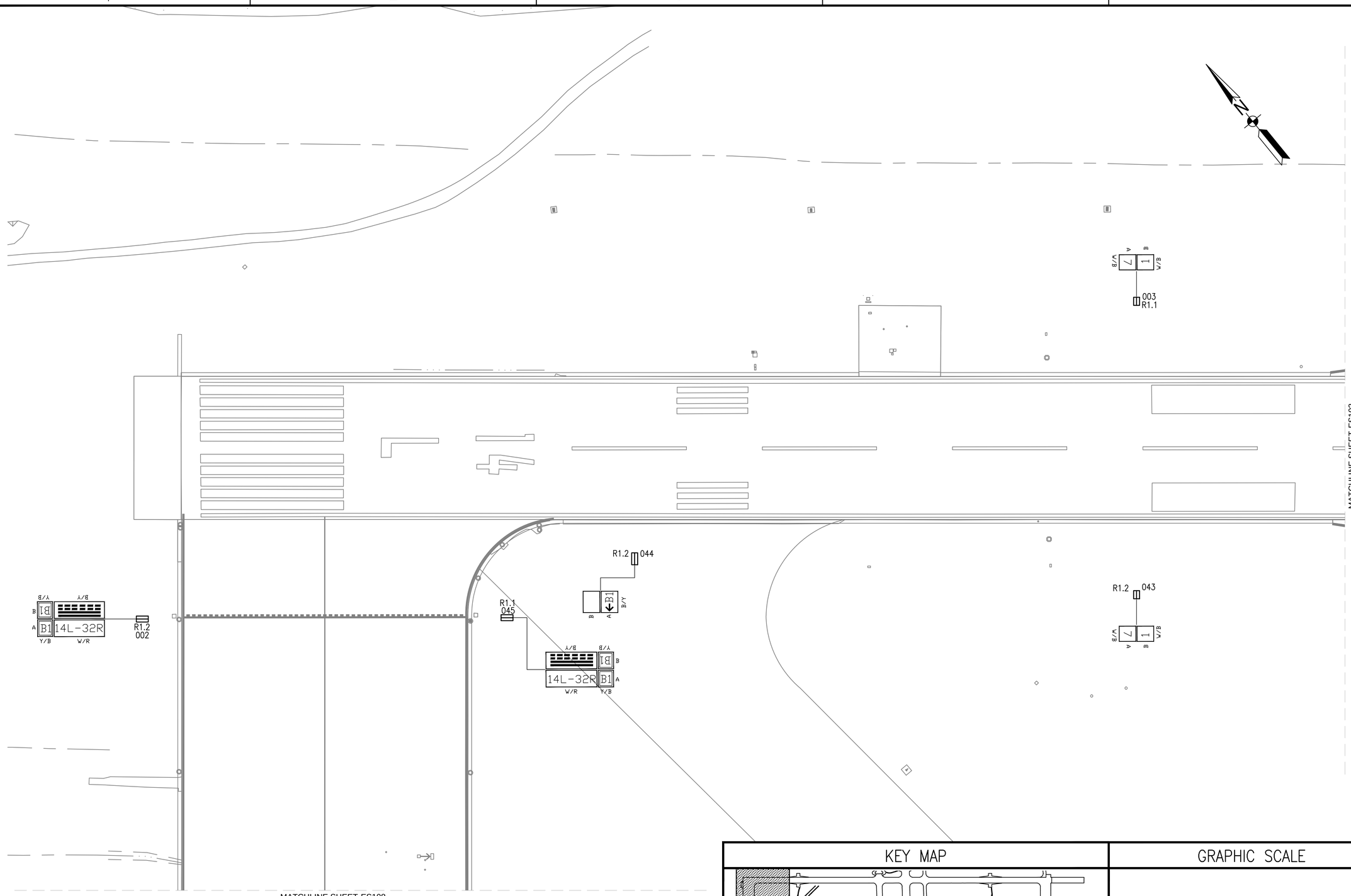
DES MJT | DRW DFD | CHK ELO
PM/DM
BRANCH MANAGER
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
DUCTBANK PROFILES

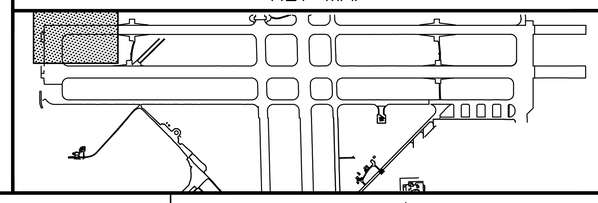
SCALE: AS NOTED
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690293
SHEET 282 OF 315
EA812

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-EA812.dwg LAYOUT NAME: EA812 PLOTTED: Monday, March 23, 2015 - 9:17am USER: dsmulski



KEY MAP



GRAPHIC SCALE

1"=50'

0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley

COMMONWEALTH OF VIRGINIA
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Gannett Fleming
A Joint Venture
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Telephone: (757)499-1895
WEB: WWW.JMT.COM

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES: JB DRW: RRR CHK: DJP

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRIGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
PARTIAL SITE PLAN – SIGNAGE

SCALE: 1" = 50'-0"

FPROJECT NO.: 1312624

CONSTR. CONTR. NO.

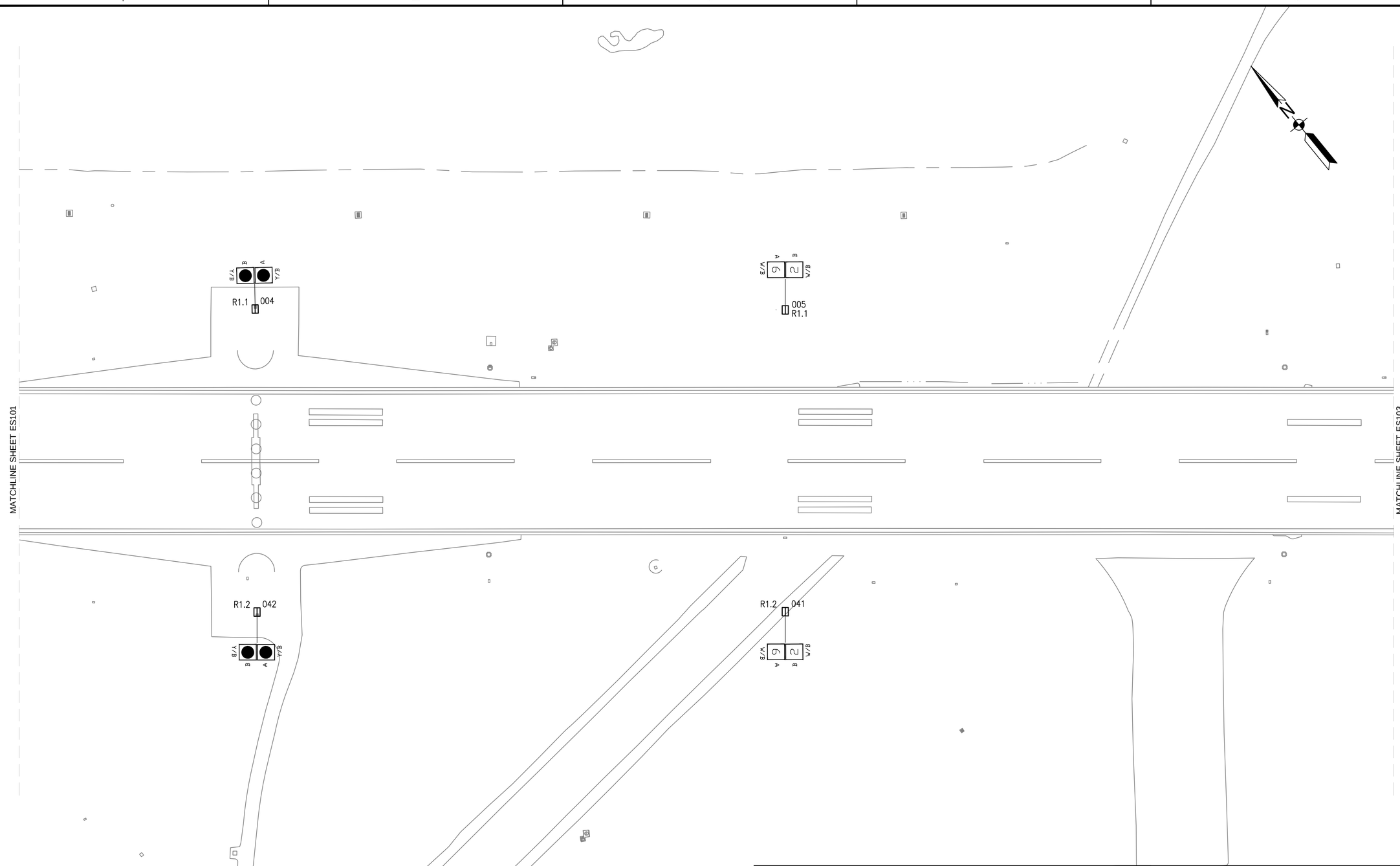
NAVFAC DRAWING NO.
12690294

SHEET 283 OF 315

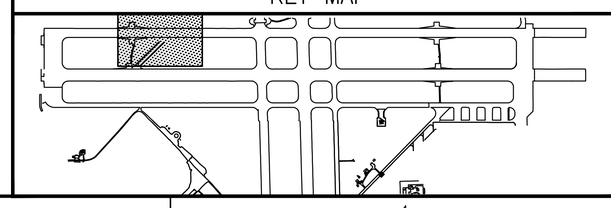
ES101

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMO\10863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-ES101.dwg LAYOUT NAME: ES101 PLOTTED: Monday, March 23, 2015 - 2:14pm USER: Rhurst



KEY MAP



GRAPHIC SCALE

1"=50'

0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley

COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
Lic. No. 45530
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Gannett Fleming
A Joint Venture
272 Bendix Road, Suite 260
Virginia Beach, Virginia, 23452
Telephone: (757)499-1895
WEB: WWW.JMT.COM

A/E INFO

APPROVED:

FOR COMMANDER NAVFAC

ACTIVITY:

SATISFACTORY TO DATE

DES JB DWN RRR CHK DJP

CM/DM:

BRANCH MANAGER:

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAVFAC MID-ATLANTIC
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
PARTIAL SITE PLAN – SIGNAGE

SCALE: 1" = 50'-0"

PROJECT NO.: 1312624

CONSTR. CONTR. NO.

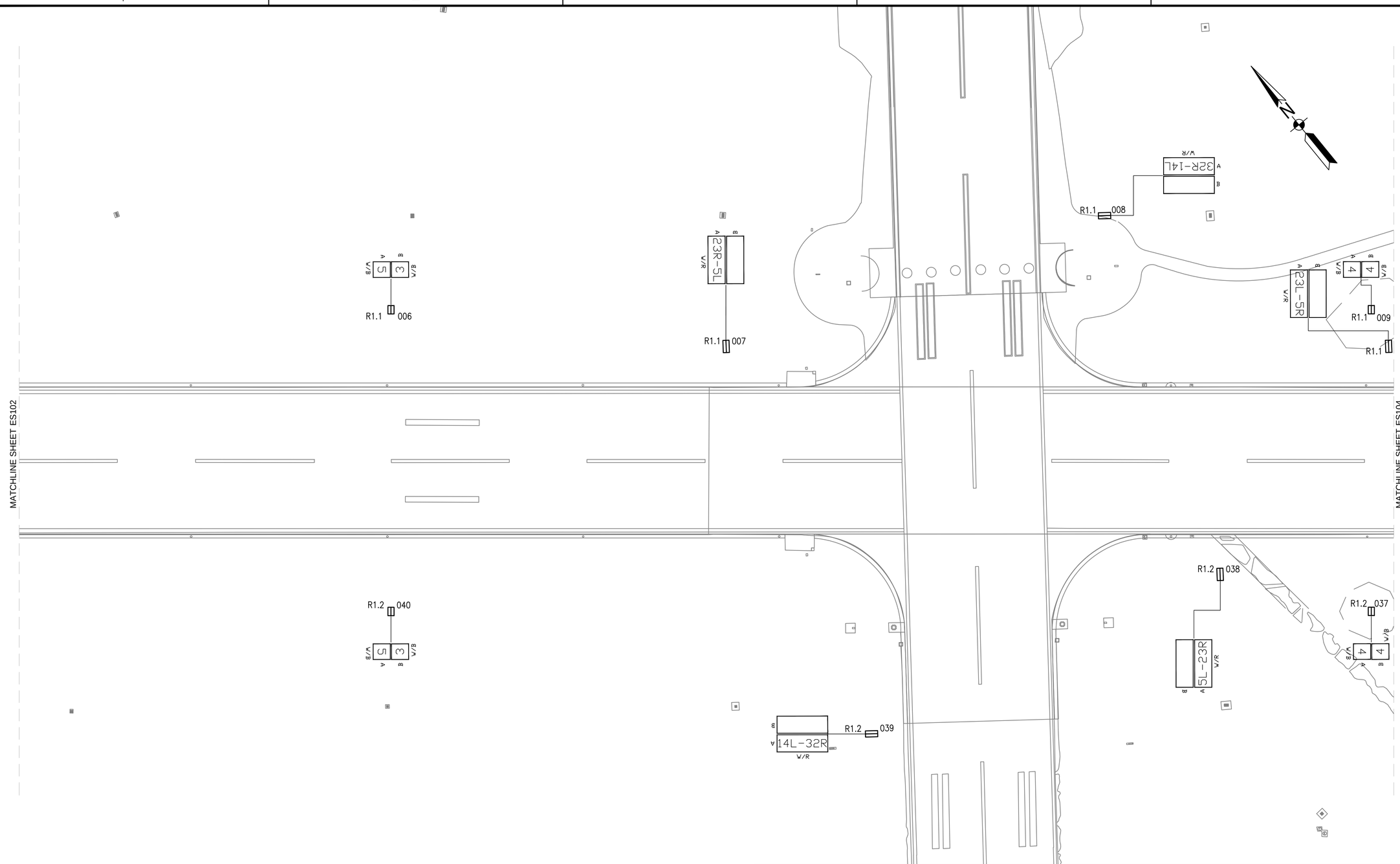
NAVFAC DRAWING NO.
12690295

SHEET 284 OF 315

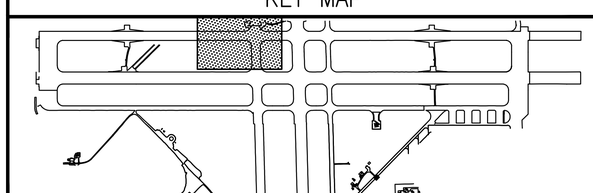
ES102

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-ES102.dwg LAYOUT NAME: ES102 PLOTTED: Monday, March 23, 2015 - 2:14pm USER: Rhurst



KEY MAP



GRAPHIC SCALE

1"=50'

0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley

COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
Lic. No. 45530
PROFESSIONAL ENGINEER

JOHNSON, MIRMIRAN THOMPSON
Gannett Fleming
A Joint Venture
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Telephone: (757)499-1895
WEB: WWW.JMT.COM

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES: JB DRW: RRR CHK: DJP

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING

PARTIAL SITE PLAN – SIGNAGE

SCALE: 1" = 50'-0"

PROJECT NO: 1312624

CONSTR. CONTR. NO.

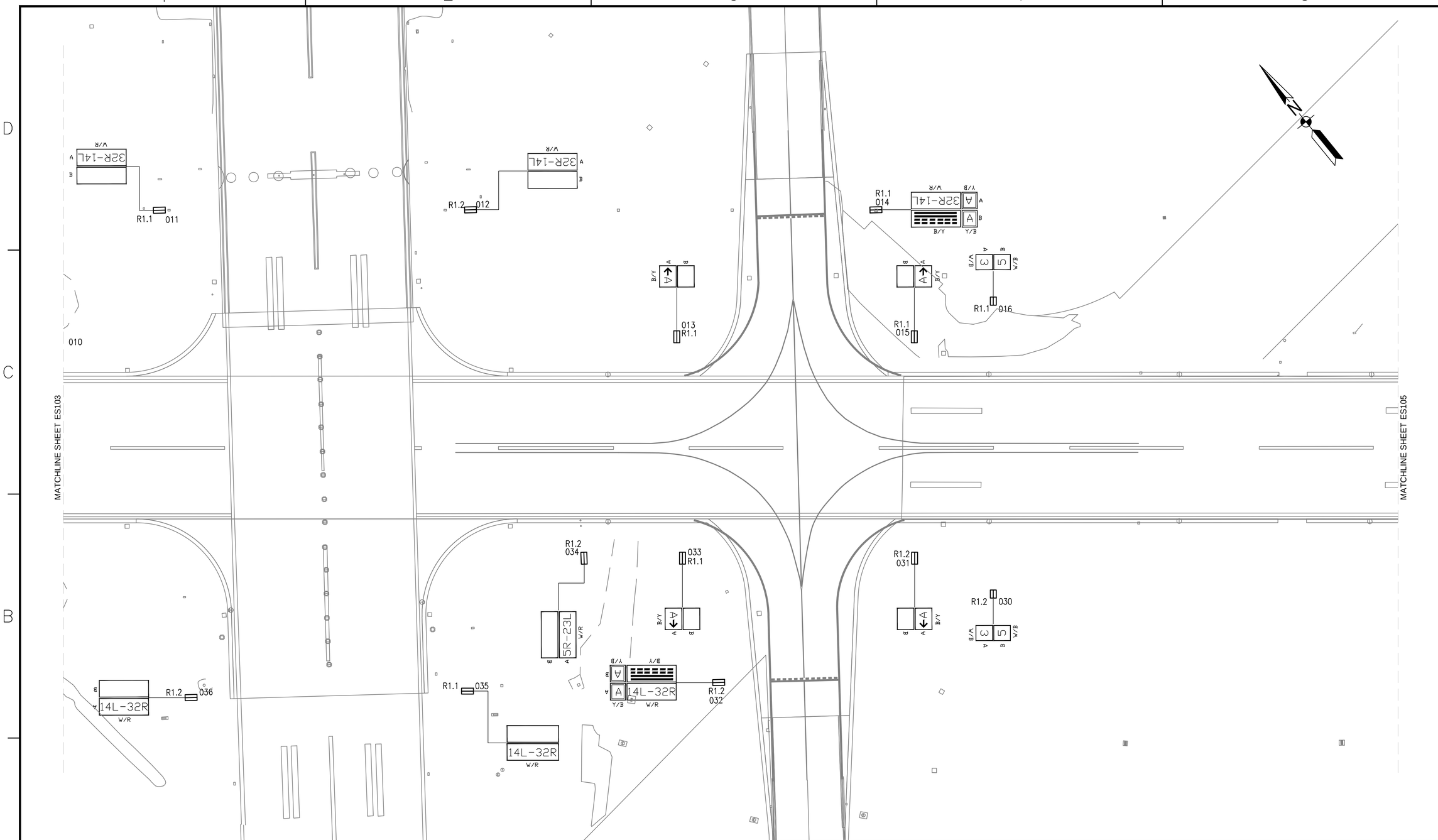
NAVFAC DRAWING NO. 12690296

SHEET 285 315

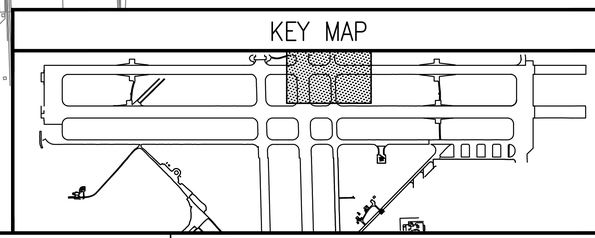
ES103

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-ES103.dwg LAYOUT NAME: ES103 PLOTTED: Monday, March 23, 2015 - 2:14pm USER: Rhurst



KEY MAP



GRAPHIC SCALE

1"=50'

0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley

COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY BY: DATE:

DES: JB DRN: RRR CHK: DJP

PM/DM

BRANCH MANAGER

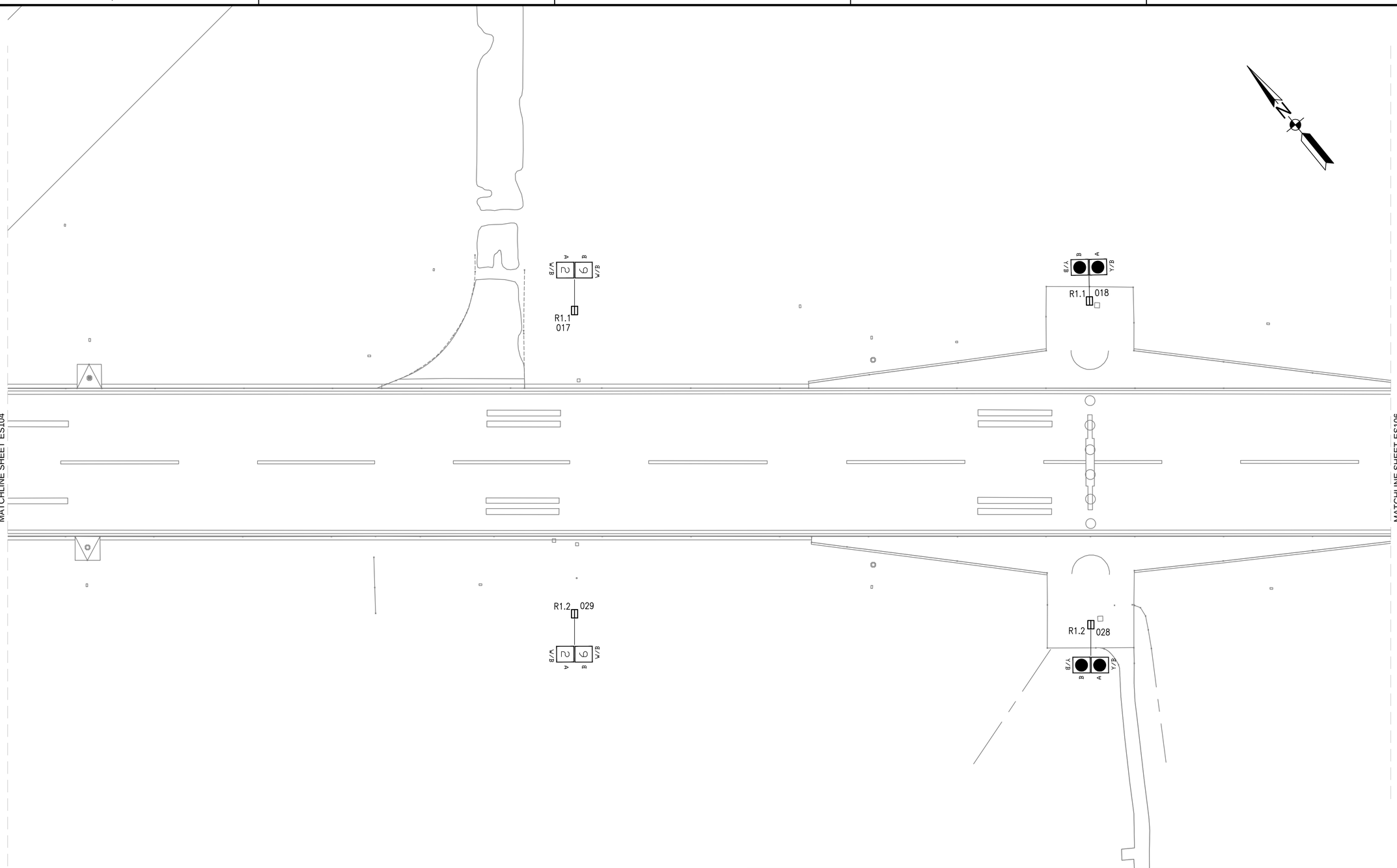
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
PARTIAL SITE PLAN – SIGNAGE

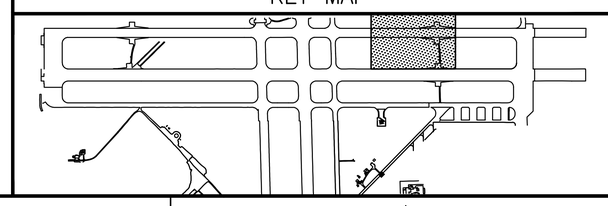
SCALE: 1" = 50'-0"
PROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690297
SHEET 286 OF 315
ES104

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-ES104.dwg LAYOUT NAME: ES104 PLOTTED: Monday, March 23, 2015 - 2:14pm USER: Rhurst



KEY MAP



GRAPHIC SCALE

1"=50' 0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES. JB DRN. RRR CHK. DJP

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING

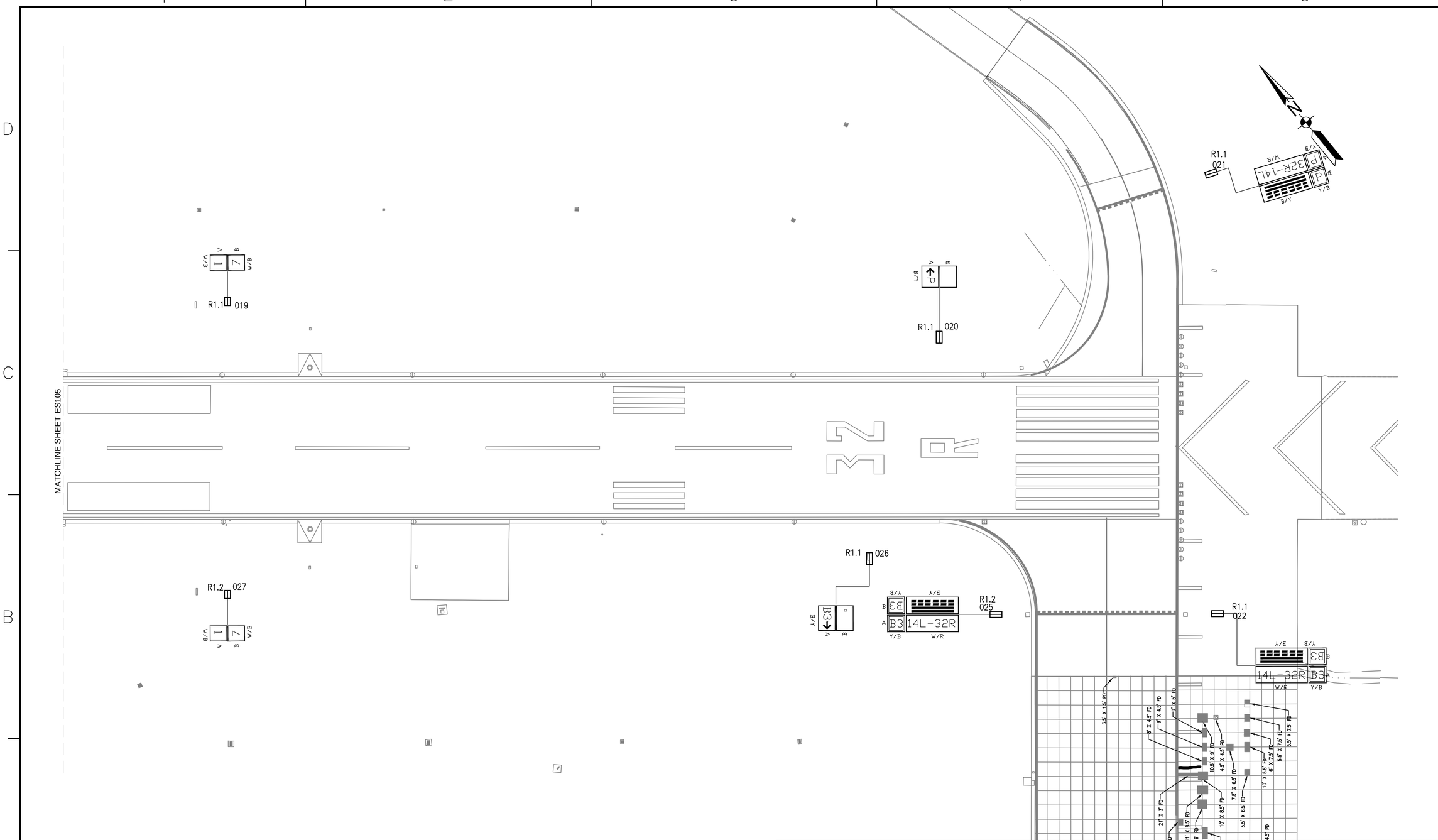
PARTIAL SITE PLAN – SIGNAGE

SCALE: 1" = 50'-0"
I-PROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690298
SHEET 287 OF 315

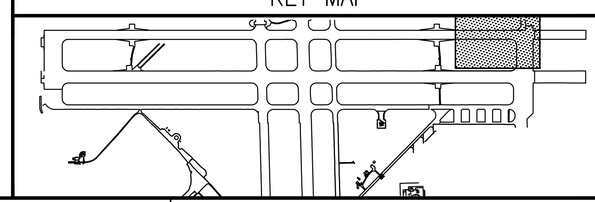
ES105

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\109863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-ES105.dwg LAYOUT NAME: ES105 PLOTTED: Monday, March 23, 2015 - 2:15pm USER: Rhurst



KEY MAP



GRAPHIC SCALE

1"=50' 0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
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A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES JB DRW RRR CHK DJP
PM/DM
BRANCH MANAGER
CHIEF ENG/ARCH

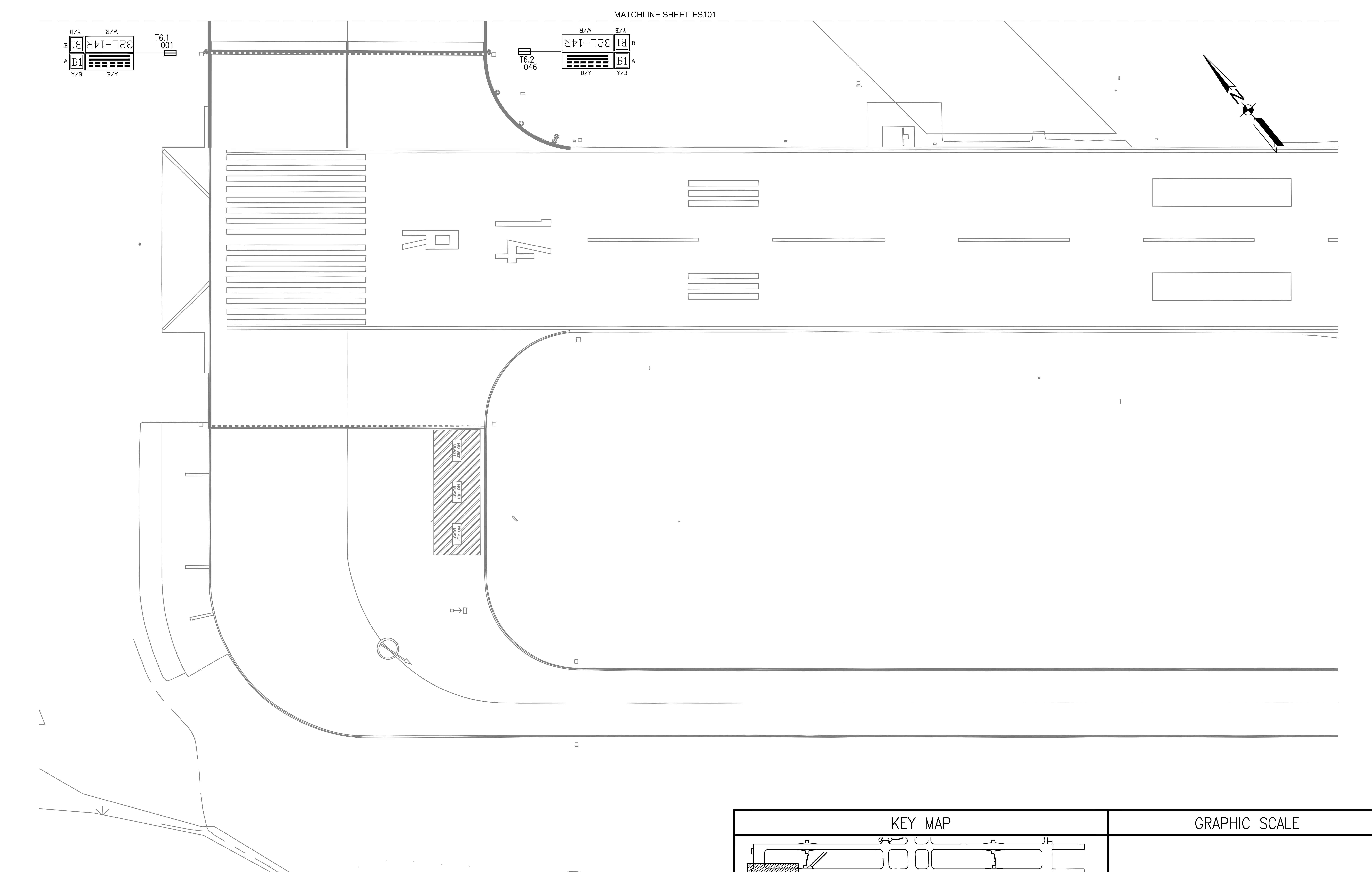
DEPARTMENT OF THE NAVY
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
PARTIAL SITE PLAN – SIGNAGE

SCALE 1" = 50'-0"
PROJECT NO. 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690299
SHEET 288 OF 315

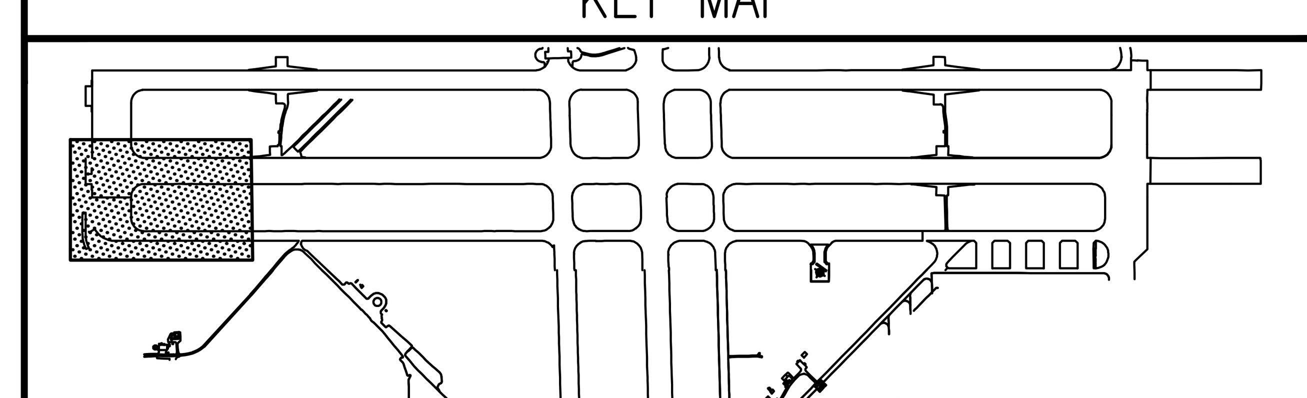
ES106

DRAWFORM REVISION: 10 MARCH 2009

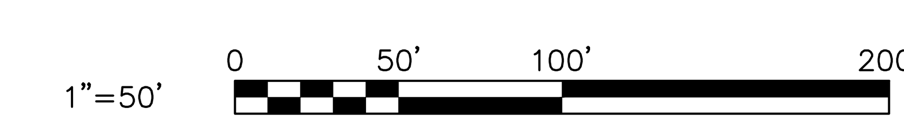
FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-ES106.dwg LAYOUT NAME: ES106 PLOTTED: Monday, March 23, 2015 - 2:15pm USER: Rhurst



KEY MAP



GRAPHIC SCALE



SYM	DESCRIPTION	DATE	APPR

David Parsley
COMMONWEALTH OF VIRGINIA
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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES JB	DRW RRR	CHK DJP

PM/DM

BRANCH MANAGER RDD

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND

NAVFAC MID-ATLANTIC

HR IPT NORFOLK, VIRGINIA

NAVAL AIR STATION OCEANA VIRIGINIA BEACH, VIRGINIA

SPECIAL PROJECT RM10-9004

REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING

PARTIAL SITE PLAN - SIGNAGE

SCALE: 1" = 50'-0"

EPROJECT NO.: 1312624

CONSTR. CONTR. NO.

NAVFAC DRAWING NO. 12690300

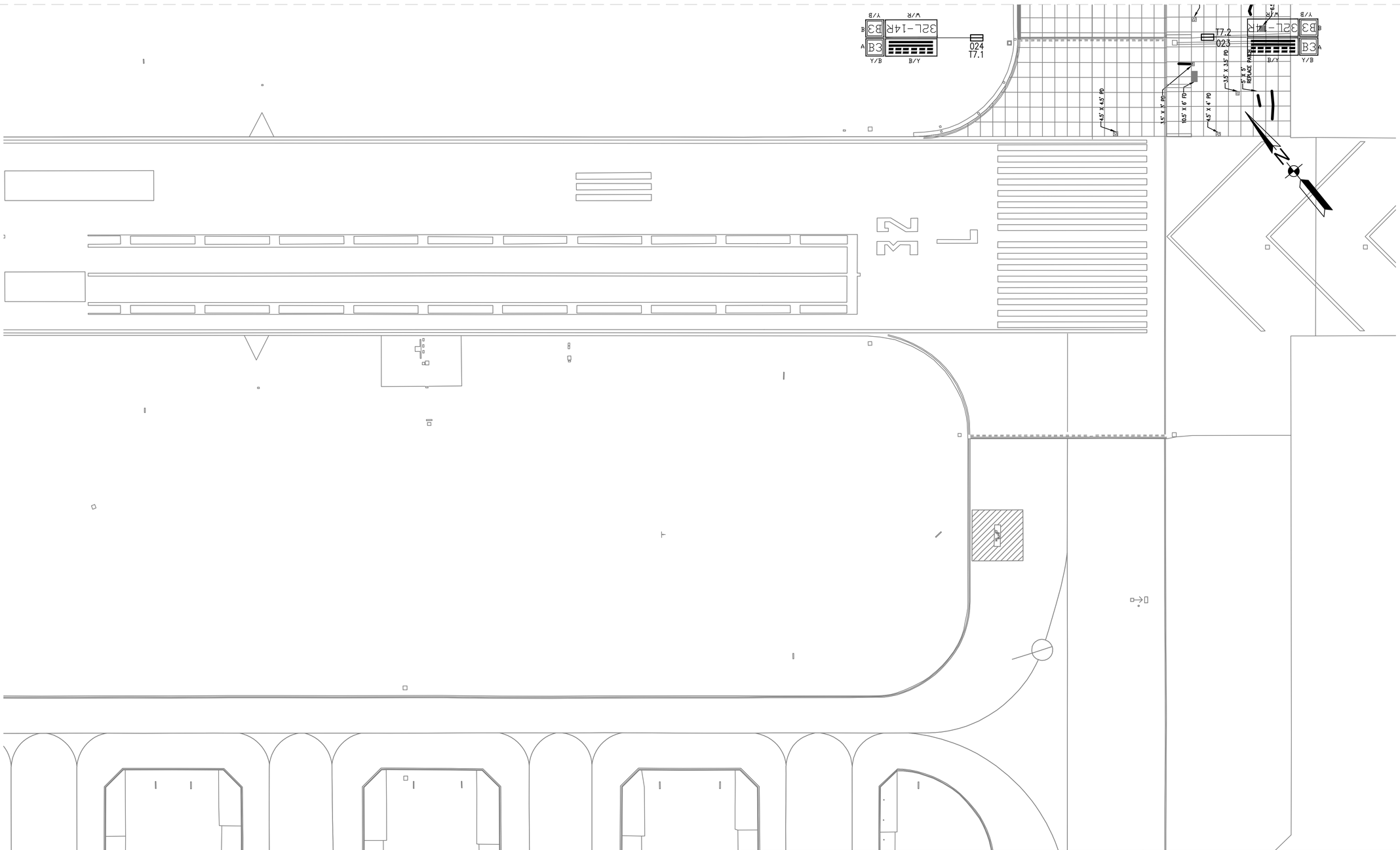
SHEET 289 OF 315

ES108

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-ES108.dwg LAYOUT NAME: ES108 PLOTTED: Monday, March 23, 2015 - 2:15pm USER: Rhurst

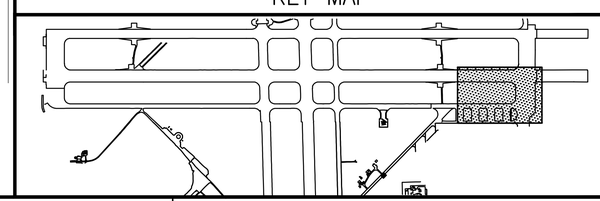
MATCHLINE SHEET ES106



PARTIAL SITE PLAN - SIGNAGE

1"=50'

KEY MAP



GRAPHIC SCALE

1"=50'

0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley

COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
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A/E INFO

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FOR COMMANDER, NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES JB DRW RRR CHK DJP

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA

HR #PT

NAVAL AIR STATION OCEANA
VIRIGINIA BEACH, VIRGINIA

SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING

PARTIAL SITE PLAN – SIGNAGE

SCALE 1" = 50'-0"

PROJECT NO. 1312624

CONSTR. CONTR. NO.

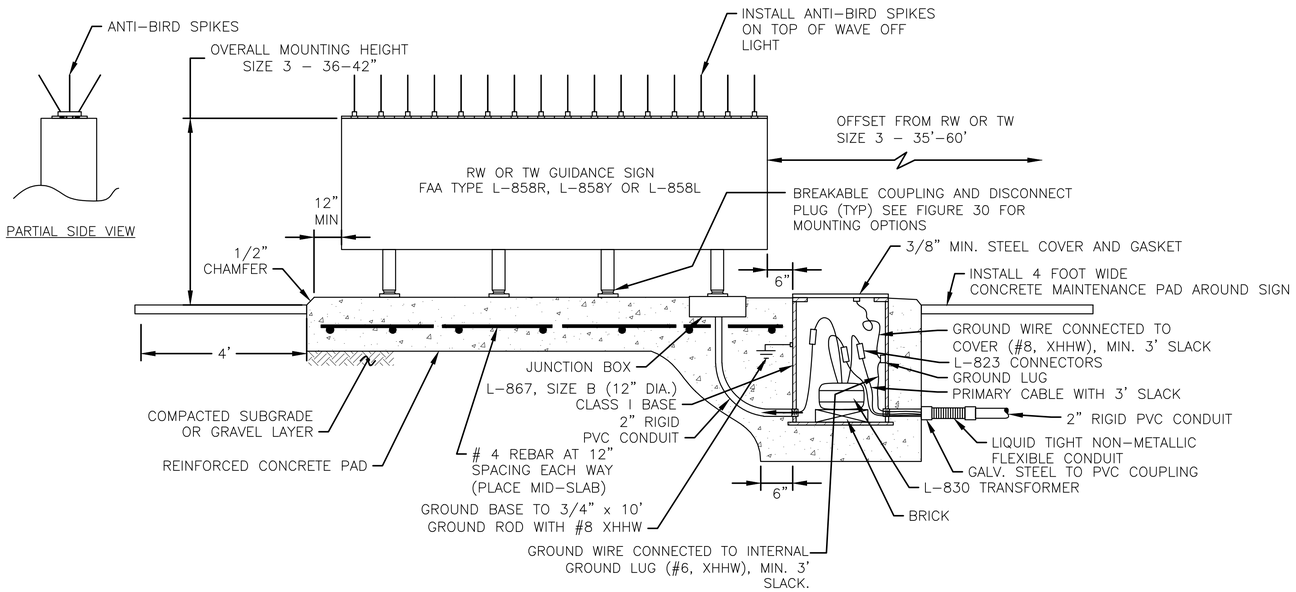
NAVFAC DRAWING NO. 12690301

SHEET 290 OF 315

ES110

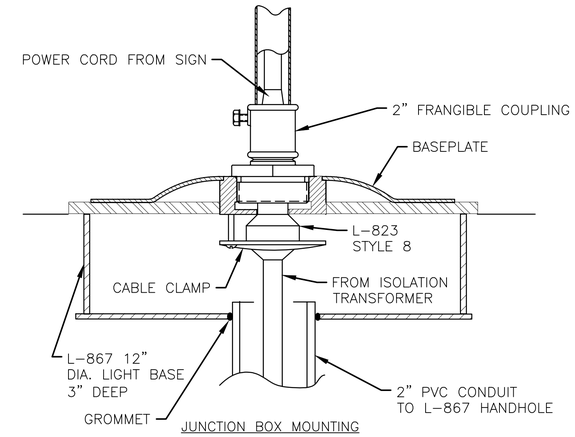
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-ES110.dwg LAYOUT NAME: ES110 PLOTTED: Monday, March 23, 2015 - 2:15pm USER: Rhurst

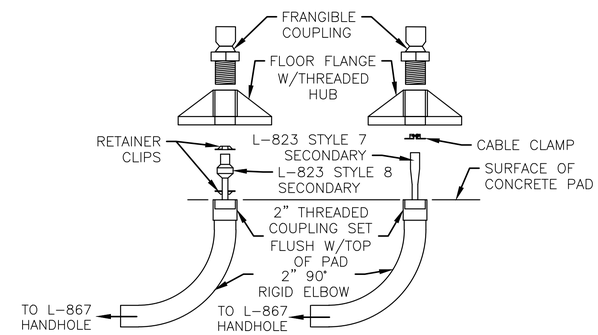


AIRFIELD GUIDANCE SIGN DETAIL (1)

NOT TO SCALE — ES501



JUNCTION BOX MOUNTING



ELBOW AND FLOOR FLANGE MOUNTING

SIGN BASE POWER LEG MOUNTING DETAILS (2)

NOT TO SCALE — ES501

NOTES:

1. DO NOT CONNECT COUNTERPOISE ABOVE CONDUIT LEADING TO SIGN TO THE BASE. CONNECT COUNTERPOISE TO SEPARATE GROUND ROD.
2. FOUNDATION: THICKNESS = 12"
   WIDTH = MIN. 3'. PROVIDE 12" CLEAR ON ALL SIDES OF SIGN.
   SLOPE FOUNDATION SURFACE TO DRAIN AWAY FROM SIGN, APPROX. 2% (1/4"/FT)
3. MAXIMUM OVERALL SIGN LENGTH: SIZE 3 – 170"
4. PROVIDE TETHERS, MINIMUM 2 PER SIGN.
5. INSTALL 3" ASPHALT 3' WIDE AROUND FOUNDATION FOR PROTECTION FROM MOWERS.
6. CONCRETE FOUNDATION SHALL BE FLUSH WITH FINISHED GRADE.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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COMMONWEALTH OF VIRGINIA
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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ALWAYS

SATISFACTION OF: DATE

DES: RCH DRN: RCH CHK: DJP

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAVFAC MID-ATLANTIC
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
ELECTRICAL SIGN DETAILS

SCALE: NOT TO SCALE
PROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690302
SHEET 291 OF 315
ES501

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\10863_007_Repair_Runway_14L-32\ADD\ELECTRICAL-LIGHTING\10-0863-007-ES501.dwg LAYOUT NAME: ES501 PLOTTED: Monday, March 23, 2015 - 2:16pm USER: Rhurst

SIGN SCHEDULE

SIGN #	SIZE	STYLE	MODE	CIRCUIT		SIDE	SIGN LEGEND (SECTIONS PER SIGN TYPE) (SEE NOTE 2) SECTION 1	SECTION 2	SECTION 3	SECTION 4	SIGN TYPE (SEE NOTE 4) 1	2	3	4	LOCATION EASTING	NORTHING	REMARKS
001	3	3	3	R/W	14R-32L	A	14R	B1	-	-	R	L	-	-	12203301.75743903	3472406.06244882	
						B	B1	(HOLD)	-	-	L	Y	-	-			
002	3	3	3	R/W	14L-32R	A	B1	14L	-	-	L	R	-	-	12203516.55431703	3472642.00436812	
						B	(HOLD)	B1	-	-	Y	L	-	-			
007	3	3	3	R/W	5L-23R	A	23R-5L	-	-	-	R	-	-	-	12206218.10689784	3470582.38732574	
						B	-	-	-	-	-	-	-	-			
008	3	3	3	R/W	14L-32R	A	32R-14L	-	-	-	R	-	-	-	12206593.28072186	3470421.13418564	
						B	-	-	-	-	-	-	-	-			
010	3	3	3	R/W	5R-23L	A	23L-5R	-	-	-	R	-	-	-	12206717.85886119	3470127.50130434	
						B	-	-	-	-	-	-	-	-			
011	3	3	3	R/W	14L-32R	A	32R-14L	-	-	-	R	-	-	-	12206885.96856908	3470154.23359557	
						B	-	-	-	-	-	-	-	-			
012	3	3	3	R/W	14L-32R	A	32R-14L	-	-	-	R	-	-	-	12207127.95779771	3469934.49431427	
						B	-	-	-	-	-	-	-	-			
013	3	3	3	R/W	14L-32R	A	←A	-	-	-	L	R	-	-	12207198.37297586	3469689.96078004	
						B	-	-	-	-	Y	L	-	-			
014	3	3	3	R/W	14L-32R	A	A	32R-14L	-	-	L	R	-	-	12207442.84583993	3469647.70779771	
						B	(HOLD)	A	-	-	Y	L	-	-			
015	3	3	3	R/W	14L-32R	A	A→	-	-	-	Y	-	-	-	12207382.83445072	3469522.03128622	
						B	-	-	-	-	-	-	-	-			
020	3	3	3	R/W	14L-32R	A	←P	-	-	-	Y	-	-	-	12209476.03918992	3467616.41601711	
						B	-	-	-	-	-	-	-	-			
021	3	3	3	R/W	14L-32R	A	P	32R	-	-	L	R	-	-	12209803.06994227	3467551.19594251	
						B	(HOLD)	P	-	-	Y	L	-	-			
022	3	3	3	R/W	14L-32R	A	32R	B3	-	-	R	L	-	-	12209496.60690160	3467204.87701880	
						B	B3	(HOLD)	-	-	L	Y	-	-			
023	3	3	3	R/W	14L-32R	A	B3	32L	-	-	Y	R	-	-	12209277.49708024	3466964.24444908	
						B	(HOLD)	B3	-	-	Y	L	-	-			
024	3	3	3	R/W	14R-32L	A	32L	B3	-	-	R	L	-	-	12209105.17755161	3467120.23120870	
						B	B3	(HOLD)	-	-	L	Y	-	-			
025	3	3	3	R/W	14L-32R	A	B3	32R	-	-	L	R	-	-	12209324.10272739	3467361.03190884	
						B	(HOLD)	B3	-	-	L	Y	-	-			
026	3	3	3	R/W	14L-32R	A	B3→	-	-	-	Y	-	-	-	12209265.28403215	3467493.86703229	
						B	-	-	-	-	-	-	-	-			
031	3	3	3	R/W	14L-32R	A	A→	-	-	-	Y	-	-	-	12207226.56699175	3469349.87691932	
						B	-	-	-	-	-	-	-	-			
032	3	3	3	R/W	14L-32R	A	A	14L-32R	-	-	L	R	-	-	12206986.49147824	3469391.86504070	
						B	(HOLD)	A	-	-	Y	L	-	-			
033	3	3	3	R/W	14L-32R	A	A→	-	-	-	Y	-	-	-	12207046.22505281	3469514.05769213	
						B	-	-	-	-	-	-	-	-			
034	3	3	3	R/W	5R-23L	A	5R-23R	-	-	-	R	-	-	-	12206969.76790001	3469583.66799824	
						B	-	-	-	-	-	-	-	-			
035	3	3	3	R/W	14L-32R	A	14L-32R	-	-	-	R	-	-	-	12206785.20886465	3469562.87389467	
						B	-	-	-	-	-	-	-	-			
036	3	3	3	R/W	14L-32R	A	14L-32R	-	-	-	R	-	-	-	12206565.99627210	3469753.33928169	
						B	-	-	-	-	-	-	-	-			
038	3	3	3	R/W	5L-23R	A	5L-23R	-	-	-	R	-	-	-	12206434.18447820	3470071.27973905	
						B	-	-	-	-	-	-	-	-			
039	3	3	3	R/W	14L-32R	A	14L-32R	-	-	-	R	-	-	-	12206061.82633202	3470190.48370860	
						B	-	-	-	-	-	-	-	-			
044	3	3	3	R/W	14L-32R	A	←B1	-	-	-	Y	-	-	-	12203940.75512888	3472341.21995394	
						B	-	-	-	-	-	-	-	-			
045	3	3	3	R/W	14L-32R	A	14L	B1	-	-	R	L	-	-	12203800.21617103	3472385.56310451	
						B	B1	(HOLD)	-	-	L	Y	-	-			
046	3	3	3	R/W	14R-32L	A	B1	14R	-	-	L	R	-	-	12203585.55778663	3472149.49507881	
						B	(HOLD)	B2	-	-	Y	L	-	-			

DISTANCE REMAINING MARKER SIGN SCHEDULE

SIGN #	SIZE	STYLE	MODE	CIRCUIT		SIDE	SIGN LEGEND	SIGN TYPE (SEE NOTE 4)	LOCATION EASTING	NORTHING	REMARKS
003	4	3	3	R/W	14L-32R	A	7	B	12204511.54991823	3472186.59976561	
						B	1	B			
004	4	3	3	R/W	14L-32R	A	(AG)	B	12204851.80620824	3471878.14661662	
						B	(AG)	B			
005	4	3	3	R/W	14L-32R	A	6	B	12205251.01630732	3471513.40630660	
						B	2	B			
006	4	3	3	R/W	14L-32R	A	5	B	12205990.48269641	3470840.21284759	
						B	3	B			
009	4	3	3	R/W	14L-32R	A	4	B	12206729.94908550	3470167.01938858	
						B	4	B			
016	4	3	3	R/W	14L-32R	A	3	B	12207469.41547459	3469493.82592957	
						B	5	B			
017	4	3	3	R/W	14L-32R	A	2	B	12208208.88186368	3468820.63247056	
						B	6	B			
018	4	3	3	R/W	14L-32R	A	(AG)	B	12208601.38185823	3468476.31393662	
						B	(AG)	B			
019	4	3	3	R/W	14L-32R	A	1	B	12208948.34825277	3468147.43901154	
						B	7	B			
027	4	3	3	R/W	14L-32R	A	1	B	12208741.28028762	3467920.03265348	
						B	7	B			
028	4	3	3	R/W	14L-32R	A	(AG)	B	12208381.37367878	3468232.66442504	
						B	(AG)	B			
029	4	3	3	R/W	14L-32R	A	2	B	12208001.80232700	3468593.21339326	
						B	6	B			
030	4	3	3	R/W	14L-32R	A	3	B	12207262.32436639	3469266.39413304	
						B	5	B			
037	4	3	3	R/W	14L-32R	A	4	B	12206522.84640577	3469939.57487282	
						B	4	B			
040	4	3	3	R/W	14L-32R	A	5	B	12205783.36844515	3470612.75561261	
						B	3	B			
041	4	3	3	R/W	14L-32R	A	6	B	12205043.89048454	3471285.93635239	
						B	2	B			
042	4	3	3	R/W	14L-32R	A	(AG)	B	12204645.26857878	3471648.44310504	
						B	(AG)	B			
043	4	3	3	R/W	14L-32R	A	7	B	12204304.41252392	3471959.11709218	
						B	1	B			

NOTES:

1. THE NUMBER OF MODULES OR SECTIONS FOR ANY SIGN SIGN MAY VARY DEPENDING ON THE MANUFACTURER OF THE SIGN. ACTUAL SIGN CONFIGURATION SHALL BE DETERMINED BY THE MANUFACTURER OF THE SIGN.
2. (HOLD) – INSTALL RUNWAY SAFETY AREA/OFZ OR RUNWAY APPROACH BOUNDARY SIGN.

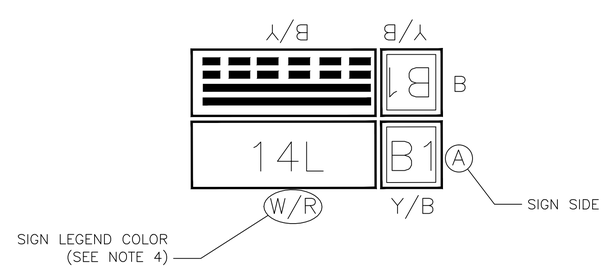
   (AG) – ARRESTING GEAR MARKER
3. NORTHING AND EASTING COORDINATES ARE TAKEN FROM THE CENTER OF THE SIGN, SIDE CLOSEST TO THE RUNWAY OR TAXIWAY UNLESS OTHERWISE NOTED.
4. SIGN TYPES:

   Y – FAA TYPE L–858Y DIRECTION, DESTINATION, AND BOUNDARY SIGN – BLACK LEGEND ON A YELLOW BACKGROUND

   R – FAA TYPE L–858R MANDATORY INSTRUCTION SIGN – WHITE LEGEND ON A RED BACKGROUND

   L – FAA TYPE L–858L TAXIWAY AND RUNWAY LOCATION SIGN – YELLOW LEGEND AND BORDER ON A BLACK BACKGROUND

   B – FAA TYPE L–858B RUNWAY DISTANCE REMAINING SIGN – WHITE LEGEND ON A BLACK BACKGROUND



NOTE:
ALL COORDINATES ARE IN THE SOUTH VIRGINIA STATE PLANE COORDINATES – ZONE 4502

SYM.	DESCRIPTION	DATE	APPR.

NAVFAC

David Parsley
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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES. RCH DRW. RCH CHK. DJP

PM/DM

BRANCH MANAGER

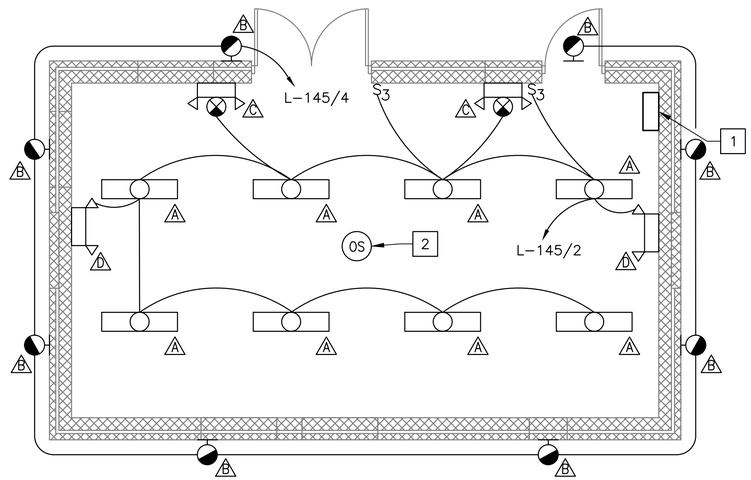
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
AIRFIELD SIGN SCHEDULES

SCALE: NOT TO SCALE
FPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690303
SHEET 292 OF 315
ES601

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMO\108863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-ES601.dwg LAYOUT NAME: ES601 PLOTTED: Monday, March 23, 2015 - 2:16pm USER: Rhurst



VAULT E-145 LIGHTING PLAN

1/4"=1'-0"

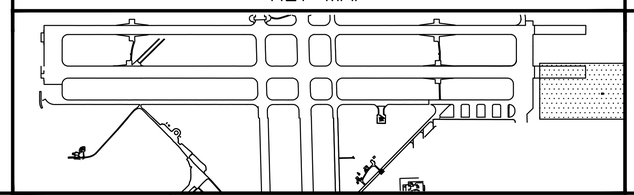
GENERAL SHEET NOTES

1. REFER TO DRAWINGS E-001 THRU E-005 FOR ELECTRICAL LEGEND, ABBREVIATIONS AND NOTES.
2. REFER TO DRAWINGS E-403, E-601, AND E-402 FOR ADDITIONAL INFORMATION.
3. REFER TO ARCHITECTURAL, CIVIL, ELECTRICAL, STRUCTURAL, AND MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
4. REPAIR AND PATCH ANY DISTURBED AREAS TO MATCH EXISTING CONDITIONS.
5. REFER TO DRAWING E-610 FOR LIGHTING FIXTURE SCHEDULE AND DETAILS.
6. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF EXTERIOR WALL MOUNTED LIGHT FIXTURES.
7. REFER TO DRAWING E-608 FOR PANEL SCHEDULES.
8. ALL EXIT AND EGRESS LIGHTING MUST BE CONNECTED ON THE UN-SWITCHED PORTION OF THE CIRCUIT.
9. REFER TO DETAIL 2 ON DRAWING E-502 FOR LIGHTING CONTROL DIAGRAM.

CONSTRUCTION KEYNOTES

1. 250A, 208Y/120V PANEL L-145 WITH 225A MAIN CIRCUIT BREAKER.
2. OCCUPANCY/VACANCY SENSOR SWITCH. THE SENSOR MUST BE WIRED AS VACANCY SENSOR (MANUAL ON, AUTOMATIC OFF). CEILING-MOUNT SENSOR MUST ACHIEVE MANUAL-ON VIA TOGGLE SWITCH WIRED IN SERIES WITH (AND DOWNSTREAM OF) THE OCCUPANCY SENSOR POWER PACK. PROVIDE LOW VOLTAGE POWER PACKS AS REQUIRED. SENSOR MUST BE EQUIPPED WITH THE FOLLOWING: ADJUSTABLE TIMER SETTINGS; SELF-ADJUSTING TECHNOLOGY TO MINIMIZE NUISANCE SWITCHING; LOW VOLTAGE AUXILIARY RELAY/CONTACTS; OPTIONAL AMBIENT LIGHT SENSING OVERRIDE. PROVIDE ALL WIRING AND CONDUIT NECESSARY FOR A COMPLETE FUNCTIONAL LIGHTING CONTROL SYSTEM. REFER TO DETAIL 1 ON DRAWING E-110 FOR ADDITIONAL INFORMATION.

KEY MAP



GRAPHIC SCALE

1/4"=1'-0"

1' 0 2' 4' 8'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

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PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
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NORFOLK, VIRGINIA
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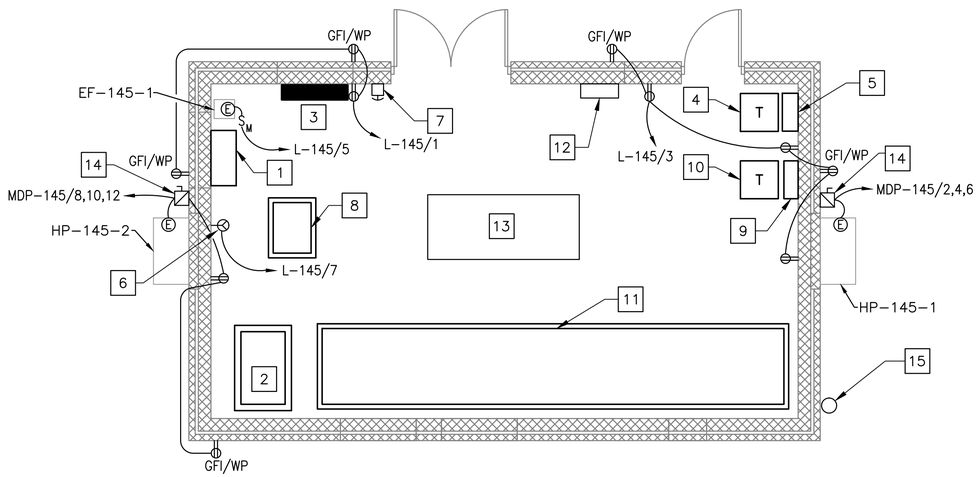
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
VAULT E-145 – LIGHTING PLAN

SCALE: 1/4" = 1'-0"
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690304
SHEET 293 OF 315

E-401

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: H:\56427 NAS Oceana\Electrical\Planset\10-0863-007-E-401.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, March 23, 2015 - 8:17am USER: jrothe



VAULT E-145 POWER PLAN

1/4"=1'-0"

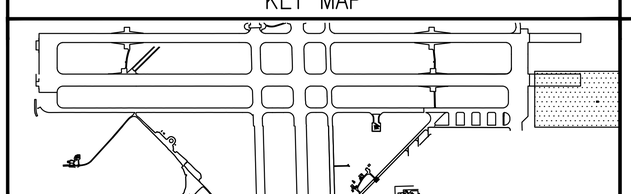
GENERAL SHEET NOTES

1. REFER TO DRAWINGS E-001 THRU E-005 FOR ELECTRICAL LEGEND, ABBREVIATIONS AND NOTES.
2. REFER TO DRAWINGS E-403, E-601, AND E-402 FOR ADDITIONAL INFORMATION.
3. REFER TO ARCHITECTURAL, CIVIL, ELECTRICAL, STRUCTURAL, AND MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
4. REPAIR AND PATCH ANY DISTURBED AREAS TO MATCH EXISTING CONDITIONS.
5. UNLESS OTHERWISE NOTED, ALL ELECTRICAL WORK AND MATERIALS ARE NEW AND MUST BE PROVIDED BY THE ELECTRICAL CONTRACTOR.
6. REFER TO DRAWING E-602 FOR PANEL SCHEDULES.
7. PROVIDE CONCRETE HOUSEKEEPING PADS FOR EACH FLOOR MOUNTED ELECTRICAL EQUIPMENT.
8. ELECTRICAL EQUIPMENT INSTALLED OUTDOOR MUST BE IN NEMA 4X STAINLESS STEEL UON. ELECTRICAL EQUIPMENT INSTALLED INDOOR MUST BE IN NEMA 12 ENCLOSURE UON.
9. ELECTRICAL EQUIPMENT INCLUDING, BUT NOT LIMITED TO, SWITCHBOARDS, PANEL BOARDS, MOTOR STARTERS, ENCLOSED CIRCUIT BREAKERS, DISCONNECT SWITCHES, TRANSFORMERS, ENCLOSURES, AND WIRING DEVICES MUST BE UL LISTED FOR ITS INTENDED USE.
10. RECEPTACLE OUTLETS INSTALLED OUTDOORS AND/OR IN WET LOCATIONS MUST BE LISTED WEATHER-RESISTANT TYPE WITH A WEATHERPROOF WHILE-IN-USE COVER THAT IS LISTED AND IDENTIFIED AS "EXTRA-DUTY".

CONSTRUCTION KEYNOTES

1. 400A, 3 POLE, 480Y/277V SERVICE ENTRANCE RATED DISCONNECT SAFETY SWITCH, FUSED AT 400A.
2. 400A, 4 POLE, 65KA WITHSTAND CURRENT RATING, DELAYED OPEN TRANSITION AUTOMATIC TRANSFER SWITCH WITH ISOLATION BYPASS INSTALLED ON 4" CONCRETE PAD.
3. 400A, 480Y/277V MAIN DISTRIBUTION PANEL WITH 400A MAIN CIRCUIT BREAKER WITH ELECTRONIC TRIP UNIT WITH LSI FEATURE.
4. 75KVA, 480V-208Y/120V WALL MOUNTED DRY TYPE TRANSFORMER. PROVIDE NECESSARY MOUNTING HARDWARE FOR INSTALLATION.
5. 250A, 208Y/120V PANEL L-145 WITH 225A MAIN CIRCUIT BREAKER.
6. PROVIDE 30A, 1 POLE, 120V, NEMA L5-30 RECEPTACLE FOR ALCMS CABINET. FIELD COORDINATE EXACT LOCATION AND MOUNTING HEIGHT.
7. EMERGENCY SHUT-OFF SWITCH FOR GENERATOR. PROVIDE WIRING AND CONDUIT FROM THE SWITCH TO THE GENERATOR AS REQUIRED BY THE GENERATOR MANUFACTURER.
8. AIRFIELD LIGHTING CONTROL AND MONITORING SYSTEM (ALCMS) CABINET.
9. RE-INSTALL EXISTING APPROACH LIGHTING CONTROL SYSTEM (ALSF) MASTER CONTROL CABINET.
10. RE-INSTALL EXISTING 15KVA ALSF TRANSFORMER. TRANSFORMER MUST BE WALL MOUNTED, PROVIDE NECESSARY MOUNTING HARDWARE FOR INSTALLATION.
11. CONSTANT CURRENT REGULATOR SWITCHGEAR (CCR).
12. GENERATOR ANNUNCIATOR PANEL. PROVIDE WIRING AND CONDUIT FROM THE PANEL TO THE GENERATOR AS REQUIRED BY THE GENERATOR MANUFACTURER.
13. PORTABLE FORKLIFT. REFER TO DRAWING E-504 FOR MORE INFORMATION.
14. PROVIDE 480V, 3 POLE, 30A FUSED DISCONNECT SWITCH IN NEMA 4X STAINLESS STEEL ENCLOSURE WITH 20A FUSES.
15. PROVIDE NEW ANTENNA. COORDINATE WIRE AND CONDUIT REQUIREMENTS WITH THE CLIENT AND ANTENNA MANUFACTURER.

KEY MAP



GRAPHIC SCALE

1/4"=1'-0"

1' 0 2' 4' 8'

SYM	DESCRIPTION	DATE	APPR

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VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
VAULT E-145 - POWER PLAN

SCALE: 1/4" = 1'-0"
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690305
SHEET 294 OF 315
E-402

DRAWFORM REVISION: 10 MARCH 2009

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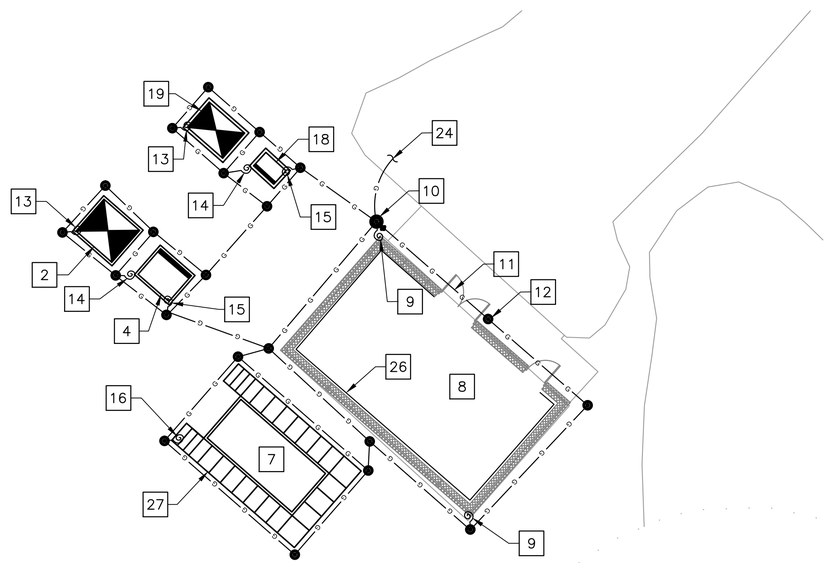
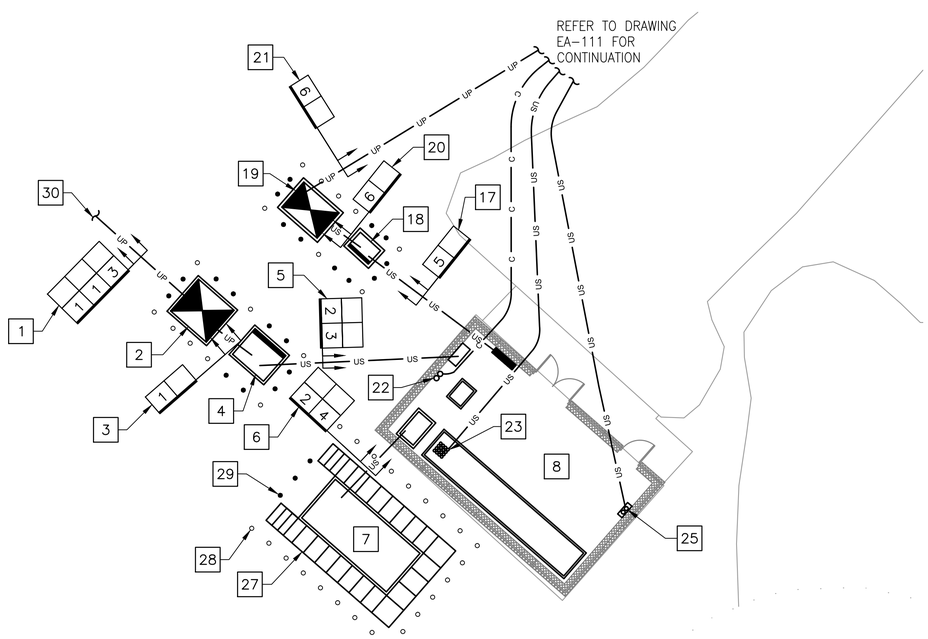


VAULT E-145 SITE PLAN GROUNDING (1)

1"=10'



VAULT E-145 SITE PLAN POWER (2)

1"=10'

GENERAL SHEET NOTES

1. REFER TO DRAWINGS E-001 THRU E-005 FOR ELECTRICAL LEGEND, ABBREVIATIONS AND NOTES.
2. REFER TO DRAWINGS E-601, E-401, AND E-402 FOR ADDITIONAL INFORMATION.
3. REFER TO ARCHITECTURAL, CIVIL, ELECTRICAL, STRUCTURAL, AND MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
4. REPAIR AND PATCH ANY DISTURBED AREAS TO MATCH EXISTING CONDITIONS.
5. REFER TO DRAWING E-501 FOR GROUNDING DETAILS.
6. REFER TO DRAWING E-608 FOR CABLE SCHEDULE.

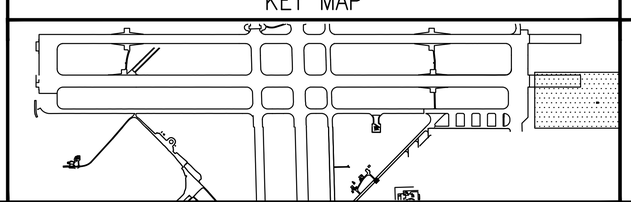
CONSTRUCTION KEYNOTES

1. 6-WAY 5" SCHEDULE 40 PVC IN CONCRETE ENCASED DUCTBANK FROM THE MANHOLE 118 TO 4-WAY, 5KV PAD MOUNTED SWITCH. REFER TO DETAIL 1 ON DRAWING E-503 FOR ADDITIONAL INFORMATION.
2. 4-WAY, 5 KV PAD MOUNTED SWITCH ON CONCRETE PAD. REFER TO STRUCTURAL DRAWINGS FOR CONCRETE PAD DETAIL.
3. 2-WAY 5" SCHEDULE 40 PVC IN CONCRETE ENCASED DUCTBANK FROM THE PAD MOUNTED SWITCH TO PAD MOUNTED TRANSFORMER. REFER TO DETAIL 2 ON DRAWING E-503 FOR ADDITIONAL INFORMATION.
4. 225KVA, 4160V-480Y/277V PAD MOUNTED TRANSFORMER ON CONCRETE PAD. REFER TO STRUCTURAL DRAWINGS FOR CONCRETE PAD DETAIL.
5. 4-WAY 4" SCHEDULE 40 PVC IN CONCRETE ENCASED DUCTBANK FROM THE PAD MOUNTED TRANSFORMER TO SERVICE ENTRANCE DISCONNECT. REFER TO DETAIL 3 ON DRAWING E-503 FOR ADDITIONAL INFORMATION.
6. 4-WAY 4" SCHEDULE 40 PVC IN CONCRETE ENCASED DUCTBANK FROM THE GENERATOR TO ATS. REFER TO DETAIL 3 ON DRAWING E-503 FOR ADDITIONAL INFORMATION.
7. 200KW, 250KVA, 480V, 3 PHASE, 4 WIRE, DIESEL STANDBY GENERATOR, IN WEATHERPROOF ENCLOSURE, WITH 325 GALLONS DOUBLE-WALL SUB-BASE FUEL TANK WITH LEAK DETECTION MOUNTED ON CONCRETE PAD. REFER TO STRUCTURAL DRAWINGS FOR CONCRETE PAD DETAIL.
8. VAULT E-145. REFER TO DRAWINGS E-401 AND E-402 FOR ADDITIONAL INFORMATION.
9. #4/0 AWG BARE COPPER FROM THE TEST WELL/GROUNDING ROD TO THE MAIN ELECTRICAL ROOM GROUNDING PLATE.
10. GROUNDING TEST WELL.
11. #4/0 AWG BARE COPPER. TYPICAL FOR THE ENTIRE GROUNDING SYSTEM UON.
12. GROUNDING ROD. TYPICAL.
13. #4/0 AWG BARE COPPER FROM THE GROUNDING ROD TO THE 5KV SWITCH AND CONCRETE PAD REBAR. TYPICAL FOR THREE LOCATIONS.
14. #4/0 AWG BARE COPPER FROM THE GROUNDING ROD TO THE TRANSFORMER ENCLOSURE AND CONCRETE PAD REBAR. TYPICAL FOR TWO CONNECTIONS.
15. #500 KCMIL BARE COPPER FROM THE GROUNDING ROD TO THE TRANSFORMER XO.

CONSTRUCTION KEYNOTES

16. #4/0 AWG BARE COPPER FROM THE GROUNDING ROD TO THE GENERATOR, GENERATOR ENCLOSURE, GENERATOR CONCRETE PAD, AND CATWALK. TYPICAL FOR THREE LOCATIONS.
17. 2-WAY 2" SCHEDULE 40 PVC IN CONCRETE ENCASED DUCTBANK FROM MAIN DISTRIBUTION PANEL TO PAD MOUNTED TRANSFORMER. REFER TO DETAIL 2 ON DRAWING E-503 FOR ADDITIONAL INFORMATION.
18. 37.5KVA, 480V-4160V SINGLE PHASE PAD MOUNTED TRANSFORMER ON CONCRETE PAD. REFER TO STRUCTURAL DRAWINGS FOR CONCRETE PAD DETAIL.
19. 5 KV PAD MOUNTED SWITCH ON CONCRETE PAD. REFER TO STRUCTURAL DRAWINGS FOR CONCRETE PAD DETAIL.
20. 2-WAY 5"C SCHEDULE 40 PVC IN CONCRETE ENCASED DUCTBANK FROM THE PAD MOUNTED TRANSFORMER TO PAD MOUNTED SWITCH. REFER TO DETAIL 2 ON DRAWING E-503 FOR ADDITIONAL INFORMATION.
21. 2-WAY 5"C SCHEDULE 40 PVC IN CONCRETE ENCASED DUCTBANK FROM PAD MOUNTED DISCONNECT SWITCH TO MANHOLE #44. REFER TO DETAIL 2 ON DRAWING E-503 FOR ADDITIONAL INFORMATION.
22. STUB UP (2) 4"C FOR FIBER TO ALCMS CABINET FROM COMMUNICATIONS MANHOLE SHOWN ON DRAWING EA-111.
23. STUB UP (16) 2"C TO CCR FROM AIRFIELD MANHOLE SHOWN ON DRAWING EA-111. COORDINATE CONDUIT STUB UP LOCATION WITH CCR MANUFACTURER PRIOR TO INSTALLATION.
24. #6 AWG BARE COPPER FOR GROUNDING WIRE CONNECTION TO AIRFIELD DUCTBANKS. TYPICAL OF 4.
25. STUB UP (2) 5"C TO ALSF CABINET FROM AIRFIELD MANHOLE SHOWN ON DRAWING EA-111.
26. PROVIDE MULTI-POINT SYSTEM GROUNDING PLATE ALONG THE PERIMETER OF THE INTERIOR WALL OF THE VAULT. REFER TO DRAWING E-501 FOR ADDITIONAL INFORMATION.
27. PROVIDE CATWALK FOR GENERATOR. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
28. PROVIDE BOLLARD. REFER TO EA SERIES DRAWINGS FOR MORE INFORMATION. (TYP.)
29. PROVIDE REMOVABLE BOLLARD. REFER TO EA SERIES DRAWINGS FOR MORE INFORMATION. (TYP.)
30. CONTINUE DUCTBANK AND WIRES TO MANHOLE 118. REFER TO ED111 FOR MANHOLE LOCATION.

KEY MAP



GRAPHIC SCALE

1"=10' 0 10' 20' 40'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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VIRGINIA BEACH, VIRGINIA

SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING

VAULT E-145 - SITE PLAN POWER AND GROUNDING

SCALE: 1"=10'

EPROJECT NO.: 1312624

CONSTR. CONTR. NO.

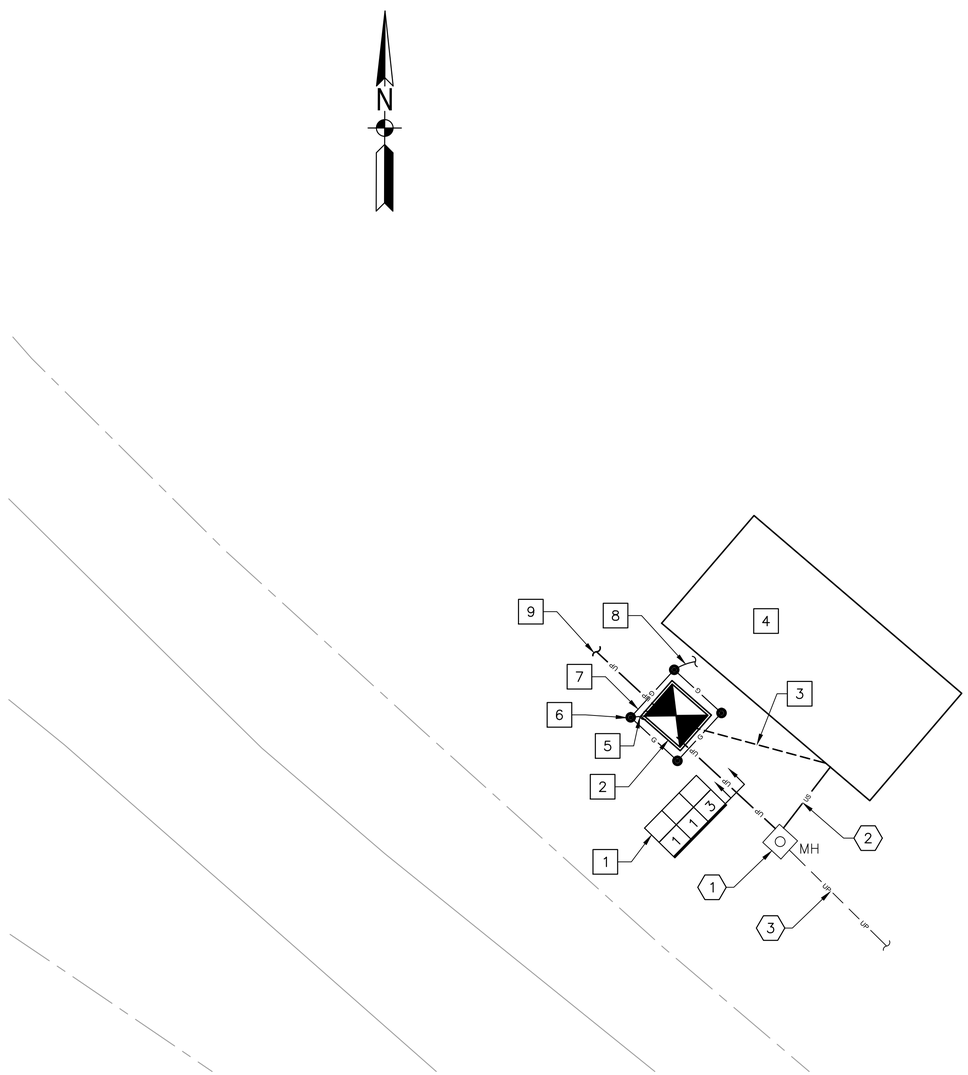
NAVFAC DRAWING NO.
12690306

SHEET 295 OF 315

E-403

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: H:\56427 NAS Oceana\Electrical\Planset\10-0863-007-E-403.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, March 23, 2015 - 8:18am USER: jrothe



VAULT E-3036 SITE PLAN POWER

1"=10'

GENERAL SHEET NOTES

1. REFER TO DRAWINGS E-001 THRU E-005 FOR ELECTRICAL LEGEND, ABBREVIATIONS AND NOTES.
2. REFER TO ARCHITECTURAL, CIVIL, ELECTRICAL, STRUCTURAL, AND MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
4. ELECTRICAL EQUIPMENT AND DEVICES SHOWN TO BE DEMOLISHED MUST BE DEMOLISHED ALONG WITH FEEDERS, BRANCH CIRCUITS, AND CONDUITS. WIRING MUST BE REMOVED BACK TO THE SOURCE. REMOVE CONDUITS ASSOCIATED WITH DEMOLISHED EQUIPMENT EXCEPT CONDUITS CONCEALED IN WALLS OR FLOOR SLABS. CONTRACTOR MUST DISCONNECT, MAKE SAFE, AND REMOVE LIGHT FIXTURES, RECEPTACLES AND OTHER ASSOCIATED ELECTRICAL EQUIPMENT AND ASSOCIATED CIRCUITRY, EXCEPT AS SHOWN OTHERWISE.
5. PRIOR TO DEMOLITION, CONTRACTOR MUST FIELD VERIFY EACH BRANCH CIRCUIT AND MAINTAIN THOSE CIRCUITS THAT EXTEND OUTSIDE OF THE SCOPE OF WORK.
6. ELECTRICAL WORK INDICATED TO REMAIN MUST BE SUITABLY PROTECTED TO PREVENT ANY DAMAGE.
7. REPAIR AND PATCH ANY DISTURBED AREAS TO MATCH EXISTING CONDITIONS.
8. ITEMS NOT TO BE SALVAGED MUST BE DEMOLISHED AND PROPERLY DISPOSED BY CONTRACTOR.

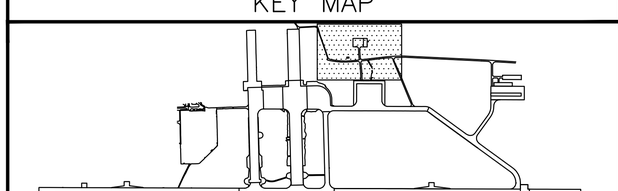
DEMOLITION KEYNOTES

1. EXISTING MANHOLE TO REMAIN.
2. DEMOLISH EXISTING 5KV FEEDER FROM THE EXISTING MANHOLE TO THE EXISTING VAULT 3036 SERVICE ENTRANCE DISCONNECT SWITCH. EXISTING CONDUITS AND DUCTBANK TO REMAIN.
3. EXISTING UNDERGROUND MEDIUM VOLTAGE CONDUIT DUCTBANK IS TO REMAIN.

CONSTRUCTION KEYNOTES

1. 6-WAY 5" SCHEDULE 40 PVC IN CONCRETE ENCASED DUCTBANK FROM THE EXISTING MANHOLE TO 4-WAY, 5KV PAD MOUNTED SWITCH. REFER TO DETAIL 1 ON DRAWING E-503 FOR ADDITIONAL INFORMATION.
2. 4-WAY, 5 KV PAD MOUNTED SWITCH ON CONCRETE PAD. REFER TO STRUCTURAL DRAWINGS FOR CONCRETE PAD DETAIL.
3. CONTRACTOR MUST PROVIDE TEMPORARY FEEDER TO VAULT 3036 SERVICE DISCONNECT SWITCH FROM THE 4-WAY, 5KV, PAD MOUNTED SWITCH. FEEDER: 3# 250 KCMIL MV-105 + 1# 250 G IN 5" PVC SCHEDULE 40. DIRECT BURIED 48" BELOW GRADE.
4. EXISTING VAULT E-3036.
5. #4/0 AWG BARE COPPER FROM THE GROUNDING ROD TO THE 5KV SWITCH AND CONCRETE PAD REBAR. TYPICAL FOR THREE LOCATIONS.
6. GROUNDING ROD. TYPICAL.
7. #4/0 AWG BARE COPPER. TYPICAL FOR THE ENTIRE GROUNDING SYSTEM UON.
8. #4/0 AWG BARE COPPER. CONNECT TO THE EXISTING VAULT GROUNDING SYSTEM.
9. PROVIDE 2-WAY 5" SCHEDULE 40 PVC IN CONCRETE ENCASED DUCTBANK FOR 5' FROM THE OUTPUT OF THE PAD MOUNTED SWITCH. STUB UP CONDUITS AND PROTECT FOR FUTURE CONNECTION TO FUTURE TRANSFORMER.

KEY MAP



GRAPHIC SCALE

1"=10' 0 10' 20' 40'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

MUGUREL GIURGIU
COMMONWEALTH OF VIRGINIA
Lic. No. 046781
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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES SJM | DRW SJM | CHK MG

PM/OM

BRANCH MANAGER

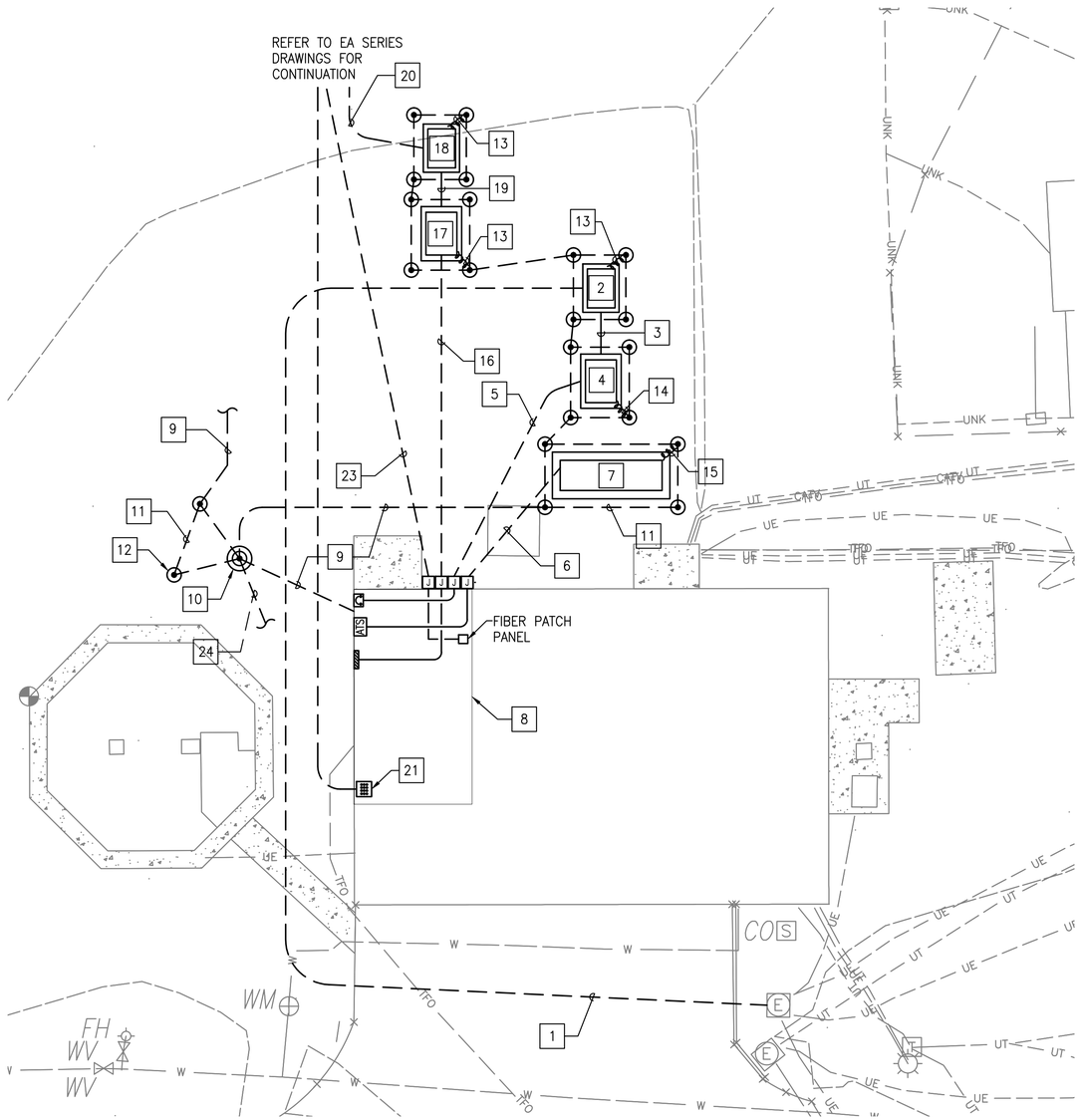
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAVFAC MID-ATLANTIC
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
VAULT E-3036 - SITE PLAN POWER

SCALE: 1"=10'
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690307
SHEET 296 OF 315
E-404

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: H:\56427 NAS Oceana\Electrical\Planset\10-0863-007-E-404.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, March 23, 2015 - 8:19am USER: jrothe



VAULT E-3015- SITE PLAN POWER AND GROUNDING

SCALE: 1" = 10'-0"

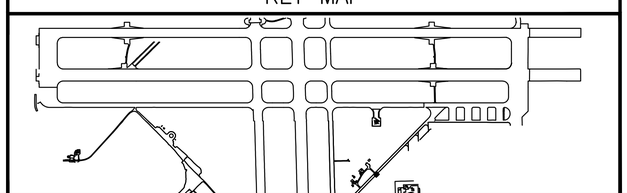
GENERAL SHEET NOTES

1. REFER TO DRAWINGS E-001 THRU E-005 FOR ELECTRICAL LEGEND, ABBREVIATIONS AND NOTES.
2. REFER TO DRAWINGS E-602 AND E-406 ADDITIONAL INFORMATION.
3. REFER TO ARCHITECTURAL, CIVIL, ELECTRICAL, STRUCTURAL, AND MECHANICAL DRAWINGS FOR ADDITIONAL WORK.
4. REPAIR AND PATCH ANY DISTURBED AREAS TO MATCH EXISTING CONDITIONS.

CONSTRUCTION KEYNOTES

1. 4-WAY 5" SCHEDULE 40 PVC IN CONCRETE ENCASED DUCTBANK FROM EXISTING MANHOLE TO 4-WAY, 5KV PAD MOUNTED SWITCH. DUCTBANK INCLUDES TWO (1)-5" POWER FEEDERS, ONE (1)-5" CONTROL, AND TWO (3)-5" SPARE. FEEDER: 3# 250 KCMIL MV-105 + 1# 2 G. STUB UP IN OUTDOOR JUNCTION. TRANSITION FROM PVC CONDUIT TO RIGID GALVANIZED STEEL CONDUIT WHEN CONDUIT IS ABOVE GROUND. REFER TO DETAIL 3 ON DRAWING E-503 FOR ADDITIONAL INFORMATION.
2. 4-WAY, 5 KV PAD MOUNTED SWITCH ON CONCRETE PAD. REFER TO STRUCTURAL DRAWINGS FOR CONCRETE PAD DETAIL.
3. 2-WAY 5" SCHEDULE 40 PVC IN CONCRETE ENCASED DUCTBANK FROM THE PAD MOUNTED SWITCH TO PAD MOUNTED TRANSFORMER. DUCTBANK INCLUDES ONE (1)-5" POWER FEEDER AND ONE (1)-5" SPARE. FEEDER: 3# 8 AWG MV-105 + 1# 8 G. REFER TO DETAIL 2 ON DRAWING E-503 FOR ADDITIONAL INFORMATION.
4. 150KVA, 4160V-480Y/277V PAD MOUNTED TRANSFORMER ON CONCRETE PAD. REFER TO STRUCTURAL DRAWINGS FOR CONCRETE PAD DETAIL.
5. 4-WAY 4" SCHEDULE 40 PVC IN CONCRETE ENCASED DUCTBANK FROM THE PAD MOUNTED TRANSFORMER TO SERVICE ENTRANCE CIRCUIT BREAKER DISCONNECT. DUCTBANK INCLUDES ONE (1) POWER FEEDER. FEEDER: 4# 3/0 AWG + 1 #4 G. REFER TO DETAIL 3 ON DRAWING E-503 FOR ADDITIONAL INFORMATION.
6. 4-WAY 4" SCHEDULE 40 PVC IN CONCRETE ENCASED DUCTBANK FROM THE GENERATOR TO ATS. DUCTBANK INCLUDES ONE (1)-4" POWER FEEDER, ONE (1)-4" STARTING CIRCUIT AND JACKET HEATER/BATTERY CHARGER/RECEPTACLE CIRCUITS, ONE (1)-4" ANNUNCIATOR CIRCUIT, AND ONE (1)-4" SPARE. FEEDER: 4# 3/0 AWG + 1# 6 G. REFER TO DETAIL 3 ON DRAWING E-503 AND ONE-LINE DIAGRAM ON DRAWING E-602 FOR ADDITIONAL INFORMATION.
7. 150KW, 187.5KVA, 480V, 3 PHASE, 4 WIRE, DIESEL STANDBY GENERATOR, IN WEATHERPROOF ENCLOSURE, WITH 300 GALLONS SUB-BASE FUEL TANK MOUNTED ON CONCRETE PAD. REFER TO STRUCTURAL DRAWINGS FOR CONCRETE PAD DETAIL.
8. VAULT E-3015. REFER TO DRAWINGS E-406 FOR ADDITIONAL INFORMATION.
9. #4/0 AWG INSULATED COPPER IN 1" CONDUIT FROM THE TEST WELL TO THE MAIN ELECTRICAL ROOM GROUNDING BAR.
10. GROUNDING TEST WELL.
11. #4/0 AWG BARE COPPER. TYPICAL FOR THE ENTIRE GROUNDING SYSTEM UON.

KEY MAP



CONSTRUCTION KEYNOTES

12. GROUNDING ROD. TYPICAL.
13. #4/0 AWG BARE COPPER FROM THE GROUNDING ROD TO THE 5KV SWITCH. TYPICAL FOR TWO LOCATIONS.
14. #4/0 AWG BARE COPPER FROM THE GROUNDING ROD TO THE TRANSFORMER ENCLOSURE.
15. #4/0 AWG BARE COPPER FROM THE GROUNDING ROD TO THE GENERATOR.
16. 2-WAY 2" SCHEDULE 40 PVC IN CONCRETE ENCASED DUCTBANK FROM MAIN DISTRIBUTION PANEL TO PAD MOUNTED TRANSFORMER. DUCTBANK INCLUDES ONE (1) POWER FEEDER. FEEDER: 2#1/0 AWG +1#6 G. REFER TO DETAIL 2 ON DRAWING E-503 FOR ADDITIONAL INFORMATION.
17. 37.5KVA, 480V-4160V PAD MOUNTED TRANSFORMER ON CONCRETE PAD. REFER TO STRUCTURAL DRAWINGS FOR CONCRETE PAD DETAIL.
18. 2-WAY, 5 KV PAD MOUNTED SWITCH ON CONCRETE PAD. REFER TO STRUCTURAL DRAWINGS FOR CONCRETE PAD DETAIL.
19. 2-WAY 5"C SCHEDULE 40 PVC IN CONCRETE ENCASED DUCTBANK FROM THE PAD MOUNTED TRANSFORMER TO PAD MOUNTED DISCONNECT SWITCH. DUCTBANK INCLUDES 2#8AWG MV-105 + 1#8 G IN 5"C. REFER TO DETAIL 2 ON DRAWING E-503 FOR ADDITIONAL INFORMATION.
20. 2-WAY 5"C SCHEDULE 40 PVC IN CONCRETE ENCASED DUCTBANK FROM PAD MOUNTED DISCONNECT SWITCH TO NEW MANHOLE. DUCTBANK INCLUDES 2#8AWG MV-105 + 1#8 G IN 5"C. REFER TO DETAIL 2 ON DRAWING E-503 FOR ADDITIONAL INFORMATION. FOR MANHOLE LOCATION REFER TO EA SERIES DRAWINGS.
21. STUB UP (12) 2"C TO CCR FROM AIRFIELD MANHOLE SHOWN ON EA SERIES DRAWINGS. COORDINATE CONDUIT STUB UP LOCATION WITH CCR MANUFACTURER PRIOR TO INSTALLATION.
22. #6 AWG BARE COPPER FOR GROUNDING WIRE CONNECTION TO AIRFIELD COUNTERPOISE.
23. 2-WAY 4" SCHEDULE 40 PVC IN CONCRETE ENCASED DUCTBANK. DUCTBANK INCLUDES ONE (1)-4" FIBER AND ONE (1)-4" SPARE. REFER TO DETAIL 2 ON DRAWING E-503 FOR ADDITIONAL INFORMATION.
24. #4/0 AWG BARE COPPER CONNECTED TO EXISTING BUILDING GROUNDING SYSTEM.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

APPROVED
FOR COMMANDER, NAVFAC
ACTIVITY
SATISFACTORY TO DATE

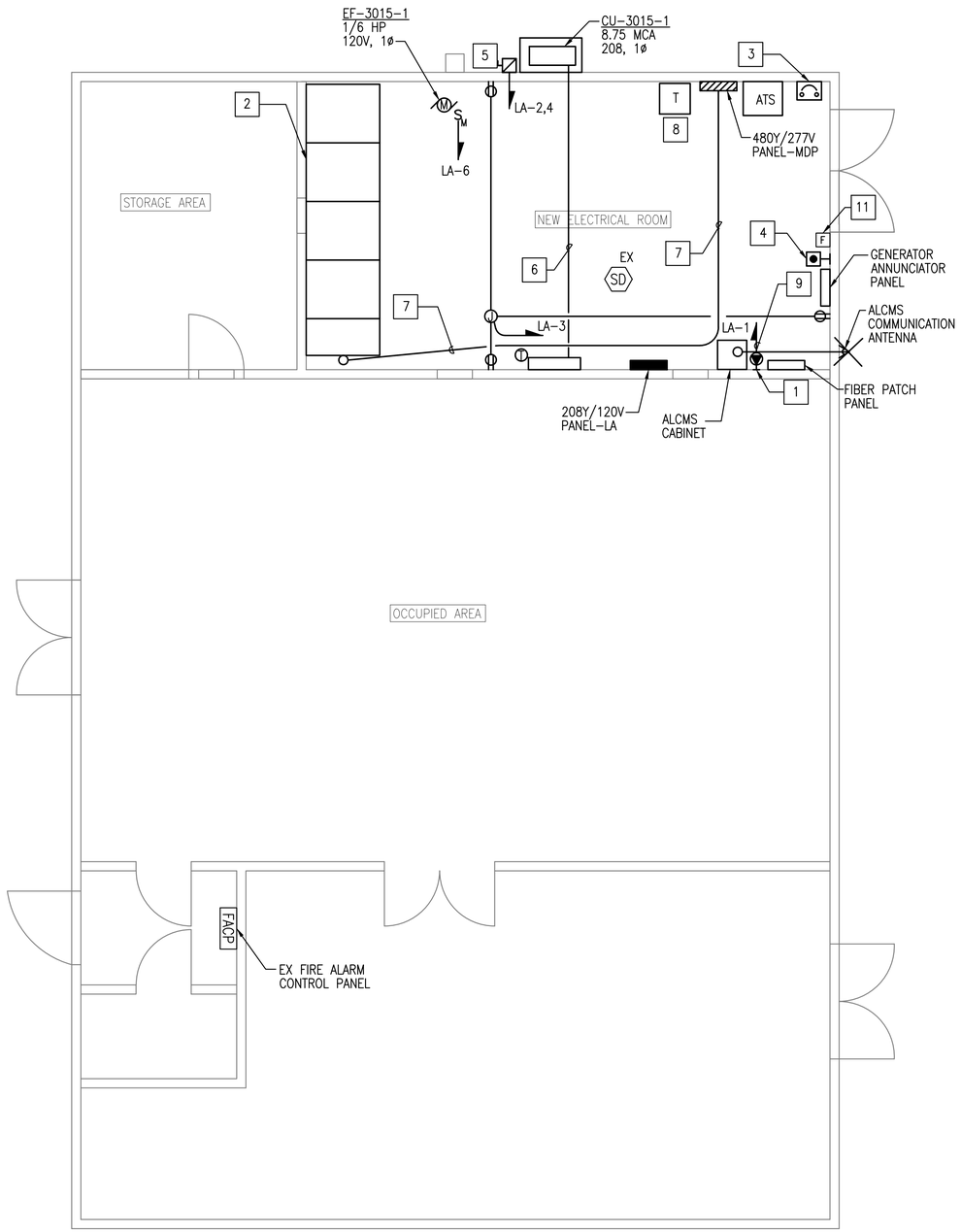
DES SJM DRN SJM CHK MG
PM/DM
BRANCH MANAGER
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
VAULT E-3015- SITE PLAN POWER AND GROUNDING

SCALE NOT TO SCALE
PROJECT NO. 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690308
SHEET 297 OF 315
E-405

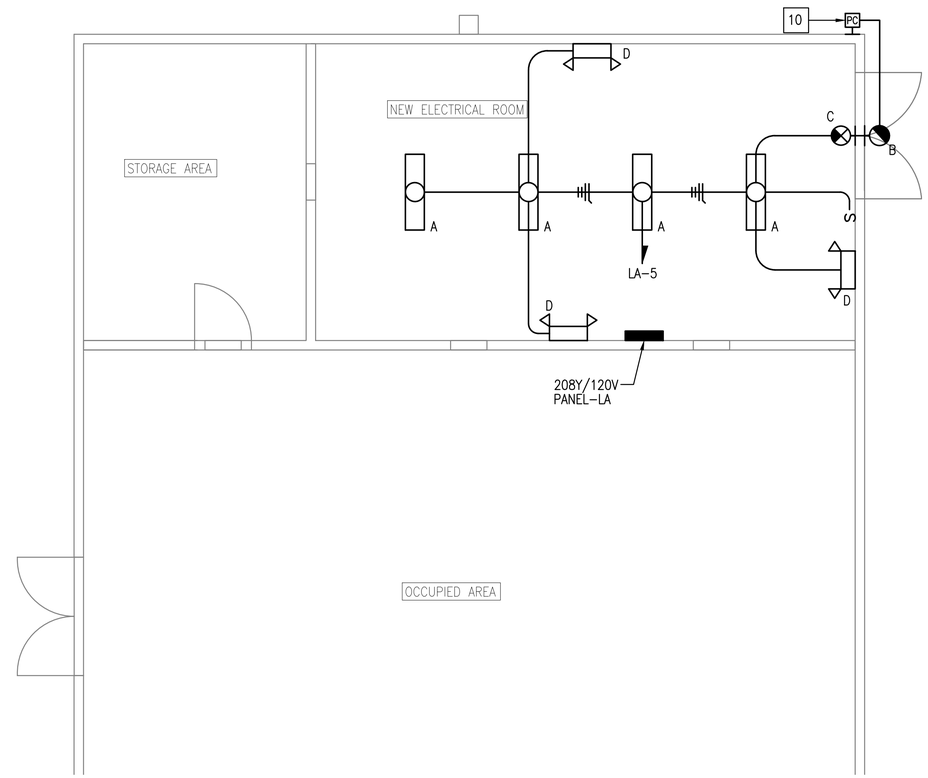
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-E-405.dwg LAYOUT NAME: E-405 PLOTTED: Monday, March 23, 2015 - 4:40pm USER: Rhurst



VAULT E-3015- POWER PLAN

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



VAULT E-3015- LIGHTING PLAN

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

GENERAL SHEET NOTES

1. REFER TO DRAWINGS E-001 THRU E-005 FOR ELECTRICAL LEGEND, ABBREVIATIONS AND NOTES.
2. REFER TO DRAWINGS E-403, E-601, AND E-402 FOR ADDITIONAL INFORMATION.
3. REFER TO ARCHITECTURAL, CIVIL, ELECTRICAL, STRUCTURAL, AND MECHANICAL DRAWINGS FOR ADDITIONAL WORK.
4. REPAIR AND PATCH ANY DISTURBED AREAS TO MATCH EXISTING CONDITIONS.
5. UNLESS OTHERWISE NOTED, ALL ELECTRICAL WORK AND MATERIALS ARE NEW AND SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.
6. REFER TO DRAWING E-602 FOR PANEL SCHEDULES.
7. DAMAGE TO EXISTING FACILITIES AND EQUIPMENT SHALL BE REPAIRED OR REPLACED IMMEDIATELY BY THE CONTRACTOR AT NO COST TO OWNER
8. CONDUIT ON THIS SHEET IS INTENDED TO BE DIAGRAMMATIC. COORDINATE WITH FIELD CONDITIONS FOR EXACT PIPE ROUTING. SEE MECHANICAL DETAILS ON DRAWING M-501 FOR CONNECTION DETAILS.
9. REFER TO EQUIPMENT SCHEDULES ON E-609 FOR MORE INFORMATION.

CONSTRUCTION KEYNOTES

1. PROVIDE 30A, 1 POLE 120V, NEMA L5-30 RECEPTACLE FOR ALCMS CABINET. FIELD COORDINATE EXACT LOCATION AND MOUNTING HEIGHT.
2. CONSTANT CURRENT REGULATOR SWITCHGEAR. FRONT OF THE SWITCHGEAR SHALL BE MOUNTED FLUSH WITH THE HOUSE KEEPING PAD.
3. SERVICE ENTRANCE RATED ENCLOSED CIRCUIT BREAKER. CONNECT GROUNDING BUS-BAR INSIDE CIRCUIT BREAKER ENCLOSURE TO ELECTRICAL VAULT GROUNDING SYSTEM. FOR VAULT GROUNDING SYSTEM DETAILS REFER TO DETAIL 3 AND 6 ON SHEET E-501.
4. EMERGENCY PUSH BUTTON FOR GENERATOR SHUTOFF.
5. PROVIDE NEW 208V, 2 POLE, 30A DISCONNECT SWITCH IN NEMA 4X STAINLESS STEEL ENCLOSURE WITH 10 AMP FUSES.
6. PROVIDE WIRING AND CONDUIT FROM CONDENSER UNIT TO HEAT PUMP UNIT PER MANUFACTURE'S RECOMMENDATIONS.
7. FEEDER FOR CCR SWITCHGEAR. ENTER SWITCHGEAR FROM SIDE AS SHOWN. FOR CONDUIT AND WIRING SIZES REFER TO ONE-LINE DIAGRAM ON SHEET E-602.
8. 480V-208Y/120V TRANSFORMER
9. (2) #10AWG & (1) #10G IN 3/4"C
10. PHOTOCELL FOR OUTDOOR LIGHTING, 120V, 60HZ, 2000 WATT MAX LOAD.
11. PROVIDE NEW FIRE ALARM PULL STATION. PROVIDE FIRE ALARM WIRING AND CONDUIT TO NEAREST PULL STATION OR BACK TO FIRE ALARM CONTROL PANEL

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

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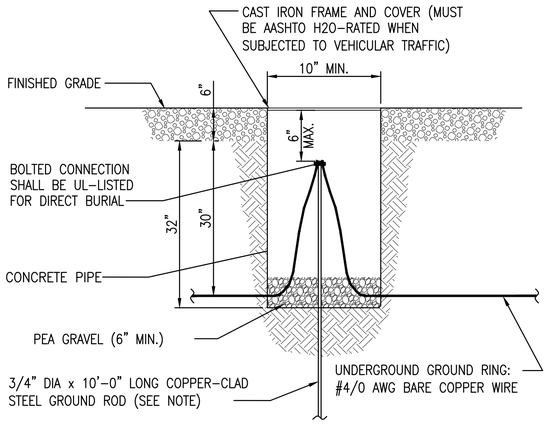
ACTIVITY
SATISFACTORY TO DATE
DES: SJM DRN: SJM CHK: MG
PM/DM
BRANCH MANAGER
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
VAULT E-3015 - POWER AND LIGHTING PLAN

SCALE: NOT TO SCALE
PROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690309
SHEET 298 OF 315
E-406

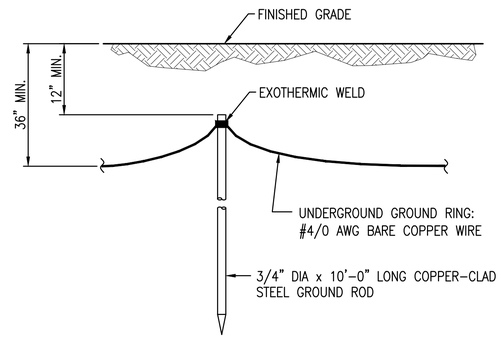
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMO\102863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-E-406.dwg LAYOUT NAME: E-406 PLOTTED: Monday, March 23, 2015 - 4:42pm USER: Rhurst



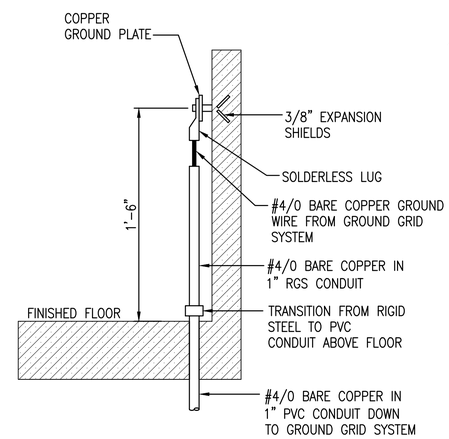
GROUND TEST WELL DETAIL (1)

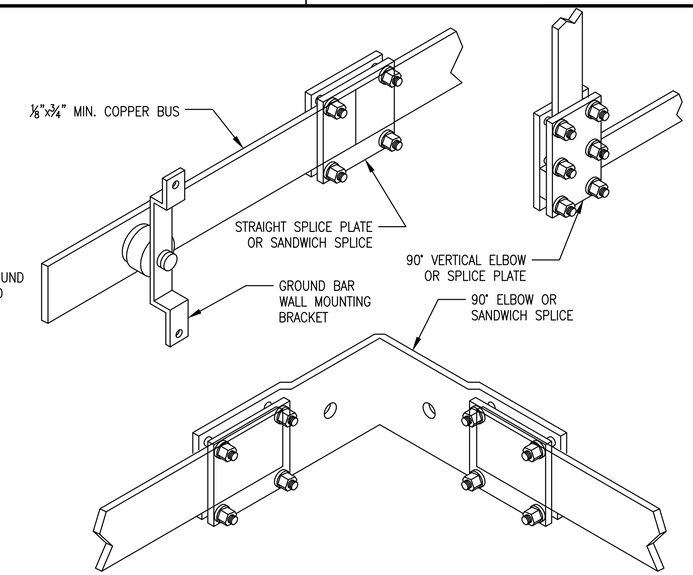
NOT TO SCALE E-501



GROUND ROD DETAIL (2)

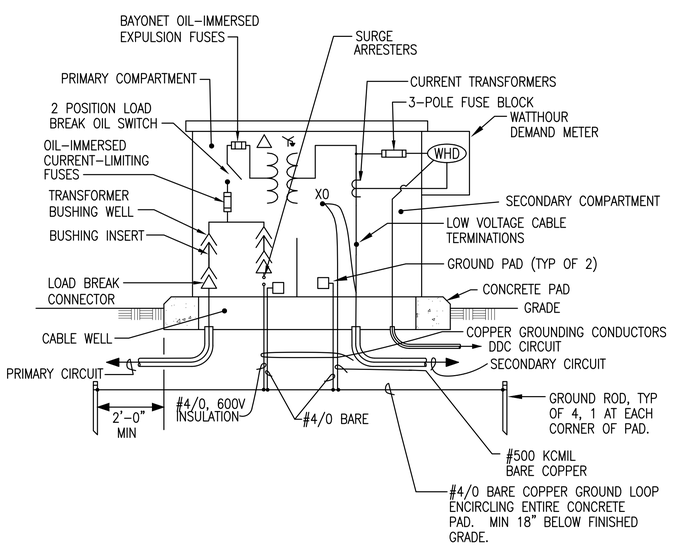
NOT TO SCALE E-501





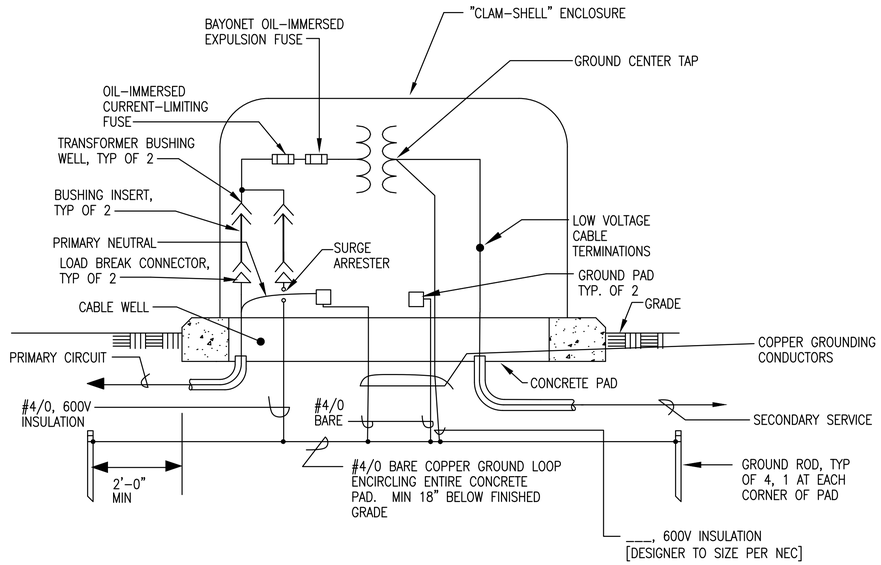
GROUNDING DETAIL (3)

NOT TO SCALE E-501



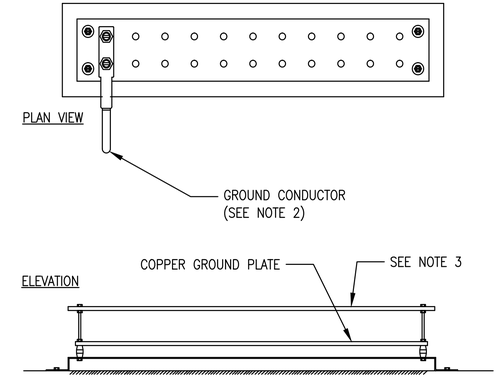
PAD MOUNTED TRANSFORMER DETAIL (4)

NOT TO SCALE E-501



SINGLE PHASE PAD MOUNTED TRANSFORMER DETAIL (5)

NOT TO SCALE E-501



NOTES:

1. ALL GROUND LUGS SHALL BE COMPRESSION TYPE. ALT 1500 SERIES (RICHARDS MANUFACTURING) OR APPROVED EQUAL.
2. INSULATE GROUND CONDUCTOR, SIZED AS INDICATED ON PLANS. CONDUCTOR SHALL BE COLOR CODED AS FOLLOWS:

   MULTIPOINT: GREEN WITH ORANGE STRIPE
   GREEN WITH RED STRIPE

3. CLEAR PLASTIC, PLEXIGLASS OR EQUAL, COVER PLATES SHALL BE PERMANENTLY MARKED AS "GROUND PLATE".
4. EXCEPT SINGLE POINT SYSTEM GROUND PLATES, ALL MOUNTING BRACKETS SHALL BE BONDED TO ITS PLATE BY A NO.2 AWG INSULATED WIRE.

GROUNDING DETAIL (6)

NOT TO SCALE E-501

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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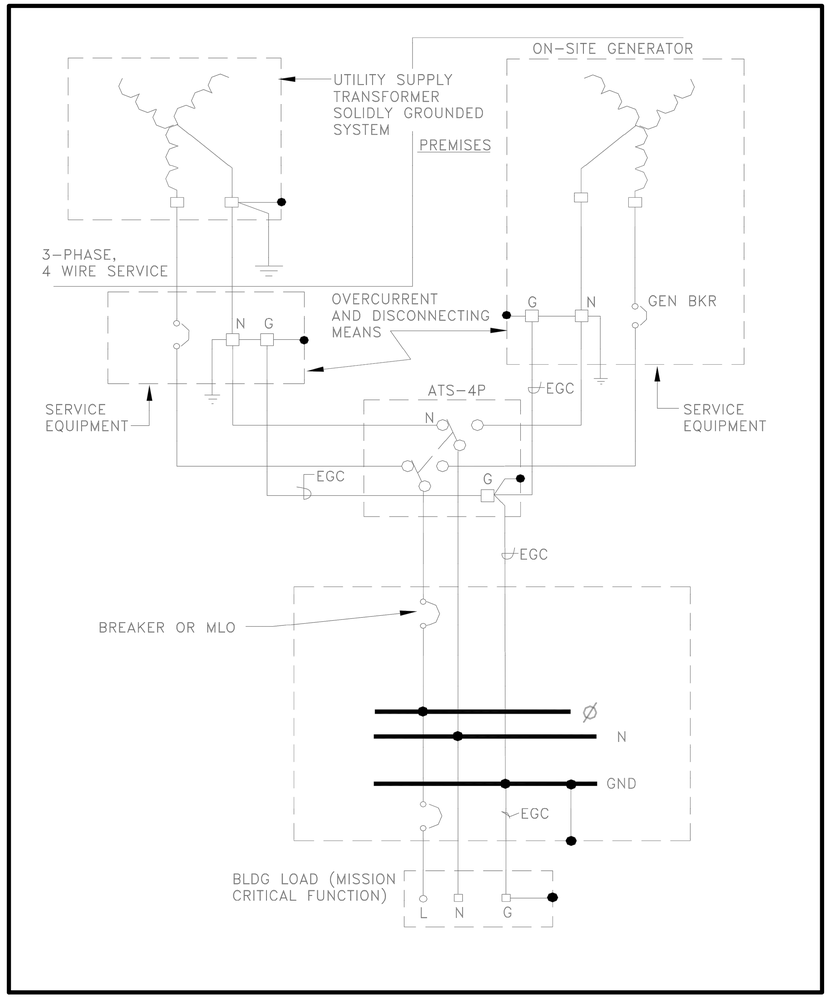
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
ELECTRICAL DETAILS

SCALE: NTS
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690310
SHEET 299 OF 315

E-501

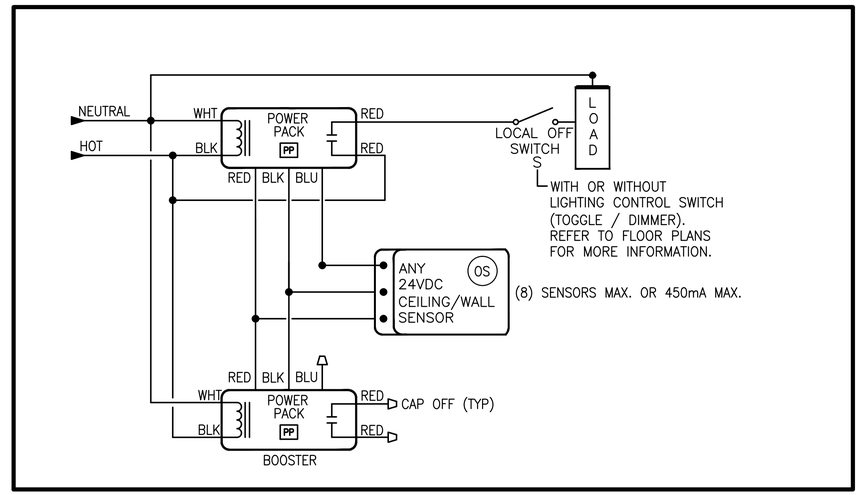
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: H:\56427 NAS Oceana\Electrical\Planset\10-0863-007-E-501.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, March 23, 2015 - 8:19am USER: jrothe



TYPICAL GROUNDING DIAGRAM (1)

SCALE: NOT TO SCALE — E-502



TYPICAL LIGHTING CONTROL DIAGRAM (2)

NTS — E-401

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
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VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
ELECTRICAL DETAILS

SCALE: NTS

EPROJECT NO.: 1312624

CONSTR. CONTR. NO.

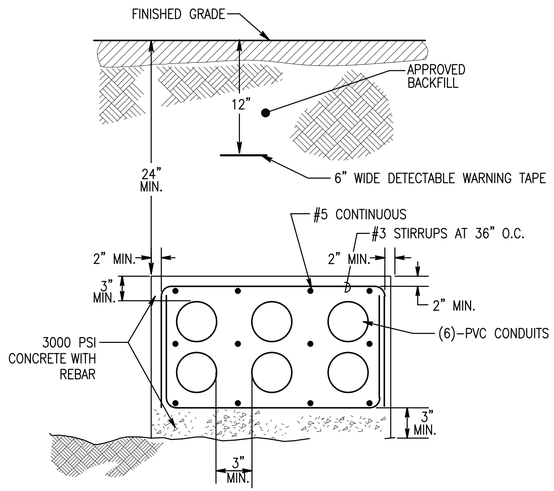
NAVFAC DRAWING NO. 12690311

SHEET 300 OF 315

E-502

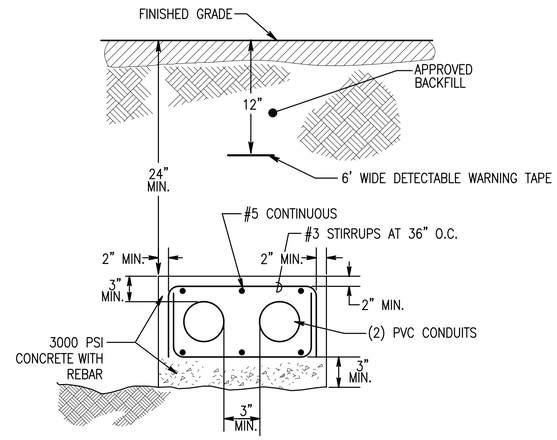
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: H:\56427 NAS Oceana\Electrical\Planset\10-0863-007-E-502.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, March 23, 2015 - 8:19am USER: jrothe



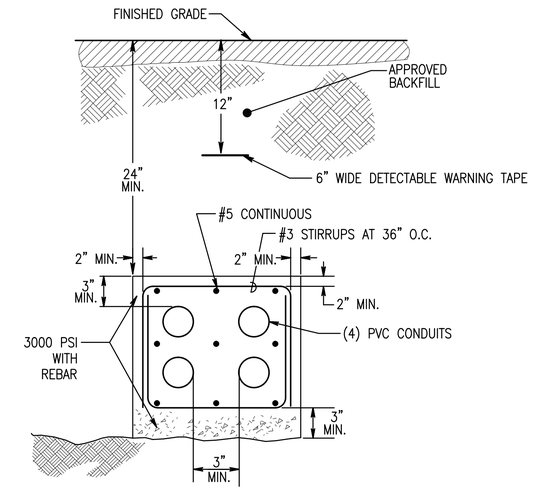
6-WAY DUCTBANK DETAIL (1)

NOT TO SCALE E-403



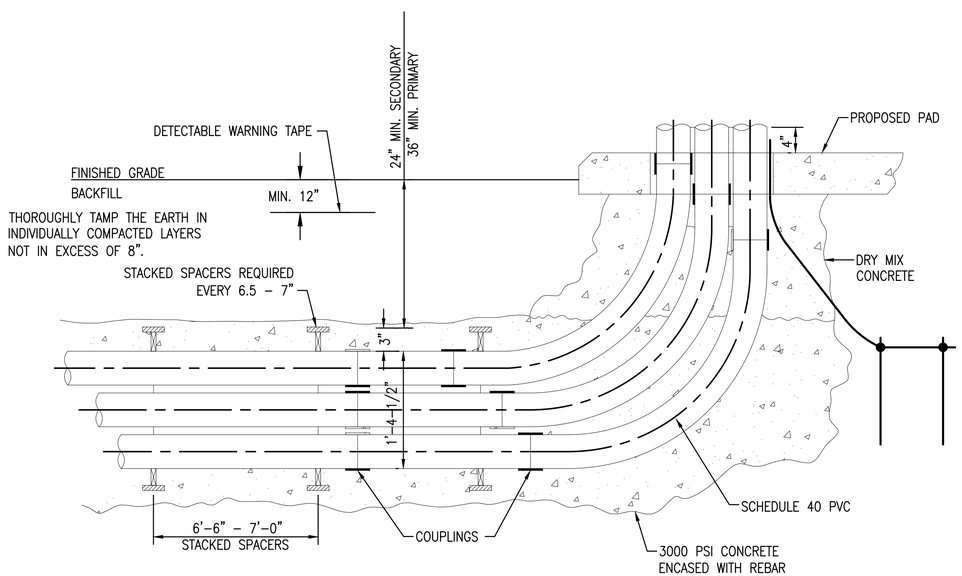
2-WAY DUCTBANK DETAIL (2)

NOT TO SCALE E-403



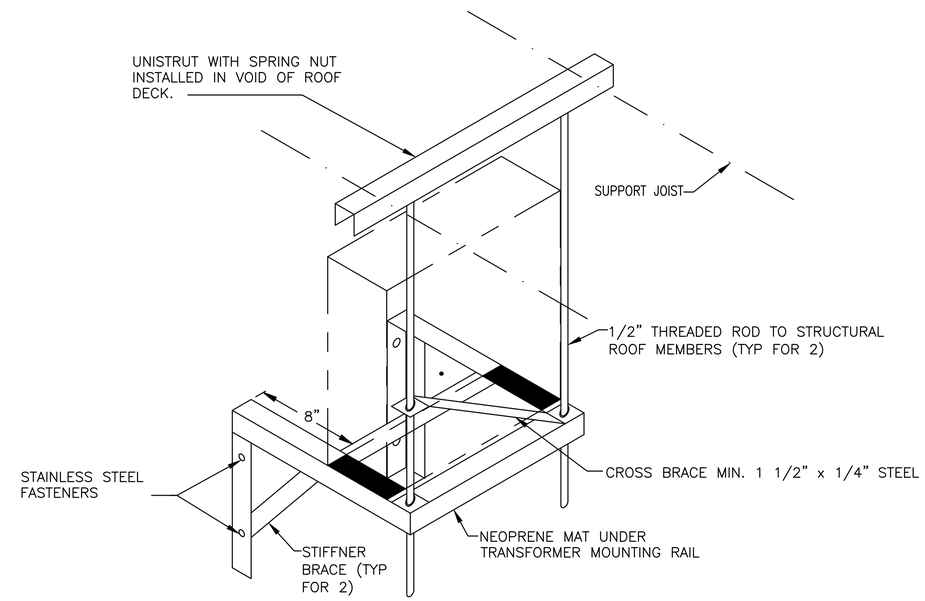
4-WAY DUCTBANK DETAIL (3)

NOT TO SCALE E-403



TURNING CONDUIT INTO EQUIPMENT PAD DETAIL (4)

NOT TO SCALE E-503



NOTES:

1. FRAME TO BE MINIMUM HSS 4" x 3" x 5/16"
2. FULL WELD AT ALL JOINTS
3. EPOXY ENAMEL PAINT ASSEMBLY PRIOR TO INSTALLATION
4. CONTRACTOR SHALL PROVIDE CALCULATIONS TO CONFIRM ADEQUACY OF TRANSFORMER'S SUPPORT.

TYPICAL WALL MOUNTED TRANSFORMER SUPPORT (5)

NOT TO SCALE E-503

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mugurel Giurgiu

COMMONWEALTH OF VIRGINIA
MUGUREL GIURGIU
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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES SJM DRW SJM CHK MG

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
ELECTRICAL DETAILS

SCALE: NTS

EPROJECT NO.: 1312624

CONSTR. CONTR. NO.

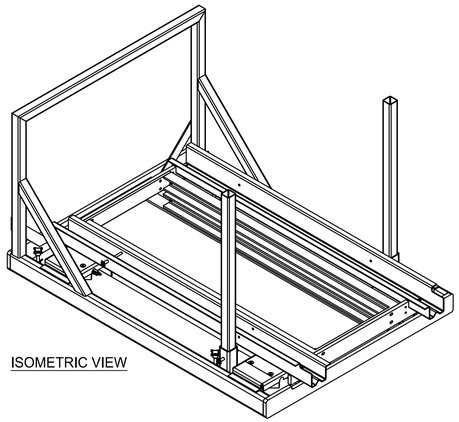
NAVFAC DRAWING NO. 12690312

SHEET 301 OF 315

E-503

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: H:\56427 NAS Oceana\Electrical\Pierset\10-0863-007-E-503.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, March 23, 2015 - 8:19am USER: jothe



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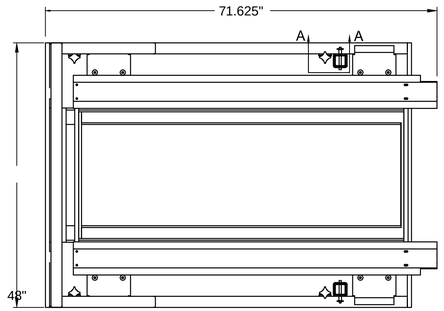

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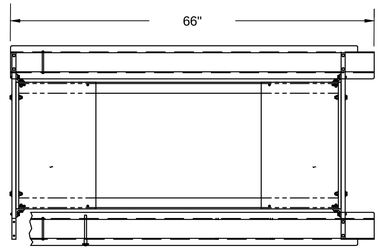

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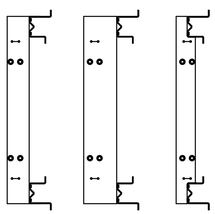
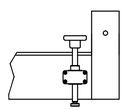


SECTION A-A



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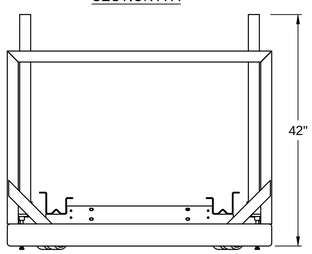

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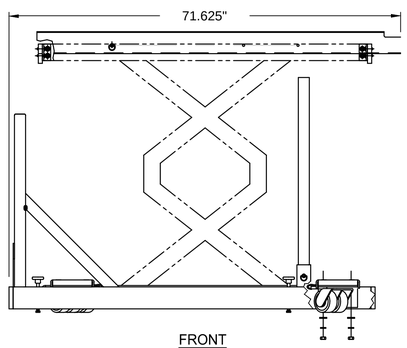

FRONT

VAULT E-145 & E-3015 CCR SWITCHGEAR SYSTEM SMALL SIZE LIFT (1)

NOT TO SCALE

E-504

CCR SWITCHGEAR SYSTEM SMALL SIZE LIFT GENERAL NOTES:

1. THE SWITCHGEAR SYSTEM FULL SIZE LIFT WILL BE CAPABLE OF INSTALLING, REMOVING FOR BOTH LOWER AND UPPER SWITCHGEAR LEVELS AND TRANSPORTING CCR SWITCHGEAR SYSTEM CCR'S.
2. THE FULL SIZE LIFT WILL BE MOTORIZED AND INCLUDE A RECHARGABLE BATTERY, BATTERY CHARGER AND 20' OF POWER CORD TO PLUG INTO A STANDARD 120VAC RECEPTACLE.
3. THE SIZE OF THE FULL SIZE LIFT SHALL NOT EXCEED THE DIMENSIONS SHOWN IN DETAIL 1 ON THIS SHEET.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley

COMMONWEALTH OF VIRGINIA
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A/E INFO

APPROVED
FOR COMMANDER NAVFAC

ACTIVITY
SATISFACTORY TO: DATE:

DES: SJM DRN: SJM CHK: MG

PM/DM
BRANCH MANAGER
CHIEF ENG/ARCH

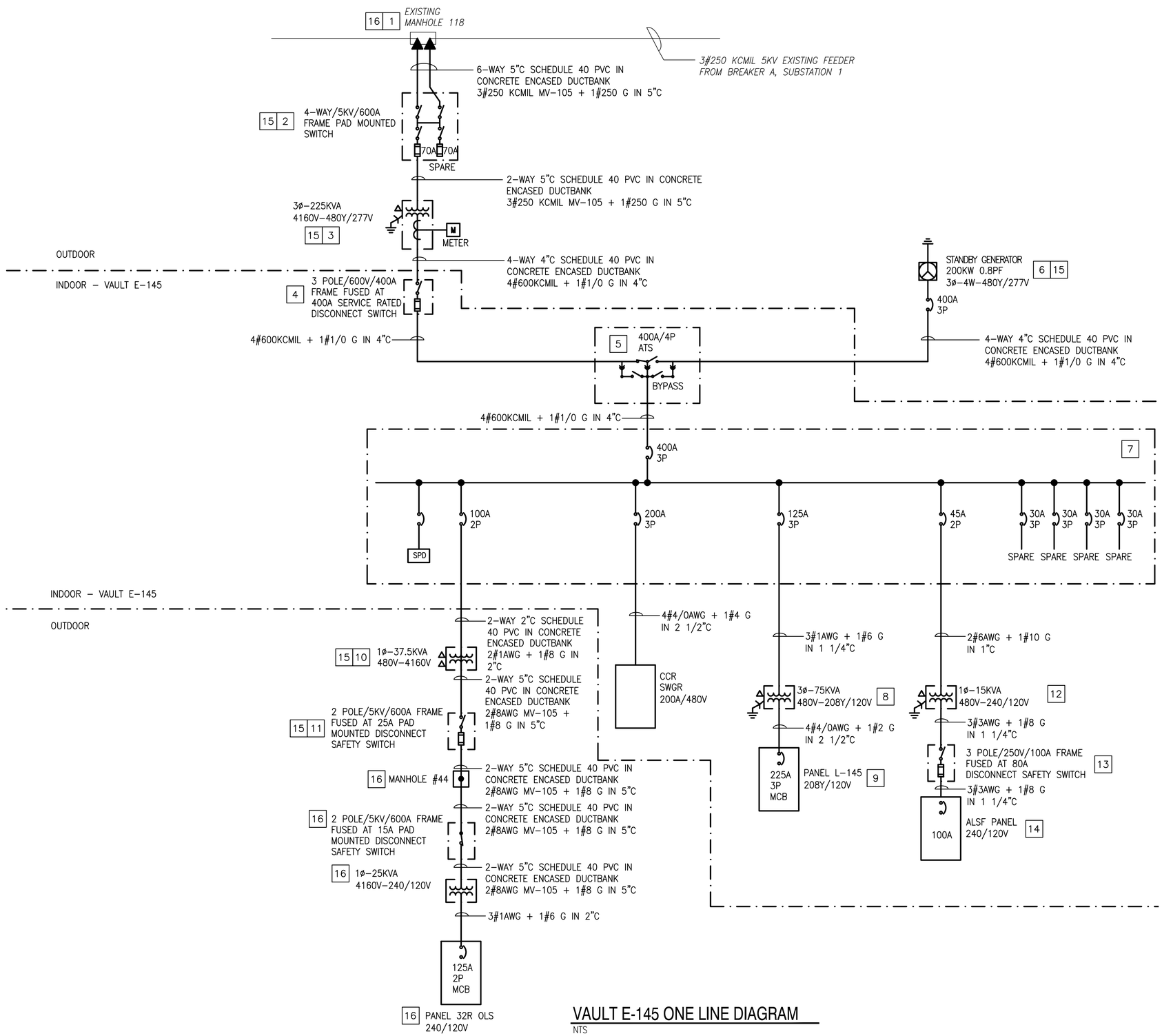
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
ELECTRICAL VAULTS PORTABLE LIFTS

SCALE: NOT TO SCALE
PROJECT NO.: 1312624
CONSTR. CONTR. NO.:
NAVFAC DRAWING NO.: 12690313
SHEET 302 OF 315

E-504

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-E-504.dwg LAYOUT NAME: E-504 PLOTTED: Monday, March 23, 2015 - 4:39pm USER: Rhurst



VAULT E-145 ONE LINE DIAGRAM

NTS

GENERAL SHEET NOTES

1. REFER TO DRAWINGS E-001 THRU E-005 FOR ELECTRICAL LEGEND, ABBREVIATIONS AND NOTES.
2. REFER TO DRAWINGS E-401, E-402, AND E-403 FOR ADDITIONAL INFORMATION.
3. REFER TO ARCHITECTURAL, CIVIL, STRUCTURAL, ELECTRICAL AND MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
4. REPAIR AND PATCH ANY DISTURBED AREAS TO MATCH EXISTING CONDITIONS.
5. UNLESS OTHERWISE NOTED, ALL ELECTRICAL WORK AND MATERIALS ARE NEW AND SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.
6. REFER TO SITE PLAN DRAWINGS FOR THE TOTAL NUMBER OF MANHOLES.
7. PROVIDE CONCRETE HOUSEKEEPING PADS FOR ALL FLOOR MOUNTED EQUIPMENT.
8. ALL ELECTRICAL EQUIPMENT INSTALLED OUTDOOR SHALL BE IN NEMA 3R ENCLOSURE UON. ALL ELECTRICAL EQUIPMENT INSTALLED INDOOR SHALL BE IN NEMA 12 ENCLOSURE UON.
9. ALL ELECTRICAL EQUIPMENT INCLUDING, BUT NOT LIMITED TO, SWITCHBOARDS, PANEL BOARDS, MOTOR STARTERS, ENCLOSED CIRCUIT BREAKERS, DISCONNECT SWITCHES, TRANSFORMERS, ENCLOSURES, AND WIRING DEVICES SHALL BE UL LISTED FOR ITS INTENDED USE.

CONSTRUCTION KEYNOTES

1. EXISTING MANHOLE 118. CONNECT NEW FEEDER FOR VAULT E-145 IN A LOOP CONFIGURATION TO EXISTING FEEDER FROM BREAKER A, SUBSTATION 1.
2. 4-WAY, 600A, 5KV, 25KAIC PAD MOUNTED SWITCH ON CONCRETE PAD.
3. 225KVA, 4160V-480Y/277V, PAD MOUNTED OIL-FILED TRANSFORMER WITH KWH REVENUE METER.
4. 400A, 3 POLE, 480Y/277V, 35KAIC SERVICE ENTRANCE RATED DISCONNECT SAFETY SWITCH, FUSED AT 400A.
5. 400A, 4 POLE, 480Y/277V, 35KAIC DELAYED OPEN TRANSITION, AUTOMATIC TRANSFER SWITCH WITH ISOLATION BYPASS.
6. 200KW, 250KVA, 3 PHASE, 4 WIRE, 480Y/277V, DIESEL STANDBY GENERATOR, IN WEATHERPROOF ENCLOSURE, WITH 325 GALLONS SUB-BASE FUEL TANK.
7. 400A, 480Y/277V, 35KAIC MAIN DISTRIBUTION PANEL WITH 400A MAIN CIRCUIT BREAKER.
8. 75KVA, 480V-208Y/120V, WALL MOUNTED DRY TYPE TRANSFORMER.
9. 250A, 208Y/120V PANEL L-145 WITH 225A MAIN CIRCUIT BREAKER.
10. 37.5KVA, 480V-4160V, SINGLE PHASE PAD MOUNTED OIL-FILED TRANSFORMER.
11. 600A, 5KV PAD MOUNTED SWITCH ON CONCRETE PAD.
12. RELOCATED 15KVA, 480V-240/120V, SINGLE PHASE WALL MOUNTED DRY TYPE TRANSFORMER.
13. 100A, 3POLE, 250V, 10KAIC, DISCONNECT SAFETY SWITCH FUSED AT 80A.
14. RELOCATED ALSF PANEL.
15. REFER TO DRAWING E-403 FOR EQUIPMENT LOCATION AND FEEDER ROUTING.
16. REFER TO EA SERIES FOR EQUIPMENT LOCATION, FEEDER ROUTING, AND MANHOLES.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO.

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES SJM DRW SJM CHK MG

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

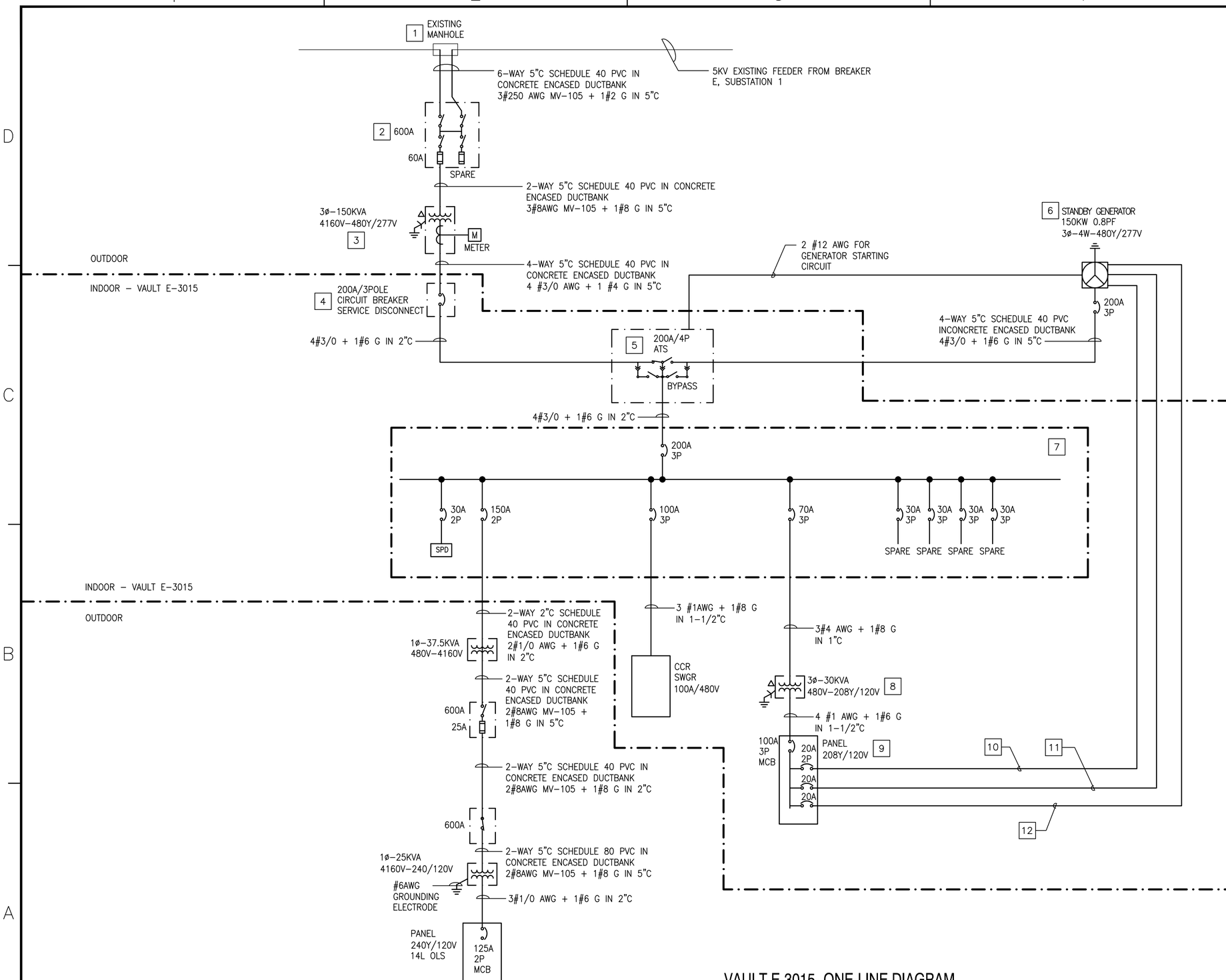
DEPARTMENT OF THE NAVY
HR IPT
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
VAULT E-145 - ONE LINE DIAGRAM

SCALE: NTS
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690314
SHEET 303 OF 315

E-601

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: H:\56427 NAS Oceana\Electrical\Planset\10-0863-007-E-601.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, March 23, 2015 - 8:20am USER: jrothe



VAULT E-3015- ONE-LINE DIAGRAM

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

GENERAL SHEET NOTES

1. REFER TO DRAWINGS E-001 THRU E-005 FOR ELECTRICAL LEGEND, ABBREVIATIONS AND NOTES.
2. REFER TO DRAWINGS E-401, E-402, AND E-403 FOR ADDITIONAL INFORMATION.
3. REFER TO ARCHITECTURAL, CIVIL, STRUCTURAL, ELECTRICAL AND MECHANICAL DRAWINGS FOR ADDITIONAL WORK.
4. REPAIR AND PATCH ANY DISTURBED AREAS TO MATCH EXISTING CONDITIONS.
5. UNLESS OTHERWISE NOTED, ALL ELECTRICAL WORK AND MATERIALS ARE NEW AND SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.

CONSTRUCTION KEYNOTES

1. EXISTING MANHOLE. CONNECT NEW FEEDER FOR VAULT E-3015 IN A LOOP CONFIGURATION TO EXISTING FEEDER FROM BREAKER E, SUBSTATION 1. REFER TO SITE PLAN FOR LOCATION OF MANHOLE.
2. 4-WAY, 600A, 5KV PAD MOUNTED SWITCH ON CONCRETE PAD.
3. 150KVA, 4160V-480Y/277V, PAD MOUNTED OIL-FILED TRANSFORMER WITH KWH METER.
4. 200A, 3 POLE, 480Y/277V SERVICE ENTRANCE RATED ENCLOSED CIRCUIT BREAKER.
5. 200A, 4 POLE, 480Y/277V DELAYED OPEN TRANSITION, AUTOMATIC TRANSFER SWITCH WITH ISOLATION BYPASS.
6. 125KW, 156KVA, 3 PHASE, 4 WIRE, 480Y/277V, DIESEL STANDBY GENERATOR, IN WEATHERPROOF ENCLOSURE, WITH 300 GALLONS SUB-BASE FUEL TANK.
7. 200A, 480Y/277V MAIN DISTRIBUTION PANEL WITH 200A MAIN CIRCUIT BREAKER.
8. 30KVA, 480V-208Y/120V, PAD MOUNTED DRY TYPE TRANSFORMER.
9. 225A, 208Y/120V PANEL WITH 225A MAIN CIRCUIT BREAKER.
10. 2 #10AWG W 1#10G FOR GENERATOR JACKET HEATER.
11. 2 #12AWG W 1#10G FOR GENERATOR BATTERY CHARGER/HEATER
12. 2 #12AWG W 1#12G FOR GENERATOR CONVENIENCE RECEPTACLES.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTION TO DATE

DES SJM DRN SJM CHK MG
PM/DM
BRANCH MANAGER
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
VAULT E-3015 - ONE LINE DIAGRAM

SCALE NOT TO SCALE
PROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690315
SHEET 304 OF 315
E-602

DRAWFORM REVISION: 10 MARCH 2009

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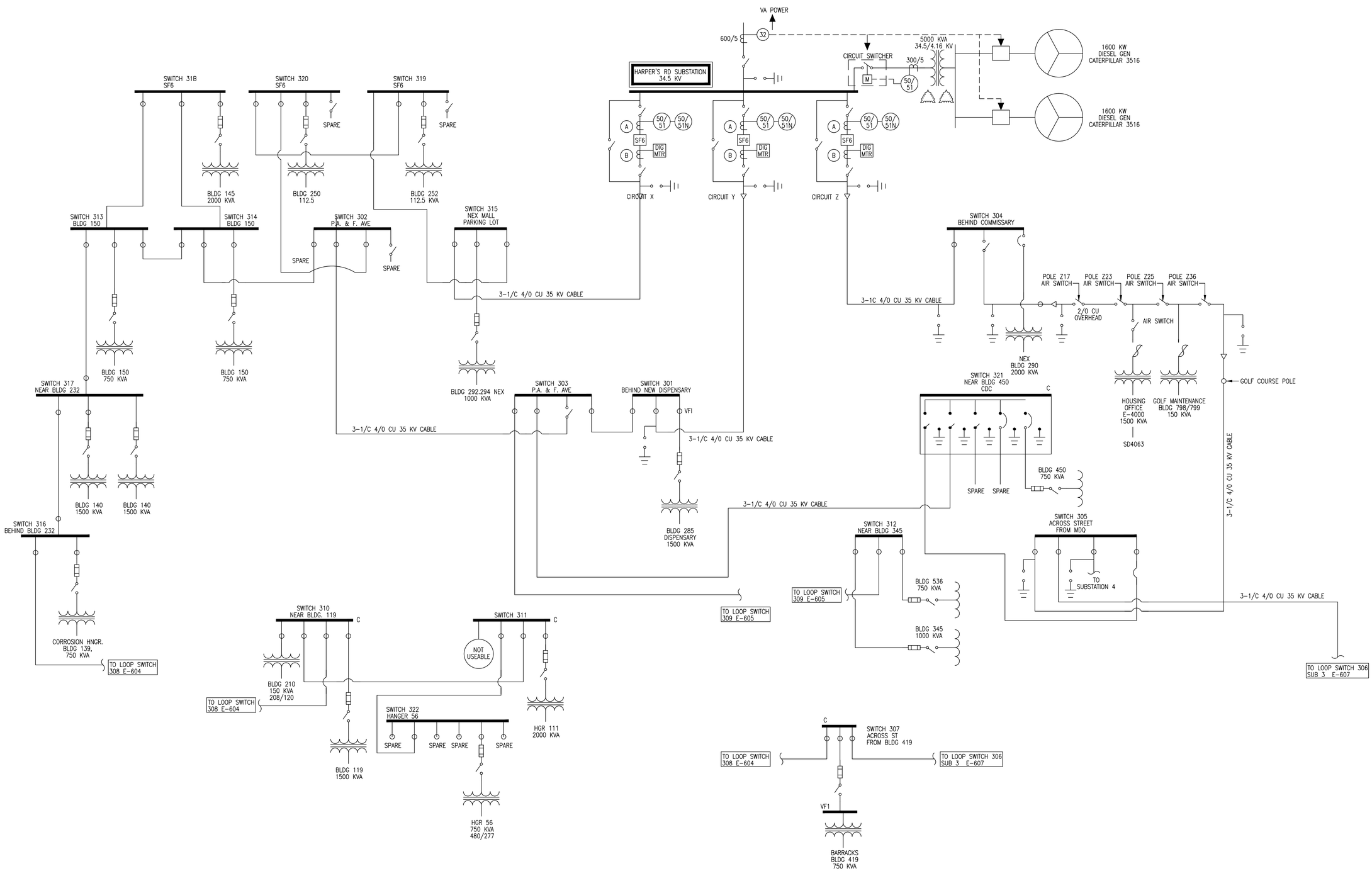

OCEANA POWER DISTRIBUTION - ONE LINE DIAGRAM

NOT TO SCALE

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES. JB DRN. RRR CHK. DJP

PM/DM

BRANCH MANAGER

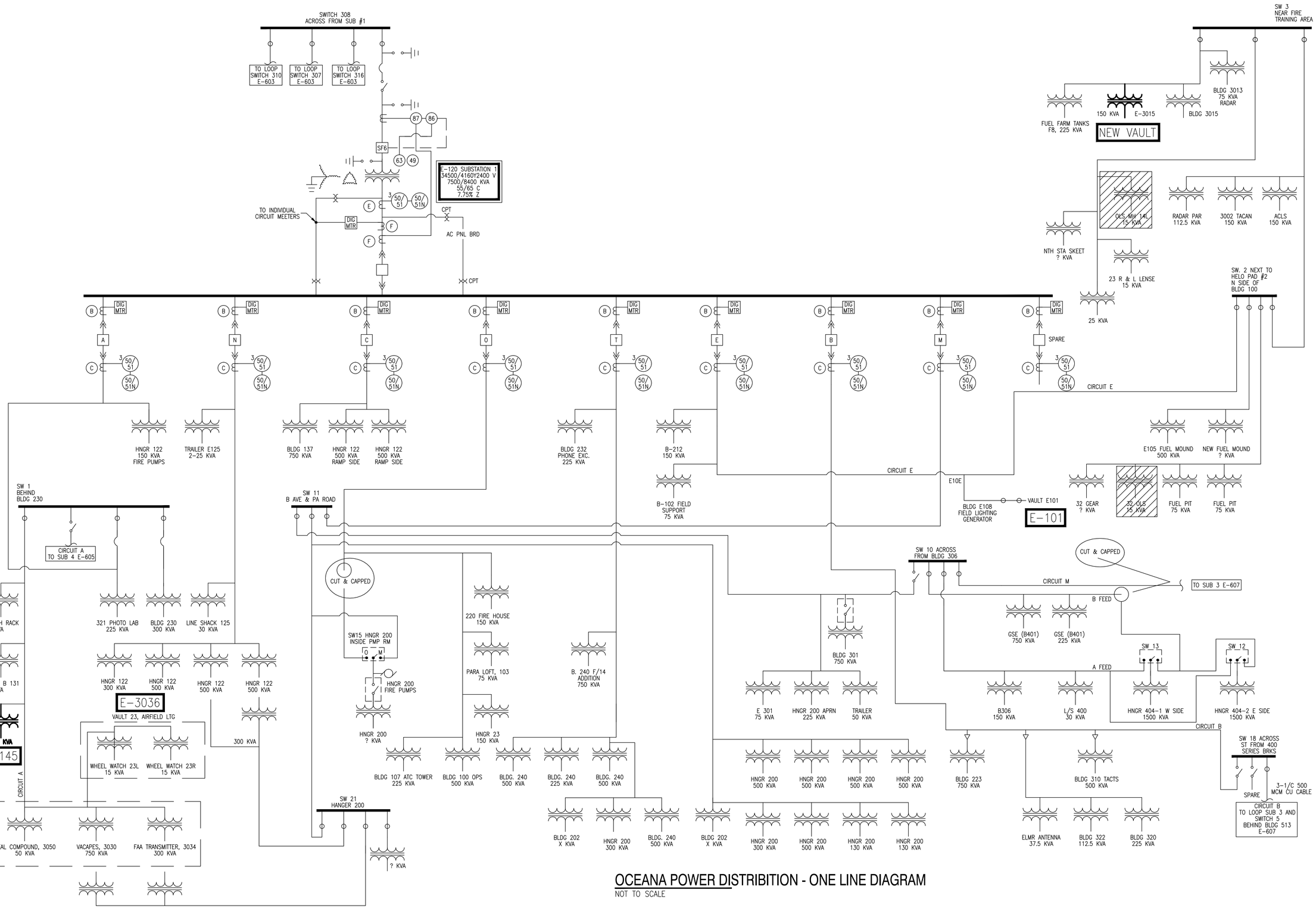
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
OCEANA POWER DISTRIBUTION - ONE LINE DIAGRAM

SCALE: NOT TO SCALE
A/E PROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12690316
SHEET 305 OF 315
E-603

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMO\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-E-603.dwg LAYOUT NAME: E-603 PLOTTED: Monday, March 23, 2015 - 2:16pm USER: Rhurst



OCEANA POWER DISTRIBITION - ONE LINE DIAGRAM

NOT TO SCALE

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
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A/E INFO

APPROVED
FOR COMMANDER NAVFAC
COMPT
SATISFACTORY TO DATE

DES. JB DRN. RRR CHK. DJP

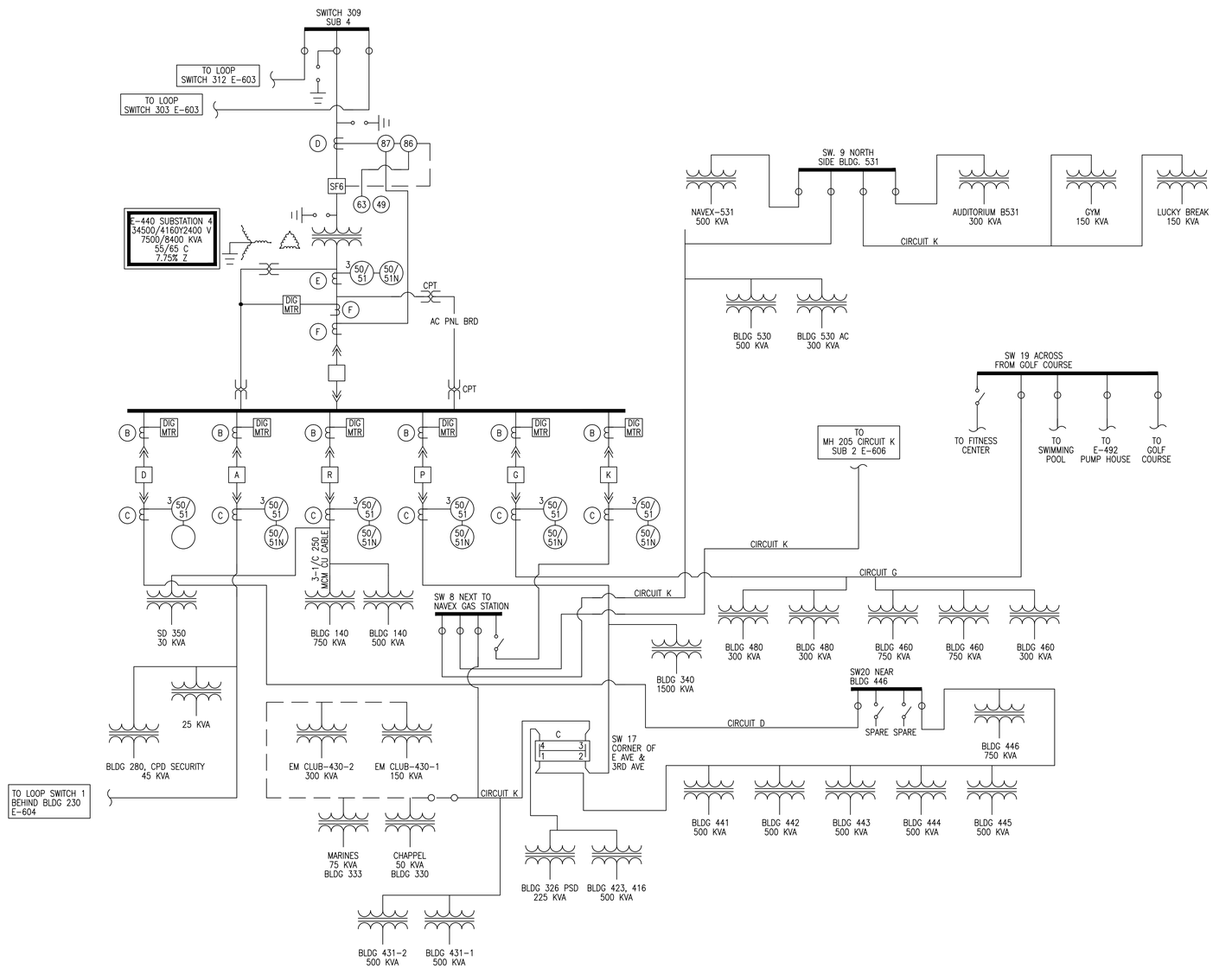
PM/DM
BRANCH MANAGER
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
OCEANA POWER DISTRIBITION - ONE LINE DIAGRAM

SCALE: NOT TO SCALE
PROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.: 12690317
SHEET 306 OF 315
E-604

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32R\CADD\ELECTRICAL-LIGHTING\10-0863-007-E-604.dwg LAYOUT NAME: E-604 PLOTTED: Monday, March 23, 2015 - 2:16pm USER: Rhurst



OCEANA POWER DISTRIBUTION - ONE LINE DIAGRAM

NOT TO SCALE

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
Lic. No. 45530
PROFESSIONAL ENGINEER

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Gannett Fleming
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Telephone: (757)499-1895
WEB: WWW.JMT.COM

A/E INFO

APPROVED

CDR COMMANDER NAVFAC

PERMIT

SATISFACTORY BY: DATE

DES JB DRN RRR CHK DJP

PM/DM

BRANCH MANAGER

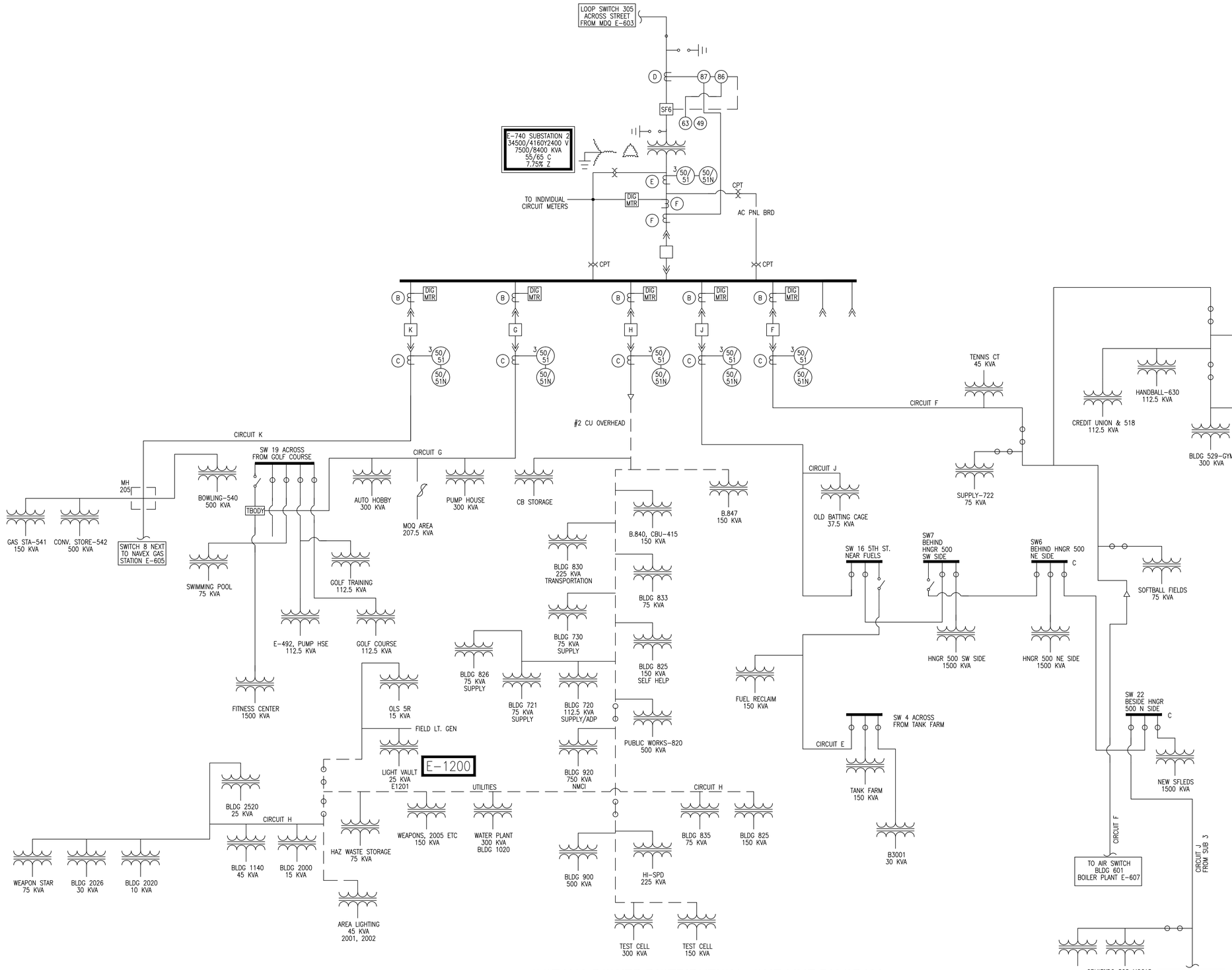
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAVFAC MID-ATLANTIC
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
OCEANA POWER DISTRIBUTION - ONE LINE DIAGRAM

SCALE NOT TO SCALE
PROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690318
SHEET 307 OF 315
E-605

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMO\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-E-605.dwg LAYOUT NAME: E-605 PLOTTED: Monday, March 23, 2015 - 2:16pm USER: Rhuest



OCEANA POWER DISTRIBUTION - ONE LINE DIAGRAM

NOT TO SCALE

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
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A/E INFO

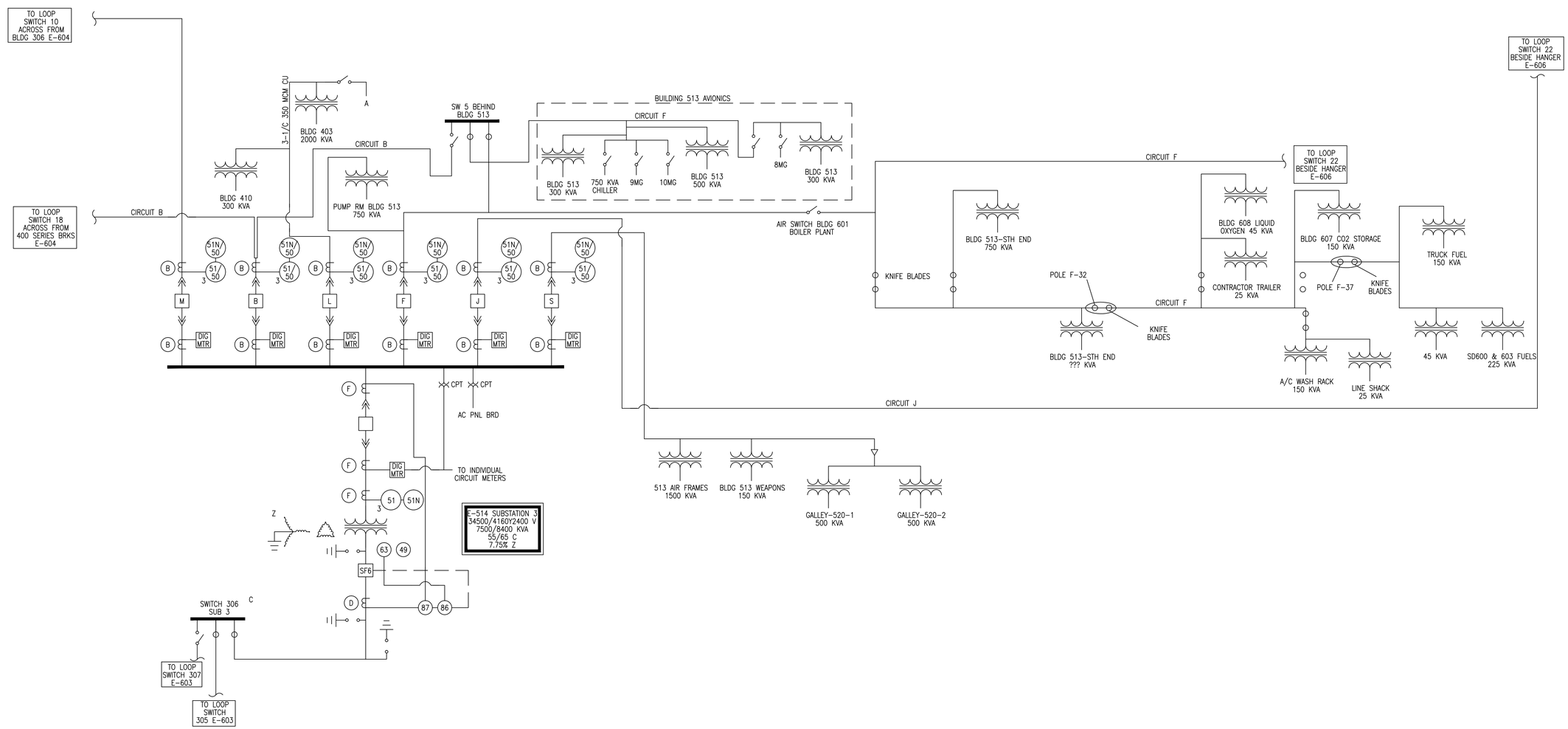
APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES JB DRW RRR CHK DJP
PM/DM
BRANCH MANAGER
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAVFAC MID-ATLANTIC
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
OCEANA POWER DISTRIBUTION - ONE LINE DIAGRAM

SCALE NOT TO SCALE
PROJECT NO. 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690319
SHEET 308 OF 315
E-606

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-E-606.dwg LAYOUT NAME: E-606 PLOTTED: Monday, March 23, 2015 - 2:16pm USER: Rhurst



OCEANA POWER DISTRIBUTION - ONE LINE DIAGRAM

NOT TO SCALE

SYM	DESCRIPTION	DATE	APPR

NAVFAC

David Parsley
COMMONWEALTH OF VIRGINIA
DAVID JONATHAN PARSLEY
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WEB: WWW.JMT.COM

A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
CONTRACTOR NO. DATE
DES. JB DRN. RRR CHK. DJP
PM/DM
BRANCH MANAGER
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
OCEANA POWER DISTRIBUTION - ONE LINE DIAGRAM

SCALE NOT TO SCALE
PROJECT NO. 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690320
SHEET 309 OF 315
E-607

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-E-607.dwg LAYOUT NAME: E-607 PLOTTED: Monday, March 23, 2015 - 2:16pm USER: Rhust4

PANELBOARD MDP-145 SCHEDULE

400 A. MAINS W/400A MCB*, 480Y/277 V., 3 PHASE, 4 WIRE, 35 KAIC MINIMUM, FLOOR MOUNT

LOAD SERVED	LOAD (KVA) A	LOAD (KVA) B	LOAD (KVA) C	BKR. TRIP	WIRE SIZE	CKT. NO.	PHASE A B C	CKT. NO.	WIRE SIZE	BKR. TRIP	LOAD (KVA) A	LOAD (KVA) B	LOAD (KVA) C	LOAD SERVED
37.5KVA TRANSFORMER	9.4			100	1	1		2	12	20	3.57			HP-145-1
		9.4				3		4				3.57		
SPARE				20		5		6					3.57	
CCR SWGR	44			200*	4/0	7		8	12	20	3.57			HP-145-2
		44				9		10				3.57		
			44			11		12					3.57	
PANEL L-145	4.31			125	1	13		14		30				SPARE
		2.98				15		16						
			1.73			17		18						
ALSF PANEL	5			45	6	19		20		30				SPARE
		5				21		22						
SPARE				20		23		24						
SPARE				20		25		26						SPACE
SPARE				20		27		28						SPACE
SPACE						29		30						SPACE
SPACE						31		32						SPACE
SPACE						33		34						SPACE
SPACE						35		36						SPACE
SPACE						37		38						SPACE
SPACE						39		40						SPACE
SPACE						41		42						SPACE
TOTAL	62.71	61.38	45.73								7.14	7.14	7.14	TOTAL

TOTAL CONNECTED KVA A: 69.85 B: 68.52 C: 52.87

* DENOTES 100% RATED CIRCUIT BREAKER WITH ELECTRONIC TRIP WITH LSI SETTINGS.

PANELBOARD L-145 SCHEDULE

250 A. MAINS W/225A MCB, 208Y/120 V., 3 PHASE, 4 WIRE, 10 KAIC MINIMUM, SURFACE MOUNT

LOAD SERVED	LOAD (KVA) A	LOAD (KVA) B	LOAD (KVA) C	BKR. TRIP	WIRE SIZE	CKT. NO.	PHASE A B C	CKT. NO.	WIRE SIZE	BKR. TRIP	LOAD (KVA) A	LOAD (KVA) B	LOAD (KVA) C	LOAD SERVED
RECEPTACLES	0.9			20	12	1		2	12	20	0.65			LIGHTING - INTERIOR
RECEPTACLES		0.9		20	12	3		4	12	20		0.52		LIGHTING - EXTERIOR
EF-145-1			0.53	20	12	5		6	12	20			1.2	GEN. BATTERY CHARGER
ALCMS CABINET	1.2			20	10	7		8	10	30	1.56			GEN JACKET COOLANT HEAT
SPARE				20		9		10				1.56		
SPARE				20		11		12		20				SPARE
SPARE				15		13		14		20				SPARE
SPARE				30		15		16		20				SPARE
SPARE				20		17		18		20				SPARE
SPARE				20		19		20		20				SPARE
SPARE				20		21		22		20				SPARE
SPARE				20		23		24		20				SPARE
SPARE				20		25		26		20				SPARE
SPARE				20		27		28		20				SPARE
SPARE				20		29		30		20				SPARE
SPACE						31		32						SPACE
SPACE						33		34						SPACE
SPACE						35		36						SPACE
SPACE						37		38						SPACE
SPACE						39		40						SPACE
SPACE						41		42						SPACE
TOTAL	2.10	0.90	0.53								2.21	2.08	1.2	TOTAL

TOTAL CONNECTED KVA A: 4.31 B: 2.98 C: 1.73

CABLE SCHEDULE

CABLE IDENTIFICATION EXIST	CABLE IDENTIFICATION NEW	DESCRIPTION	CONDUIT SIZE (INCHES)	REMARKS
	1	3# 250 KCMIL MV-105 + 1# 250 GRD	5"	PRIMARY MV POWER DISTRIBUTION CIRCUIT
	2	4# 600 KCMIL + 1# 1/0 GRD	4"	SECONDARY POWER DISTRIBUTION CIRCUITS
	3	CONTROL WIRING FOR METERING	4"	COORDINATE REQUIREMENTS WITH METER PROVIDER
	4	CONTROL WIRING FROM GENERATOR TO ANNUNCIATOR PANEL	4"	COORDINATE REQUIREMENTS WITH MANUFACTURER
	5	2# 1 AWG + 1# 8 GRD	2"	AIRFIELD LIGHTING CIRCUIT
	6	2# 8 AWG MV-105 + 1# 8 GRD	5"	AIRFIELD LIGHTING CIRCUIT

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Muguirel Giurgiu

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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES SJM DRW SJM CHK MG

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
VAULT E-145 - PANEL SCHEDULES

SCALE: NTS
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690321
SHEET 310 OF 315
E-608

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: H:\56427 NAS Oceana\Electrical\Pionset\10-0863-007-E-608.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, March 23, 2015 - 8:20am USER: jrothe

PANELBOARD MDP SCHEDULE

200 A. MAINS W/200A MCB*, 480Y/277 V., 3 PHASE, 4 WIRE, 18 KAIC MINIMUM, WALL MOUNT

LOAD SERVED	LOAD (KVA) A	LOAD (KVA) B	LOAD (KVA) C	BKR. TRIP	WIRE SIZE	CKT. NO.	PHASE A B C	CKT. NO.	WIRE SIZE	BKR. TRIP	LOAD (KVA) A	LOAD (KVA) B	LOAD (KVA) C	LOAD SERVED
37.5KVA TRANSFORMER	15			150	1/0	1		2		30				TVSS
		15				3		4						
SPARE				20		5		6						
CCR SWGR	6.96			100*	1	7		8		30				SPARE
		6.96				9		10						
			6.96			11		12						
PANEL LA	3.33			70	4	13		14		30				SPARE
		1.37				15		16						
			0.89			17		18						
SPARE				20		19		20		30				SPARE
SPARE				20		21		22						
SPARE				20		23		24						
SPARE				20		25		26		30				SPARE
SPARE				20		27		28						
SPACE						29		30						
SPACE						31		32						SPACE
SPACE						33		34						SPACE
SPACE						35		36						SPACE
SPACE						37		38						SPACE
SPACE						39		40						SPACE
SPACE						41		42						SPACE
TOTAL	25.3	23.3	7.8								0	0	0	TOTAL

TOTAL CONNECTED KVA A: 25.3 B: 23.3 C: 7.8

* DENOTES 100% RATED CIRCUIT BREAKER WITH ELECTRONIC TRIP WITH LSI SETTINGS.

PANELBOARD LA SCHEDULE

100 A. MAINS W/100A MCB, 208Y/120 V., 3 PHASE, 4 WIRE, 10 KAIC MINIMUM, SURFACE MOUNT

LOAD SERVED	LOAD (KVA) A	LOAD (KVA) B	LOAD (KVA) C	BKR. TRIP	WIRE SIZE	CKT. NO.	PHASE A B C	CKT. NO.	WIRE SIZE	BKR. TRIP	LOAD (KVA) A	LOAD (KVA) B	LOAD (KVA) C	LOAD SERVED
RECEPTACLE ALCMS RACK	2.5			20	12	1		2	12	20	0.83			CU-3015-1
RECEPTACLES		0.54		20	12	3		4				0.83		
LIGHTING			0.36	20	12	5		6	12	15			0.53	EF-1
SPARE				20		7		8		20				SPARE
SPARE				20		9		10		20				SPARE
SPARE				20		11		12		20				SPARE
SPARE				20		13		14		20				SPARE
SPARE				20		15		16		20				SPARE
SPARE				20		17		18		20				SPARE
SPARE				20		19		20		20				SPARE
SPARE				20		21		22		20				SPARE
SPARE				20		23		24		20				SPARE
SPACE						25		26						SPACE
SPACE						27		28						SPACE
SPACE						29		30						SPACE
SPACE						31		32						SPACE
SPACE						33		34						SPACE
SPACE						35		36						SPACE
SPACE						37		38						SPACE
SPACE						39		40						SPACE
SPACE						41		42						SPACE
TOTAL	2.5	0.54	0.36								0.83	0.83	0.53	TOTAL

TOTAL CONNECTED KVA A: 3.33 B: 1.37 C: 0.89

VAULT E-3015 ELECTRICAL LOAD			
LOAD DISCRIPTION	CONNECTED LOAD (KVA)	DEMAND LOAD FACTOR	DEMAND LOAD(KVA)
AIRFEILD LIGHTING	20.9	1	20.9
OLS LIGHTING	30.0	1	30.0
BUILDING LIGHTING	0.4	1	0.4
RECEPTACLES	3.0	1	3.0
HVAC	2.2	1	2.2
TOTAL	56.4		56.4

PANELBOARD OLS 14L SCHEDULE

125 A. MAINS W/125A MCB*, 240/120 V., 1 PHASE, 3 WIRE, 10 KAIC MINIMUM, RACK MOUNT, 4X ENCLOSURE

	LOAD SERVED	LOAD (KVA) A	LOAD (KVA) B	BKR. TRIP	WIRE SIZE	CKT. NO.	PHASE A B	CKT. NO.	WIRE SIZE	BKR. TRIP	LOAD (KVA) A	LOAD (KVA) B	LOAD SERVED
*	14L OLS RECEPTACLE	3.33		60	3	1		2	8	40	1.65		14L WAVE-OFF TRANSFORMER
*	14L OLS RECEPTACLE		3.33	60	3	3		4				1.65	
*	14L OLS RECEPTACLE	3.33		60	3	5		6	8	20	0.36		14L ARRESTING GEAR BATTERY CHARGER
	OLS CONTROL #1		0.1	20	12	7		8				0.36	
	OLS CONTROL #2	0.1		20	12	9		10		20			SPARE
	SPARE			20		11		12		20			SPARE
	SPARE			20		13		14		20			SPARE
	SPARE			20		15		16		20			SPARE
	SPARE			20		17		18		20			SPARE
	SPARE			20		19		20		20			SPARE
	SPARE			20		21		22		20			SPARE
	SPACE					23		24					SPACE
	SPACE					25		26					SPACE
	SPACE					27		28					SPACE
	SPACE					29		30					SPACE
	TOTAL	6.76	3.61								2.01	2.01	TOTAL

TOTAL CONNECTED KVA A: 8.77 B: 5.62

* INTERCONNECT CIRCUIT BREAKERS SO THAT WHEN ONE TRIPS ALL TRIP

PANELBOARD OLS 32R SCHEDULE

125 A. MAINS W/125A MCB*, 240/120 V., 1 PHASE, 3 WIRE, 10 KAIC MINIMUM, RACK MOUNT, 4X ENCLOSURE

	LOAD SERVED	LOAD (KVA) A	LOAD (KVA) B	BKR. TRIP	WIRE SIZE	CKT. NO.	PHASE A B	CKT. NO.	WIRE SIZE	BKR. TRIP	LOAD (KVA) A	LOAD (KVA) B	LOAD SERVED
*	32R OLS RECEPTACLE	3.33		60	3	1		2	8	40	1.65		32R WAVE-OFF TRANSFORMER
*	32R OLS RECEPTACLE		3.33	60	3	3		4				1.65	
*	32R OLS RECEPTACLE	3.33		60	3	5		6	8	20	0.36		32R ARRESTING GEAR BATTERY CHARGER
	OLS CONTROL #1		0.1	20	12	7		8				0.36	
	OLS CONTROL #2	0.1		20	12	9		10	12	20	0.08		32R WIND CONE
	SPARE			20		11		12				0.08	
	SPARE			20		13		14		20			SPARE
	SPARE			20		15		16		20			SPARE
	SPARE			20		17		18		20			SPARE
	SPARE			20		19		20		20			SPARE
	SPARE			20		21		22		20			SPARE
	SPACE					23		24					SPACE
	SPACE					25		26					SPACE
	SPACE					27		28					SPACE
	SPACE					29		30					SPACE
	TOTAL	6.76	3.61								2.09	2.09	TOTAL

TOTAL CONNECTED KVA A: 8.77 B: 5.62

* INTERCONNECT CIRCUIT BREAKERS SO THAT WHEN ONE TRIPS ALL TRIP

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

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FOR COMMANDER NAVFAC
ACTIVITY
OTSF/ACTING TL DATE
DES SJM DRN SJM CHK MG
PM/DM
BRANCH MANAGER
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
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NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
VAULT E-3015 - SCHEDULES

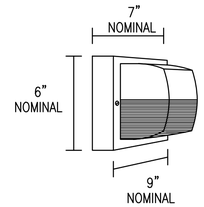
SCALE NOT TO SCALE
PROJECT NO. 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690322
SHEET 311 OF 315
E-609
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-E-609.dwg LAYOUT NAME: E-609 PLOTTED: Monday, March 23, 2015 - 2:16pm USER: Rhurst

LUMINAIRE REQUIREMENTS:

1. HOUSING – HIGH STRENGTH LIGHT–WEIGHT POLYMER FOR REFLECTOR AND DRIVER. HANGERS FOR SURFACE OR SUSPENDED INSTALLATION. PROVIDE MOUNTING HARDWARE.
2. LED DRIVER – MOUNTED TO HOUSING FOR OPTIMAL HEAT SINKING. INCORPORATE BOTH CONDUCTION AND NATURAL CONVECTION FOR HEAT TRANSFER FROM LED SOURCE.
3. LAMPS – LED WITH A MINIMUM OUTPUT OF 4000 LUMENS. PROVIDE WITH WATTAGES AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE.
4. CERTIFICATION – UL LISTED AND LABELED.

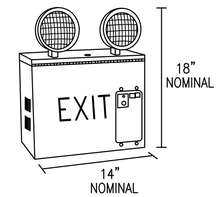
A LED



LUMINAIRE REQUIREMENTS:

1. HOUSING – ONE–PIECE, DIE–CAST ALUMINUM WITH BAKED–ON POLYESTER POWDER COAT FINISH IN BLACK.
2. DIFFUSER – CLEAR PRISMATIC, UV–STABILIZED, INJECTION–MOLDED POLYCARBONATE WITH MINIMUM 1/8" THICKNESS. DIFFUSER SECURED WITH TAMPER–RESISTANT STAINLESS STEEL SCREWS. BLACK HORIZONTAL FRONT EYELID FOR CUTOFF.
3. LED DRIVER – MOUNTED TO DIE–CAST ALUMINUM HOUSING FOR OPTIMAL HEAT SINKING. INCORPORATE BOTH CONDUCTION AND NATURAL CONVECTION FOR HEAT TRANSFER FROM LED SOURCE.
4. LAMPS – LED WITH A MINIMUM OUTPUT OF 4000 LUMENS. PROVIDE WITH WATTAGES AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE.
5. CERTIFICATION – UL LISTED AND LABELED FOR WET LOCATIONS.
6. OPTIONS – INTEGRAL PHOTOCELL, WIRE GUARD.

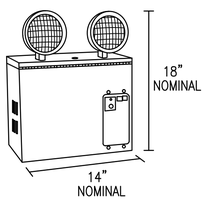
B WALL–MOUNTED HIGH ABUSE LED FIXTURE



LUMINAIRE REQUIREMENTS:

1. HOUSING – INJECTION–MOLDED, FLAME–RETARDANT, HIGH–IMPACT THERMOPLASTIC. EASILY REMOVABLE UNIVERSAL CHEVRONS FOR DIRECTIONAL INDICATION. TRACK AND SWIVEL ARRANGEMENT FOR FULL RANGE OF LAMP ADJUSTMENT.
2. INTERNAL COMPONENTS – FULLY AUTOMATIC, SOLID STATE, CONSTANT VOLTAGE, CURRENT–LIMITED BATTERY CHARGER; MAINTENANCE–FREE NICKEL–CADMIUM BATTERY; AND BUILT–IN OVERLOAD PROTECTION.
3. FACEPLATE INDICATORS – LED AC–ON INDICATOR AND INTEGRAL TEST SWITCH.
4. LAMP HEADS – UL FLAME RATED THERMOPLASTIC; FULLY ADJUSTABLE HORIZONTALLY AND VERTICALLY. SEALED BEAM, LED LAMPS, WATTAGE AS INDICATED IN LIGHTING FIXTURE SCHEDULE.
5. MOUNTING – DIRECTLY TO WALL USING MOUNTING HOLES IN REAR OF CABINET, ACCESSORY WALL BRACKETS, OR MOUNTING SHELF.
6. CERTIFICATION – UL LISTED AND LABELED. COMPLIES WITH UL 924 AND NFPA 101 REQUIREMENTS.
7. LETTERS/CHEVRONS – MINIMUM 6" HIGH WITH 3/4" STROKE. RED OR GREEN LETTERS AS INDICATED. CHEVRONS PUNCHED OUT THROUGH HOUSING AS REQUIRED.
8. OPTIONS – VOLTMETER, AMMETER, THREE–CONDUCTOR CORD SET, OR WIRE GUARD.

C COMBINATION EXIT SIGN / LED EMERGENCY LIGHTING UNIT



LUMINAIRE REQUIREMENTS:

1. HOUSING – INJECTION–MOLDED, FLAME–RETARDANT, HIGH–IMPACT THERMOPLASTIC. EASILY REMOVABLE UNIVERSAL CHEVRONS FOR DIRECTIONAL INDICATION. TRACK AND SWIVEL ARRANGEMENT FOR FULL RANGE OF LAMP ADJUSTMENT.
2. INTERNAL COMPONENTS – FULLY AUTOMATIC, SOLID STATE, CONSTANT VOLTAGE, CURRENT–LIMITED BATTERY CHARGER; MAINTENANCE–FREE NICKEL–CADMIUM BATTERY; AND BUILT–IN OVERLOAD PROTECTION.
3. FACEPLATE INDICATORS – LED AC–ON INDICATOR AND INTEGRAL TEST SWITCH.
4. LAMP HEADS – UL FLAME RATED THERMOPLASTIC; FULLY ADJUSTABLE HORIZONTALLY AND VERTICALLY. SEALED BEAM, LED LAMPS, WATTAGE AS INDICATED IN LIGHTING FIXTURE SCHEDULE.
5. MOUNTING – DIRECTLY TO WALL USING MOUNTING HOLES IN REAR OF CABINET, ACCESSORY WALL BRACKETS, OR MOUNTING SHELF.
6. CERTIFICATION – UL LISTED AND LABELED. COMPLIES WITH UL 924 AND NFPA 101 REQUIREMENTS.
7. OPTIONS – VOLTMETER, AMMETER, THREE–CONDUCTOR CORD SET, OR WIRE GUARD.

D LED EMERGENCY LIGHTING UNIT

LIGHTING FIXTURE SCHEDULE

FIXTURE TYPE	WATTAGE	NUMBER AND TYPE OF LAMPS	VOLTAGE	MOUNTING	NOTES
A	37 W	LED	120V	PENDANT 10'–8" AFF	
B	50 W	LED	120V	WALL MOUNTED 10' AFF	PROVIDE PHOTOCELL
C	(2) 1 W LAMPS	(2) LED	120V	WALL MOUNTED 8' AFF	COMBINATION EXIT SIGN/ EMERGENCY WALL PACK
D	(2) 1.8 W LAMPS	(2) LED	120V	WALL MOUNTED 8' AFF	

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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DES SJM DRW SJM CHK MG
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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC MID-ATLANTIC
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
AIRFIELD LIGHTING VAULTS – LIGHT FIXTURE SCH.

SCALE: NTS
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690323
SHEET 312 OF 315
E-610
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: H:\56427 NAS Oceana\Electrical\Planset\10-0863-007-E-610.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, March 23, 2015 – 8:20am USER: jrothe

VAULT E-145 FRONT
AD401 A1

VAULT E-145 REAR
AD401 A2

PAD MOUNTED TRANSFORMER
ED402, ED601 A3

MAIN DISCONNECT AND ATS
ED401, ED601 A4

STANDBY GENERATOR
ED401, ED601 A5

MAIN DISTRIBUTION PANEL
ED401, ED601 A6

CCR #1 AND CCR #2
ED401, ED601 A7

CCR #2 AND CCR #3
ED401, ED601 A8

ALSF TRANSFORMER
ED401, ED601 A9

ALSF PANEL
ED401, ED601 A10

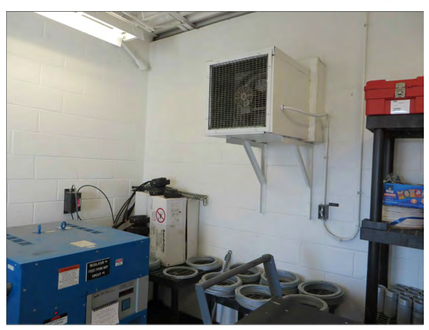
208Y/120V TRANSFORMER
ED401, ED601 A11

PANEL A1
ED401, ED601 A12

ABOVEGROUND FUEL TANK
ED402 A13

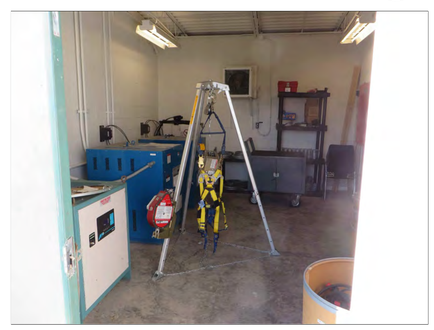
100 GALLONS DAY TANK
ED401 A14

EXHAUST FAN-1
ED401 A15



EXHAUST FAN-2
ED401 A16

AFLCS RADIO CONTROL UNIT
ED401 A17



INTERIOR OVERVIEW
– A18

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

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NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
PHOTO SHEET

SCALE: NOT TO SCALE
EPROJECT NO.: 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690324
SHEET 313 OF 315
E-901

DRAWFORM REVISION: 10 MARCH 2009

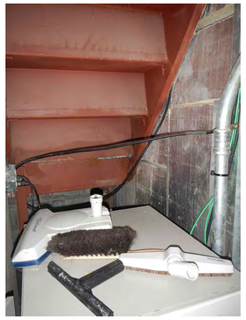
FILE NAME: H:\56427 NAS Oceana\Electrical\Planset\10-0863-007-E-901.dwg LAYOUT NAME: E-901 PLOTTED: Monday, March 23, 2015 - 8:20am USER: jrethe

VAULT 3015 - ELECTRICAL MANHOLE B1
EA114

VAULT 3015 - EXTERIOR B2
EA114

VAULT 3015 - NEW VAULT AREA B3
EA114

VAULT 3015 - PLYWOOD WALL - DEMO B4
EA114



CONTROL TOWER - RACK CLOSET B5
EA113

HANDHOLE - TYPICAL B6
ED101

THRESHOLD LTG - TYPICAL B7
ED101

ARRESTING GEAR - TYPICAL B8
ED102

ARRESTING GEAR SIGN - TYPICAL B9
ED102

DISTANCE TO REMAIN SIGN - TYPICAL B10
ED101

FLOLS - TYPICAL B11
ED101

OLS PANELS - TYPICAL B12
ED101

OLS TRANSFORMER - TYPICAL B13
ED101

RUNWAY EDGE LIGHT - TYPICAL B14
ED101

RUNWAY EXIT SIGN - TYPICAL B15
ED104

TAXIWAY LIGHT - REINSTALL - TYPICAL B16
ED104

VAULT 3015 - CEILING B17
EA114

VAULT 3015 - FLOOR TROUGH B18
EA114

ABANDONED EQUIPMENT PAD DEMO B19
ED101

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

APPROVED
FOR COMMANDER, NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES SJM DRN SJM CHK MG
PM/DM
BRANCH MANAGER
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NR PT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
PHOTO SHEET

SCALE NOT TO SCALE
PROJECT NO. 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690325
SHEET 314 OF 315
E-902

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-E-902.dwg LAYOUT NAME: E-902 PLOTTED: Monday, March 23, 2015 - 4:32pm USER: Rhurst

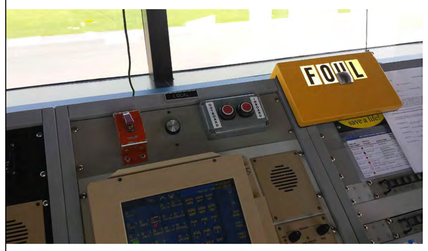
TAXIWAY LIGHT - REMOVE - TYPICAL (C1)
ED104

WAVE-OFF CONTROL - TYPICAL (C2)
ED101

WAVE-OFF LIGHT - TYPICAL (C3)
ED101

WINDSOCK - TYPICAL (C4)
ED106

WAVE-OFF OPERATOR 1 (C5)
EA113



WAVE-OFF OPERATOR 2 (C6)
EA113

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
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NORFOLK, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
SPECIAL PROJECT RM10-9004
REPAIR RUNWAY 14L-32R PAVEMENT AND LIGHTING
PHOTO SHEET

SCALE NOT TO SCALE
PROJECT NO. 1312624
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12690326
SHEET 315 OF 315
E-903

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\SMD\100863_007_Repair_Runway_14L-32\CADD\ELECTRICAL-LIGHTING\10-0863-007-E-903.dwg LAYOUT NAME: E-903 PLOTTED: Monday, March 23, 2015 - 4:33pm USER: Rhurst