



Tri-Service CADD/GIS
Technology Center

Technical Report CADD-94-2
May 1994



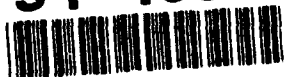
AD-A280 097
[Barcode]

National Construction Thesaurus: Status and Recommendations

by Gregory A. Covington, James T. Wilson

DTIC
ELECTE
JUN 07 1994
S G D

94-16911



24A8

Approved For Public Release; Distribution Is Unlimited

DTIC QUALITY INSPECTED 2

94 6 6 023

The contents of this report are not to be used for advertising, publication, or promotional purposes. Citation of trade names does not constitute an official endorsement or approval of the use of such commercial products.



PRINTED ON RECYCLED PAPER

National Construction Thesaurus: Status and Recommendations

by Gregory A. Covington, James T. Wilson

U.S. Army Corps of Engineers
Waterways Experiment Station
3909 Halls Ferry Road
Vicksburg, MS 39180-6199

Accession For	
NTIS	CRA&I <input checked="" type="checkbox"/>
DTIC	TAB <input type="checkbox"/>
Unannounced <input type="checkbox"/>	
Justification	
By	
Distribution /	
Availability Codes	
Dist	Avail and / or Special
A-1	

Final report

Approved for public release; distribution is unlimited

Waterways Experiment Station Cataloging-in-Publication Data

Covington, Gregory A.

National construction thesaurus : status and recommendations / by
Gregory A. Covington, James T. Wilson.

23 p. : ill. ; 28 cm. -- (Technical report ; CADD-94-2)

1. Construction industry -- Terminology. 2. Thesauri -- Data
processing. 3. Subject headings -- Standardization. I. Wilson, James T.
II. United States. Army. Corps of Engineers. III. U.S. Army Engineer
Waterways Experiment Station. IV. Tri-Service CADD/GIS Technology
Center (U.S.) V. Title. VI. Series: Technical report (U.S. Army Engineer
Waterways Experiment Station) ; CADD-94-2.

TA7 W34 no.CADD-94-2

Contents

Preface	iv
1—Overview	1
2—Benefits	2
3—Progress	4
4—Conclusions	5
5—Future Developments	6
Appendix A: Preferred Terms Example	A1
Appendix B: Reference Standards Example	B1
Appendix C: Army Keynote Symbols Example	C1
Appendix D: Navy Keynote Symbols Example	D1
Appendix E: Present National Construction Thesaurus Example	E1

SF 298

Preface

This document is a progress report on the development of the National Construction Thesaurus and its parent project, the DRAWSPEC LINK system. DRAWSPEC LINK, including the National Construction Thesaurus, is being developed by the Navy in an effort to improve the construction process. The Tri-Service CADD/GIS Technology Center, located at the Information Technology Laboratory (ITL), U.S. Army Engineer Waterways Experiment Station (WES), Vicksburg, MS, supports the completion of this project.

The Center operates under the direction of Dr. N. Radhakrishnan, Director, ITL, and Mr. Carl S. Stephens, Chief, Tri-Service CADD/GIS Technology Center. The Center functions under the direction of the Executive Steering Group composed of Mr. Gary Flora (Air Force), Mr. Richard Armstrong (Army), Mr. Paul Barber (Army), Mr. Get Moy, Office of the Secretary of Defense (OSD), and Mr. Harry Zimmerman (Navy), who is also the present chairman of the group. The Executive Steering Group's goals and objectives for the Center are guided through the efforts of the Executive Working Group chaired by Lt. Col. Alex Formwalt (Air Force) and composed of Mr. Deke Smith (Navy), Maj. David Biecheval (Air Force), Mr. Hugh Adams (Army), Mr. M. K. Miles (Army), Mr. Jim Carberry (Navy), Mr. Terry Coomes (Field Technical Advisory Group Chairman), and Mr. Tom Rutherford (OSD).

At the time of publication of this report, Dr. Robert W. Whalin was the Director of WES, and COL Bruce K. Howard, EN, was the Commander.

1 Overview

The National Construction Thesaurus is a relational database software package under development by Naval Facilities Engineering Command (NAVFAC) through its Western Division (WestDiv) to standardize construction terminology. The goal is to develop standard data definitions and a keynoting system for construction materials and processes. The National Construction Thesaurus will eradicate some of the communications barriers between design professionals and contractors. It will also remove some of the communications barriers that result from different usages of construction terms. Removal of these barriers will make the construction process more efficient, thereby, saving the Government money.

2 Benefits

The National Construction Thesaurus will list the names for most construction products and processes along with their definitions. For example, the words gypsum board, Sheetrock, and drywall are all used to represent the same product. The names waferboard and chipboard are also used interchangeably. These synonyms will be listed in relational databases that can be accessed by personnel involved in construction projects to ensure that all personnel have a clear understanding of the product or process discussed.

The synonyms listed in the National Construction Thesaurus will point toward a "preferred term," which is the term that is most commonly used for the construction item or process. In the work already completed, the definitions for the items and processes are given in the database files with the preferred terms (see Appendix A).

The National Construction Thesaurus will be contained in a keynoting system, called **DRAWSPEC LINK**, to be used in construction plans and specifications. This keynoting system will link items in the drawings to specifications and to database files containing important information about the items and processes, including references to the nationally recognized standards used for the items and processes (see Appendix B). Every piece of equipment and type of material used in a drawing will have a key-note number associated with it. This keynote number will associate the item with its corresponding specification. In the future, this keynote number may also be used in the following ways:

- a.* To associate project items with maintenance procedures and schedules. These maintenance procedures and schedules may be included in operations and maintenance manuals.
- b.* To link project items to cost-estimating programs that keep track of project costs.
- c.* To use with as-built drawings, kept current during construction, to monitor the project's stage of completion and funds expenditure.
- d.* To keep track of spare parts inventories and ordering information.

At present, the keynote numbers vary between the Army and the Navy documents (see Appendixes C and D). Hopefully in the future, the keynote number for an item will not vary between projects, but will be a permanent number to be associated with that item on every Government project in every Government organization. The Tri-Service CADD/GIS Technology Center along with NAVFAC envisions this system extending into the private sector, developing keynote numbers for construction items into industry standards as well as Government standards.

Another benefit of the development of the National Construction Thesaurus is the systematic checking of the Army Corps of Engineers (COE) Guide Specifications, the Army Civil Works Guide Specifications, and NAVFAC Guide Specifications. Discrepancies have been found within the guide specifications during the initial development of the National Construction Thesaurus. Duplications of information within various sections of the same guide specification have also been identified. Appendix E is an excerpt from the presently completed portion of the National Construction Thesaurus. This excerpt shows how the construction items and processes are listed in the guide specifications and how some are not called by their most common names. It is important that the guide specifications be complete, clear, concise, and current. If they are anything less, disputes and project modifications will result. The development of the National Construction Thesaurus has become an important instrument in the evaluation and improvement of the guide specifications.

3 Progress

The work done so far in the development of the National Construction Thesaurus has involved architectural and structural engineering definitions. Divisions 5 and 6 of the Army COE, Army Civil Works, and NAVFAC guide specifications have been reviewed to form the existing documentation and software. Seventeen specification sections have been reviewed, and six hundred and twenty sections remain. The National Construction Thesaurus now contains 548 listings with their abbreviations, definitions, and keynote numbers. Many of these listings contain special notes giving additional and useful information about the items or materials. The examples contained in the appendixes of this report are from the completed portion of the DRAWSPEC LINK project, which contains the National Construction Thesaurus.

4 Conclusions

Continued development of the National Construction Thesaurus will be a significant step for the Government in developing partnerships with private industry. Many of the problems associated with the construction process will be diminished or eliminated. This document must be completed and distributed to every Government installation, both military and civilian, as well as to firms in the private sector to be used on construction sites and in design centers for its full benefit to be realized. The Tri-Service CADD/GIS Technology Center recommends that the completion of this document be strongly pursued. The cost of development is minuscule when compared with the benefits that may be realized from development and implementation of the National Construction Thesaurus.

5 Future Developments

The Tri-Service CADD/GIS Technology Center working in coordination with NAVFAC can expect to expend about \$350,000 plus administration costs to complete the National Construction Thesaurus. It will be best for the Tri-Service CADD/GIS Technology Center and NAVFAC to engage an experienced and well-qualified architectural/engineering firm to complete this effort.

Appendix A

Preferred Terms Example

NAVFAC DRAWSPEC LINK
Contract No. N62474-91-M-9623

**DRAWSPEC LINK DATABASE TABLE 2
PARADOX® 3.5 TABLE**

TABLE 2 - TERMDEF - CONSTRUCTION THESAURUS TABLE

PREFERRED TERM (A80)	ABBREVIATION (A40)	DEFINITION (A255)	COMMENT (A255)	MASTERFORMAT (A5)
-------------------------------------	-------------------------------	------------------------------	---------------------------	------------------------------

— KEY —

TABLE 2, the TERMDEF table, along with Tables 3 and 4 forms the basis for a Construction Thesaurus. Keynote terms used for all specification sections are collected in this table. Therefore, there is only one table which serves for both ARMY and NAVY specification sections. Table 3 - TERMREF provides the reference specifications for each applicable term, and Table 4 - TERMMAP provides the alternate terms which correspond to each defined term.

The PREFERRED TERM field contains the same text as the PREFERRED TERM field in the other tables, and is used to link the tables together for several of the reports.

The ABBREVIATION field contains recommended abbreviations for each term in the table. Where available, the abbreviations are industry standards or recommendations. If not available, recommended abbreviations or common usage were used. Where a single abbreviation may apply to more than one term, only unique abbreviations for each term were used to avoid confusion.

The DEFINITION field contains a brief definition for each of the terms. This will provide enough information to allow a designer or specifier to choose an appropriate and specific term.

The COMMENT field is used to provide commentary for each term. Items in this field are not appropriate for other fields in the table.

The MASTERFORMAT field contains the MASTERFORMAT recommended section number for each term in the table. The inclusion of the recommended number will provide guidance for specification writers in placing materials in the proper section. In some cases, MASTERFORMAT does not have a section number for some materials. Then the section number given in these cases is the recommended MASTERFORMAT filing number. In the special case of fasteners, one number could be used if all fasteners were to be specified in a single section. However, following common practice, these items are left in the section to which they apply.

VI TABLE 2 - 1

ARCOW Architectural Computer Services, Inc. Salt Lake City, Utah
NAVFAC DRAWSPEC LINK - Contract No. N63674-91-N-9423

Table 2 - Construction Thesaurus Table (Filename: TENDDEF, 548 records)
Preferred Term, Abbreviation, Definition, Comment, and Masterformat Section
Print date 08/14/92

Preferred Term	Abbreviation	Definition	Comment	Page	Recommended Section from Masterformat
ACCESS PANEL	AP	Removable or swinging panel, usually of same material and flush with adjoining surface to provide access to concealed equipment or system components for inspections and maintenance purposes. Substance that when dried or cures, binds two surfaces together.	Access panels are normally specified with the material that are made of plaster, gypsum board, etc.	1	08305
ADHESIVE	ADH	Metal items to provide for the support of shelves in multiple positions, usually in the form of strips attached to vertical surfaces with either clips or brackets.			04050
ADJUSTABLE SHELF HARDWARE	ADJ SHV HDW	Metal items to provide for the support of shelves in multiple positions, usually in the form of strips attached to vertical surfaces with either clips or brackets.			04200
ADJUSTABLE SHELF STANDARD	ADJ SHV STD	Metal items to provide for the support of shelves in multiple positions, usually in the form of strips attached to vertical surfaces with either clips or brackets.	With shelf clips		04200
AGGREGATE COATED PANEL	AGGR CTD PNL	Sheet material, usually plywood, with decorative face of aggregate bonded with epoxy applied to one face.	Aggregate coated panel is APA suggested term.		06200
ALUMINUM CASTING					05500
ALUMINUM CEILING EXPANSION-JOINT COVER	AL CLS EXP JT COV	Aluminum sections formed by casting in a mold.			05500
ALUMINUM CEILING EXPANSION-JOINT COVER, FIRE-RATED	AL CLS EXP JT COV	Expansion joint cover located on wall surface.			05500
ALUMINUM CONTROL-JOINT COVER, FIRE-RATED	AL CLJ COV	Aluminum expansion joint cover located on wall surface, fire rated.			05810
ALUMINUM EXPANSION-JOINT COVER	AL EXP JT COV	Exposed aluminum device to cover and conceal control-joint, fire-rated.			05810
ALUMINUM EXPANSION-JOINT COVER, FIRE-RATED	AL EXP JT COV	Exposed aluminum device to cover and conceal expansion joint, fire rated.			05800
ALUMINUM EXTERIOR EXPANSION-JOINT COVER	AL EXT EXP JT COV	Exposed aluminum device to cover and conceal expansion joint, fire rated.			05800
ALUMINUM EXTERIOR EXPANSION-JOINT COVER, FIRE-RATED	AL EXT EXP JT COV	Exposed aluminum device to cover and conceal expansion joint.			05800
ALUMINUM EXTENSION	AL EXTRUS	Exterior aluminum device to cover and conceal expansion joint.			05800
ALUMINUM FLOOR EXPANSION-JOINT COVER	AL FLR EXP JT COV	Aluminum sections formed by extrusion.			05500
ALUMINUM FLOOR EXPANSION-JOINT COVER, FIRE-RATED	AL FLR EXP JT COV	Aluminum expansion joint cover located on floor surface.			05500
ALUMINUM FLOOR GRATING	AL FLR GRTE	Aluminum expansion joint cover located on floor surface, fire rated.			05800
ALUMINUM FLOOR MAT FRAME	AL FLR MAT FRM	Aluminum expansion joint cover located on floor surface, fire rated.			05800
		Open grid of aluminum bars structurally formed.			05530
		Aluminum frame used to contain floor mat and provide means to anchor to floor construction.			12690

CS1 MASTERFORMAT locates floor mats in 12690.

Appendix B

Reference Standards Example

NAVFAC DRAWSPEC LINK
Contract No. N62474-91-M-9623

**DRAWSPEC LINK DATABASE TABLE 3
PARADOX® 3.5 TABLE**

TABLE 3 - TERMREF - TERM REFERENCE STANDARDS TABLE

PREFERRED TERM (A80)	STANDARDS (A80)
KEY	

The TERMREF Table contains the terms used in the keynotes with the reference standards used nationally for the material or action specified. This Table is combined with Table 3 - TERMDEF to produce the report table for the Construction Thesaurus.

The PREFERRED TERM field contains the same text as the PREFERRED TERM field in the other tables. The PREFERRED TERM field is used to link the tables together for several of the report tables. There may be several records in the table with the same preferred term, however, each will have a different referenced specification in the STANDARDS field.

The STANDARDS field contains the source and number or designation of a reference specification for the material or action. Examples of the reference specifications include: ANSI, ASTM, AWI, Federal Specifications (FS), Military Standards (MIL-STD), NAAMM, NBS, NFPA, SDEI, SDI, and SJI.

VI TABLE 3 - 1

ARCON Architectural Computer Services, Inc., Salt Lake City, Utah

NAVFAC DRAWSPEC LINK - Contract No. M62474-91-H-9623

Table 3 - Term Reference Standards Table (Filename: TERMPREF, 448 records)

Preferred Term, Reference Standards

Print date 08/14/92

Page 1

Preferred Term	Reference Standards
ADHESIVE	APA APB 01
ADJUSTABLE SHELF HARDWARE	ANSI A156.9
ADJUSTABLE SHELF STANDARD	ANSI A156.9
ALUMINUM CASTING	ASTM B26
ALUMINUM EXTRUSION	ASTM B221
ALUMINUM FLOOR GRATING	PS RR-G-1602
ALUMINUM FLOOR GRATING	NAAMM 01
ALUMINUM FLOOR GRATING	NAAMM B8
ALUMINUM FLOOR MAT FRAME	NAAMM B8
ALUMINUM LADDER	ANSI A14.3
ALUMINUM PLATE	ASTM B209
ALUMINUM SHIPS LADDER	ANSI A14.3
ALUMINUM-ZINC COATED	ASTM A792
APPLIED PRESERVATIVE TREATED	NAMA 1.8.4
APPLIED PRESERVATIVE TREATED	WUPA WMS
BASE CABINET	AWI
BASE SHOE HOLDING	PS-20
BLANKET INSULATION	PS MM-I-521
BOLLARD	ASTM A53
BUILDING PAPER	PS UU-B-790
BUILT-UP STEEL LINTEL	ASTM A36
BUTT WELD, ULTRASONIC EXAMINED	ASNT 04
CABINET	AWI
CABINET FINISH	AWI
CABINET HARDWARE	ANSI A156.9
CABINET TRANSPARENT FINISH	AWI
CAST IRON FLOOR GRATING	PS RR-G-1602
CAST IRON WHEEL GUARD	ASTM A48
CHIMNEY	NFPA 211
CLEANOUT DOOR, CAST IRON	ASTM A48
CORNER WELD, ULTRASONIC EXAMINED	ASNT 04
DISSIMILAR METAL COATING	PS TT-P-664
DISSIMILAR METAL COATING	NIL-STD-889
EXPANDED METAL	NIL H-17194
EXPANSION SHIELD	PS FF-S-325
EXTERIOR FIRE-RETARDANT TREATED	NIL L-19140
EXTERIOR WOOD DOOR CASING	PS-20
EXTERIOR WOOD DOOR TRIM	PS-20
EXTERIOR WOOD TRIM	PS-20
EXTERIOR WOOD WINDOW CASING	PS-20
EXTERIOR WOOD WINDOW TRIM	PS-20

Appendix C

Army Keynote Symbols Example

NAVFAC DRAWSPEC LINK
Contract No. N62474-91-M-9623

**DRAWSPEC LINK DATABASE TABLE 1
PARADOX® 3.5 TABLES**

**TABLE 1A - ARMKNOTE - ARMY KEYNOTE TABLE
TABLE 1B - NAVKNOTE - NAVY KEYNOTE TABLE**

KSYMBOL (A9)	PREFERRED TERM (A80)	TYPE (A1)
-------------------------	-------------------------------------	----------------------

— KEY —

Each specification considered has a separate keynote table. The keynote symbol for use on drawings is contained in the KSYMBOL field. Each keynote symbol is made up of the 5 digit section number followed by a period, and a three character suffix. The section numbers are based on current specifications even though not all section numbers follow recommendations the MASTERFORMAT® recommendations of CSI exactly. The suffix on each keynote symbol uses an alphabetic character followed by two numeric characters. The alphabetic character is used to separate classes of materials within a specification section. The two numeric characters are used to designate a specific material or action.

The PREFERRED TERM field contains the text equivalent of the keynote. The field is named PREFERRED TERM to designate that it contains the preferred term for the material or action. The preferred term is the accepted industry standard designation or recommended text for the material or action. The PREFERRED TERM field is contained in other tables and is the field used to link the table together for several of the report tables.

The TYPE field is used to distinguish between keynotes that specify materials and those that specify an action. Since most notes are used for materials the field is left blank except for action notes which are marked with an "A" in the Type field.

The KSYMBOL field is designated as the key since it contains only unique entries. The PREFERRED TERM field could contain duplicate entries since there may be a material specified in more than one section in a given specification.

VI TABLE 1 - 1

ARCON Architectural Computer Services, Inc., Salt Lake City, Utah

NAVFAC DRAWSPEC LINK - Contract No. N62474-91-M-9623

Table 1A - Army Keynote Table (Filename: ARMKNOTE, 302 records)
Type, Army Keynote Symbol, and Preferred Term
Print date 08/14/92

Page 1

Type	Army Keynote Symbol	Preferred Term
	05055.A01	WELD
A	05055.B01	WELD, DESTRUCTIVE TEST
A	05055.C01	WELD, NONDESTRUCTIVE EXAMINED
A	05055.D01	WELD, RADIOGRAPHIC EXAMINED
A	05055.E01	WELD, ULTRASONIC EXAMINED
A	05055.F01	WELD, MAGNETIC PARTICLE EXAMINED
A	05055.G01	WELD, LIQUID PENETRANT EXAMINED
A	05061.A01	WELD, ULTRASONIC EXAMINED
A	05061.B01	BUTT WELD, ULTRASONIC EXAMINED
A	05061.C01	CORNER WELD, ULTRASONIC EXAMINED
A	05061.D01	TEE WELD, ULTRASONIC EXAMINED
A	05062.A01	PLATE, ULTRASONIC EXAMINED
	05120.A01	STRUCTURAL STEEL
	05120.A02	STRUCTURAL STEEL, CARBON GRADE
	05120.A03	STRUCTURAL STEEL, HIGH-STRENGTH, LOW-ALLOY
	05120.A04	STRUCTURAL STEEL, CORROSION RESISTANT, HIGH-STRENGTH, LOW-ALLOY
	05120.A05	STRUCTURAL STEEL, QUENCHED AND TEMPERED ALLOY
	05120.B01	STRUCTURAL STEEL TUBING, COLD-FORMED
	05120.B02	STRUCTURAL STEEL TUBING, HIGH-STRENGTH, LOW-ALLOY
	05120.C01	STEEL PIPE
	05120.D01	STEEL BASE PLATE
	05120.D02	STEEL BEARING PLATE
	05120.E01	STEEL RIVET
	05120.F01	STEEL BOLT, HIGH-STRENGTH
	05120.F02	STEEL BOLT, COMMON GRADE
	05120.G01	STEEL NUT
	05120.G02	STEEL NUT, SELF-LOCKING
	05120.H01	STEEL WASHER
	05120.H02	STEEL WASHER, HIGH-STRENGTH
A	05120.J01	SHOP PAINTED
	05210.A01	STEEL JOIST
	05210.B01	STEEL JOIST, K-SERIES
	05210.C01	STEEL JOIST, LN-SERIES
	05210.D01	STEEL JOIST, BLN-SERIES
	05210.E01	STEEL JOIST GIRDER
	05210.F01	STEEL JOIST BRIDGING
	05210.F02	END SUPPORT
	05210.G01	STEEL BEARING PLATE
	05210.H01	WELD
A	05210.J01	SHOP PAINTED
	05300.A01	STEEL ROOF DECK
	05300.A02	STEEL ROOF DECK, FIRE-RATED

Appendix D

Navy Keynote Symbols Example

ARCON Architectural Computer Services, Inc., Salt Lake City, Utah

NAVFAC DRAWSPEC LINK - Contract No. M62474-91-M-9623

Table 18 - Navy Keynote Table (Filename: NAVNOTE, 384 records)

Type, Navy Keynote Symbol, and Preferred Term

Print date 08/14/92

Page 1

Type	Navy Keybol	Preferred Term

	05120.A01	STRUCTURAL STEEL
	05120.A02	STRUCTURAL STEEL, HIGH-STRENGTH, LOW-ALLOY
	05120.A03	STRUCTURAL STEEL, HIGH-STRENGTH, HEAT-TREATED, LOW-ALLOY
	05120.A04	STRUCTURAL STEEL, CORROSION RESISTANT, HIGH-STRENGTH, LOW-ALLOY
	05120.B01	STRUCTURAL STEEL TUBING
	05120.C01	STEEL PIPE
	05120.C02	STEEL PIPE, WELDED
	05120.C03	STEEL PIPE, SEAMLESS
	05120.D01	STEEL BASE PLATE
	05120.D02	STEEL BEARING PLATE
	05120.E01	STEEL CRANE RAIL, OVERHEAD, TOP RUNNING
	05120.F01	STEEL BOLT
	05120.F02	STEEL BOLT, COMMON GRADE
	05120.F03	STEEL BOLT, HIGH-STRENGTH
	05120.F04	STEEL BOLT, WEATHERING
	05120.F05	STEEL ANCHOR BOLT
	05120.F06	STEEL ANCHOR BOLT, HIGH-STRENGTH
	05120.F07	STEEL BOLT, LOAD INDICATOR
	05120.F08	STEEL BOLT, INTERFERENCE BODY
	05120.G01	STEEL NUT
	05120.G02	STEEL NUT, HIGH-STRENGTH
	05120.G03	STEEL NUT, WEATHERING
	05120.G04	STEEL NUT, SELF-LOCKING
	05120.H01	STEEL WASHER
	05120.H02	STEEL WASHER, HIGH-STRENGTH
	05120.H03	STEEL WASHER, WEATHERING
	05120.H04	STEEL WASHER, LOAD INDICATOR
	05120.K01	SHEAR CONNECTOR, STUD
	05120.L01	STEEL PIN AND ROLLER
	05120.N01	WELD
A	05120.N02	WELD, RADIOGRAPHIC EXAMINED
A	05120.N03	WELD, ULTRASONIC EXAMINED
	05120.N01	NONSHRINK GROUT
	05120.N02	NONSHRINK GROUT, NONMETALLIC
	05120.P01	GALVANIZED
A	05120.P02	GALVANIZING REPAIR
A	05120.G01	THERMAL SPRAYED ZINC-COATED
A	05120.R01	SHOP PAINTED
	05210.A01	STEEL JOIST
	05210.B01	STEEL JOIST, K-SERIES
	05210.C01	STEEL JOIST, LN-SERIES
	05210.D01	STEEL JOIST, DLN-SERIES

Appendix E

Present National Construction

Thesaurus Example

NAVFAC DRAWSPEC LINK
Contract No. N62474-91-M-9623

DRAWSPEC LINK DATABASE TABLE 4
PARADOX® 3.5 TABLE

TABLE 4 - TERMMAP - TERM USED AND PREFERRED TERM TABLE

TERM USED (AS0)	PREFERRED TERM (AS0)
----------------------------	-------------------------------------

— KEY —

This table provides a comparative listing of the material and action terms used in the specifications with the preferred terms. Many materials that are the same are specified by using several different names. A term may be looked up in this table to determine if it is an industry standard or recommended term. The table should provide the means to standardize the material and action terminology used on drawings and in specifications for construction.

The **TERM USED** field in Table 4 contains materials or actions found in the specifications. The **PREFERRED TERM** field contains the corresponding preferred term used in the other tables.

A preferred term may appear in several records since there may be several alternative or non-recommended terms for a given term. If a term used in the specification is the same as the preferred term, then both fields will have the same text. This permits the **TERM USED** field of Table 5 to be mapped to a preferred term, regardless of it being considered as a preferred or alternate non-recommended term.

VI TABLE 4 - 1

ARCON Architectural Computer Services, Inc., Salt Lake City, Utah

MAVFAC DRAWSPEC LINK - Contract No. M62474-91-M-9623

Table 4 - Term Used and Alternate Term Table (Filename: TERMAP, 670 records)
Term Used in Specification, Preferred Term
Print date 08/14/92

Page 1

Term Used in Specification	Preferred Term
ACCESS DOOR	STEEL ACCESS DOOR
ACOUSTIC INSULATION	SOUND ABSORBING MATERIAL
ADHESIVE	ADHESIVE
ADJUSTABLE SHELF HARDWARE	ADJUSTABLE SHELF HARDWARE
ADJUSTABLE SHELF STANDARD	ADJUSTABLE SHELF STANDARD
AGGREGATE COATED PANEL	AGGREGATE COATED PANEL
ALUMINUM CASTING	ALUMINUM CASTING
ALUMINUM CEILING EXPANSION-JOINT COVER	ALUMINUM CEILING EXPANSION-JOINT COVER
ALUMINUM CEILING EXPANSION-JOINT COVER, FIRE-RATED	ALUMINUM CEILING EXPANSION-JOINT COVER, FIRE-RATED
ALUMINUM CONTROL-JOINT COVER	ALUMINUM CONTROL-JOINT COVER
ALUMINUM EXPANSION-JOINT COVER	ALUMINUM EXPANSION-JOINT COVER
ALUMINUM EXPANSION-JOINT COVER, FIRE-RATED	ALUMINUM EXPANSION-JOINT COVER, FIRE-RATED
ALUMINUM EXTERIOR EXPANSION-JOINT COVER	ALUMINUM EXTERIOR EXPANSION-JOINT COVER
ALUMINUM EXTRUSION	ALUMINUM EXTRUSION
ALUMINUM FLOOR EXPANSION-JOINT COVER	ALUMINUM FLOOR EXPANSION-JOINT COVER
ALUMINUM FLOOR EXPANSION-JOINT COVER, FIRE-RATED	ALUMINUM FLOOR EXPANSION-JOINT COVER, FIRE-RATED
ALUMINUM FLOOR GRATING	ALUMINUM FLOOR GRATING
ALUMINUM FLOOR MAT FRAME	ALUMINUM FLOOR MAT FRAME
ALUMINUM GRID WALKWAY	ALUMINUM GRID WALKWAY
ALUMINUM HANDRAIL	RAILING, ALUMINUM
ALUMINUM LADDER	ALUMINUM LADDER
ALUMINUM PIPE HANDRAIL	HANDRAIL, ALUMINUM PIPE
ALUMINUM RAILING	HANDRAIL, ALUMINUM
ALUMINUM ROOF SCUTTLE	ROOF HATCH, ALUMINUM
ALUMINUM ROOF VENT	ROOF HATCH, ALUMINUM
ALUMINUM SHEET PLATE	ALUMINUM SHEET PLATE
ALUMINUM SHIPS LADDER	ALUMINUM SHIPS LADDER
ALUMINUM TUBE HANDRAIL	HANDRAIL, ALUMINUM TUBE
ALUMINUM WALL EXPANSION-JOINT COVER	ALUMINUM WALL EXPANSION-JOINT COVER
ALUMINUM WALL EXPANSION-JOINT COVER, FIRE-RATED	ALUMINUM WALL EXPANSION-JOINT COVER, FIRE-RATED
ALUMINUM-ZINC COATED	ALUMINUM-ZINC COATED
ANCHOR BOLT	STEEL ANCHOR BOLT
ANTI-SLIP METALLIC TREAD	STAIR TREAD, NON-SLIP METALLIC
APPLIED PRESERVATIVE TREATED	APPLIED PRESERVATIVE TREATED
BASE CABINET	BASE CABINET
BASE CASEWORK	BASE CABINET
BASE SHOE HOLDING	BASE SHOE HOLDING
BATT INSULATION	BLANKET INSULATION
BEARING POINT	END SUPPORT
BLACKBOARD	CHALKBOARD
BLANKET INSULATION	BLANKET INSULATION
BOARD INSULATION	RIGID INSULATION

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE May 1994	3. REPORT TYPE AND DATES COVERED Final report	
4. TITLE AND SUBTITLE National Construction Thesaurus: Status and Recommendations			5. FUNDING NUMBERS	
6. AUTHOR(S) Gregory A. Covington, James T. Wilson				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Army Engineer Waterways Experiment Station 3909 Halls Ferry Road, Vicksburg, MS 39180-6199			8. PERFORMING ORGANIZATION REPORT NUMBER Technical Report CADD-94-2	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)			10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES Available from National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.				
12a. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.			12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) <p>The National Construction Thesaurus is a relational database software package under development by the Navy to standardize construction terminology. The thesaurus will list names for most construction products and processes, define them, and list their preferred names. It is part of a keynoting system called DRAWSPEC LINK, which will be used to link construction processes and materials on drawings to their respective specifications. The development of the National Construction Thesaurus is approximately 12.5-percent complete. Once completed, the National Construction Thesaurus will increase the efficiency of the construction process by making it easier for designers and builders to speak the same language.</p>				
14. SUBJECT TERMS DRAWSPEC LINK Keynote number			15. NUMBER OF PAGES 23	
Synonyms Thesaurus			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT UNCLASSIFIED	18. SECURITY CLASSIFICATION OF THIS PAGE UNCLASSIFIED	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT	