SPECIAL PROJECT RM12-0469
ENERGY AND RELIABILITY MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2

NAVAL AIR STATION OCEANA ◦ VIRGINIA BEACH, VIRGINIA

NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC

N62470-12-D-2010 ◦ W.O. WE03

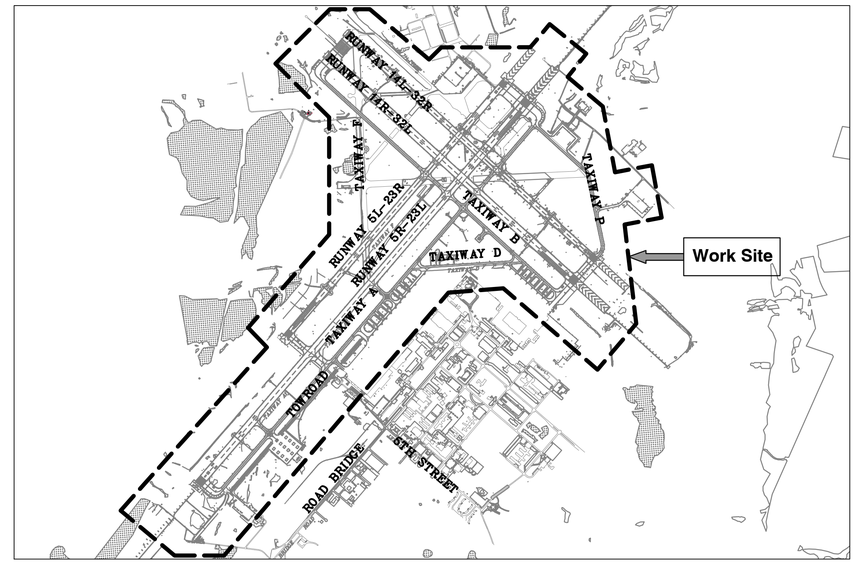
FINAL PLAN SET

MARCH 24, 2015

VOLUME I

VICINITY MAP

NTS



LOCATION MAP

SYM	DESCRIPTION	DATE	APPR

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APPROVED 3/25/15
FOR COMMANDER NAVFAC

ACTIVITY J.M. McDowell
SATISFACTORY TO DATE

DES MJT | DRW DFD | CHK ELO

PM/DM

BRANCH MANAGER TLO

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
TITLE SHEET ~ VOLUME I

SCALE: AS NOTED
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691534
SHEET 1 OF 368

G-001

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-G-001.dwg LAYOUT NAME: G-001 PLOTTED: Tuesday, March 24, 2015 - 7:41am USER: kwatson

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SYM	DESCRIPTION	DATE	APPR

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NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DRAWING INDEX – VOLUME I

HR IPT

SCALE: AS NOTED
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691535
SHEET 2 OF 368
G-002

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHPA\99... Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-G-002.dwg LAYOUT NAME: G-002 PLOTTED: Tuesday, March 24, 2015 - 7:41am USER: kwatson

DRAWING INDEX - VOLUME II

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132	ED104-A	12691665	PARTIAL SITE PLAN - DEMOLITION
133	ED105-A	12691666	PARTIAL SITE PLAN - DEMOLITION
134	ED110-B	12691667	PARTIAL SITE PLAN - DEMOLITION
135	ED112-B	12691668	PARTIAL SITE PLAN - DEMOLITION
136	ED114-C	12691669	PARTIAL SITE PLAN - DEMOLITION
137	ED116-C	12691670	PARTIAL SITE PLAN - DEMOLITION
138	ED118-B	12691671	PARTIAL SITE PLAN - DEMOLITION
139	ED119-B	12691672	PARTIAL SITE PLAN - DEMOLITION
140	ED120-B	12691673	PARTIAL SITE PLAN - DEMOLITION
141	ED121-B	12691674	PARTIAL SITE PLAN - DEMOLITION
142	ED122-B	12691675	PARTIAL SITE PLAN - DEMOLITION
143	ED123-B	12691676	PARTIAL SITE PLAN - DEMOLITION
144	ED124-B	12691677	PARTIAL SITE PLAN - DEMOLITION
145	ED125-B	12691678	PARTIAL SITE PLAN - DEMOLITION
146	ED126-C	12691679	PARTIAL SITE PLAN - DEMOLITION
147	ED127-C	12691680	PARTIAL SITE PLAN - DEMOLITION
148	ED128-C	12691681	PARTIAL SITE PLAN - DEMOLITION
149	ED129-C	12691682	PARTIAL SITE PLAN - DEMOLITION
150	ED130-C	12691683	PARTIAL SITE PLAN - DEMOLITION
151	ED131-C	12691684	PARTIAL SITE PLAN - DEMOLITION
152	ED132-B	12691685	PARTIAL SITE PLAN - DEMOLITION
153	ED133-B	12691686	PARTIAL SITE PLAN - DEMOLITION
154	ED134-B	12691687	PARTIAL SITE PLAN - DEMOLITION
155	ED135-B	12691688	PARTIAL SITE PLAN - DEMOLITION
156	ED136-B	12691689	PARTIAL SITE PLAN - DEMOLITION
157	ED137-B	12691690	PARTIAL SITE PLAN - DEMOLITION
158	ED138-C	12691691	PARTIAL SITE PLAN - DEMOLITION
159	ED139-C	12691692	PARTIAL SITE PLAN - DEMOLITION
160	ED140-C	12691693	PARTIAL SITE PLAN - DEMOLITION
161	ED141-C	12691694	PARTIAL SITE PLAN - DEMOLITION
162	ED143-C	12691695	PARTIAL SITE PLAN - DEMOLITION
163	ED144-C	12691696	PARTIAL SITE PLAN - DEMOLITION
164	ED145-C	12691697	PARTIAL SITE PLAN - DEMOLITION
165	ED146-C	12691698	PARTIAL SITE PLAN - DEMOLITION
166	ED149-D	12691699	PARTIAL SITE PLAN - DEMOLITION
167	ED150-D	12691700	PARTIAL SITE PLAN - DEMOLITION
168	ED151-D	12691701	PARTIAL SITE PLAN - DEMOLITION
169	ED152-D	12691702	PARTIAL SITE PLAN - DEMOLITION
170	ED153-D	12691703	PARTIAL SITE PLAN - DEMOLITION
171	ED156-D	12691704	PARTIAL SITE PLAN - DEMOLITION
172	ED157-D	12691705	PARTIAL SITE PLAN - DEMOLITION
173	ED158-D	12691706	PARTIAL SITE PLAN - DEMOLITION
174	ED160-D	12691707	PARTIAL SITE PLAN - DEMOLITION
175	ED161-D	12691708	PARTIAL SITE PLAN - DEMOLITION
176	ED401	12691709	VAULT E-3036 - DEMOLITION SITE PLAN
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185	EA107-A	12691718	PARTIAL SITE PLAN - CONSTRUCTION
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197	EA122-B	12691730	PARTIAL SITE PLAN - CONSTRUCTION
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199	EA124-B	12691732	PARTIAL SITE PLAN - CONSTRUCTION
200	EA125-B	12691733	PARTIAL SITE PLAN - CONSTRUCTION
201	EA126-C	12691734	PARTIAL SITE PLAN - CONSTRUCTION
202	EA127-C	12691735	PARTIAL SITE PLAN - CONSTRUCTION
203	EA128-C	12691736	PARTIAL SITE PLAN - CONSTRUCTION
204	EA129-C	12691737	PARTIAL SITE PLAN - CONSTRUCTION
205	EA130-C	12691738	PARTIAL SITE PLAN - CONSTRUCTION
206	EA131-C	12691739	PARTIAL SITE PLAN - CONSTRUCTION
207	EA132-B	12691740	PARTIAL SITE PLAN - CONSTRUCTION
208	EA133-B	12691741	PARTIAL SITE PLAN - CONSTRUCTION
209	EA134-B	12691742	PARTIAL SITE PLAN - CONSTRUCTION
210	EA135-B	12691743	PARTIAL SITE PLAN - CONSTRUCTION
211	EA136-B	12691744	PARTIAL SITE PLAN - CONSTRUCTION
212	EA137-B	12691745	PARTIAL SITE PLAN - CONSTRUCTION
213	EA138-C	12691746	PARTIAL SITE PLAN - CONSTRUCTION
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216	EA141-C	12691749	PARTIAL SITE PLAN - CONSTRUCTION
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224	EA152-D	12691757	PARTIAL SITE PLAN - CONSTRUCTION
225	EA153-D	12691758	PARTIAL SITE PLAN - CONSTRUCTION
226	EA156-D	12691759	PARTIAL SITE PLAN - CONSTRUCTION
227	EA157-D	12691760	PARTIAL SITE PLAN - CONSTRUCTION
228	EA158-D	12691761	PARTIAL SITE PLAN - CONSTRUCTION
229	EA160-D	12691762	PARTIAL SITE PLAN - CONSTRUCTION
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233	EA502	12691766	ELECTRICAL DETAILS
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235	EA504	12691768	ELECTRICAL DETAILS
236	EA505	12691769	ELECTRICAL DETAILS
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238	EA507	12691771	ALCMS DETAILS
239	EA508	12691772	ELECTRICAL DETAILS
240	EA509	12691773	ELECTRICAL DETAILS
241	EA510	12691774	ELECTRICAL DETAILS
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243	EA512	12691776	ELECTRICAL DETAILS
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262	EA618	12691795	AIRFIELD LIGHTING SCHEDULES
263	EA619	12691796	AIRFIELD LIGHTING SCHEDULES
264	EA620	12691797	AIRFIELD LIGHTING SCHEDULES
265	EA621	12691798	AIRFIELD LIGHTING SCHEDULES
266	EA622	12691799	AIRFIELD LIGHTING SCHEDULES
267	EA623	12691800	AIRFIELD LIGHTING SCHEDULES
268	EA624	12691801	AIRFIELD LIGHTING SCHEDULES
269	EA625	12691802	AIRFIELD LIGHTING SCHEDULES
270	EA626	12691803	AIRFIELD LIGHTING SCHEDULES
271	EA627	12691804	AIRFIELD LIGHTING SCHEDULES
272	EA628	12691805	AIRFIELD LIGHTING SCHEDULES
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275	EA702	12691808	HANDHOLE & MANHOLE DIAGRAMS - EXISTING AIRFIELD LTG.
276	EA703	12691809	HANDHOLE & MANHOLE DIAGRAMS - EXISTING AIRFIELD LTG.
277	EA704	12691810	HANDHOLE & MANHOLE DIAGRAMS - EXISTING AIRFIELD LTG.
278	EA705	12691811	HANDHOLE & MANHOLE DIAGRAMS - EXISTING AIRFIELD LTG.
279	EA706	12691812	HANDHOLE & MANHOLE DIAGRAMS - EXISTING AIRFIELD LTG.
280	EA707	12691813	HANDHOLE & MANHOLE DIAGRAMS - EXISTING AIRFIELD LTG.
281	EA708	12691814	HANDHOLE & MANHOLE DIAGRAMS - EXISTING AIRFIELD LTG.
282	EA709	12691815	HANDHOLE & MANHOLE DIAGRAMS - EXISTING AIRFIELD LTG.
283	EA710	12691816	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 AIRFIELD LTG.
284	EA711	12691817	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 AIRFIELD LTG.
285	EA712	12691818	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 AIRFIELD LTG.
286	EA713	12691819	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 AIRFIELD LTG.
287	EA714	12691820	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 AIRFIELD LTG.
288	EA715	12691821	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 AIRFIELD LTG.
289	EA716	12691822	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 AIRFIELD LTG.
290	EA717	12691823	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 AIRFIELD LTG.
291	EA718	12691824	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 AIRFIELD LTG.
292	EA719	12691825	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 AIRFIELD LTG.
293	EA720	12691826	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 AIRFIELD LTG.
294	EA721	12691827	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 AIRFIELD LTG.
295	EA722	12691828	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 AIRFIELD LTG.
296	EA723	12691829	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 AIRFIELD LTG.
297	EA724	12691830	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 AIRFIELD LTG.
298	EA725	12691831	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 AIRFIELD LTG.
299	EA726	12691832	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 AIRFIELD LTG.
300	EA727	12691833	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 AIRFIELD LTG.
301	EA728	12691834	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 AIRFIELD LTG.
302	EA729	12691835	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 AIRFIELD LTG.
303	EA730	12691836	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 AIRFIELD LTG.
304	EA731	12691837	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 AIRFIELD LTG.
305	EA732	12691838	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 AIRFIELD LTG.
306	EA733	12691839	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 AIRFIELD LTG.
307	EA734	12691840	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 AIRFIELD LTG.
308	EA735	12691841	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 AIRFIELD LTG.
309	EA736	12691842	HANDHOLE & MANHOLE DIAGRAMS - PHASE 2 AIRFIELD LTG.
310	EA737	12691843	HANDHOLE & MANHOLE DIAGRAMS - PHASE 2 AIRFIELD LTG.
311	EA738	12691844	HANDHOLE & MANHOLE DIAGRAMS - PHASE 2 AIRFIELD LTG.
312	EA739	12691845	HANDHOLE & MANHOLE DIAGRAMS - PHASE 2 AIRFIELD LTG.
313	EA740	12691846	HANDHOLE & MANHOLE DIAGRAMS - EXISTING POWER
314	EA741	12691847	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 POWER
315	EA742	12691848	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 POWER
316	EA743	12691849	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 POWER
317	EA744	12691850	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 POWER
318	EA745	12691851	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 POWER
319	EA746	12691852	HANDHOLE & MANHOLE DIAGRAMS - PHASE 2 POWER
320	EA747	12691853	HANDHOLE & MANHOLE DIAGRAMS - PHASE 2 POWER
321	EA748	12691854	HANDHOLE & MANHOLE DIAGRAMS - PHASE 2 POWER
322	EA749	12691855	HANDHOLE & MANHOLE DIAGRAMS - EXISTING COMM.
323	EA750	12691856	HANDHOLE & MANHOLE DIAGRAMS - EXISTING COMM.
324	EA751	12691857	HANDHOLE & MANHOLE DIAGRAMS - EXISTING COMM.
325	EA752	12691858	HANDHOLE & MANHOLE DIAGRAMS - EXISTING COMM.
326	EA753	12691859	HANDHOLE & MANHOLE DIAGRAMS - EXISTING COMM.
327	EA754	12691860	HANDHOLE & MANHOLE DIAGRAMS - EXISTING COMM.
328	EA755	12691861	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 COMM.
329	EA756	12691862	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 COMM.
330	EA757	12691863	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 COMM.
331	EA758	12691864	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 COMM.
332	EA759	12691865	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 COMM.
333	EA760	12691866	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 COMM.
334	EA761	12691867	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 COMM.
335	EA762	12691868	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 COMM.
336	EA763	12691869	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 COMM.
337	EA764	12691870	HANDHOLE & MANHOLE DIAGRAMS - PHASE 1 COMM.
338	EA765	12691871	HANDHOLE & MANHOLE DIAGRAMS - PHASE 2 COMM.
339	ES501	12691872	ELECTRICAL SIGN DETAILS
340	ES601	12691873	AIRFIELD SIGNAGE SCHEDULES
341	ES602	12691874	AIRFIELD SIGNAGE SCHEDULES
342	E-401	12691875	VAULT E-3036 - SITE PLAN POWER
343	E-402	12691876	VAULT E-3036 - LIGHTING PLAN
344	E-403	12691877	VAULT E-3036 - POWER PLAN
345	E-404	12691878	VAULT E-101 - SITE PLAN POWER
346	E-405	12691879	VAULT E-101 - LIGHTING PLAN
347	E-406	12691880	VAULT E-101 - POWER PLAN
348	E-407	12691881	VAULT E-1120 - SITE PLAN POWER
349	E-408	12691882	VAULT E-1120 - LIGHTING PLAN
350	E-409	12691883	VAULT E-1120 - POWER PLAN
351	E-501	12691884	ELECTRICAL DETAILS
352	E-502	12691885	ELECTRICAL DETAILS
353	E-503	12691886	ELECTRICAL DETAILS
354	E-504	12691887	ELECTRICAL DETAILS
355	E-601	12691888	VAULT E-3036 - ONE LINE DIAGRAM
356	E-602	12691889	VAULT E-101 - ONE LINE DIAGRAM
357	E-603	12691890	VAULT E-1120 - ONE LINE DIAGRAM
358	E-604	12691891	OCEANA POWER DISTRIBUTION - ONE LINE DIAGRAM
359	E-605	12691892	OCEANA POWER DISTRIBUTION - ONE LINE DIAGRAM
360	E-606	12691893	OCEANA POWER DISTRIBUTION - ONE LINE DIAGRAM
361	E-607	12691894	OCEANA POWER DISTRIBUTION - ONE LINE DIAGRAM
362	E-608	12691895	OCEANA POWER DISTRIBUTION - ONE LINE DIAGRAM
363	E-609	12691896	AIRFIELD LIGHTING VAULTS - LIGHT FIXTURE SCH.
364	E-610	12691897	VAULTS E-3036 AND E-101 PANEL SCHEDULES
365	E-611	12691898	VAULT 1120 PANEL SCHEDULES
366	E-901	12691899	PHOTO SHEET
367	E-902	12691900	PHOTO SHEET
368	E-903	12691901	PHOTO SHEET

STM	DESCRIPTION	DATE	APPR

NAVFAC

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ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER TLO

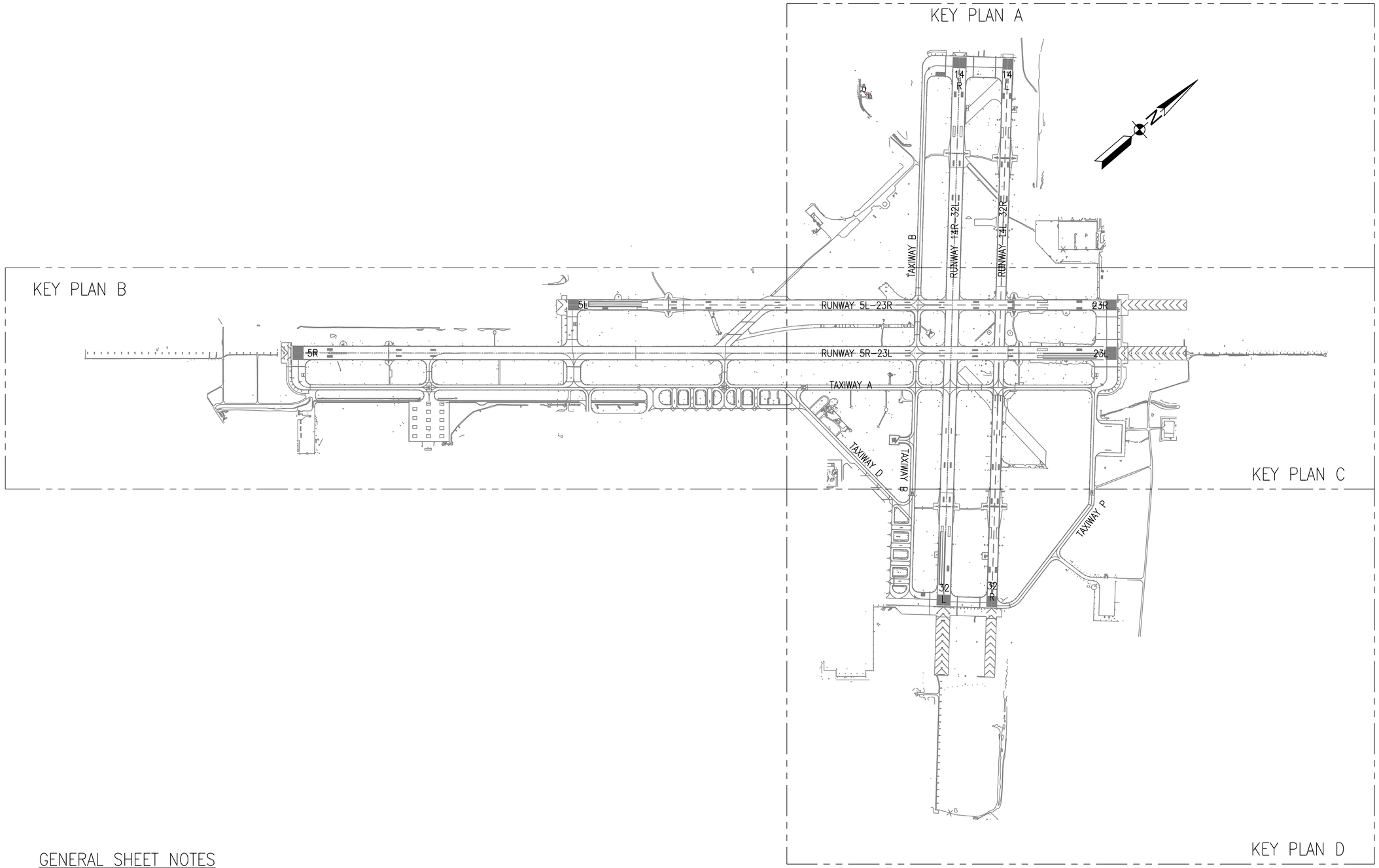
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DRAWING INDEX – VOLUME TWO

SCALE: AS NOTED
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691536
SHEET 3 OF 368
G-003

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\Archive\10-0863-008-G-003.dwg LAYOUT NAME: G-003 PLOTTED: Tuesday, March 24, 2015 - 4:41pm USER: kwatson



GENERAL SHEET NOTES

1. REFER TO DRAWING G-005 FOR DRAWING BREAKDOWN FOR KEY PLAN A.
2. REFER TO DRAWING G-006 FOR DRAWING BREAKDOWN FOR KEY PLAN B.
3. REFER TO DRAWING G-007 FOR DRAWING BREAKDOWN FOR KEY PLAN C.
4. REFER TO DRAWING G-008 FOR DRAWING BREAKDOWN FOR KEY PLAN D.

SYM	DESCRIPTION	DATE	APPR

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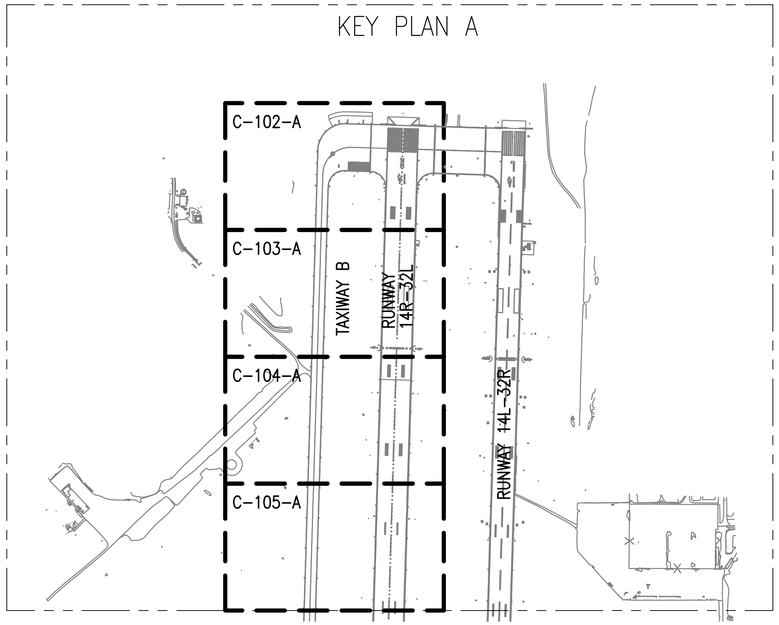
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
CIVIL SITE KEY PLAN – OVERALL

SCALE: NONE
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691537
SHEET 4 OF 368
G-004
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-004.dwg LAYOUT NAME: G-004 PLOTTED: Tuesday, March 24, 2015 - 7:42am USER: kwatson

KEY PLAN A



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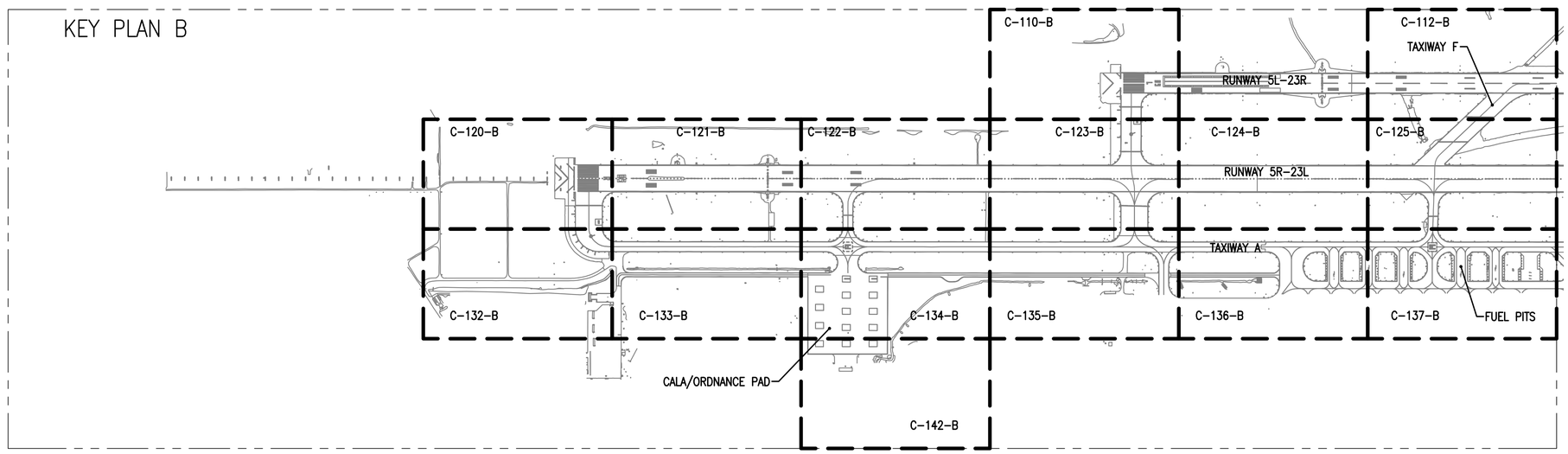
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
CIVIL SITE KEY PLAN – AREA A

SCALE: NONE
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691538
SHEET 5 OF 368
G-005

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-G-005.dwg LAYOUT NAME: G-005 PLOTTED: Tuesday, March 24, 2015 - 7:43am USER: kwatson



SYM	DESCRIPTION	DATE	APPR

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HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA - VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
CIVIL SITE KEY PLAN – AREA B

SCALE: NONE

EPROJECT NO.: 1291651

CONSTR. CONTR. NO.

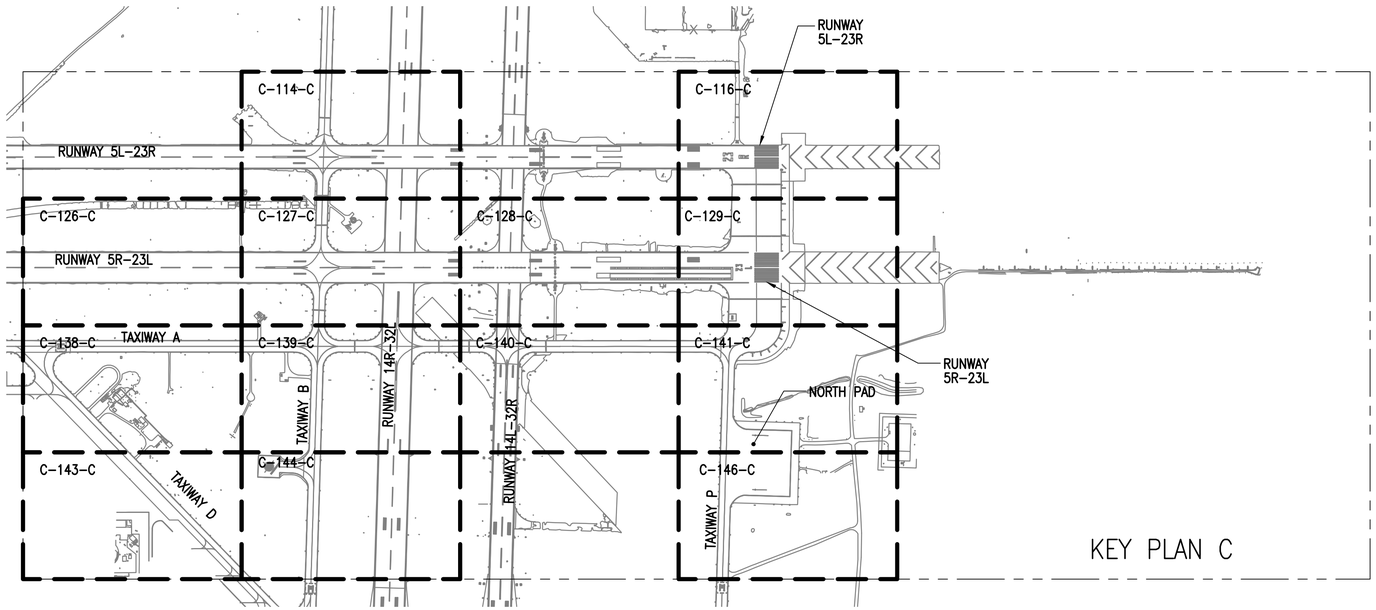
NAVFAC DRAWING NO.
12691539

SHEET 6 OF 368

G-006

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-G-006.dwg LAYOUT NAME: G-006 PLOTTED: Tuesday, March 24, 2015 - 7:44am USER: kwatson



SYM	DESCRIPTION	DATE	APPR

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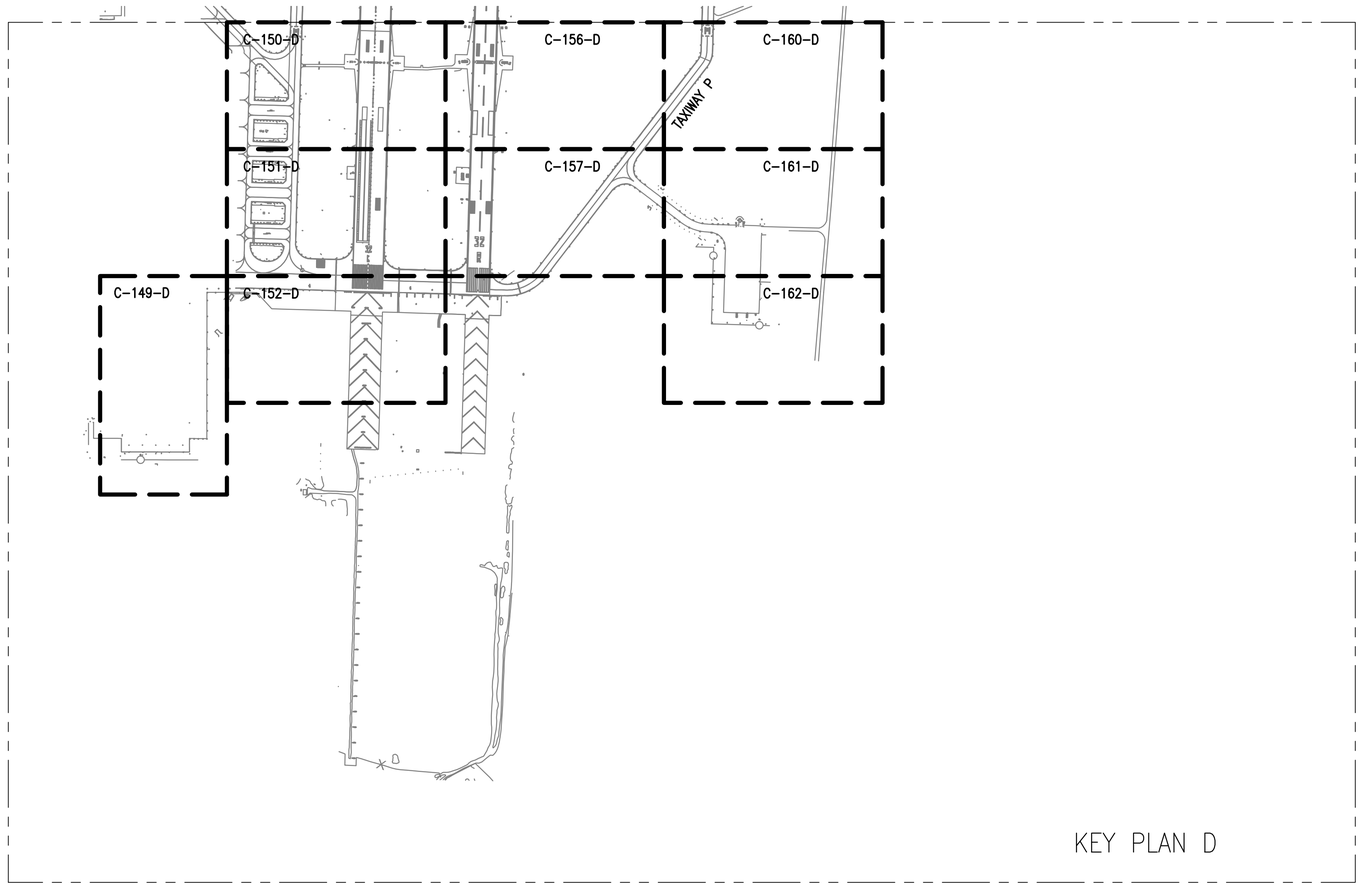
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
CIVIL SITE KEY PLAN – AREA C

SCALE: NONE
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691548
SHEET 7 OF 368
G-007
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHPA\99... Misc\Wvalter\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-G-007.dwg LAYOUT NAME: G-007 PLOTTED: Tuesday, March 24, 2015 - 7:44am USER: kwatson



SYM	DESCRIPTION	DATE	APPR

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NAVAL AIR STATION OCEANA - VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
CIVIL SITE KEY PLAN – AREA D

SCALE: NONE

EPROJECT NO.: 1291651

CONSTR. CONTR. NO.

NAVFAC DRAWING NO.
12691549

SHEET 8 OF 368

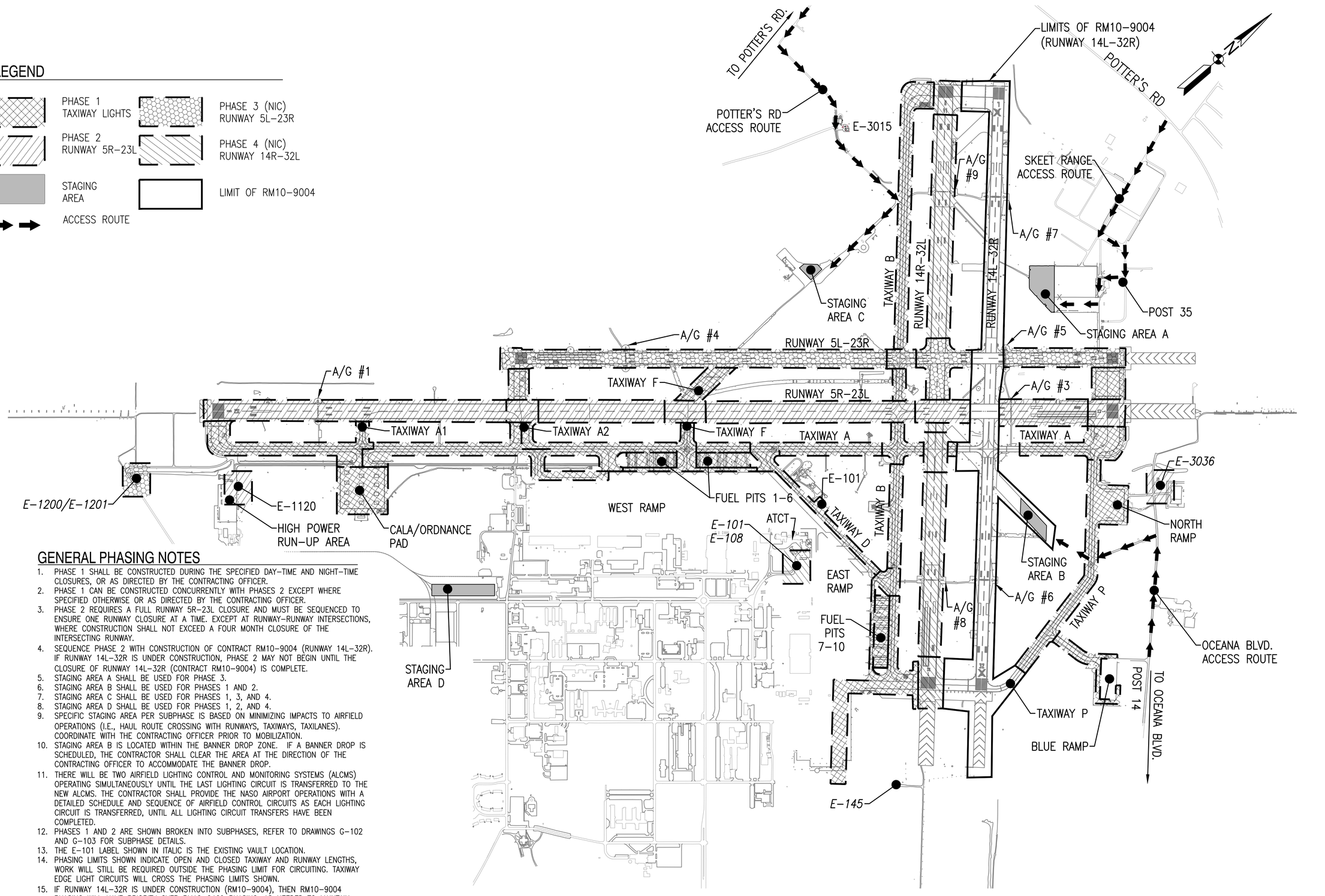
G-008

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHIPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-G-008.dwg LAYOUT NAME: G-008 PLOTTED: Tuesday, March 24, 2015 - 7:44am USER: kwatson

LEGEND

- PHASE 1 TAXIWAY LIGHTS
- PHASE 2 RUNWAY 5R–23L
- PHASE 3 (NIC) RUNWAY 5L–23R
- PHASE 4 (NIC) RUNWAY 14R–32L
- STAGING AREA
- LIMIT OF RM10–9004
- ACCESS ROUTE



GENERAL PHASING NOTES

1. PHASE 1 SHALL BE CONSTRUCTED DURING THE SPECIFIED DAY–TIME AND NIGHT–TIME CLOSURES, OR AS DIRECTED BY THE CONTRACTING OFFICER.
2. PHASE 1 CAN BE CONSTRUCTED CONCURRENTLY WITH PHASES 2 EXCEPT WHERE SPECIFIED OTHERWISE OR AS DIRECTED BY THE CONTRACTING OFFICER.
3. PHASE 2 REQUIRES A FULL RUNWAY 5R–23L CLOSURE AND MUST BE SEQUENCED TO ENSURE ONE RUNWAY CLOSURE AT A TIME. EXCEPT AT RUNWAY–RUNWAY INTERSECTIONS, WHERE CONSTRUCTION SHALL NOT EXCEED A FOUR MONTH CLOSURE OF THE INTERSECTING RUNWAY.
4. SEQUENCE PHASE 2 WITH CONSTRUCTION OF CONTRACT RM10–9004 (RUNWAY 14L–32R). IF RUNWAY 14L–32R IS UNDER CONSTRUCTION, PHASE 2 MAY NOT BEGIN UNTIL THE CLOSURE OF RUNWAY 14L–32R (CONTRACT RM10–9004) IS COMPLETE.
5. STAGING AREA A SHALL BE USED FOR PHASE 3.
6. STAGING AREA B SHALL BE USED FOR PHASES 1 AND 2.
7. STAGING AREA C SHALL BE USED FOR PHASES 1, 3, AND 4.
8. STAGING AREA D SHALL BE USED FOR PHASES 1, 2, AND 4.
9. SPECIFIC STAGING AREA PER SUBPHASE IS BASED ON MINIMIZING IMPACTS TO AIRFIELD OPERATIONS (I.E., HAUL ROUTE CROSSING WITH RUNWAYS, TAXIWAYS, TAXILANES). COORDINATE WITH THE CONTRACTING OFFICER PRIOR TO MOBILIZATION.
10. STAGING AREA B IS LOCATED WITHIN THE BANNER DROP ZONE. IF A BANNER DROP IS SCHEDULED, THE CONTRACTOR SHALL CLEAR THE AREA AT THE DIRECTION OF THE CONTRACTING OFFICER TO ACCOMMODATE THE BANNER DROP.
11. THERE WILL BE TWO AIRFIELD LIGHTING CONTROL AND MONITORING SYSTEMS (ALCMS) OPERATING SIMULTANEOUSLY UNTIL THE LAST LIGHTING CIRCUIT IS TRANSFERRED TO THE NEW ALCMS. THE CONTRACTOR SHALL PROVIDE THE NASO AIRPORT OPERATIONS WITH A DETAILED SCHEDULE AND SEQUENCE OF AIRFIELD CONTROL CIRCUITS AS EACH LIGHTING CIRCUIT IS TRANSFERRED, UNTIL ALL LIGHTING CIRCUIT TRANSFERS HAVE BEEN COMPLETED.
12. PHASES 1 AND 2 ARE SHOWN BROKEN INTO SUBPHASES, REFER TO DRAWINGS G–102 AND G–103 FOR SUBPHASE DETAILS.
13. THE E–101 LABEL SHOWN IN ITALIC IS THE EXISTING VAULT LOCATION.
14. PHASING LIMITS SHOWN INDICATE OPEN AND CLOSED TAXIWAY AND RUNWAY LENGTHS, WORK WILL STILL BE REQUIRED OUTSIDE THE PHASING LIMIT FOR CIRCUITING. TAXIWAY EDGE LIGHT CIRCUITS WILL CROSS THE PHASING LIMITS SHOWN.
15. IF RUNWAY 14L–32R IS UNDER CONSTRUCTION (RM10–9004), THEN RM10–9004 PHASING WILL HAVE PRIORITY OVER RM12–0469 PHASING, AS NEEDED TO MAINTAIN RM10–9004 SCHEDULE.

SYM	DESCRIPTION	DATE	APPR

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BRANCH MANAGER TLO
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DEPARTMENT OF THE NAVY
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NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
OVERALL PROJECT PHASING

SCALE: 1" = 400'
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691542
SHEET 9 OF 368

G-101

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0683-008-G-101.dwg LAYOUT NAME: G-101 PLOTTED: Tuesday, March 24, 2015 - 7:45am USER: kwatson

LEGEND

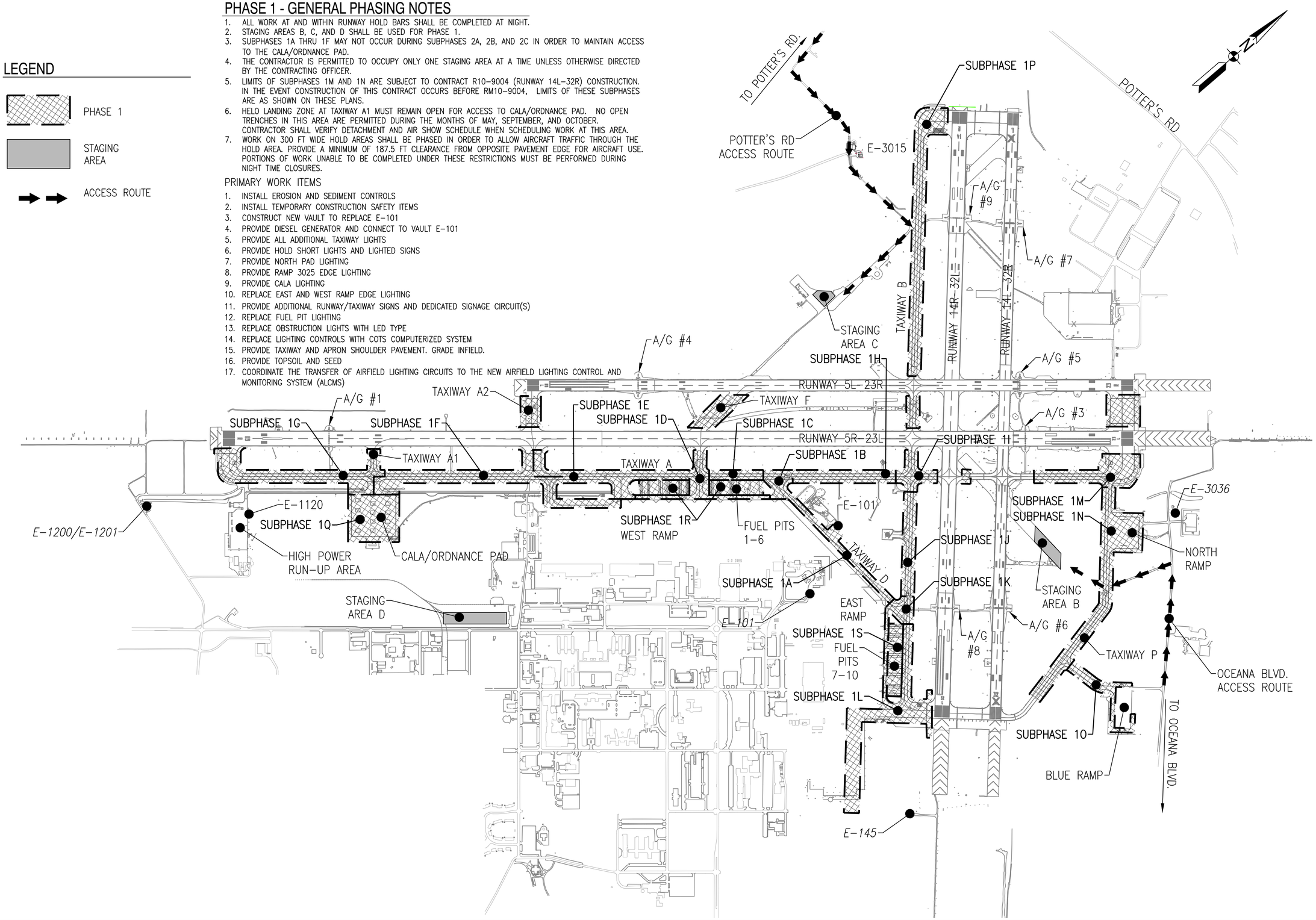
- PHASE 1
- STAGING AREA
- ACCESS ROUTE

PHASE 1 - GENERAL PHASING NOTES

1. ALL WORK AT AND WITHIN RUNWAY HOLD BARS SHALL BE COMPLETED AT NIGHT.
2. STAGING AREAS B, C, AND D SHALL BE USED FOR PHASE 1.
3. SUBPHASES 1A THRU 1F MAY NOT OCCUR DURING SUBPHASES 2A, 2B, AND 2C IN ORDER TO MAINTAIN ACCESS TO THE CALA/ORDNANCE PAD.
4. THE CONTRACTOR IS PERMITTED TO OCCUPY ONLY ONE STAGING AREA AT A TIME UNLESS OTHERWISE DIRECTED BY THE CONTRACTING OFFICER.
5. LIMITS OF SUBPHASES 1M AND 1N ARE SUBJECT TO CONTRACT R10–9004 (RUNWAY 14L–32R) CONSTRUCTION. IN THE EVENT CONSTRUCTION OF THIS CONTRACT OCCURS BEFORE RM10–9004, LIMITS OF THESE SUBPHASES ARE AS SHOWN ON THESE PLANS.
6. HELO LANDING ZONE AT TAXIWAY A1 MUST REMAIN OPEN FOR ACCESS TO CALA/ORDNANCE PAD. NO OPEN TRENCHES IN THIS AREA ARE PERMITTED DURING THE MONTHS OF MAY, SEPTEMBER, AND OCTOBER. CONTRACTOR SHALL VERIFY DETACHMENT AND AIR SHOW SCHEDULE WHEN SCHEDULING WORK AT THIS AREA.
7. WORK ON 300 FT WIDE HOLD AREAS SHALL BE PHASED IN ORDER TO ALLOW AIRCRAFT TRAFFIC THROUGH THE HOLD AREA. PROVIDE A MINIMUM OF 187.5 FT CLEARANCE FROM OPPOSITE PAVEMENT EDGE FOR AIRCRAFT USE. PORTIONS OF WORK UNABLE TO BE COMPLETED UNDER THESE RESTRICTIONS MUST BE PERFORMED DURING NIGHT TIME CLOSURES.

PRIMARY WORK ITEMS

1. INSTALL EROSION AND SEDIMENT CONTROLS
2. INSTALL TEMPORARY CONSTRUCTION SAFETY ITEMS
3. CONSTRUCT NEW VAULT TO REPLACE E–101
4. PROVIDE DIESEL GENERATOR AND CONNECT TO VAULT E–101
5. PROVIDE ALL ADDITIONAL TAXIWAY LIGHTS
6. PROVIDE HOLD SHORT LIGHTS AND LIGHTED SIGNS
7. PROVIDE NORTH PAD LIGHTING
8. PROVIDE RAMP 3025 EDGE LIGHTING
9. PROVIDE CALA LIGHTING
10. REPLACE EAST AND WEST RAMP EDGE LIGHTING
11. PROVIDE ADDITIONAL RUNWAY/TAXIWAY SIGNS AND DEDICATED SIGNAGE CIRCUIT(S)
12. REPLACE FUEL PIT LIGHTING
13. REPLACE OBSTRUCTION LIGHTS WITH LED TYPE
14. REPLACE LIGHTING CONTROLS WITH COTS COMPUTERIZED SYSTEM
15. PROVIDE TAXIWAY AND APRON SHOULDER PAVEMENT. GRADE INFIELD.
16. PROVIDE TOPSOIL AND SEED
17. COORDINATE THE TRANSFER OF AIRFIELD LIGHTING CIRCUITS TO THE NEW AIRFIELD LIGHTING CONTROL AND MONITORING SYSTEM (ALCMS)



SYM	DESCRIPTION	DATE	APPR

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APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER TLO

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
PROJECT PHASING – PHASE 1

SCALE: 1" = 400'

EPROJECT NO.: 1291651

CONSTR. CONTR. NO.

NAVFAC DRAWING NO. 12691543

SHEET 10 OF 368

G-102

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0683-008-G-102.dwg LAYOUT NAME: G-102 PLOTTED: Tuesday, March 24, 2015 - 7:45am USER: kwatson

PHASE 2 - GENERAL PHASING NOTES

1. FULL CLOSURE OF RUNWAY 5R–23L. RUNWAY 14L–32R AND RUNWAY 14R–32L ARE REQUIRED TO BE CLOSED FOR PHASE 2 DURING INTERSECTION WORK.
2. STAGING AREAS B AND D SHALL BE USED FOR PHASE 2
3. SUBPHASES 2A, 2B, AND 2C MAY NOT OCCUR DURING SUBPHASES 1A THRU 1F TO MAINTAIN ACCESS TO CALA/ORDNANCE PAD
4. THE CONTRACTOR IS PERMITTED TO OCCUPY ONLY ONE STAGING AREA AT A TIME UNLESS OTHERWISE DIRECTED BY THE CONTRACTING OFFICER.
5. LIMITS OF SUBPHASES 2G AND 2H ARE SUBJECT TO FINAL LIMITS OF THE CONSTRUCTION PROJECT RM10–9004 (RUNWAY 14L–32R).

PRIMARY WORK ITEMS

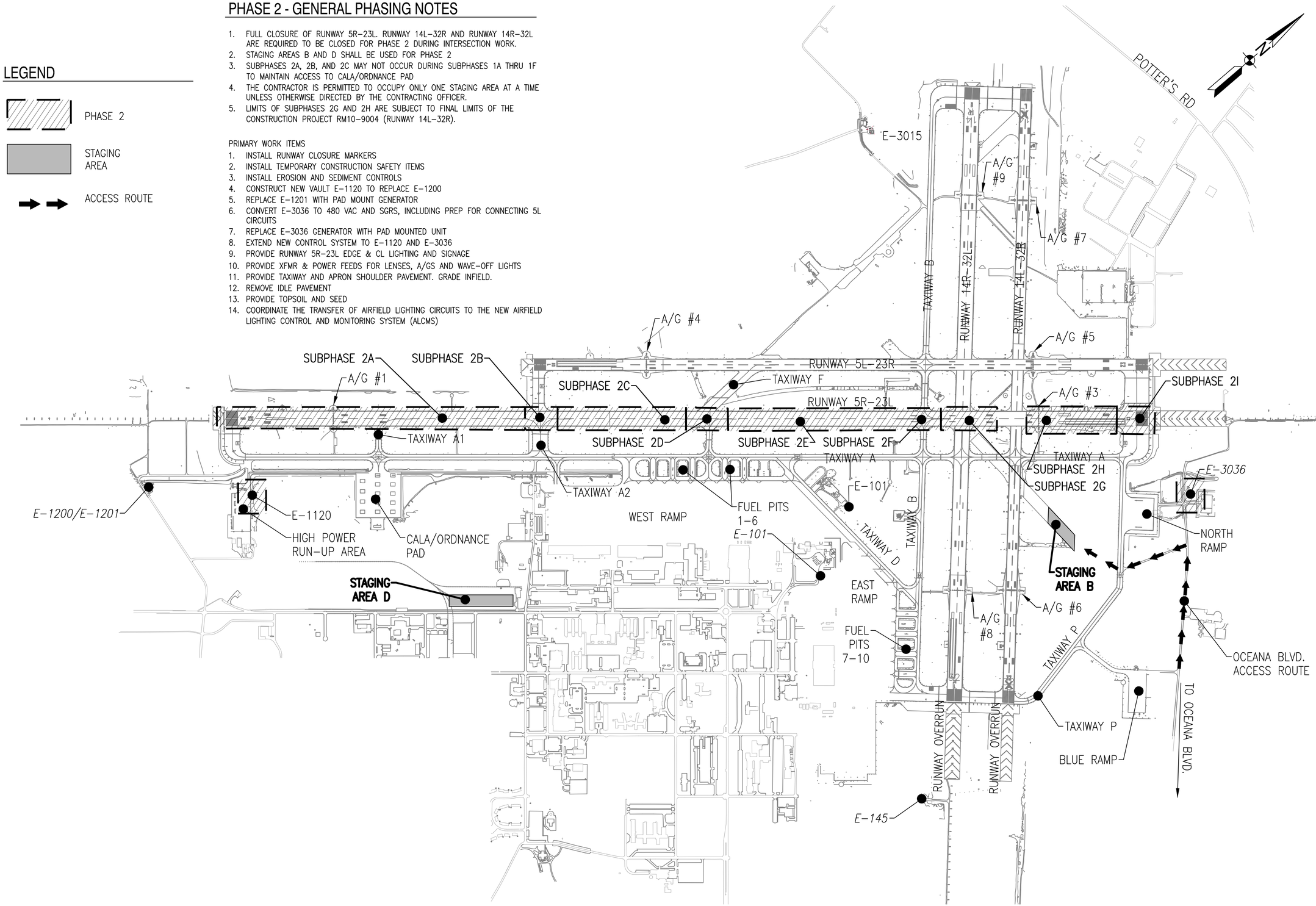
1. INSTALL RUNWAY CLOSURE MARKERS
2. INSTALL TEMPORARY CONSTRUCTION SAFETY ITEMS
3. INSTALL EROSION AND SEDIMENT CONTROLS
4. CONSTRUCT NEW VAULT E–1120 TO REPLACE E–1200
5. REPLACE E–1201 WITH PAD MOUNT GENERATOR
6. CONVERT E–3036 TO 480 VAC AND SGRS, INCLUDING PREP FOR CONNECTING 5L CIRCUITS
7. REPLACE E–3036 GENERATOR WITH PAD MOUNTED UNIT
8. EXTEND NEW CONTROL SYSTEM TO E–1120 AND E–3036
9. PROVIDE RUNWAY 5R–23L EDGE & CL LIGHTING AND SIGNAGE
10. PROVIDE XFMR & POWER FEEDS FOR LENSES, A/GS AND WAVE–OFF LIGHTS
11. PROVIDE TAXIWAY AND APRON SHOULDER PAVEMENT. GRADE INFIELD.
12. REMOVE IDLE PAVEMENT
13. PROVIDE TOPSOIL AND SEED
14. COORDINATE THE TRANSFER OF AIRFIELD LIGHTING CIRCUITS TO THE NEW AIRFIELD LIGHTING CONTROL AND MONITORING SYSTEM (ALCMS)

LEGEND

PHASE 2

STAGING AREA

ACCESS ROUTE



SYM	DESCRIPTION	DATE	APPR

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BRANCH MANAGER TLO
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DEPARTMENT OF THE NAVY
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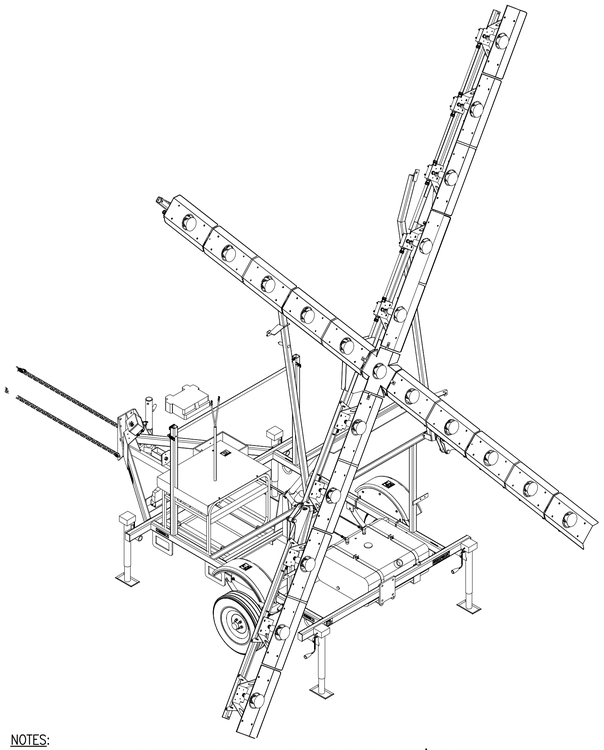
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
PROJECT PHASING – PHASE 2

SCALE: 1" = 400'
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691544
SHEET 11 OF 368
G-103

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0683-008-G-103.dwg LAYOUT NAME: G-103 PLOTTED: Tuesday, March 24, 2015 - 7:46am USER: kwilson

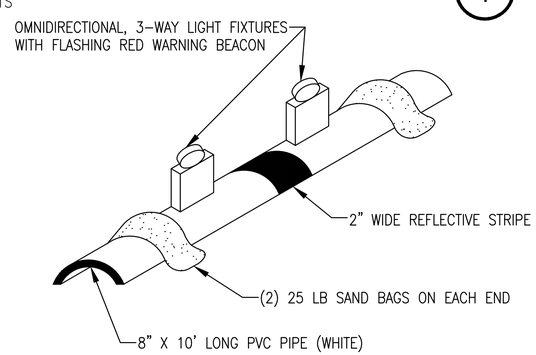


NOTES:

1. LIGHTED RUNWAY CLOSURE MARKER SHALL BE PLACED WITHIN 250' OF BOTH RUNWAY ENDS AND SHALL BE COORDINATED WITH RUNWAY CLOSURES. REFER TO NAVAIR 51-50AAA-1 FOR FURTHER GUIDANCE.
2. CONTRACTOR SHALL PROVIDE AN ADDITIONAL NON-LIGHTED CLOSURE MARKER TO BE LOCATED AT THE RUNWAY DESIGNATION MARKINGS. REFER TO DETAIL 4 ON THIS SHEET FOR FURTHER GUIDANCE.
3. CONTRACTOR SHALL PROVIDE TWO (2) NEW TRAILER-MOUNTED LIGHTED RUNWAY CLOSURE MARKERS FOR USE ON THE PROJECT. LIGHTED RUNWAY CLOSURE MARKINGS WILL BECOME THE PROPERTY OF THE CONTRACTING OFFICER AT THE COMPLETION OF THE PROJECT.

LIGHTED RUNWAY CLOSURE MARKER (1)

NTS

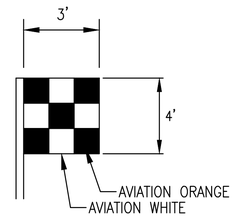


NOTES:

1. BARRIERS PROVIDED BY OWNER. CONTRACTOR SHALL PROVIDE BATTERIES, SAND BAGS AND ITEMS REQUIRED FOR INSTALLATION AND MAINTENANCE. UPON COMPLETION OF PROJECT, BARRIERS WILL REMAIN PROPERTY OF OWNER AND DELIVERED TO AN OWNER DESIGNATED STORAGE AREA.
2. OPENING BETWEEN SECTIONS SHALL NOT EXCEED 4 FEET.

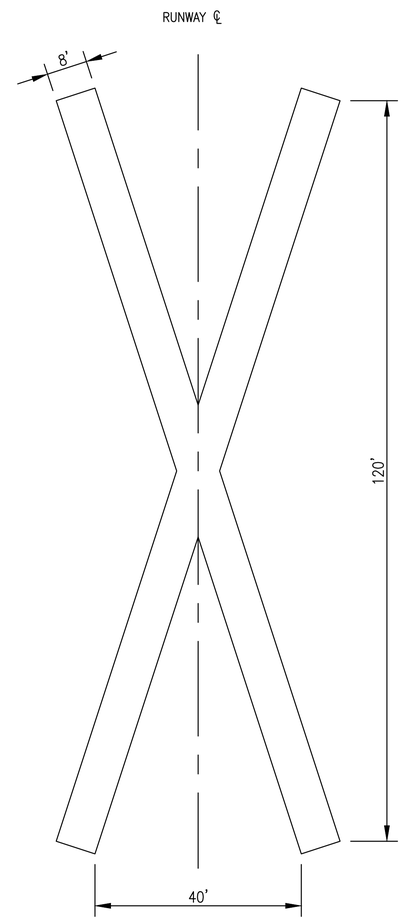
LOW PROFILE CONSTRUCTION BARRIERS (3)

NTS



VEHICLE/EQUIPMENT FLAG (2)

NTS



NOTES:

1. FOR USE ON RUNWAY DESIGNATION MARKINGS TO REMAIN, PROVIDE YELLOW FABRIC AND SANDBAG STYLE CLOSED RUNWAY MARKING.
3. PLACE OVER RUNWAY DESIGNATION MARKERS. COORDINATE PLACEMENT WITH RUNWAY CLOSURES. REFER TO NAVAIR 51-50AAA-1 FOR FURTHER GUIDANCE.
4. CONTRACTOR SHALL PROVIDE CLOSED RUNWAY MARKINGS FOR USE ON THE PROJECT. CLOSED RUNWAY MARKINGS WILL BECOME THE PROPERTY OF THE CONTRACTING OFFICER AT THE COMPLETION OF THE PROJECT.

CLOSED RUNWAY MARKING DETAIL (4)

NTS

SYM	DESCRIPTION	DATE	APPR

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NAVAL FACILITIES ENGINEERING COMMAND
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NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
HR IPT

NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2

CONSTRUCTION SAFETY DETAILS

SCALE: 1" = 500'

EPROJECT NO.: 1291651

CONSTR. CONTR. NO.

NAVFAC DRAWING NO.
12691545

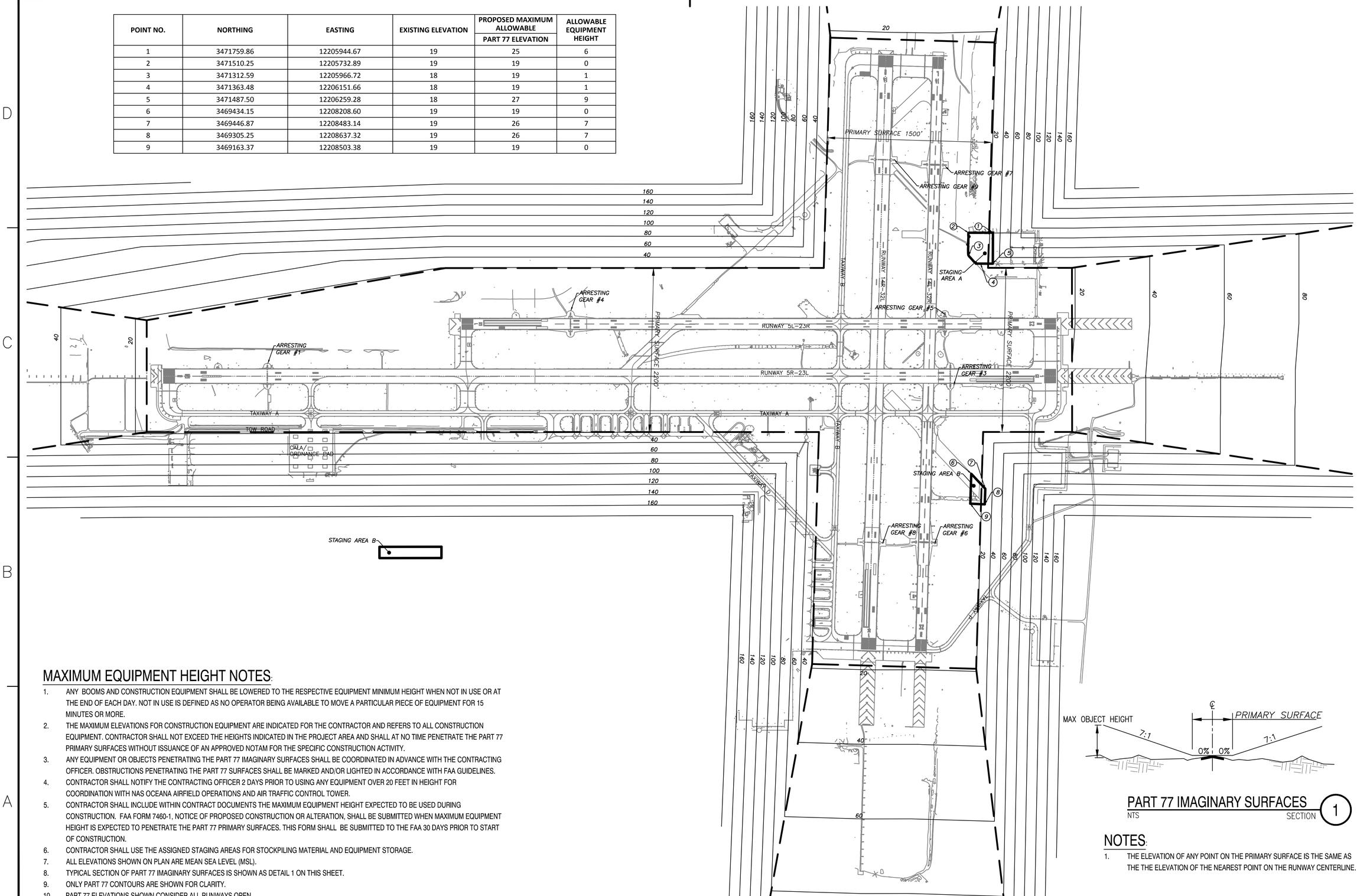
SHEET 12 OF 368

G-104

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0683-008-G-104.dwg LAYOUT NAME: G-104 PLOTTED: Tuesday, March 24, 2015 - 7:46am USER: kwatson

POINT NO.	NORTHING	EASTING	EXISTING ELEVATION	PROPOSED MAXIMUM ALLOWABLE PART 77 ELEVATION	ALLOWABLE EQUIPMENT HEIGHT
1	3471759.86	12205944.67	19	25	6
2	3471510.25	12205732.89	19	19	0
3	3471312.59	12205966.72	18	19	1
4	3471363.48	12206151.66	18	19	1
5	3471487.50	12206259.28	18	27	9
6	3469434.15	12208208.60	19	19	0
7	3469446.87	12208483.14	19	26	7
8	3469305.25	12208637.32	19	26	7
9	3469163.37	12208503.38	19	19	0



MAXIMUM EQUIPMENT HEIGHT NOTES:

1. ANY BOOMS AND CONSTRUCTION EQUIPMENT SHALL BE LOWERED TO THE RESPECTIVE EQUIPMENT MINIMUM HEIGHT WHEN NOT IN USE OR AT THE END OF EACH DAY. NOT IN USE IS DEFINED AS NO OPERATOR BEING AVAILABLE TO MOVE A PARTICULAR PIECE OF EQUIPMENT FOR 15 MINUTES OR MORE.
2. THE MAXIMUM ELEVATIONS FOR CONSTRUCTION EQUIPMENT ARE INDICATED FOR THE CONTRACTOR AND REFERS TO ALL CONSTRUCTION EQUIPMENT. CONTRACTOR SHALL NOT EXCEED THE HEIGHTS INDICATED IN THE PROJECT AREA AND SHALL AT NO TIME PENETRATE THE PART 77 PRIMARY SURFACES WITHOUT ISSUANCE OF AN APPROVED NOTAM FOR THE SPECIFIC CONSTRUCTION ACTIVITY.
3. ANY EQUIPMENT OR OBJECTS PENETRATING THE PART 77 IMAGINARY SURFACES SHALL BE COORDINATED IN ADVANCE WITH THE CONTRACTING OFFICER. OBSTRUCTIONS PENETRATING THE PART 77 SURFACES SHALL BE MARKED AND/OR LIGHTED IN ACCORDANCE WITH FAA GUIDELINES.
4. CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER 2 DAYS PRIOR TO USING ANY EQUIPMENT OVER 20 FEET IN HEIGHT FOR COORDINATION WITH NAS OCEANA AIRFIELD OPERATIONS AND AIR TRAFFIC CONTROL TOWER.
5. CONTRACTOR SHALL INCLUDE WITHIN CONTRACT DOCUMENTS THE MAXIMUM EQUIPMENT HEIGHT EXPECTED TO BE USED DURING CONSTRUCTION. FAA FORM 7460-1, NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION, SHALL BE SUBMITTED WHEN MAXIMUM EQUIPMENT HEIGHT IS EXPECTED TO PENETRATE THE PART 77 PRIMARY SURFACES. THIS FORM SHALL BE SUBMITTED TO THE FAA 30 DAYS PRIOR TO START OF CONSTRUCTION.
6. CONTRACTOR SHALL USE THE ASSIGNED STAGING AREAS FOR STOCKPILING MATERIAL AND EQUIPMENT STORAGE.
7. ALL ELEVATIONS SHOWN ON PLAN ARE MEAN SEA LEVEL (MSL).
8. TYPICAL SECTION OF PART 77 IMAGINARY SURFACES IS SHOWN AS DETAIL 1 ON THIS SHEET.
9. ONLY PART 77 CONTOURS ARE SHOWN FOR CLARITY.
10. PART 77 ELEVATIONS SHOWN CONSIDER ALL RUNWAYS OPEN.

PART 77 IMAGINARY SURFACES

NTS — SECTION 1

NOTES:

1. THE ELEVATION OF ANY POINT ON THE PRIMARY SURFACE IS THE SAME AS THE THE ELEVATION OF THE NEAREST POINT ON THE RUNWAY CENTERLINE.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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BRANCH MANAGER TLO
CHIEF ENG/ARCH

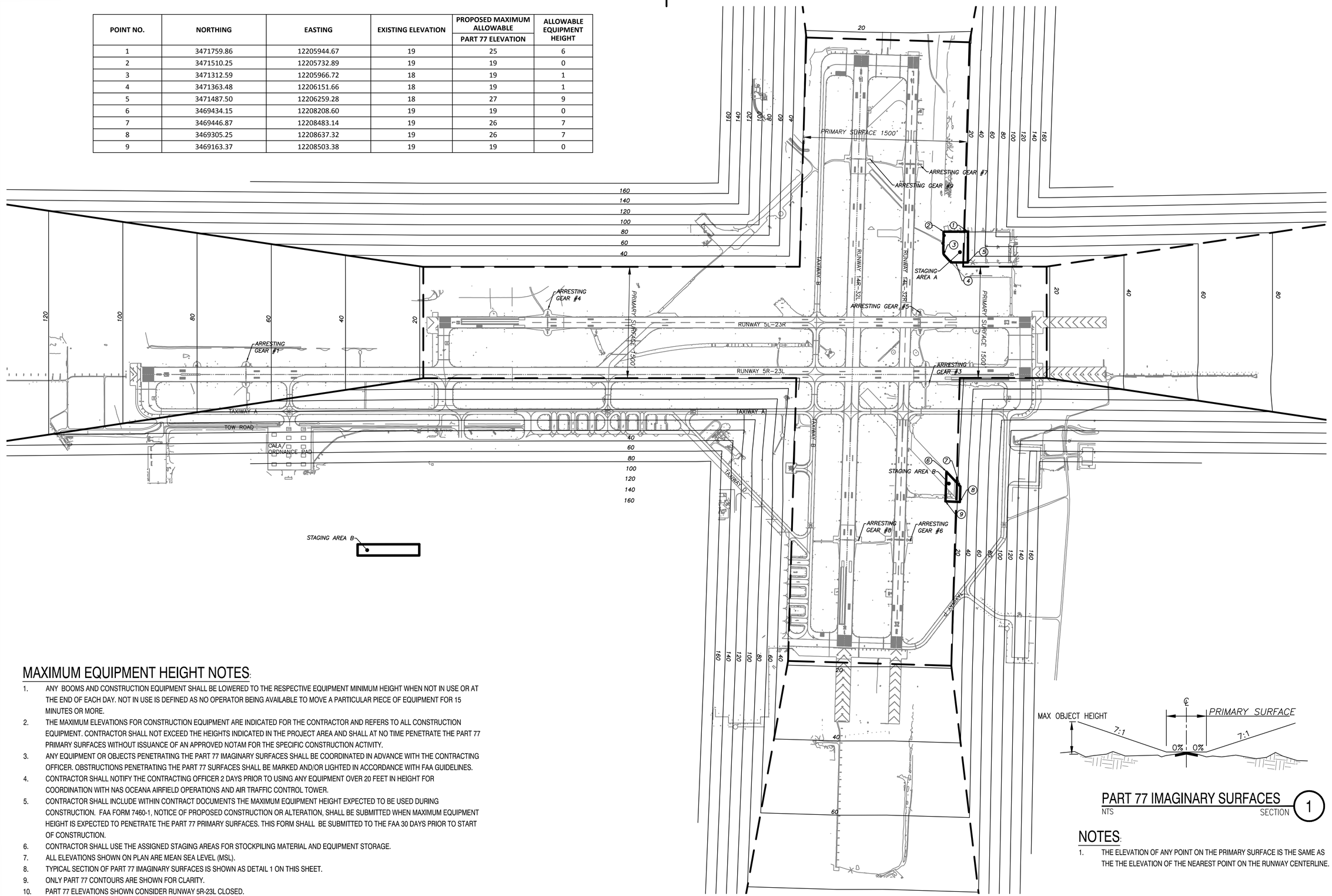
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND – MID-ATLANTIC
NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
MAXIMUM EQUIPMENT HEIGHT PLAN – PHASE 1

SCALE: 1" = 400'
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691546
SHEET 13 OF 368
G-105

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0683-008-G-105.dwg LAYOUT NAME: G-106 PLOTTED: Tuesday, March 24, 2015 - 7:48am USER: kwatson

POINT NO.	NORTHING	EASTING	EXISTING ELEVATION	PROPOSED MAXIMUM ALLOWABLE PART 77 ELEVATION	ALLOWABLE EQUIPMENT HEIGHT
1	3471759.86	12205944.67	19	25	6
2	3471510.25	12205732.89	19	19	0
3	3471312.59	12205966.72	18	19	1
4	3471363.48	12206151.66	18	19	1
5	3471487.50	12206259.28	18	27	9
6	3469434.15	12208208.60	19	19	0
7	3469446.87	12208483.14	19	26	7
8	3469305.25	12208637.32	19	26	7
9	3469163.37	12208503.38	19	19	0



MAXIMUM EQUIPMENT HEIGHT NOTES:

1. ANY BOOMS AND CONSTRUCTION EQUIPMENT SHALL BE LOWERED TO THE RESPECTIVE EQUIPMENT MINIMUM HEIGHT WHEN NOT IN USE OR AT THE END OF EACH DAY. NOT IN USE IS DEFINED AS NO OPERATOR BEING AVAILABLE TO MOVE A PARTICULAR PIECE OF EQUIPMENT FOR 15 MINUTES OR MORE.
2. THE MAXIMUM ELEVATIONS FOR CONSTRUCTION EQUIPMENT ARE INDICATED FOR THE CONTRACTOR AND REFERS TO ALL CONSTRUCTION EQUIPMENT. CONTRACTOR SHALL NOT EXCEED THE HEIGHTS INDICATED IN THE PROJECT AREA AND SHALL AT NO TIME PENETRATE THE PART 77 PRIMARY SURFACES WITHOUT ISSUANCE OF AN APPROVED NOTAM FOR THE SPECIFIC CONSTRUCTION ACTIVITY.
3. ANY EQUIPMENT OR OBJECTS PENETRATING THE PART 77 IMAGINARY SURFACES SHALL BE COORDINATED IN ADVANCE WITH THE CONTRACTING OFFICER. OBSTRUCTIONS PENETRATING THE PART 77 SURFACES SHALL BE MARKED AND/OR LIGHTED IN ACCORDANCE WITH FAA GUIDELINES.
4. CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER 2 DAYS PRIOR TO USING ANY EQUIPMENT OVER 20 FEET IN HEIGHT FOR COORDINATION WITH NAS OCEANA AIRFIELD OPERATIONS AND AIR TRAFFIC CONTROL TOWER.
5. CONTRACTOR SHALL INCLUDE WITHIN CONTRACT DOCUMENTS THE MAXIMUM EQUIPMENT HEIGHT EXPECTED TO BE USED DURING CONSTRUCTION. FAA FORM 7460-1, NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION, SHALL BE SUBMITTED WHEN MAXIMUM EQUIPMENT HEIGHT IS EXPECTED TO PENETRATE THE PART 77 PRIMARY SURFACES. THIS FORM SHALL BE SUBMITTED TO THE FAA 30 DAYS PRIOR TO START OF CONSTRUCTION.
6. CONTRACTOR SHALL USE THE ASSIGNED STAGING AREAS FOR STOCKPILING MATERIAL AND EQUIPMENT STORAGE.
7. ALL ELEVATIONS SHOWN ON PLAN ARE MEAN SEA LEVEL (MSL).
8. TYPICAL SECTION OF PART 77 IMAGINARY SURFACES IS SHOWN AS DETAIL 1 ON THIS SHEET.
9. ONLY PART 77 CONTOURS ARE SHOWN FOR CLARITY.
10. PART 77 ELEVATIONS SHOWN CONSIDER RUNWAY 5R-23L CLOSED.

PART 77 IMAGINARY SURFACES

NTS — SECTION 1

NOTES:

1. THE ELEVATION OF ANY POINT ON THE PRIMARY SURFACE IS THE SAME AS THE THE ELEVATION OF THE NEAREST POINT ON THE RUNWAY CENTERLINE.

SYM	DESCRIPTION	DATE	APPR

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DEPARTMENT OF THE NAVY
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NAVAL FACILITIES ENGINEERING COMMAND – MID-ATLANTIC
NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
MAXIMUM EQUIPMENT HEIGHT PLAN – PHASE 2

SCALE: 1" = 400'
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691547
SHEET 14 OF 368
G-106

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0683-008-G-106.dwg LAYOUT NAME: G-106 PLOTTED: Tuesday, March 24, 2015 - 7:49am USER: kwatson

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN FEET (FT) AND INCHES (IN).

2. SUBMIT A SCHEDULE OF WORK TO THE CONTRACTING OFFICER FIFTEEN (15) DAYS PRIOR TO THE START OF CONSTRUCTION. IDENTIFY THE AREAS OF WORK AND ASSOCIATED DURATIONS REQUIRED FOR COMPLETION. THE SCHEDULE SHALL PRESENT TIME BY WEEKLY INCREMENTS.

3. CONFIRM NASO AIR SHOW AND DETACHMENT SCHEDULE AND ASSOCIATED WORK AND SCHEDULE RESTRICTIONS PRIOR TO THE START OF WORK. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE SCHEDULE WITH AIRFIELD OPERATIONS THROUGHOUT THE DURATION OF THE PROJECT. NO CONSTRUCTION ACTIVITY MAY TAKE PLACE DURING THE NASO AIR SHOW.

4. CONSTRUCTION PHASING SPECIFIES THE REQUIRED DAYTIME AND NIGHTTIME WORK SHIFTS IN ACCORDANCE WITH THE FORESEEN OPERATIONAL NEEDS OF THE AIRFIELD. NASO RETAINS THE RIGHT TO MODIFY THE DESIGNATED WORK SHIFTS TO ACCOMMODATE THE ACTUAL OPERATIONAL NEEDS OF THE AIRFIELD AT THE TIME OF CONSTRUCTION. COORDINATE PHASING REQUIREMENTS A MINIMUM OF ONE (1) WEEK PRIOR TO BEGINNING WORK IN A NEW PHASE.

5. THOROUGHLY CLEAN ALL PAVEMENT SURFACES PRIOR TO LEAVING THE WORK SITE AT THE END OF EACH WORK DAY. THE CONTRACTOR SHALL HAVE A POWER SWEEPER AND VACUUM TRUCK ON SITE DURING CONSTRUCTION.

6. MONITOR THE NAS OCEANA CONTROL TOWER FREQUENCY CONTINUOUSLY WHEN WORKING ON AIRPORT PROPERTY. FURNISH TWO (2) RADIOS FOR USE ON AIRFIELD DURING CONSTRUCTION. ADDITIONAL RADIOS SHALL BE ASSIGNED BY AIRFIELD OPERATIONS. AT THE COMPLETION OF CONSTRUCTION, TURN OVER ALL RADIOS TO AIRFIELD OPERATIONS.

7. ACCURACY OF SUBSURFACE UTILITIES SHOWN ON PLANS IS NOT GUARANTEED. UTILITY LINES ARE PROVIDED FOR THE CONTRACTORS REFERENCE ONLY. PRIOR TO ALL PAVEMENT DEMOLITION AND EARTHWORK OPERATIONS, CONTACT A UTILITY LOCATING SERVICE TO ACCURATELY IDENTIFY ALL EXISTING SUBSURFACE UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING SUBSURFACE UTILITIES THROUGHOUT CONSTRUCTION.

8. IMMEDIATELY NOTIFY AIRPORT OPERATIONS AND THE CONTRACTING OFFICER OF ANY DAMAGE TO SUBSURFACE UTILITIES DURING CONSTRUCTION. EXPEDITIOUSLY REPAIR DAMAGED UTILITIES AT THE CONTRACTOR'S EXPENSE. DAMAGE TO UTILITIES AND SUBSEQUENT REPAIR WILL NOT WARRANT A TIME EXTENSION TO THE CONTRACT.

9. FURNISH TWO (2) NEW TRAILER MOUNTED LIGHTED RUNWAY CLOSURE MARKERS FOR USE ON THE PROJECT. LIGHTED RUNWAY CLOSURE MARKINGS WILL BECOME THE PROPERTY OF THE OWNER AT THE COMPLETION OF THE PROJECT.

10. PLACE ALL RUNWAY CLOSURE MARKINGS, TAXIWAY CLOSURE MARKINGS, BARRICADES, AND OTHER TEMPORARY CONSTRUCTION SAFETY DEVICES PRIOR TO THE START OF WORK FOR EACH PHASE. MAINTAIN ALL TEMPORARY CONSTRUCTION SAFETY DEVICES FOR THE ENTIRE DURATION OF CONSTRUCTION OR AS DIRECTED BY THE CONTRACTING OFFICER.

11. NO CELL PHONES OR BASE PORTABLE RADIOS MAY BE USED WITHIN 100' OF SUSPECTED ORDINANCE OPERATIONS.

12. PROTECT ALL EXISTING FEATURES (INCLUDING, BUT NOT LIMITED TO AIRFIELD LIGHTS, AIRFIELD SIGNS, PAVEMENT, BUILDINGS, FUELING EQUIPMENT, FENCES, UTILITIES, ETC.) TO REMAIN WITHIN THE WORK AREA AND THOSE ADJACENT TO THE WORK AREA, STAGING AREA, AND HAUL ROUTE. REPAIR AND/OR REPLACE ALL DAMAGED FEATURES AT THE CONTRACTOR'S EXPENSE.

13. NOTAMS ARE REQUIRED FOR ALL WORK WITHIN THE PRIMARY SURFACE OR PART 77 TRANSITIONAL SURFACE OF AN ACTIVE RUNWAY. PROVIDE AIRPORT OPERATIONS OR THE CONTRACTING OFFICER ONE (1) WEEKS NOTICE BEFORE THE INITIAL START OF CONSTRUCTION WITHIN THESE AREAS. ONCE CONSTRUCTION IS UNDERWAY, PROVIDE 48-HOUR NOTICE FOR CONSTRUCTION IN AREAS OUTSIDE THE LIMITS OF THE CURRENT NOTAM.

14. THE CONTRACTOR MUST SUCCESSFULLY COMPLETE AIRFIELD DRIVING TRAINING.

15. ALL EMPLOYEES REQUIRING ACCESS TO THE AIRFIELD MUST RECEIVE BASE ACCESS AND FLIGHTLINE ACCESS THROUGH THE COMPLETION OF NASO ACCESS APPLICATIONS. EMPLOYEES REQUIRED TO CONDUCT HAULING OPERATIONS ON THE AIRFIELD MUST COMPLETE FLIGHT DRIVING TRAINING.

16. ALL NEW PAVEMENT AND GRADING WORK SHALL MATCH EXISTING ELEVATIONS AT THE LIMIT OF WORK OR LIMIT OF DISTURBANCE.

17. HAND EXCAVATE AROUND ALL KNOWN AND POTENTIAL EXISTING UTILITIES AND STRUCTURES.

18. REINFORCE ALL ODD-SHAPED SLABS OR SLABS WITH UTILITY PENETRATIONS WHETHER INDICATED OR NOT.

19. ACCESS AIRFIELD AT SPECIFIED GATES AND ALONG SPECIFIED HAUL ROUTES AS INDICATED ON PLANS OR AS DIRECTED BY THE CONTRACTING OFFICER.

20. CONSTRUCTION VEHICLES AND EQUIPMENT MUST YIELD TO ALL AIRFIELD OPERATIONS REGARDLESS OF THE CONSTRUCTION ACTIVITY.

21. CROSSING OF AN ACTIVE RUNWAY WITHOUT PRIOR AUTHORIZATION FROM THE TOWER IS STRICTLY PROHIBITED.

22. MATCH CONCRETE JOINTS AT THE INTERFACE BETWEEN NEW AND EXISTING PAVEMENTS, UNLESS NOTED OTHERWISE.

23. ALL DEMOLISHED CONCRETE AND ASPHALT PAVEMENT IS THE PROPERTY OF THE CONTRACTOR. STOCKPILE DEMOLISHED PAVEMENT MATERIAL IN AREAS DESIGNATED ON THE PLANS OR AS DIRECTED BY THE CONTRACTING OFFICER. CRUSH CONCRETE MATERIAL IN THE DESIGNATED LOCATION AND PLACE AS SHOULDER PAVEMENT BASE MATERIAL, GRAVEL ROADWAY, FILL MATERIAL, OR AS DIRECTED BY THE CONTRACTING OFFICER. RCC MAY NOT BE USED AS CRUSHED AGGREGATE BASE COURSE IN RUNWAY, TAXIWAY, OR HOLD AREA PAVEMENT SECTIONS.

24. ALL SUITABLE TOPSOIL AND FILL EXCAVATED FROM THE WORK AREA IS THE PROPERTY OF THE CONTRACTOR. STOCKPILE MATERIAL IN THE AREAS DESIGNATED ON THE PLANS OR AS DIRECTED BY THE CONTRACTING OFFICER. PLACE MATERIAL AS SPECIFIED IN THE PLANS AND SPECIFICATIONS.

25. CONTRACTOR IS REQUIRED TO PROTECT EXPOSED SUBGRADE MATERIAL AT ALL TIMES PROVIDE SECTION IN QUALITY CONTROL PLAN FOR SUBGRADE PROTECTION. SEE SPECIFICATIONS AND PERMITS FOR MINIMUM REQUIREMENTS.

26. ALL UNSUITABLE MATERIAL EXCAVATED FROM THE WORK AREA IS THE PROPERTY OF THE CONTRACTOR. DISPOSE OF UNSUITABLE MATERIAL IN ACCORDANCE WITH REGULATIONS OF THE LOCAL PERMITTING AGENCY.

27. DISPOSE OF ALL STOCKPILED SUITABLE AND UNSUITABLE MATERIAL REMAINING AT THE END OF THE CONTRACT AND NO LONGER OF USE FOR NASO IN ACCORDANCE WITH THE REGULATIONS OF THE LOCAL PERMITTING AGENCY.

28. PROVIDE SHEETING AND SHORING FOR ALL TRENCHES AND EXCAVATIONS AS NECESSARY IN ACCORDANCE WITH OHSA REGULATIONS.

29. EXISTING PAVEMENT CONDITIONS NOT INCLUDED ON THE GEOTECHNICAL PLANS AND DETAILS ARE REPRESENTATIVE OF THE CONSTRUCTION HISTORY DATA AVAILABLE IN THE NASO AIRFIELD PAVEMENT CONDITION SURVEY PREPARED BY NAVFAC DATED FEBRUARY 2011.

30. PRIOR TO WORK AT THE ARRESTING GEAR AND FLOLS PADS, NASO AIR OPERATIONS WILL REMOVE THE ARRESTING GEAR PENDANT AND FLOLS EQUIPMENT. NASO AIR OPERATIONS WILL REPLACE THE ARRESTING GEAR PENDANT AND FLOLS EQUIPMENT UPON COMPLETION OF CONSTRUCTION.

31. CONTRACTOR SHALL PROVIDE MEANS TO PROTECT AND MAINTAIN EXCAVATED AREAS. DEWATERING SHALL BE PROVIDED; SEE SPECIFICATION 31 23 00.00 20 FOR REQUIREMENTS TO MAINTAIN EXCAVATED AREAS AT ALL TIMES, AT NO ADDITIONAL COST TO THE GOVERNMENT. SEE SHEETS C-531 TO C-533 FOR EROSION CONTROL NOTES AND DEVICES.

32. NON-POTABLE WELL:

GOVERNMENT PROVIDED POTABLE WATER WILL NOT BE AVAILABLE FOR THE CONTRACTOR'S ACTIVITIES REQUIRING OR ALLOWING USE OF NON-POTABLE WATER. CONTRACTOR SHALL CONSTRUCT A NON-POTABLE WELL OF SUFFICIENT CAPACITY FOR ALL CONSTRUCTION ACTIVITIES FOR USE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TESTING REQUIRED TO INSURE THE NON-POTABLE WATER IS OF ADEQUATE PURITY FOR HIS ACTIVITIES REQUIRING NON-POTABLE WATER. THE LOCATION OF THE WELL SHALL BE IN ACCORDANCE WITH VIRGINIA DEPARTMENT OF HEALTH (VDH) REQUIREMENTS AND SUBJECT TO THE APPROVAL OF THE CONTRACTING OFFICER. IF THE CONTACTOR ANTICIPATES MONTHLY USAGES OVER 300,000 GALLONS, HE WILL NEED TO OBTAIN A GROUND WATER WITHDRAWAL PERMIT FROM THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITTING, COMPLIANCE, TESTING, MONITORING, REPORTING, POWER, OPERATION, MAINTENANCE AND ALL OTHER REQUIREMENTS DURING THE USE OF THE WELL. FOLLOWING CONSTRUCTION ACTIVITIES THE CONTRACTOR SHALL ABANDON THE WELL IN COMPLIANCE WITH THE APPROVED PERMIT AND/OR DEQ REQUIREMENTS. THE GOVERNMENT WILL PROVIDE WATER FOR DRINKING AND OTHER USES REQUIRING POTABLE WATER SUBJECT TO THE RATES AND REQUIREMENTS DESCRIBED IN THE SPECIFICATIONS.

SURVEY NOTES:

1. THE MERIDIAN SOURCE FOR THIS TOPOGRAPHIC SURVEY IS BASED ON PUBLISHED NAS OCEANA SURVEY CONTROL, AS PROVIDED, AND IS REFERENCED TO THE VIRGINIA SOUTH ZONE STATE PLANE COORDINATE SYSTEM (ZONE 4502) NAD 1983/1993, US SURVEY FOOT. REFERENCE CONTROL STATIONS OCN2 AND OCN10.

2. ELEVATIONS SHOWN HEREON ARE BASED ON NAS OCEANA SURVEY CONTROL, AS PROVIDED, AND IS REFERENCED TO NAVD 1988, US SURVEY FOOT. REFERENCE CONTROL STATIONS OCN2 AND OCN10.

3. THIS SURVEY WAS PREPARED TO SHOW THE EXISTING FEATURES AT THE TIME THE SURVEY WAS CONDUCTED. THIS SURVEY DOES NOT GUARANTEE AS TO THE ACCURACY OF PROPOSED OR FUTURE ITEMS WHICH ARE SHOWN ON THE DRAWING OR ANY FEATURES OBSERVED DURING CONSTRUCTION THAT WERE CONSTRUCTED AFTER THE SPECIFIED DATES OF SURVEY FOR THIS PROJECT.

4. SUBSURFACE UTILITY ENGINEERING (SUE) SURVEY WAS CONDUCTED FOR THIS PROJECT AND INCORPORATED INTO THESE PLANS. SUE SURVEY WAS COMPLETED DURING THE PERIOD OF TIME SPECIFIED ON THIS SHEET AND REPRESENTS THE EXISTING CONDITIONS AT THE TIME OF THE SURVEY. THE ACCURACY OF THE UTILITIES DEPICTED AS A RESULT OF THE SUE SURVEY IS NOT GUARANTEED. THE FULL EXTENT OF EXISTING UTILITIES SHOWN ON THESE PLANS INCLUDE DATA COLLECTED FROM THE SUE SURVEY, AS-BUILT DRAWINGS PROVIDED BY NAVFAC MIDLANT, AND GIS DATA AVAILABLE THROUGH THE STATE OF VIRGINIA.

5. TOPOGRAPHIC SURVEY:

   JOHNSON, MIRMIRAN & THOMPSON
   272 Bendix Road, Suite 260
   Virginia Beach, VA 23452
   757-387-7048

6. AERIAL SURVEY:

   AXIS GEOSPATIAL LLC
   101 BAY ST
   EASTON, MD 21601
   410-822-1441
   DATE OF AERIAL LIDAR SCAN: APRIL 2, 2014

7. TOPOGRAPHY SHOWN IS BASED ON AERIAL SURVEYS. CONVENTIONAL GROUND SURVEYS WERE CONDUCTED AT CERTAIN LOCATIONS (NEW LIGHTING VAULT E-101, E-1120 & E-3036 AND OTHER AREAS OUTSIDE THE AERIAL LIMITS). CAD LAYER NAMING CONVENTIONS REFLECT OBJECT ORIGINATION AS AERIAL OR CONVENTIONAL

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J. TIGER
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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 TLO

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
GENERAL AND SURVEY NOTES

SCALE: 1" = 500'

EPROJECT NO.: 1291651

CONSTR. CONTR. NO.

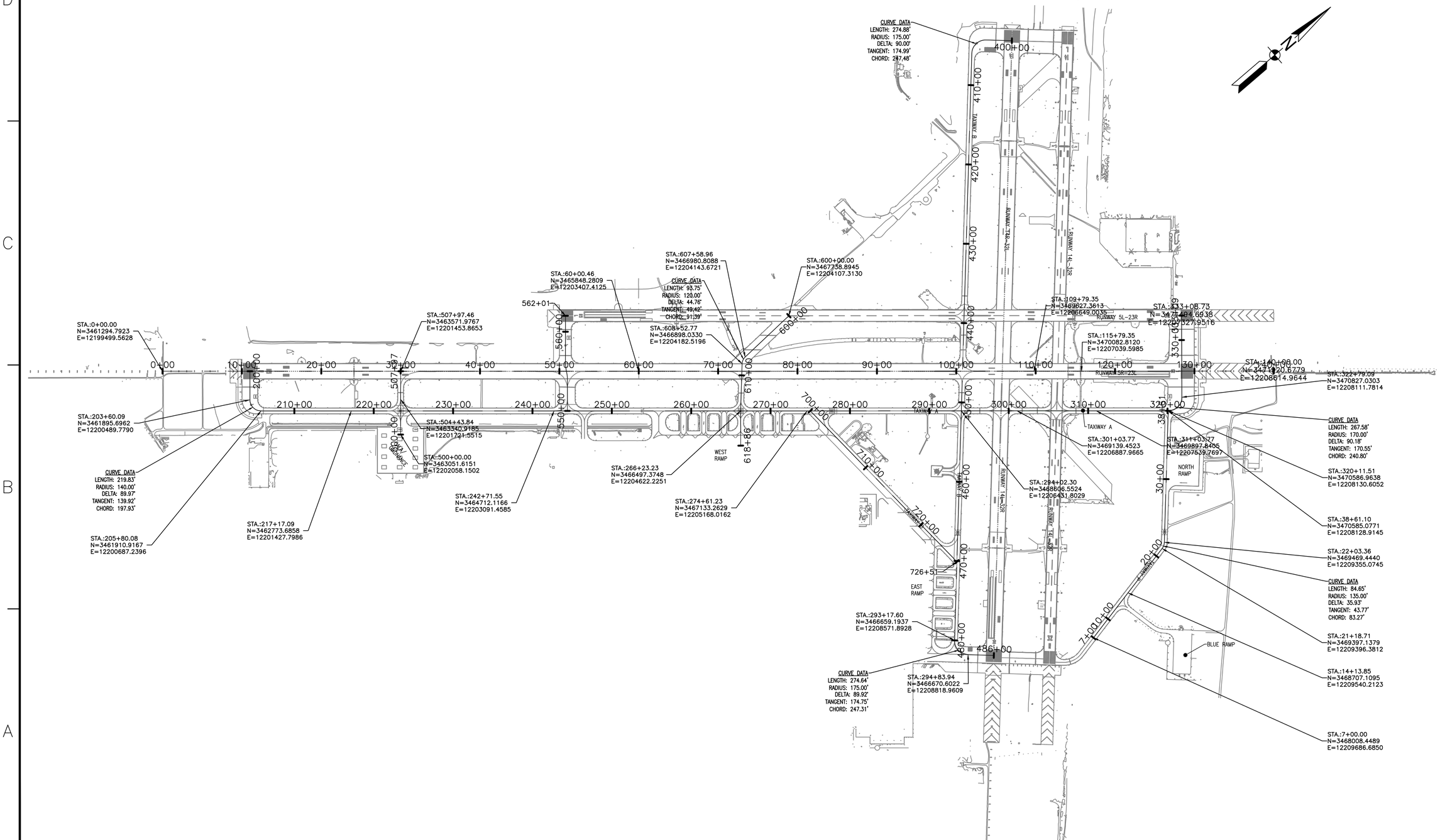
NAVFAC DRAWING NO. 12691548

SHEET 15 OF 368

G-107

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0683-008-G-107.dwg LAYOUT NAME: G-107 PLOTTED: Tuesday, March 24, 2015 - 7:49am USER: kwatson



APPR	DATE	DESCRIPTION	SYM

NAVFAC

Mark Tiger

MARK J TIGER
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PM/DM

BRANCH MANAGER TLO

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
HORIZONTAL AND VERTICAL CONTROLS

SCALE: 1" = 400'

EPROJECT NO.: 1291651

CONSTR. CONTR. NO.

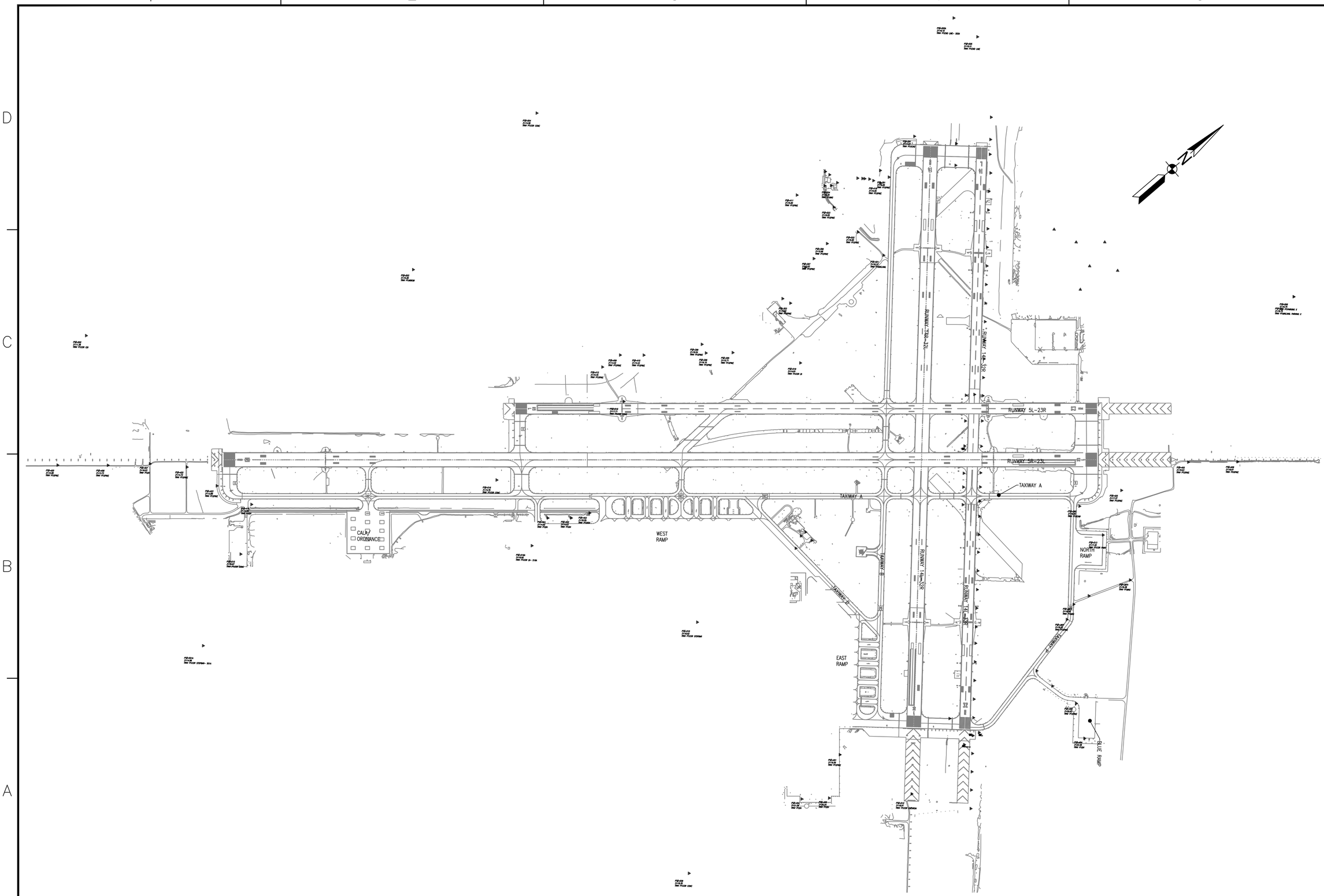
NAVFAC DRAWING NO.
12691549

SHEET 16 OF 368

G-108

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0683-008-G-108.dwg LAYOUT NAME: G-108 PLOTTED: Tuesday, March 24, 2015 - 7:50am USER: kwatson



SYM	DESCRIPTION	DATE	APPR

NAVFAC

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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
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NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
TEMPORARY BENCHMARK SURVEY CONTROL PLAN

SCALE: 1" = 400'

EPROJECT NO.: 1291651

CONSTR. CONTR. NO.

NAVFAC DRAWING NO.
12691550

SHEET 17 OF 368

G-109

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0683-008-G-109.dwg LAYOUT NAME: G-109 PLOTTED: Tuesday, March 24, 2015 - 7:51pm USER: kwatson

BORING, CORING, AND WATER MONITORING LOCATIONS

ID	NORTHING	EASTING
C-1	3471945.01	12203499.81
C-2*	3471967.50	12203893.40
C-3	3471390.38	12204124.14
C-4*/WMS-1	3471298.13	12204784.98
C-5*	3469950.44	12204422.70
C-6	3470917.46	12205255.50
C-7	3471500.38	12206036.62
C-8	3468768.20	12204030.54
C-9*	3469200.35	12204631.47
C-10	3468265.78	12204977.11
C-11	3463784.10	12201627.11
C-12	3466515.27	12203951.30
C-13	3469328.27	12206379.69
C-14	3470666.70	12207490.37
C-15	3469316.73	12206795.92
C-16*	3469351.76	12208041.78
C-17	3467708.32	12208192.91
C-18	3467402.61	12208540.33
B-1	3461601.47	12201266.07
B-2	3461556.69	12201283.80
B-3	3467436.36	12206131.28
B-4	3467416.41	12206175.12
B-5	3471015.28	12208863.73
DCP-5	3470936.2000	12208987.9000
WMS-2	3468705.16	12208974.60
WMS-3	3466163.68	12203265.14

* DENOTES CORING LOCATIONS WITH 4" TO 6" OF TOPSOIL OVER PAVEMENT

NOTES

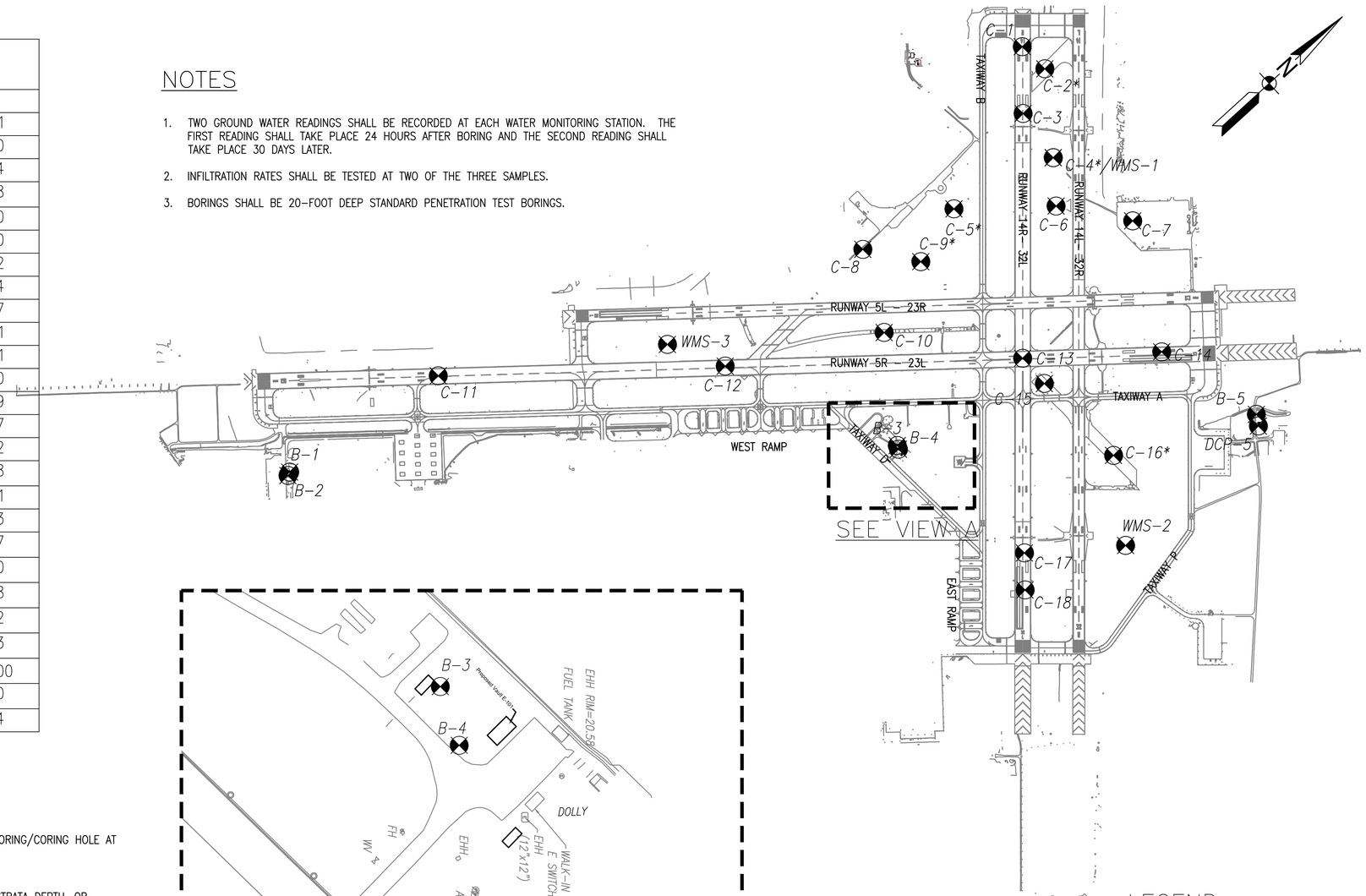
1. TWO GROUND WATER READINGS SHALL BE RECORDED AT EACH WATER MONITORING STATION. THE FIRST READING SHALL TAKE PLACE 24 HOURS AFTER BORING AND THE SECOND READING SHALL TAKE PLACE 30 DAYS LATER.
2. INFILTRATION RATES SHALL BE TESTED AT TWO OF THE THREE SAMPLES.
3. BORINGS SHALL BE 20-FOOT DEEP STANDARD PENETRATION TEST BORINGS.

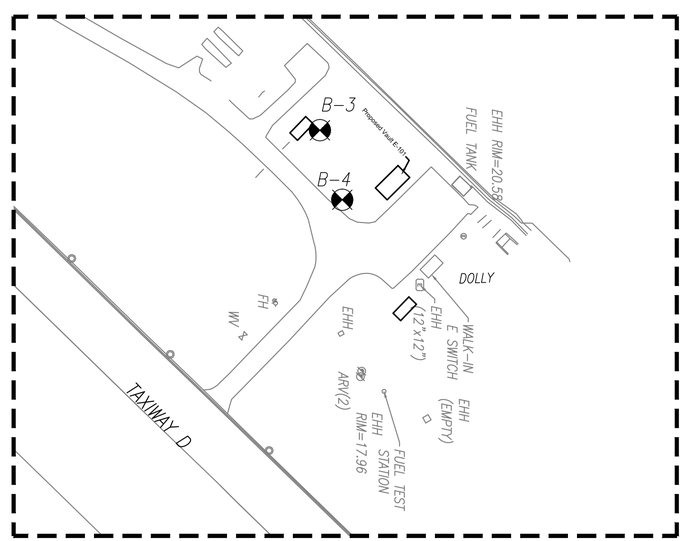
GEOTECHNICAL INVESTIGATION NOTES:

1. BORINGS AND CORINGS REPRESENT THE CONDITIONS WITHIN THE BORING/CORING HOLE AT THE TIME OF DRILLING.
2. DATA PROVIDED DOES NOT GUARANTEE SUBSURFACE CONDITIONS, STRATA DEPTH, OR PAVEMENT THICKNESS AT, ADJACENT TO, AND BETWEEN BORINGS AND CORINGS AT THE TIME OF CONSTRUCTION.
3. DATA IS PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY. VARIABILITY BETWEEN SUBSURFACE CONDITIONS, AND PAVEMENT DEPTHS AND TYPES MAY EXIST.

SITE PREPARATION NOTES:

1. DEVELOP AND IMPLEMENT A FIELD TESTING PROGRAM THAT INCLUDES SUBGRADE LOAD TESTING (PROOFROLLING) AND COMPACTION TESTING AT A MINIMUM. SUBMIT FIELD TESTING PROGRAM TO THE CONTRACTING OFFICER A MINIMUM OF ONE (1) WEEK PRIOR TO THE START OF CONSTRUCTION.
2. UNDERCUT POOR SUBGRADE SOILS IDENTIFIED BY THE FIELD TESTING PROGRAM OR AS DIRECTED BY THE CONTRACTING OFFICER WITHIN THE LIMITS OF PAVEMENT CONSTRUCTION. CONDUCT PROOFROLLING UNDER THE SUPERVISION OF THE CONTRACTING OFFICER'S GEOTECHNICAL REPRESENTATIVE. WHEN DIRECTED BY THE CONTRACTING OFFICER, UNDERCUT A MINIMUM DEPTH OF ONE (1) FOOT.





VIEW A

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

LEGEND

- B-# -BORING
- C-# -CORING
- WMS-# -WATER MONITORING STATION

GRAPHIC SCALE

1"=800' 0 800' 1,600' 3,200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL AIR STATION OCEANA - VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
ENERGY AND RELIABILITY
GEOTECHNICAL INVESTIGATION LOCATION PLAN

SCALE: 1" = 800'
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691551
SHEET 18 OF 368
B-001
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHFA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-B-001.dwg LAYOUT NAME: B-001 PLOTTED: Tuesday, March 24, 2015 - 8:49am USER: kwatson

BORING ID: B-1

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
		0.3 3" Topsoil				
		Gray, moist, Lean CLAY (CL) with trace organics and trace to some Sand, stiff 0-2 ft below grades: PP=2.25 tsf; Torvane=0.64 tsf 2-4 ft below grades: PP=1.1 tsf; Torvane=0.55 tsf	1		20	2-5-5-5 (10)
			2		20	6-7-7-6 (14)
10		4.0 Gray, wet, Silty-Clayey fine SAND (SC-SM), loose	3		24	6-5-4-2 (9)
	5	6.0 Gray, wet, Clayey fine SAND (SC), loose	4		24	2-2-4-5 (6)
		8.0 Gray, wet, Poorly graded fine SAND (SP), loose to medium dense	5		15	2-5-5-9 (10)
5	10		6		15	4-12-15-18 (27)
0	15		7		12	6-6-7-7 (13)
		16.5 Gray, wet, Sandy Lean CLAY (CL), very soft to medium stiff 18-20 ft below grades: PP=0.1 tsf	8		24	1-1-1-1 (2)
-5	20					
-10		24.0	9		20	2-3-2-5 (5)
	25	25.0 Gray, wet, Silty fine SAND (SM), loose Boring terminated at 25 feet below existing grade.				

BORING ID: B-2

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
		0.3 3" Topsoil				
		Tan and gray, moist, Lean CLAY (CL) with trace to some Sand, medium stiff to stiff 2-4 ft below grades: PP=1.4 tsf; Torvane=0.5 tsf	1		20	2-4-4-4 (8)
			2		20	3-4-4-5 (8)
		4-6 ft below grades: PP=0.5 tsf	3		24	5-5-4-3 (9)
10	5	6.0 Gray, moist to wet, Sandy Lean CLAY (CL), medium stiff	4		24	3-2-3-4 (5)
		8.0 Gray, wet, Poorly graded fine SAND (SP), loose to medium dense	5		18	3-5-8-14 (13)
5	10		6		20	4-9-11-13 (20)
0	15		7		15	7-5-4-3 (9)
		18.0 Gray, wet, Sandy Lean CLAY (CL), very soft Shelby Tube recovered from 18' to 20' below grade 18-20 ft below grades: PP=0.1 tsf	8		24	1-1-1-1 (2)
-5	20					
		23.0 Gray, wet, Silty fine SAND (SM), loose	9		20	3-4-4-5 (8)
-10	25	25.0 Boring terminated at 25 feet below existing grade.				

BORING ID: B-3

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
		0.3 3" Topsoil				
15		Gray, moist, Lean CLAY (CL), medium stiff to stiff 2-4 ft below grades: PP=1.0 tsf; Torvane=0.4 tsf	1		20	3-4-4-3 (8)
			2		24	3-4-4-4 (8)
	5	5.5 Gray, moist, Silty-Clayey fine SAND (SC-SM), medium dense	3		24	3-4-7-8 (11)
10		6.0 Gray, wet, Poorly graded fine SAND (SP), medium dense to dense	4		24	5-6-7-7 (13)
	10		5		15	3-7-8-10 (15)
5			6		20	6-11-16-18 (27)
			7		18	6-7-8-8 (15)
0	15					
			8		20	10-18-21-22 (39)
-5	20					
		23.0 Gray, wet, Lean CLAY (CL) with little Sand, very soft 23-25 ft below grades: PP=0.1 tsf	9		24	0-0-2-2 (2)
	25	25.0 Boring terminated at 25 feet below existing grade.				

BORING ID: B-4

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
		0.3 3" Topsoil				
		Brown, moist, Clayey fine SAND (SC), with trace concrete fragments and trace organics, medium dense "FILL"	1		12	7-8-5-6 (13)
		2.0 Tan, moist to wet, Lean CLAY (CL), medium stiff to stiff 2-4 ft below grades: PP=0.5 tsf	2		12	6-6-5-4 (11)
15		4-6 ft below grades: PP=1.4 tsf; Torvane=0.64 tsf	3		24	3-3-2-2 (5)
	5	7.0 Tan to gray, wet, Poorly graded fine SAND (SP), medium dense to dense	4		24	4-6-9-12 (15)
10			5		15	5-9-11-12 (20)
	10		6		18	4-11-17-18 (28)
5			7		12	10-11-11-11 (22)
	15					
0			8		18	10-21-24-26 (45)
	20					
-5		23.0 Gray, wet, Sandy Lean CLAY (CL), very soft Shelby Tube recovered from 23' to 25' below grade	9		24	1-1-1-1 (2)
	25	25.0 Boring terminated at 25 feet below existing grade.				

BORING ID: B-5

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
		0.6 7.5" Concrete				
		0.7 1" SAND-"FILL" Tan and gray, moist, Lean CLAY (CL), stiff to very stiff 2-4 ft below grades: PP=3.75 tsf; Torvane=0.46 tsf	1		15	5-6
			2		20	4-4-8-9 (12)
10	5	5.5	3		24	8-9-12-16 (21)
		6.0 Tan to gray, moist, Poorly graded fine SAND (SP-SM) with Silt, medium dense Tan to reddish tan, moist to wet, Poorly graded SAND (SP), medium dense	4		24	13-13-12-18 (25)
			5		12	6-11-10-11 (21)
5	10	10.0 Gray, wet, Silty fine SAND (SM), loose	6		18	3-4-2-3 (6)
		12.5 Gray, wet, Poorly graded fine SAND (SP), medium dense to dense	7		15	6-8-10-9 (18)
0	15					
			8		12	3-4-8-10 (12)
-5	20					
			9		24	10-23-27-24 (50)
-10	25	25.0 Boring terminated at 25 feet below existing grade.				

BORING ID: WMS-1

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
		1.1 14" Asphalt Pavement				
		1.4 3" Aggregate Base Material				
		2.0 Gray, moist, Clayey fine SAND (SC), very loose "FILL"	1		7	1-3
		Gray, moist to wet, Lean CLAY (CL) with trace to little Sand, medium stiff to stiff 2-4 ft below grades: PP=1.5 tsf 4-6 ft below grades: PP=1.25 tsf	2		18	3-4-5-5 (9)
15	5		3		24	2-3-3-4 (6)
		6-8 ft below grades: PP=1.0 tsf	4		20	3-3-5-6 (8)
		9.0 Tan to gray, wet, Poorly graded fine SAND (SP) with trace Clay, medium dense	5		24	3-6-8-12 (14)
10	10		6		24	9-12-14-18 (26)
			7		24	12-14-14-18 (28)
5	15	15.0 Boring terminated at 15 feet below existing grade.				

APPR	DATE	DESCRIPTION
SYM		

NAVFAC

Mark J. Tiger
REGISTERED PROFESSIONAL ENGINEER
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VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
BORING AND CORING DETAILS – SHEET 1

SCALE: 1" = 800'
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691552
SHEET 19 OF 368
BB201
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-BB-201.dwg LAYOUT NAME: BB201 PLOTTED: Tuesday, March 24, 2015 - 7:44am USER: mcosenza

BORING ID: WMS-2

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	0.3	3" Topsoil					
		Gray, moist, Lean CLAY (CL) with little Sand, medium stiff to very stiff 2-4 ft below grades: PP=1.5 tsf		1		18	2-6-5-5 (11)
				2		8	3-3-4-5 (7)
15		4-6 ft below grades: PP=1.75 tsf		3		24	7-8-10-12 (18)
	5 5.5						
	6.0	Tan, moist, Silty fine SAND (SM), medium dense					
		Tan to gray, moist to wet, Poorly graded fine SAND (SP), loose to medium dense		4		24	9-12-14-11 (26)
10				5		24	3-5-6-11 (11)
	10			6		24	4-3-3-2 (6)
5				7		24	6-3-4-3 (7)
	15 15.0	Boring terminated at 15 feet below existing grade.					

BORING ID: WMS-3

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	Blow Counts (N-Values)
	0.3	3" Topsoil					
15		Gray, moist, Fat CLAY (CH) with trace Sand and fibrous organics, medium stiff to stiff 0-2 ft below grades: PP=1.0 tsf 2-4 ft below grades: PP=2.25 tsf		1		20	3-4-4-5 (8)
				2		20	3-3-4-5 (7)
				3		20	4-4-5-6 (9)
	5 5.5						
	6.0	Gray, moist to wet, Silty fine SAND (SM), loose					
10		Tan to gray, wet, Poorly graded fine SAND (SP), medium dense		4		24	7-8-9-10 (17)
				5		24	8-8-10-12 (18)
	10			6		24	10-12-17-16 (29)
5							
				7		24	6-7-13-18 (20)
	15 15.0	Boring terminated at 15 feet below existing grade.					

BORING ID: DCP-5

Elevation (ft)	Depth (ft)	STRATA DESCRIPTION	Strata Legend	Sample ID	Sample Type	Sample Recovery (in.)	DCP Blow Counts (est. N-Values)
	0.3	4" Topsoil					
		Gray, moist, Lean CLAY (CL) with little Sand, trace fine Gravel and trace organics, stiff-FILL		1			17-33-29 (14)
	1 1.0						
		Gray, moist, Lean CLAY (CL) with little to some Sand, medium stiff to stiff		2			21-21-16 (12)
	2			3			13-9-8 (7)
	3			4			12-13-12 (9)
	4 4.0						
		Gray, moist to wet, Poorly graded fine to medium SAND (SP), medium dense		5			17-30-38 (13)
10	5			6			40-50 (14)
	6			7			0
	7			8			0
	8			9			0
	9			10			0
	10 10.0	Boring terminated at 10 feet below existing grade.					

Sample Type(s):

CORING ID: C-1

Depth (ft)	STRATA DESCRIPTION	Strata Legend
	13.5" Concrete	
	1.1	
	7" Aggregate Base	
	0.7	
	Brown, moist, Sandy lean CLAY(CL)	

CORING ID: C-2

Depth (ft)	STRATA DESCRIPTION	Strata Legend
	8" Topsoil	
	0.7	
	7" Concrete	
	0.6	
	Tan, moist, poorly graded fine SAND (SP-SM) with silt	

CORING ID: C-3

Depth (ft)	STRATA DESCRIPTION	Strata Legend
	14" Concrete	
	1.2	
	8" Aggregate Base	
	0.7	

CORING ID: C-4

Depth (ft)	STRATA DESCRIPTION	Strata Legend
	13.5" Asphalt	
	1.1	
	Gray, moist, clayey fine SAND (SC)	

CORING ID: C-5

Depth (ft)	STRATA DESCRIPTION	Strata Legend
	7" Topsoil	
	0.7	
	9" Asphalt	
	0.8	

CORING ID: C-6

Depth (ft)	STRATA DESCRIPTION	Strata Legend
	7.5" Asphalt	
	0.6	
	Gray, moist, clayey fine SAND (SC)	

CORING ID: C-7

Depth (ft)	STRATA DESCRIPTION	Strata Legend
	5.5" Concrete	
	0.5	
	Gray, moist, lean CLAY(CL)	

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/QM
BRANCH MANAGER TLD for JMW
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
BORING AND CORING DETAILS – SHEET 2

SCALE: 1" = 800'
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691553
SHEET 20 OF 368
BB202
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-BB-202.dwg LAYOUT NAME: BB202 PLOTTED: Tuesday, March 24, 2015 - 7:44am USER: mcosenza

CORING ID: C-8

Depth (ft)	STRATA DESCRIPTION	Strata Legend
0.3	4" Asphalt	
0.6	7" Concrete	

CORING ID: C-9

Depth (ft)	STRATA DESCRIPTION	Strata Legend
0.3	3" Topsoil	
0.4	5" Concrete	

CORING ID: C-10

Depth (ft)	STRATA DESCRIPTION	Strata Legend
0.6	7.5" Concrete	

CORING ID: C-11

Depth (ft)	STRATA DESCRIPTION	Strata Legend
1.2	14.5" Concrete	
0.7	7" Aggregate Base	

CORING ID: C-12

Depth (ft)	STRATA DESCRIPTION	Strata Legend
1.2	13.5" Asphalt	
0.5	5" Stone/Tar	
0.7	8" Crushed Asphalt	
1.1	13.5" Concrete	

CORING ID: C-13

Depth (ft)	STRATA DESCRIPTION	Strata Legend
0.3	3" Asphalt	
0.5	6" Stone/Tar	
0.9	11" Crushed Asphalt	

CORING ID: C-14

Depth (ft)	STRATA DESCRIPTION	Strata Legend
1.1	13" Concrete	
0.7	7" Aggregate Base	

CORING ID: C-15

Depth (ft)	STRATA DESCRIPTION	Strata Legend
0.4	5" Topsoil	
0.5	6.5" Concrete	
	Tan and gray, moist Poorly graded fine SAND (SP) with trace of clay	

CORING ID: C-16

Depth (ft)	STRATA DESCRIPTION	Strata Legend
0.5	6" Topsoil	
0.7	8" Concrete	
	2" Tan, moist, poorly graded fine SAND (SP) followed by gray, moist, lean CLAY (CL)	

CORING ID: C-17

Depth (ft)	STRATA DESCRIPTION	Strata Legend
1.2	14" Concrete	
0.5	6" Aggregate Base	

CORING ID: C-18

Depth (ft)	STRATA DESCRIPTION	Strata Legend
1.2	14.5" Concrete	
0.3	4" Aggregate Base	

SYM	DESCRIPTION	DATE	APPR

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A/E INFO

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CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
HR IPT
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
BORING AND CORING DETAILS – SHEET 3

SCALE: 1" = 800'

EPROJECT NO.: 1291651

CONSTR. CONTR. NO.

NAVFAC DRAWING NO.
12691554

SHEET 21 OF 368

BB203

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-BB-203.dwg LAYOUT NAME: BB203 PLOTTED: Tuesday, March 24, 2015 - 7:44am USER: mcosenza

LEGEND (CIVIL)

EXISTING

- PCC PAVEMENT DEMOLITION
- AC PAVEMENT DEMOLITION
- AC MILL
- EXISTING CONCRETE
- UNK. VAULT
- UNK. CAP
- CIRCULAR DI
- RECTANGULAR DI
- CONFLICT MANHOLE
- STORM CLEANOUT
- SW — EXISTING STORMWATER PIPE
- UNK. MANHOLE
- 15" C.M.P. — EXISTING CMP STORM WATER PIPE
- 15" CONC. — EXISTING CONCRETE STORM WATER PIPE
- C — EXISTING COMMUNICATION CONDUIT
- EXISTING SANITARY FORCE MAIN
- 18.0 — MAJOR EXISTING CONTOUR
- 18.2 — MINOR EXISTING CONTOUR
- SIGN
- TEMPORARY BENCHMARK
- DITCH CENTERLINE

PROPOSED

- IDLE PAVEMENT REMOVAL
- PCC AIRFIELD PAVEMENT
- AC AIRFIELD PAVEMENT
- CRACK REPAIR AND FOG SEAL
- UTILITY TRENCH PAVEMENT PATCH
- 18.0 — MAJOR PROPOSED CONTOUR
- 18.2 — MINOR PROPOSED CONTOUR
- 10+00 — RUNWAY/TAXIWAY BASELINE
- IP — INLET PROTECTION
- AIRFIELD SIGN
- PHASES 3 AND 4 (NOT IN CONTRACT)
- STA:10+00.00 OFF:-75.00 (NEGATIVE OFFSET) — STATION AND OFFSET CALLOUT. NEGATIVE OFFSET REPRESENTS POINTS TO THE LEFT OF THE REFERENCED BASELINE WHEN READING STATIONS IN THE INCREASING DIRECTION.
- STA:10+00.00 OFF:75.00 (POSITIVE OFFSET) — STATION AND OFFSET CALLOUT. POSITIVE OFFSET REPRESENTS POINTS TO THE RIGHT OF THE REFERENCED BASELINE WHEN READING STATIONS IN THE INCREASING DIRECTION.

NOTES:
1. SEE E-001 FOR ELECTRICAL LEGEND
2. SEE E-002 FOR ELECTRICAL ABBREVIATIONS

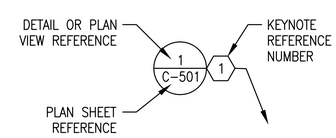
ABBREVIATIONS (CIVIL)

ALCMS	AIRFIELD LIGHTING CONTROL & MONITORING SYSTEM
AC	ASPHALTIC CONCRETE
A/G	ARRESTING GEAR
APPROX.	APPROXIMATE
℄	BASELINE
B	BORING
BIT	BITUMINOUS
BLDG	BUILDING
BTM	BOTTOM
C	CORE
CABC	CRUSHED AGGREGATE BASE COURSE
CALA	COMBAT AIRCRAFT LOADING AREA
℄	CENTERLINE
CMP	CORRUGATED METAL PIPE
CO	STORM OR SANITARY CLEANOUT
CONC	CONCRETE
CRC	CONTINUOUSLY REINFORCED CONCRETE
CTB	CEMENT TREATED BASE COURSE
CY	CUBIC YARD
D	DELTA
DI	DROP INLET
DIA	DIAMETER
E	EASTING
EG	EXISTING GRADE
EL	ELEVATION
ELEC	ELECTRICAL
EOP	EDGE OF PAVEMENT
EXIST	EXISTING
FG	FINISHED GRADE
FLOLS	FRESNEL LENS OPTICAL LANDING SYSTEM
FT	FEET
H	THICKNESS
HA	HOLD APRON
INV	INVERT
IFLOLS	IMPROVED FRESNEL LENS OPTICAL LANDING SYSTEM
IP	INLET PROTECTION
JT	JOINT
L	LENGTH
LF	LINEAR FOOT
L/P	LIGHT POLE
LCJ	LONGITUDINAL CONTRACTION JOINT
LKJ	LONGITUDINAL CONSTRUCTION JOINT
LOD	LIMIT OF DISTURBANCE
LT	LEFT
(MAX)	MAXIMUM
MG	MATCH EXISTING GRADE
MH	MANHOLE
(MIN)	MINIMUM
MW	MONITORING WELL.
N	NORTHING
N/A	NOT APPLICABLE
NASO	NAVAL AIR STATION OCEANA
NIC	NOT IN CONTRACT
OC	ON CENTER
OFF	OFFSET
PAV'T	PAVEMENT
PC	POINT OF CURVE
PCC	PORTLAND CEMENT CONCRETE
P/P	POWER/UTILITY POLE
PT	POINT OF TANGENT
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
R	RADIUS
R&C	IRON ROD CAP
RT	RIGHT
RW	RUNWAY
SCH	SCHEDULE
SDMH	STORM DRAIN MANHOLE
SF	SQUARE FOOT/SILT FENCE
SMA	STONE MATRIX ASPHALT
SSMH	SANITARY SEWER MANHOLE
STA	STATION
SW	STORMWATER
SY	SQUARE YARD
TBM	TEMPORARY BENCHMARK
TCJ	TRANSVERSE CONTRACTION JOINT
TE	THICKENED EDGE
TE/EJ	THICKENED EDGE EXPANSION JOINT
TG	TOP OF GRATE
TR	TOP OF RIM
TKJ	TRANSVERSE CONSTRUCTION JOINT
TW	TAXIWAY
(TYP)	TYPICAL
UGE	UNDERGROUND ELECTRICAL
UNK	UNKNOWN
WWF	WELDED WIRE FABRIC
Δ	TOTAL CENTRAL ANGLE
0.00	EXISTING SPOT ELEVATION (HARD SURFACE)
0.0	EXISTING SPOT ELEVATION (GROUND SURFACE)

DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT PAVEMENT
6. REMOVE PCC PAVEMENT (FULL DEPTH)
7. REMOVE AC PAVEMENT (FULL DEPTH)
8. EXCAVATE 1' DEEP BEFORE PLACING CABC
9. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
10. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
11. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
12. REMOVE AC SHOULDER
13. PROTECT EXISTING STRUCTURE TO REMAIN
14. PROTECT CONCRETE TO REMAIN
15. REMOVE IDLE PAVEMENT AREAS
16. REMOVE AC-MILLING SHOULDER. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER.
17. RM 10-9004 SCOPE REVISES RUNWAY-RUNWAY INTERSECTION PAVEMENT FROM AC TO PCC. DEMOLITION LIMITS MAY VARY DEPENDENT ON RM 10-9004 SCHEDULE PROGRESS. ADJUST DEMOLITION LIMIT TO MATCH EXISTING AC-PCC LOCATION.
18. REMOVE AC PAVEMENT AROUND EXISTING LIGHT BASE

SAMPLE DEMOLITION KEYNOTE CALLOUT

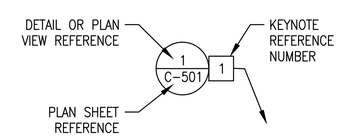


NOTES:
1. EXCAVATION AND SUBGRADE PREPARATION IS NOTED WITH DEMOLITION NOTES.
2. SEE ELECTRICAL PLANS FOR ADDITIONAL CONSTRUCTION TASKS
3. SEE E-002 FOR ELECTRICAL CONSTRUCTION KEYNOTES

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT AGGREGATE SUBBASE COURSE
6. CONSTRUCT CEMENT TREATED BASE COURSE
7. CONSTRUCT PCC AIRFIELD PAVEMENT
8. CONSTRUCT AC AIRFIELD PAVEMENT
9. CONSTRUCT AC SHOULDER PAVEMENT
10. CONSTRUCT PCC UTILITY TRENCH
11. CONSTRUCT AC UTILITY TRENCH
12. REGRADE SHOULDERS AND INFIELDS
13. PROVIDE 4" TOPSOIL AND SEED AREAS DISTURBED DURING CONSTRUCTION
14. PROTECT STRUCTURE TO REMAIN
15. PROTECT CONCRETE TO REMAIN
16. PROVIDE CONCRETE ENCASED DUCTBANK. SEE ELECTRICAL SHEETS FOR DETAILS.

SAMPLE CONSTRUCTION KEYNOTE CALLOUT



APPR	DATE	DESCRIPTION	SYM

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 BJC
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA - VIRGINIA BEACH, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
CIVIL CONSTRUCTION KEY NOTES, LEGEND, AND ABBREVIATIONS

SCALE: AS NOTED
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691555
SHEET 22 OF 368
C-001

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-001.dwg LAYOUT NAME: C-001 PLOTTED: Tuesday, March 24, 2015 - 9:35am USER: kwilson

DEMOLITION KEYNOTES

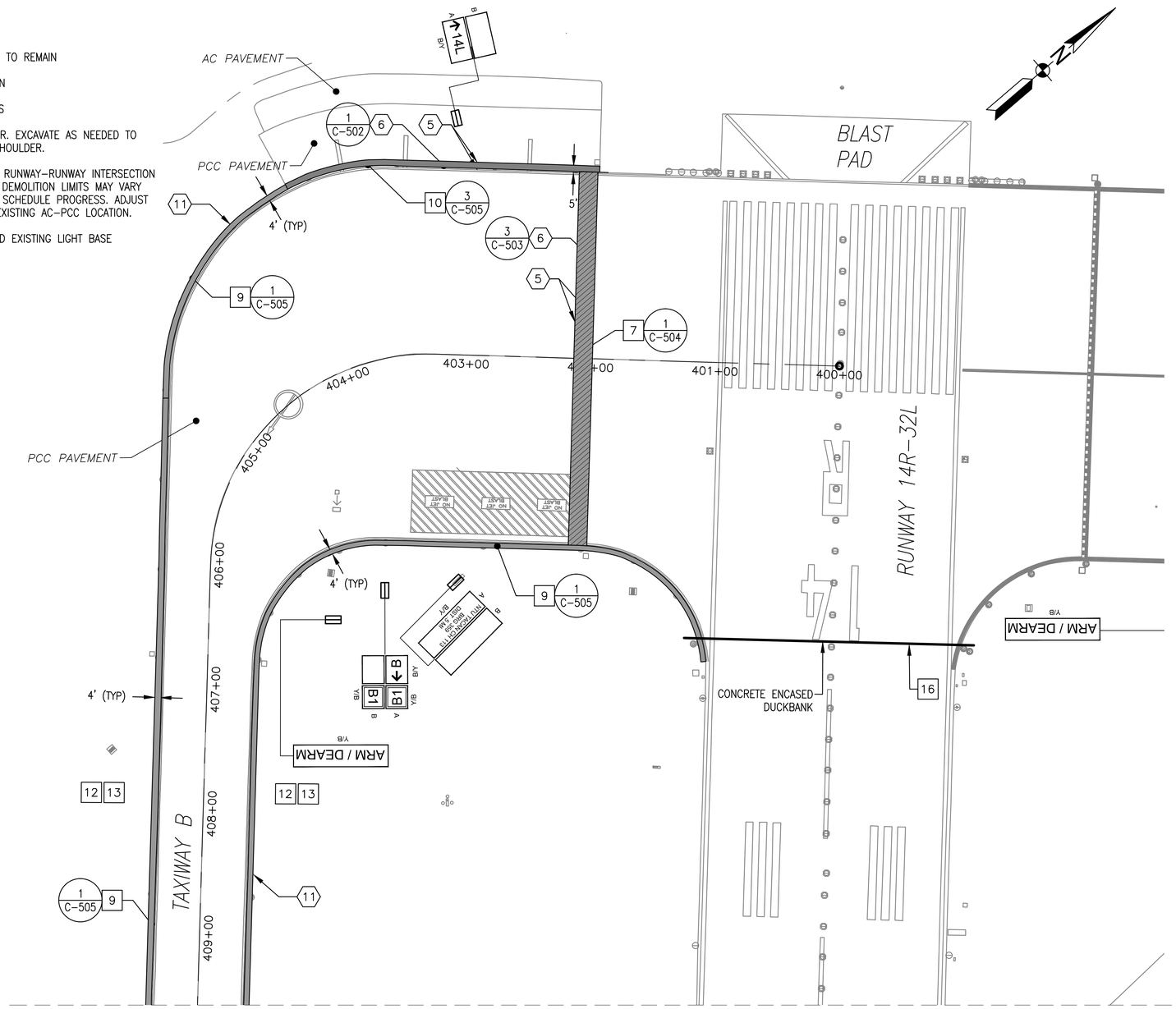
1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT PAVEMENT
6. REMOVE PCC PAVEMENT (FULL DEPTH)
7. REMOVE AC PAVEMENT (FULL DEPTH)
8. EXCAVATE 1' DEEP BEFORE PLACING CABC
9. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
10. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
11. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
12. REMOVE AC SHOULDER
13. PROTECT EXISTING STRUCTURE TO REMAIN
14. PROTECT CONCRETE TO REMAIN
15. REMOVE IDLE PAVEMENT AREAS
16. REMOVE AC-MILLING SHOULDER. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER.
17. RM 10-9004 SCOPE REVISES RUNWAY-RUNWAY INTERSECTION PAVEMENT FROM AC TO PCC. DEMOLITION LIMITS MAY VARY DEPENDENT ON RM 10-9004 SCHEDULE PROGRESS. ADJUST DEMOLITION LIMIT TO MATCH EXISTING AC-PCC LOCATION.
18. REMOVE AC PAVEMENT AROUND EXISTING LIGHT BASE

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT AGGREGATE SUBBASE COURSE
6. CONSTRUCT CEMENT TREATED BASE COURSE
7. CONSTRUCT PCC AIRFIELD PAVEMENT
8. CONSTRUCT AC AIRFIELD PAVEMENT
9. CONSTRUCT AC SHOULDER PAVEMENT
10. CONSTRUCT PCC UTILITY TRENCH
11. CONSTRUCT AC UTILITY TRENCH
12. REGRADE SHOULDERS AND INFIELDS
13. PROVIDE 4" TOPSOIL AND SEED AREAS DISTURBED DURING CONSTRUCTION
14. PROTECT STRUCTURE TO REMAIN
15. PROTECT CONCRETE TO REMAIN
16. PROVIDE CONCRETE ENCASED DUCTBANK. SEE ELECTRICAL SHEETS FOR DETAILS

LEGEND

- IDLE PAVEMENT REMOVAL
- PCC AIRFIELD PAVEMENT
- AC AIRFIELD PAVEMENT
- CRACK REPAIR AND FOG SEAL
- UTILITY TRENCH PAVEMENT PATCH
- 18.0 — MAJOR PROPOSED CONTOUR
- 18.2 — MINOR PROPOSED CONTOUR
- 10+00 — RUNWAY/TAXIWAY BASELINE
- IP — INLET PROTECTION
- AIRFIELD SIGN

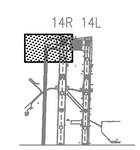


MATCHLINE SHEET C-103-A

DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.

KEY MAP A



GRAPHIC SCALE

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

SCALE:	1" = 50'-0"
EPROJECT NO.:	1291651
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12691556
SHEET	23 OF 368

C-102-A

DRAWFORM REVISION: 10 MARCH 2009

SYM | DESCRIPTION | DATE | APPR

NAVFAC

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PM/DM
BRANCH MANAGER BJL
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN
HR IPT

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-102-A.dwg LAYOUT NAME: C-102-A PLOTTED: Tuesday, March 24, 2015 - 9:43am USER: kwatson

DEMOLITION KEYNOTES

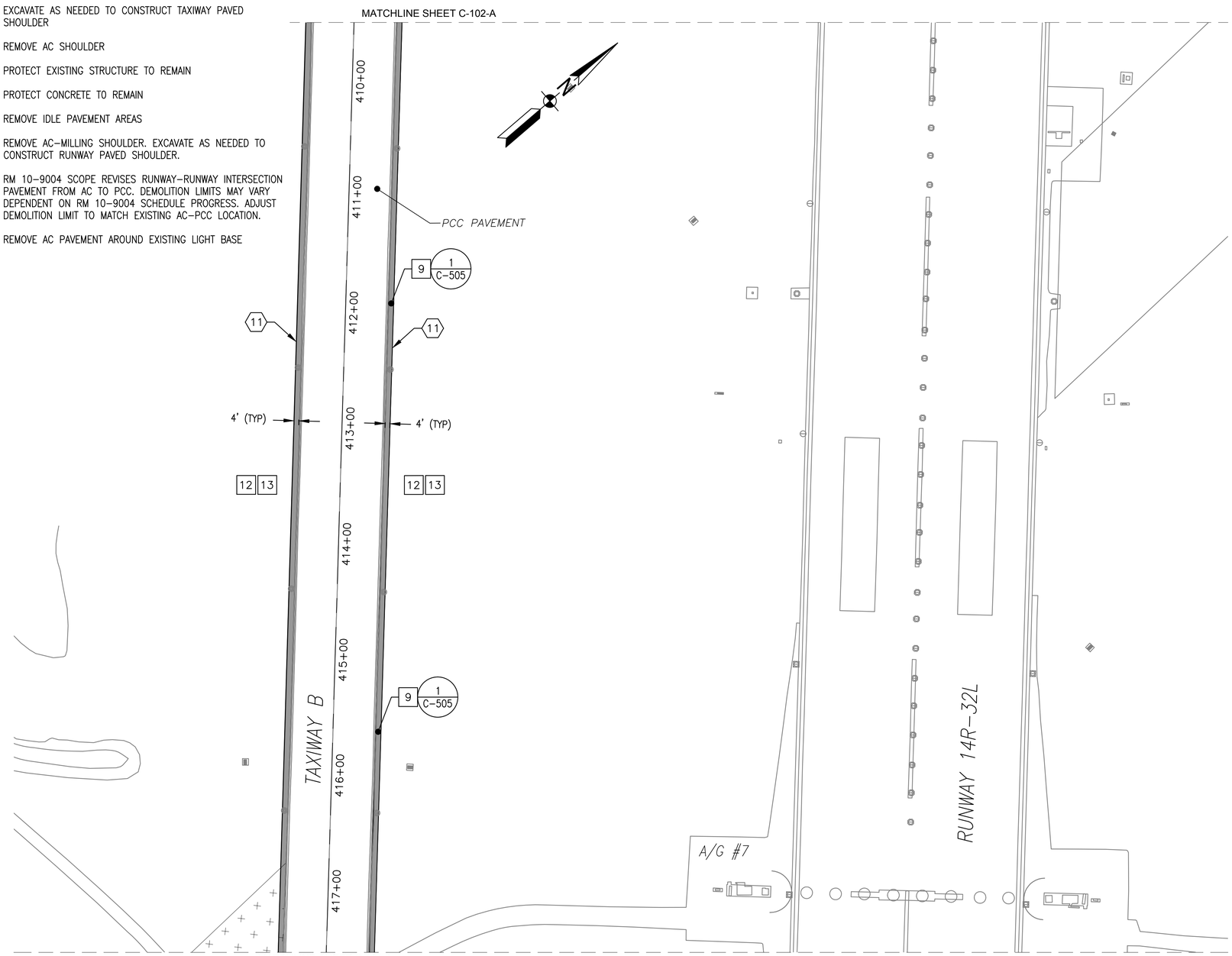
1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT PAVEMENT
6. REMOVE PCC PAVEMENT (FULL DEPTH)
7. REMOVE AC PAVEMENT (FULL DEPTH)
8. EXCAVATE 1' DEEP BEFORE PLACING CABC
9. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
10. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
11. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
11. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
12. REMOVE AC SHOULDER
13. PROTECT EXISTING STRUCTURE TO REMAIN
14. PROTECT CONCRETE TO REMAIN
15. REMOVE IDLE PAVEMENT AREAS
16. REMOVE AC-MILLING SHOULDER. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER.
17. RM 10-9004 SCOPE REVISES RUNWAY-RUNWAY INTERSECTION PAVEMENT FROM AC TO PCC. DEMOLITION LIMITS MAY VARY DEPENDENT ON RM 10-9004 SCHEDULE PROGRESS. ADJUST DEMOLITION LIMIT TO MATCH EXISTING AC-PCC LOCATION.
18. REMOVE AC PAVEMENT AROUND EXISTING LIGHT BASE

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT AGGREGATE SUBBASE COURSE
6. CONSTRUCT CEMENT TREATED BASE COURSE
7. CONSTRUCT PCC AIRFIELD PAVEMENT
8. CONSTRUCT AC AIRFIELD PAVEMENT
9. CONSTRUCT AC SHOULDER PAVEMENT
10. CONSTRUCT PCC UTILITY TRENCH
11. CONSTRUCT AC UTILITY TRENCH
12. REGRADE SHOULDERS AND INFIELDS
13. PROVIDE 4" TOPSOIL AND SEED AREAS DISTURBED DURING CONSTRUCTION
14. PROTECT STRUCTURE TO REMAIN
15. PROTECT CONCRETE TO REMAIN
16. PROVIDE CONCRETE ENCASED DUCTBANK. SEE ELECTRICAL SHEETS FOR DETAILS

LEGEND

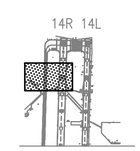
- IDLE PAVEMENT REMOVAL
- PCC AIRFIELD PAVEMENT
- AC AIRFIELD PAVEMENT
- CRACK REPAIR AND FOG SEAL
- UTILITY TRENCH PAVEMENT PATCH
- 18.0 — MAJOR PROPOSED CONTOUR
- 18.2 — MINOR PROPOSED CONTOUR
- 10+00 — RUNWAY/TAXIWAY BASELINE
- IP — INLET PROTECTION
- AIRFIELD SIGN



DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.

KEY MAP A



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
ENGINEER
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WEB: WWW.JMT.COM
A/E INFO

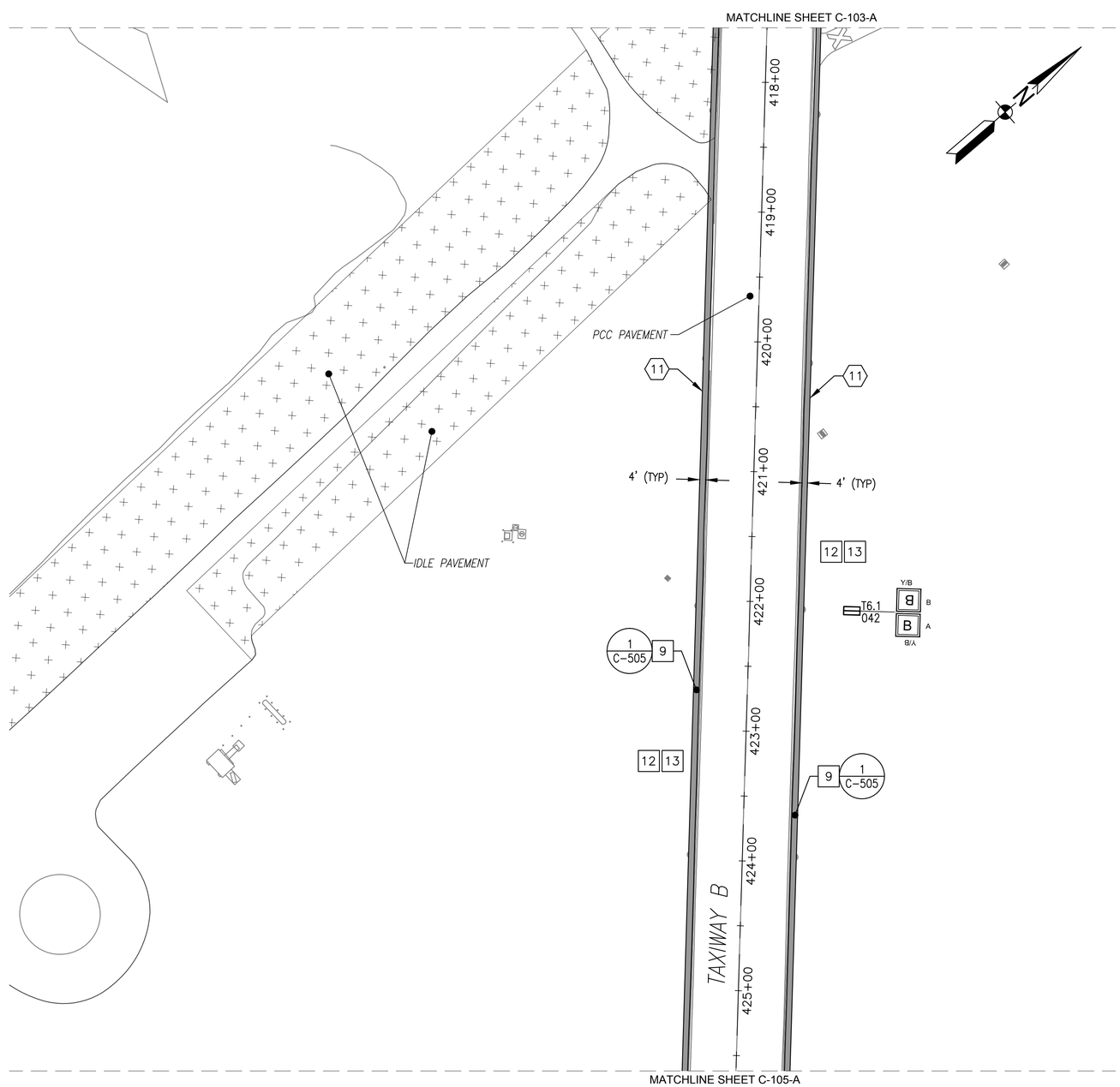
APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER BJL
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691557
SHEET 24 OF 368
C-103-A

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-103-A.dwg LAYOUT NAME: C-103-A PLOTTED: Tuesday, March 24, 2015 - 9:52am USER: kwatson



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT PAVEMENT
6. REMOVE PCC PAVEMENT (FULL DEPTH)
7. REMOVE AC PAVEMENT (FULL DEPTH)
8. EXCAVATE 1' DEEP BEFORE PLACING CABC
9. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
10. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
11. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
12. REMOVE AC SHOULDER
13. PROTECT EXISTING STRUCTURE TO REMAIN
14. PROTECT CONCRETE TO REMAIN
15. REMOVE IDLE PAVEMENT AREAS
16. REMOVE AC–MILLING SHOULDER. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER.
17. RM 10–9004 SCOPE REVISES RUNWAY–RUNWAY INTERSECTION PAVEMENT FROM AC TO PCC. DEMOLITION LIMITS MAY VARY DEPENDENT ON RM 10–9004 SCHEDULE PROGRESS. ADJUST DEMOLITION LIMIT TO MATCH EXISTING AC–PCC LOCATION.
18. REMOVE AC PAVEMENT AROUND EXISTING LIGHT BASE

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT AGGREGATE SUBBASE COURSE
6. CONSTRUCT CEMENT TREATED BASE COURSE
7. CONSTRUCT PCC AIRFIELD PAVEMENT
8. CONSTRUCT AC AIRFIELD PAVEMENT
9. CONSTRUCT AC SHOULDER PAVEMENT
10. CONSTRUCT PCC UTILITY TRENCH
11. CONSTRUCT AC UTILITY TRENCH
12. REGRADE SHOULDERS AND INFIELDS
13. PROVIDE 4" TOPSOIL AND SEED AREAS DISTURBED DURING CONSTRUCTION
14. PROTECT STRUCTURE TO REMAIN
15. PROTECT CONCRETE TO REMAIN
16. PROVIDE CONCRETE ENCASED DUCTBANK. SEE ELECTRICAL SHEETS FOR DETAILS

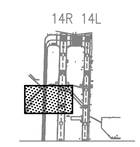
LEGEND

- IDLE PAVEMENT REMOVAL
- PCC AIRFIELD PAVEMENT
- AC AIRFIELD PAVEMENT
- CRACK REPAIR AND FOG SEAL
- UTILITY TRENCH PAVEMENT PATCH
- 18.0 — MAJOR PROPOSED CONTOUR
- 18.2 — MINOR PROPOSED CONTOUR
- 10+00 — RUNWAY/TAXIWAY BASELINE
- IP — INLET PROTECTION
- AIRFIELD SIGN

DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C–171 TO C–182 FOR NEW MARKING LAYOUT.

KEY MAP A



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
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WEB: WWW.JMT.COM

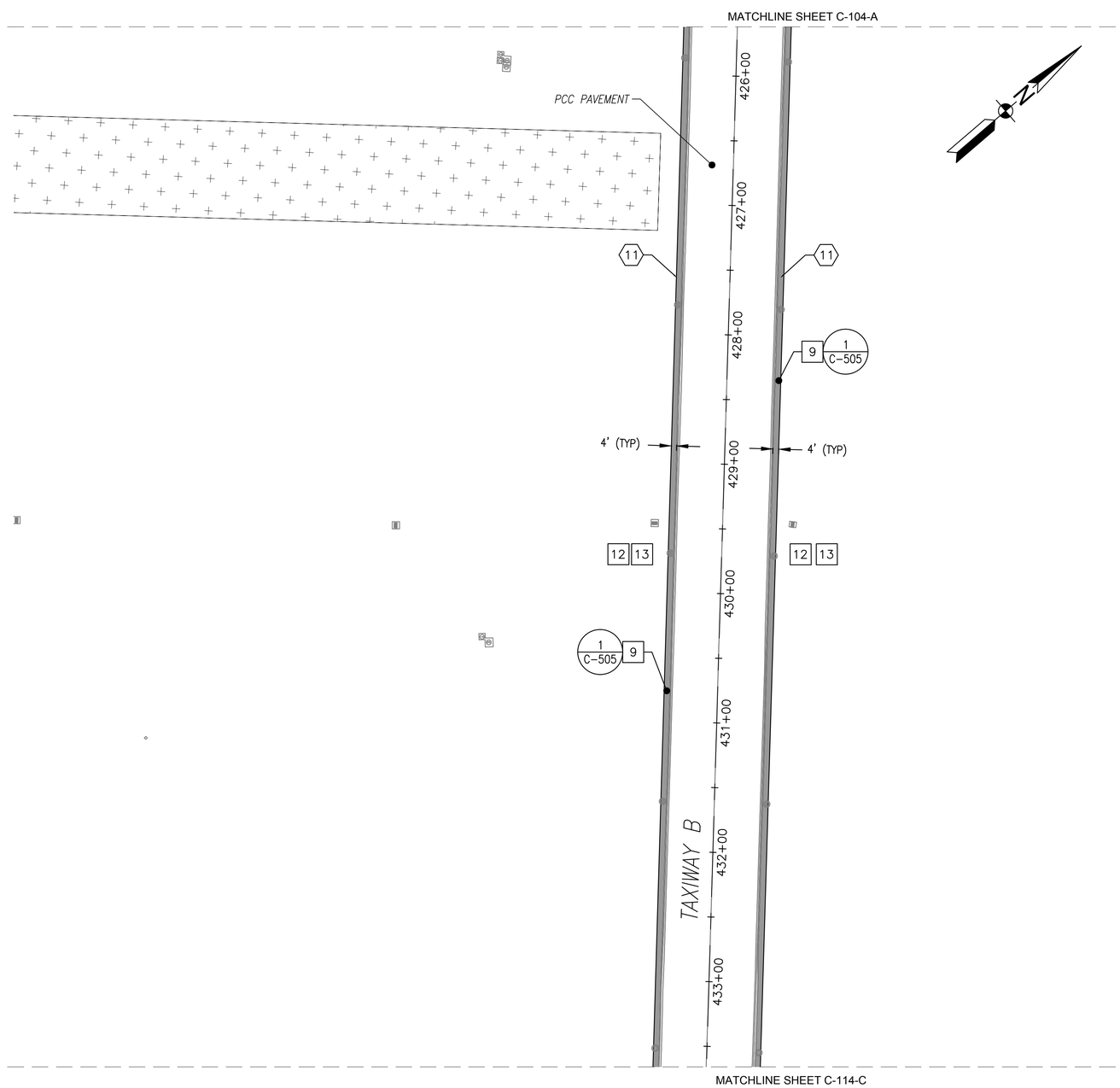
A/E INFO

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

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – MID-ATLANTIC
NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'–0"
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691558
SHEET 25 OF 368
C-104-A
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-104-A.dwg LAYOUT NAME: C-104-A PLOTTED: Tuesday, March 24, 2015 - 10:00am USER: kwatson



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT PAVEMENT
6. REMOVE PCC PAVEMENT (FULL DEPTH)
7. REMOVE AC PAVEMENT (FULL DEPTH)
8. EXCAVATE 1' DEEP BEFORE PLACING CABC
9. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
10. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
11. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
12. REMOVE AC SHOULDER
13. PROTECT EXISTING STRUCTURE TO REMAIN
14. PROTECT CONCRETE TO REMAIN
15. REMOVE IDLE PAVEMENT AREAS
16. REMOVE AC–MILLING SHOULDER. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER.
17. RM 10–9004 SCOPE REVISES RUNWAY–RUNWAY INTERSECTION PAVEMENT FROM AC TO PCC. DEMOLITION LIMITS MAY VARY DEPENDENT ON RM 10–9004 SCHEDULE PROGRESS. ADJUST DEMOLITION LIMIT TO MATCH EXISTING AC–PCC LOCATION.
18. REMOVE AC PAVEMENT AROUND EXISTING LIGHT BASE

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT AGGREGATE SUBBASE COURSE
6. CONSTRUCT CEMENT TREATED BASE COURSE
7. CONSTRUCT PCC AIRFIELD PAVEMENT
8. CONSTRUCT AC AIRFIELD PAVEMENT
9. CONSTRUCT AC SHOULDER PAVEMENT
10. CONSTRUCT PCC UTILITY TRENCH
11. CONSTRUCT AC UTILITY TRENCH
12. REGRADE SHOULDERS AND INFIELDS
13. PROVIDE 4" TOPSOIL AND SEED AREAS DISTURBED DURING CONSTRUCTION
14. PROTECT STRUCTURE TO REMAIN
15. PROTECT CONCRETE TO REMAIN
16. PROVIDE CONCRETE ENCASED DUCTBANK. SEE ELECTRICAL SHEETS FOR DETAILS

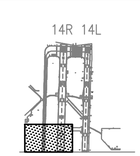
LEGEND

- IDLE PAVEMENT REMOVAL
- PCC AIRFIELD PAVEMENT
- AC AIRFIELD PAVEMENT
- CRACK REPAIR AND FOG SEAL
- UTILITY TRENCH PAVEMENT PATCH
- 18.0 — MAJOR PROPOSED CONTOUR
- 18.2 — MINOR PROPOSED CONTOUR
- 10+00 — RUNWAY/TAXIWAY BASELINE
- IP — INLET PROTECTION
- AIRFIELD SIGN

DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C–171 TO C–182 FOR NEW MARKING LAYOUT.

KEY MAP A



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
REGISTERED PROFESSIONAL ENGINEER
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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 BJC
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
NAVAL FACILITIES ENGINEERING COMMAND
VIRGINIA BEACH, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'–0"
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691559
SHEET 26 OF 368
C-105-A
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-105-A.dwg LAYOUT NAME: C-105-A PLOTTED: Tuesday, March 24, 2015 - 10:09am USER: kwatson

DEMOLITION KEYNOTES

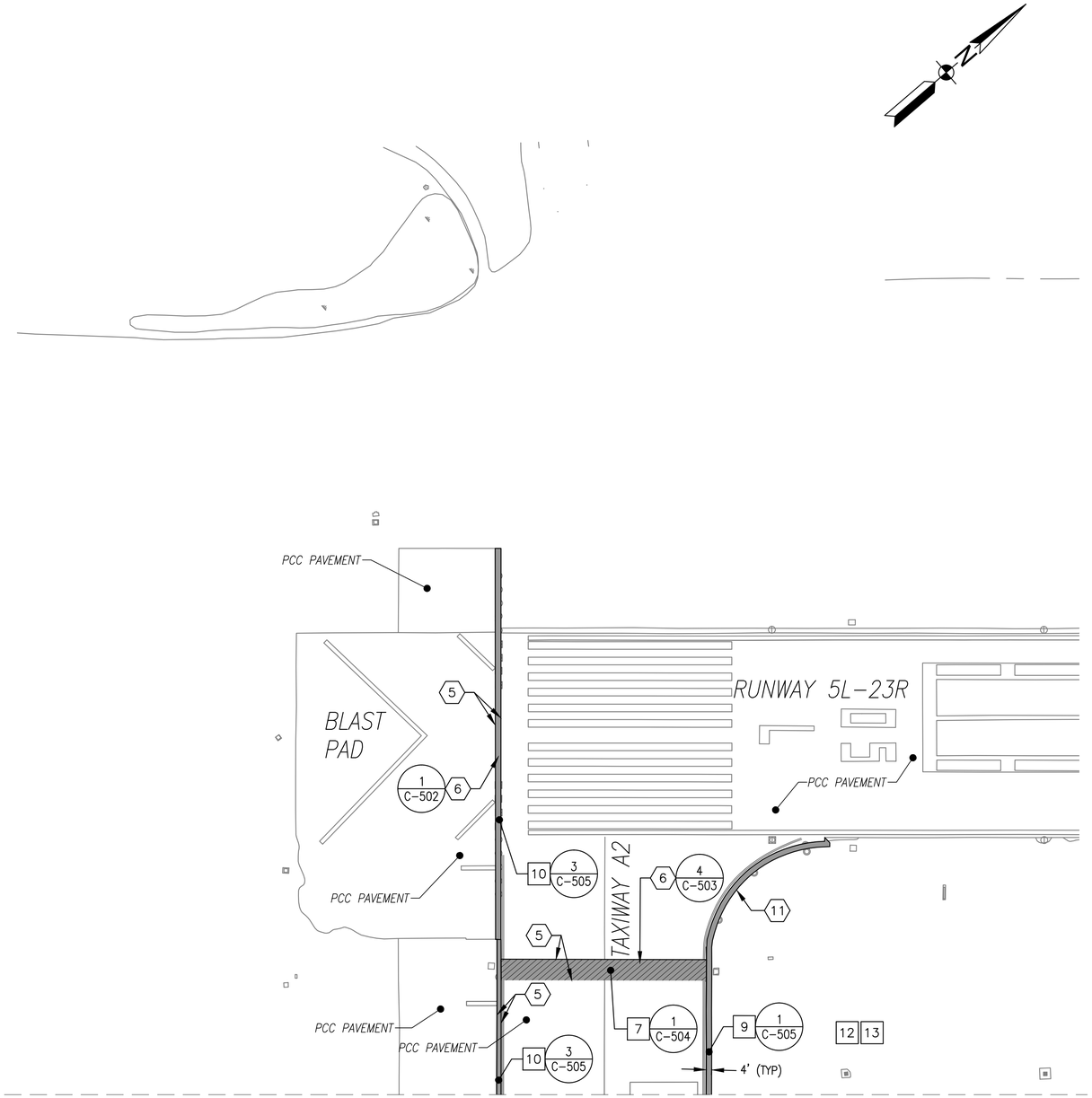
1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT PAVEMENT
6. REMOVE PCC PAVEMENT (FULL DEPTH)
7. REMOVE AC PAVEMENT (FULL DEPTH)
8. EXCAVATE 1' DEEP BEFORE PLACING CABC
9. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
10. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
11. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
12. REMOVE AC SHOULDER
13. PROTECT EXISTING STRUCTURE TO REMAIN
14. PROTECT CONCRETE TO REMAIN
15. REMOVE IDLE PAVEMENT AREAS
16. REMOVE AC-MILLING SHOULDER. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER.
17. RM 10-9004 SCOPE REVISES RUNWAY-RUNWAY INTERSECTION PAVEMENT FROM AC TO PCC. DEMOLITION LIMITS MAY VARY DEPENDENT ON RM 10-9004 SCHEDULE PROGRESS. ADJUST DEMOLITION LIMIT TO MATCH EXISTING AC-PCC LOCATION.
18. REMOVE AC PAVEMENT AROUND EXISTING LIGHT BASE

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT AGGREGATE SUBBASE COURSE
6. CONSTRUCT CEMENT TREATED BASE COURSE
7. CONSTRUCT PCC AIRFIELD PAVEMENT
8. CONSTRUCT AC AIRFIELD PAVEMENT
9. CONSTRUCT AC SHOULDER PAVEMENT
10. CONSTRUCT PCC UTILITY TRENCH
11. CONSTRUCT AC UTILITY TRENCH
12. REGRADE SHOULDERS AND INFIELDS
13. PROVIDE 4" TOPSOIL AND SEED AREAS DISTURBED DURING CONSTRUCTION
14. PROTECT STRUCTURE TO REMAIN
15. PROTECT CONCRETE TO REMAIN
16. PROVIDE CONCRETE ENCASED DUCTBANK. SEE ELECTRICAL SHEETS FOR DETAILS

LEGEND

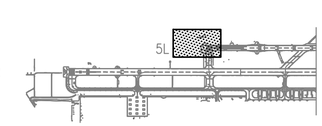
- IDLE PAVEMENT REMOVAL
- PCC AIRFIELD PAVEMENT
- AC AIRFIELD PAVEMENT
- CRACK REPAIR AND FOG SEAL
- UTILITY TRENCH PAVEMENT PATCH
- 18.0 — MAJOR PROPOSED CONTOUR
- 18.2 — MINOR PROPOSED CONTOUR
- 10+00 — RUNWAY/TAXIWAY BASELINE
- IP — INLET PROTECTION
- AIRFIELD SIGN



DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.

KEY MAP B



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger

MARK J TIGER
EXPIRES 31 DEC 2015
CERTIFICATE NUMBER 041439-E
COMMONWEALTH OF VIRGINIA
REGISTERED 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 B/L

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"

EPROJECT NO.: 1291651

CONSTR. CONTR. NO.

NAVFAC DRAWING NO.
12691560

SHEET 27 OF 368

C-110-B

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-110-B.dwg LAYOUT NAME: C-110-B PLOTTED: Tuesday, March 24, 2015 - 10:18am USER: kwatson

DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT PAVEMENT
6. REMOVE PCC PAVEMENT (FULL DEPTH)
7. REMOVE AC PAVEMENT (FULL DEPTH)
8. EXCAVATE 1' DEEP BEFORE PLACING CABC
9. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
10. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
11. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
12. REMOVE AC SHOULDER
13. PROTECT EXISTING STRUCTURE TO REMAIN
14. PROTECT CONCRETE TO REMAIN
15. REMOVE IDLE PAVEMENT AREAS
16. REMOVE AC–MILLING SHOULDER. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER.
17. RM 10–9004 SCOPE REVISES RUNWAY–RUNWAY INTERSECTION PAVEMENT FROM AC TO PCC. DEMOLITION LIMITS MAY VARY DEPENDENT ON RM 10–9004 SCHEDULE PROGRESS. ADJUST DEMOLITION LIMIT TO MATCH EXISTING AC–PCC LOCATION.
18. REMOVE AC PAVEMENT AROUND EXISTING LIGHT BASE

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT AGGREGATE SUBBASE COURSE
6. CONSTRUCT CEMENT TREATED BASE COURSE
7. CONSTRUCT PCC AIRFIELD PAVEMENT
8. CONSTRUCT AC AIRFIELD PAVEMENT
9. CONSTRUCT AC SHOULDER PAVEMENT
10. CONSTRUCT PCC UTILITY TRENCH
11. CONSTRUCT AC UTILITY TRENCH
12. REGRADE SHOULDERS AND INFIELDS
13. PROVIDE 4" TOPSOIL AND SEED AREAS DISTURBED DURING CONSTRUCTION
14. PROTECT STRUCTURE TO REMAIN
15. PROTECT CONCRETE TO REMAIN
16. PROVIDE CONCRETE ENCASED DUCTBANK. SEE ELECTRICAL SHEETS FOR DETAILS

LEGEND

- IDLE PAVEMENT REMOVAL
- PCC AIRFIELD PAVEMENT
- AC AIRFIELD PAVEMENT
- CRACK REPAIR AND FOG SEAL
- UTILITY TRENCH PAVEMENT PATCH
- 18.0 — MAJOR PROPOSED CONTOUR
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- 10+00 — RUNWAY/TAXIWAY BASELINE
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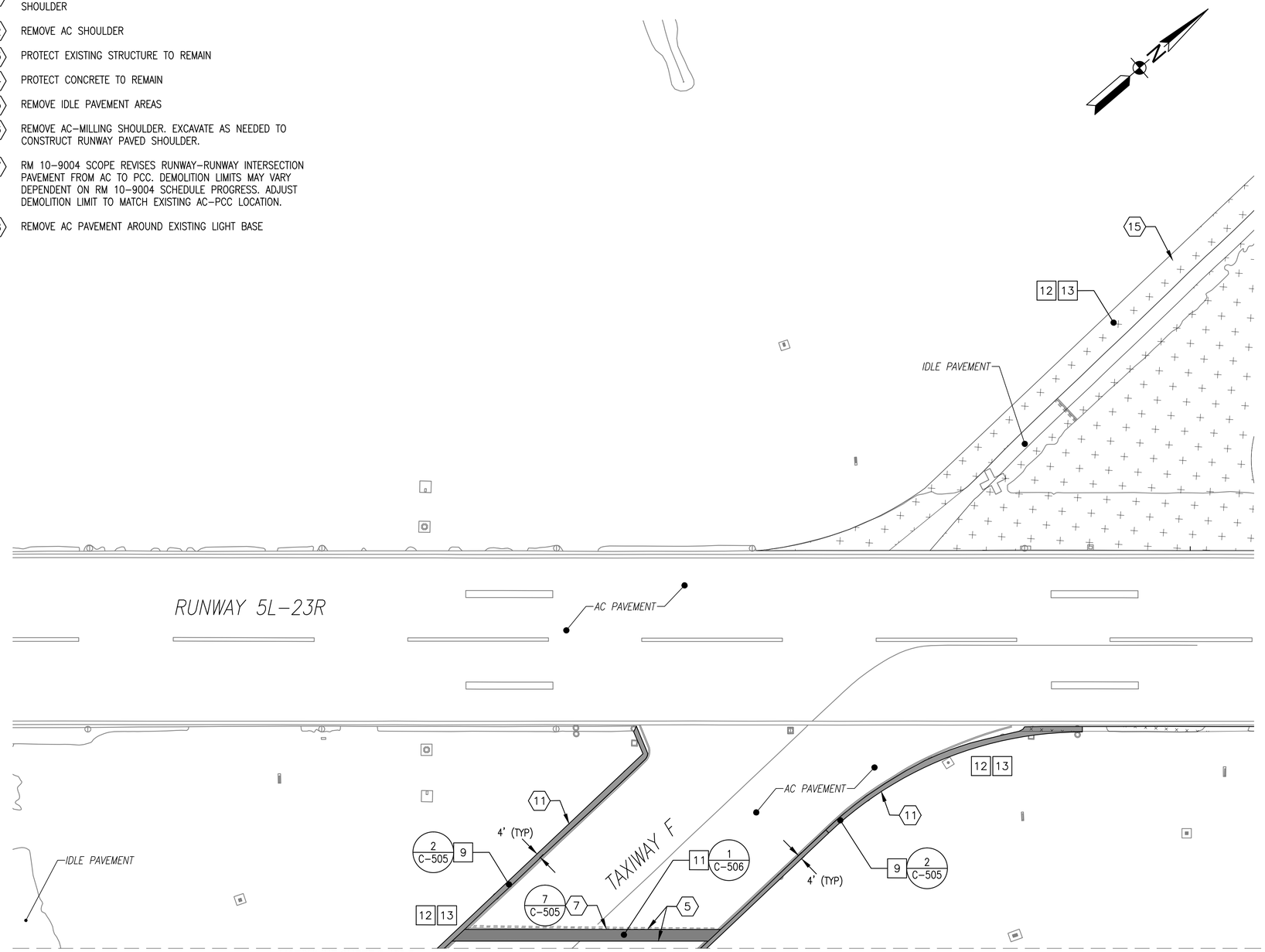
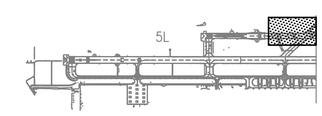


MATCHLINE SHEET C-125-B

DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C–171 TO C–182 FOR NEW MARKING LAYOUT.

KEY MAP B



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
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A/E INFO

APPROVED
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ACTIVITY
SATISFACTORY TO DATE
DES MJT | DRW DFD | CHK ELO
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BRANCH MANAGER BJL
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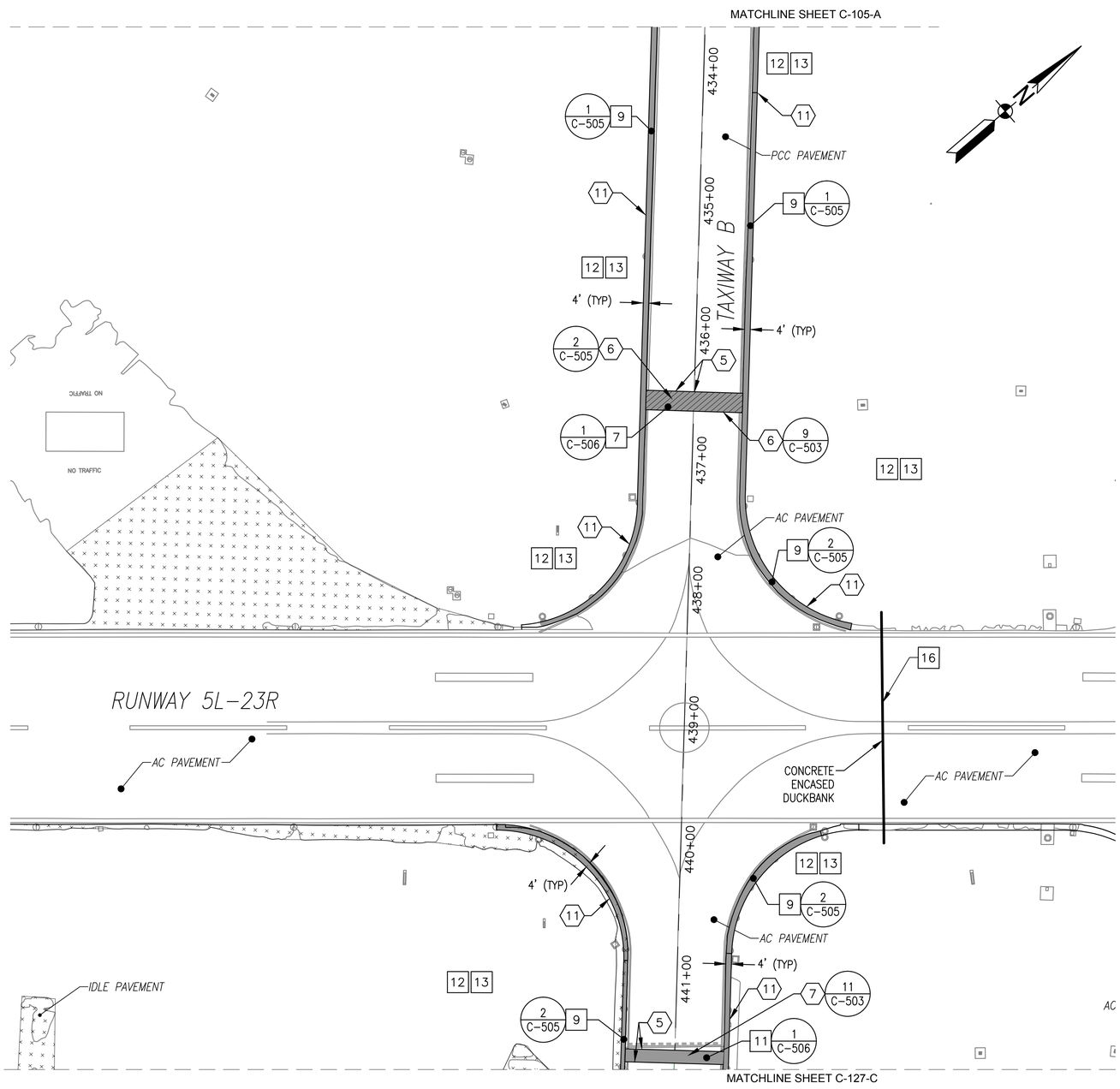
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – MID-ATLANTIC
NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA VIRGINIA BEACH, VIRGINIA
HR IPT
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691561
SHEET 28 OF 368
C-112-B

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-112-B.dwg LAYOUT NAME: C-112-B PLOTTED: Tuesday, March 24, 2015 - 10:27am USER: kwatson



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT PAVEMENT
6. REMOVE PCC PAVEMENT (FULL DEPTH)
7. REMOVE AC PAVEMENT (FULL DEPTH)
8. EXCAVATE 1' DEEP BEFORE PLACING CABC
9. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
10. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
11. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
12. REMOVE AC SHOULDER
13. PROTECT EXISTING STRUCTURE TO REMAIN
14. PROTECT CONCRETE TO REMAIN
15. REMOVE IDLE PAVEMENT AREAS
16. REMOVE AC-MILLING SHOULDER. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER.
17. RM 10-9004 SCOPE REVISES RUNWAY-RUNWAY INTERSECTION PAVEMENT FROM AC TO PCC. DEMOLITION LIMITS MAY VARY DEPENDENT ON RM 10-9004 SCHEDULE PROGRESS. ADJUST DEMOLITION LIMIT TO MATCH EXISTING AC-PCC LOCATION.
18. REMOVE AC PAVEMENT AROUND EXISTING LIGHT BASE

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT AGGREGATE SUBBASE COURSE
6. CONSTRUCT CEMENT TREATED BASE COURSE
7. CONSTRUCT PCC AIRFIELD PAVEMENT
8. CONSTRUCT AC AIRFIELD PAVEMENT
9. CONSTRUCT AC SHOULDER PAVEMENT
10. CONSTRUCT PCC UTILITY TRENCH
11. CONSTRUCT AC UTILITY TRENCH
12. REGRADE SHOULDERS AND INFIELDS
13. PROVIDE 4" TOPSOIL AND SEED AREAS DISTURBED DURING CONSTRUCTION
14. PROTECT STRUCTURE TO REMAIN
15. PROTECT CONCRETE TO REMAIN
16. PROVIDE CONCRETE ENCASED DUCTBANK. SEE ELECTRICAL SHEETS FOR DETAILS

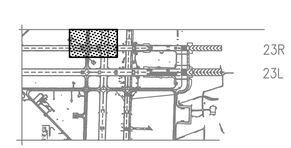
LEGEND

- IDLE PAVEMENT REMOVAL
- PCC AIRFIELD PAVEMENT
- AC AIRFIELD PAVEMENT
- CRACK REPAIR AND FOG SEAL
- UTILITY TRENCH PAVEMENT PATCH
- 18.0 — MAJOR PROPOSED CONTOUR
- 18.2 — MINOR PROPOSED CONTOUR
- 10+00 — RUNWAY/TAXIWAY BASELINE
- IP — INLET PROTECTION
- AIRFIELD SIGN

DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.

KEY MAP C



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
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A/E INFO

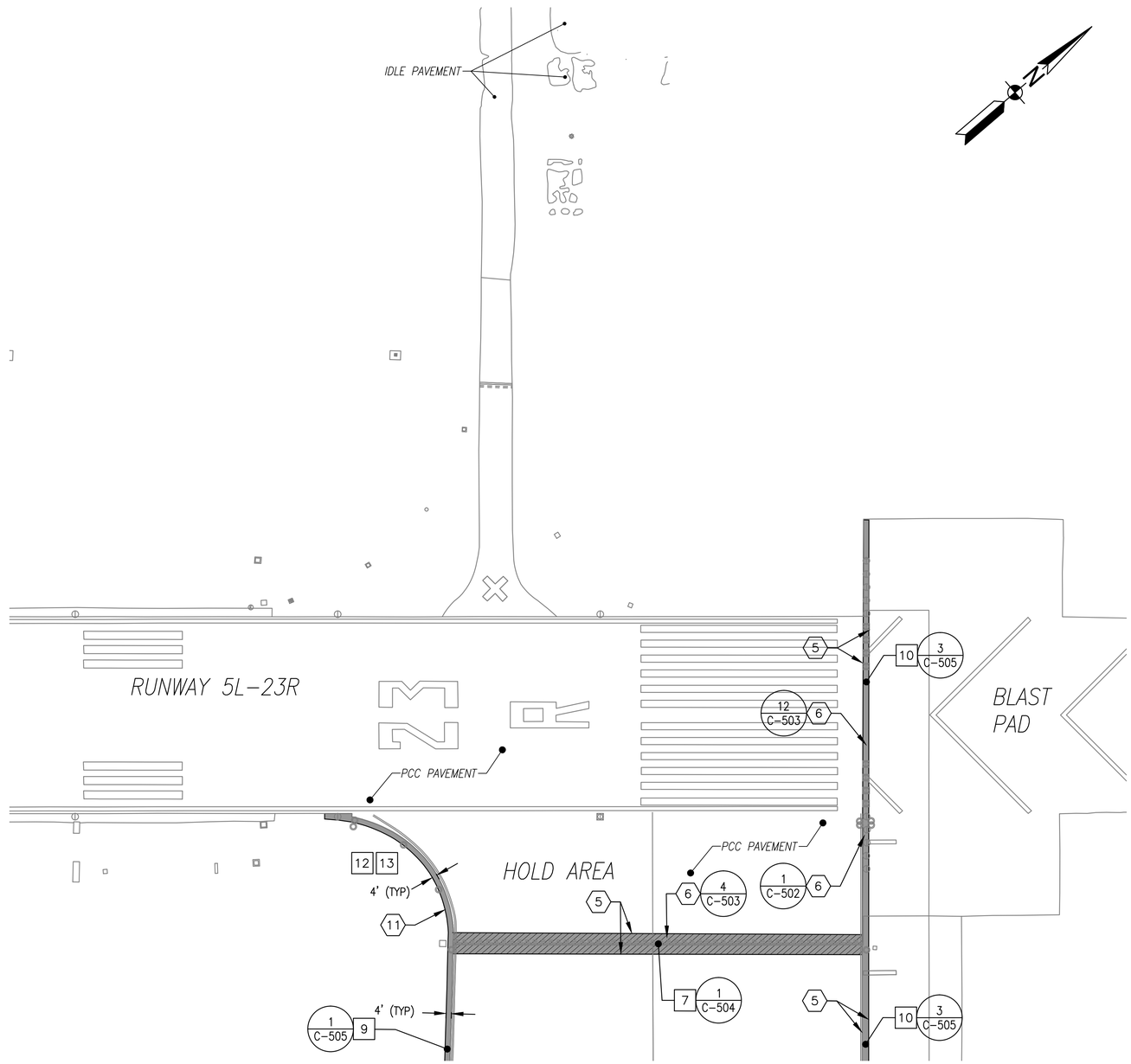
APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES MJT | DRW DFD | CHK ELO
PM/DM
BRANCH MANAGER BJC
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691562
SHEET 29 OF 368
C-114-C

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-114-C.dwg LAYOUT NAME: C-114-C PLOTTED: Tuesday, March 24, 2015 - 10:35am USER: kwatson



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT PAVEMENT
6. REMOVE PCC PAVEMENT (FULL DEPTH)
7. REMOVE AC PAVEMENT (FULL DEPTH)
8. EXCAVATE 1' DEEP BEFORE PLACING CABC
9. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
10. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
11. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
12. REMOVE AC SHOULDER
13. PROTECT EXISTING STRUCTURE TO REMAIN
14. PROTECT CONCRETE TO REMAIN
15. REMOVE IDLE PAVEMENT AREAS
16. REMOVE AC-MILLING SHOULDER. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER.
17. RM 10-9004 SCOPE REVISES RUNWAY-RUNWAY INTERSECTION PAVEMENT FROM AC TO PCC. DEMOLITION LIMITS MAY VARY DEPENDENT ON RM 10-9004 SCHEDULE PROGRESS. ADJUST DEMOLITION LIMIT TO MATCH EXISTING AC-PCC LOCATION.
18. REMOVE AC PAVEMENT AROUND EXISTING LIGHT BASE

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT AGGREGATE SUBBASE COURSE
6. CONSTRUCT CEMENT TREATED BASE COURSE
7. CONSTRUCT PCC AIRFIELD PAVEMENT
8. CONSTRUCT AC AIRFIELD PAVEMENT
9. CONSTRUCT AC SHOULDER PAVEMENT
10. CONSTRUCT PCC UTILITY TRENCH
11. CONSTRUCT AC UTILITY TRENCH
12. REGRADE SHOULDERS AND INFIELDS
13. PROVIDE 4" TOPSOIL AND SEED AREAS DISTURBED DURING CONSTRUCTION
14. PROTECT STRUCTURE TO REMAIN
15. PROTECT CONCRETE TO REMAIN
16. PROVIDE CONCRETE ENCASED DUCTBANK. SEE ELECTRICAL SHEETS FOR DETAILS

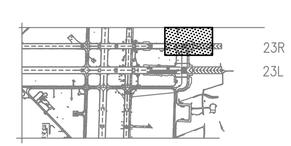
LEGEND

- IDLE PAVEMENT REMOVAL
- PCC AIRFIELD PAVEMENT
- AC AIRFIELD PAVEMENT
- CRACK REPAIR AND FOG SEAL
- UTILITY TRENCH PAVEMENT PATCH
- 18.0 — MAJOR PROPOSED CONTOUR
- 18.2 — MINOR PROPOSED CONTOUR
- 10+00 — RUNWAY/TAXIWAY BASELINE
- IP — INLET PROTECTION
- AIRFIELD SIGN

DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.

KEY MAP C



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
REGISTERED PROFESSIONAL ENGINEER
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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 BJL
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691563
SHEET 30 OF 388
C-116-C
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHPA\99_ Misc\Aviation\Oceana\Task 008\10-0863-008-C-116-C.dwg LAYOUT NAME: C-116-C PLOTTED: Tuesday, March 24, 2015 - 10:44am USER: kwatson

DEMOLITION KEYNOTES

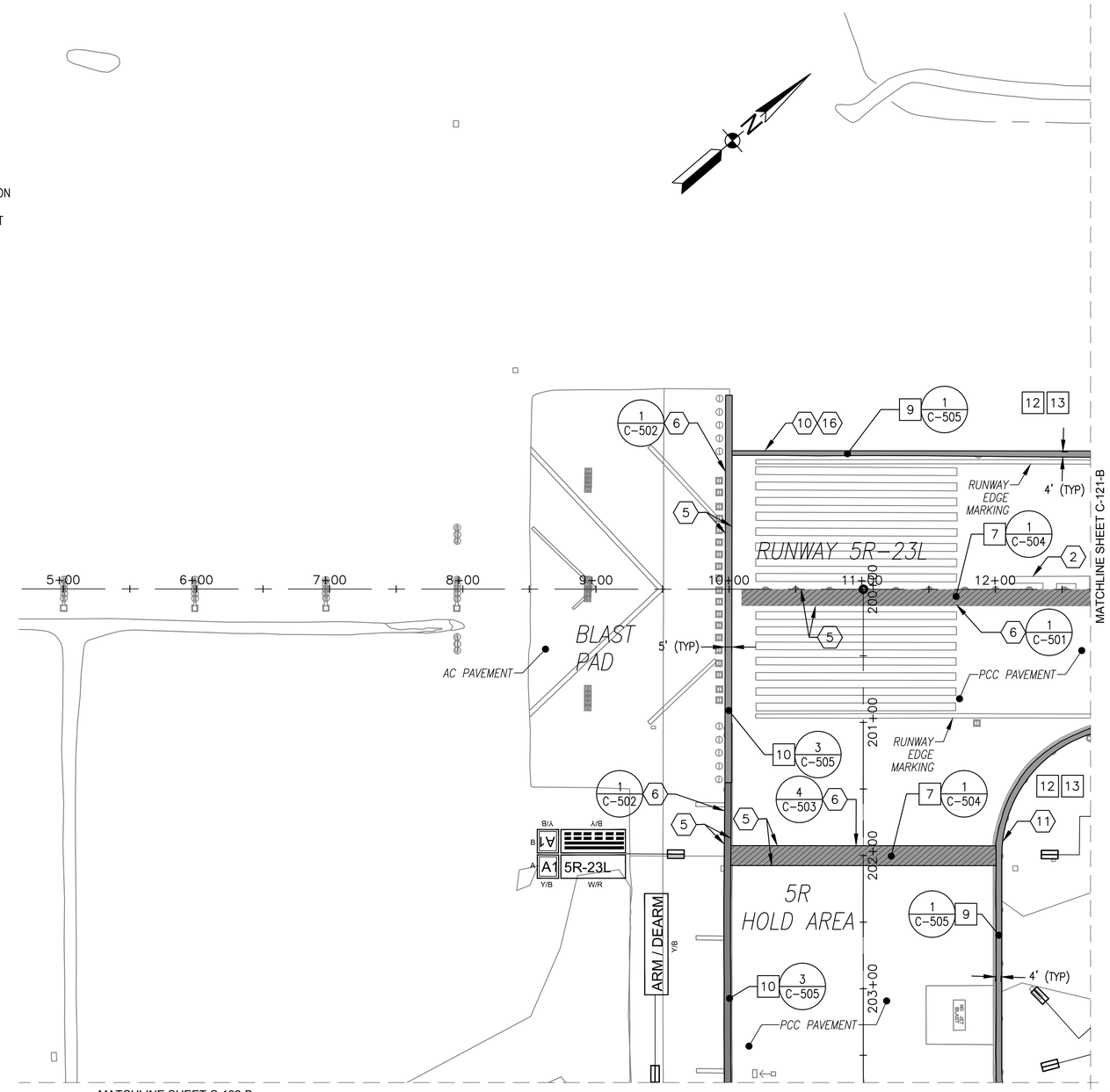
1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT PAVEMENT
6. REMOVE PCC PAVEMENT (FULL DEPTH)
7. REMOVE AC PAVEMENT (FULL DEPTH)
8. EXCAVATE 1' DEEP BEFORE PLACING CABC
9. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
10. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
11. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
12. REMOVE AC SHOULDER
13. PROTECT EXISTING STRUCTURE TO REMAIN
14. PROTECT CONCRETE TO REMAIN
15. REMOVE IDLE PAVEMENT AREAS
16. REMOVE AC-MILLING SHOULDER. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER.
17. RM 10-9004 SCOPE REVISES RUNWAY-RUNWAY INTERSECTION PAVEMENT FROM AC TO PCC. DEMOLITION LIMITS MAY VARY DEPENDENT ON RM 10-9004 SCHEDULE PROGRESS. ADJUST DEMOLITION LIMIT TO MATCH EXISTING AC-PCC LOCATION.
18. REMOVE AC PAVEMENT AROUND EXISTING LIGHT BASE

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT AGGREGATE SUBBASE COURSE
6. CONSTRUCT CEMENT TREATED BASE COURSE
7. CONSTRUCT PCC AIRFIELD PAVEMENT
8. CONSTRUCT AC AIRFIELD PAVEMENT
9. CONSTRUCT AC SHOULDER PAVEMENT
10. CONSTRUCT PCC UTILITY TRENCH
11. CONSTRUCT AC UTILITY TRENCH
12. REGRADE SHOULDERS AND INFIELDS
13. PROVIDE 4" TOPSOIL AND SEED AREAS DISTURBED DURING CONSTRUCTION
14. PROTECT STRUCTURE TO REMAIN
15. PROTECT CONCRETE TO REMAIN
16. PROVIDE CONCRETE ENCASED DUCTBANK. SEE ELECTRICAL SHEETS FOR DETAILS

LEGEND

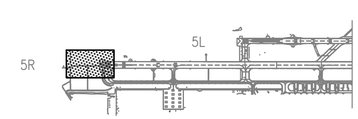
- IDLE PAVEMENT REMOVAL
- PCC AIRFIELD PAVEMENT
- AC AIRFIELD PAVEMENT
- CRACK REPAIR AND FOG SEAL
- UTILITY TRENCH PAVEMENT PATCH
- 18.0 — MAJOR PROPOSED CONTOUR
- 18.2 — MINOR PROPOSED CONTOUR
- 10+00 — RUNWAY/TAXIWAY BASELINE
- IP — INLET PROTECTION
- AIRFIELD SIGN



DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.

KEY MAP B



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
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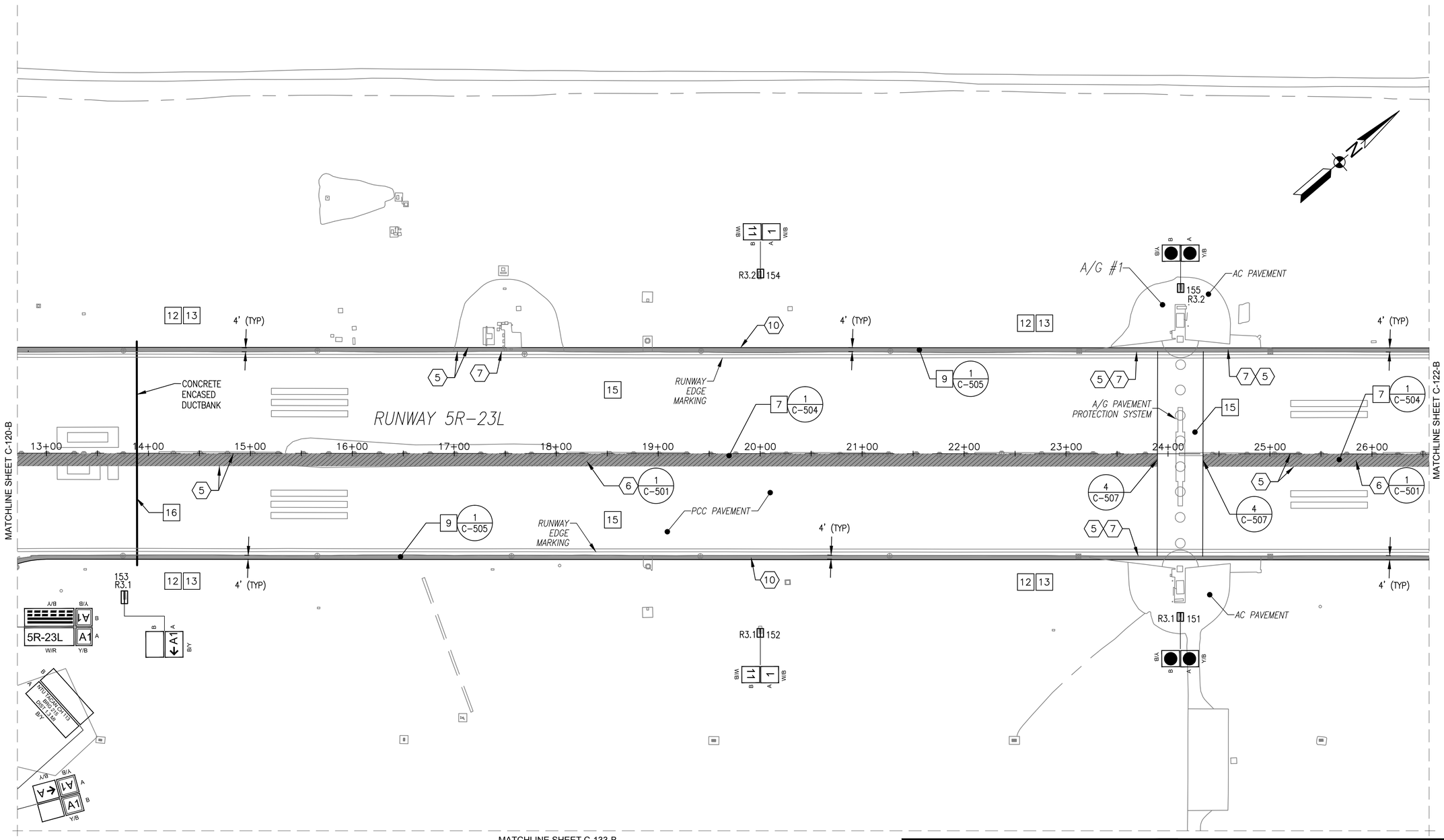
A/E INFO

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

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691564
SHEET 31 OF 368
C-120-B
DRAWFORM REVISION: 10 MARCH 2009

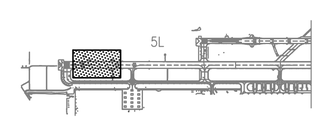
FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-120-B.dwg LAYOUT NAME: C-120-B PLOTTED: Tuesday, March 24, 2015 - 10:53am USER: kwatson



DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.
2. SEE SHEET C-001 FOR DEMOLITION KEYNOTES, CONSTRUCTION KEYNOTES, AND LEGEND.

KEY MAP B



GRAPHIC SCALE

1"=50'

0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

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FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES. MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER B/L

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"

EPROJECT NO.: 1291651

CONSTR. CONTR. NO.

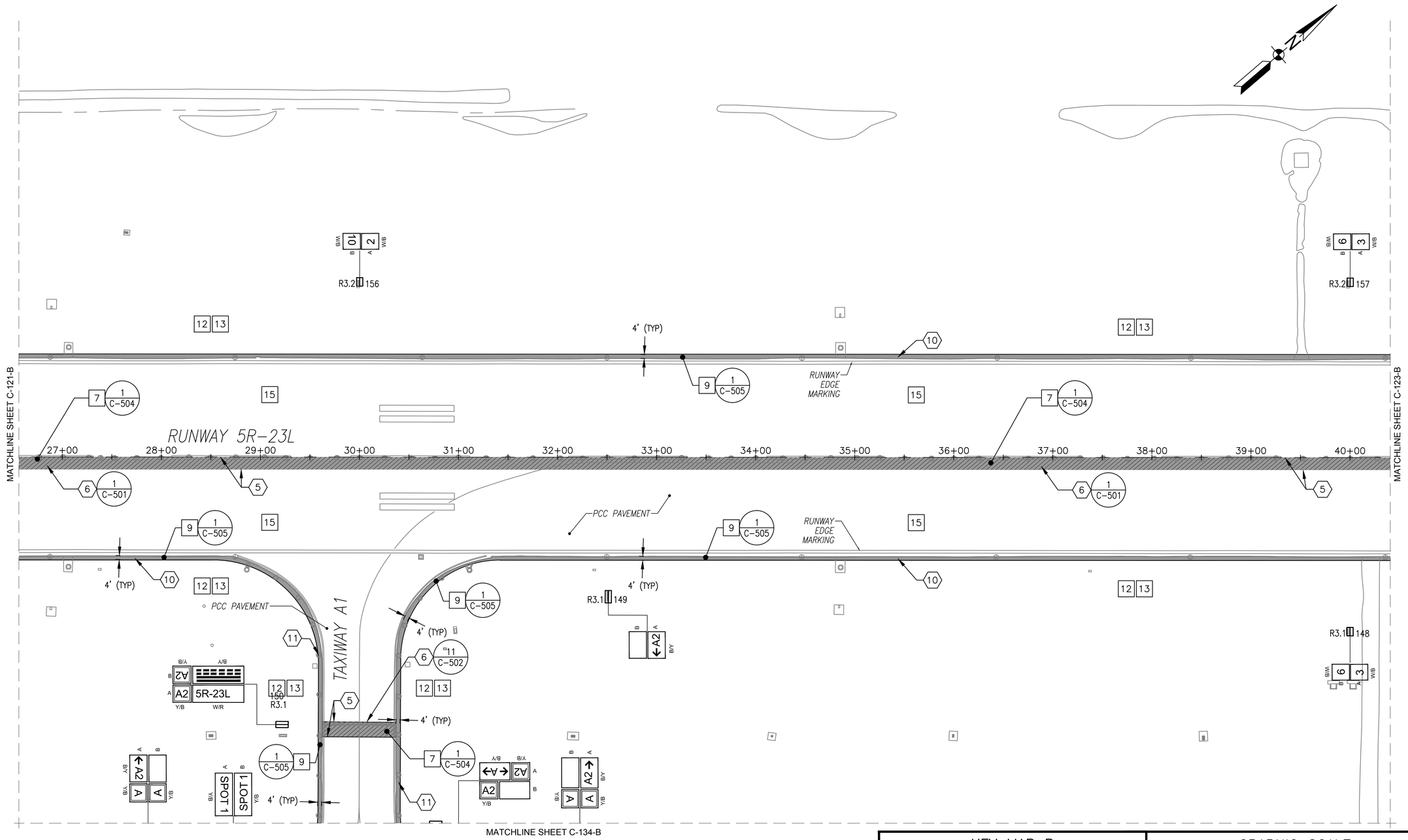
NAVFAC DRAWING NO.
12691565

SHEET 32 OF 368

C-121-B

DRAWFORM REVISION: 10 MARCH 2009

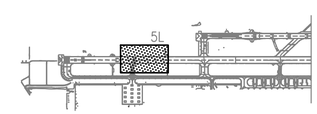
FILE NAME: Q:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-121-B.dwg LAYOUT NAME: C-121-B PLOTTED: Tuesday, March 24, 2015 - 10:54am USER: kwatson



DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.
2. SEE SHEET C-001 FOR DEMOLITION KEYNOTES, CONSTRUCTION KEYNOTES, AND LEGEND.

KEY MAP B



GRAPHIC SCALE

1"=50'

0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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PM/DM

BRANCH MANAGER BJC

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"

EPROJECT NO.: 1291651

CONSTR. CONTR. NO.

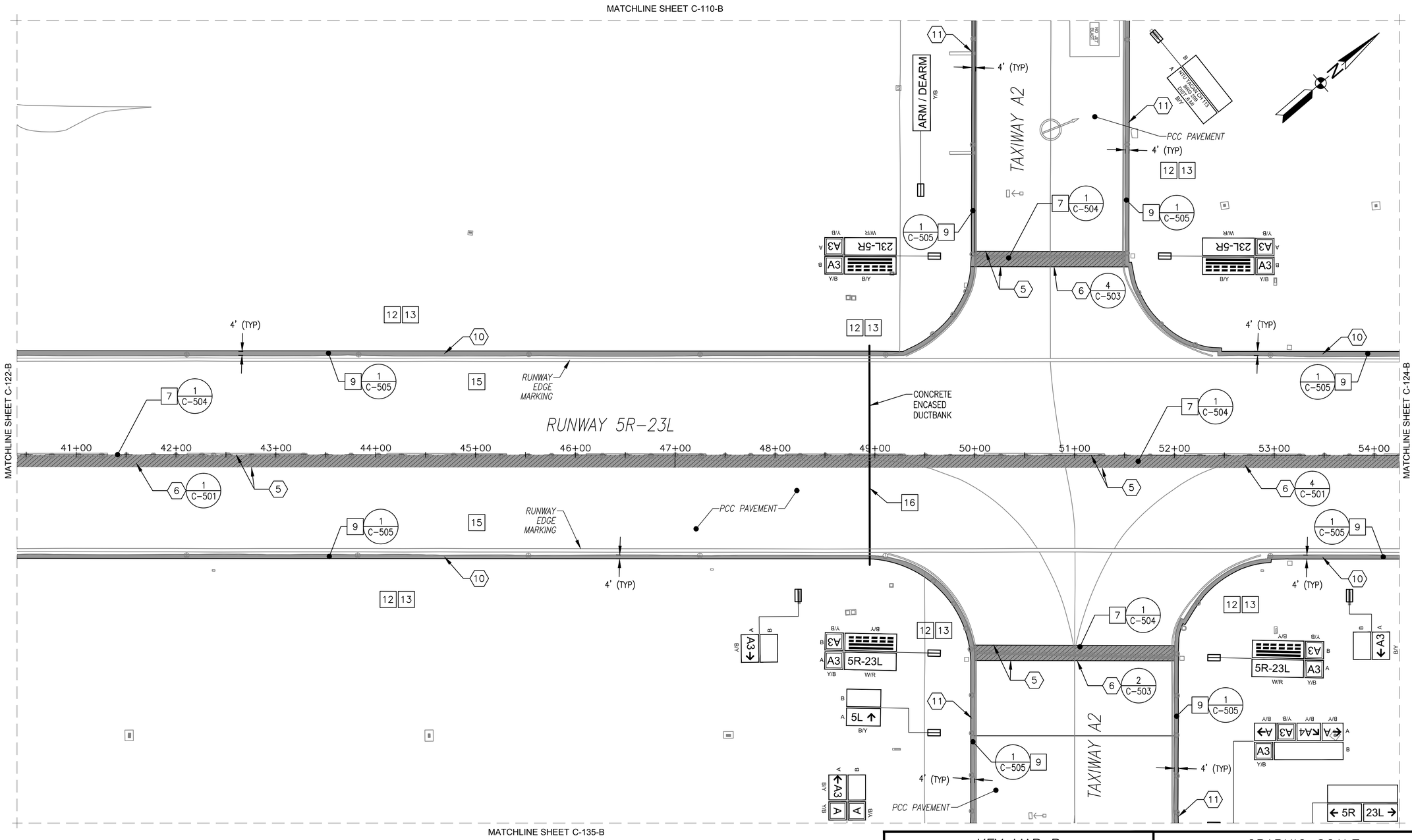
NAVFAC DRAWING NO.
12691566

SHEET 33 OF 388

C-122-B

DRAWFORM REVISION: 10 MARCH 2009

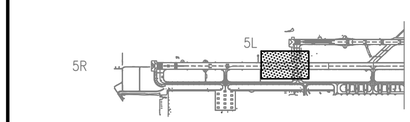
FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-122-B.dwg LAYOUT NAME: C-122-B PLOTTED: Tuesday, March 24, 2015 - 9:41am USER: jgeorge



DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.
2. SEE SHEET C-001 FOR DEMOLITION KEYNOTES, CONSTRUCTION KEYNOTES, AND LEGEND.

KEY MAP B



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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041439-E
SEAL

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ACTIVITY

SATISFACTORY TO DATE

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PM/DM

BRANCH MANAGER BJC

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"

EPROJECT NO.: 1291651

CONSTR. CONTR. NO.

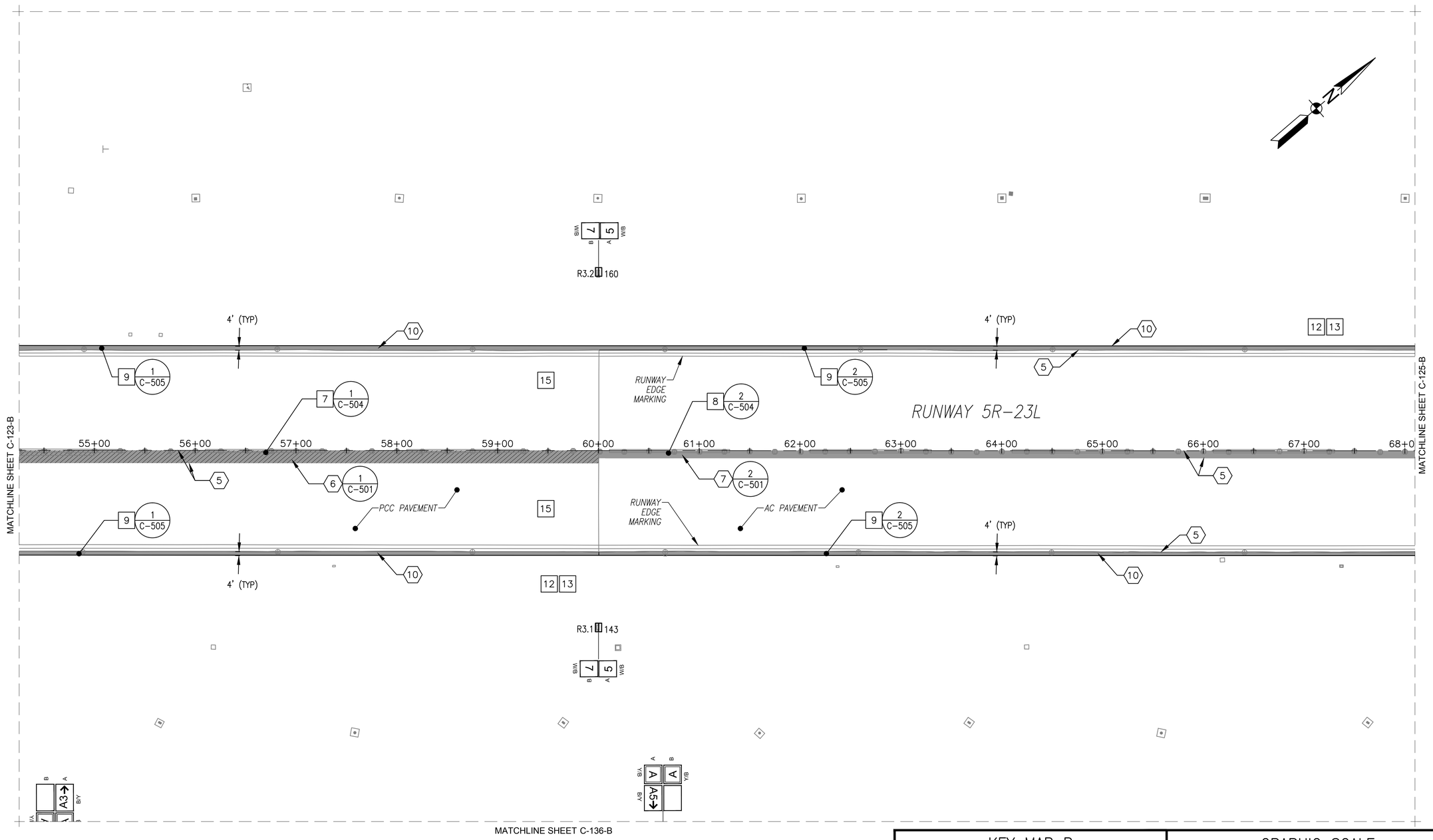
NAVFAC DRAWING NO.
12691567

SHEET 34 OF 388

C-123-B

DRAWFORM REVISION: 10 MARCH 2009

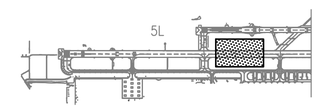
FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-123-B.dwg LAYOUT NAME: C-123-B PLOTTED: Tuesday, March 24, 2015 - 9:42am USER: jgeorge



DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.
2. SEE SHEET C-001 FOR DEMOLITION KEYNOTES, CONSTRUCTION KEYNOTES, AND LEGEND.

KEY MAP B



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger

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041439-E

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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 BJL

CHIEF ENG/ARCH

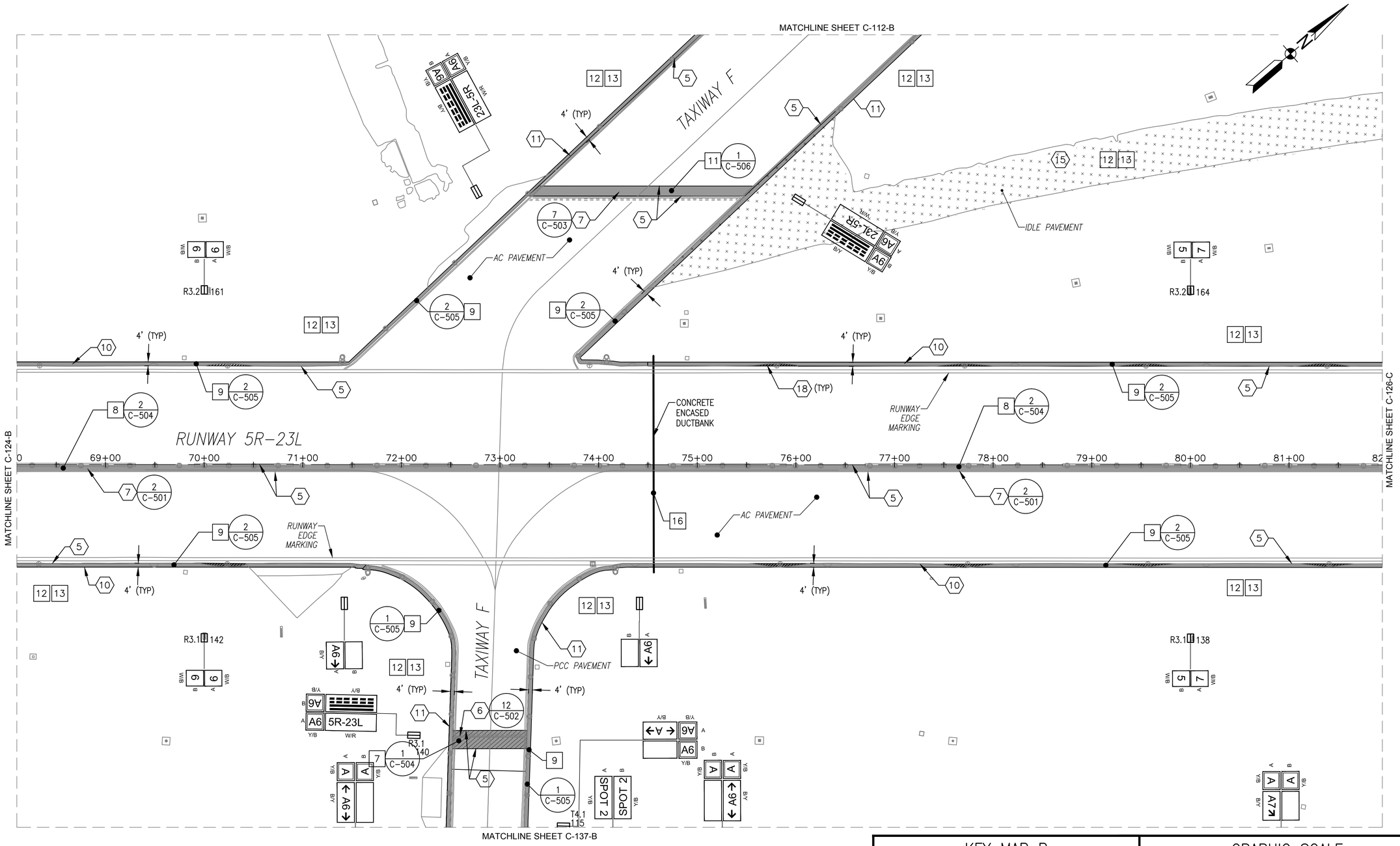
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691568
SHEET 35 OF 368

C-124-B

DRAWFORM REVISION: 10 MARCH 2009

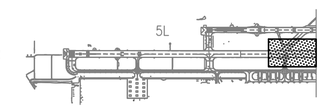
FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-124-B.dwg LAYOUT NAME: C-124-B PLOTTED: Tuesday, March 24, 2015 - 9:43am USER: jpeorge



DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.
2. SEE SHEET C-001 FOR DEMOLITION KEYNOTES, CONSTRUCTION KEYNOTES, AND LEGEND.

KEY MAP B



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

JOHNSON, MIRMIRAN THOMPSON
Gannett Fleming
A Joint Venture
272 Bendix Road, Suite 260
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Telephone: (757)499-1895
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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 BJL

CHIEF ENG/ARCH

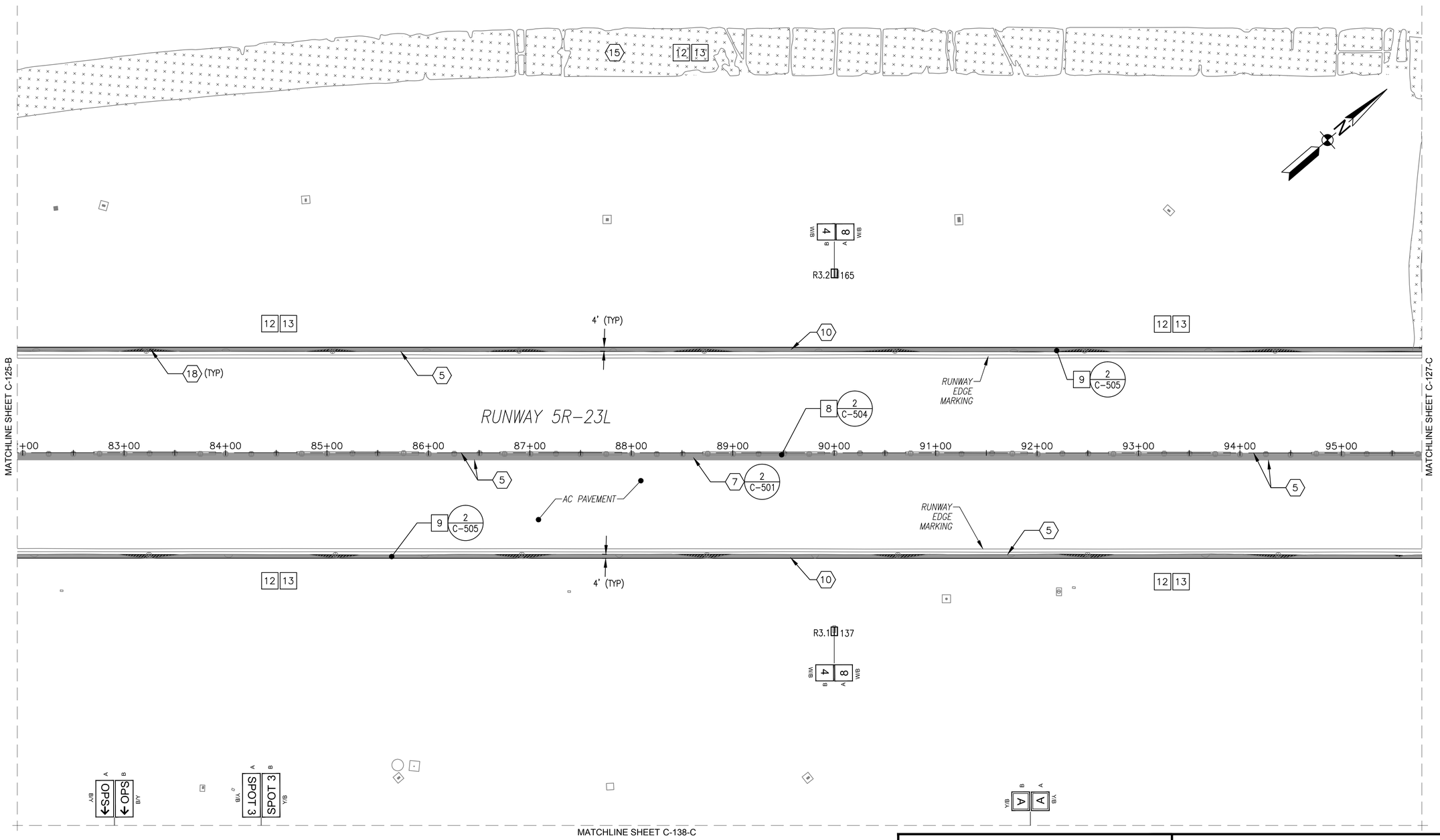
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691569
SHEET 36 OF 388

C-125-B

DRAWFORM REVISION: 10 MARCH 2009

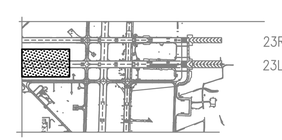
FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-125-B.dwg LAYOUT NAME: C-125-B PLOTTED: Tuesday, March 24, 2015 - 9:45am USER: jpeorge



DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.
2. SEE SHEET C-001 FOR DEMOLITION KEYNOTES, CONSTRUCTION KEYNOTES, AND LEGEND.

KEY MAP C



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
MARK J TIGER
ENGINEER
041439-E

SEAL

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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 BJC

CHIEF ENG/ARCH

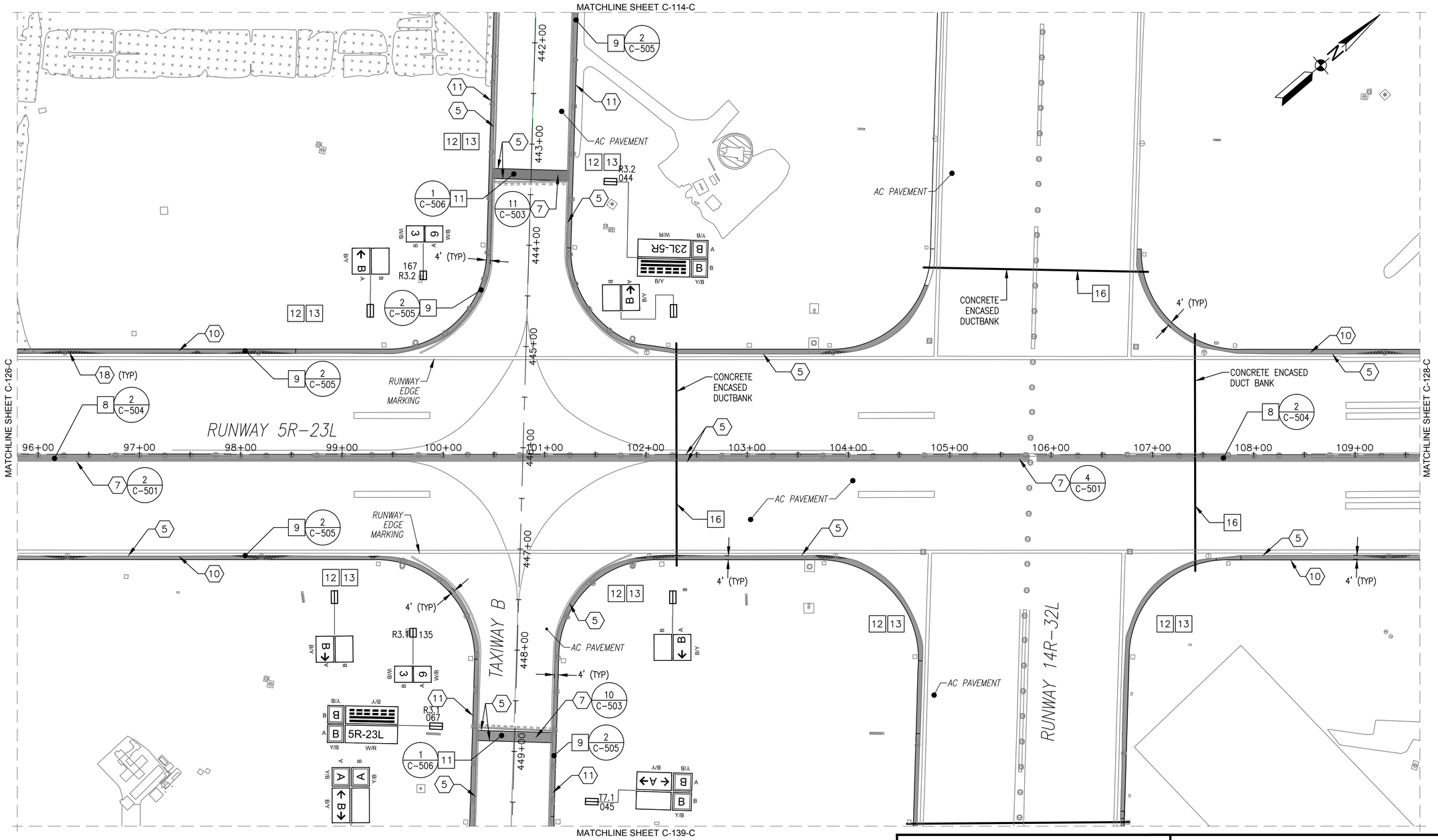
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691570
SHEET 37 OF 388

C-126-C

DRAWFORM REVISION: 10 MARCH 2009

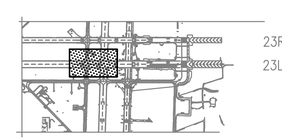
FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-126-C.dwg LAYOUT NAME: C-126-C PLOTTED: Tuesday, March 24, 2015 - 9:46am USER: jgeorge



DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.
2. SEE SHEET C-001 FOR DEMOLITION KEYNOTES, CONSTRUCTION KEYNOTES, AND LEGEND.

KEY MAP C



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
MARK J TIGER
ENGINEER
041439-E
SEAL

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A/E INFO

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FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT | DRW DFD | CHK ELO

PM/DM

BRANCH MANAGER BJC

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"

EPROJECT NO.: 1291651

CONSTR. CONTR. NO.

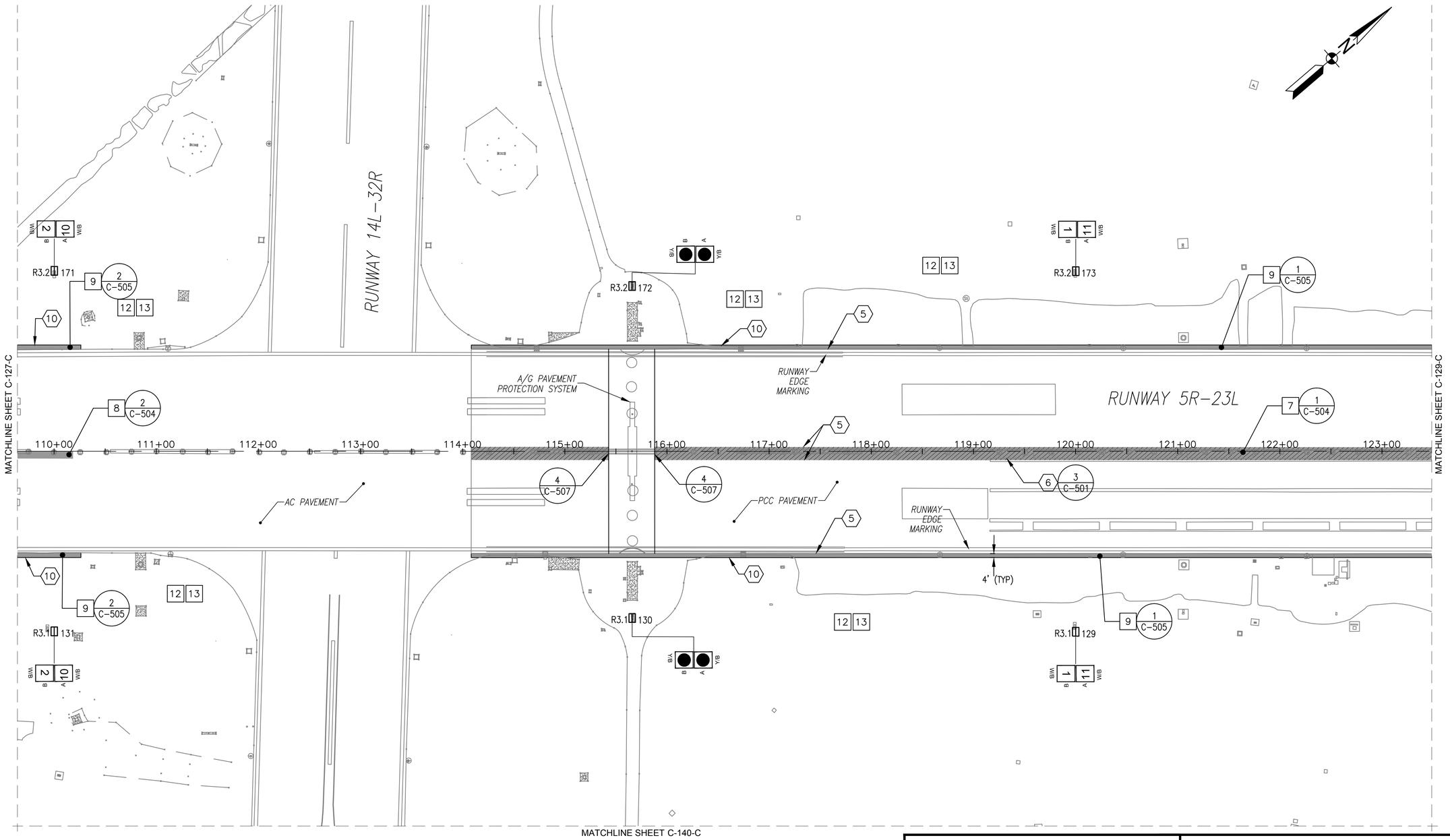
NAVFAC DRAWING NO. 12691571

SHEET 38 OF 368

C-127-C

DRAWFORM REVISION: 10 MARCH 2009

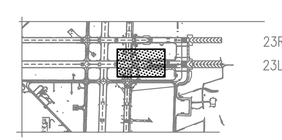
FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-127-C.dwg LAYOUT NAME: C-127-C PLOTTED: Tuesday, March 24, 2015 - 9:47am USER: jgeorge



DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.
2. SEE SHEET C-001 FOR DEMOLITION KEYNOTES, CONSTRUCTION KEYNOTES, AND LEGEND.

KEY MAP C



GRAPHIC SCALE

1"=50'

0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
MARK J TIGER
CIVIL ENGINEER
041439-E
SEAL

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A/E INFO

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FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

PM/DM

BRANCH MANAGER BJC

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
HR IPT
NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"

EPROJECT NO.: 1291651

CONSTR. CONTR. NO.

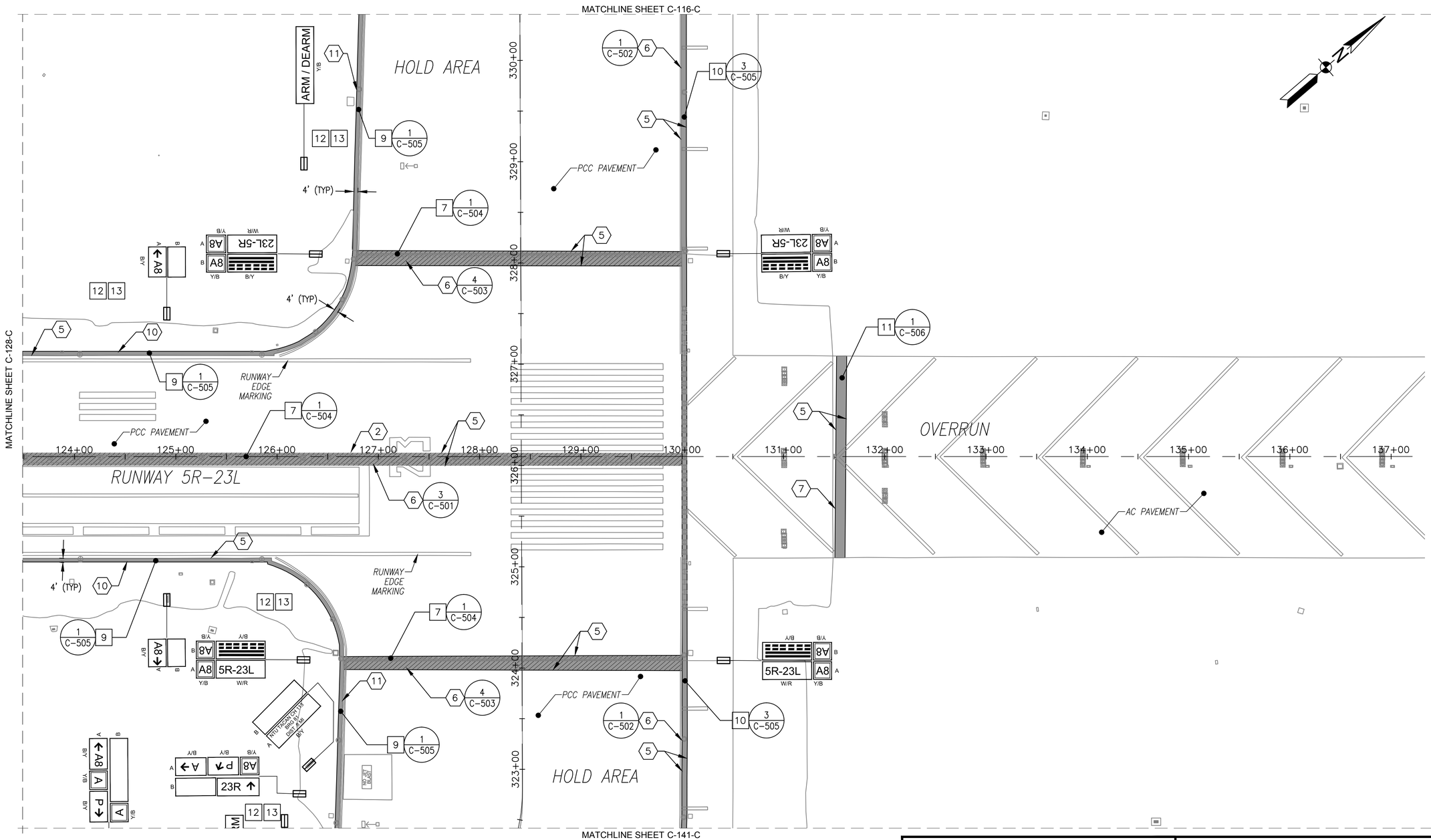
NAVFAC DRAWING NO. 12691572

SHEET 39 OF 368

C-128-C

DRAWFORM REVISION: 10 MARCH 2009

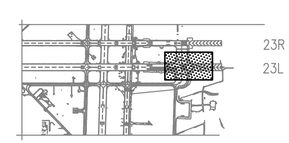
FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-128-C.dwg LAYOUT NAME: C-128-C PLOTTED: Tuesday, March 24, 2015 - 9:49am USER: jgeorge



DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.
2. SEE SHEET C-001 FOR DEMOLITION KEYNOTES, CONSTRUCTION KEYNOTES, AND LEGEND.

KEY MAP C



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger

SEAL

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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 B/L

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT

NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA

NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2

DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"

EPROJECT NO.: 1291651

CONSTR. CONTR. NO.

NAVFAC DRAWING NO.
12691573

SHEET 40 OF 368

C-129-C

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-129-C.dwg LAYOUT NAME: C-129-C PLOTTED: Tuesday, March 24, 2015 - 9:50am USER: jgeorge

DEMOLITION KEYNOTES

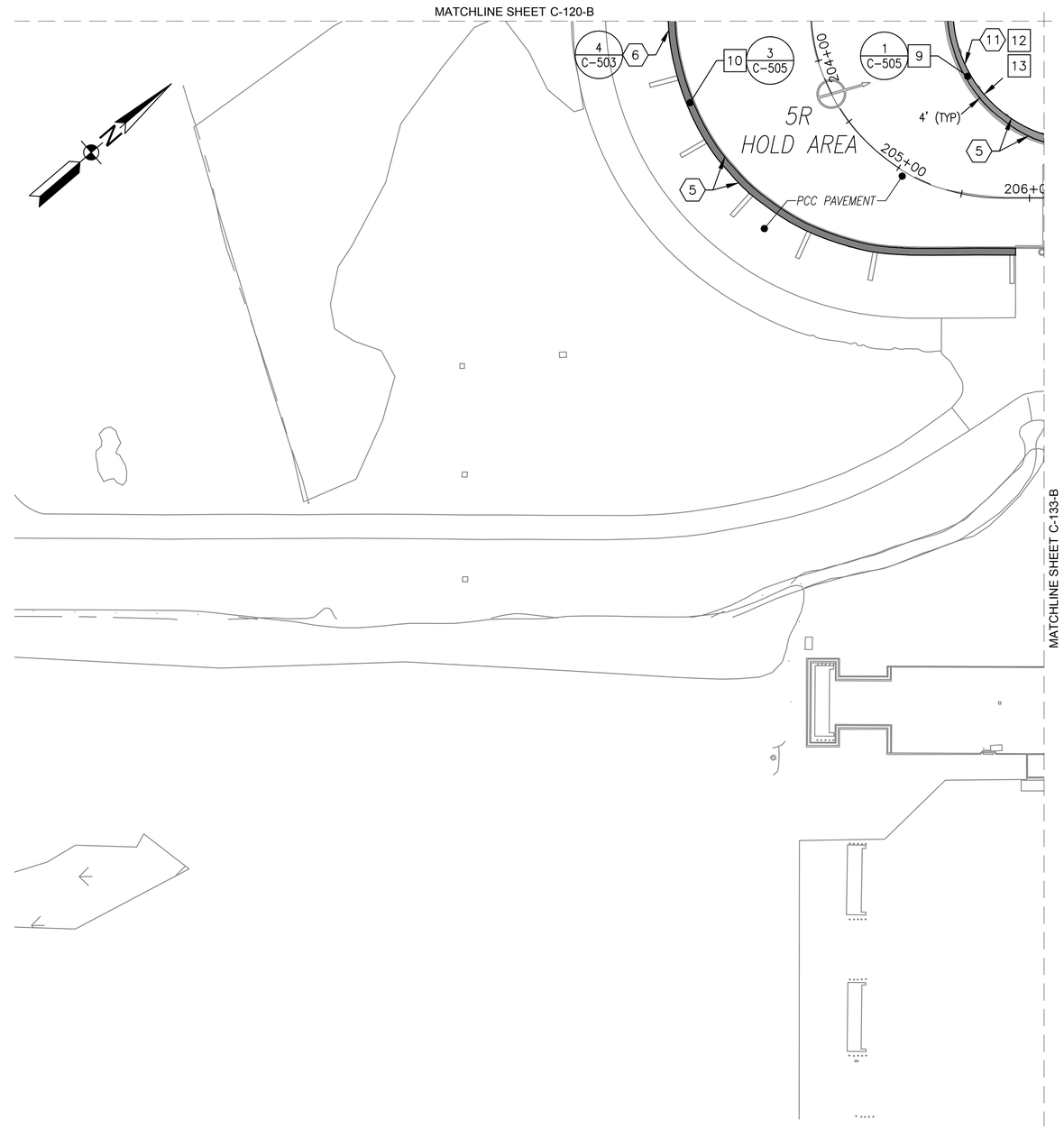
1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT PAVEMENT
6. REMOVE PCC PAVEMENT (FULL DEPTH)
7. REMOVE AC PAVEMENT (FULL DEPTH)
8. EXCAVATE 1' DEEP BEFORE PLACING CABC
9. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
10. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
11. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
12. REMOVE AC SHOULDER
13. PROTECT EXISTING STRUCTURE TO REMAIN
14. PROTECT CONCRETE TO REMAIN
15. REMOVE IDLE PAVEMENT AREAS
16. REMOVE AC-MILLING SHOULDER. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER.
17. RM 10-9004 SCOPE REVISES RUNWAY-RUNWAY INTERSECTION PAVEMENT FROM AC TO PCC. DEMOLITION LIMITS MAY VARY DEPENDENT ON RM 10-9004 SCHEDULE PROGRESS. ADJUST DEMOLITION LIMIT TO MATCH EXISTING AC-PCC LOCATION.
18. REMOVE AC PAVEMENT AROUND EXISTING LIGHT BASE

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT AGGREGATE SUBBASE COURSE
6. CONSTRUCT CEMENT TREATED BASE COURSE
7. CONSTRUCT PCC AIRFIELD PAVEMENT
8. CONSTRUCT AC AIRFIELD PAVEMENT
9. CONSTRUCT AC SHOULDER PAVEMENT
10. CONSTRUCT PCC UTILITY TRENCH
11. CONSTRUCT AC UTILITY TRENCH
12. REGRADE SHOULDERS AND INFIELDS
13. PROVIDE 4" TOPSOIL AND SEED AREAS DISTURBED DURING CONSTRUCTION
14. PROTECT STRUCTURE TO REMAIN
15. PROTECT CONCRETE TO REMAIN
16. PROVIDE CONCRETE ENCASED DUCTBANK. SEE ELECTRICAL SHEETS FOR DETAILS

LEGEND

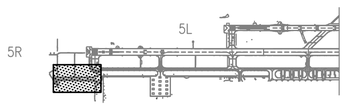
- IDLE PAVEMENT REMOVAL
- PCC AIRFIELD PAVEMENT
- AC AIRFIELD PAVEMENT
- CRACK REPAIR AND FOG SEAL
- UTILITY TRENCH PAVEMENT PATCH
- 18.0 — MAJOR PROPOSED CONTOUR
- 18.2 — MINOR PROPOSED CONTOUR
- 10+00 — RUNWAY/TAXIWAY BASELINE
- IP — INLET PROTECTION
- AIRFIELD SIGN



DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.

KEY MAP B



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
ENGINEER
041439-E
SEAL

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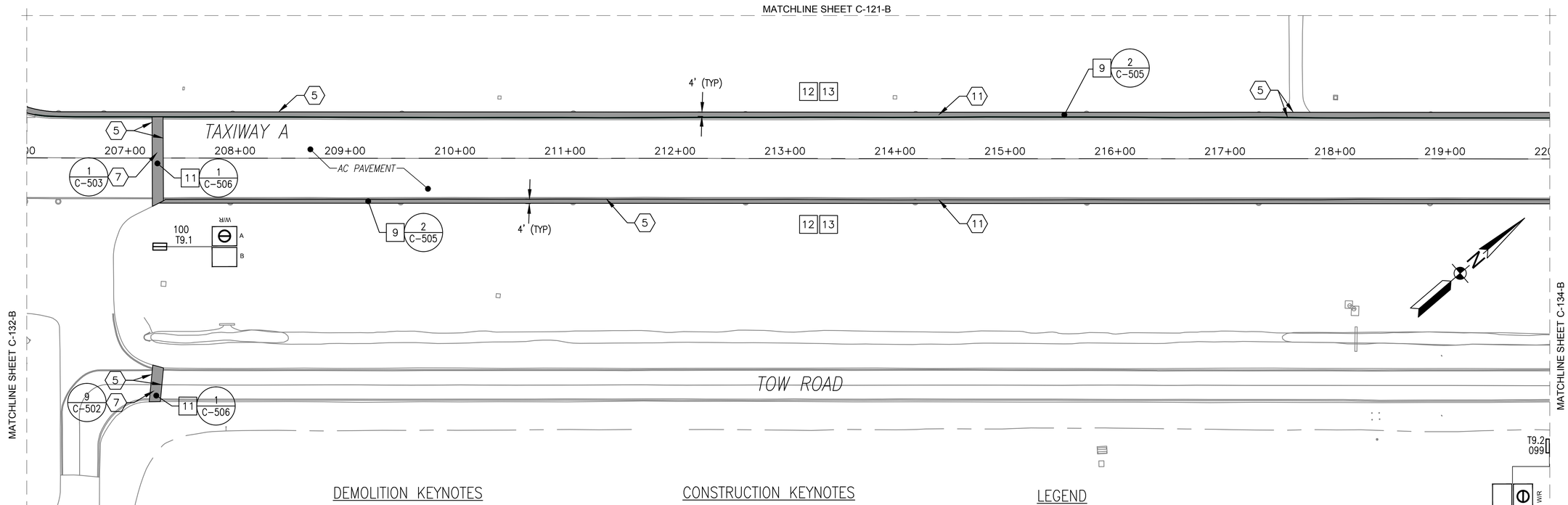
WEB: WWW.JMT.COM
A/E INFO

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

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691574
SHEET 41 OF 368
C-132-B
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-132-B.dwg LAYOUT NAME: C-132-B PLOTTED: Tuesday, March 24, 2015 - 9:59am USER: jgeorge



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT PAVEMENT
6. REMOVE PCC PAVEMENT (FULL DEPTH)
7. REMOVE AC PAVEMENT (FULL DEPTH)
8. EXCAVATE 1' DEEP BEFORE PLACING CABC
9. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
10. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
11. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
12. REMOVE AC SHOULDER
13. PROTECT EXISTING STRUCTURE TO REMAIN
14. PROTECT CONCRETE TO REMAIN
15. REMOVE IDLE PAVEMENT AREAS
16. REMOVE AC-MILLING SHOULDER. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER.
17. RM 10-9004 SCOPE REVISES RUNWAY-RUNWAY INTERSECTION PAVEMENT FROM AC TO PCC. DEMOLITION LIMITS MAY VARY DEPENDENT ON RM 10-9004 SCHEDULE PROGRESS. ADJUST DEMOLITION LIMIT TO MATCH EXISTING AC-PCC LOCATION.
18. REMOVE AC PAVEMENT AROUND EXISTING LIGHT BASE

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT AGGREGATE SUBBASE COURSE
6. CONSTRUCT CEMENT TREATED BASE COURSE
7. CONSTRUCT PCC AIRFIELD PAVEMENT
8. CONSTRUCT AC AIRFIELD PAVEMENT
9. CONSTRUCT AC SHOULDER PAVEMENT
10. CONSTRUCT PCC UTILITY TRENCH
11. CONSTRUCT AC UTILITY TRENCH
12. REGRADE SHOULDERS AND INFIELDS
13. PROVIDE 4" TOPSOIL AND SEED AREAS DISTURBED DURING CONSTRUCTION
14. PROTECT STRUCTURE TO REMAIN
15. PROTECT CONCRETE TO REMAIN
16. PROVIDE CONCRETE ENCASED DUCTBANK. SEE ELECTRICAL SHEETS FOR DETAILS

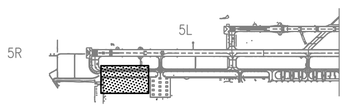
LEGEND

- IDLE PAVEMENT REMOVAL
- PCC AIRFIELD PAVEMENT
- AC AIRFIELD PAVEMENT
- CRACK REPAIR AND FOG SEAL
- UTILITY TRENCH PAVEMENT PATCH
- 18.0 — MAJOR PROPOSED CONTOUR
- 18.2 — MINOR PROPOSED CONTOUR
- 10+00 — RUNWAY/TAXIWAY BASELINE
- IP — INLET PROTECTION
- AIRFIELD SIGN

DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.

KEY MAP B



GRAPHIC SCALE

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

APPR	DATE	DESCRIPTION	SYM

NAVFAC

Mark Tiger

MARK J TIGER
ENGINEER
041439-E

SEAL

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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 BJC

CHIEF ENG/ARCH

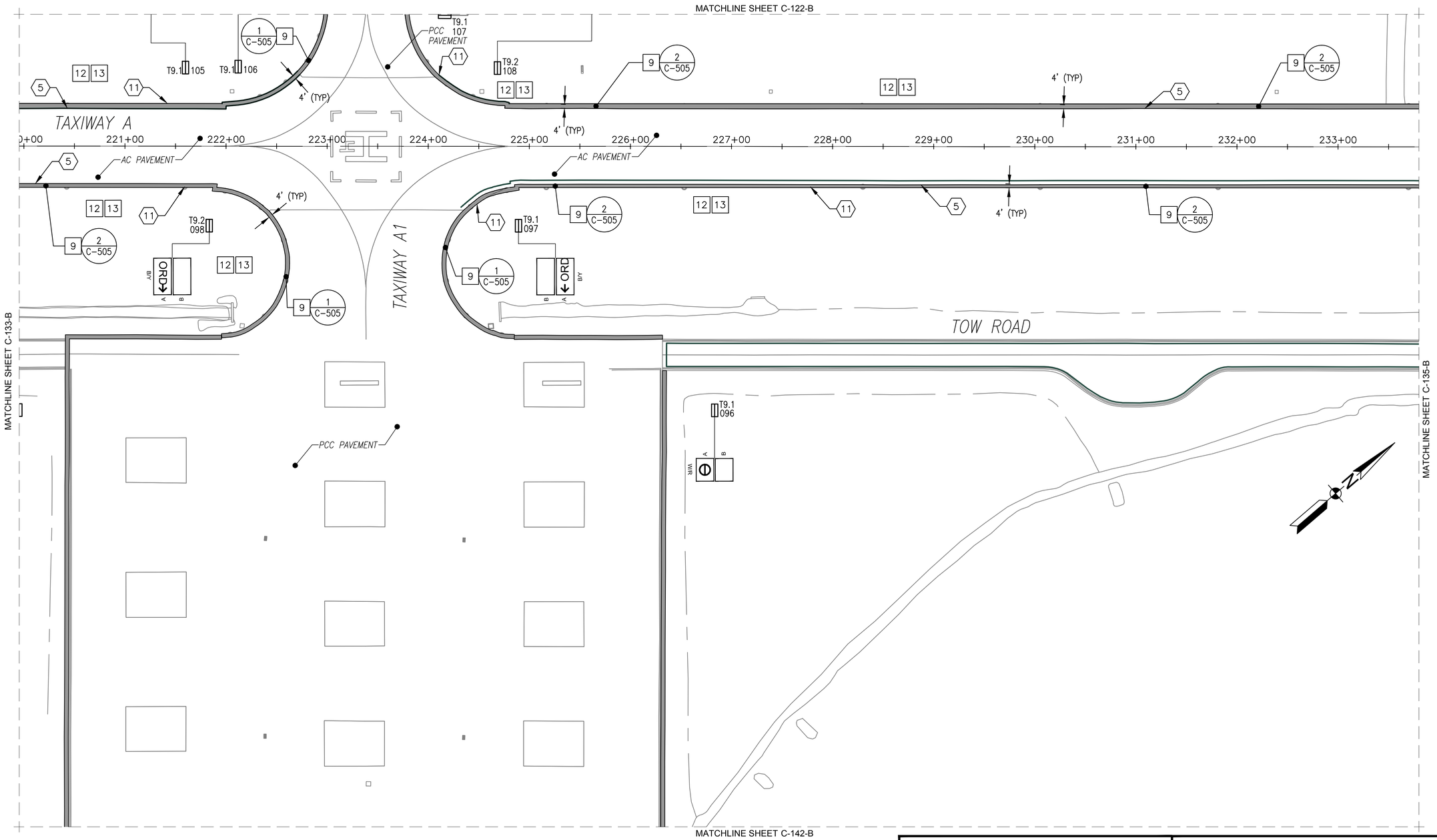
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691575
SHEET 42 OF 368

C-133-B

DRAWFORM REVISION: 10 MARCH 2009

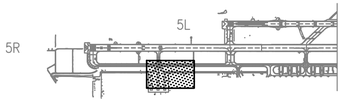
FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-133-B.dwg LAYOUT NAME: C-133-B PLOTTED: Tuesday, March 24, 2015 - 10:05am USER: jpeorge



DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.
2. SEE SHEET C-001 FOR DEMOLITION KEYNOTES, CONSTRUCTION KEYNOTES, AND LEGEND.

KEY MAP B



GRAPHIC SCALE

1"=50'

0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger

MARK J TIGER
ENGINEER
041439-E

SEAL

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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – MID-ATLANTIC
HR IPT
NAVAL AIR STATION OCEANA
NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"

EPROJECT NO.: 1291651

CONSTR. CONTR. NO.

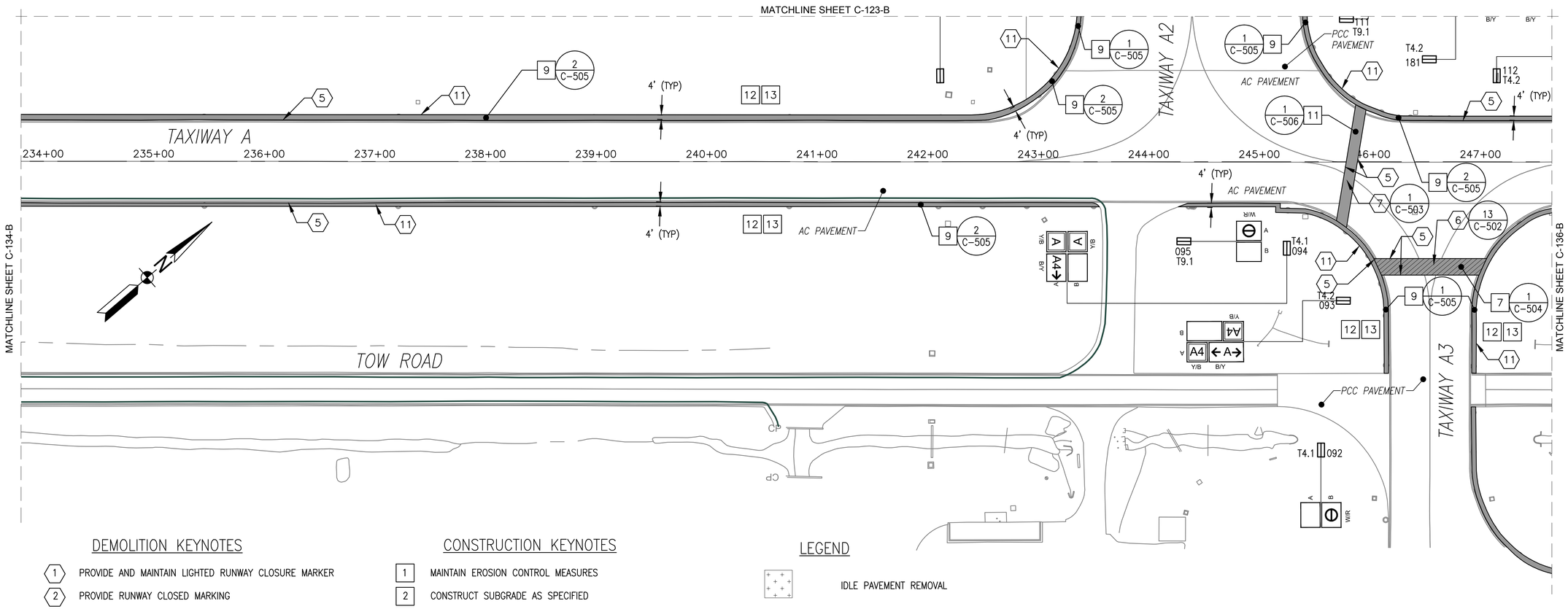
NAVFAC DRAWING NO.
12691576

SHEET 43 OF 368

C-134-B

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHFA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-134-B.dwg LAYOUT NAME: C-134-B PLOTTED: Tuesday, March 24, 2015 - 10:07am USER: jgeorge



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT PAVEMENT
6. REMOVE PCC PAVEMENT (FULL DEPTH)
7. REMOVE AC PAVEMENT (FULL DEPTH)
8. EXCAVATE 1' DEEP BEFORE PLACING CABC
9. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
10. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
11. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
12. REMOVE AC SHOULDER
13. PROTECT EXISTING STRUCTURE TO REMAIN
14. PROTECT CONCRETE TO REMAIN
15. REMOVE IDLE PAVEMENT AREAS
16. REMOVE AC-MILLING SHOULDER. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER.
17. RM 10-9004 SCOPE REVISES RUNWAY-RUNWAY INTERSECTION PAVEMENT FROM AC TO PCC. DEMOLITION LIMITS MAY VARY DEPENDENT ON RM 10-9004 SCHEDULE PROGRESS. ADJUST DEMOLITION LIMIT TO MATCH EXISTING AC-PCC LOCATION.
18. REMOVE AC PAVEMENT AROUND EXISTING LIGHT BASE

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT AGGREGATE SUBBASE COURSE
6. CONSTRUCT CEMENT TREATED BASE COURSE
7. CONSTRUCT PCC AIRFIELD PAVEMENT
8. CONSTRUCT AC AIRFIELD PAVEMENT
9. CONSTRUCT AC SHOULDER PAVEMENT
10. CONSTRUCT PCC UTILITY TRENCH
11. CONSTRUCT AC UTILITY TRENCH
12. REGRADE SHOULDERS AND INFIELDS
13. PROVIDE 4" TOPSOIL AND SEED AREAS DISTURBED DURING CONSTRUCTION
14. PROTECT STRUCTURE TO REMAIN
15. PROTECT CONCRETE TO REMAIN
16. PROVIDE CONCRETE ENCASED DUCTBANK. SEE ELECTRICAL SHEETS FOR DETAILS

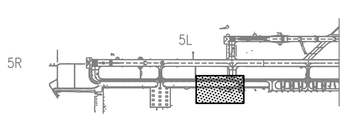
LEGEND

- IDLE PAVEMENT REMOVAL
- PCC AIRFIELD PAVEMENT
- AC AIRFIELD PAVEMENT
- CRACK REPAIR AND FOG SEAL
- UTILITY TRENCH PAVEMENT PATCH
- 18.0 — MAJOR PROPOSED CONTOUR
- 18.2 — MINOR PROPOSED CONTOUR
- 10+00 — RUNWAY/TAXIWAY BASELINE
- IP — INLET PROTECTION
- AIRFIELD SIGN

DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.

KEY MAP B



GRAPHIC SCALE

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

APPR	DATE	DESCRIPTION	SYM

NAVFAC

Mark J. Tiger — COMMONWEALTH OF VIRGINIA — REGISTERED PROFESSIONAL ENGINEER — MARK J TIGER — ENGINEER — 041439-E

SEAL

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 MJT | DRW DFD | CHK ELO

PM/DM

BRANCH MANAGER B/L

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"

EPROJECT NO.: 1291651

CONSTR. CONTR. NO.

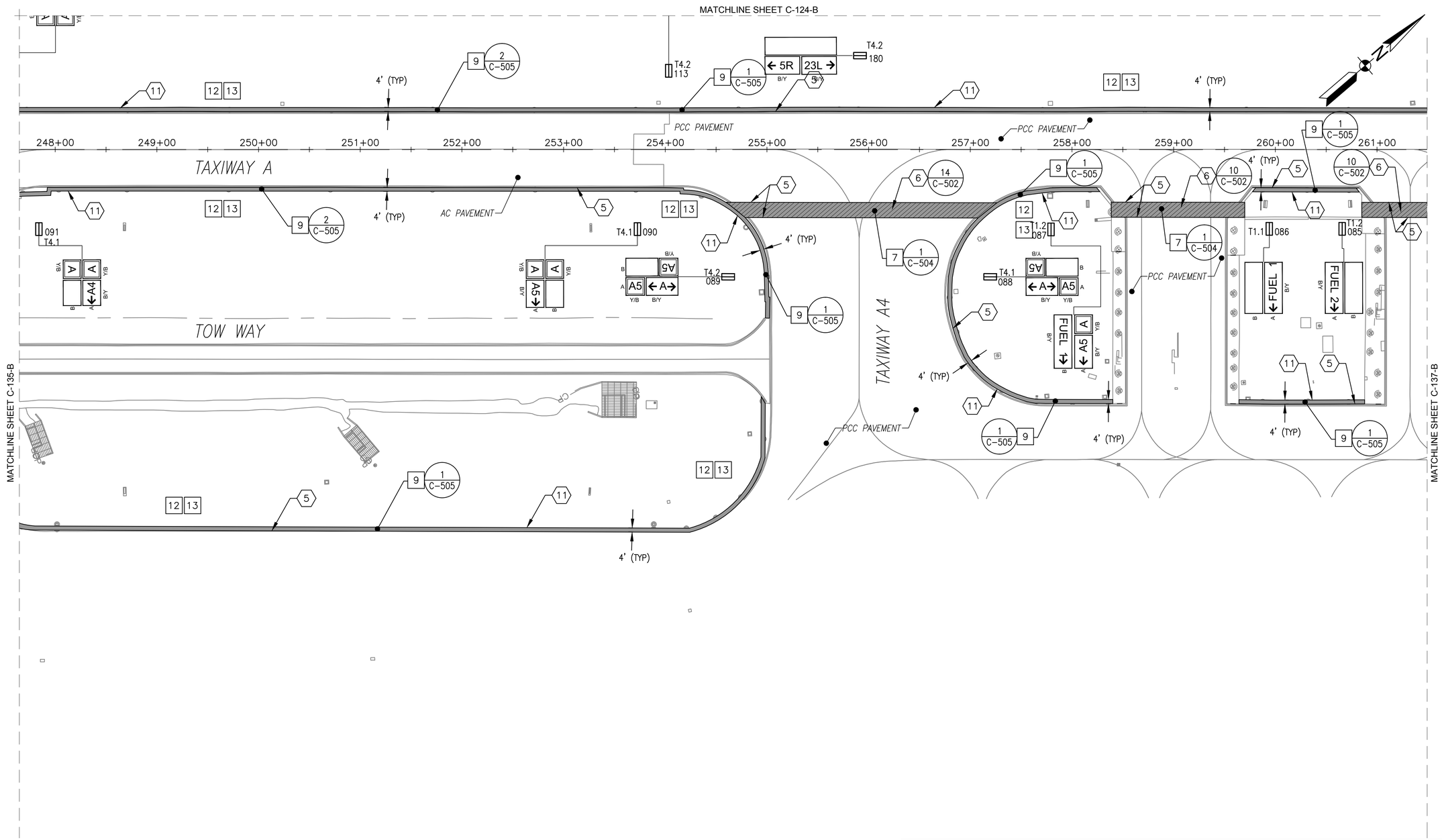
NAVFAC DRAWING NO.
12691577

SHEET 44 OF 368

C-135-B

DRAWFORM REVISION: 10 MARCH 2009

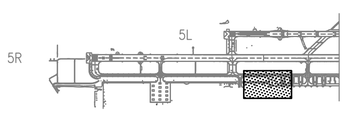
FILE NAME: Q:\PHIPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-135-B.dwg LAYOUT NAME: C-135-B PLOTTED: Tuesday, March 24, 2015 - 10:13am USER: jgeorge



DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.
2. SEE SHEET C-001 FOR DEMOLITION KEYNOTES, CONSTRUCTION KEYNOTES, AND LEGEND.

KEY MAP B



GRAPHIC SCALE

1"=50'

0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger

SEAL

JOHNSON, MIRMIRAN THOMPSON
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A/E INFO

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ACTIVITY

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PM/DM

BRANCH MANAGER BJL

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HQ IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRIGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"

EPROJECT NO.: 1291651

CONSTR. CONTR. NO.

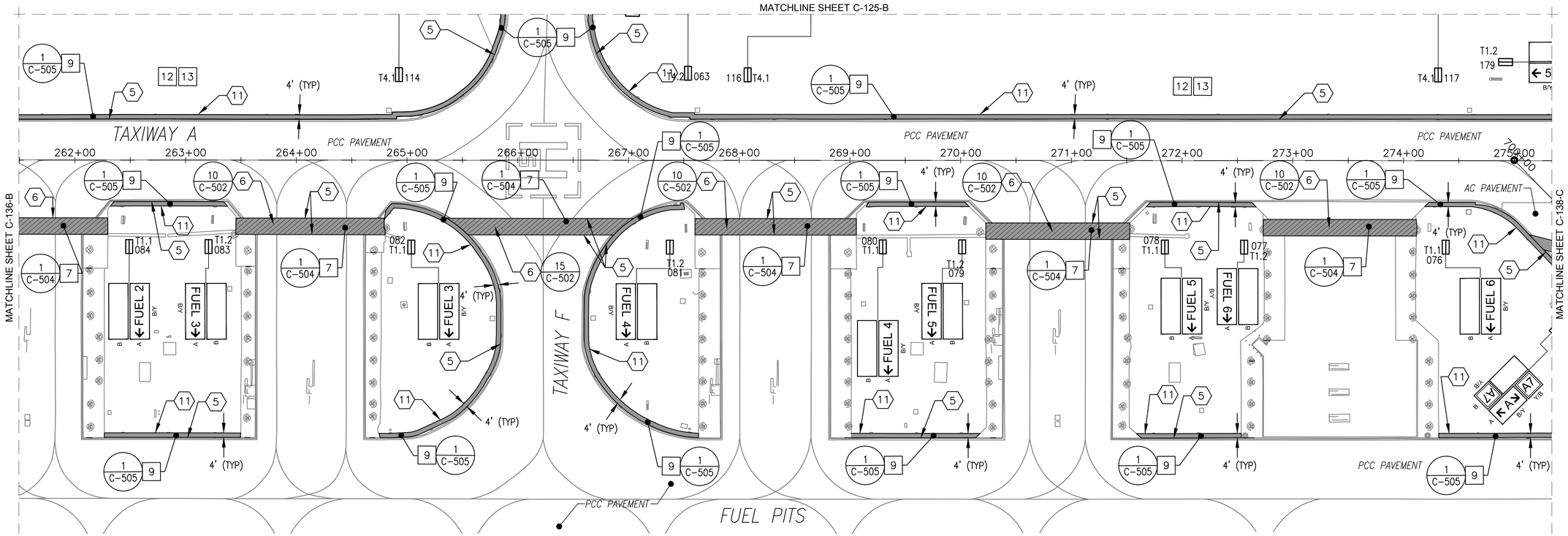
NAVFAC DRAWING NO.
12691578

SHEET 45 OF 368

C-136-B

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-136-B.dwg LAYOUT NAME: C-136-B PLOTTED: Tuesday, March 24, 2015 - 9:15am USER: mcosenza



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT PAVEMENT
6. REMOVE PCC PAVEMENT (FULL DEPTH)
7. REMOVE AC PAVEMENT (FULL DEPTH)
8. EXCAVATE 1' DEEP BEFORE PLACING CABC
9. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
10. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
11. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
12. REMOVE AC SHOULDER
13. PROTECT EXISTING STRUCTURE TO REMAIN
14. PROTECT CONCRETE TO REMAIN
15. REMOVE IDLE PAVEMENT AREAS
16. REMOVE AC-MILLING SHOULDER. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER.
17. RM 10-9004 SCOPE REVISES RUNWAY-RUNWAY INTERSECTION PAVEMENT FROM AC TO PCC. DEMOLITION LIMITS MAY VARY DEPENDENT ON RM 10-9004 SCHEDULE PROGRESS. ADJUST DEMOLITION LIMIT TO MATCH EXISTING AC-PCC LOCATION.
18. REMOVE AC PAVEMENT AROUND EXISTING LIGHT BASE

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT AGGREGATE SUBBASE COURSE
6. CONSTRUCT CEMENT TREATED BASE COURSE
7. CONSTRUCT PCC AIRFIELD PAVEMENT
8. CONSTRUCT AC AIRFIELD PAVEMENT
9. CONSTRUCT AC SHOULDER PAVEMENT
10. CONSTRUCT PCC UTILITY TRENCH
11. CONSTRUCT AC UTILITY TRENCH
12. REGRADE SHOULDERS AND INFIELDS
13. PROVIDE 4" TOPSOIL AND SEED AREAS DISTURBED DURING CONSTRUCTION
14. PROTECT STRUCTURE TO REMAIN
15. PROTECT CONCRETE TO REMAIN
16. PROVIDE CONCRETE ENCASED DUCTBANK. SEE ELECTRICAL SHEETS FOR DETAILS

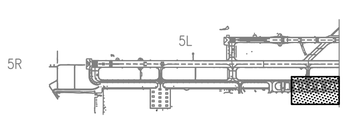
LEGEND

- IDLE PAVEMENT REMOVAL
- PCC AIRFIELD PAVEMENT
- AC AIRFIELD PAVEMENT
- CRACK REPAIR AND FOG SEAL
- UTILITY TRENCH PAVEMENT PATCH
- 18.0 — MAJOR PROPOSED CONTOUR
- 18.2 — MINOR PROPOSED CONTOUR
- 10+00 — RUNWAY/TAXIWAY BASELINE
- IP — INLET PROTECTION
- AIRFIELD SIGN

DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.

KEY MAP B



GRAPHIC SCALE

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

APPR	DATE	DESCRIPTION	SYM

NAVFAC

Mark Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
ENGINEER
041439-E
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A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE

DES	DRW	CHK
MJT	DFD	ELO

PM/DM
BRANCH MANAGER BJC
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

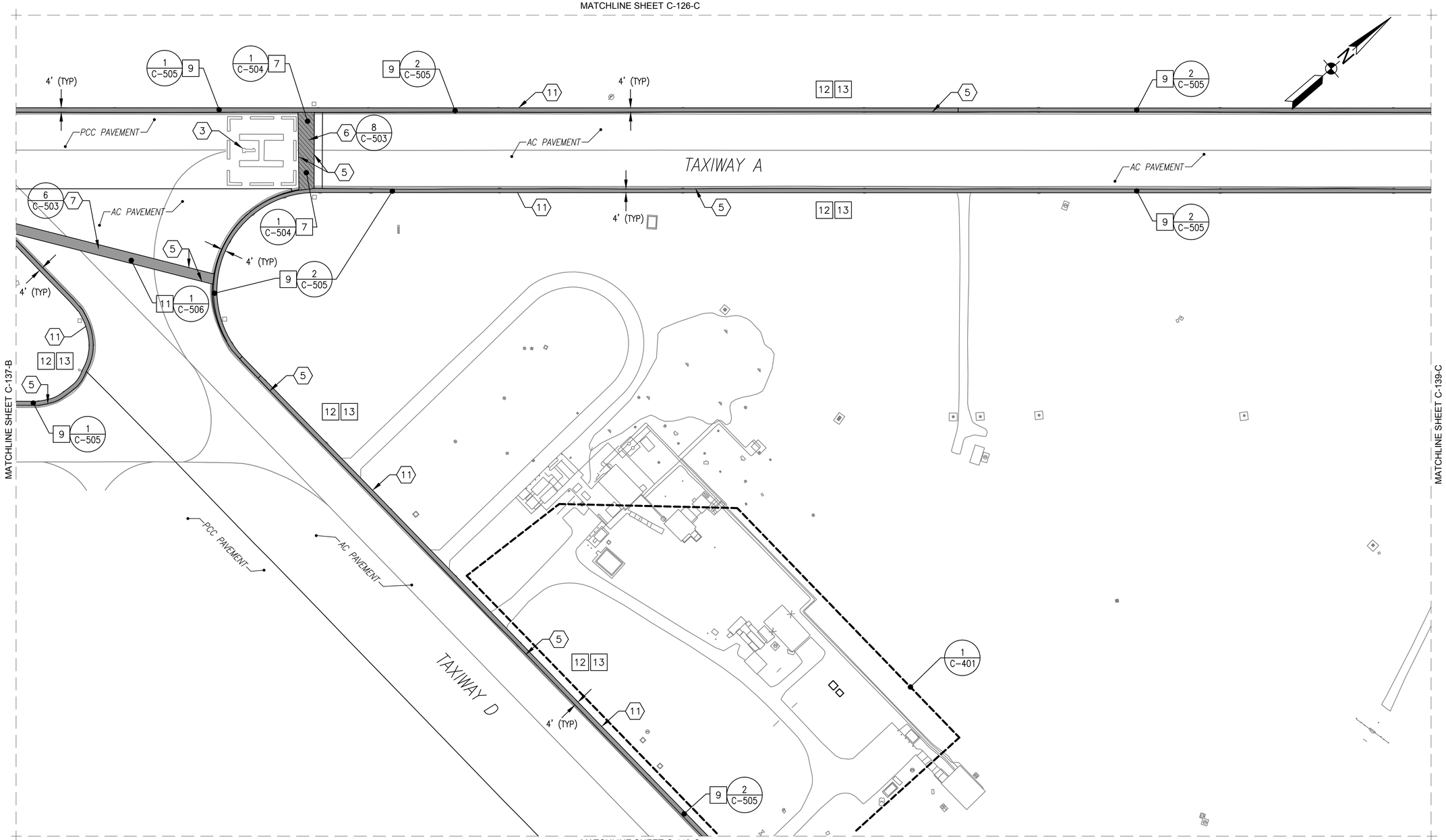
SCALE: 1" = 50'-0"
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691579
SHEET 46 OF 368

C-137-B

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-137-B.dwg LAYOUT NAME: C-137-B PLOTTED: Tuesday, March 24, 2015 - 9:20am USER: mcosenza

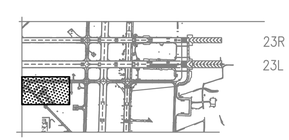
MATCHLINE SHEET C-126-C



DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.
2. SEE SHEET C-001 FOR DEMOLITION KEYNOTES, CONSTRUCTION KEYNOTES, AND LEGEND.

KEY MAP C



GRAPHIC SCALE

1"=50'

0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger

MARK J TIGER
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SATISFACTORY TO DATE

DES MJT DRW DFD CHK ELO

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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
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NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"

EPROJECT NO.: 1291651

CONSTR. CONTR. NO.

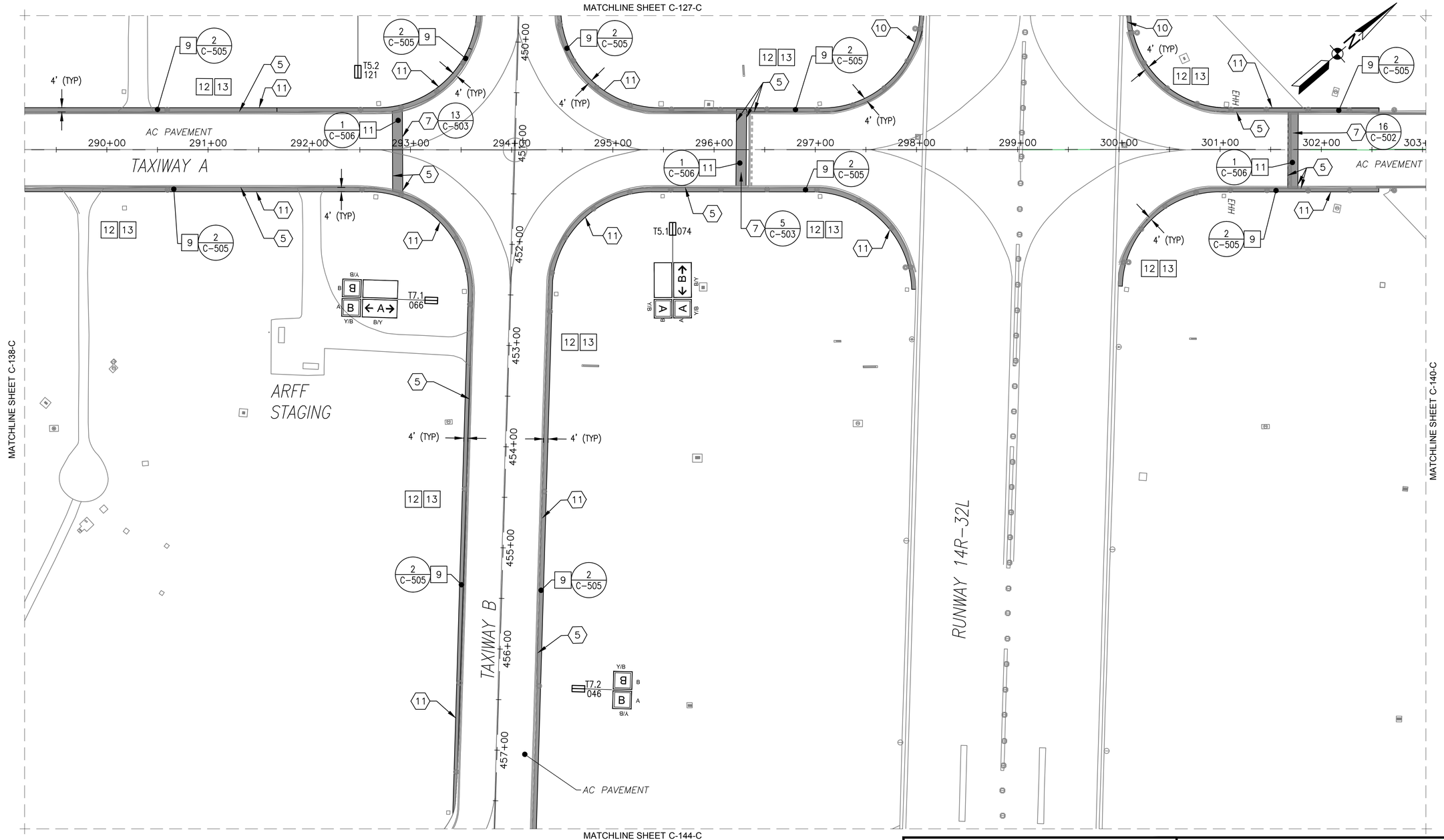
NAVFAC DRAWING NO.
12691580

SHEET 47 OF 368

C-138-C

DRAWFORM REVISION: 10 MARCH 2009

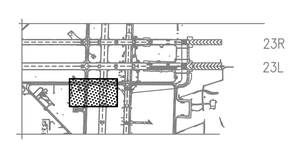
FILE NAME: Q:\PHIPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-138-C.dwg LAYOUT NAME: C-138-C PLOTTED: Tuesday, March 24, 2015 - 9:21am USER: mcosenza



DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.
2. SEE SHEET C-001 FOR DEMOLITION KEYNOTES, CONSTRUCTION KEYNOTES, AND LEGEND.

KEY MAP C



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
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A/E INFO

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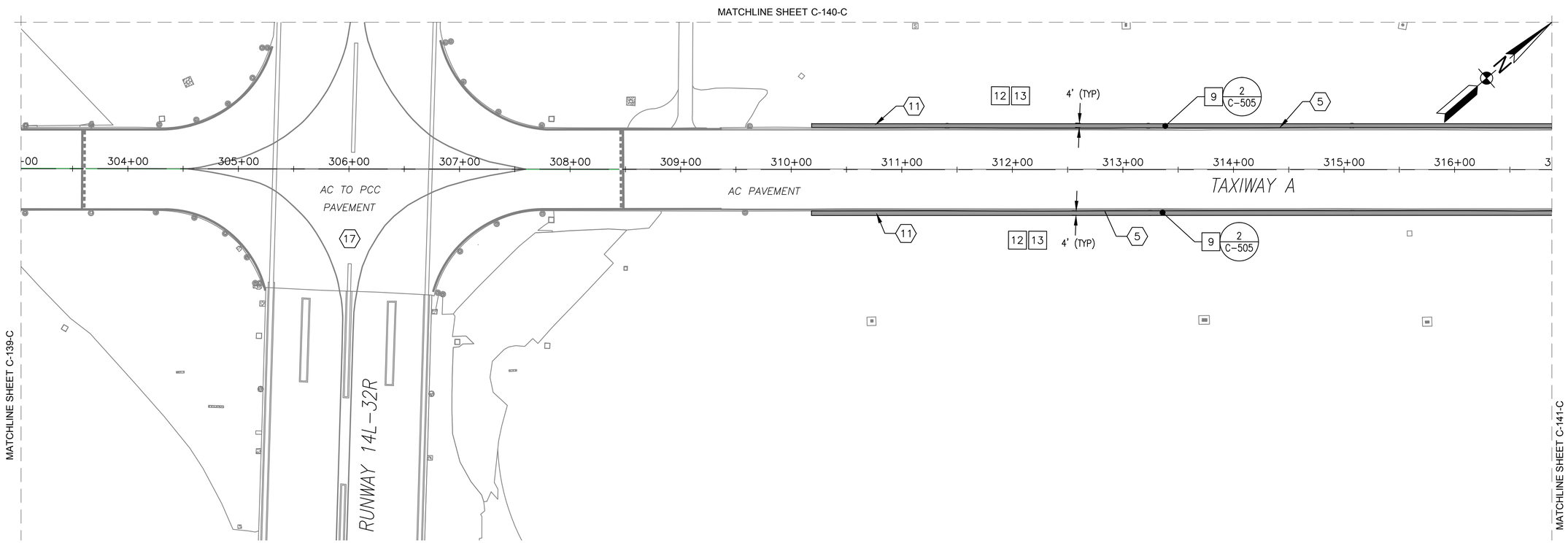
ACTIVITY
SATISFACTORY TO DATE
DES MJT | DRW DFD | CHK ELO
PM/DM
BRANCH MANAGER B/L
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691581
SHEET 48 OF 368
C-139-C
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-139-C.dwg LAYOUT NAME: C-139-C PLOTTED: Tuesday, March 24, 2015 - 9:22am USER: mcosenza



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT PAVEMENT
6. REMOVE PCC PAVEMENT (FULL DEPTH)
7. REMOVE AC PAVEMENT (FULL DEPTH)
8. EXCAVATE 1' DEEP BEFORE PLACING CABC
9. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
10. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
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15. REMOVE IDLE PAVEMENT AREAS
16. REMOVE AC-MILLING SHOULDER. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER.
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18. REMOVE AC PAVEMENT AROUND EXISTING LIGHT BASE

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
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LEGEND

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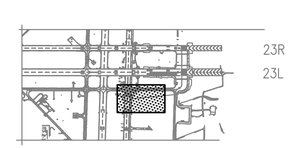
- AIRFIELD SIGN

DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.

KEY MAP C



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
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ENGINEER
041439-E
SEAL

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DES MJT DRW DFD CHK ELO
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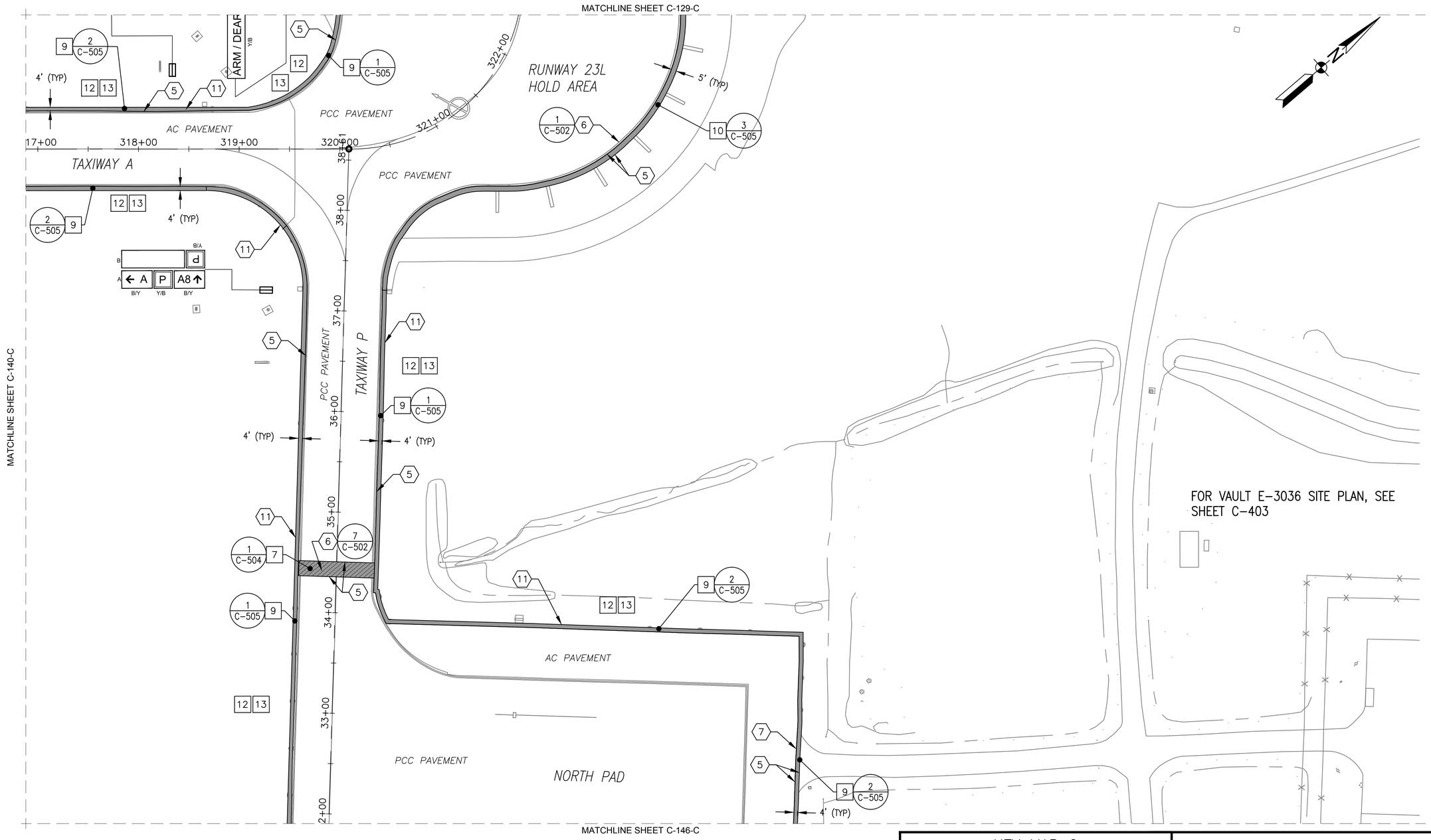
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691582
SHEET 49 OF 368
C-140-C
DRAWFORM REVISION: 10 MARCH 2009

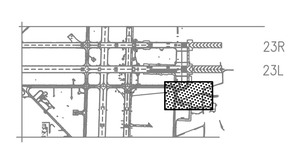
FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-140-C.dwg LAYOUT NAME: C-140-C PLOTTED: Tuesday, March 24, 2015 - 9:26am USER: mcosenza



DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.
2. SEE SHEET C-001 FOR DEMOLITION KEYNOTES, CONSTRUCTION KEYNOTES, AND LEGEND.

KEY MAP C



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger

MARK J TIGER
ENGINEER
041439-E

SEAL

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A/E INFO

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ACTIVITY

SATISFACTORY TO DATE

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PM/DM

BRANCH MANAGER BJC

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"

EPROJECT NO.: 1291651

CONSTR. CONTR. NO.

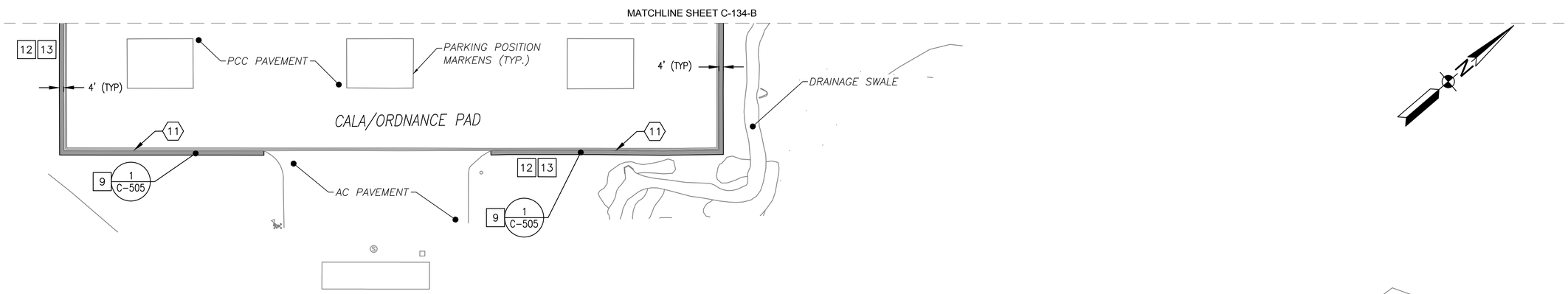
NAVFAC DRAWING NO.
12691583

SHEET 50 OF 368

C-141-C

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHIFA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-141-C.dwg LAYOUT NAME: C-141-C PLOTTED: Tuesday, March 24, 2015 - 9:27am USER: mcosenza



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT PAVEMENT
6. REMOVE PCC PAVEMENT (FULL DEPTH)
7. REMOVE AC PAVEMENT (FULL DEPTH)
8. EXCAVATE 1' DEEP BEFORE PLACING CABC
9. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
10. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
11. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
12. REMOVE AC SHOULDER
13. PROTECT EXISTING STRUCTURE TO REMAIN
14. PROTECT CONCRETE TO REMAIN
15. REMOVE IDLE PAVEMENT AREAS
16. REMOVE AC-MILLING SHOULDER. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER.
17. RM 10-9004 SCOPE REVISES RUNWAY-RUNWAY INTERSECTION PAVEMENT FROM AC TO PCC. DEMOLITION LIMITS MAY VARY DEPENDENT ON RM 10-9004 SCHEDULE PROGRESS. ADJUST DEMOLITION LIMIT TO MATCH EXISTING AC-PCC LOCATION.
18. REMOVE AC PAVEMENT AROUND EXISTING LIGHT BASE

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT AGGREGATE SUBBASE COURSE
6. CONSTRUCT CEMENT TREATED BASE COURSE
7. CONSTRUCT PCC AIRFIELD PAVEMENT
8. CONSTRUCT AC AIRFIELD PAVEMENT
9. CONSTRUCT AC SHOULDER PAVEMENT
10. CONSTRUCT PCC UTILITY TRENCH
11. CONSTRUCT AC UTILITY TRENCH
12. REGRADE SHOULDERS AND INFIELDS
13. PROVIDE 4" TOPSOIL AND SEED AREAS DISTURBED DURING CONSTRUCTION
14. PROTECT STRUCTURE TO REMAIN
15. PROTECT CONCRETE TO REMAIN
16. PROVIDE CONCRETE ENCASED DUCTBANK. SEE ELECTRICAL SHEETS FOR DETAILS

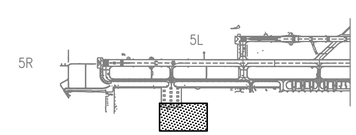
LEGEND

- IDLE PAVEMENT REMOVAL
- PCC AIRFIELD PAVEMENT
- AC AIRFIELD PAVEMENT
- CRACK REPAIR AND FOG SEAL
- UTILITY TRENCH PAVEMENT PATCH
- 18.0 — MAJOR PROPOSED CONTOUR
- 18.2 — MINOR PROPOSED CONTOUR
- 10+00 — RUNWAY/TAXIWAY BASELINE
- IP — INLET PROTECTION
- AIRFIELD SIGN

DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.

KEY MAP B



GRAPHIC SCALE

1"=50'

0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger

MARK J TIGER
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041439-E

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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 B/C

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
HR IPT

NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2

DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691584
SHEET 51 OF 368

C-142-B

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-142-B.dwg LAYOUT NAME: C-142-B PLOTTED: Tuesday, March 24, 2015 - 9:31am USER: mcosenza

DEMOLITION KEYNOTES

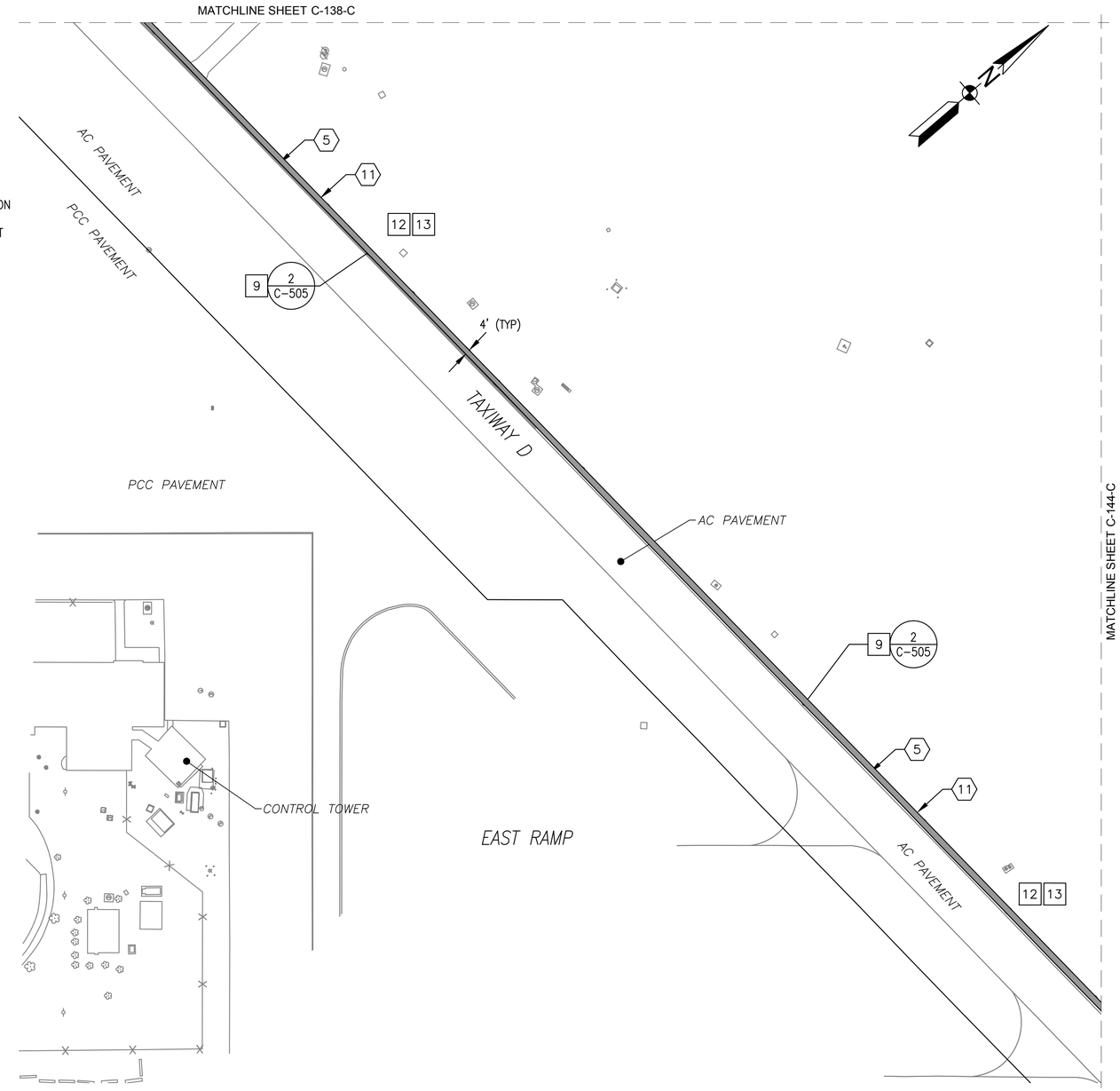
1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT PAVEMENT
6. REMOVE PCC PAVEMENT (FULL DEPTH)
7. REMOVE AC PAVEMENT (FULL DEPTH)
8. EXCAVATE 1' DEEP BEFORE PLACING CABC
9. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
10. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
11. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
12. REMOVE AC SHOULDER
13. PROTECT EXISTING STRUCTURE TO REMAIN
14. PROTECT CONCRETE TO REMAIN
15. REMOVE IDLE PAVEMENT AREAS
16. REMOVE AC-MILLING SHOULDER. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER.
17. RM 10-9004 SCOPE REVISES RUNWAY-RUNWAY INTERSECTION PAVEMENT FROM AC TO PCC. DEMOLITION LIMITS MAY VARY DEPENDENT ON RM 10-9004 SCHEDULE PROGRESS. ADJUST DEMOLITION LIMIT TO MATCH EXISTING AC-PCC LOCATION.
18. REMOVE AC PAVEMENT AROUND EXISTING LIGHT BASE

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT AGGREGATE SUBBASE COURSE
6. CONSTRUCT CEMENT TREATED BASE COURSE
7. CONSTRUCT PCC AIRFIELD PAVEMENT
8. CONSTRUCT AC AIRFIELD PAVEMENT
9. CONSTRUCT AC SHOULDER PAVEMENT
10. CONSTRUCT PCC UTILITY TRENCH
11. CONSTRUCT AC UTILITY TRENCH
12. REGRADE SHOULDERS AND INFIELDS
13. PROVIDE 4" TOPSOIL AND SEED AREAS DISTURBED DURING CONSTRUCTION
14. PROTECT STRUCTURE TO REMAIN
15. PROTECT CONCRETE TO REMAIN
16. PROVIDE CONCRETE ENCASED DUCTBANK. SEE ELECTRICAL SHEETS FOR DETAILS

LEGEND

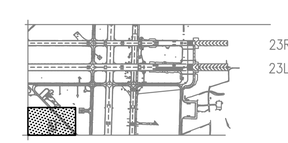
- IDLE PAVEMENT REMOVAL
- PCC AIRFIELD PAVEMENT
- AC AIRFIELD PAVEMENT
- CRACK REPAIR AND FOG SEAL
- UTILITY TRENCH PAVEMENT PATCH
- 18.0 — MAJOR PROPOSED CONTOUR
- 18.2 — MINOR PROPOSED CONTOUR
- 10+00 — RUNWAY/TAXIWAY BASELINE
- IP — INLET PROTECTION
- AIRFIELD SIGN



DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.

KEY MAP C



GRAPHIC SCALE

1"=50'

0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger

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A/E INFO

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BRANCH MANAGER BJC

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
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NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"

EPROJECT NO.: 1291651

CONSTR. CONTR. NO.

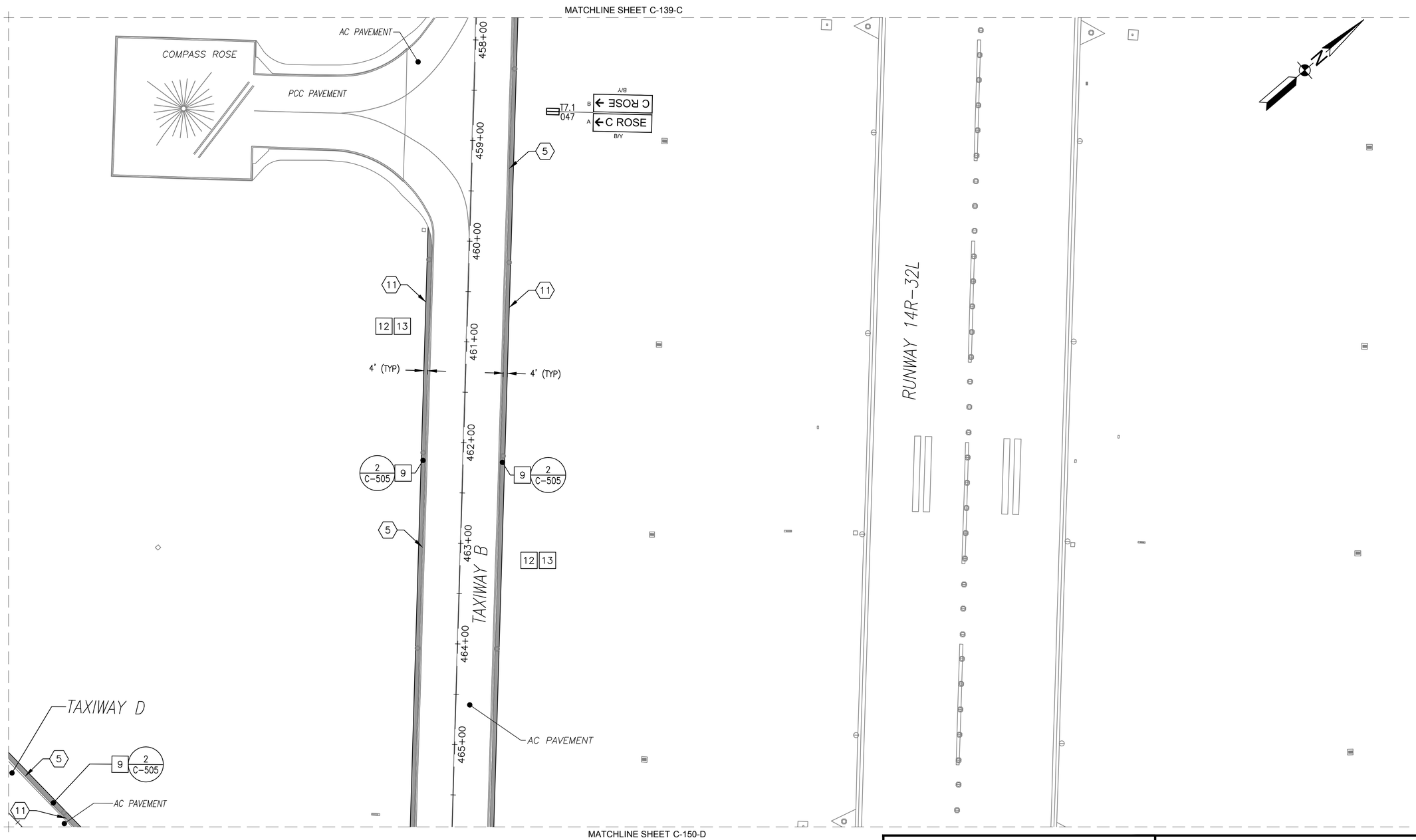
NAVFAC DRAWING NO. 12691585

SHEET 52 OF 368

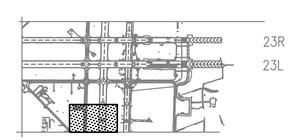
C-143-C

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-143-C.dwg LAYOUT NAME: C-143-C PLOTTED: Tuesday, March 24, 2015 - 9:37am USER: mcosenza



KEY MAP C



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

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PM/DM

BRANCH MANAGER B/C

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
ENERGY AND RELIABILITY
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"

EPROJECT NO.: 1291651

CONSTR. CONTR. NO.

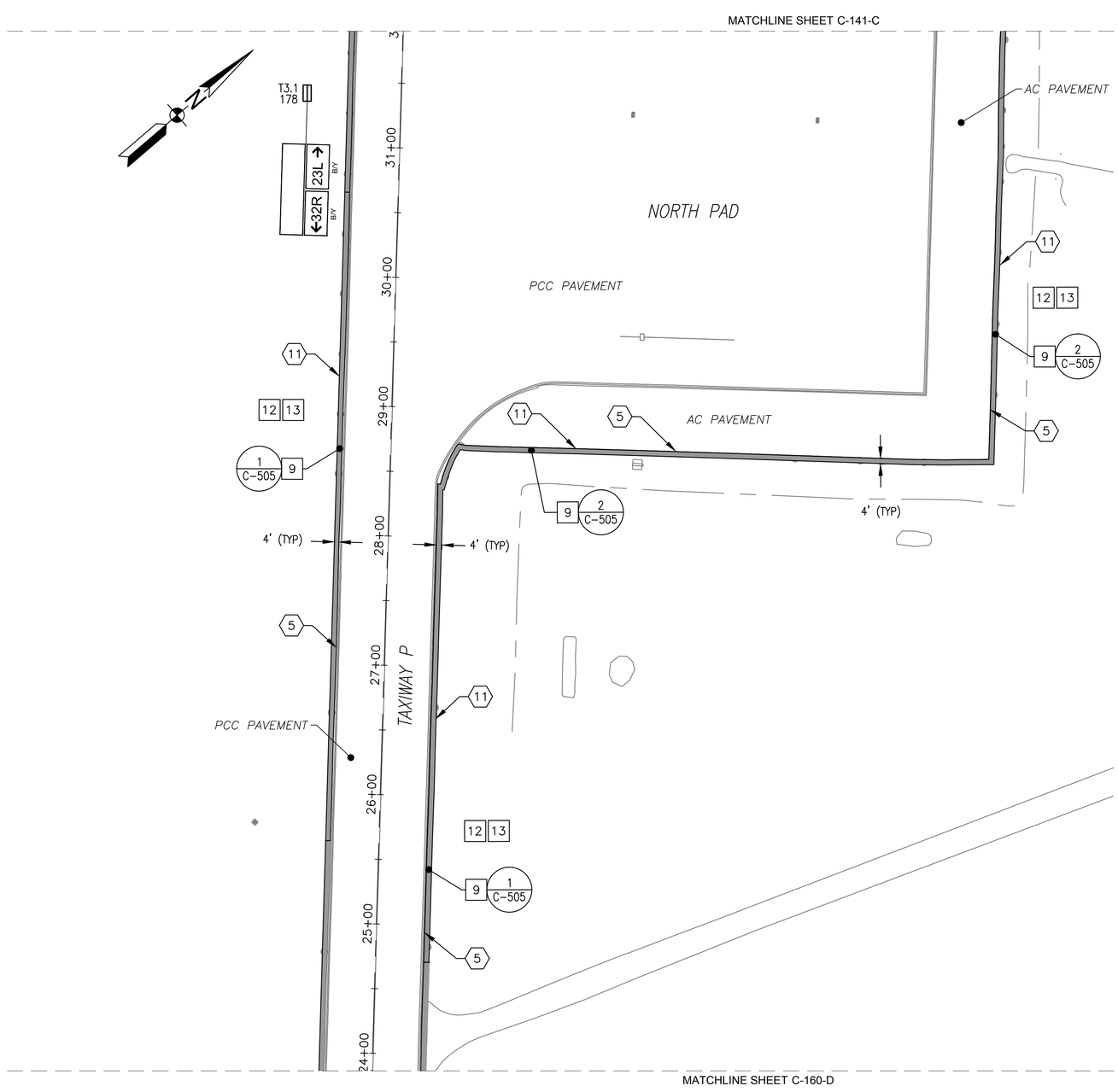
NAVFAC DRAWING NO.
12691586

SHEET 53 OF 368

C-144-C

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-144-C.dwg LAYOUT NAME: C-144-C PLOTTED: Tuesday, March 24, 2015 - 9:38am USER: mcosenza



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT PAVEMENT
6. REMOVE PCC PAVEMENT (FULL DEPTH)
7. REMOVE AC PAVEMENT (FULL DEPTH)
8. EXCAVATE 1' DEEP BEFORE PLACING CABC
9. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
10. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
11. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
12. REMOVE AC SHOULDER
13. PROTECT EXISTING STRUCTURE TO REMAIN
14. PROTECT CONCRETE TO REMAIN
15. REMOVE IDLE PAVEMENT AREAS
16. REMOVE AC–MILLING SHOULDER. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER.
17. RM 10–9004 SCOPE REVISES RUNWAY–RUNWAY INTERSECTION PAVEMENT FROM AC TO PCC. DEMOLITION LIMITS MAY VARY DEPENDENT ON RM 10–9004 SCHEDULE PROGRESS. ADJUST DEMOLITION LIMIT TO MATCH EXISTING AC–PCC LOCATION.
18. REMOVE AC PAVEMENT AROUND EXISTING LIGHT BASE

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT AGGREGATE SUBBASE COURSE
6. CONSTRUCT CEMENT TREATED BASE COURSE
7. CONSTRUCT PCC AIRFIELD PAVEMENT
8. CONSTRUCT AC AIRFIELD PAVEMENT
9. CONSTRUCT AC SHOULDER PAVEMENT
10. CONSTRUCT PCC UTILITY TRENCH
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12. REGRADE SHOULDERS AND INFIELDS
13. PROVIDE 4" TOPSOIL AND SEED AREAS DISTURBED DURING CONSTRUCTION
14. PROTECT STRUCTURE TO REMAIN
15. PROTECT CONCRETE TO REMAIN
16. PROVIDE CONCRETE ENCASED DUCTBANK. SEE ELECTRICAL SHEETS FOR DETAILS

LEGEND

- IDLE PAVEMENT REMOVAL
- PCC AIRFIELD PAVEMENT
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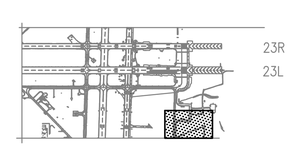
- UTILITY TRENCH PAVEMENT PATCH
- 18.0 — MAJOR PROPOSED CONTOUR
- 18.2 — MINOR PROPOSED CONTOUR
- 10+00 — RUNWAY/TAXIWAY BASELINE
- IP — INLET PROTECTION
- AIRFIELD SIGN

KEY MAP C



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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ACTIVITY
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DES MJT DRW DFD CHK ELO
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BRANCH MANAGER BJL
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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – MID-ATLANTIC
NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
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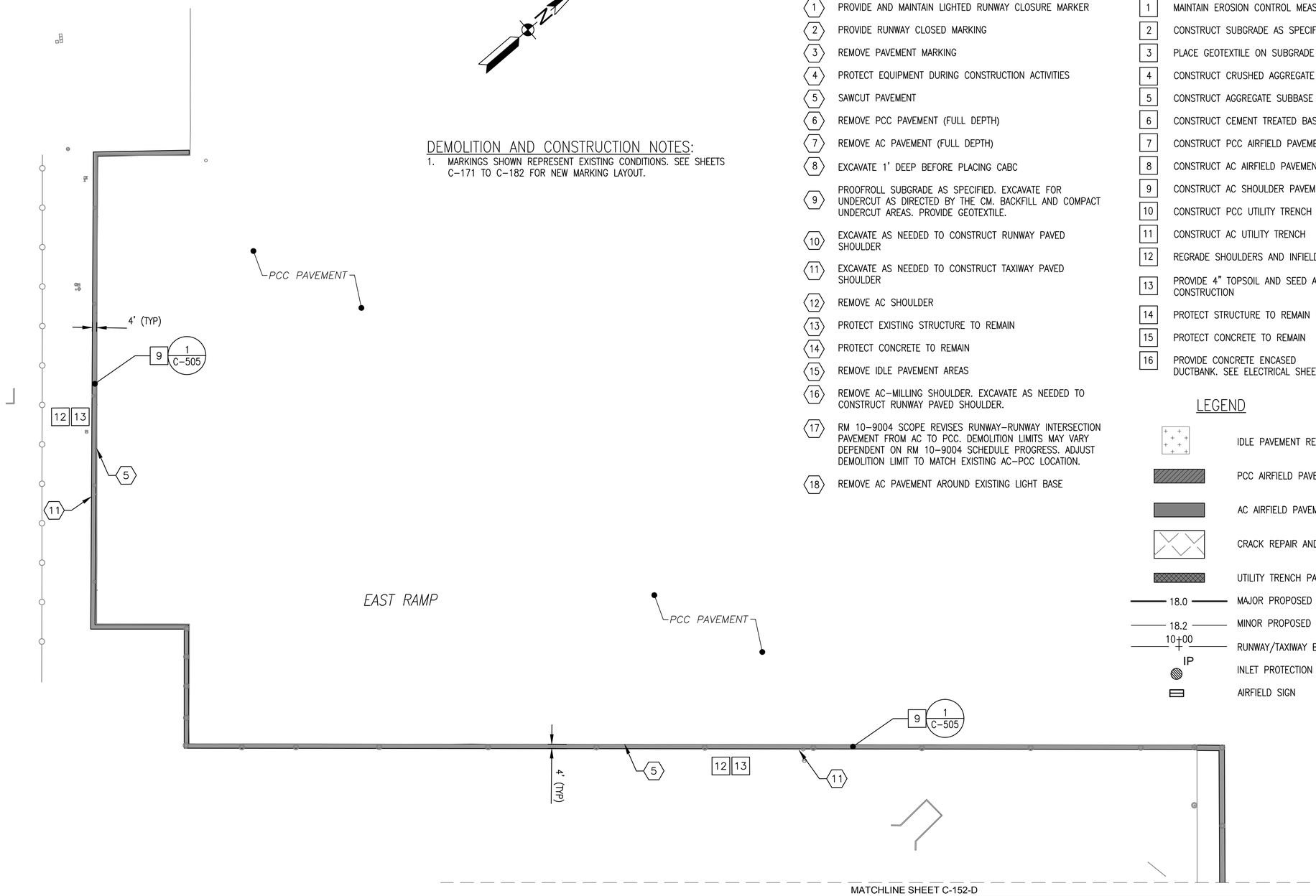
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'–0"
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691587
SHEET 54 OF 368
C-146-C

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-146-C.dwg LAYOUT NAME: C-146-C PLOTTED: Tuesday, March 24, 2015 - 9:43am USER: mcoserza



DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.

DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT PAVEMENT
6. REMOVE PCC PAVEMENT (FULL DEPTH)
7. REMOVE AC PAVEMENT (FULL DEPTH)
8. EXCAVATE 1' DEEP BEFORE PLACING CABC
9. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
10. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
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16. REMOVE AC-MILLING SHOULDER. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER.
17. RM 10-9004 SCOPE REVISES RUNWAY-RUNWAY INTERSECTION PAVEMENT FROM AC TO PCC. DEMOLITION LIMITS MAY VARY DEPENDENT ON RM 10-9004 SCHEDULE PROGRESS. ADJUST DEMOLITION LIMIT TO MATCH EXISTING AC-PCC LOCATION.
18. REMOVE AC PAVEMENT AROUND EXISTING LIGHT BASE

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
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11. CONSTRUCT AC UTILITY TRENCH
12. REGRADE SHOULDERS AND INFIELDS
13. PROVIDE 4" TOPSOIL AND SEED AREAS DISTURBED DURING CONSTRUCTION
14. PROTECT STRUCTURE TO REMAIN
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16. PROVIDE CONCRETE ENCASED DUCTBANK. SEE ELECTRICAL SHEETS FOR DETAILS

LEGEND

- IDLE PAVEMENT REMOVAL
- PCC AIRFIELD PAVEMENT
- AC AIRFIELD PAVEMENT
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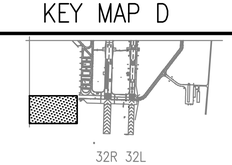
- IP — INLET PROTECTION
- AIRFIELD SIGN

KEY MAP D



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
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ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691588
SHEET 55 OF 368
C-149-D
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-149-D.dwg LAYOUT NAME: C-149-D PLOTTED: Tuesday, March 24, 2015 - 9:49am USER: mcosenza

MATCHLINE SHEET C-144-C

TAXIWAY D

721+00

722+00

723+00

724+00

725+00

726+00

727+00

466+00

467+00

468+00

469+00

470+00

471+00

472+00

473+00

AC PAVEMENT

LIMIT OF AC/PCC PAVEMENT

LIMITS OF AC/PCC PAVEMENT

PCC PAVEMENT

APRON

TAXIWAY B

RUNWAY 14R–32L

SPOT 4

FUEL 7

FUEL 8

B2

B

14R

32L

T1.2 061

T7.1 060

T7.2 048

T7.2 049

T7.2 182

T1.2 059

T1.1 058

T1.2 057

4' (TYP)

2 C-505

6 C-503

1 C-506

5 C-502

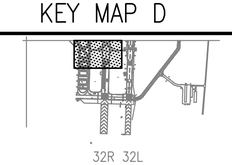
1 C-504

1 C-505

MATCHLINE SHEET C-151-D

MATCHLINE SHEET C-156-D

KEY MAP D



GRAPHIC SCALE

1"=50'

0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J Tiger

MARK J TIGER

ENGINEER 041439-E

SEAL

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A/E INFO

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CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT

NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA

NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2

DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"

EPROJECT NO.: 1291651

CONSTR. CONTR. NO.

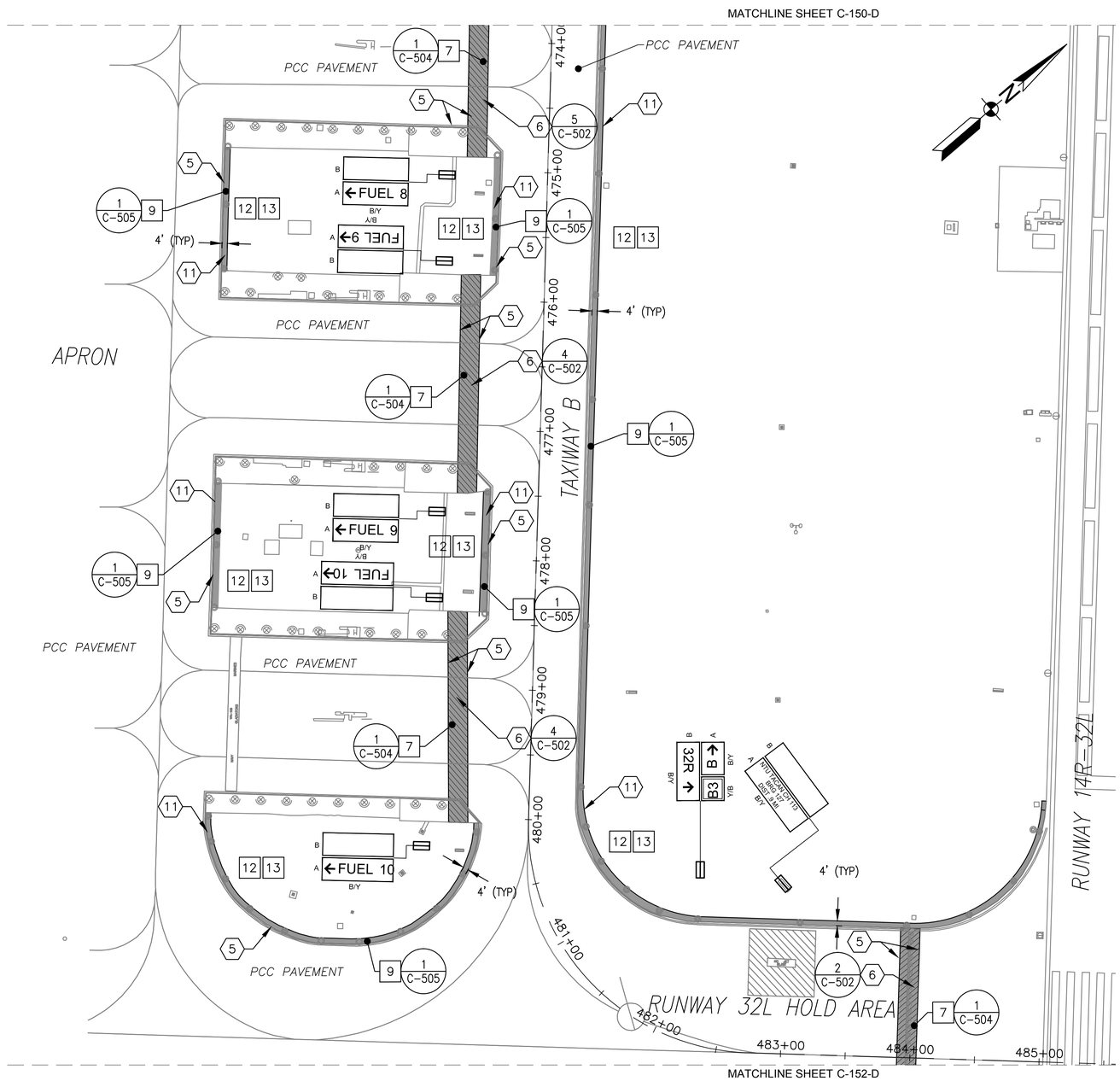
NAVFAC DRAWING NO.
12691589

SHEET 56 OF 368

C-150-D

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-150-D.dwg LAYOUT NAME: C-150-D PLOTTED: Tuesday, March 24, 2015 - 9:50am USER: mcosenza



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT PAVEMENT
6. REMOVE PCC PAVEMENT (FULL DEPTH)
7. REMOVE AC PAVEMENT (FULL DEPTH)
8. EXCAVATE 1' DEEP BEFORE PLACING CABC
9. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
10. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
11. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
12. REMOVE AC SHOULDER
13. PROTECT EXISTING STRUCTURE TO REMAIN
14. PROTECT CONCRETE TO REMAIN
15. REMOVE IDLE PAVEMENT AREAS
16. REMOVE AC–MILLING SHOULDER. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER.
17. RM 10–9004 SCOPE REVISES RUNWAY–RUNWAY INTERSECTION PAVEMENT FROM AC TO PCC. DEMOLITION LIMITS MAY VARY DEPENDENT ON RM 10–9004 SCHEDULE PROGRESS. ADJUST DEMOLITION LIMIT TO MATCH EXISTING AC–PCC LOCATION.
18. REMOVE AC PAVEMENT AROUND EXISTING LIGHT BASE

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT AGGREGATE SUBBASE COURSE
6. CONSTRUCT CEMENT TREATED BASE COURSE
7. CONSTRUCT PCC AIRFIELD PAVEMENT
8. CONSTRUCT AC AIRFIELD PAVEMENT
9. CONSTRUCT AC SHOULDER PAVEMENT
10. CONSTRUCT PCC UTILITY TRENCH
11. CONSTRUCT AC UTILITY TRENCH
12. REGRADE SHOULDERS AND INFIELDS
13. PROVIDE 4" TOPSOIL AND SEED AREAS DISTURBED DURING CONSTRUCTION
14. PROTECT STRUCTURE TO REMAIN
15. PROTECT CONCRETE TO REMAIN
16. PROVIDE CONCRETE ENCASED DUCTBANK. SEE ELECTRICAL SHEETS FOR DETAILS

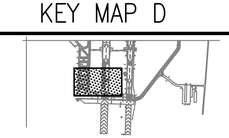
LEGEND

- IDLE PAVEMENT REMOVAL
- PCC AIRFIELD PAVEMENT
- AC AIRFIELD PAVEMENT
- CRACK REPAIR AND FOG SEAL
- UTILITY TRENCH PAVEMENT PATCH
- 18.0 — MAJOR PROPOSED CONTOUR
- 18.2 — MINOR PROPOSED CONTOUR
- 10+00 — RUNWAY/TAXIWAY BASELINE
- IP — INLET PROTECTION
- AIRFIELD SIGN

DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C–171 TO C–182 FOR NEW MARKING LAYOUT.

KEY MAP D



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

MARK J TIGER — CONSTRUCTION ENGINEER — REGISTERED PROFESSIONAL ENGINEER — MARK J TIGER — ENGINEER 041439-E — SEAL

JOHNSON, MIRMIRAN THOMPSON
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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 BJC
CHIEF ENG/ARCH

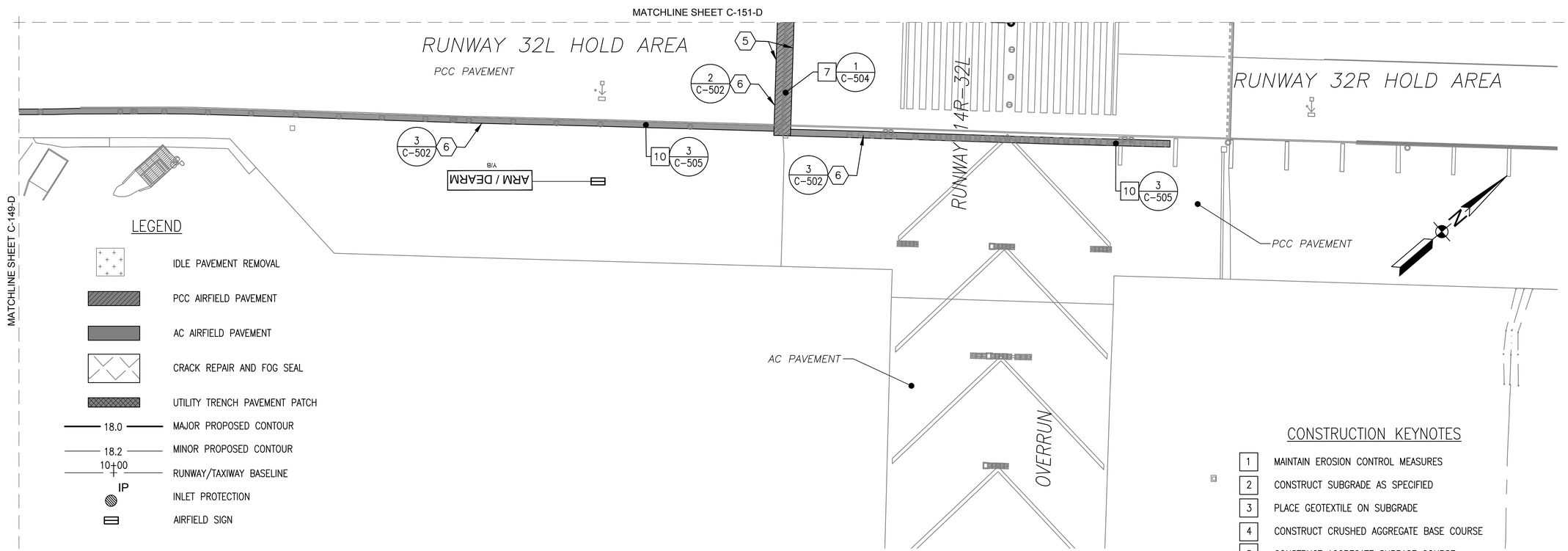
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'–0"
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691590
SHEET 57 OF 368

C-151-D

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-151-D.dwg LAYOUT NAME: C-151-D PLOTTED: Tuesday, March 24, 2015 - 9:55am USER: mcosenza



LEGEND

- IDLE PAVEMENT REMOVAL
- PCC AIRFIELD PAVEMENT
- AC AIRFIELD PAVEMENT
- CRACK REPAIR AND FOG SEAL
- UTILITY TRENCH PAVEMENT PATCH
- 18.0 — MAJOR PROPOSED CONTOUR
- 18.2 — MINOR PROPOSED CONTOUR
- 10+00 — RUNWAY/TAXIWAY BASELINE
- IP — INLET PROTECTION
- AIRFIELD SIGN

DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT PAVEMENT
6. REMOVE PCC PAVEMENT (FULL DEPTH)
7. REMOVE AC PAVEMENT (FULL DEPTH)
8. EXCAVATE 1' DEEP BEFORE PLACING CABC
9. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
10. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
11. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
12. REMOVE AC SHOULDER
13. PROTECT EXISTING STRUCTURE TO REMAIN
14. PROTECT CONCRETE TO REMAIN
15. REMOVE IDLE PAVEMENT AREAS
16. REMOVE AC-MILLING SHOULDER. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER.
17. RM 10-9004 SCOPE REVISES RUNWAY-RUNWAY INTERSECTION PAVEMENT FROM AC TO PCC. DEMOLITION LIMITS MAY VARY DEPENDENT ON RM 10-9004 SCHEDULE PROGRESS. ADJUST DEMOLITION LIMIT TO MATCH EXISTING AC-PCC LOCATION.
18. REMOVE AC PAVEMENT AROUND EXISTING LIGHT BASE

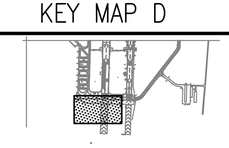
CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT AGGREGATE SUBBASE COURSE
6. CONSTRUCT CEMENT TREATED BASE COURSE
7. CONSTRUCT PCC AIRFIELD PAVEMENT
8. CONSTRUCT AC AIRFIELD PAVEMENT
9. CONSTRUCT AC SHOULDER PAVEMENT
10. CONSTRUCT PCC UTILITY TRENCH
11. CONSTRUCT AC UTILITY TRENCH
12. REGRADE SHOULDERS AND INFIELDS
13. PROVIDE 4" TOPSOIL AND SEED AREAS DISTURBED DURING CONSTRUCTION
14. PROTECT STRUCTURE TO REMAIN
15. PROTECT CONCRETE TO REMAIN
16. PROVIDE CONCRETE ENCASED DUCTBANK. SEE ELECTRICAL SHEETS FOR DETAILS

DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.

KEY MAP D



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
MARK J TIGER
ENGINEER
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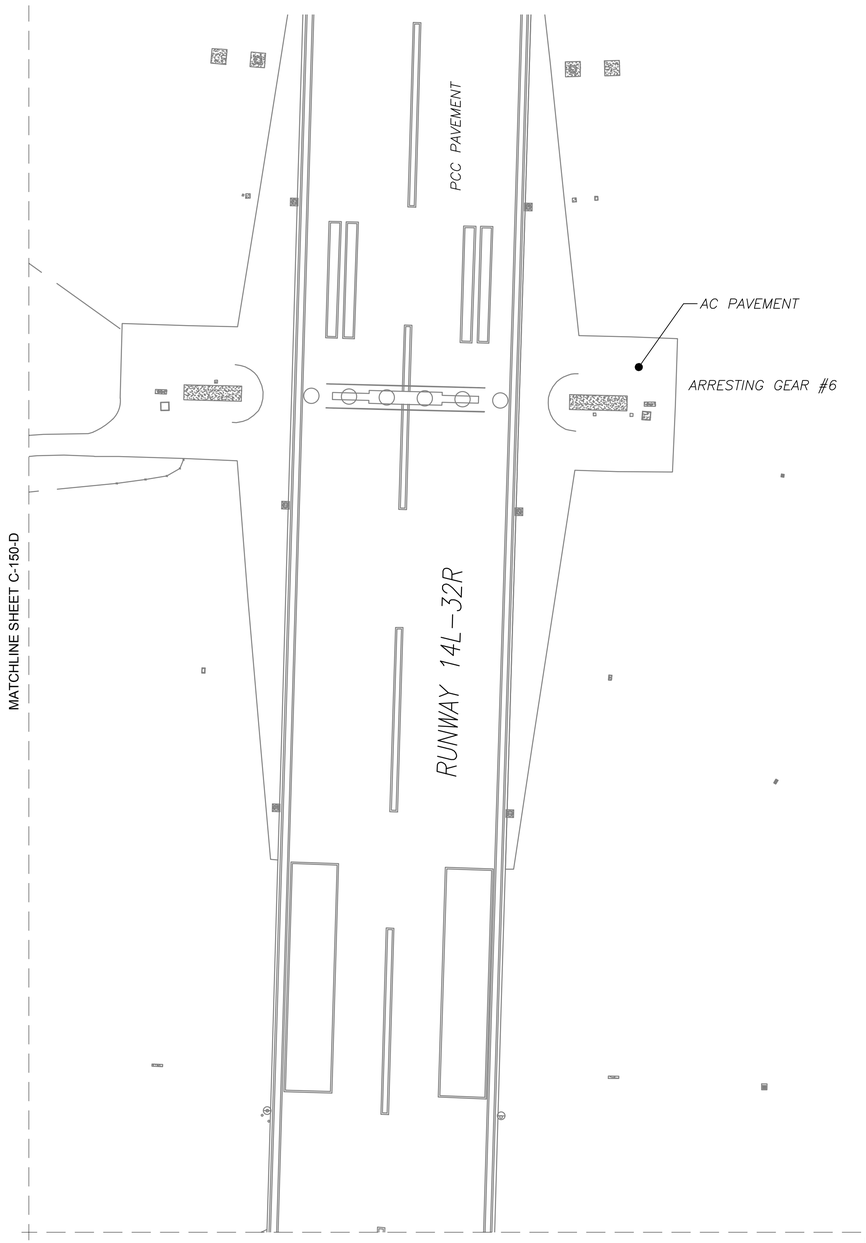
A/E INFO

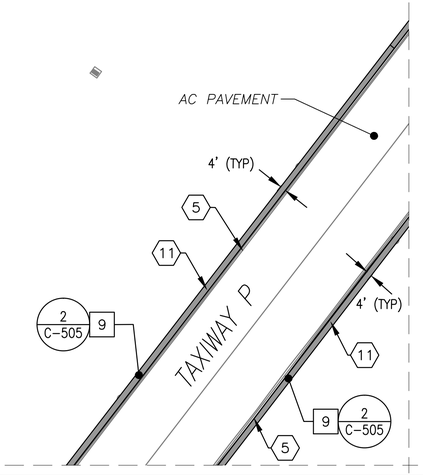
APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER BJL
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
HR IPT
NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691591
SHEET 58 OF 368
C-152-D
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-152-D.dwg LAYOUT NAME: C-152-D PLOTTED: Tuesday, March 24, 2015 - 9:59am USER: mcosenza

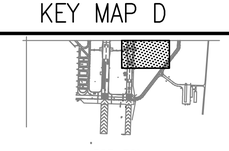




DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C–171 TO C–182 FOR NEW MARKING LAYOUT.
2. SEE SHEET C–001 FOR DEMOLITION KEYNOTES, CONSTRUCTION KEYNOTES, AND LEGEND.

KEY MAP D



GRAPHIC SCALE

1"=50'

0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger

MARK J TIGER
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041439-E

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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 B/C

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'–0"
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691592
SHEET 59 OF 368

C-156-D

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL–CIVIL_Task 008\10–0863–008–C–156–D.dwg LAYOUT NAME: C–156–D PLOTTED: Tuesday, March 24, 2015 – 10:00am USER: mcosenza

DEMOLITION KEYNOTES

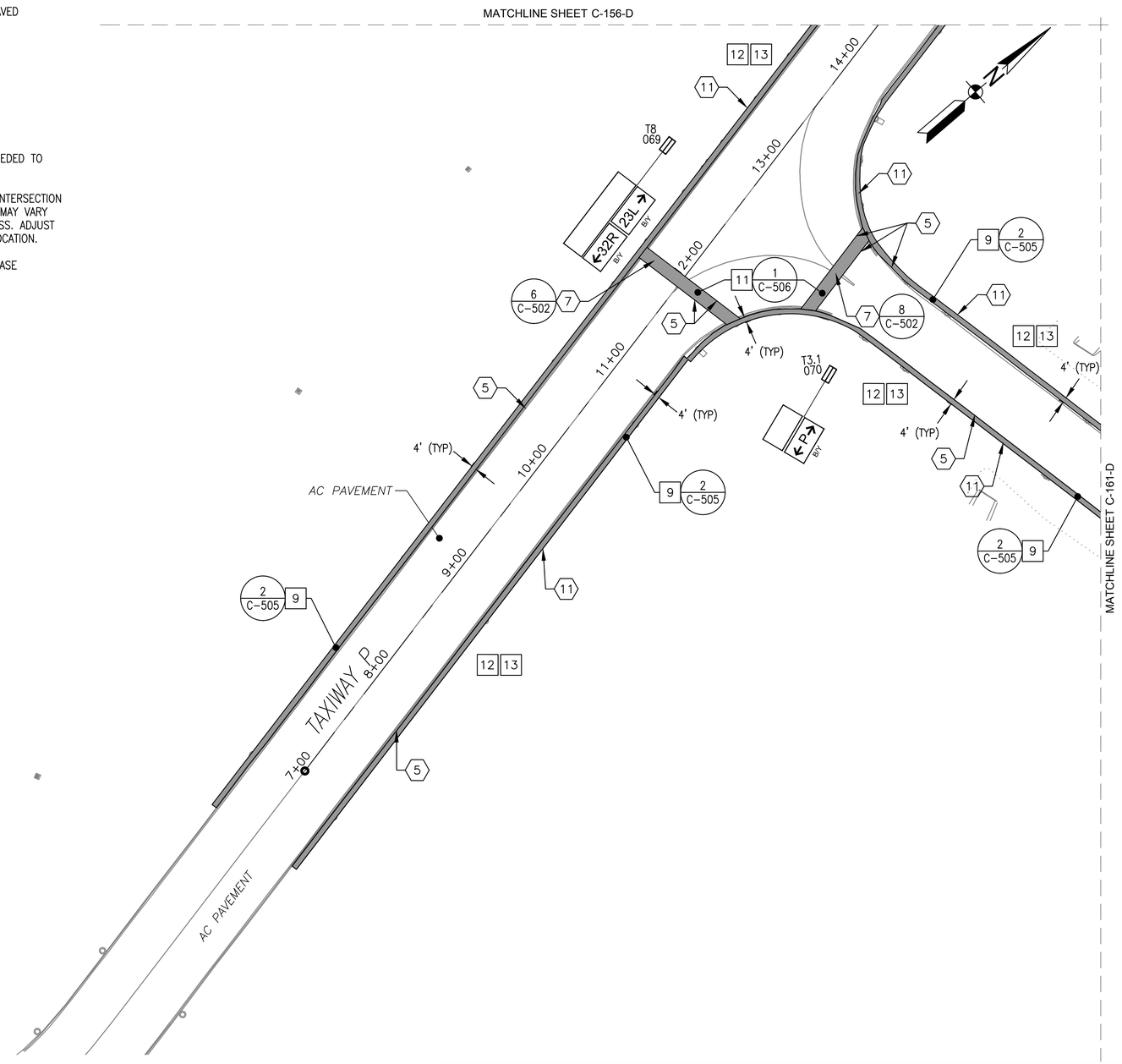
1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT PAVEMENT
6. REMOVE PCC PAVEMENT (FULL DEPTH)
7. REMOVE AC PAVEMENT (FULL DEPTH)
8. EXCAVATE 1' DEEP BEFORE PLACING CABC
9. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
10. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
11. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
12. REMOVE AC SHOULDER
13. PROTECT EXISTING STRUCTURE TO REMAIN
14. PROTECT CONCRETE TO REMAIN
15. REMOVE IDLE PAVEMENT AREAS
16. REMOVE AC–MILLING SHOULDER. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER.
17. RM 10–9004 SCOPE REVISES RUNWAY–RUNWAY INTERSECTION PAVEMENT FROM AC TO PCC. DEMOLITION LIMITS MAY VARY DEPENDENT ON RM 10–9004 SCHEDULE PROGRESS. ADJUST DEMOLITION LIMIT TO MATCH EXISTING AC–PCC LOCATION.
18. REMOVE AC PAVEMENT AROUND EXISTING LIGHT BASE

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT AGGREGATE SUBBASE COURSE
6. CONSTRUCT CEMENT TREATED BASE COURSE
7. CONSTRUCT PCC AIRFIELD PAVEMENT
8. CONSTRUCT AC AIRFIELD PAVEMENT
9. CONSTRUCT AC SHOULDER PAVEMENT
10. CONSTRUCT PCC UTILITY TRENCH
11. CONSTRUCT AC UTILITY TRENCH
12. REGRADE SHOULDERS AND INFIELDS
13. PROVIDE 4" TOPSOIL AND SEED AREAS DISTURBED DURING CONSTRUCTION
14. PROTECT STRUCTURE TO REMAIN
15. PROTECT CONCRETE TO REMAIN
16. PROVIDE CONCRETE ENCASED DUCTBANK. SEE ELECTRICAL SHEETS FOR DETAILS

LEGEND

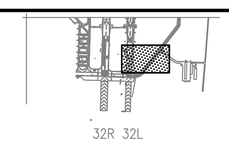
- IDLE PAVEMENT REMOVAL
- PCC AIRFIELD PAVEMENT
- AC AIRFIELD PAVEMENT
- CRACK REPAIR AND FOG SEAL
- UTILITY TRENCH PAVEMENT PATCH
- 18.0 — MAJOR PROPOSED CONTOUR
- 18.2 — MINOR PROPOSED CONTOUR
- 10+00 — RUNWAY/TAXIWAY BASELINE
- IP — INLET PROTECTION
- AIRFIELD SIGN



DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C–171 TO C–182 FOR NEW MARKING LAYOUT.

KEY MAP D



GRAPHIC SCALE

1"=50'

0 50' 100' 200'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
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041439-E
SEAL

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PM/DM
BRANCH MANAGER BJL
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – MID-ATLANTIC
NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
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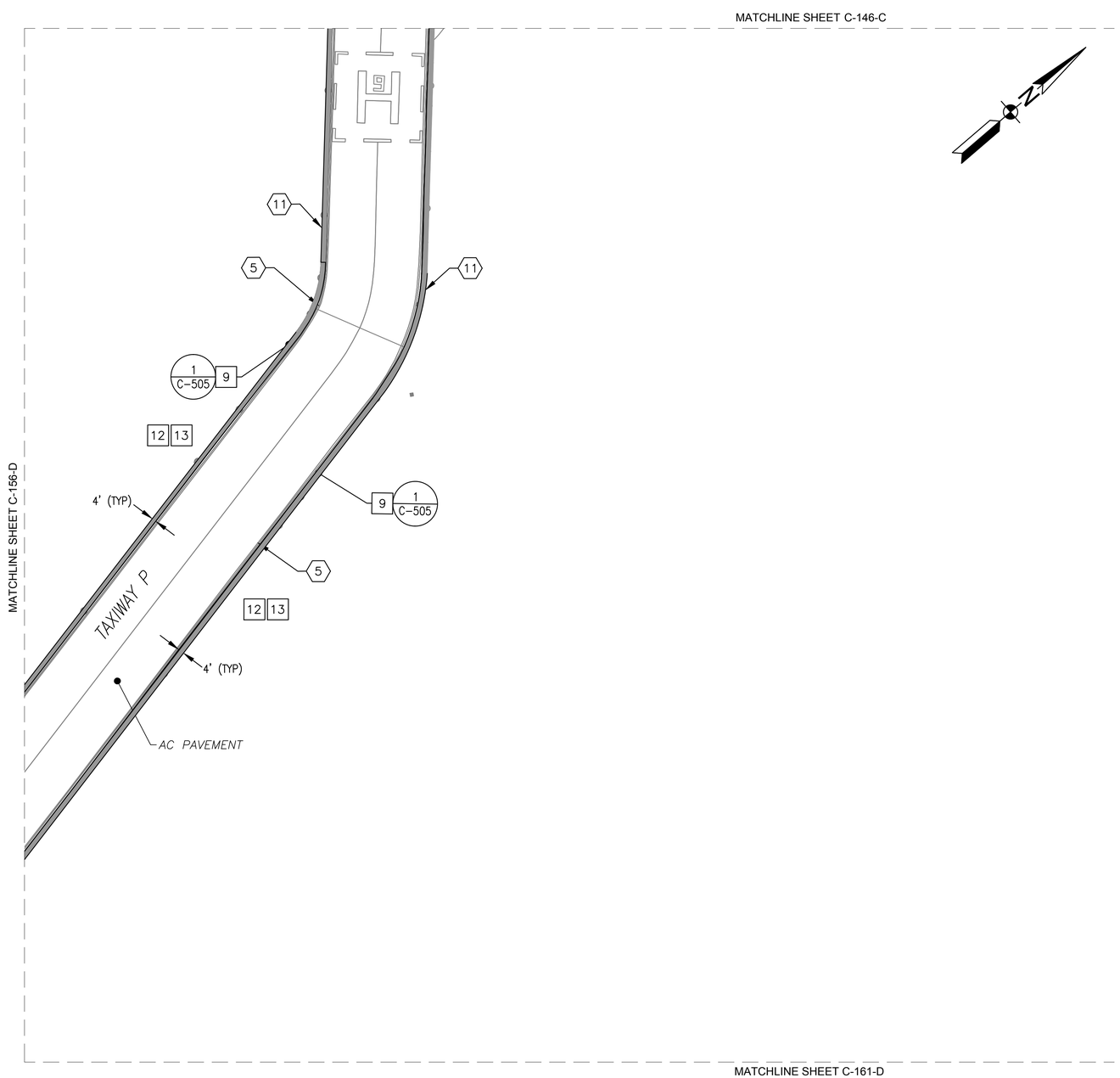
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'–0"
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691593
SHEET 60 OF 368

C-157-D

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-157-D.dwg LAYOUT NAME: C-157-D PLOTTED: Tuesday, March 24, 2015 - 10:06am USER: mcosenza



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT PAVEMENT
6. REMOVE PCC PAVEMENT (FULL DEPTH)
7. REMOVE AC PAVEMENT (FULL DEPTH)
8. EXCAVATE 1' DEEP BEFORE PLACING CABC
9. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
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18. REMOVE AC PAVEMENT AROUND EXISTING LIGHT BASE

CONSTRUCTION KEYNOTES

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LEGEND

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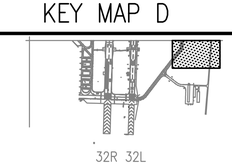
DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C–171 TO C–182 FOR NEW MARKING LAYOUT.

KEY MAP D



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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REGISTERED PROFESSIONAL ENGINEER
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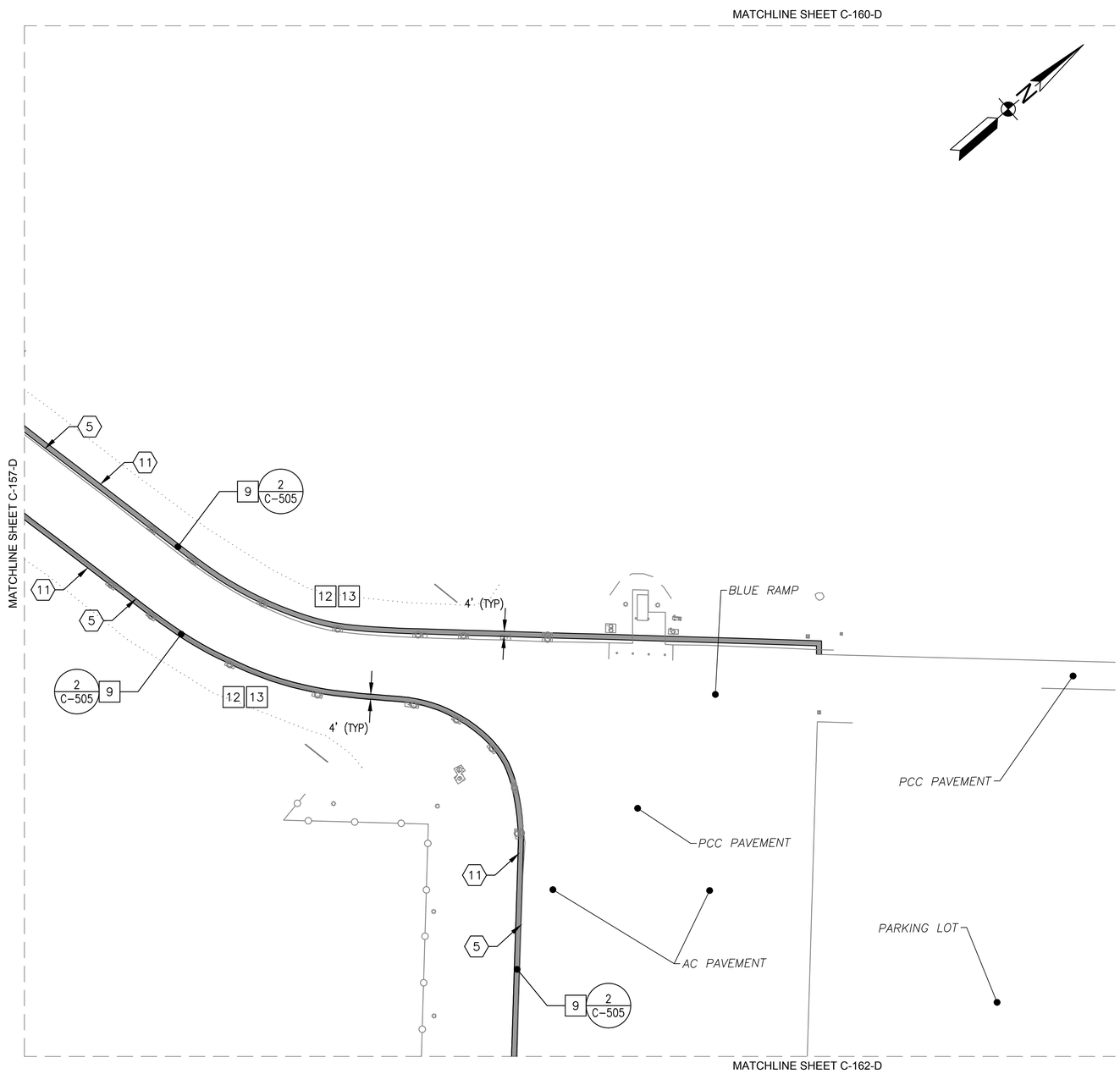
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'–0"
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691594
SHEET 61 OF 368
C-160-D
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-160-D.dwg LAYOUT NAME: C-160-D PLOTTED: Tuesday, March 24, 2015 - 10:11am USER: mcosenza



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
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3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT PAVEMENT
6. REMOVE PCC PAVEMENT (FULL DEPTH)
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8. EXCAVATE 1' DEEP BEFORE PLACING CABC
9. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
10. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
11. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
12. REMOVE AC SHOULDER
13. PROTECT EXISTING STRUCTURE TO REMAIN
14. PROTECT CONCRETE TO REMAIN
15. REMOVE IDLE PAVEMENT AREAS
16. REMOVE AC–MILLING SHOULDER. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER.
17. RM 10–9004 SCOPE REVISES RUNWAY–RUNWAY INTERSECTION PAVEMENT FROM AC TO PCC. DEMOLITION LIMITS MAY VARY DEPENDENT ON RM 10–9004 SCHEDULE PROGRESS. ADJUST DEMOLITION LIMIT TO MATCH EXISTING AC–PCC LOCATION.
18. REMOVE AC PAVEMENT AROUND EXISTING LIGHT BASE

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT AGGREGATE SUBBASE COURSE
6. CONSTRUCT CEMENT TREATED BASE COURSE
7. CONSTRUCT PCC AIRFIELD PAVEMENT
8. CONSTRUCT AC AIRFIELD PAVEMENT
9. CONSTRUCT AC SHOULDER PAVEMENT
10. CONSTRUCT PCC UTILITY TRENCH
11. CONSTRUCT AC UTILITY TRENCH
12. REGRADE SHOULDERS AND INFIELDS
13. PROVIDE 4" TOPSOIL AND SEED AREAS DISTURBED DURING CONSTRUCTION
14. PROTECT STRUCTURE TO REMAIN
15. PROTECT CONCRETE TO REMAIN
16. PROVIDE CONCRETE ENCASED DUCTBANK. SEE ELECTRICAL SHEETS FOR DETAILS

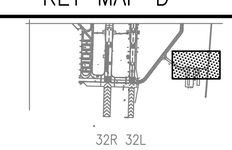
LEGEND

- IDLE PAVEMENT REMOVAL
- PCC AIRFIELD PAVEMENT
- AC AIRFIELD PAVEMENT
- CRACK REPAIR AND FOG SEAL
- UTILITY TRENCH PAVEMENT PATCH
- 18.0 — MAJOR PROPOSED CONTOUR
- 18.2 — MINOR PROPOSED CONTOUR
- 10+00 — RUNWAY/TAXIWAY BASELINE
- IP — INLET PROTECTION
- AIRFIELD SIGN

DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C–171 TO C–182 FOR NEW MARKING LAYOUT.

KEY MAP D



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
ENGINEER
041439-E
SEAL

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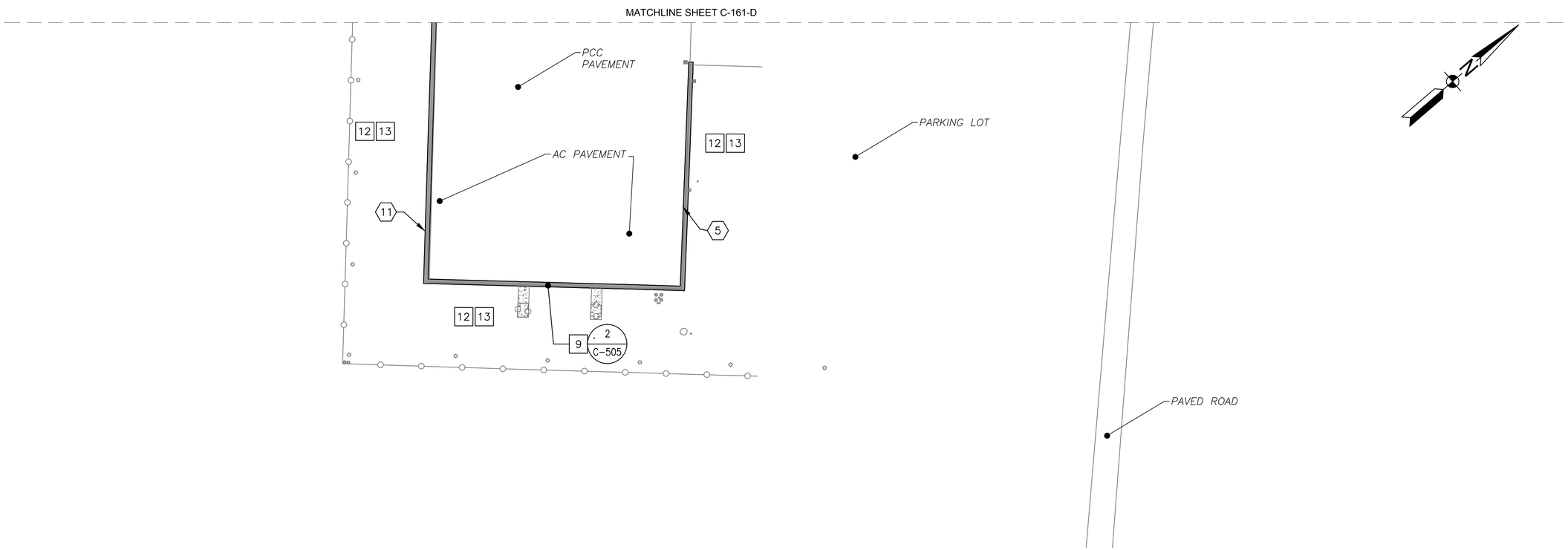
A/E INFO

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

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND – MID-ATLANTIC
NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'–0"
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691595
SHEET 62 OF 388
C-161-D
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-161-D.dwg LAYOUT NAME: C-161-D PLOTTED: Tuesday, March 24, 2015 - 10:16am USER: mcosenza



DEMOLITION KEYNOTES

1. PROVIDE AND MAINTAIN LIGHTED RUNWAY CLOSURE MARKER
2. PROVIDE RUNWAY CLOSED MARKING
3. REMOVE PAVEMENT MARKING
4. PROTECT EQUIPMENT DURING CONSTRUCTION ACTIVITIES
5. SAWCUT PAVEMENT
6. REMOVE PCC PAVEMENT (FULL DEPTH)
7. REMOVE AC PAVEMENT (FULL DEPTH)
8. EXCAVATE 1' DEEP BEFORE PLACING CABC
9. PROOFROLL SUBGRADE AS SPECIFIED. EXCAVATE FOR UNDERCUT AS DIRECTED BY THE CM. BACKFILL AND COMPACT UNDERCUT AREAS. PROVIDE GEOTEXTILE.
10. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER
11. EXCAVATE AS NEEDED TO CONSTRUCT TAXIWAY PAVED SHOULDER
12. REMOVE AC SHOULDER
13. PROTECT EXISTING STRUCTURE TO REMAIN
14. PROTECT CONCRETE TO REMAIN
15. REMOVE IDLE PAVEMENT AREAS
16. REMOVE AC-MILLING SHOULDER. EXCAVATE AS NEEDED TO CONSTRUCT RUNWAY PAVED SHOULDER.
17. RM 10-9004 SCOPE REVISES RUNWAY-RUNWAY INTERSECTION PAVEMENT FROM AC TO PCC. DEMOLITION LIMITS MAY VARY DEPENDENT ON RM 10-9004 SCHEDULE PROGRESS. ADJUST DEMOLITION LIMIT TO MATCH EXISTING AC-PCC LOCATION.
18. REMOVE AC PAVEMENT AROUND EXISTING LIGHT BASE

CONSTRUCTION KEYNOTES

1. MAINTAIN EROSION CONTROL MEASURES
2. CONSTRUCT SUBGRADE AS SPECIFIED
3. PLACE GEOTEXTILE ON SUBGRADE
4. CONSTRUCT CRUSHED AGGREGATE BASE COURSE
5. CONSTRUCT AGGREGATE SUBBASE COURSE
6. CONSTRUCT CEMENT TREATED BASE COURSE
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8. CONSTRUCT AC AIRFIELD PAVEMENT
9. CONSTRUCT AC SHOULDER PAVEMENT
10. CONSTRUCT PCC UTILITY TRENCH
11. CONSTRUCT AC UTILITY TRENCH
12. REGRADE SHOULDERS AND INFIELDS
13. PROVIDE 4" TOPSOIL AND SEED AREAS DISTURBED DURING CONSTRUCTION
14. PROTECT STRUCTURE TO REMAIN
15. PROTECT CONCRETE TO REMAIN
16. PROVIDE CONCRETE ENCASED DUCTBANK. SEE ELECTRICAL SHEETS FOR DETAILS

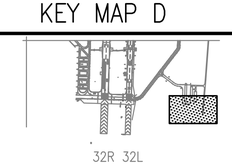
LEGEND

- IDLE PAVEMENT REMOVAL
- PCC AIRFIELD PAVEMENT
- AC AIRFIELD PAVEMENT
- CRACK REPAIR AND FOG SEAL
- UTILITY TRENCH PAVEMENT PATCH
- 18.0 — MAJOR PROPOSED CONTOUR
- 18.2 — MINOR PROPOSED CONTOUR
- 10+00 — RUNWAY/TAXIWAY BASELINE
- IP — INLET PROTECTION
- AIRFIELD SIGN

DEMOLITION AND CONSTRUCTION NOTES:

1. MARKINGS SHOWN REPRESENT EXISTING CONDITIONS. SEE SHEETS C-171 TO C-182 FOR NEW MARKING LAYOUT.

KEY MAP D



GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
MARK J TIGER
ENGINEER
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A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE

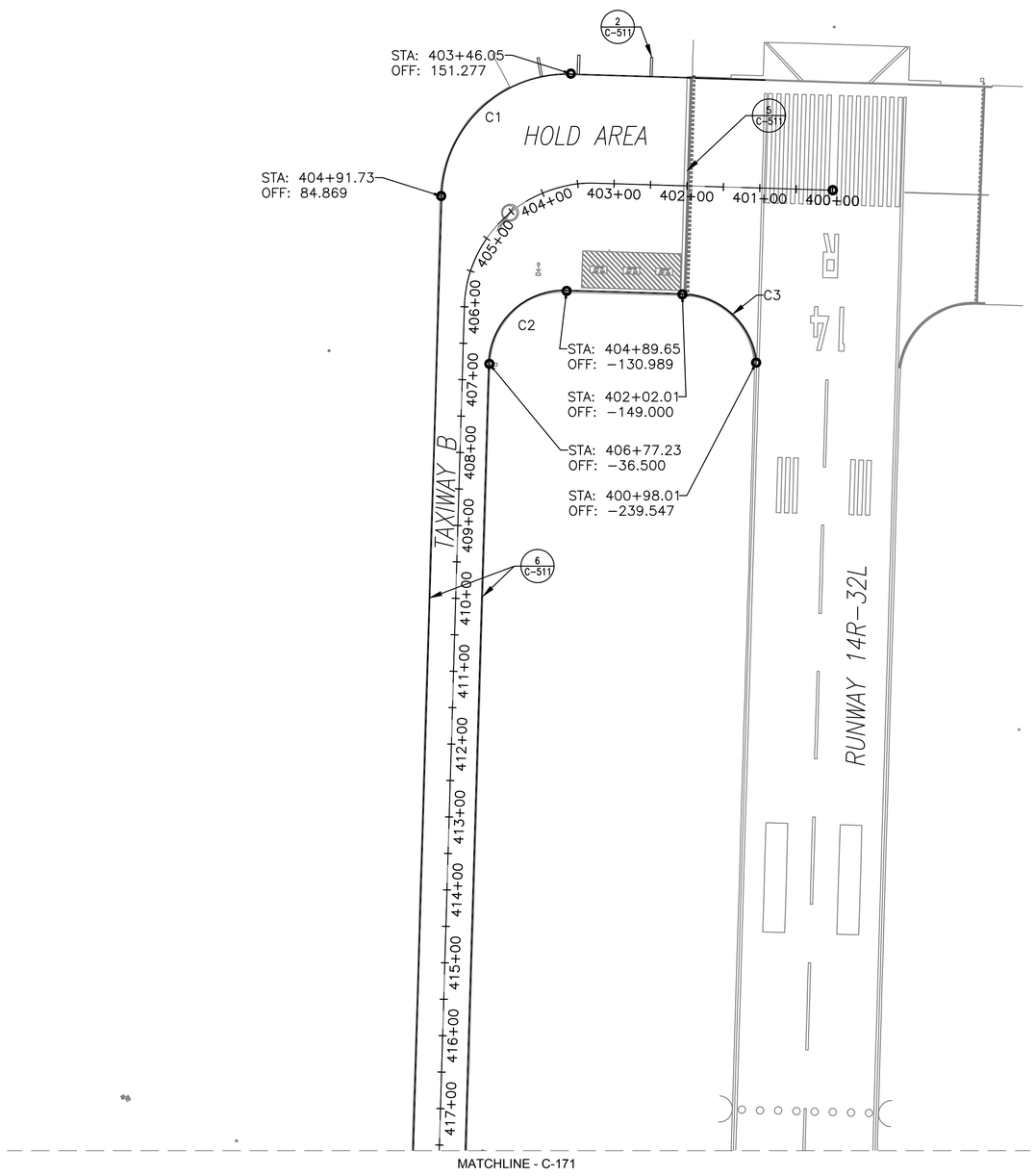
DES MJT | DRW DFD | CHK ELO
PM/DM
BRANCH MANAGER BJL
CHIEF ENG/ARCH

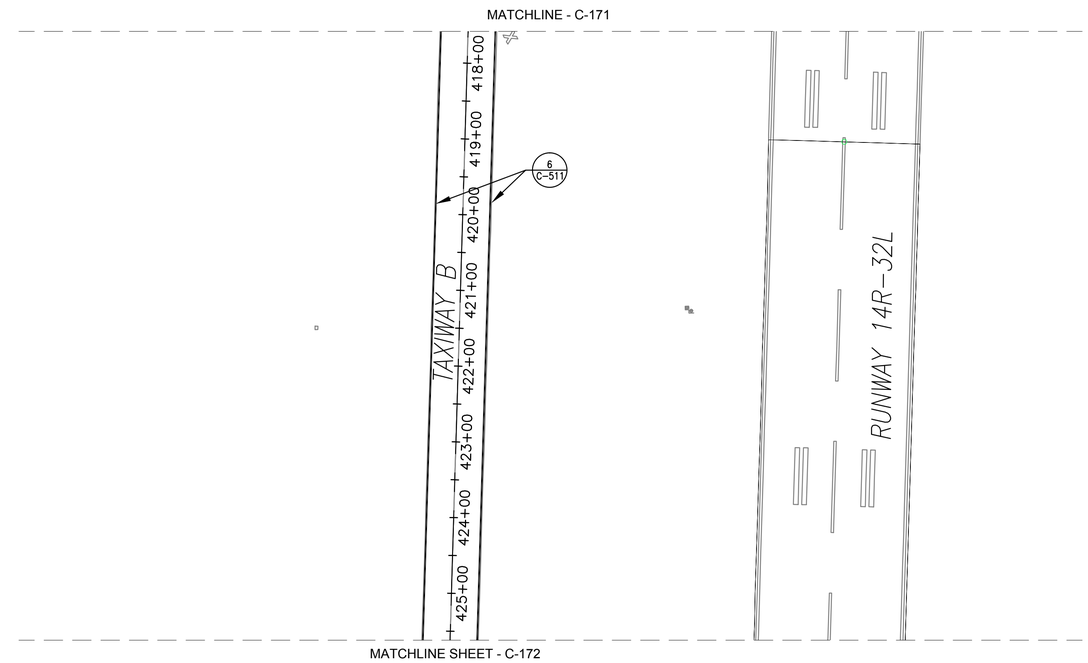
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
HR PT

NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
DEMOLITION AND CONSTRUCTION PLAN

SCALE: 1" = 50'-0"
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691596
SHEET 63 OF 368
C-162-D
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-162-D.dwg LAYOUT NAME: C-162-D PLOTTED: Tuesday, March 24, 2015 - 10:20am USER: mcosenza



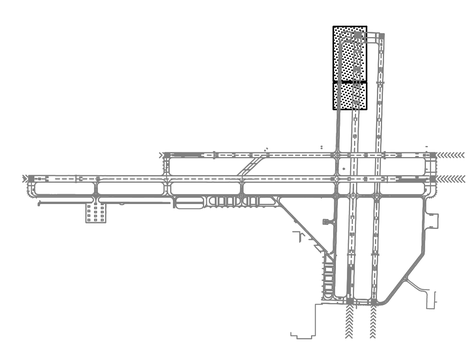


NOTE:
LOCATIONS REPRESENTED BY STATIONS AND OFFSETS INDICATE MARKING AND STRIPING LAYOUT POINTS. SEE SHEET AIRFIELD MARKING AND STRIPING DETAIL SHEET C−511 FOR ADDITIONAL INFORMATION.

CURVE TABLE

	LENGTH	RADIUS	DELTA	TAN	CHORD
C1	271.73'	173.00'	89.99	172.98'	244.64'
C2	161.78'	103.00'	89.99	102.99'	145.66'
C3	150.44'	105.00'	82.09'	91.42'	137.90'

KEY PLAN



GRAPHIC SCALE

1"=100'

0 100' 200' 400'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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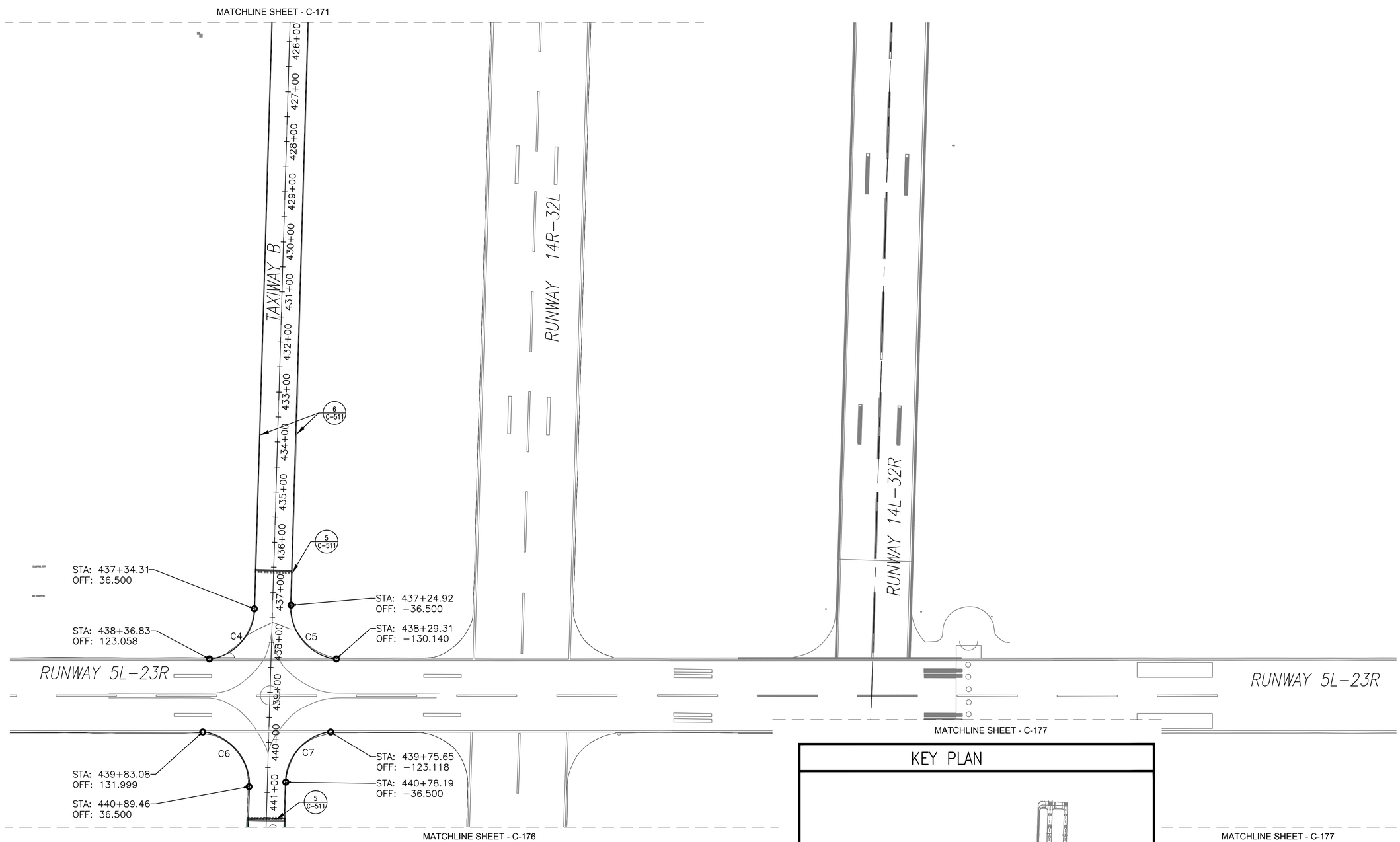
APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER BJC
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
AIRFIELD MARKING AND STRIPING PLAN

SCALE: AS NOTED
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691597
SHEET 64 OF 368
C-171

DRAWFORM REVISION: 10 MARCH 2009

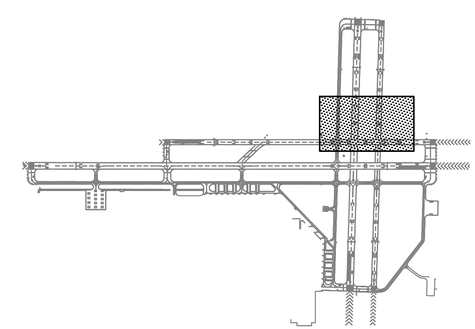
FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-171.dwg LAYOUT NAME: C-171 PLOTTED: Tuesday, March 24, 2015 - 7:52pm USER: mcosenza



NOTE:
LOCATIONS REPRESENTED BY STATIONS AND OFFSETS INDICATE MARKING AND STRIPING LAYOUT POINTS. SEE SHEET AIRFIELD MARKING AND STRIPING DETAIL SHEET C–511 FOR ADDITIONAL INFORMATION.

CURVE TABLE					
	LENGTH	RADIUS	DELTA	TAN	CHORD
C4	145.84'	104.00'	80.35	87.80'	134.18'
C5	153.55'	105.00'	83.79	94.19'	140.23'
C6	156.55'	107.00'	83.83	96.06'	142.96'
C7	145.90'	104.00'	80.38	87.85'	134.23'

KEY PLAN



GRAPHIC SCALE

1"=100' 0 100' 200' 400'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
COMMONWEALTH OF VIRGINIA REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
LICENSE NO. 041439-E
SEAL

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A/E INFO

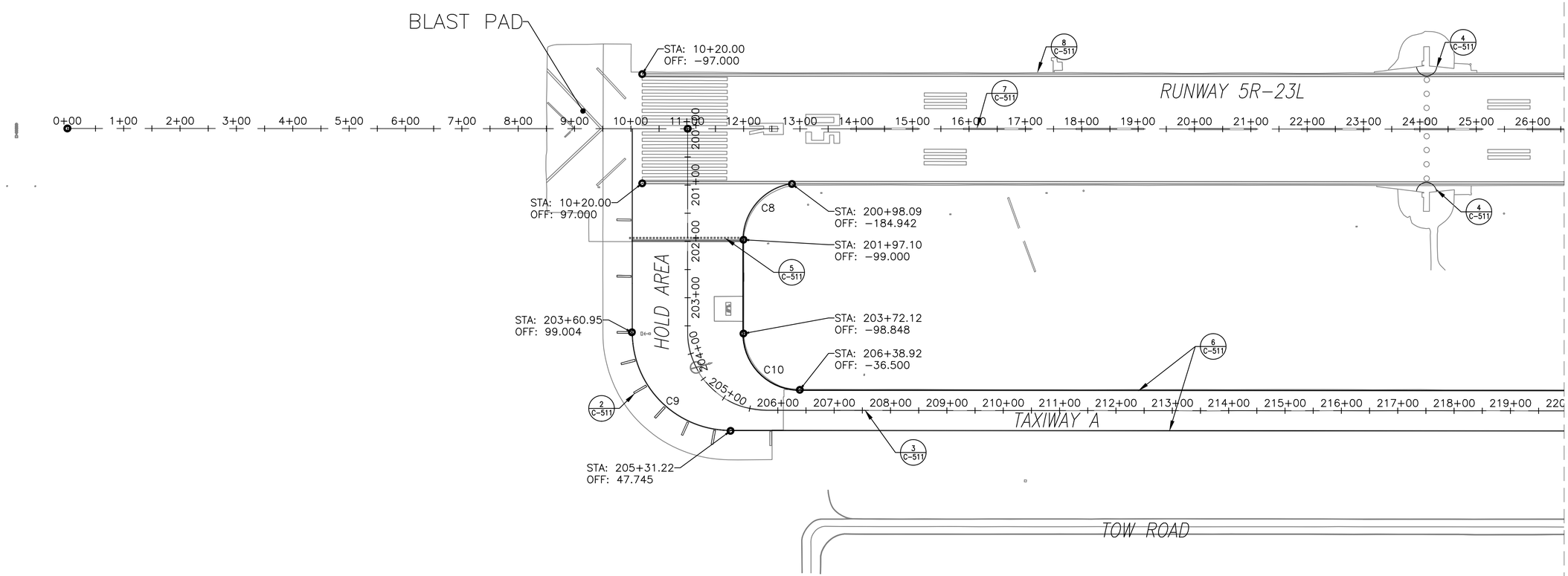
APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES MJT | DRW DFD | CHK ELO
PM/DM
BRANCH MANAGER BJC
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
AIRFIELD MARKING AND STRIPING PLAN

SCALE: AS NOTED
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691598
SHEET 65 OF 368
C-172

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHIFA\99_ Misc\Aviation\Oceana\Task 008\GENERAL–CIVIL_Task 008\10–0863–008–C–172.dwg LAYOUT NAME: C–172 PLOTTED: Tuesday, March 24, 2015 – 7:53pm USER: mcossenza

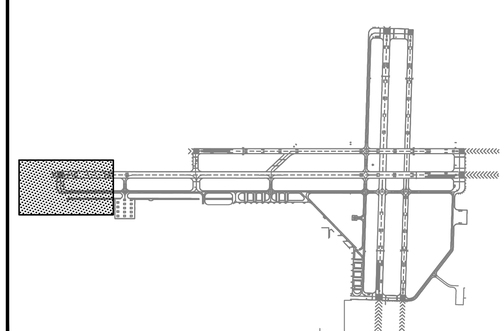


NOTE:
LOCATIONS REPRESENTED BY STATIONS AND OFFSETS INDICATE MARKING AND STRIPING LAYOUT POINTS. SEE SHEET AIRFIELD MARKING AND STRIPING DETAIL SHEET C-511 FOR ADDITIONAL INFORMATION.

CURVE TABLE

	LENGTH	RADIUS	DELTA	TAN	CHORD
C8	142.97'	100.00'	81.92	86.80'	131.10'
C9	274.79'	175.00'	89.97	174.90'	247.42'
C10	157.02'	100.00'	89.97	99.94'	141.38'

KEY PLAN



GRAPHIC SCALE

1"=100' 0 100' 200' 400'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
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A/E INFO

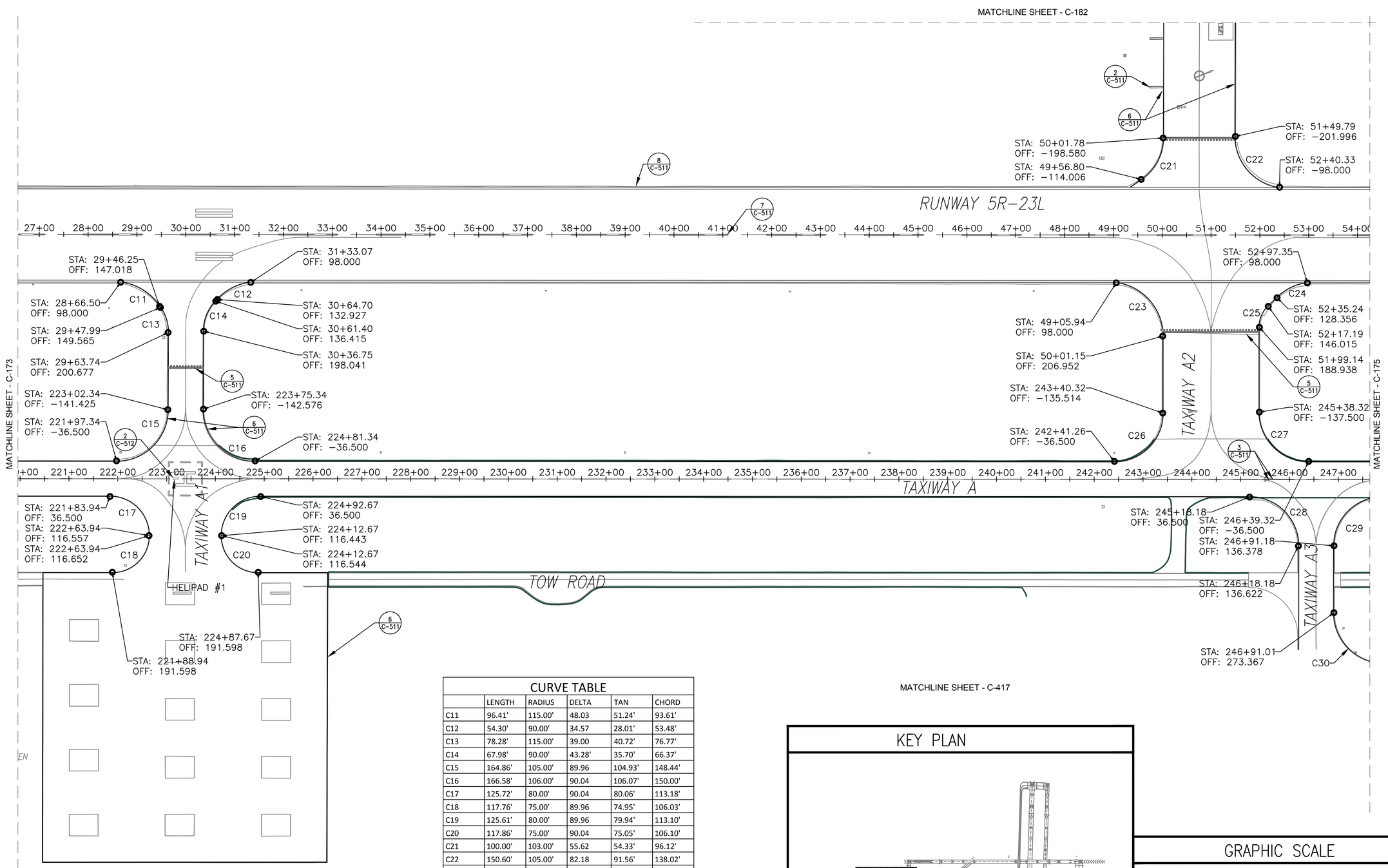
APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES MJT | DRW DFD | CHK ELO
PM/DM
BRANCH MANAGER BJC
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
AIRFIELD MARKING AND STRIPING PLAN

SCALE: AS NOTED
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691599
SHEET 66 OF 368
C-173

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-173.dwg LAYOUT NAME: C-173 PLOTTED: Tuesday, March 24, 2015 - 7:53am USER: mcosenza

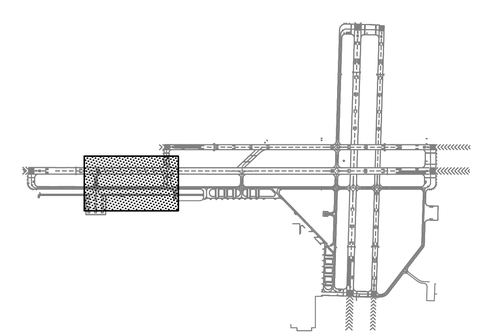


NOTE:
LOCATIONS REPRESENTED BY STATIONS AND OFFSETS INDICATE MARKING AND STRIPING LAYOUT POINTS. SEE SHEET AIRFIELD MARKING AND STRIPING DETAIL SHEET C-511 FOR ADDITIONAL INFORMATION.

CURVE TABLE

	LENGTH	RADIUS	DELTA	TAN	CHORD
C11	96.41'	115.00'	48.03	51.24'	93.61'
C12	54.30'	90.00'	34.57	28.01'	53.48'
C13	78.28'	115.00'	39.00	40.72'	76.77'
C14	67.98'	90.00'	43.28'	35.70'	66.37'
C15	164.86'	105.00'	89.96	104.93'	148.44'
C16	166.58'	106.00'	90.04	106.07'	150.00'
C17	125.72'	80.00'	90.04	80.06'	113.18'
C18	117.76'	75.00'	89.96	74.95'	106.03'
C19	125.61'	80.00'	89.96	79.94'	113.10'
C20	117.86'	75.00'	90.04	75.05'	106.10'
C21	100.00'	103.00'	55.62	54.33'	96.12'
C22	150.60'	105.00'	82.18	91.56'	138.02'
C23	157.90'	110.00'	82.24	96.03'	144.69'
C24	70.32'	110.00'	36.63	36.41'	69.13'
C25	47.82'	60.00'	45.66	25.26'	46.56'
C26	155.56'	99.00'	90.03	99.05'	140.04'
C27	158.65'	101.00'	90.00	101.00'	142.84'
C28	157.20'	100.00'	90.07	100.12'	141.51'
C29	156.96'	100.00'	89.93	99.88'	141.34'
C30	161.93'	103.00'	90.07	103.13'	145.76'

KEY PLAN



GRAPHIC SCALE

1"=100' 0 100' 200' 400'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
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A/E INFO

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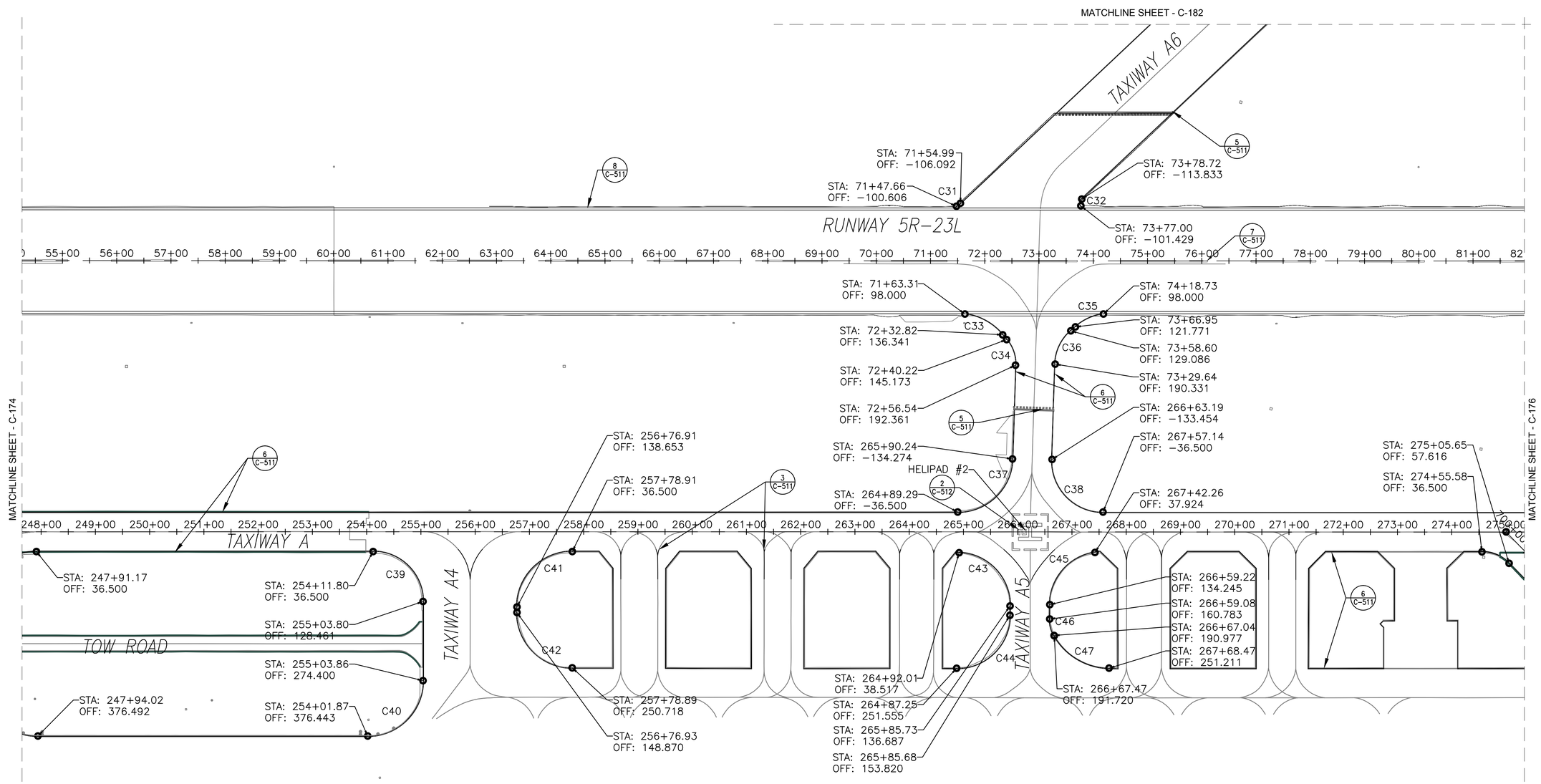
ACTIVITY
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER BJC
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
AIRFIELD MARKING AND STRIPING PLAN

SCALE: AS NOTED
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691600
SHEET 67 OF 368
C-174

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: Q:\PHIPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-174.dwg LAYOUT NAME: C-174 PLOTTED: Tuesday, March 24, 2015 - 7:54am USER: mcossenza

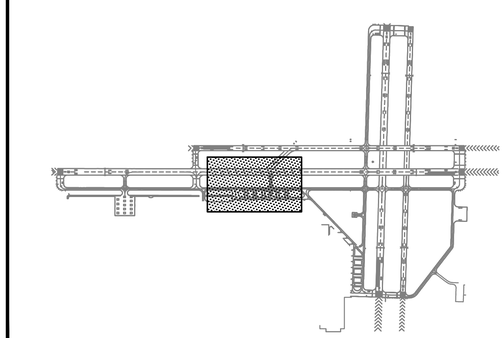


NOTE:
LOCATIONS REPRESENTED BY STATIONS AND OFFSETS INDICATE MARKING AND STRIPING LAYOUT POINTS. SEE SHEET AIRFIELD MARKING AND STRIPING DETAIL SHEET C-511 FOR ADDITIONAL INFORMATION.

CURVE TABLE

	LENGTH	RADIUS	DELTA	TAN	CHORD
C31	9.18'	40.00'	13.15	4.61'	9.16'
C32	13.53'	10.00'	77.53	8.03'	12.52'
C33	81.21'	110.00'	42.30	42.56'	79.38'
C34	51.05'	70.00'	41.79	26.72'	49.93'
C35	57.77'	100.00'	33.10	29.72'	56.97'
C36	69.68'	85.00'	46.97	36.93'	67.75'
C37	155.42'	101.00'	88.17	97.82'	140.54'
C38	150.61'	94.00'	91.80	97.01'	135.01'
C39	144.47'	92.00'	89.98	91.96'	130.08'
C40	160.26'	102.00'	90.02	102.04'	144.27'
C41	160.37'	102.00'	90.09	102.15'	144.36'
C42	160.03'	102.00'	89.89	101.81'	144.11'
C43	149.92'	98.00'	87.65	94.06'	135.72'
C44	154.11'	98.00'	90.10	98.17'	138.71'
C45	138.39'	98.00'	80.91	83.56'	127.17'
C46	31.60'	60.00'	30.17	16.17'	31.23'
C47	122.46'	120.00'	58.47	67.17'	117.22'
C48	55.82'	70.00'	45.69	29.49'	54.35'

KEY PLAN



GRAPHIC SCALE

1"=100' 0 100' 200' 400'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger

MARK J TIGER
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A/E INFO

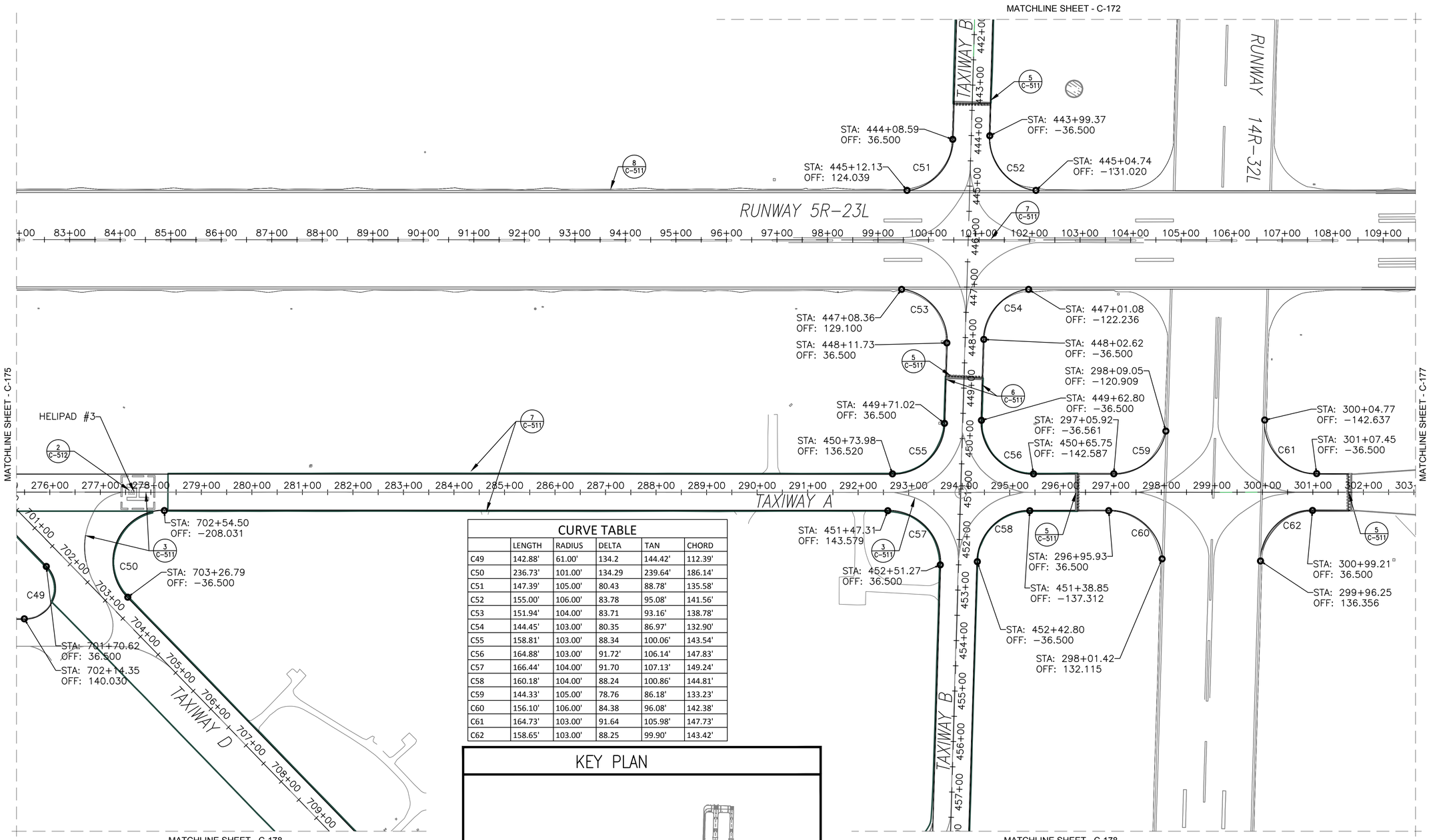
APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER BJC
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
HR IPT
NAVAL AIR STATION OCEANA
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
AIRFIELD MARKING AND STRIPING PLAN

SCALE: AS NOTED
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691601
SHEET 68 OF 368
C-175

DRAWFORM REVISION: 10 MARCH 2009

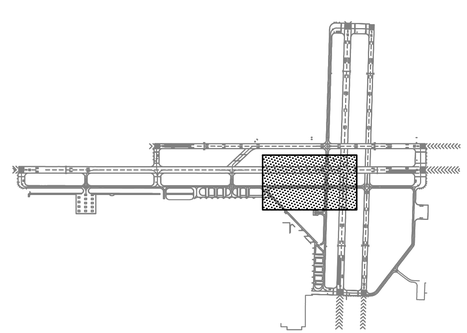
FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-175.dwg LAYOUT NAME: C-175 PLOTTED: Tuesday, March 24, 2015 - 7:55am USER: mcoseeza



CURVE TABLE

	LENGTH	RADIUS	DELTA	TAN	CHORD
C49	142.88'	61.00'	134.2	144.42'	112.39'
C50	236.73'	101.00'	134.29	239.64'	186.14'
C51	147.39'	105.00'	80.43	88.78'	135.58'
C52	155.00'	106.00'	83.78	95.08'	141.56'
C53	151.94'	104.00'	83.71	93.16'	138.78'
C54	144.45'	103.00'	80.35	86.97'	132.90'
C55	158.81'	103.00'	88.34	100.06'	143.54'
C56	164.88'	103.00'	91.72'	106.14'	147.83'
C57	166.44'	104.00'	91.70	107.13'	149.24'
C58	160.18'	104.00'	88.24	100.86'	144.81'
C59	144.33'	105.00'	78.76	86.18'	133.23'
C60	156.10'	106.00'	84.38	96.08'	142.38'
C61	164.73'	103.00'	91.64	105.98'	147.73'
C62	158.65'	103.00'	88.25	99.90'	143.42'

KEY PLAN



NOTE:
LOCATIONS REPRESENTED BY STATIONS AND OFFSETS INDICATE MARKING AND STRIPING LAYOUT POINTS. SEE SHEET AIRFIELD MARKING AND STRIPING DETAIL SHEET C-511 FOR ADDITIONAL INFORMATION.

GRAPHIC SCALE

1"=100' 0 100' 200' 400'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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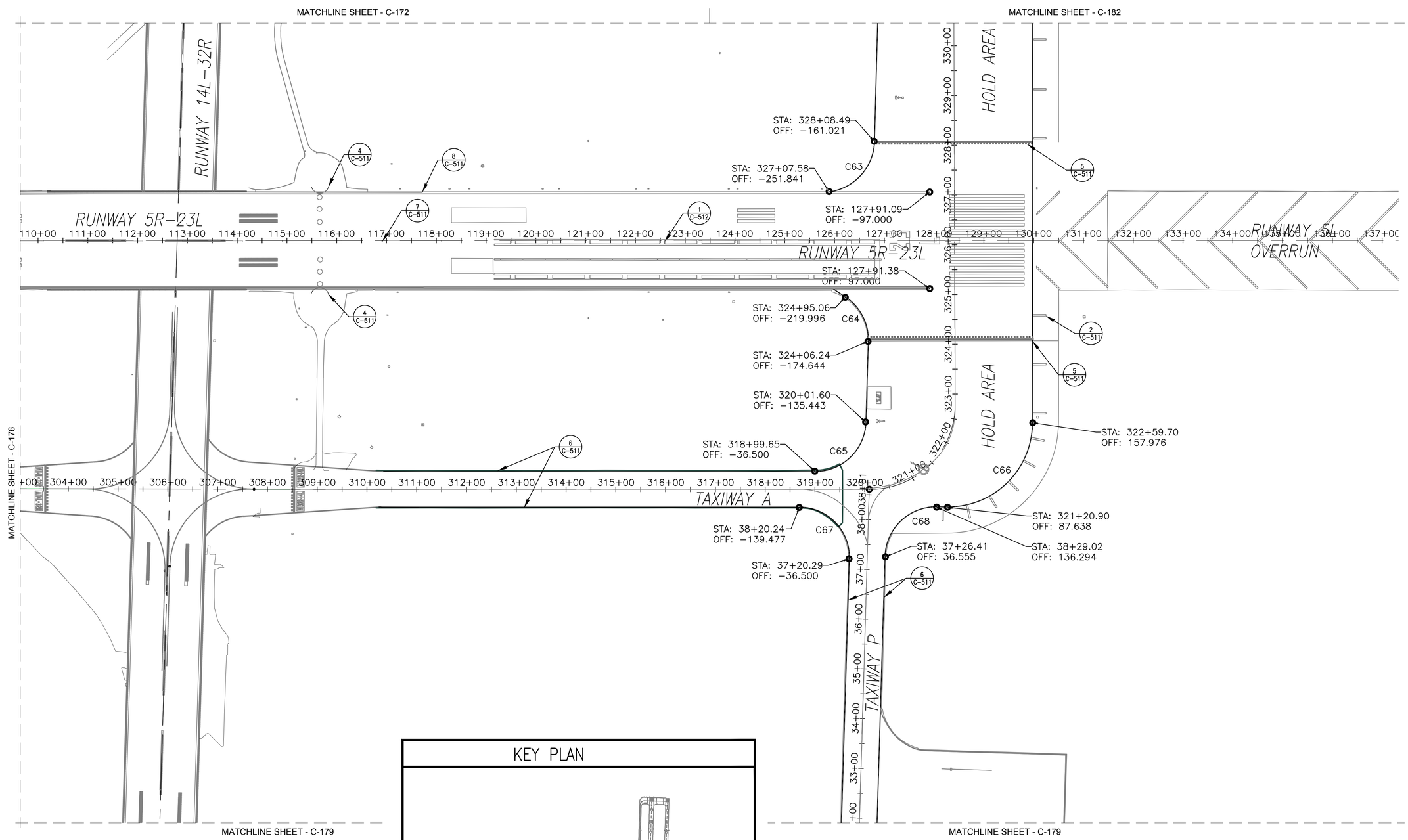
PM/DM
BRANCH MANAGER BJC
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
AIRFIELD MARKING AND STRIPING PLAN

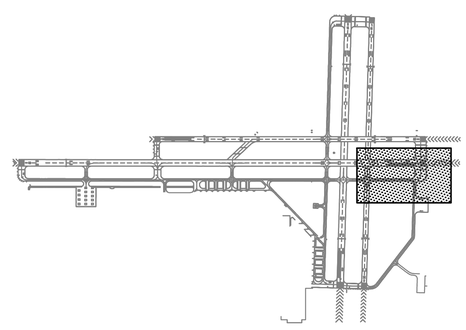
SCALE: AS NOTED
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691602
SHEET 69 OF 368
C-176
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-176.dwg LAYOUT NAME: C-176 PLOTTED: Tuesday, March 24, 2015 - 9:23am USER: kwatson



NOTE:
LOCATIONS REPRESENTED BY STATIONS AND OFFSETS INDICATE MARKING AND STRIPING LAYOUT POINTS. SEE SHEET AIRFIELD MARKING AND STRIPING DETAIL SHEET C-511 FOR ADDITIONAL INFORMATION.

KEY PLAN



CURVE TABLE

	LENGTH	RADIUS	DELTA	TAN	CHORD
C63	147.61'	105.00'	80.55	89.00'	135.75'
C64	104.10'	103.00'	57.91	56.98'	99.72'
C65	157.16'	102.00'	88.28	98.99'	142.07'
C66	268.26'	170.00'	90.41	171.23'	241.28'
C67	160.06'	100.00'	91.71	103.02'	143.51'
C68	158.02'	102.00'	88.76	99.82'	142.68'

GRAPHIC SCALE

1"=100' 0 100' 200' 400'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

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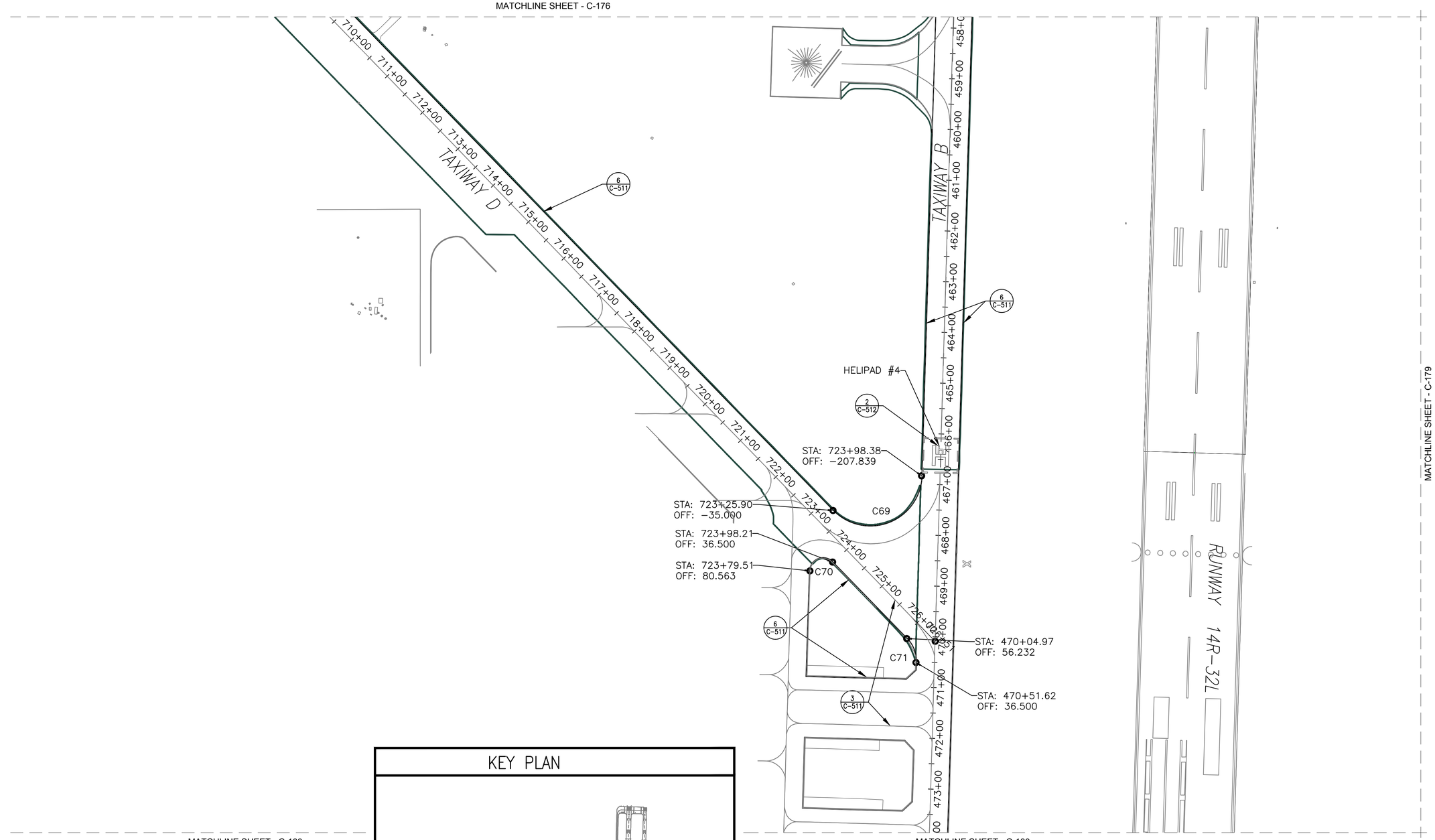
DES MJT | DRW DFD | CHK ELO
PM/DM
BRANCH MANAGER BJL
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
AIRFIELD MARKING AND STRIPING PLAN

SCALE: AS NOTED
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691603
SHEET 70 OF 368
C-177
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-177.dwg LAYOUT NAME: C-177 PLOTTED: Tuesday, March 24, 2015 - 7:57am USER: mcosenza

MATCHLINE SHEET - C-176



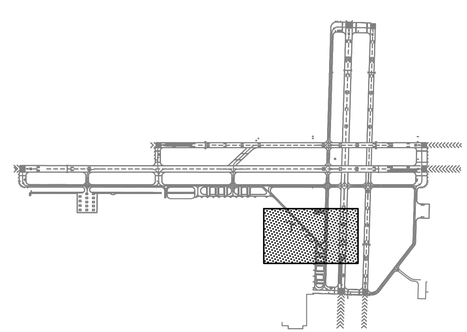
MATCHLINE SHEET - C-179

MATCHLINE SHEET - C-180

MATCHLINE SHEET - C-180

NOTE:
LOCATIONS REPRESENTED BY STATIONS AND OFFSETS INDICATE MARKING AND STRIPING LAYOUT POINTS. SEE SHEET AIRFIELD MARKING AND STRIPING DETAIL SHEET C-511 FOR ADDITIONAL INFORMATION.

KEY PLAN



CURVE TABLE

	LENGTH	RADIUS	DELTA	TAN	CHORD
C69	236.46'	101.00'	134.14	238.76'	186.04'
C70	60.81'	26.00'	134.00	61.26'	47.87'
C71	52.03'	65.00'	45.86	27.50'	50.65'

GRAPHIC SCALE

1"=100'

0 100' 200' 400'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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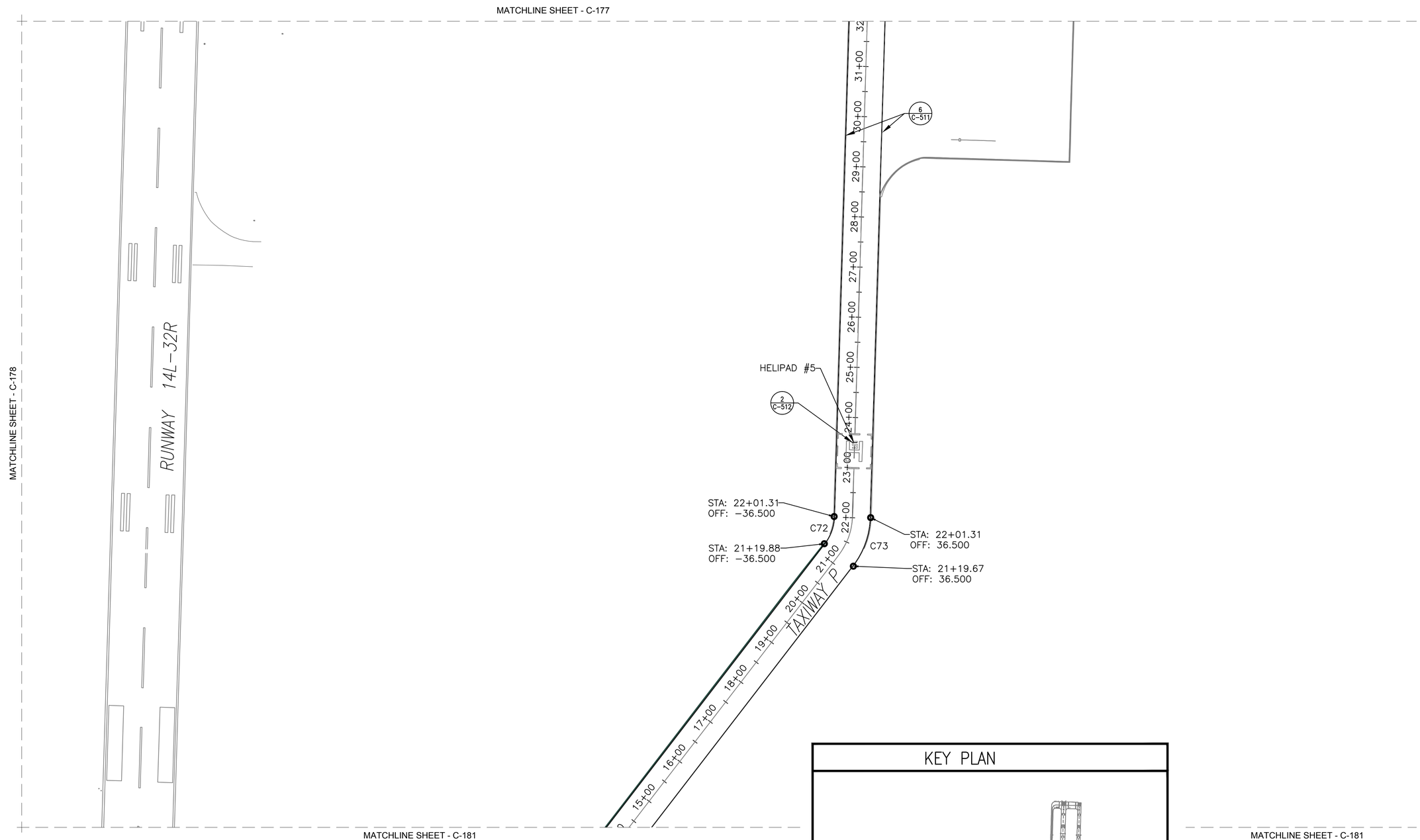
ACTIVITY
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER B/L
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
AIRFIELD MARKING AND STRIPING PLAN

SCALE: AS NOTED
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691604
SHEET 71 OF 368
C-178
DRAWFORM REVISION: 10 MARCH 2009

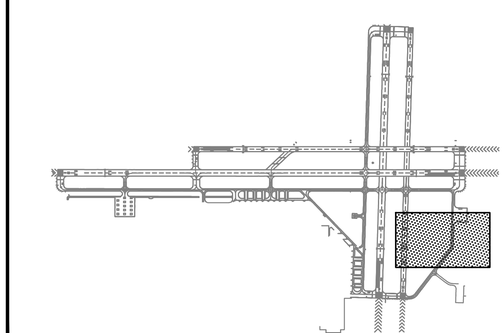
FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-178.dwg LAYOUT NAME: C-178 PLOTTED: Tuesday, March 24, 2015 - 7:58am USER: mcosenza



NOTE:
LOCATIONS REPRESENTED BY STATIONS AND OFFSETS INDICATE MARKING AND STRIPING LAYOUT POINTS. SEE SHEET AIRFIELD MARKING AND STRIPING DETAIL SHEET C-511 FOR ADDITIONAL INFORMATION.

CURVE TABLE					
	LENGTH	RADIUS	DELTA	TAN	CHORD
C72	58.57'	93.50'	35.89	30.28'	57.62'
C73	104.51'	166.50'	35.96	54.04'	102.80'

KEY PLAN



GRAPHIC SCALE

1"=100' 0 100' 200' 400'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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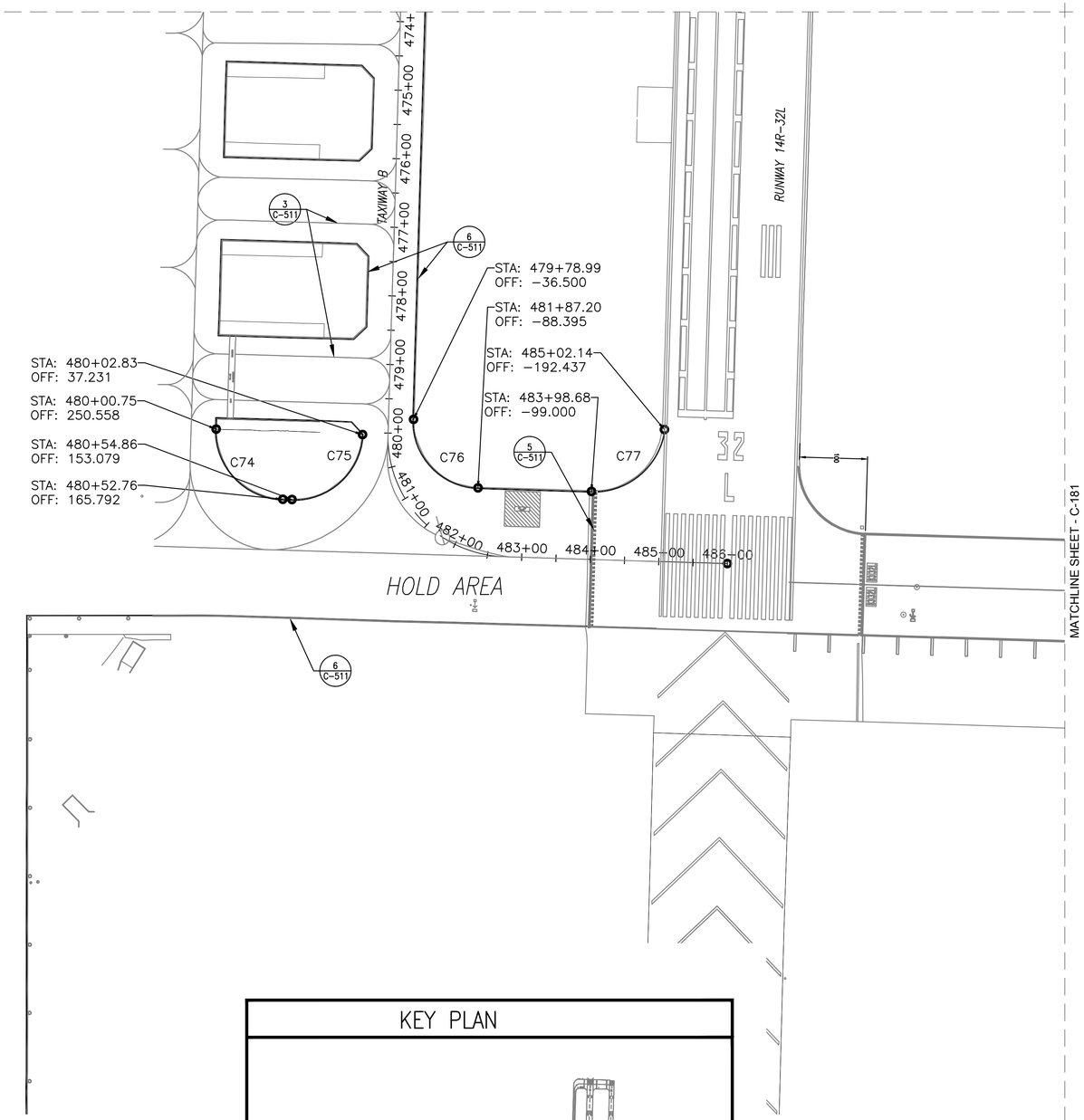
PM/DM
BRANCH MANAGER BJL
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
AIRFIELD MARKING AND STRIPING PLAN

SCALE: AS NOTED
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691605
SHEET 72 OF 368
C-179
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-179.dwg LAYOUT NAME: C-179 PLOTTED: Tuesday, March 24, 2015 - 7:58am USER: mcosenza

MATCHLINE SHEET - C-178

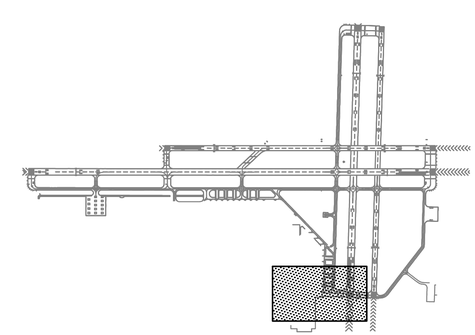


NOTE:
LOCATIONS REPRESENTED BY STATIONS AND OFFSETS INDICATE MARKING AND STRIPING LAYOUT POINTS. SEE SHEET AIRFIELD MARKING AND STRIPING DETAIL SHEET C-511 FOR ADDITIONAL INFORMATION.

CURVE TABLE

	LENGTH	RADIUS	DELTA	TAN	CHORD
C74	156.59'	100.00'	89.72	99.52'	141.08'
C75	151.71'	100.00'	86.92	94.77'	137.58'
C76	152.245'	97.00'	89.93	96.88'	137.09'
C77	152.78'	104.020'	84.17	93.92'	139.41'

KEY PLAN



GRAPHIC SCALE

1"=100' 0 100' 200' 400'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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REGISTERED PROFESSIONAL ENGINEER
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A/E INFO

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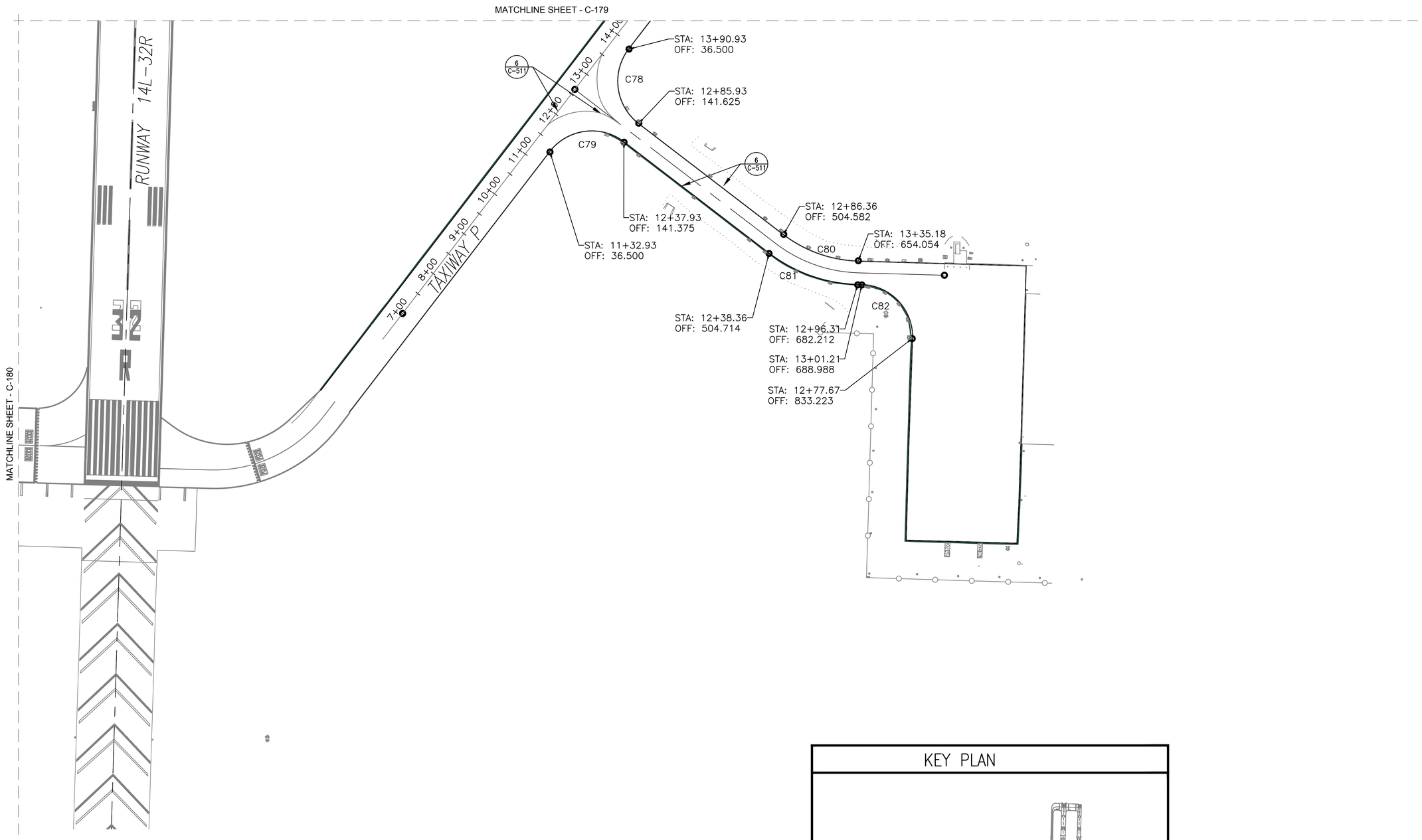
PM/DM
BRANCH MANAGER BJC
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
AIRFIELD MARKING AND STRIPING PLAN

SCALE: AS NOTED
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691606
SHEET 73 OF 368
C-180
DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-180.dwg LAYOUT NAME: C-180 PLOTTED: Tuesday, March 24, 2015 - 9:30am USER: kwatson

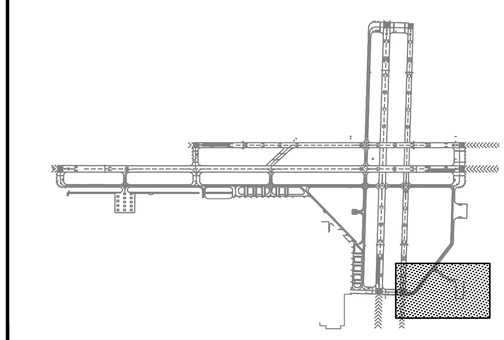


NOTE:
LOCATIONS REPRESENTED BY STATIONS AND OFFSETS INDICATE MARKING AND STRIPING LAYOUT POINTS. SEE SHEET AIRFIELD MARKING AND STRIPING DETAIL SHEET C-511 FOR ADDITIONAL INFORMATION.

CURVE TABLE

	LENGTH	RADIUS	DELTA	TAN	CHORD
C78	165.06'	105.00'	90.07	105.13'	148.58'
C79	164.81'	105.00'	89.93	104.88'	148.40'
C80	159.81'	256.75'	35.66	82.59'	157.24'
C81	189.77'	304.75'	35.68	98.07'	186.72'
C82	162.47'	103.00'	90.38	103.68'	146.15'

KEY PLAN



GRAPHIC SCALE

1"=100' 0 100' 200' 400'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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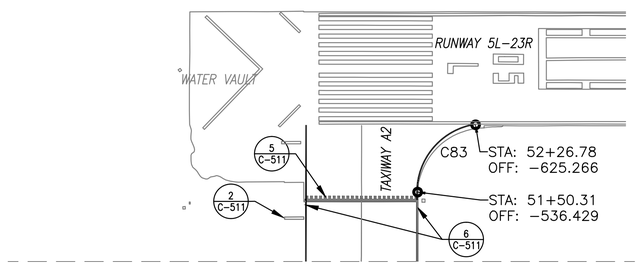
BRANCH MANAGER BJC
CHIEF ENG/ARCH

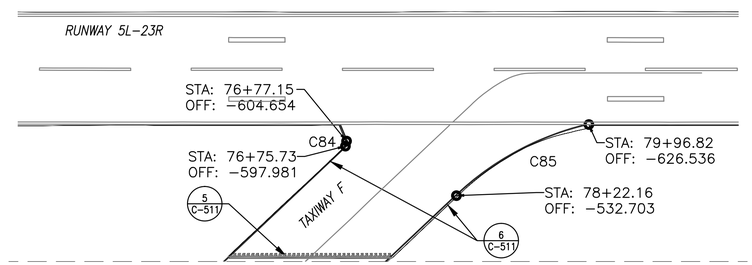
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
AIRFIELD MARKING AND STRIPING PLAN

SCALE: AS NOTED
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691607
SHEET 74 OF 368
C-181
DRAWFORM REVISION: 10 MARCH 2009

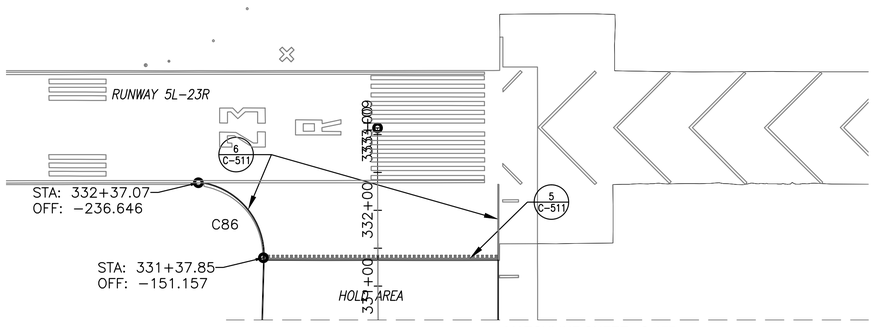
FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-181.dwg LAYOUT NAME: C-181 PLOTTED: Tuesday, March 24, 2015 - 8:00am USER: mcosenza



MATCHLINE SHEET - C-174



MATCHLINE SHEET - C-175



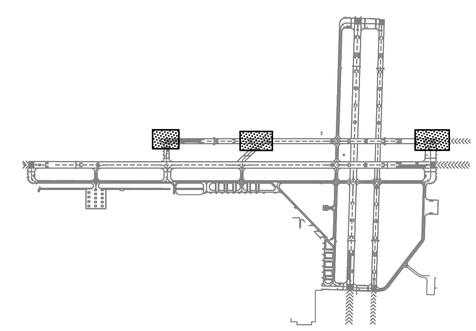
MATCHLINE SHEET - C-177

NOTE:
LOCATIONS REPRESENTED BY STATIONS AND OFFSETS INDICATE MARKING AND STRIPING LAYOUT POINTS. SEE SHEET AIRFIELD MARKING AND STRIPING DETAIL SHEET C-511 FOR ADDITIONAL INFORMATION.

CURVE TABLE

	LENGTH	RADIUS	DELTA	TAN	CHORD
C83	127.66'	90.00'	81.27	77.23'	117.22'
C84	7.26'	6.00'	69.29	4.15'	6.82'
C85	200.60'	380.00'	30.25	102.69'	198.27'
C86	143.78'	97.00'	84.93	88.77'	130.97'

KEY PLAN



GRAPHIC SCALE

1"=100' 0 100' 200' 400'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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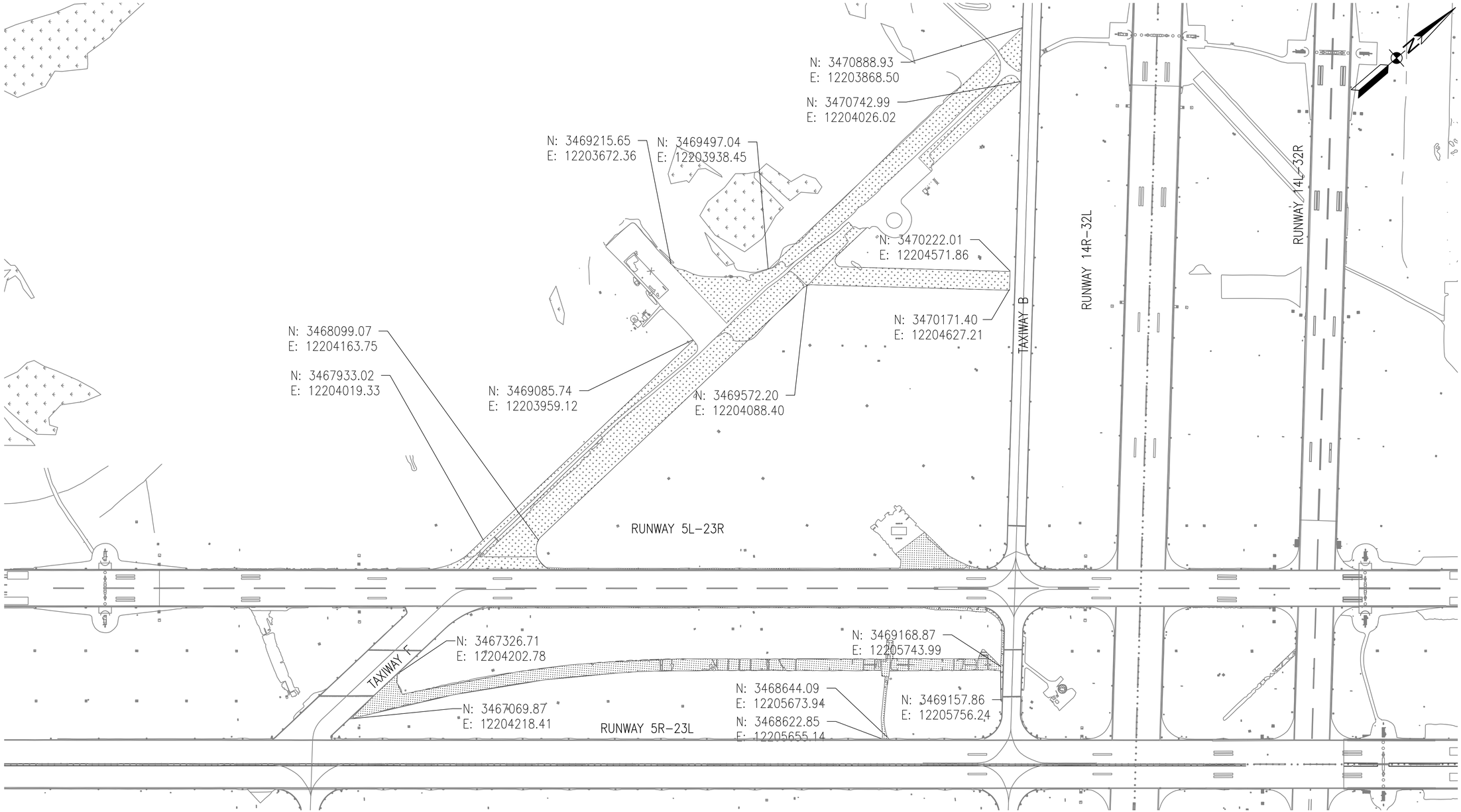
BRANCH MANAGER BJC
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
AIRFIELD MARKING AND STRIPING PLAN

SCALE: AS NOTED
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691608
SHEET 75 OF 368
C-182

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-182.dwg LAYOUT NAME: C-182 PLOTTED: Tuesday, March 24, 2015 - 8:01am USER: mcosenza



IDLE PAVEMENT REMOVAL NOTES:

1. FOR EXISTING IDLE PAVEMENT CONDITIONS, SEE SHEETS B-001 AND BB201 TO BB203.

GRAPHIC SCALE

1"=100' 0 100' 200' 400'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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WEB: WWW.JMT.COM
A/E INFO

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

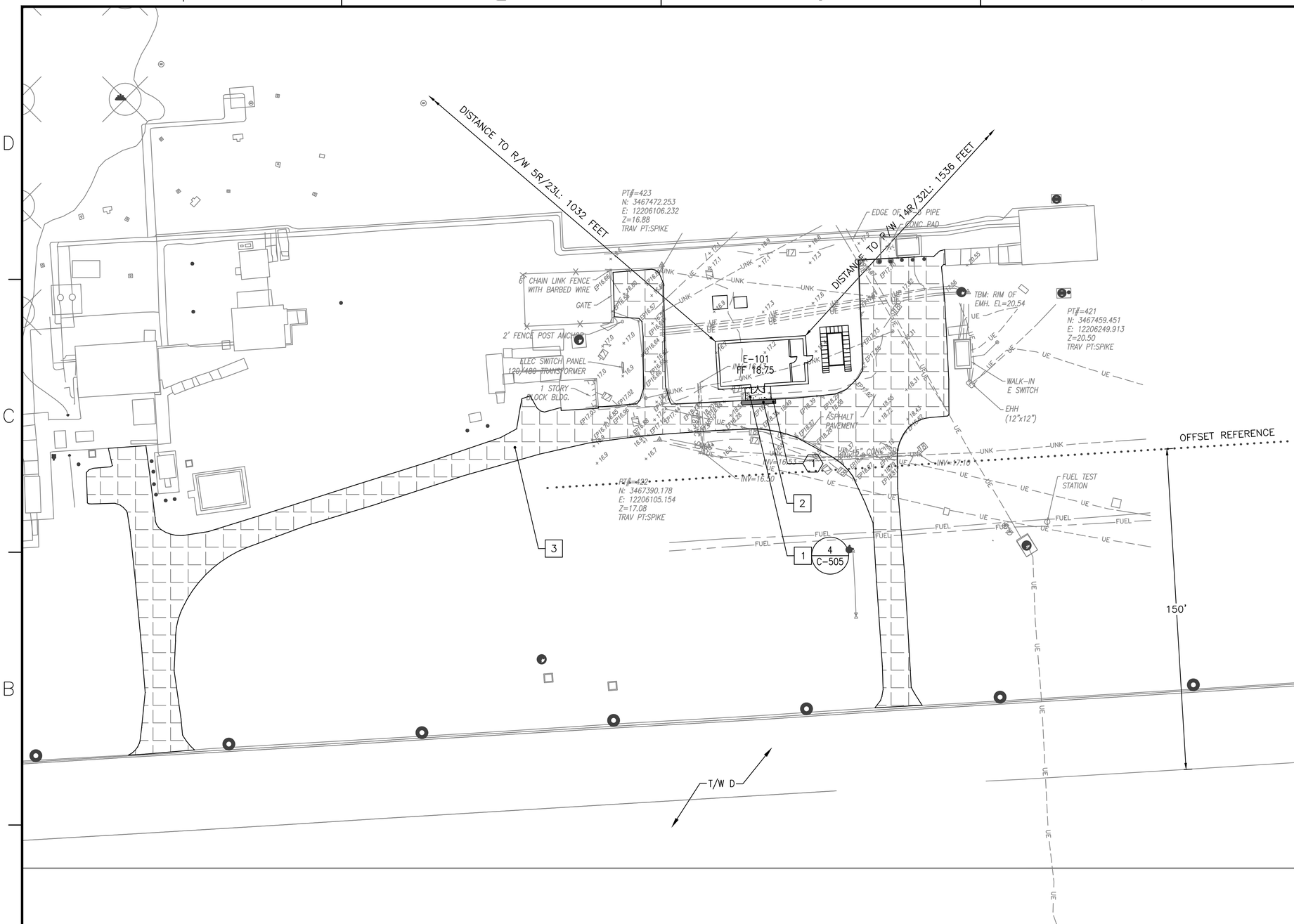
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HQ IPT
NAVAL FACILITIES ENGINEERING COMMAND – MID-ATLANTIC
NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
IDLE PAVEMENT REMOVAL PLAN

SCALE: 1" = 200'
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691609
SHEET 76 OF 388

C-191

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-431.dwg LAYOUT NAME: C-191 PLOTTED: Tuesday, March 24, 2015 - 7:56am USER: kwatson



VAULT E-101 SITE PLAN

1" = 25'

GENERAL NOTES

1. REFER TO DRAWING C-128-C FOR ADDITIONAL WORK
2. REFER TO STRUCTURAL AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL WORK
3. REFER TO ELECTRICAL DRAWING EA138-C AND E-404 FOR ADDITIONAL WORK
4. CONTRACTOR TO REPAIR ANY DAMAGE TO EXISTING SURFACES AND STRUCTURES TO ORIGINAL CONDITION
5. HYDROSEED ALL DISTURBED GRASS AREAS

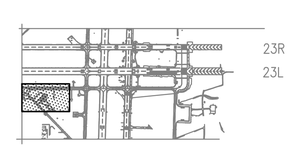
DEMOLITION KEYNOTES

1. SAWCUT AND REMOVE EXISTING AC PAVEMENT AT CONCRETE PAD. PROTECT CUT EDGE AS REQUIRED.

CONSTRUCTION KEYNOTES

1. 6'X12' CONCRETE PAD. SLOPE AT $\frac{1}{2}$" : 1' AWAY FROM BUILDING
2. 4" AC PAVEMENT OVER 6" RCC OR ABC BASE
3. CRACK REPAIR AND FOG SEAL

KEY MAP C



GRAPHIC SCALE

1"=25' 0 25' 50' 100'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J. Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
ENGINEER
041439-E
SEAL

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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES WMM | DRW GSC | CHK MJT

PM/DM

BRANCH MANAGER BJC

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
SITE PLAN – VAULT E-101

SCALE: 1" = 25'

EPROJECT NO.: 1291651

CONSTR. CONTR. NO.

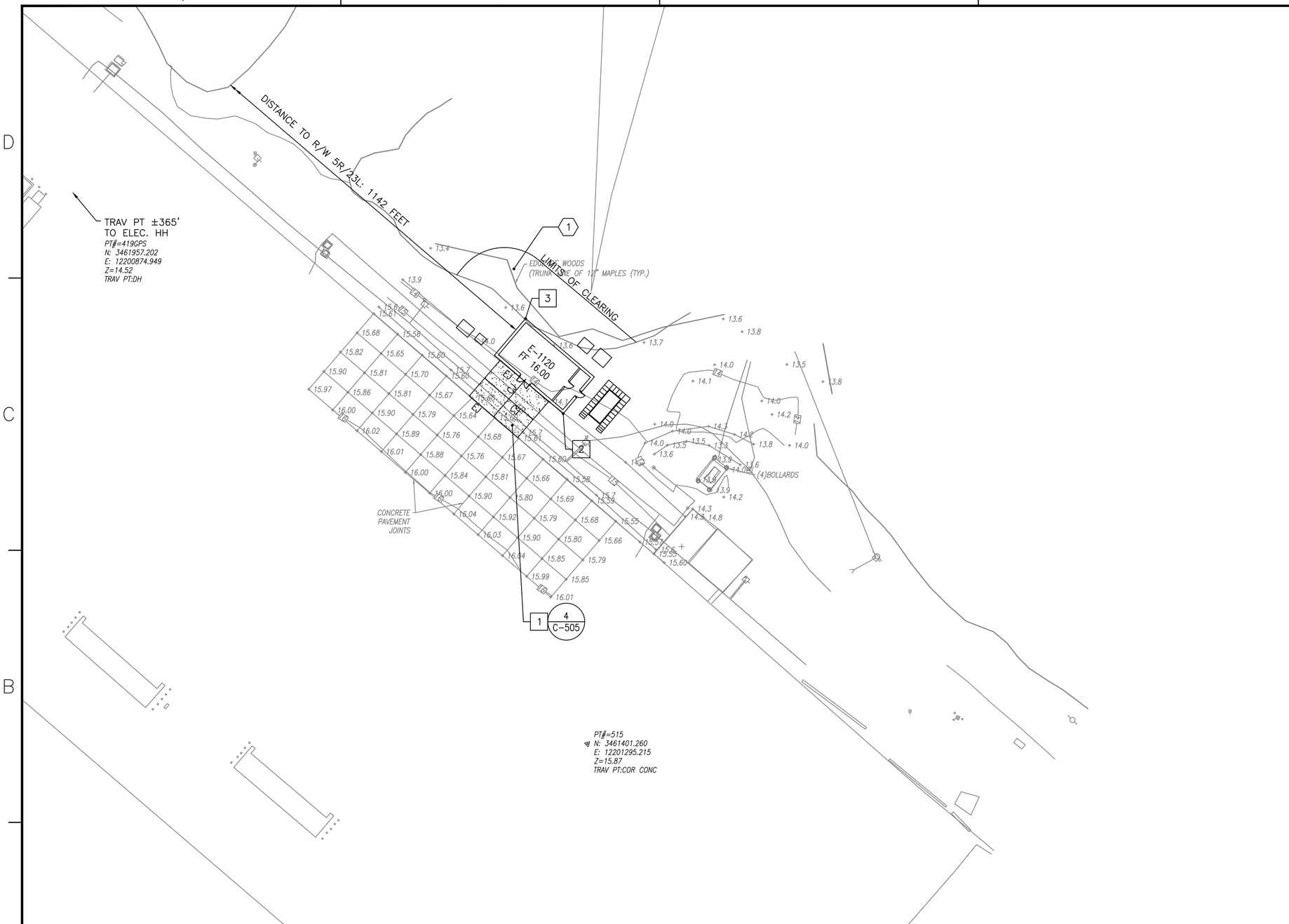
NAVFAC DRAWING NO.
12691610

SHEET 77 OF 368

C-401

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: C:\Users\moore\Documents\$ Roaming\Oceana\CADD\wmm_work_drawings\Vault Site Plans.dwg LAYOUT NAME: E101 Site PLOTTED: Tuesday, March 24, 2015 - 1:35pm USER: moore



GENERAL NOTES

1. REFER TO DRAWING C-123-B FOR ADDITIONAL WORK
2. REFER TO STRUCTURAL AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL WORK
3. REFER TO ELECTRICAL DRAWING EA133-B AND E-407 FOR ADDITIONAL WORK
4. CONTRACTOR TO REPAIR ANY DAMAGE TO EXISTING SURFACES AND STRUCTURES TO ORIGINAL CONDITION
5. HYDROSEED ALL DISTURBED GRASS AREAS

DEMOLITION KEYNOTES

1. CLEAR AND GRUB TREES AND BRUSH

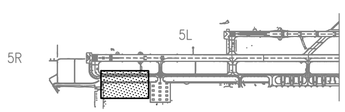
CONSTRUCTION KEYNOTES

1. 22'X30' CONCRETE PAD. SLOPE AT ¼":1' AWAY FROM BUILDING
2. CORNER: N3461601.47 E12201266.07
3. CORNER: N3461556.69 E12201283.80

VAULT E-1120 SITE PLAN

1" = 25'

KEY MAP B



GRAPHIC SCALE

1"=25' 0 25' 50' 100'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark J Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
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A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE

DES WMM | DRW GSC | CHK MJT
PM/DM
BRANCH MANAGER BJL
CHIEF ENG/ARCH

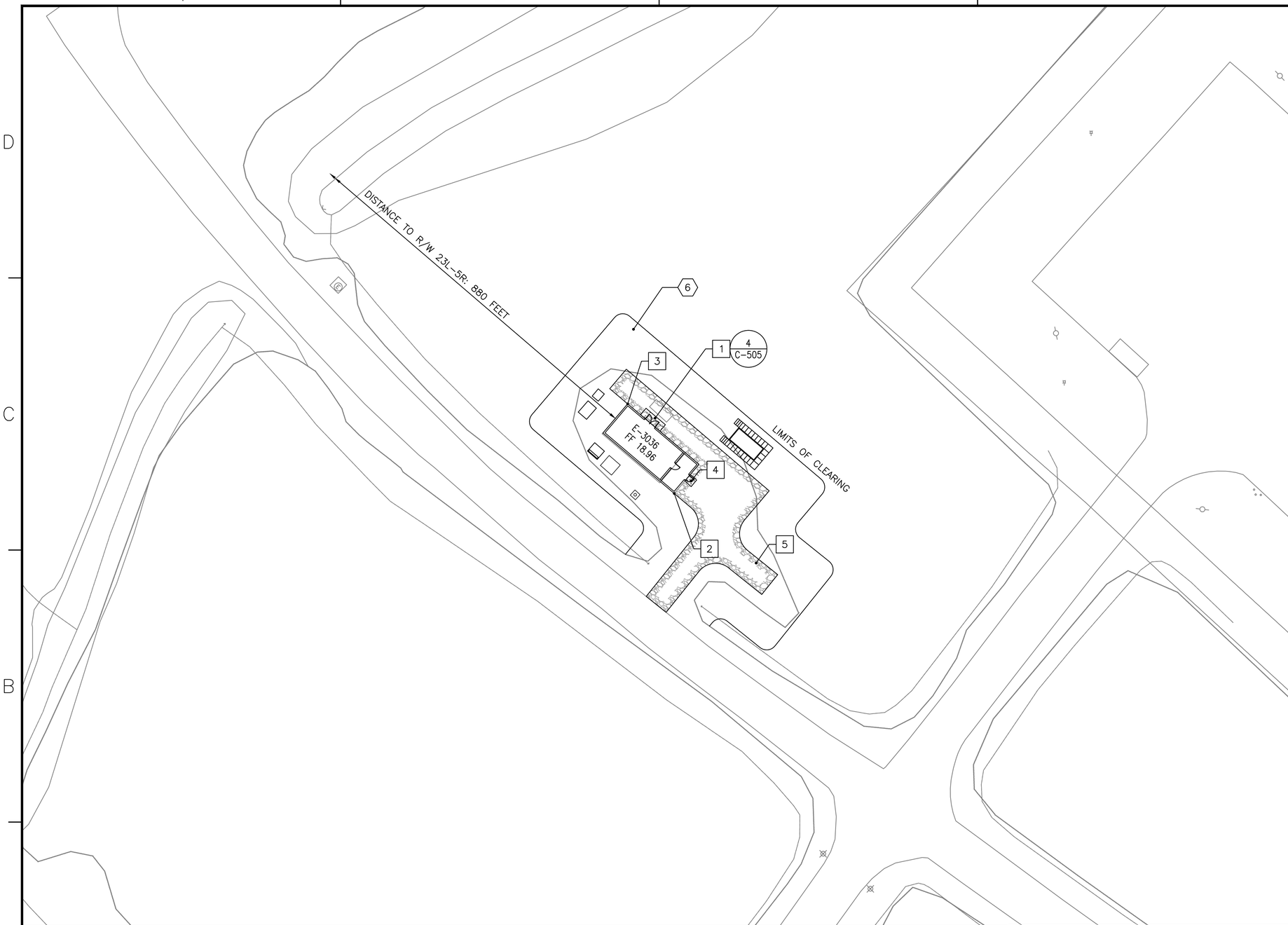
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND - MID-ATLANTIC
NAVAL AIR STATION OCEANA - VIRGINIA BEACH, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
SITE PLAN - VAULT E-1120

SCALE: 1" = 25'
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691611
SHEET 78 OF 368

C-402

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: C:\Users\moore\Documents\$ Roaming\Oceana\CADD\wmm_work_drawings\Vault Site Plans.dwg LAYOUT NAME: E1120 Site PLOTTED: Tuesday, March 24, 2015 - 1:34pm USER: moore



GENERAL NOTES

1. REFER TO DRAWING C-131-C FOR ADDITIONAL WORK
2. REFER TO STRUCTURAL AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL WORK
3. REFER TO ELECTRICAL DRAWING EA141-C AND E-401 FOR ADDITIONAL WORK
4. CONTRACTOR TO REPAIR ANY DAMAGE TO EXISTING SURFACES AND STRUCTURES TO ORIGINAL CONDITION
5. HYDROSEED ALL DISTURBED GRASS AREAS

DEMOLITION KEYNOTES

1. CLEAR AND GRUB TREES AND BRUSH

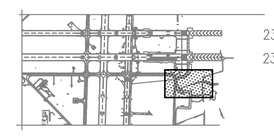
CONSTRUCTION KEYNOTES

1. 12'X4' CONCRETE PAD. SLOPE AT $\frac{1}{4}$":1' AWAY FROM BLDG
2. CORNER: N3470936.41 E12208988.61
3. CORNER: N3470978.59 E12208966.69
4. 4'X4' CONCRETE SLAB 6" TH SLOPE AT $\frac{1}{4}$":1' AWAY FROM BLDG
5. RCC ROAD 12" TH WITH GEOTEXTILE
6. CLEAR AND GRUB TREES AND BRUSH

VAULT E-3036 SITE PLAN

1" = 25'

KEY MAP C



GRAPHIC SCALE

1"=25'

0 25' 50' 100'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger

MARK J TIGER
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041439-E

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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES WMM DRW GSC CHK MJT

PM/DM

BRANCH MANAGER BJL

CHIEF ENG/ARCH

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

NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2

SITE PLAN – VAULT E-3036

SCALE: 1" = 25'

EPROJECT NO.: 1291651

CONSTR. CONTR. NO.

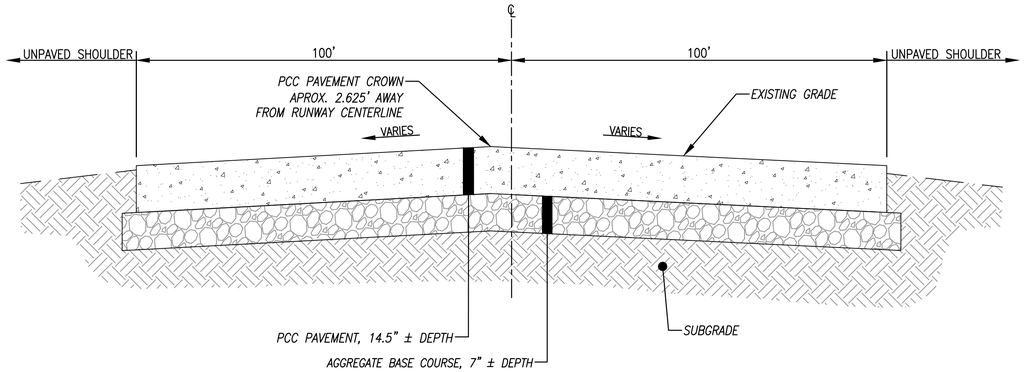
NAVFAC DRAWING NO.
12691612

SHEET 79 OF 388

C-403

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: C:\Users\moore\Documents\$ Roaming\Oceana\CADD\wmm_work_drawings\Vault Site Plans.dwg LAYOUT NAME: E3036 Site PLOTTED: Tuesday, March 24, 2015 - 1:48pm USER: moore

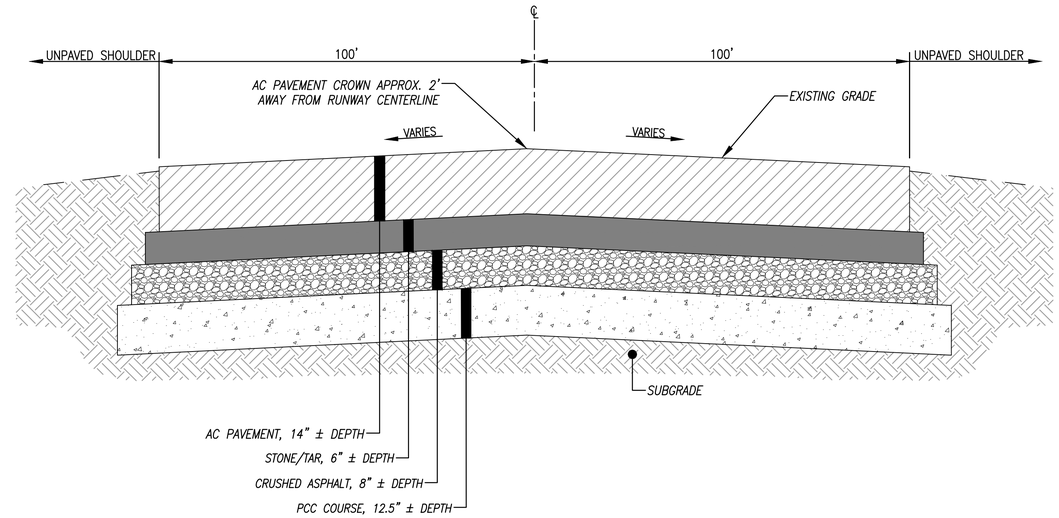


NOTE:

1. PAVEMENT DEPTHS ARE REPRESENTATIVE OF KEEL SECTION ONLY. INFORMATION PROVIDED BY GEOTECHNICAL INVESTIGATION. SEE CORE C-11 ON SHEET BB203.

RUNWAY 5R-23L - RW 5R END EXISTING PCC PAVEMENT SECTION (1)

NTS — C-120-B, C-121-B, C-122-B, C-124-B

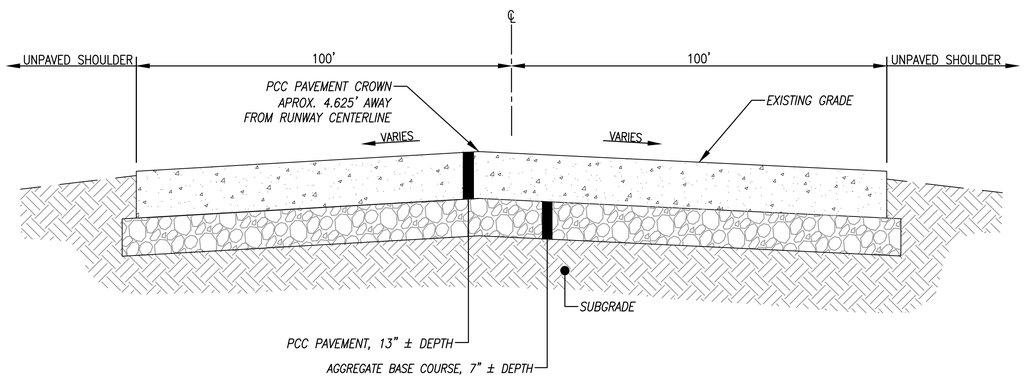


NOTE:

1. LIMITS OF PAVEMENT SECTION ARE UNKNOWN. INFORMATION PROVIDED BY GEOTECHNICAL INVESTIGATION. SEE CORE C-12 ON SHEET BB203.

RUNWAY 5R-23L EXISTING AC PAVEMENT SECTION (2)

NTS — C-124-B, C-125-B, C-126-C, C-127-C

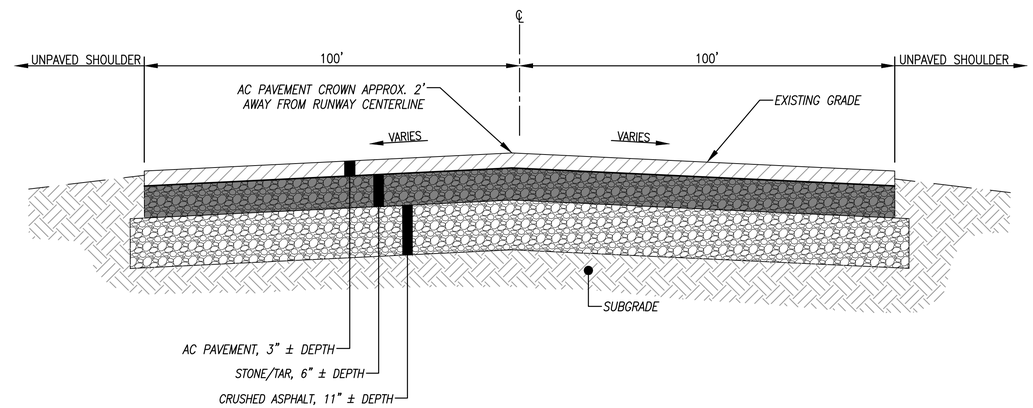


NOTE:

1. PAVEMENT DEPTHS ARE REPRESENTATIVE OF KEEL SECTION ONLY. INFORMATION PROVIDED BY GEOTECHNICAL INVESTIGATION. SEE CORE C-14 ON SHEET BB203.

RUNWAY 5R-23L - RW 23L END EXISTING PCC PAVEMENT SECTION (3)

NTS — C-128-C, C-129-C



NOTE:

1. LIMITS OF PAVEMENT SECTION ARE UNKNOWN. INFORMATION PROVIDED BY GEOTECHNICAL INVESTIGATION. SEE CORE C-13 ON SHEET BB203.

RUNWAY 5R-23L/14R-32L INTERSECTION EXISTING AC PAVEMENT SECTION (4)

NTS — C-127-C

NOTE:

1. THE PAVEMENT TYPES AND LAYER DEPTHS ARE DERIVED FROM BORING AND CORING INFORMATION. SEE SHEET B-001 FOR BORING AND CORING LOCATIONS. SEE SHEETS BB201 THROUGH BB203 FOR BORING AND CORING STRATA DESCRIPTIONS. PAVEMENT LAYER DEPTHS PROVIDED ARE APPROXIMATE BASED ON THE AVAILABLE DATA.
2. WHERE CORING AND BORING DATA DOES NOT EXIST, CONSTRUCTION HISTORY FROM THE AIRFIELD PAVEMENT CONDITION SURVEY PREPARED BY NAVFAC (FEBRUARY 2011) IS UTILIZED.
3. EXISTING CONDITION INFORMATION PROVIDED IS NOT A GUARANTEE OF ACTUAL FIELD CONDITIONS. THE EXISTING PAVEMENT DETAILS ARE PROVIDED FOR INFORMATION ONLY. THE EXISTING PAVEMENT SECTIONS MAY VARY. THE CONTRACTOR SHALL COMPLETE DEMOLITION OF THE EXISTING SECTIONS IN THEIR ENTIRETY, REGARDLESS OF TYPE AND THICKNESS, AT NO ADDITIONAL COST TO THE GOVERNMENT.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

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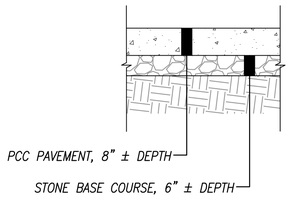
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER BJL
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
EXISTING PAVEMENT SECTIONS

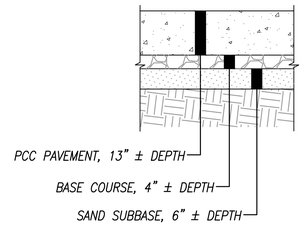
SCALE: AS NOTED
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691613
SHEET 80 OF 368
C-501

DRAWFORM REVISION: 10 MARCH 2009

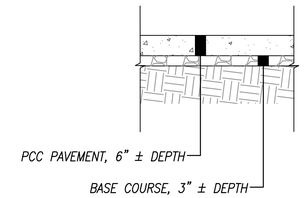
FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-501.dwg LAYOUT NAME: C-501 PLOTTED: Tuesday, March 24, 2015 - 7:58am USER: kwatson



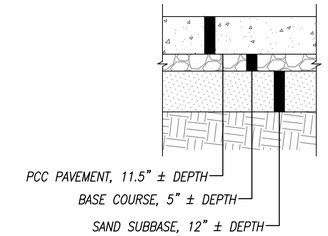
BLAST PAD PAVEMENT SECTION (BP5R-1, BP5R-2, BP5L-1, BP-5L-2, BP14R-1, BP23R-2, BP23L-1, BP23L-2) (1)
NTS C-102-A, C-110-B, C-120-B. C-129-C



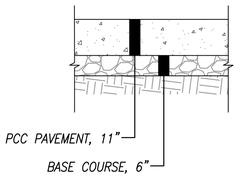
32L HOLD AREA PAVEMENT SECTION (HA32L-1) (2)
NTS C-151-D, C-152-D



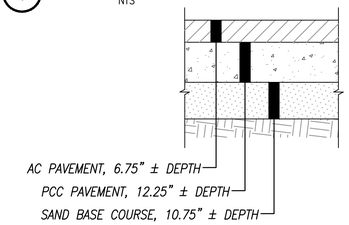
RW 32L BLAST PAD PAVEMENT SECTION (BP32L-1, BP32L-2) (3)
NTS C-152-D



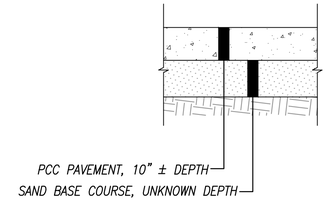
(RP-9, RP-10) PAVEMENT SECTION (4)
NTS C-151-D



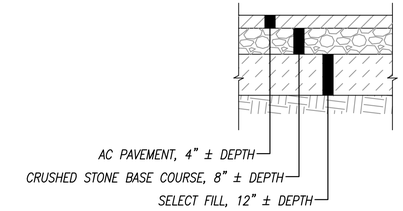
(RP-7, RP-8) PAVEMENT SECTION (5)
NTS C-150-D, C-151-D



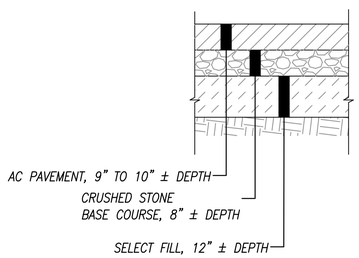
TAXIWAY P (PT-1) PAVEMENT SECTION (6)
NTS C-157-D



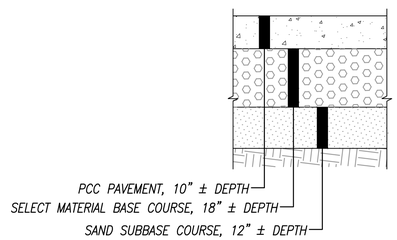
TAXIWAY P (PT-4) PAVEMENT SECTION (7)
NTS C-141-C



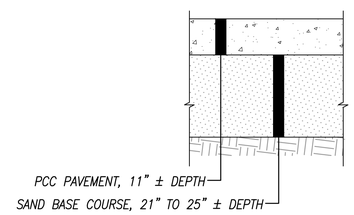
(T3025-1) PAVEMENT SECTION (8)
NTS C-157-D



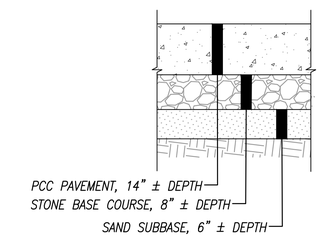
(TOW- 1) PAVEMENT SECTION (9)
NTS C-133-B



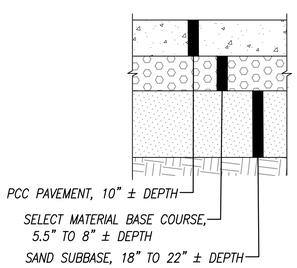
(RP-1, RP-2, RP-3, RP-4, RP-5, RP-6) PAVEMENT SECTION (10)
NTS C-136-B, C-137-B



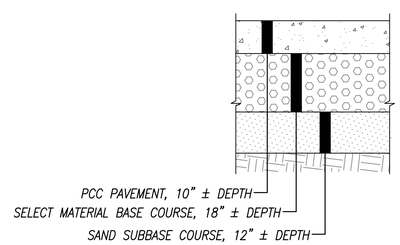
(CTA-1) PAVEMENT SECTION (11)
NTS C-122-B



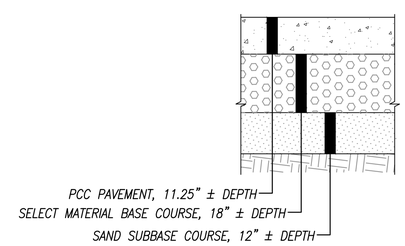
(CTB-1B) PAVEMENT SECTION (12)
NTS C-125-B



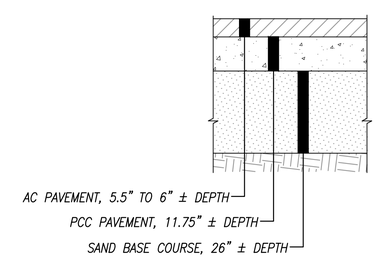
(CTC-1) PAVEMENT SECTION (13)
NTS C-135-B



(CTD-1) PAVEMENT SECTION (14)
NTS C-136-B



(CTB-1A) PAVEMENT SECTION (15)
NTS C-137-B



(T5-4) PAVEMENT SECTION (16)
NTS C-139-C

NOTE:
1. THE PAVEMENT TYPES AND LAYER DEPTHS ARE DERIVED FROM BORING AND CORING INFORMATION. SEE SHEET B-001 FOR BORING AND CORING LOCATIONS. SEE SHEETS BB201 THROUGH BB203 FOR BORING AND CORING STRATA DESCRIPTIONS. PAVEMENT LAYER DEPTHS PROVIDED ARE APPROXIMATE BASED ON THE AVAILABLE DATA.
2. WHERE CORING AND BORING DATA DOES NOT EXIST, CONSTRUCTION HISTORY FROM THE AIRFIELD PAVEMENT CONDITION SURVEY PREPARED BY NAVFAC (FEBRUARY 2011) IS UTILIZED.
3. EXISTING CONDITION INFORMATION PROVIDED IS NOT A GUARANTEE OF ACTUAL FIELD CONDITIONS. THE EXISTING PAVEMENT DETAILS ARE PROVIDED FOR INFORMATION ONLY. THE EXISTING PAVEMENT SECTIONS MAY VARY. THE CONTRACTOR SHALL COMPLETE DEMOLITION OF THE EXISTING SECTIONS IN THEIR ENTIRETY, REGARDLESS OF TYPE AND THICKNESS, AT NO ADDITIONAL COST TO THE GOVERNMENT.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
ENGINEER
041439-E
SEAL

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WEB: WWW.JMT.COM

A/E INFO

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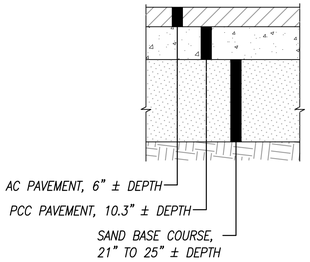
ACTIVITY
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER BJC
CHIEF ENG/ARCH

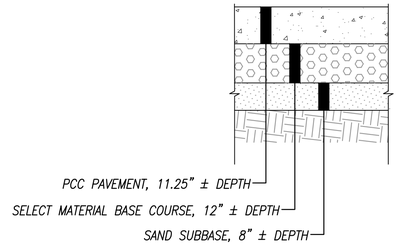
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
EXISTING PAVEMENT SECTIONS

SCALE: AS NOTED
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691614
SHEET 81 OF 368
C-502
DRAWFORM REVISION: 10 MARCH 2009

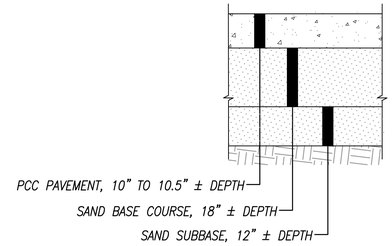
FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-502.dwg LAYOUT NAME: C-502 PLOTTED: Tuesday, March 24, 2015 - 7:58am USER: kwatson



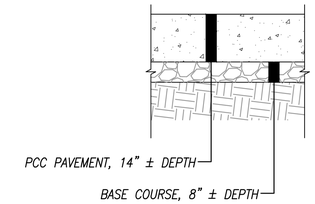
(T5-1) PAVEMENT SECTION 1
NTS C-133-B, C-135-B



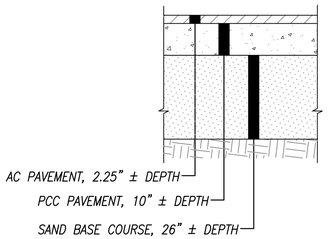
(HA5R2-1) PAVEMENT SECTION 2
NTS C-123-B



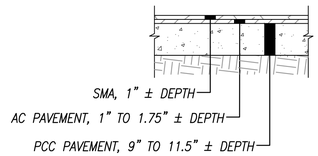
(HA14L-1, HA14R-1) HOLD AREA PAVEMENT SECTION 3
NTS C-102-A



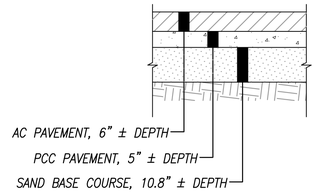
(HA5R1-1, HA23L-1, HA5L-1, HA23R-1) HOLD AREA PAVEMENT SECTION 4
NTS C-123-B, C-129-C, C-132-B



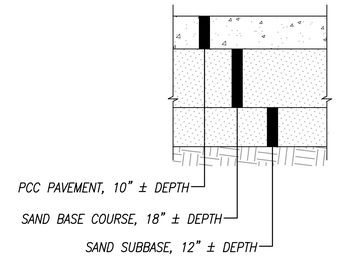
TAXIWAY A (T5-3)PAVEMENT SECTION 5
NTS C-139-C



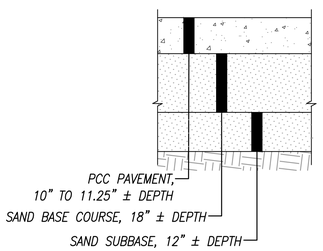
TAXIWAY D (DT1) PAVEMENT SECTION 6
NTS C-138-C, C-150-D



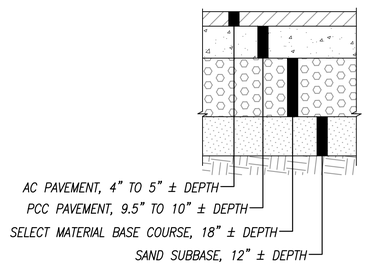
(FT-1) PAVEMENT SECTION 7
NTS C-112-B, C-125-B



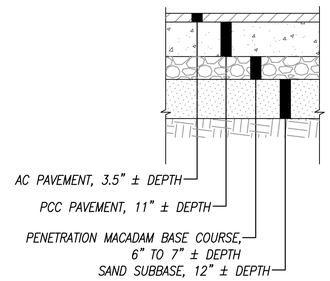
(T5-2A) PAVEMENT SECTION 8
NTS C-138-C



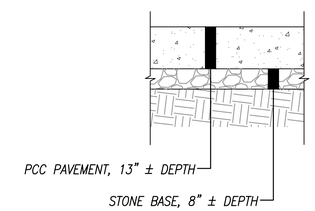
TAXIWAY B (T14-1) PAVEMENT SECTION 9
NTS C-114-C



(T14-3A) PAVEMENT SECTION 10
NTS C-127-C



(T14-3) PAVEMENT SECTION 11
NTS C-114-C, C-127-C



(BP 23R-1) PAVEMENT SECTION 12
NTS C-116-C

NOTE:
1. THE PAVEMENT TYPES AND LAYER DEPTHS ARE DERIVED FROM BORING AND CORING INFORMATION. SEE SHEET B-001 FOR BORING AND CORING LOCATIONS. SEE SHEETS BB201 THROUGH BB203 FOR BORING AND CORING STRATA DESCRIPTIONS. PAVEMENT LAYER DEPTHS PROVIDED ARE APPROXIMATE BASED ON THE AVAILABLE DATA.
2. WHERE CORING AND BORING DATA DOES NOT EXIST, CONSTRUCTION HISTORY FROM THE AIRFIELD PAVEMENT CONDITION SURVEY PREPARED BY NAVFAC (FEBRUARY 2011) IS UTILIZED.
3. EXISTING CONDITION INFORMATION PROVIDED IS NOT A GUARANTEE OF ACTUAL FIELD CONDITIONS. THE EXISTING PAVEMENT DETAILS ARE PROVIDED FOR INFORMATION ONLY. THE EXISTING PAVEMENT SECTIONS MAY VARY. THE CONTRACTOR SHALL COMPLETE DEMOLITION OF THE EXISTING SECTIONS IN THEIR ENTIRETY, REGARDLESS OF TYPE AND THICKNESS, AT NO ADDITIONAL COST TO THE GOVERNMENT.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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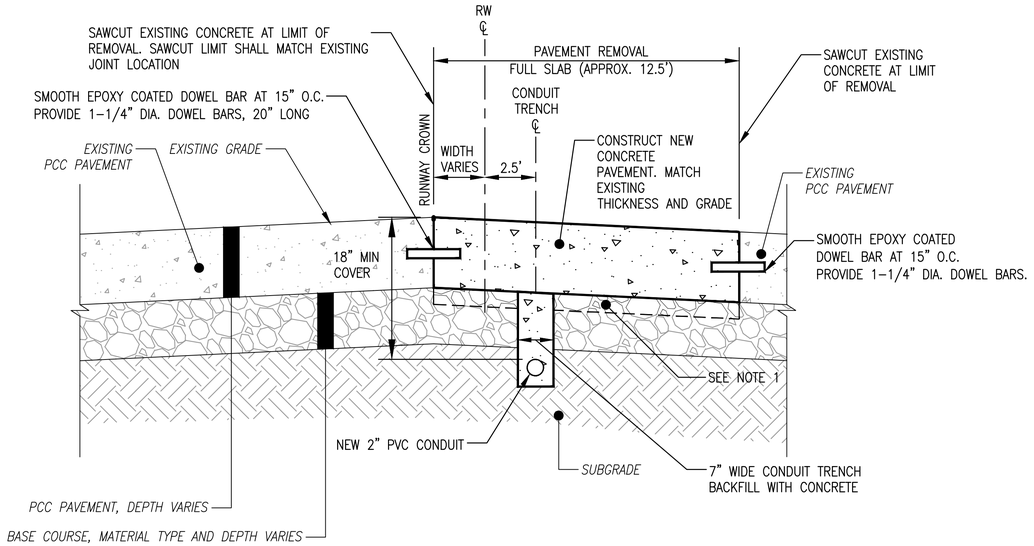
A/E INFO

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

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
HR IPT
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
EXISTING PAVEMENT SECTIONS

SCALE: AS NOTED
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691615
SHEET 82 OF 368
C-503
DRAWFORM REVISION: 10 MARCH 2009

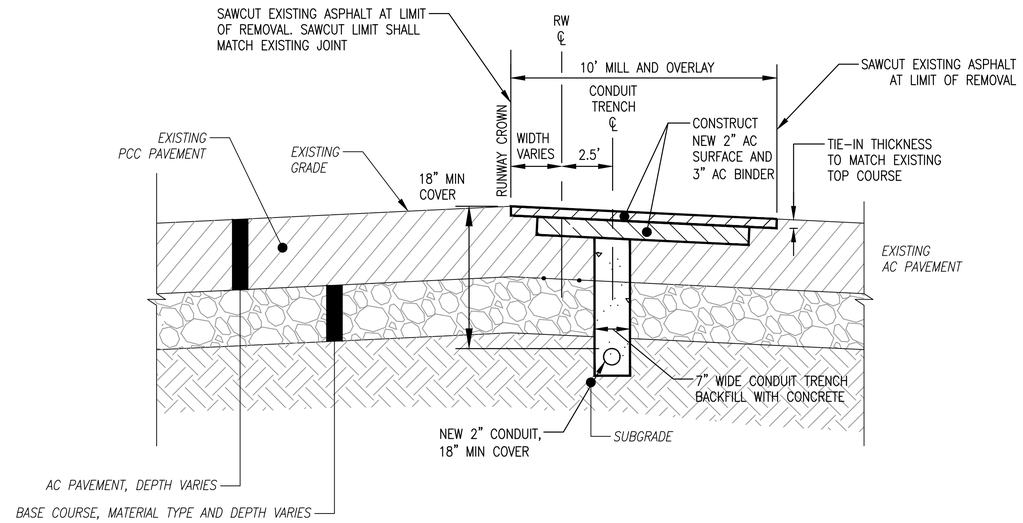
FILE NAME: Q:\PHIPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-503.dwg LAYOUT NAME: C-503 PLOTTED: Tuesday, March 24, 2015 - 7:59pm USER: kwatson



PCC AIRFIELD PAVEMENT SLAB RECONSTRUCTION - SECTION (1)

NTS C-102-A, C-110-B, C-116-C, C-120-B – C-125-B, C-128-C, C-129-C, C-135-B – C-137-B, C-138-C, C-150-D, C-151-D

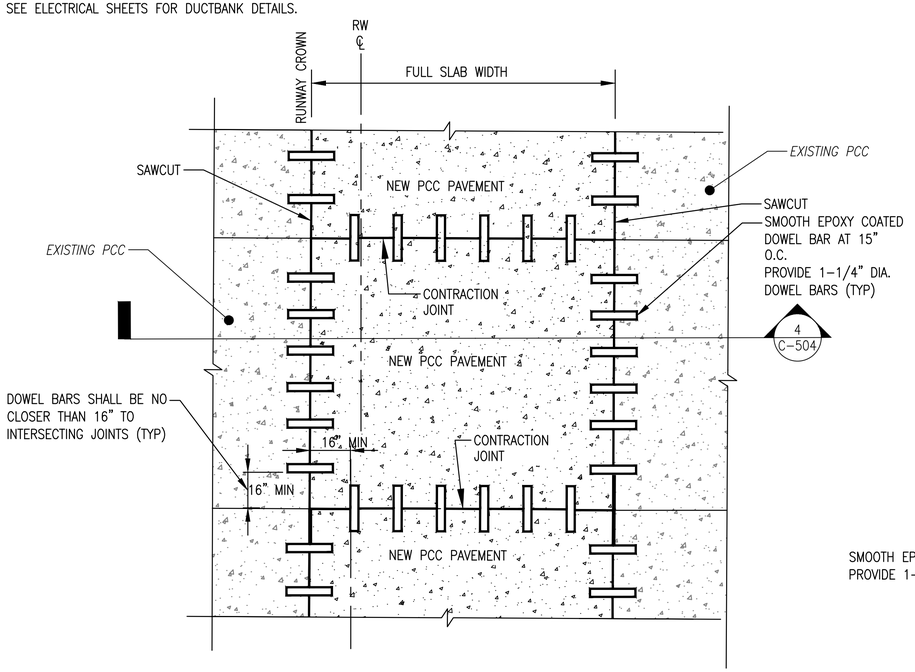
NOTES:
1. PRIOR TO PLACING CONCRETE, TEST BASE COURSE FOR REQUIRED COMPACTION. AS NECESSARY, REMOVE AND REPLACE BASE COURSE PER SPECIFICATION TO MEET COMPACTION REQUIREMENTS.
2. LOCATION OF RUNWAY CENTERLINE MAY NOT ALIGN WITH CROWN OF PAVEMENT OR CENTER SLAB JOINT AT ALL LOCATIONS. OFFSET CONDUIT TRENCH 2.5' FROM RUNWAY CENTERLINE AT ALL LOCATIONS.
3. SEE ELECTRICAL SHEETS FOR DUCTBANK DETAILS.



AC AIRFIELD PAVEMENT RECONSTRUCTION - SECTION (2)

NTS C-124-B, C-125-B, C-126-C, C-127-C, C-128-C

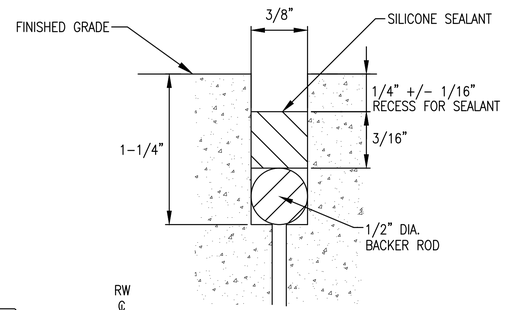
NOTES:
1. APPLY TACK COAT ON ALL MILLED SURFACES PRIOR TO PLACING AC PAVEMENT.
2. APPLY TACK COAT BETWEEN ALL AC PAVEMENT LIFTS.
3. APPLY TACK COAT ALONG THE VERTICAL JOINT BETWEEN AC PAVEMENTS.
4. SEE ELECTRICAL SHEETS FOR DUCTBANK DETAILS.



PCC AIRFIELD PAVEMENT RESTORATION JOINT DETAIL - PLAN VIEW (3)

NTS C-102-A, C-110-B, C-116-C, C-120-B – C-125-B, C-128-C, C-129-C, C-135-B – C-137-B, C-138-C, C-150-D, C-151-D

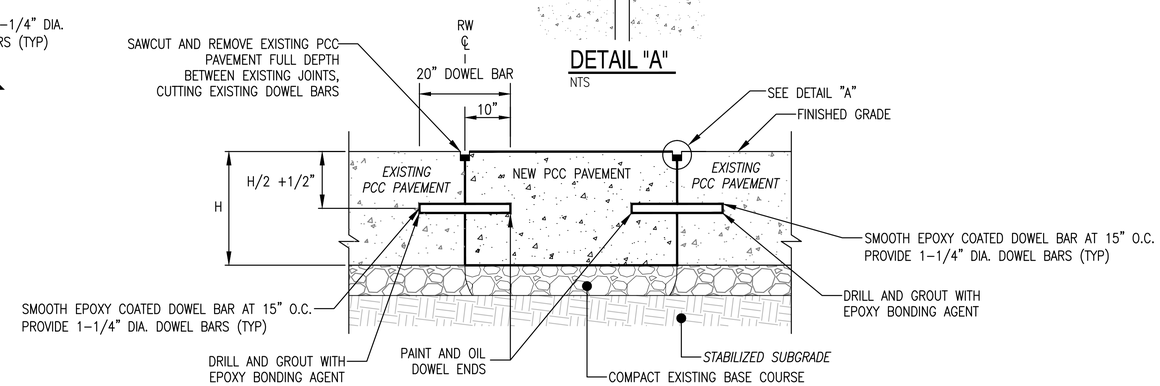
NOTES:
1. PRIOR TO PLACING, TEST BASE COURSE FOR REQUIRED COMPACTION. REMOVE AND REPLACE BASE COURSE TO MEET SPECIFICATION FOR COMPACTION.
2. LOCATION OF RUNWAY CENTERLINE MAY NOT ALIGN WITH CROWN OF PAVEMENT OR CENTER SLAB JOINT AT ALL LOCATIONS.
3. ALIGN NEW TRANSVERSE JOINTS WITH EXISTING TRANSVERSE JOINTS.



DETAIL "A"

NTS

NOTES:
1. SILICONE SEALANT SHALL BE DOW CORNING 890SL OR EQUIVALENT.
2. THE BACKER ROD SHALL BE CLOSED CELL POLYETHYLENE.
3. THE INITIAL SAWCUT SHALL BE MADE WITHIN 8 TO 10 HOURS OF THE CONCRETE PLACEMENT.
4. PRIOR TO PLACEMENT OF BACKER ROD AND SEALANT, JOINT SHALL BE WATER BLASTED TO REMOVE ALL CUTTING PASTE AND DEBRIS. PLACE BACKER ROD AND SEALANT IN DRY JOINT ONLY.



NEW PCC TO OLD PCC PAVEMENT JOINT DETAIL (4)

NTS C-102-A, C-110-B, C-116-C, C-120-B – C-125-B, C-128-C, C-129-C, C-135-B – C-137-B, C-138-C, C-150-D, C-151-D

NOTES:
1. NEW PCC PAVEMENT THICKNESS (H) MUST MATCH EXISTING PCC PAVEMENT THICKNESS.
2. PRIOR TO PLACING, TEST BASE COURSE FOR REQUIRED COMPACTION. REMOVE AND REPLACE BASE COURSE TO MEET SPECIFICATION FOR COMPACTION.
3. LOCATION OF RUNWAY CENTERLINE MAY NOT ALIGN WITH CROWN OF PAVEMENT OR CENTER SLAB JOINT AT ALL LOCATIONS.

SYM	DESCRIPTION	DATE	APPR

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A/E INFO

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FM/DM

BRANCH MANAGER BJC

CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
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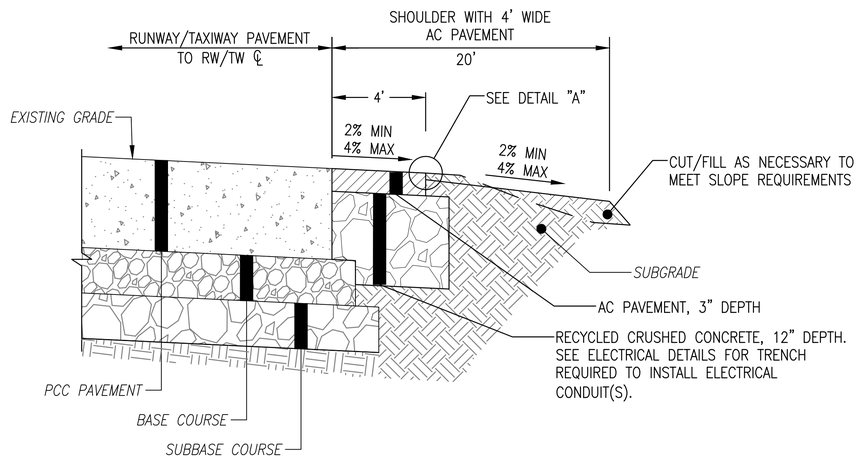
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
TYPICAL PAVEMENT SECTIONS AND CONSTRUCTION DETAILS

SCALE: AS NOTED
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691616
SHEET 83 OF 368

C-504

DRAWFORM REVISION: 10 MARCH 2009

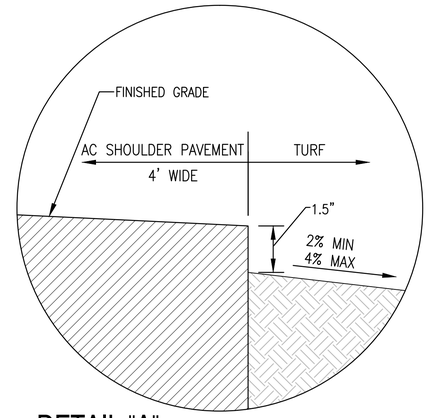
FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-504.dwg LAYOUT NAME: C-504 PLOTTED: Tuesday, March 24, 2015 - 7:59am USER: kwatson



TYPICAL NEW AC SHOULDER AT PCC PAVEMENT (1)

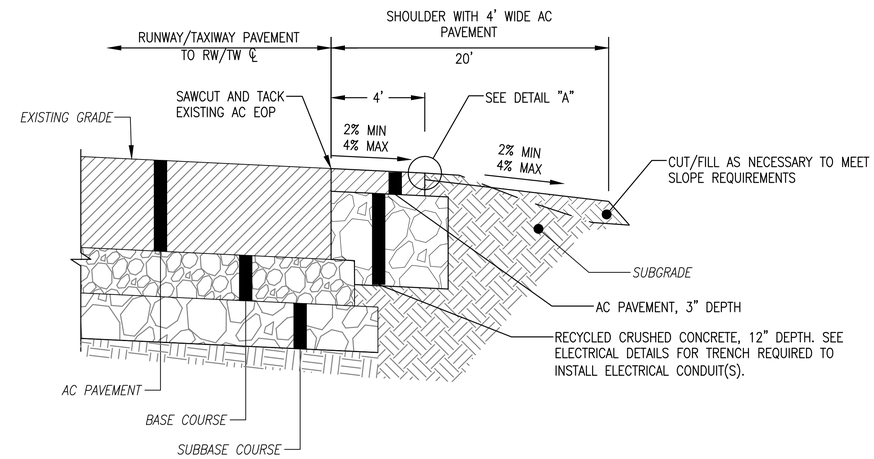
NTS — ALL DEMOLITION AND CONSTRUCTION PLANS

NOTE:
1. WHERE 20' SHOULDER AT SPECIFIED GRADE IS NOT POSSIBLE, MINIMIZE SHOULDER (PAVED AND UNPAVED) GRADE AS NECESSARY TO ENSURE POSITIVE DRAINAGE AWAY FROM RUNWAY AND TAXIWAY CENTERLINE. GRADE MAY NOT BE LESS THAN 1%.
2. APPLY TACK COAT ALONG THE VERTICAL JOINT BETWEEN PCC AND AC PAVEMENTS



DETAIL "A"

NTS

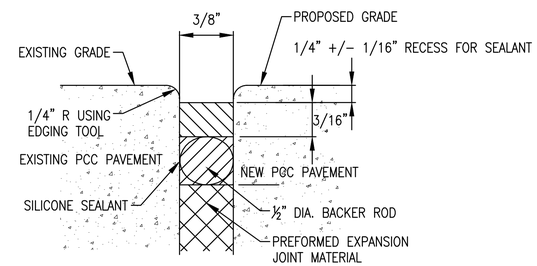


TYPICAL NEW AC SHOULDER AT AC PAVEMENT (2)

NTS — ALL DEMOLITION AND CONSTRUCTION PLANS

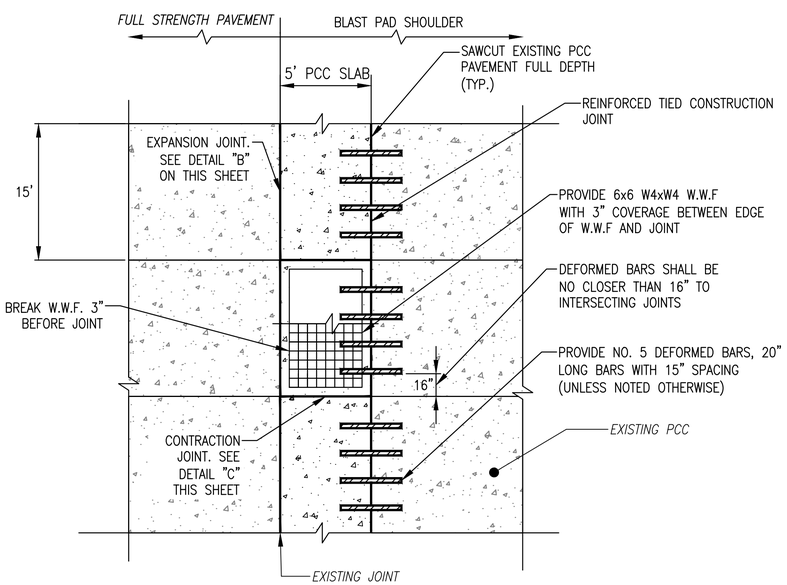
NOTE:
1. WHERE 20' SHOULDER AT SPECIFIED GRADE IS NOT POSSIBLE, MINIMIZE SHOULDER (PAVED AND UNPAVED) GRADE AS NECESSARY TO ENSURE POSITIVE DRAINAGE AWAY FROM RUNWAY AND TAXIWAY CENTERLINE. GRADE MAY NOT BE LESS THAN 1%.

2. APPLY TACK COAT ALONG THE VERTICAL JOINT BETWEEN AC PAVEMENTS.



DETAIL "B"

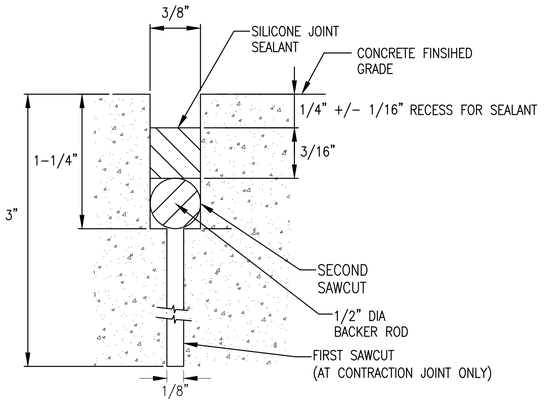
NTS



HOLD AREA EDGE LIGHTS PCC PAVEMENT UTILITY TRENCH RESTORATION (3)

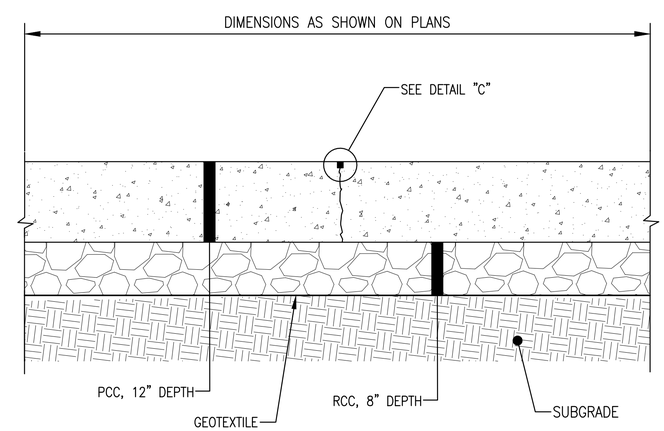
NTS — C-102-A, C-110-B, C-116-C, C-120-B, C-129-C, C-132-B, C-152-D, C-141-C

NOTE:
1. NEW PCC PAVEMENT THICKNESS (H) MUST MATCH EXISTING PCC BLAST PAD PAVEMENT THICKNESS.



DETAIL "C"

NTS



VAULT CONCRETE PAD (4)

NTS

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

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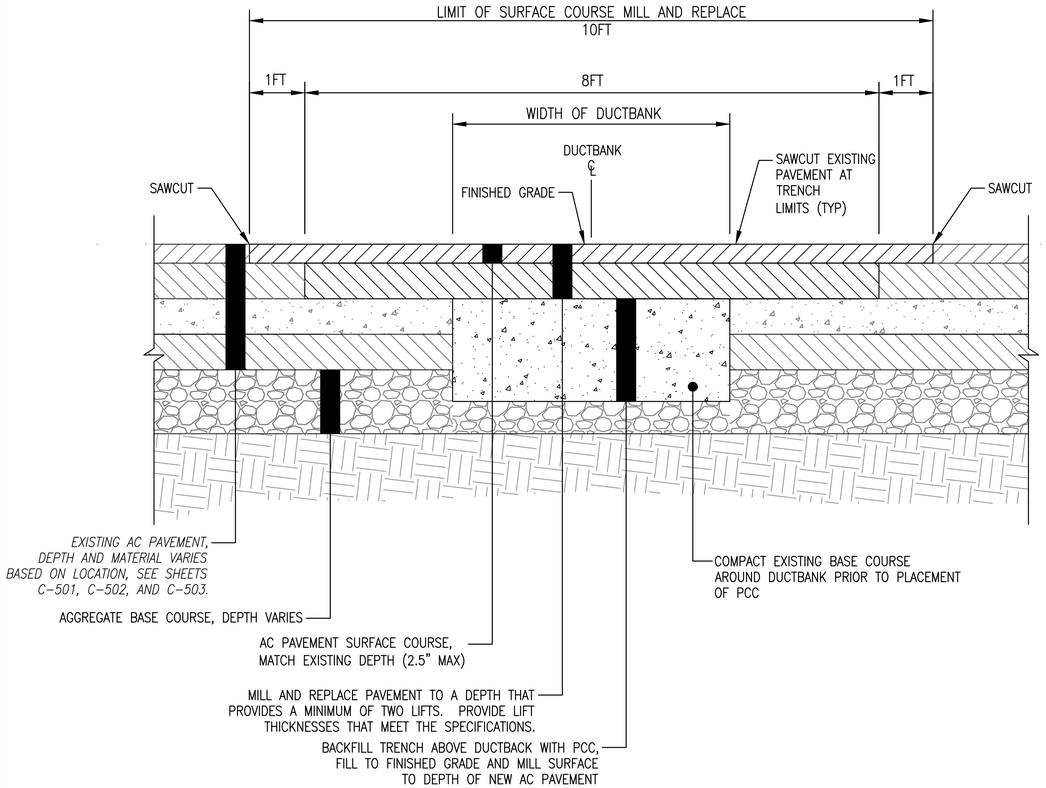
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
TYPICAL PAVEMENT SECTIONS AND CONSTRUCTION DETAILS

SCALE: AS NOTED
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691617
SHEET 84 OF 368
C-505

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-505.dwg LAYOUT NAME: C-505 PLOTTED: Tuesday, March 24, 2015 - 7:59am USER: kwatson



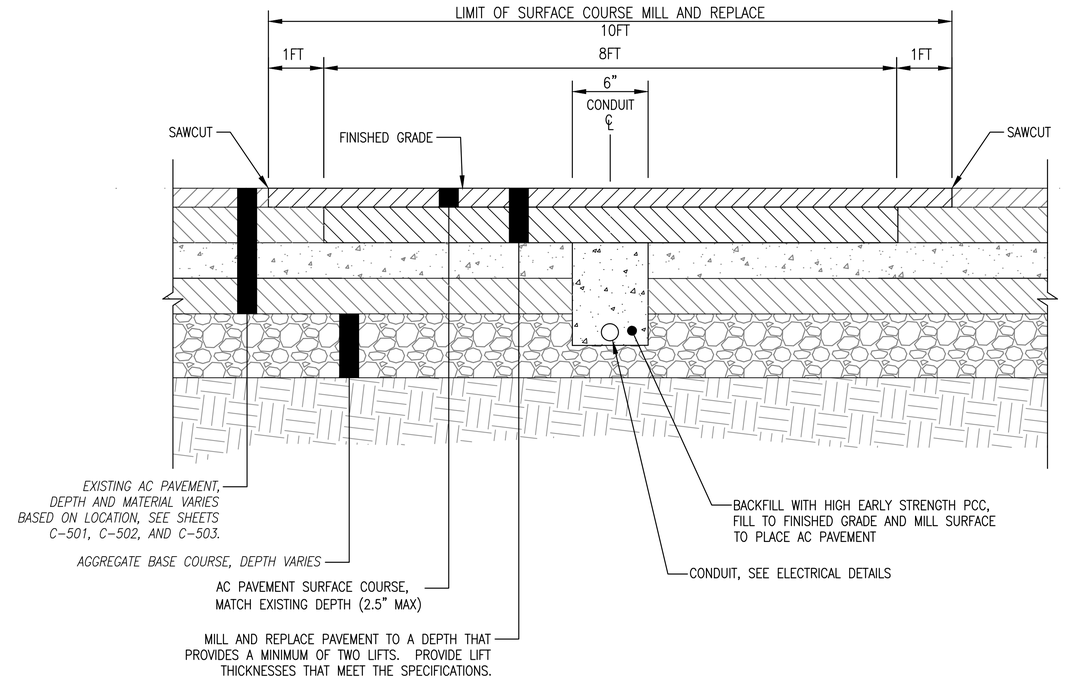
AC PAVEMENT RESTORATION AT DUCTBANK UTILITY TRENCH (1)

NTS

C-112-B, C-114-C, C-125-B, C-129-C, C-133-B, C-135-B, C-138-C, C-139-C, C-150-D, C-157-D

NOTES:

1. SEE ELECTRICAL SHEETS FOR DUCTBANK DETAILS.
2. SEE SPECIFICATION SECTION 31 23 00.00 20 FOR DEWATERING REQUIREMENTS. CONTRACTOR SHALL PROTECT AND MAINTAIN BOTTOM OF EXCAVATION.
3. APPLY TACK COAT BETWEEN ALL AC PAVEMENT LIFTS.
4. APPLY TACK COAT ON ALL MILLED SURFACES PRIOR TO PLACING AC PAVEMENT.
5. APPLY TACK COAT ALONG THE VERTICAL JOINT BETWEEN AC PAVEMENTS.



AC PAVEMENT RESTORATION AT LIGHTING CONDUIT UTILITY TRENCH (2)

NTS

NOTES:

1. SEE ELECTRICAL SHEETS FOR DUCTBANK DETAILS.
2. SEE SPECIFICATION SECTION 31 23 00.00 20 FOR DEWATERING REQUIREMENTS. CONTRACTOR SHALL PROTECT AND MAINTAIN BOTTOM OF EXCAVATION.
3. APPLY TACK COAT BETWEEN ALL AC PAVEMENT LIFTS.
4. APPLY TACK COAT ON ALL MILLED SURFACES PRIOR TO PLACING AC PAVEMENT.
5. APPLY TACK COAT ALONG THE VERTICAL JOINT BETWEEN AC PAVEMENTS.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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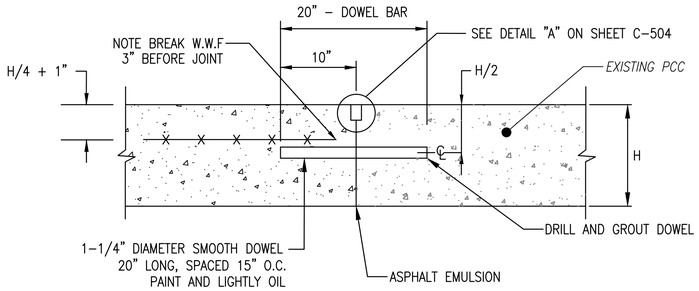
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HR IPT
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
CONSTRUCTION DETAILS

SCALE: AS NOTED
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691618
SHEET 85 OF 368
C-506
DRAWFORM REVISION: 10 MARCH 2009

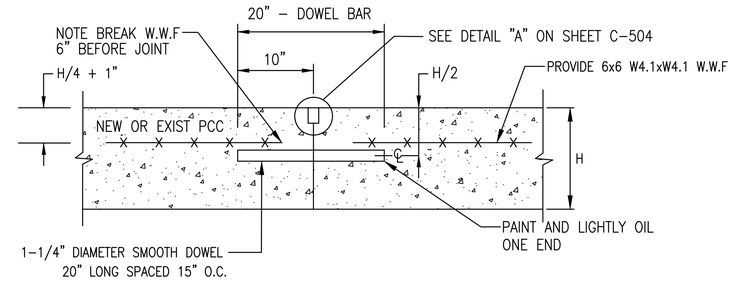
FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-506.dwg LAYOUT NAME: C-506 PLOTTED: Tuesday, March 24, 2015 - 7:59am USER: kwatson



REINFORCED DOWELED CONSTRUCTION JOINT DETAIL (1)

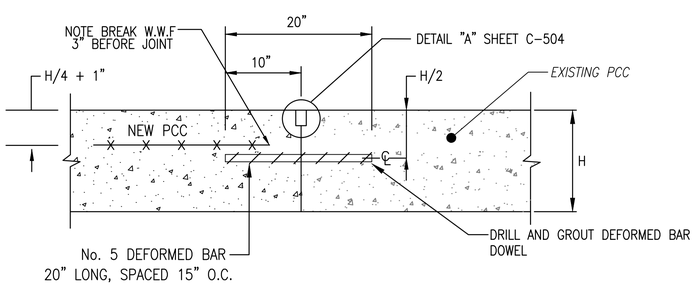
NTS

NOTES:
1. AT EXISTING PCC, DRILL AND GROUT DOWEL AT MID-DEPTH OF EXISTING PCC.



REINFORCED TIED CONTRACTION JOINT DETAIL (2)

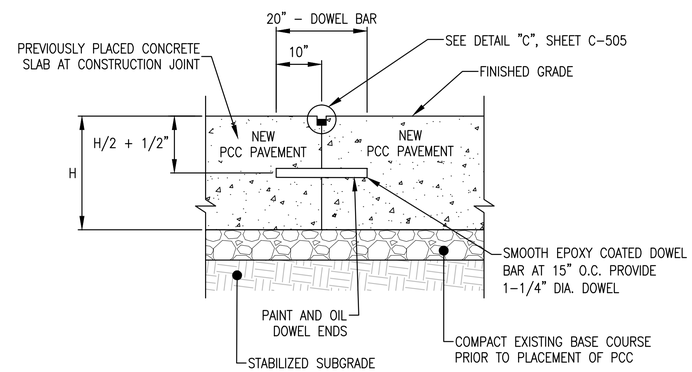
NTS



REINFORCED TIED CONSTRUCTION JOINT DETAIL (3)

NTS C-102-A, C-110-B, C-116-C, C-120-B, C-129-C, C-132-B, C-141-C, C-152-D

NOTES:
1. AT EXISTING PCC, DRILL AND GROUT DEFORMED BAR AT MID-DEPTH OF EXISTING PCC.



NOTES:
1. AT EXISTING PCC, DRILL AND GROUT DOWEL AT MID-DEPTH OF EXISTING PCC. AT NEW PCC, PLACE DOWEL AT MID-DEPTH OF NEW PCC.
2. DOWELS SHALL BE NO CLOSER THAN 16" TO INTERSECTING JOINTS.

LONGITUDINAL AND TRANSVERSE CONSTRUCTION JOINT (4)

NTS C-121-B, C-128-C

SYM	DESCRIPTION	DATE	APPR

NAVFAC

Mark Tiger
REGISTERED PROFESSIONAL ENGINEER
MARK J TIGER
LICENSE NUMBER 041439-E
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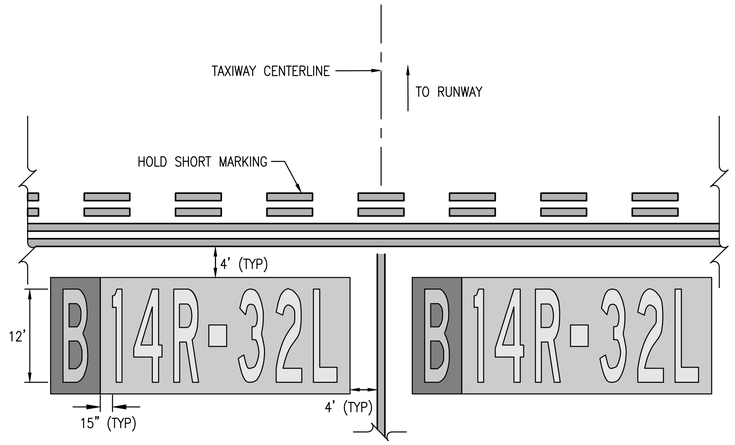
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES MJT DRW DFD CHK ELO
PM/DM
BRANCH MANAGER BJC
CHIEF ENG/ARCH

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
HR IPT
NAVAL AIR STATION OCEANA – VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
CONSTRUCTION DETAILS

SCALE: AS NOTED
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12691619
SHEET 86 OF 368
C-507
DRAWFORM REVISION: 10 MARCH 2009

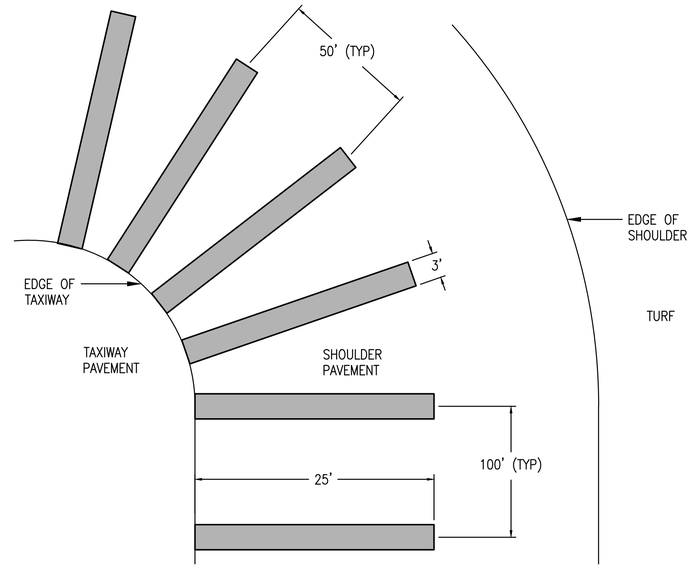
FILE NAME: Q:\PHIPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-507.dwg LAYOUT NAME: C-507 PLOTTED: Tuesday, March 24, 2015 - 7:59am USER: kwatson



NOTES:
1. ALL SURFACE PAINTED HOLDING POSITION SIGNS SHALL CONFORM TO FAA ADVISORY CIRCULAR AC 150/5340-1L "STANDARDS FOR AIRPORT MARKINGS".
2. ALL SURFACE PAINTED HOLDING POSITION SIGN INSCRIPTIONS ARE 12 FEET IN HEIGHT. LETTERS AND NUMBERS MUST BE PROPORTIONAL TO THE HEIGHT IN ORDER TO CONFORM TO THE SPECIFIED FONT TYPE.
3. ALL SURFACE PAINTED HOLDING POSITION SIGN INSCRIPTIONS ARE WHITE WITH GLASS BEADS, AS SPECIFIED.
4. ALL SURFACE PAINTED HOLDING POSITION SIGNS ARE TO BE PAINTED ON A RED BACKGROUND RECTANGULAR IN SHAPE AND EXTENDING A MINIMUM OF 15 INCHES BEYOND INSCRIPTIONS ON ALL SIDES. THE RED BACKGROUND IS TO HAVE GLASS BEADS, AS SPECIFIED.
5. ALL SURFACE PAINTED HOLDING POSITION SIGNS ARE TO HAVE A BLACK BORDER 6 INCHES IN WIDTH, AS SPECIFIED.
6. ALL SURFACE PAINTED HOLD SIGNS SHALL INCLUDE A SURFACE PAINTED TAXIWAY LOCATION SIGN. THE SURFACE PAINTED TAXIWAY LOCATION SIGN INSCRIPTIONS ARE YELLOW WITH GLASS BEADS, AS SPECIFIED. ALL SURFACE PAINTED TAXIWAY LOCATION SIGNS ARE TO BE PAINTED ON A BLACK BACKGROUND, RECTANGULAR IN SHAPE, AND EXTENDING A MINIMUM OF 15 INCHES BEYOND THE INSCRIPTION ON ALL SIDES. BLACK BACKGROUND SHALL NOT HAVE GLASS BEADS.

HOLDING POSITION MARKING (1)

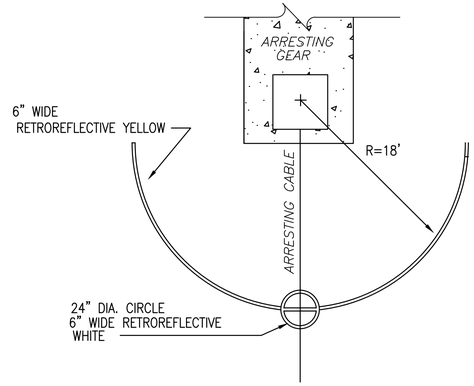
SCALE: NONE



TAXIWAY SHOULDER MARKING (2)

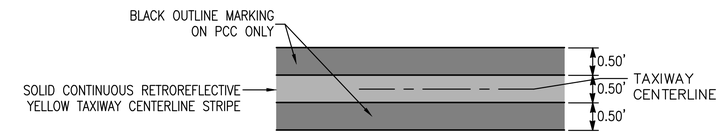
C-171, C-173, C-174, C-177, C-182

NOTES:
1. MARKINGS SHALL BE NONREFLECTIVE YELLOW PAINT.
2. MAINTAIN EXISTING TAXIWAY SHOULDER MARKING LOCATION.



ARRESTING GEAR TAPE RADIUS MARKING (4)

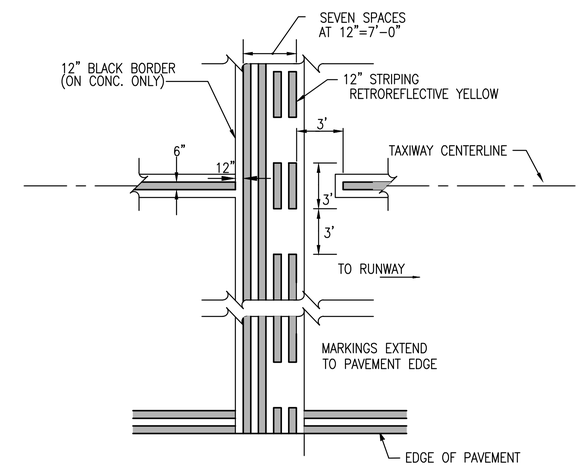
SCALE: NONE **C-173, C-177**



TAXIWAY CENTERLINE STRIPING DETAIL (3)

SCALE: NONE **C-173, C-174, C-175, C-176, C-178, C-180, C-181**

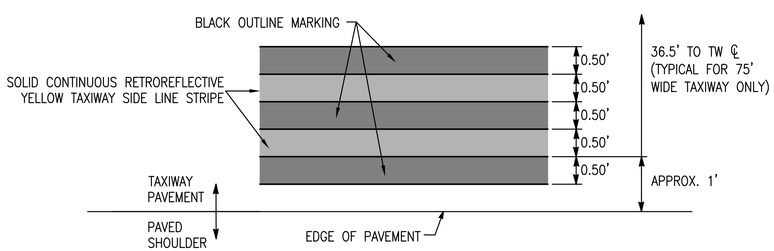
NOTES:
1. REPLACE TAXIWAY CENTERLINE STRIPING WHERE DUCT BANK TRENCHING OCCURS.



NOTE: MARKINGS SHALL BE RETROREFLECTIVE YELLOW.

HOLD SHORT MARKING DETAIL (5)

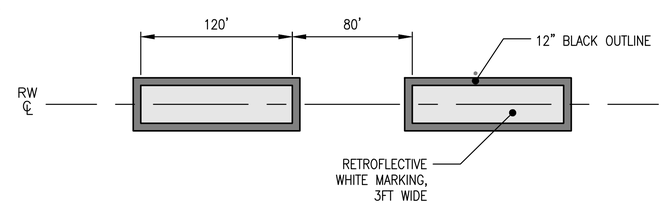
SCALE: NONE **C-171, C-172, C-173, C-174, C-175, C-176, C-177, C-180, C-182**



TAXIWAY EDGE MARKING DETAIL (6)

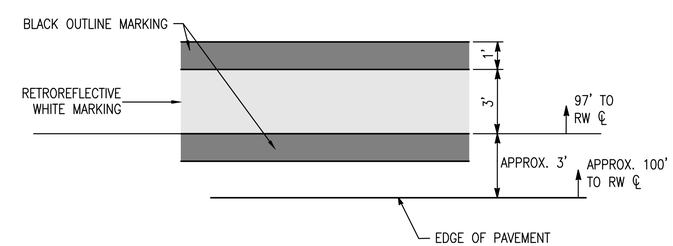
SCALE: NONE **C-171, C-172, C-173, C-174, C-175, C-176, C-177 C-178, C-179, C-180, C-181, C-182**

NOTES:
1. TERMINATE MARKING WITHIN 1 FT OF HOLD SHORT MARKINGS, BOTH SIDES.
2. LAYOUT POINTS REPRESENT OUTER EDGE OF MARKING.
3. FOR TAXIWAY EDGE MARKINGS ON PAVEMENTS OTHER THAN 75' WIDE TAXIWAYS, PLACE MARKINGS ACCORDING TO LOCATIONS PROVIDED ON PLANS C-171 TO C-182.



RUNWAY CENTERLINE STRIPING DETAIL (7)

SCALE: NONE **C-173, C-174, C-175, C-176, C-177**



RUNWAY EDGE MARKING DETAIL (8)

SCALE: NONE **C-173, C-174, C-175, C-176, C-177**

NOTES:
1. LAYOUT POINTS REPRESENT OUTER EDGE OF MARKING.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
NAVAL AIR STATION OCEANA ~ VIRGINIA BEACH, VIRGINIA
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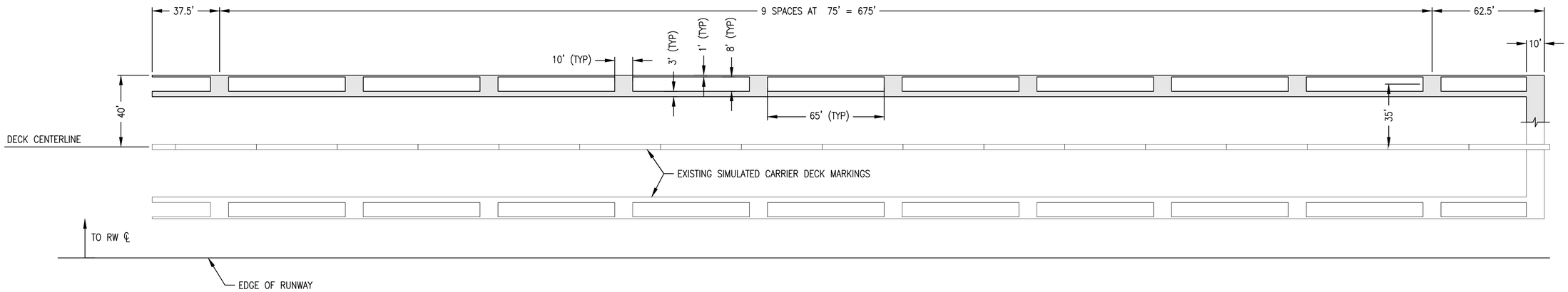
VIRGINIA BEACH, VIRGINIA
ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
AIRFIELD MARKING AND STRIPING DETAILS

SCALE: AS NOTED
EPROJECT NO.: 1291651
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
12691620
SHEET 87 OF 368
C-511

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: O:\PHPA\99_ Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-511.dwg LAYOUT NAME: C-511 PLOTTED: Tuesday, March 24, 2015 - 7:59am USER: kwalton

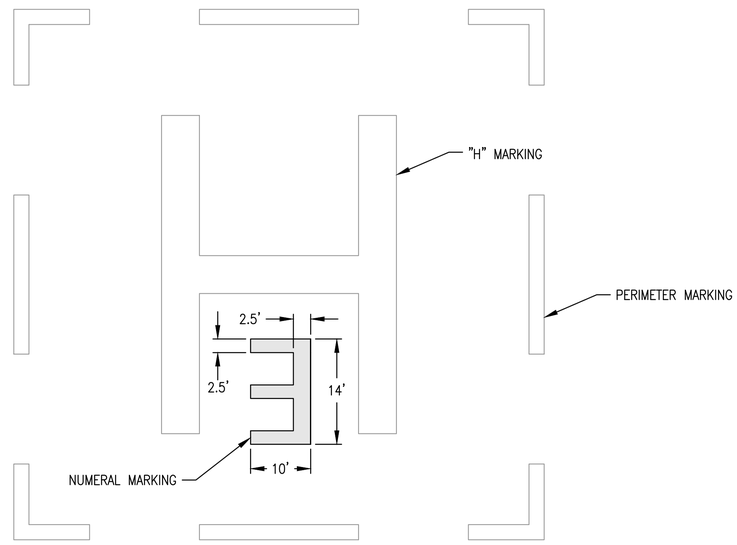


SIMULATED CARRIER DECK DETAIL

NTS C-177 (1)

NOTES:

1. DIMENSIONS REPRESENT EDGES OF WHITE PAINT, AND DO NOT INCLUDE 1' BLACK BORDER REQUIRED ON PCC PAVEMENT.
2. CARRIER DECK MARKINGS HAVE PRECEDENCE OVER ANY RUNWAY MARKINGS AND RUNWAY MARKINGS ARE NOT PERMITTED BETWEEN THE CARRIER DECK EDGE MARKINGS.
3. REPLACE ALL SIMULATED CARRIER DECK MARKINGS REMOVED THROUGH PAVEMENT DEMOLITION. MATCH EXISTING MARKINGS AT LIMIT OF PAVEMENT CONSTRUCTION.



HELIPAD NUMERAL

NTS C-174, C-175, C-176, C-178, C-179 (2)

NOTES:

1. "H" AND PERIMETER MARKINGS TO REMAIN.
2. REMOVE EXISTING NUMERAL MARKING AND PROVIDE NEW NUMERAL MARKING AS INDICATED ON AIRFIELD MARKING AND STRIPING PLAN.
3. ALL VERTICAL ELEMENTS OF NUMERAL MARKINGS ARE 2.5' WIDE. ALL HORIZONTAL ELEMENTS ARE 2.5' WIDE.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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ENERGY AND RELIABILITY
MODERNIZATION OF AIRFIELD LIGHTING - PHASE 1 AND 2
AIRFIELD MARKING AND STRIPING DETAILS

SCALE: AS NOTED

EPROJECT NO.: 1291651

CONSTR. CONTR. NO.

NAVFAC DRAWING NO.
12691621

SHEET 88 OF 368

C-512

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: G:\PHPA\99... Misc\Aviation\Oceana\Task 008\GENERAL-CIVIL_Task 008\10-0863-008-C-512.dwg LAYOUT NAME: C-512 PLOTTED: Tuesday, March 24, 2015 - 8:00am USER: kwatson