METRIC
MIL-C-89303
30 November 1990
SUPERSEDING
PS/3CB/301
July 1979

MILITARY SPECIFICATION

CITY GRAPHICS

This specification is approved for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification defines requirements for the Defense Mapping Agency's (DMA) City Graphics.

1.2 Purpose. The purpose of this specification is to assure uniformity of treatment among all mapping and charting elements engaged in a coordinated production and maintenance program for this product.

1.3 Security.

1.3.1 Security classification. The security classification of the products generated by the use of this specification will be the lowest category practicable. When it is necessary to assign a security classification to the product, it will be accomplished in accordance with established national security procedures.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Director, Defense Mapping Agency, ATTN: PR, 8613 Lee Highway, Fairfax, VA 22031-2137 by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A **AREA MCGT**

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the current Department of Defense Index of Specifications and Standards (DODISS) and the supplement thereto, cited in the solicitation (see 6.2).

STANDARDS

MILITARY

MIL-STD-600000 -	MC&G Glossary of Feature/ Attribute Definitions.
MIL-STD-600001 -	MC&G Accuracy.
MIL-STD-600002 -	MC&G Symbology.
MIL-STD-600003 -	MC&G Product Generation Rules.
MIL-STD-600004 -	MC&G Geographic Names.
MIL-STD-600005 -	MC&G Reproduction and Printing.
MIL-STD-600010 -	Standard Department of Defense DMA Stock Bar Coding.

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Naval Publications and Forms Center, (ATTN: NPODS), 5801 Tabor Avenue, Philadelphia, PA 19120-5099.)

2.1.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation.

DMA TM 8353.1 DoD Grids and Grid References

(Copies are available from the Defense Mapping Agency Hydrographic/Topographic Center, 6500 Brookes Lane, Washington, DC 20315-0030.)

2.2 Non-Government publications.

This section is not applicable to this specifications.

2.3 Order of precedence. In the event of a conflict between the text of this document and the references cited herein (except for related associated detail specifications, specification sheets, or MS standards) the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Accuracy. The City Graphic is produced to support several intended uses. The required accuracy (all features) is based on intended use.

a. The absolute Horizontal Accuracy requires that 90% of all well-defined planimetric features, except those unavoidably displaced by symbol exaggeration, are located within 2.0mm of their geographic position with reference to a prescribed datum.

b. The absolute Vertical Accuracy requires that 90% of all elevations are accurate to within two required or basic contour intervals as referred to a basic vertical datum.

3.1.1 Displaced features. Feature symbols which are displaced, as identified in the Displacement Rules in MIL-STD-600003 are excluded from the accuracy requirement stated in 3.1.

3.2 Datum.

3.2.1 Horizontal datum. For new production, and as map/chart sheets are revised or updated for periodic maintenance, the WGS 84 (see 6.3.2) or NAD 83 datum and where appropriate a revised Military Grid system shall be depicted as the primary grid. The old (local) datum will be depicted as a secondary grid with tick marks along the border of the sheet. A grid conversion note shall also be placed in the margin area. Additionally, both the old and new 100,000 meter square two-letter identifiers shall be depicted on the map/chart, if applicable. Appropriate margin notes shall be added to explain the dual lettering.

3.2.2 Vertical datum. Vertical datum shall be Mean Sea Level (MSL) (see 6.3.1).

3.3 Adjoining data set and chart match. Reasonable effort is made to match a new compilation with adjoining sheets of existing maps at the same scale. In attempting to match sheet border features, displacements are not introduced into the new compilation that exceed the permissible limits of accuracy, nor are features arbitrarily added or extended to effect a tie with the adjoining sheet.

3.4 Series. The requirements usually include detailed street information within the main town and the portrayal of significant features such as port facilities, airports, military installations, industrial complexes, etc., in the vicinity of the populated place. If required, features falling outside the area of the graphic are shown as insets to the graphic.

3.5 Quality. Final product quality shall reflect the quality elements expressed by each appropriate section within MIL-STD-600000 - 600005. A graphic history shall be written concurrently with the development of the graphic manuscript and shall include precise descriptions of source material utilization and of all pertinent cartographic and control problems with the solutions that were applied.

3.6 Scale. The preferred scale for city graphics is 1:25,000 scale. Deviations from this scale should only be made for well defined reasons. A smaller city does not justify a larger scale map. In these cases it is preferable to extend the area portrayed rather than enlarge the scale.

a. See 3.25.1 and 3.25.2 for specifications for insets.

b. The scale is specified in the supplementary instructions.

3.7 Map design. Whenever possible, city graphics are designed to be produced on one sheet. If the size of the selected area makes it necessary to present the graphic on more than one sheet, all sheets are prepared with the same trim sizes. The scale is not changed for the sole purpose of showing the specific scale, neither are the number of sheets increased in order to accommodate the marginal data.

3.7.1 Spacing requirements. The amount of space required for marginal data may affect the sheet lines by limiting the amount of space available for the graphic image. This is particularly true where the Guide to Numbered Features and Index to Streets are positioned in the margin. The Guide to Numbered Features and Index to Streets may be positioned in the map interior when the graphic contains a substantial open water area or other relatively clear space that is devoid of significant features. However, sheet lines are not deliberately extended to provide space in the graphic interior for data that would normally be positioned in the margin. The amount of marginal data will vary with each sheet and must be taken into consideration when sheet lines are established.

3.7.2 Sheet lines. Sheet lines are established so that, preferably, the city proper falls in the approximate center of the graphic. However, this is not always feasible, particularly where other factors must be considered in the establishment of the sheet lines. Some of these factors are:

a. The inclusion of important features adjacent to the city.

b. Coastal cities where large areas of open water would be shown if the city were centered on the graphic.

c. The direction of growth of the city. Where the direction of growth is apparent, the areas of future development are included where feasible so that later additions can be made without recompiling the entire graphic.

d. The positioning of the Guide to Numbered Features and Index to Streets within the neatlines.

3.7.3 Suburban areas. Suburban areas of questionable military importance may be omitted from the project area in order to reduce the number of sheets.

3.8 Size and dimensions. Work limits are preferably confined to dimensions smaller than 86cm by 111cm, but may be expanded to 104 cm by 144 cm.

3.8.1 Sheet lines information. Sheet lines are established to include port facilities, airports, military installations, industrial complexes, and other features of military significance that are adjacent to the urban area. Sheet lines are not extended beyond the logical limits of the city and its environs to include such features if they can be adequately shown in insets or if the required features are shown on available standard large-scale maps.

3.8.2 Neat lines. Preferably, the neatlines are plotted so that the corners coincide with the geographic corners whose values are expressed in degrees, minutes, and full seconds.

3.9 Projections. City graphics are produced on the Transverse Mercator Projection. The projection is represented by:

a. Connected sheet corners which form the sheet limits (neatlines) sheet corners are labeled with their full projection values, i.e., degrees, minutes and seconds.

b. Projection ticks emanating from the neatlines and pointing inwards projection ticks with full degree values are labeled in degrees and minutes (example: 112°00') and the remaining ticks are labeled in minutes only.

c. Interior projection intersection ticks.

3.9.1 Neatline ticks and interior intersection ticks. The neatline ticks and interior intersection ticks are shown at five-minute intervals for graphics published at 1:25,000 scale and smaller. For scales larger than 1:25,000 scale, they are shown at one-minute intervals. Illustrations of the projection data are shown on the style sheet, Appendix A.

3.10 Reference systems. The specifications for grids on large-scale maps in DMA TM 8353.1, DoD Grids and Grid References, are applicable to city graphics.

3.10.1 Grid. The grid is represented by lines at 1,000 unit intervals. Ticks at 100 unit intervals may be shown on maps published at scales larger than 1:25,000 scale. Grid lines and ticks are shown in blue. The required grid is specified in supplementary instructions for the project. See Appendix A for line weights and dimensions for grid and projections.

3.10.2 Grid junctions. Grid junctions and overlapping grids are not shown on the city graphics. When a grid junction occurs, the grid that covers the major portion of the sheet is extended to cover the whole sheet.

3.10.3 Grid data. Grid data are not shown on medium-scale environs insets.

3.10.4 Insets. Additional instructions for the preparation of the insets are indicated on the Style Sheet, Appendix A.

3.11 Margin data. The required marginal data and their type styles and sizes are indicated on the style sheet, Appendix A. The style sheet also illustrates the preferred positions for the marginal data. Areas of the graphic that are devoid of significant detail may be used for marginal data items. The Guide to Numbered Features and the Index to Streets may be printed on the back (head-to-head) of the sheet; however, the preferred positions for these listings are on the front of the sheet. Where the map consists of more than one sheet and the Guide to Numbered Features and Index to Streets cannot be positioned in the map interiors, they are positioned in the margin so they are not covered or cut off if the sheets are combined to form one map. Items that are common to all sheets are positioned, if practical, so the data appear only once when the sheets are combined.

3.11.1 Guide to numbered features. The Guide to Numbered Features is a list of the important features which are identified by numbers on the graphic and in the insets. The Guide is divided into categories as shown on the style sheet.

3.11.2 Index to streets. Deviations from the treatment prescribed may be made if required by agreements with other countries. Such deviations will be made only when specified in the supplementary instructions.

3.11.3 Symbol legend. Standard symbol legends are not prepared for city graphics. A symbol legend is prepared and tailored to each sheet or set of sheets. As a minimum the following symbols are included in the symbol legend when they appear on the graphic.

a. Populated places.

b. Buildings.

c. Roads. A note stating the street lane width is shown below the Map Information Note. Example: A lane is considered as being a minimum of 2.5 meters in width.

d. Railroads.

e. Bridges.

f. Clearance values.

g. Spot elevations.

h. Vegetation.

i. Other symbols as required for the project.

3.11.4 Series name. The series name consists of the country name followed by the words "City Graphic". Example: UNITED STATES CITY GRAPHIC.

3.11.5 Series number. The Series number provides a unique identification for a group of maps which are common to one another in that they cover a particular geographic area; are on the same sheet line system; are of the same scale or within a scale group; and prepared under the same cartographic specifications. The series number appears in 18 point Bold Condensed upper case type, and is printed in black. The word "series" appears in 10 point Medium Condensed upper case type, and is printed in black.

3.11.6 Edition number. The edition number identifies the publication sequence of an individual map. Edition numbers run consecutively; a map bearing a higher edition number is assumed to contain more recent information than the same map bearing a lower edition number.

a. The standard edition designation consists of: the word "Edition," a cardinal number, a dash, and the coded initial of the mapping agency responsible for the edition. Examples:

EDITION 1 - DMA EDITION 2 - MCE EDITION 3 - GSGS

b. On maps produced by subsidiaries and affiliates of national mapping agencies, the coded initials of the preparing unit are included as a suffixed parenthetical code. Example:

EDITION 2 - DMA (USAEUR)

c. The following are the coded initials of some national mapping agencies which use the described edition designation system:

Australia	AAS
Belgium	IGMB
Canada	MCE
Denmark	GID
France	IGNF
France	SGMF
German Federal Republic	DMG
Greece	HAGS
Italy	CIGA
Italy	SMAI
Luxembourg	IGNF.CL
Netherlands	TDN
Norway	NOR
Portugal	SCEP
Turkey	TUHUM
United Kingdom	GSGS

United States..... DMA

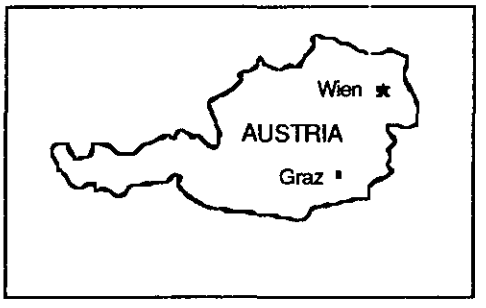
d. The edition number appears in 18 point Bold Condensed upper case type, and is printed in black. The word "Edition" appears in 10 point Medium Condensed upper case type, and is printed in black.

3.11.7 DMA stock number/bar code. The DMA Combat Support Center requires the use of DMA stock numbers when ordering maps and bar codes for inventory purposes. A bar code, with the DMA stock number and the edition number included in the alpha-numeric coding, will be place on maps in the lower right corner (see Appendix A). DMA bar codes are shown in two lines. The top line is the bar code. The bottom line shows the stock number and the edition number. See MIL-STD-600010 for further information on bar codes.

3.11.8 Sheet number. Sheet numbers are used only if the area of coverage consists of more than one sheet. Sheet numbers are assigned in numerical order from left to right and from top to bottom. Where the sheets are irregularly arranged, the numbering system is modified to fit the arrangement.

3.11.9 Multilingual marginal data. The requirement for multilingual marginal data is specified in supplementary instructions for the project.

3.11.10 City location diagram. A small scale city location diagram will appear in the margin of each sheet. The sole purpose of the diagram is to show the location of the city relative to the entire country and its capital. The diagram will consist of a rectangular box, not to exceed 762mm X 508mm, enclosing an outline of the single country in question, with the country name. The diagram will show the name and star symbol of the capital, and the name and dot symbol of the subject city. The words "CITY LOCATION" will appear above the box. No other information will appear in the city location diagram. The city location diagram will be oriented to accommodate either a north-south or an east-west orientation of the country. No boundary information will appear for the city location diagram. Two examples of the city location diagram are shown below:



3.11.11 Boundaries diagram. Specifications for the boundaries diagram are given on the Style Sheet, Appendix A. No boundary note will appear unless an international boundary falls within the area covered by the city graphic. In that case, the following note will appear under the boundaries diagram: "Boundary representation is not necessarily authoritative."

3.11.12 Publication note. Each map produced by or for DMAHTC contains a publication note which reads:

Prepared and published by the Defense Mapping Agency
Hydrographic/Topographic Center, Washington, D.C.

3.11.13 DMA seal. The Defense Mapping Agency seal is shown on maps prepared by or for DMAHTC. The seal appears in the lower margin as shown on the style sheet and is printed in black.

3.11.14 Printing note. The printing note will identify the center printing the map, plus the month and year of printing.

a. For maps printed at DMAHTC, the printing credit will be shown as:

Printed by ..... DMAHTC 5-87

b. For maps printed by other agencies or military commands, the note will be shown as:

Printed by ..... USGS 5-80

3.11.15 User's note. Each unclassified map prepared by or for DMAHTC contains a user's note which reads:

USER'S SHOULD REFER CORRECTIONS, ADDITIONS,
AND COMMENTS FOR IMPROVING THIS PRODUCT TO:
DIRECTOR, DEFENSE MAPPING AGENCY
ATTN: PR, 8613 LEE HIGHWAY
FAIRFAX, VA 22031-2137

This note is not shown on classified maps.

3.11.16 Security classification notes.

3.11.16.1 Classification marking. Under certain circumstances maps are required to bear a security classification marking.

3.11.16.2 Downgrading/Declassification note. Each map bearing a security classification marking also identifies the classifier and contains downgrading/declassification instructions.

3.11.16.3 Special handling notes. Certain maps, classified or unclassified, require notes which restrict their distribution.

a. Caveat or Special Handling Note. A caveat may be required on maps classified confidential or higher. Example:

NOT RELEASABLE TO FOREIGN NATIONALS

b. Restricted Dissemination Note. A note of this type may be required on UNCLASSIFIED maps. Example:

LIMITED DISTRIBUTION: Distribution authorized to the Department of Defense, U.S. DoD contractors and to U.S. Government Agencies supporting DoD functions (by authority of the Director, Defense Mapping Agency, 30 May 1990). Other requests shall be referred to Headquarters, DMA, ATTN: SOP. Destroy as "For Official Use Only."

3.12 Culture.

3.12.1 Roads. The road classifications are:

a. Divided highways and boulevards.

b. Primary roads and through streets.

c. Secondary roads and streets.

d. Drives in parks and cemeteries; narrow streets in "old town" and casbah areas.

e. Tracks and trails.

3.12.1.1 Route markers. Route markers are shown for international, national and secondary routes. Secondary routes include roads under the jurisdiction of states, provinces, prefectures and similar administrative divisions of a country.

3.12.2 Railroads. City graphics contain as much information pertaining to railroads and related features as the scale will allow. Where information is available, railroad stations are shown in their position with relation to the track. Car lines are interpreted to include both interurban and streetcar lines.

3.12.3 Tunnels. Road and railroad tunnels are shown.

3.12.4 Bridges. Road and railroad bridges are shown. When known bridge names will be applied.

3.12.5 Clearance values. Width and height constrictions for bridges and tunnels are indicated where the information is available.

3.12.5.1 Construction material. When available, information on construction material, type of structure, and load capacity in tons for road and railroad bridges is shown in a parenthetical note.

3.12.6 Populated places. The concept of a populated place is based on the proximity of the buildings and includes areas of dense, moderate and sparse development. The limits are generally established where the street patterns end and the scattered buildings cannot logically be considered as part of the populated place. The portrayal of populated place is designed to reflect the density and structural characteristics of the buildings and the distinctive symmetry of the street patterns. Most populated places are made up of densely built-up areas where the majority of the buildings are of masonry-type construction and moderately to sparsely built-up areas where there are spaces between the buildings and the construction ranges from a mixture of masonry and wood to mostly wood or, in some cases, adobe or similar type of material. Many large cities also contain compact impoverished areas of unstable construction. A populated place may contain one or more of the different types of development. Where the source materials do not contain this information, the entire area is treated as one type of development and shown as moderately to sparsely developed areas and identified in the legend simply as "Populated Places."

a. Densely built-up areas. This type of development includes all areas where the roof cover is practically continuous. The area is generally characterized by multi-story masonry buildings and is indicative of the commercial, apartment or tenement districts, and hard-core, old-town areas. Casbah-type developments, found in many large cities in North Africa and the Middle East, are also included in this category. This type of development is made up of a dense agglomeration of masonry or clay buildings fronting on narrow, winding streets and alleys.

b. Moderately to sparsely developed areas. The greater portion of most cities falls into this category. The predominant characteristic of these areas, besides the moderate to sparse building density, is the symmetrical alignment of the streets. Rows of closely spaced buildings that are finger like extensions of a populated place are included within the populated-place symbol.

c. Native settlements and shantytowns. Many large cities have satellite communities usually located on the outskirts of the urban area. The inhabitants are squatters who build crude non-permanent dwellings on ground which is generally unusable for any kind of development, such as the sides of steep hills, and swampy ground. These communities have few, if any streets and range from native huts, as in North Africa, to shantytowns or barrios in Spanish-speaking areas. These areas are very dense, have definite limits, and are distinct from the conventional types of developed areas within the city.

d. Detached areas. Built-up areas which are detached from the city proper are shown independent of the larger urban area.

e. Open areas. Areas of no development falling inside the overall development tint areas are excluded from the tint areas.

f. Destroyed areas. A destroyed populated place is one that has been made uninhabitable as a result of a natural catastrophe or military operation.

g. Buildings. Important buildings and those buildings that have landmark significance are the only buildings individually represented. Only those buildings which fall within the categories listed in 3.12.6.h and which can be identified as such are symbolized as important buildings.

h. Important buildings and installations. Important buildings and installations are grouped into the following categories:

(1) Commercial and industrial. All types of enterprises and facilities which are important to the resources and economy of the country or area are included in this category.

(2) Embassies and consulates. All buildings that have diplomatic status are included in this category.

(3) Government buildings. These are buildings that house national and local agencies and bureaus.

(4) Hospitals. All hospitals (civilian and military) are shown, including related facilities such as clinics and dispensaries.

(5) Military establishments. This category includes all facilities under control of the military or naval establishments. (except hospitals).

(6) Schools.

(7) Utilities. These include government and privately-owned power, transportation, and communication facilities.

(8) Places of worship. This category includes important or large religious buildings of national or area significance.

(9) Miscellaneous. This category includes buildings or features that have national or area importance or prominence but do not fall in one of the above categories. Included are:

(a) Hotels which cater to foreign tourists. When this information is not available, all major hotels are presumed to fall into this category.

(b) Museums.

(c) Eminent monuments (may be shown by landmark object symbol).

(d) Large Auditorium.

(e) Opera Houses.

i. Identification outlines. Included are building complexes, airfields, port facilities, military installations, etc.

j. Landmark buildings. Landmark buildings include, but are not limited to the following:

(1) Schools not identified as important buildings (high school, elementary).

(2) Religious buildings not identified as important.

(3) Factories not identified as important.

(4) Theaters, stadiums, large greenhouses.

(5) Railroad stations other than main station.

k. Destroyed buildings. Destroyed important buildings are symbolized if of landmark significance.

3.12.7 Miscellaneous cultural features.

3.12.7.1 Power transmission lines. High-tension lines are shown wherever they occur. Low-tension distribution lines and telegraph and telephone lines are not shown.

3.12.7.2 Pipelines. Above-ground pipelines are shown.

3.12.7.3 Walls and fences. Walls and fences within the city are shown for their landmark significance.

3.12.7.4 Landmark areas. Areas designed for purposes other than structural development and which serve as landmarks are outlined and labeled. Included, but not limited to are:

a. Botanical Gardens.

b. Cemeteries.

c. Parks.

d. Ball parks and sports fields.

e. Golf courses.

f. Zoos.

g. Tank farms.

h. Mining Areas (strip mines, quarries).

i. Large amusement parks/fairgrounds.

j. Transformer yards.

Outlined areas may contain roadways, drives, and buildings.

3.12.7.5 Race tracks. Race tracks are to be considered landmarks.

3.12.7.6 Cuts and fills. Cuts and fills are shown only where they are conspicuous, and have landmark significance.

3.12.7.7 Mines. Mines are shown by the basic mine symbol.

3.12.7.8 Dams and reservoirs. The dams for large reservoirs which are of landmark value are shown to scale.

3.12.7.9 Landmark objects. Landmarks objects are those features, other than buildings, that are useful as reference points either because their size makes them prominent or they are easy to identify because of their shape. These include:

a. Chimneys.

b. Towers.

c. Beacons.

d. Monuments.

3.13 Hydrography.

3.13.1 Inland hydrography.

a. Perennial Streams.

(1) The major drainage network is shown.

(2) If flow arrows are necessary to indicate the direction of flow, they are shown.

b. Intermittent streams are shown only where the network of perennial drainage is sparse.

c. Aqueducts are shown for their orientation value.

d. Flumes and penstock are shown for their orientation value.

e. Major ditches are shown only if they have landmark value.

f. Springs and wells are shown only in areas of sparse drainage.

3.13.2 Coastal hydrography. Except for coastal marsh, no foreshore or offshore hydrographic data are shown. Shorelines are plotted at mean high water.

3.14 Hypsography/Physiography. Terrain should be depicted only if its depiction is of major importance to the determination of cover, concealment,

fields of fire, vantage points, movement routes or for land navigation. "Major importance" implies outstanding formations which cannot easily be visually translated from smaller scale products by the user.

3.14.1 Contours. Contours are shown only when specific instructions for their inclusion are contained in supplementary instructions. Terrain may be depicted either by contours, spot heights, or both contours and spot heights, whichever satisfies the requirement. The instructions for the portrayal of contours and spot heights are contained in supplementary project instructions.

3.14.2 Unique features. Treatment of unique features or conditions not covered in this specification is contained in supplementary project instructions. These features could include an Atlas Grid, certain types of vegetation, and special relief features.

3.15 Vegetation features.

3.15.1 Woods. Forest areas and significant stands of trees which have landmark value or provide substantial concealment.

3.15.2 Shelterbelts. These are belts of natural growths or planted trees.

3.16 Demarcation.

3.16.1 Boundaries.

a. The boundaries shown are:

(1) International.

(2) Other lines of Separation of Sovereignty.

(3) First-order Administrative.

(4) Second-order Administrative (County, Parish ...).

(5) Municipal (when available).

b. The treatment of Other Lines of Sovereignty is cited in supplementary instructions.

3.17 Aeronautical.

This section is not applicable to this specification.

3.18 Names and labeling. Names are spelled in accordance with the policies of the U.S. Board on Geographic Names (BGN) and the Department of Defense.

a. Refer to MIL-STD-600002, MIL-STD-600003, MIL-STD-600004, for proper naming and labeling of applicable features.

b. The following is a list of features of which may not appear in Table I and Table II, but may be named on the final product. Definitions for the following features may be found in MIL-STD-600004.

NAME	EXAMPLE
Banks	Outer Banks
Basin	Great Basin
Bay	Chesapeake Bay
Beach	Virginia Beach
Bench	
Bend	
Bluff	
Bottom	
Break	
Butte	
Canyon	Grand Canyon
Cape	Cape of Good Hope
Channel	English Channel
City	New York City
Cliff	
Corner	Tysons Corner
Cove	
Crossing	
Desert	Sahara Desert
Dome	
Everglade	Florida Everglades
Falls	
Flat	
Forest	Black Forest
Gap	
Gorge	
Gulch	
Gulf	Gulf of Mexico
Gut	
Hamlet	
Harbour	Boston Harbor
Head	
Highland	
Hill	
Hole	
Hollow	
Inlet	Hamilton Inlet
Island Chain	Hawaiian Islands
Junction	
Jungle	
Knob	
Knoll	
Lagoon	
Lake	
Lands	
Lookout	
Marina	
Mesa	
Mountain	
Mountain Range	Rocky Mountains
Narrows	
Neck	
Neck	
Ocean	Atlantic Ocean
Park	Yellowstone National Park
Pass	
Passage	
Peak	Pikes Peak
Peninsula	

Plain	Great Plains
Plateau	Colorado Plateau
Point	
Pool	
Port	
Range	Coastal Range
Ravine	
Region	
Ridge	
River	
Roadstead	
Rock	
Sands	
Sea	Caribbean Sea
Sink	
Sound	Puget Sound
Spit	
Spring	
Spur	
Strait	Bering Strait
Town	
Valley	Death Valley
Village	Greenwich Village
Wood	

c. Generic Terms and Descriptive Labels.

(1) A generic term that is part of the name is shown in its native (transliterated or romanized) form.

(2) Descriptive labels are shown in their English translation.

(3) Abbreviations for terms, such as No. for number, Co. for company, or Corp. for corporation, may be used if the names are shown in their English form.

d. Roads and Streets.

(1) All available road and street names are shown.

(2) Where space is a problem, variations in the treatment of street names are specified in supplementary instructions for the project.

(3) If a majority of street names cannot be accommodated, it may be an indication that the graphic has been prepared at the wrong scale.

e. Important Buildings and Installations.

(1) Identification numbers are shown for all features that are identified as important buildings and installations and listed in the Guide to Numbered Features.

(2) Buildings within a complex or installation are not named or numbered.

f. Landmark Buildings. Landmark buildings are named or identified by descriptive labels where information is available.

g. Populated Places.

(1) The name of the populated place for which the sheet is named is not shown in the graphic interior. It is always shown in the environs.

(2) All other populated places are named on the graphic and the insets.

(3) Suburb names are shown on the graphic and large-scale insets.

h. Boundaries. Administrative divisions (first-order, second-order) are identified in the Boundaries Diagram.

3.19 Radar. This section is not applicable to this specification.

3.20 Annotation. This section is not applicable to this specification.

3.21 Special areas. This section is not applicable to this specification.

3.22 Symbology. Symbology for the City Graphic shall be in accordance with MIL-STD-600002. Unless otherwise specified, the center of a symbol shall correspond to the true location of the feature being represented, and the orientation of the symbol shall be in accordance with its relation to surrounding features. All linear features shall be plotted in their true position and whenever scale permits, shall reflect the realignment which actually exists; that is, the alignment of straight ways, curves and angles, shall be retained as nearly as practicable. Displacement of symbology, when necessary, should be in compliance with MIL-STD-600003.

3.23 Reproduction.

a. General.

(1) Reproduction is by lithography.

(2) Color blocks, when used, are positioned outside the trim lines.

b. Paper. City graphics are printed on JCP E-30 paper (Offset Book Map-Lithographic Finish).

c. Printing Colors and Screens.

(1) See MIL-STD-600005 for listings of colors and screens.

(2) A halo mask is prepared from the roads and streets names for use when processing the road and street symbols and the three populated places tints. The width of the halo is 0.20mm.

(3) Route markers are cleared of road and street symbols and complex outlines, vegetation and populated place tints.

d. Finishing. All sheets, when trimmed, are not to exceed 106 cm by 147 cm.

e. Typography. Type and styles are included in MIL-STD-600002 and MIL-STD-600005.

3.24 Feature/Attribute.

3.24.1 General. This section contains feature, feature attributes category, feature attribute category value, inclusion condition and specific rules corresponding to City Graphics production.

3.24.2 Feature/Attribute category, inclusion conditions and product generation rules. The following is an explanation of the header format for Table I and Table II:

FCode (1)	Feature (2)	FT (3)	ACode (4)	Attribute (5)	Inclusion Condition (6)	Rule (7)

(1) F(Feature)Code - 5 digit alpha numeric, Feature Attribute Coding Standard (FACS) Code assigned to each feature (e.g. 1N010 - R/R Tracks). The first two digits identify the category and subcategory to which each feature belongs (e.g., 1 - Culture Category, N = Transportation R/R subcategory).

(2) Feature - Name of feature as specified in the FACS. A feature is a physical (e.g., Bridge) or conceptual (e.g., Route- Nautical) entity of the real world which has one or more set of coordinates to be included on a product.

(3) Feature Type - designation of a feature type.

Area - More than two sets of coordinates defining a closed area; areas may span more than one map sheet or geographic area requirement.

Line - Two or more coordinate sets defining a series of line segments.

Point - One set of coordinates.

If there is more than one Feature Type for the feature, then the ACode and Inclusion conditions are stated separately for each type.

(4) A(Attribute)Code - Three digit alpha or alpha numeric character (acronym) FACS code assigned to each attribute category which identifies the attribute category (e.g., EXS - Existence Category). Attribute categories are defined by mutually exclusive sets of attribute values which are feature dependent. Attribute values relative to product are normally contained in MIL-STD-600002 under column headed "AValue", a few exceptions are contained in the inclusion conditions.

(5) Attribute - Name of attribute category required by the feature as specified in the FACS. Attribute categories are characteristics in menu form relative to a specified feature or features.

(6) Inclusion conditions - Conditions under which the feature/attribute(s) are required by the product (e.g., R/R Yard, 1N080 FAC Code, is included on a particular product only if Length >= 450m). Conditions should be stated in boolean logic.

(7) Rule - 5 digit alpha-numeric code indicating rules (listed in MIL-STD-600003) which specify requirements for feature to satisfy final product format/requirements.

3.25 Insets.

3.25.1 Environs inset. The environs inset is a medium-scale inset, preferably at the scale of 1:250,000, but it may be produced at scales of 1:100,000 to 1:500,000 depending on the extent of the area to be shown and the scale of the source material. This inset is shown only when standard medium-scale mapping of the area is unavailable to the user. The requirement for the inset is specified in supplementary instructions for the project.

(1) The limits of the inset are established so that it covers sufficient area to orient the city graphic with relation to other important towns and features.

(2) Maximum East-West size of inset is 19.0cm.

(3) A black outline of 0.25mm is used to indicate the area of the graphic on the inset.

3.25.2 Large-Scale insets. Large-scale insets are used to show a significant feature which falls outside the area of the graphic. If a standard large-scale map is available which adequately portrays the required feature, the inset is not necessary. The inset is to be the same scale as the graphic. Additional instructions for the preparation of the insets are indicated on Appendix A. The requirement for an inset will be specified in supplementary instructions.

3.25.3 Size. The overall size of the inset will vary for each graphic.

3.25.4 Position. The preferred position for the inset is the interior of the graphic in an area devoid of significant detail. However, if the area of insignificant detail is not adequate, the inset is positioned in the margin.

3.25.5 Detail density. The density requirements for the inset, as specified in the supplemental instructions, are commensurate with the purpose rather than its scale.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. "Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements (examinations and tests) as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in this specification where such inspections are deemed necessary to ensure supplies and services conform to prescribed requirements".

4.1.1 Responsibility for compliance. "All items shall meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operations, is an acceptable practice to ascertain conformance to requirements, however, this does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material".

4.1.2 Final product quality. Final product quality will reflect the quality expressed by each applicable Military Standard.

5. PACKAGING

This section is not applicable to this specification.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory).

6.1 Intended use. City graphics are large-scale graphics of populated places and their environs. City graphics contain environs insets when standard medium-scale mapping of the area is unavailable to the user. The City Graphic is produced to support several intended uses such as, tactical land contour, combat and evacuation operations, attache support, military intelligence, national intelligence, training, civil disturbance, and other operational use.

6.2 Supersession. This specification supersedes Defense Mapping Agency Product Specifications for City Graphics, PS/3CB/301, First Edition, July 1979.

6.3 Definitions.

6.3.1 Mean sea level (MSL) - The average height of the surface of the sea for all stages of the tide, used as a reference for elevations. (Usually determined by averaging height readings observed hourly over a minimum period of 19 years)

6.3.2 World Geodetic System (WGS) - A consistent set of parameters describing the size and shape of the Earth, the positions of a network of points with respect to the center of mass of the Earth, transformations from major geodetic datums, and the potential of the Earth (usually in terms of harmonic coefficients).

6.4 International standardization agreements.

"Certain provisions of this specification are subject to international standardization agreements. When amendment, revision, or cancellation of this specification is proposed that will modify the international agreement concerned, the preparing activity will take appropriate action through international standardization channels, including departmental standardization offices, to change the agreement or make other appropriate accommodations".

6.4.1 International standardization agreements (STANAGs).

This section is not applicable to this specification.

6.4.2 Quadripartite standardization agreements (QSTAGs).

This section is not applicable to this specification.

6.4.3 Air standardization coordinating committee agreements (ASCC AIR STDs/STDs/ADV PUBs).

This section is not applicable to this specification.

6.4.4 International MC&G agreements.

This section is not applicable to this specification.

6.4.5 Executive orders.

This section is not applicable to this specification.

6.4.6 Inter-Agency agreements.

This section is not applicable to this specification.

6.4.7 Other documentation.

This section is not applicable to this specification.

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city Graphics.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: EXTRACTION (1A)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1A010	MINE			
Area	EXS	Existence Category	(PRO 9 or 10 or 15 or 16 or 17 or 19 or 24 or 28 or 29 or 38 or 46) and (MIN 0 or 2 or 3 or 4 or 5 or 6 or 7) and >= 5 mm WID (map scale) and (EXS 6 or 28)	R-2411
	LEN	Length /Diameter		R-2470
	MIN	Mining Category		L-4106
	NAM	Name Category		L-4109
	PRO	Product Category		L-4111
	WID	Width		L-4125
				L-4137
				T-0420
				L-4140
				L-4147
				L-4148
				R-9004
				T-0419
				T-0421
				L-4139
Point	EXS	Existence Category	(PRO 9 or 10 or 15 or 16 or 17 or 19 or 24 or 28 or 29 or 38 or 46) and (MIN 0 or 2 or 3 or 4 or 5 or 6 or 7 or 8) and (EXS 6 or 28) and < 5 mm WID (map scale)	L-4106
	LEN	Length /Diameter		L-4109
	MIN	Mining Category		L-4111
	NAM	Name Category		L-4125
	PRO	Product Category		L-4137
	WID	Width		L-4139
				L-4140
				L-4147
				L-4148
				T-0419
				T-0420
				T-0421

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: EXTRACTION (1A)

Fcode	Feature Acode	Attribute	Inclusion Condition	Rule
1A030	QUARRY			
Area	EXS	Existence Category	>= 5 mm WID (map scale)	L-4109
	LEN	Length /Diameter	and (EXS 6 or 28)	L-4111
	PRO	Product Category		L-4125
	WID	Width		L-4137
				L-4147
				R-9004
				T-0419
				T-0420
				T-0421
				R-2411
Point	EXS	Existence Category	(EXS 6 or 28)	L-4109
	LEN	Length /Diameter	and < 5 mm WID (map scale)	L-4111
	PRO	Product Category		L-4125
	WID	Width		L-4137
				L-4147
				T-0419
				T-0420
				T-0421
1A050	WELL			
Point	EXS	Existence Category	HYC 8	L-4137
	HYC	Hydrographic Category	and EXS 28	L-4139
	NAM	Name Category		L-4140
	PRO	Product Category		L-4147
				L-4149
				T-0414
				T-0420

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: DISPOSAL (1B)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1B000	DISPOSAL SITE /WASTE PILE			
Area	EXS	Existence Category	>= 5 mm WID (map scale)	L-4137
	LEN	Length /Diameter	and (PRO 30, 32, 33, or 59)	R-2411
	PRO	Product Category		R-2470
	WID	Width		R-2482
				T-0420
1B010	WRECKING YARD /SCRAP YARD			
Area	EXS	Existence Category	>= 5 mm WID (map scale)	L-4137
	LEN	Length /Diameter		R-2411
	WID	Width		R-2470
				R-2482
				T-0420

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: PROCESSING INDUSTRY (1C)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1C030	SETTLING BASIN /SLUDGE POND			
	Area	Length /Diameter	>= 5 mm WID (map scale)	L-4137
	LEN	Width		R-2470
	WID			R-9004

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: POWER GENERATION (1D)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1D030	SUBSTATION /TRANSFORMER YARD			
Area	LEN	Length /Diameter	>= .6 mm WID (map scale)	L-4137 R-2411 R-2470 R-2482
	WID	Width		
Point	LEN	Length /Diameter	< .6 mm WID (map scale)	L-4137
	WID	Width		

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: ASSOCIATED INDUSTRIAL STRUCTURES (1F)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1F010	CHIMNEY /SMOKESTACK			
Point	HGT	Height Above Surface Level	>= 10 m HGT	L-4137
1F020	CONVEYOR			
Line	LEN	Length /Diameter	>= .85 mm LEN (map scale)	R-2464
1F030	COOLING TOWER			
Area	LEN	Length /Diameter	> .8 mm LEN	N-0000
Point	LEN	Length /Diameter	<= .8 mm LEN	R-0046
1F040	CRANE			
Point	CRA	Crane Attribute	All required	T-0812

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: INSTITUTIONAL /GOVERNMENTAL (1H)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1H045	FIRING RANGE			
Area	BWD	Base Width	>= 5mm LEN (map scale) and >= 2.5mm BWD (map scale)	N-0000
	LEN	Length /Diameter		
	TWA	Terminal Arc		
1H050	FORT			
Area	LEN	Length /Diameter	LMC 1	R-2403
	LMC	Landmark Category	and >= .8 mm WID (map scale)	R-2408
	WID	Width		R-2419
				R-2462
				R-2470
Point	LEN	Length /Diameter	LMC 1	R-2403
	LMC	Landmark Category	and <= .8 mm WID (map scale)	R-2408
	NAM	Name Category		R-2462
	WID	Width		

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: AGRICULTURAL (1J)

Fcode / Ft	Feature Acode	Attribute	Inclusion Condition	Rule
1J030	FEED LOT /STOCKYARD /HOLDING PEN			
Area	EXS	Existence Category		L-4137
	LEN	Length /Diameter		R-2411
	WID	Width	>= 5 mm WID (map scale)	R-2482
				R-2470
				T-0420

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: RECREATIONAL (1K)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1K030	AMUSEMENT PARK			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	NAM	Name Category		L-4132
	WID	Width		L-4133
				L-4137
				L-4139
				R-2411
				R-2470
				R-2482
				L-4140
1K040	ATHLETIC FIELD			
Area	LEN	Length /Diameter	>= 1.5 mm WID (map scale)	L-4132
	NAM	Name Category		L-4133
	WID	Width		L-4137
				L-4139
				L-4140
				R-2411
				R-2470
				R-2482
				L-4125
1K090	FAIRGROUNDS			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	NAM	Name Category		L-4132
	WID	Width		L-4133
				L-4137
				L-4139
				L-4140
				R-2411
				R-2470
				R-2482

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: RECREATIONAL (1K)

Fcode / FT	Feature Acode	Attribute	Inclusion Condition	Rule
1K100	GOLF COURSE			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125 L-4132 L-4133 L-4137 L-4139 L-4140 R-2411 R-2470 R-2482
	NAM	Name Category		
	WID	Width		
1K110	GRANDSTAND			
Area	LEN	Length /Diameter	>= 5mm WID (map scale)	L-4125 L-4132 L-4133 L-4137 L-4139 L-4140 R-2411 R-2470 R-2482
1K115	OUTDOOR THEATRE /AMPITHEATRE			
Area	NAM	Name Category	>= 5mm WID (map scale)	L-4125 L-4132 L-4133 L-4137 L-4139 L-4140 R-2411 R-2470 R-2482
	WID	Width		

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: RECREATIONAL (1K)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1K120 PARK				
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	NAM	Name Category		L-4132
	WID	Width		L-4133
				L-4137
				L-4139
				L-4140
				R-2411
				R-2470
				R-2482
1K130 RACE TRACK				
Line	LEN	Length /Diameter	>= 5 mm LEN (map scale)	L-4125
	NAM	Name Category	and >= 2.5 mm WID (map scale)	L-4132
	WID	Width		L-4133
				L-4137
				L-4139
				L-4140
				R-2411
				R-2470
				R-2482
1K160 STADIUM				
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	NAM	Name Category		L-4132
	WID	Width		L-4133
				L-4137
				L-4139
				L-4140
				R-2411
				R-2470
				R-2482

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: RECREATIONAL (1K)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1K170	SWIMMING POOL			
Area	LEN	Length /Diameter	>= 1.5 mm WID (map scale)	L-4125 L-4132 L-4133 L-4137 R-2411 R-2470 R-2482
	WID	Width		
1K180	ZOO			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125 L-4132 L-4133 L-4137 L-4139 L-4140 R-2411 R-2470 R-2482
	NAM	Name Category		
	WID	Width		

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: MISCELLANEOUS FEATURES (1L)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1L015	BUILDING			
Area	BFC	Building Function Category	IDN ANY	D-1700
	DBS	Diplomatic Building Structure	and (BFC 1 or 2 or 3 or 4 or 5 or 6 or	D-1701
	EBT	Educational Building Type	8 or 9 or 10 or 11 or 12 or 13 or	D-1702
	HWT	House of Worship Type	14 or 15 or 20 or 22 or 23 or 24 or	L-4100
	IDN	Identification Number	25 or 26 or 27 or 28 or 29 or 30 or	L-4101
	LEN	Length /Diameter	31 or 32 or 33 or 51 or 52 or 53 or	L-4102
	LMC	Landmark Category	54 or 55 or 56 or 57 or 58 or 59 or	L-4103
	NAM	Name Category	60 or 61)	L-4104
	REL	Religious Denomination	and > .8 mm WID (map scale)	L-4109
	WID	Width	OR BFC 7	L-4110
			and (HWT 2 or 3 or 4 or 6 or 9 or 11 or	L-4111
			16 or 20)	L-4137
			and > .8 mm WID (map scale)	L-4139
			and IDN ANY	L-4125
			OR (BFC 1 or 2 or 3 or 4 or 5 or 6 or	R-2402
			8 or 9 or 10 or 11 or 12 or 13 or	R-2403
			14 or 15 or 20 or 22 or 23 or 24 or	R-2405
			25 or 26 or 27 or 28 or 29 or 30 or	R-2406
			31 or 32 or 33 or 51 or 52 or 53 or	R-2407
			54 or 55 or 56 or 57 or 58 or 59 or	R-2408
			60 or 61)	R-2409
			and > .8 mm WID (map scale)	R-2419
			and LMC 1	R-2457
			and NAM ANY	R-2458
			OR BFC 7	R-2487
			and (HWT 2 or 3 or 4 or 6 or 9 or 11 or	L-4140
			16 or 20)	T-0400
			and > .8 mm WID (map scale)	T-0401
			and NAM ANY	T-0415
				L-4135
				L-4128
				R-2404

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: MISCELLANEOUS FEATURES (1L)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1L015	BUILDING	(Continued)		
Point	BFC	Building Function Category	IDN ANY	L-4102
	DBS	Diplomatic Building Structure	and (BFC 1 or 2 or 3 or 4 or 5 or 6 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 51 or 52 or 53 or 54 or 55 or 56 or 57 or 58 or 59 or 60 or 61)	L-4103
	EBT	Educational Building Type		L-4104
	EXS	Existence Category		L-4109
	HGT	Height Above Surface Level		L-4110
	HWT	House of Worship Type		L-4111
	IDN	Identification Number		L-4125
	LEN	Length /Diameter		L-4128
	LMC	Landmark Category	and <= .8 mm WID (map scale)	L-4132
	NAM	Name Category	OR BFC 7	L-4137
	REL	Religious Denomination	and (HWT 2 or 3 or 4 or 6 or 9 or 11 or 16 or 20)	L-4139
	WID	Width	and <= .8 mm WID (map scale)	R-2402
			and IDN ANY	R-2403
			OR (BFC 1 or 2 or 3 or 4 or 5 or 6 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 20 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 51 or 52 or 53 or 54 or 55 or 56 or 57 or 58 or 59 or 60 or 61)	R-2404
			and <= .8 mm WID (map scale)	R-2405
			and LMC 1	R-2408
			and NAM ANY	R-2419
			OR BFC 7	R-2457
			and (HWT 2 or 3 or 4 or 6 or 9 or 11 or 16 or 20)	R-2409
			and <= .8 mm WID (map scale)	T-0400
			and NAM ANY	T-0401
				R-2458
				R-2487
				D-1700
				L-4135

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: MISCELLANEOUS FEATURES (1L)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1L020	BUILT-UP AREA			
Area	EXS	Existence Category		L-4118
	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	NAM	Name Category		L-4129
	WID	Width		R-2400
				R-2401
				R-2459
				R-2468
				R-2470
				R-2473
				R-2482
				R-9002
				R-9003
				T-0418
				R-9006
				T-0405
1L030	CEMETERY			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4109
	NAM	Name Category	and (REL 1 or 2 or 4 or 3 or 0)	L-4125
	REL	Religious Denomination		L-4137
	WID	Width		L-4139
				L-4140
				R-2411
				R-2470
				R-2482
				R-9004
				T-0418

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: MISCELLANEOUS FEATURES (1L)

Fcode / Ft	Feature Acode	Attribute	Inclusion Condition	Rule
1L045	COMPLEX OUTLINE			
Area	AFT	Aircraft Facility Type	IDN ANY	L-4104
	BFC	Building Function Category	and (AFT 0 or 1)	L-4117
	EXS	Existence Category	and BFC ANY	L-4126
	IDN	Identification Number	and (EXS 6 or 28)	L-4127
	MSA	Missile Site Attribute	OR BFC ANY	R-2406
	MST	Missile Site Type	and EXS 28	R-2407
	PPC	Power Plant Category	and IDN ANY	R-2412
	PRO	Product Category	OR MST ANY	R-2421
			and BFC ANY	R-2457
			and (EXS 6 or 28)	R-2487
			and IDN ANY	T-0418
			and (MSA 1 or 2)	
			OR PPC ANY	
			and IDN ANY	
			and BFC ANY	
			and EXS 28	
			OR BFC ANY	
			and PRO ANY	
			and IDN ANY	
			and EXS 28	
1L070	FENCE			
Line	LEN	Length /Diameter	>= 25 mm LEN (map scale)	R-2463
	LMC	Landmark Category	and LMC 1	
1L120	MISSILE SITE			
Point	IDN	Identification Number		N-0000
	LEN	Length /Diameter	< 5 mm WID (map scale)	
	MSA	Missile Site Attribute	and < 5 mm LEN (map scale)	
	NAM	Name Category	and MSA 3	
	WID	Width		

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: MISCELLANEOUS FEATURES (1L)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1L130 MONUMENT				
Point	NAM	Name Category	All required	L-4109
	SSC	Structure Shape Category		L-4111
				L-4137
				L-4139
				L-4140
1L135 NATIVE SETTLEMENT				
Area	CFD	Cultural Feature Density	>= 5 mm WID (map scale)	L-4118
	LEN	Length /Diameter		L-4125
	NAM	Name Category		L-4129
	NAS	Native Settlement Type		R-2400
	WID	Width		R-2401
				R-2459
				R-2468
				R-2470
				R-2473
				R-2482
				R-9002
				R-9003
				T-0418
1L160 PIPELINE /PIPE				
Line	LEN	Length /Diameter	(LOC 1 or 3 or 4)	L-4137
	LOC	Location /Origin Category	and (PRO 6 or 12 or 13 or 18 or 27 or 0)	L-4147
	PRO	Product Category		R-2410
			and >= 25 mm LEN (map scale)	R-2460
				T-0409
1L170 PLAZA /CITY SQUARE				
Area	NAM	Name Category	WID > Associated Feature (1P030)	L-4109
	WID	Width		L-4125
				L-4137
				R-2470
				R-9006

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: MISCELLANEOUS FEATURES (1L)

Fcode	Feature Acode	Attribute	Inclusion Condition	Rule
1L180	PUMPING STATION			
Area	IDN	Identification Number		L-4109
	LEN	Length /Diameter	>= .8 mm WID (map scale)	L-4110
	WID	Width		L-4125
				L-4137
				R-2408
				R-2411
				R-2419
				R-2482
Point	IDN	Identification Number		L-4109
	LEN	Length /Diameter	< .8 mm WID (map scale)	L-4110
	WID	Width		L-4125
				L-4137
				R-2408
				R-2419
1L200	RUINS			
Area	LEN	Length /Diameter		L-4132
	LOC	Location /Origin Category	>= .8 mm WID (map scale) and LOC 03	L-4137
	NAM	Name Category		L-4143
	WID	Width		R-2470

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: MISCELLANEOUS FEATURES (1L)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1L208	SHANTYTOWN			
Area	CFD	Cultural Feature Density	>= 5 mm WID (map scale)	L-4118
	LEN	Length /Diameter		L-4125
	WID	Width		L-4129
				R-2400
				R-2401
				R-2459
				R-2468
				R-2470
				R-2473
				R-2482
				R-9002
				R-9003
				T-0418
1L240	TOWER (NON- COMMUNICATION)			
Point	TTC	Tower Type Category	All required	L-4109
				L-4111
				L-4137
1L260	WALL			
Line	LEN	Length /Diameter	>= 25 mm LEN (map scale)	R-2462
	LMC	Landmark Category	and LMC 1	R-2463

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: STORAGE (1M)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1M010	DEPOT (STORAGE)			
Area	LEN	Length /Diameter	>= 1.0 mm WID (map scale)	L-4125
	LOC	Location /Origin Category		L-4137
	WID	Width		R-2403
				R-2408
				R-2411
				R-2419
				R-2482
1M020	GRAIN BIN			
Area	LEN	Length /Diameter	> .8 mm WID (map scale)	L-4109
	LMC	Landmark Category		L-4110
	WID	Width		L-4125
				L-4137
				R-2408
				R-2458
				T-0401
Point	LEN	Length /Diameter	<= .8 mm WID (map scale)	L-4109
	LMC	Landmark Category		L-4110
	WID	Width		L-4125
				L-4137
				R-2408
				R-2458
				T-0401
1M030	GRAIN ELEVATOR			
Area	LEN	Length /Diameter	> .8 mm WID (map scale)	L-4109
	LMC	Landmark Category		L-4110
	WID	Width		L-4125
				L-4137
				R-2408
				R-2419
				R-2458
				T-0401

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: STORAGE (1M)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1M040	MINERAL PILE			
Area	LEN	Length /Diameter	>= .5 mm WID (map scale)	R-2470
	PRO	Product Category		R-2482
	WID	Width		R-2411
1M060	STORAGE BUNKER /STORAGE MOUND			
Point	PRO	Product Category	(PRO 0 or 2 or 11 or 13)	L-4109
				L-4110
				L-4125
				L-4137
				R-2408
1M070	TANK			
Area	HGT	Height Above Surface Level	(PRO 6 or 12 or 13 or 18 or 27)	L-4147
	LEN	Length /Diameter	and > .8 mm LEN (map scale)	
	PRO	Product Category		
Point	HGT	Height Above Surface Level	(PRO 6 or 12 or 13 or 18 or 27)	L-4147
	LEN	Length /Diameter	and <= .8 mm LEN (map scale)	
	PRO	Product Category		
1M080	WATER TOWER			
Point	LEN	Length /Diameter	>= .8 mm LEN (map scale)	L-4111
	PRO	Product Category	and PRO 027	L-4137

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: TRANSPORTATION R/R (1N)

Fcode / FT	Feature Acode	Attribute	Inclusion Condition	Rule
1N010	RAILROAD TRACK			
Line	EXS	Existence Category	(EXS 6 or 28 or 5 or 7)	D-1702
	GAW	Gauge Width	and (RRC 0 or 2 or 3 or 8)	L-4105
	LOC	Location /Origin Category	and (RPS 1 or 3 or 4)	L-4109
	LTN	Lane /Track Number		L-4124
	NAM	Name Category		L-4125
	RGC	Railroad Gauge Category		L-4137
	RPS	Railroad Power Source		L-4139
	RRC	Railroad /Road Categories		L-4140
				L-4128
				T-0417
1N050	RR SIDING /RR SPUR			
Line	LEN	Length /Diameter	>= 2.5 mm LEN (map scale)	D-1702
	RGC	Railroad Gauge Category		R-9006
	RPS	Railroad Power Source		
	RSA	Rail Siding /Spur Attribute		
1N080	RR YARD			
Area	EXS	Existence Category	EXS 28	D-1702
				R-9006

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: TRANSPORTATION /ROADS (1P)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1P010	CART TRACK			
Line	WTC	Route Weatherability Category	WTC 2	T-0402
1P020	INTERCHANGE			
Line	EXS	Existence Category	(EXS 5 or 28)	N-0000
	LOC	Location /Origin Category	and (USE 26 or 72)	
	LTN	Lane /Track Number	and (TUC 6 or 7)	
	RST	Road /Runway Surface Type		
	TUC	Transportation Use Category		
	USE	Use Status		
	WTW	Width of Travelled Way		
1P030	ROAD			
Line	EXS	Existence Category	(TUC 6 or 7)	L-4112
	LTN	Lane /Track Number	and (USE 26 or 72)	L-4113
	MED	Median Category		L-4114
	NAM	Name Category		L-4115
	RST	Road /Runway Surface Type		L-4116
	TUC	Transportation Use Category		L-4118
	USE	Use Status		L-4119
	WTC	Route Weatherability Category		L-4120
	WTW	Width of Travelled Way		L-4121
				L-4122
				L-4123
				L-4142
				L-4143
				L-4144
				R-2411
				R-2480
				R-2481
				L-4146
				T-0416
				D-1700
				D-1702
				L-4109
				L-4136

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: TRANSPORTATION /ROADS (1P)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1P030	ROAD	(Continued)		
	Line			L-4139
				L-4140
				R-2414
				R-9002
1P050	TRAIL			
	Line	WTC	WTC 2	T-0402
		Route Weatherability Category		

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: ASSOCIATED TRANSPORTATION (1Q)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1Q010	AERIAL CABLEWAY LINE /SKI LIFT LINE			
Line	LEN	Length /Diameter	>= 2.5 mm LEN (map scale)	L-4125
	USE	Use Status	and USE 10	L-4137
				R-2464
1Q040	BRIDGE /OVERPASS /VIADUCT			
Area	BDC	Bridge Design Category	(TUC 1 or 3 or 4)	L-4107
	BOT	Bridge Opening Type	and >= 3.4 mm WTW (map scale)	L-4125
	LC1	Load Class Type 1		L-4137
	LC2	Load Class Type 2		
	LC3	Load Class Type 3		
	LC4	Load Class Type 4		
	LEN	Length /Diameter		
	MCC	Material Composition Characteristics		
	MCP	Material Composition Primary		
	NAM	Name Category		
	OHC	Overhead Clearance Category		
	SHC	Safe Horizontal Clearance		
	SOC	Safe Overhead Clearance		
	TUC	Transportation Use Category		
	WTW	Width of Travelled Way		
Line	BOT	Bridge Opening Type	(TUC 1 or 3 or 4)	L-4107
	MCP	Material Composition Primary	and < 3.4 mm WTW (map scale)	L-4125
	TUC	Transportation Use Category		L-4137
	WTW	Width of Travelled Way		
1Q060	CONTROL TOWER			
Point	TUC	Transportation Use Category	(TUC 3 or 12 or 13)	L-4104
				L-4110
				L-4125

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: ASSOCIATED TRANSPORTATION (1Q)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1Q070	FERRY CROSSING			
Line	FER	Ferry Type	(TUC 1 or 3 or 4)	L-4125
	NAM	Name Category		
	TUC	Transportation Use Category		
1Q116	ROUTE MARKER			
Point	NAM	Name Category	All required	R-2413
	USE	Use Status		R-2414
1Q132	TUNNEL ENTRANCE - EXIT			
Point	NAM	Name Category	(TUC 3 or 4)	L-4125
	OHC	Overhead Clearance Category		L-4137
	TUC	Transportation Use Category		L-4139
	WID	Width		T-0408

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: COMMUNICATION /TRANSMISSION (1T)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1T030	POWER TRANSMISSION LINE			
Line	KVA	Kilovolt Attribute	All required	L-4108
	NPL	Number of Parallel Lines		T-0403
				L-4125
				T-0405
				T-0406
				R-2410
				R-2486
1T050	STATION (COMMUNICATION)			
Area	IDN	Identification Number	> .8 mm WID (map scale)	R-2407
	LEN	Length /Diameter		R-2406
	NST	Radio Navigation /Communication		R-2408
	WID	Width		R-2419
				L-4102
				L-4127
				L-4117
				L-4135
Point	IDN	Identification Number	<= .8 mm WID (map scale)	R-2407
	LEN	Length /Diameter		R-2406
	NST	Radio Navigation /Communication		R-2408
	WID	Width		L-4102
				L-4127
				L-4117
1T080	TOWER (COMMUNICATION)			
Point	NST	Radio Navigation /Communication	(NST 12 or 13 or 15 or 16 or 33)	L-4125
				L-4137

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: AIRPORTS (1U)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1U025	AIRCRAFT LANDING PAD			
Point	AFT	Aircraft Facility Type	(EXS 6 or 28) and AFT 2	L-4125
	EXS	Existence Category		L-4137
	NAM	Name Category		L-4139
1U060	APRON /HARDSTAND			
Area	EXS	Existence Category	(EXS 6 or 28)	N-0000
1U160	RUNWAY			
Area	EXS	Existence Category	(EXS 6 or 28)	N-0000
1U200	TAXIWAY			
Area	EXS	Existence Category	(EXS 6 or 28)	N-0000

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : HYDROGRAPHY (2)
SUBCATEGORY: COASTAL HYDRO (2A)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
2A010	COASTAL SHORELINE			
Line	ACC	Accuracy Category	(SLT 6 or 8 or 10 or 11 or 13 or 14) and VDC 7	T-0411
	SLT	Shoreline Type Category		
	VDC	Vertical Datum Category		
2A040	OPEN WATER (EXCEPT INLAND)			
Area	WID	Width	>= .5 mm WID (map scale)	R-2316

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : HYDROGRAPHY (2)
SUBCATEGORY: PORTS AND HARBORS (2B)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
2B040	BREAKWATER			
Area	VRC	Vertical Reference Category		N-0000
	WID	Width	> 1.5 mm WID (map scale) and VRC 1	
Line	VRC	Vertical Reference Category		N-0000
	WID	Width	VRC 1 and <= 1.5 mm WID (map scale)	
2B090	DRY DOCK			
Area	LOC	Location /Origin Category	LOC 7	N-0000
2B140	JETTY			
Area	VRC	Vertical Reference Category	VRC 1	N-0000
2B190	PIER, WHARF			
Area	WID	Width	>= 1.5 mm WID (map scale)	N-0000
Line	WID	Width	< 1.5 mm WID (map scale)	N-0000
2B230	SEAWALL			
Line	WID	Width	All required	R-9010
2B240	SLIPWAY			
Line	VRC	Vertical Reference Category	VRC 1	N-0000

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : HYDROGRAPHY (2)
SUBCATEGORY: TIDE AND CURRENT INFORMATION (2G)

Fcode	Feature Acode	Attribute	Inclusion Condition	Rule
FT				
2G010	CURRENT ARROW /FLOW ARROW			
	Point CUR	Current Type Category	CUR 4	R-2418 R-2467

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : HYDROGRAPHY (2)
SUBCATEGORY: INLAND WATER (2H)

Fcode / FT	Feature Acode	Attribute	Inclusion Condition	Rule
2H010	AQUEDUCT			
Line	ATC	Aqueduct Type Category	LOC 3	L-4109
	EXS	Existence Category	and (EXS 6 or 28)	L-4125
	LOC	Location /Origin Category	and >= .5 mm WID (map scale)	L-4132
	NAM	Name Category		L-4137
	WID	Width		R-2410
				R-2418
				R-2467
				R-9006
Point	EXS	Existence Category	(EXS 6 or 28)	L-4109
	LOC	Location /Origin Category	and LOC 3	L-4125
	NAM	Name Category	and < .5 mm WID	L-4132
	TRA	Traversability Attribute		L-4137
	WID	Width		L-4139
				L-4140
				R-2410
2H020	CANAL			
Area	EXS	Existence Category	(EXS 6 or 32)	L-4109
	HYC	Hydrographic Category	and >= .5 mm WID (map scale)	L-4125
	NAM	Name Category		L-4132
	WID	Width		L-4137
				L-4139
				L-4140
				R-2410
				R-2418
				R-2467
Line	EXS	Existence Category	(EXS 6 or 32)	L-4109
	HYC	Hydrographic Category	and < .5 mm WID (map scale)	L-4125
	NAM	Name Category		L-4132
	WID	Width		L-4137
				L-4139
				L-4140
				R-2410
				R-2418
				R-2467

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : HYDROGRAPHY (2)
SUBCATEGORY: INLAND WATER (2H)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
2H030	DITCH			
Area	HYC	Hydrographic Category	>= 2.5 mm LEN (map scale)	L-4125
	LEN	Length /Diameter	and >= .5 mm WID (map scale) and HYC 8	R-2410
	WID	Width	and HYC 8	
Line	HYC	Hydrographic Category	>= 2.5 mm LEN (map scale)	L-4125
	LEN	Length /Diameter	and < .5 mm WID (map scale) and HYC 8	R-2410
	WID	Width	and HYC 8	
2H040	FILTRATION /AERATION BEDS			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	WID	Width		L-4132
				L-4137
				R-2470
2H050	FISH HATCHERY			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	WID	Width		L-4132
				L-4137
				R-2470
2H060	FLUME			
Line	LEN	Length /Diameter	>= 2.5 mm LEN (map scale)	L-4125
	LOC	Location /Origin Category		R-2410
2H070	FORD			
Line	LEN	Length /Diameter	Feature used only in connection with 1P030	L-4125

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : HYDROGRAPHY (2)
SUBCATEGORY: INLAND WATER (2H)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
2H075	INLAND SHORELINE			
Line	ACC	Accuracy Category	ACC 1 and (SLT 10, 11, 13, 14, or 15) OR ACC 2 and (SLT 6, or 8)	T-0411
	SLT	Shoreline Type Category		
2H080	LAKE /POND			
Area	HYC	Hydrographic Category	>= 1.0 mm WID (map scale) and (HYC 3 or 6 or 8)	L-4125 R-2470
	LEN	Length /Diameter		
	NAM	Name Category		
	WID	Width		
	WSC	Water Salinity Category		
	ZVL	Z Value		
2H090	LAND SUBJECT TO INUNDATION			
Area	HOC	Hydrographic Origin Category	>= 5 mm WID (map scale)	L-4125 R-2470
	LEN	Length /Diameter		
	WID	Width		
2H110	PENSTOCK			
Line	LEN	Length /Diameter	>= 1.5 mm LEN (map scale)	L-4137 T-0409 R-2461 R-2460 L-4125
	LOC	Location /Origin Category		
2H130	RESERVOIR			
Area	EXS	Existence Category	>= 5 mm WID (map scale)	L-4125 R-2470
	LEN	Length /Diameter		
	NAM	Name Category		
	WID	Width		
	ZVL	Z Value		

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : HYDROGRAPHY (2)
SUBCATEGORY: INLAND WATER (2H)

Fcode / FT	Feature Acode	Attribute	Inclusion Condition	Rule
2H140	RIVER /STREAM			
Area	HYC	Hydrographic Category	(HYC 3 or 6 or 8)	R-2418
	NAM	Name Category	and > .5 mm WID (map scale)	R-2467
	WID	Width		
Line	HYC	Hydrographic Category	(HYC 3 or 6 or 8)	T-0412
	NAM	Name Category	and <= .5 mm WID (map scale)	R-2418
	WID	Width		R-2467
2H150	SALT EVAPORATOR			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	WID	Width		R-2470
2H160	SABKHA			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	R-2470
	WID	Width		L-4125
2H170	SPRING /WATER-HOLE			
Point	HYC	Hydrographic Category	(HYC 6 or 8)	T-0414
	SCC	Spring /Well Characteristic Category		L-4125

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : HYDROGRAPHY (2)
SUBCATEGORY: MISCELLANEOUS INLAND WATER (2I)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
2I010	CISTERN			
Point	LMC	Landmark Category	LMC 1	N-0000
2I020	DAM			
Area	EXS	Existence Category	(EXS 5 or 28)	N-0000
	MCP	Material Composition Primary	and (MCP 18 or 48)	
	NAM	Name Category	and >= 1.5 mm WID (map scale)	
	WID	Width		
Line	EXS	Existence Category	(EXS 5 or 28)	N-0000
	MCP	Material Composition Primary	and (MCP 18 or 48)	
	NAM	Name Category	and < 1.5 mm WID (map scale)	
	TUC	Transportation Use Category		
	WID	Width		
2I030	LOCK			
Area	EXS	Existence Category	(EXS 5 or 28)	N-0000
	NAM	Name Category		
2I050	WATER INTAKE TOWER			
Point	LMC	Landmark Category	LMC 1	N-0000

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : HYPSOGRAPHY (3)
SUBCATEGORY: RELIEF PORTRAYAL (3A)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
3A010	CONTOUR (LAND)			
Line	HQC	Hypsography Portrayal Category	(HQC 2, 8, or 9)	R-2415
	MCP	Material Composition Primary	and MCP 23	R-2416
	ZVL	Z Value	OR (HQC 5 OR 6)	R-2417
			and (MCP 23 OR 98)	
3A030	SPOT ELEVATION			
Point	ACC	Accuracy Category	ACC 1	R-2415
	ELA	Elevation Accuracy	and MCP 23	R-2416
	MCP	Material Composition Primary	OR ACC 2	R-2417
	ZVL	Z Value	and ELA 2	
			and MCP 2	

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : PHYSIOGRAPHY (4)
SUBCATEGORY: EXPOSED SURFACE MATERIAL (4A)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
4A010	GROUND SURFACE			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	R-2410
	MCP	Material Composition Primary		R-2470
	WID	Width		
4A020	SALT PAN			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4109
	WID	Width		L-4125
				L-4137
				R-2410
				R-2470

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : PHYSIOGRAPHY (4)
SUBCATEGORY: LANDFORMS (4B)

Fcode / FT	Feature Acode	Attribute	Inclusion Condition	Rule
4B010	BLUFF /CLIFF, ESCARPMENT			
Line	LEN	Length /Diameter	>= 1.5 mm LEN (map scale)	N-0000
4B071	CUT LINE			
Line	LEN	Length /Diameter	>= 1.5 mm LEN (map scale)	T-0410
4B090	EMBANKMENT			
Area	EFI	Embankment /Fill Identifier	EFI 3	T-0410
	NAM	Name Category		
Line	EFI	Embankment /Fill Identifier	>= 1.5 mm LEN (map scale)	T-0410
	LEN	Length /Diameter	and (EFI 1 or 2 or 4)	
	NAM	Name Category		
	VRC	Vertical Reference Category		
4B110	FAULT			
Line			No Attribute Required	N-0000
4B135	ISLAND			
Area			All Required	N-0000
4B155	RAVINE/GORGE/CANYON			
Area			All reqired	N-0000
4B170	SAND DUNES /SAND HILLS			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	R-2470
	SSC	Structure Shape Category	and SSC 026	R-2410
	WID	Width		L-4125
				L-4137

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : VEGETATION (5)
SUBCATEGORY: CROPLAND (5A)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
5A010	CROPLAND (CULTIVATED)			
Area	FTC	Farming Type Category	>= 5 mm WID (map scale)	L-4125
	LEN	Length /Diameter	and VEG 004	L-4137
	VEG	Vegetation Characteristics	OR FTC 003	R-2470
	WID	Width	and >= 5mm WID (map scale)	
5A030	NURSERY			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	WID	Width		L-4137
				R-2470
5A040	ORCHARD /PLANTATION			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	PRO	Product Category		L-4137
	WID	Width		R-2470
5A050	VINEYARD /HOPS			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	WID	Width		L-4137
				R-2470

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : VEGETATION (5)
SUBCATEGORY: WOODLAND (5C)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
5C010	BAMBOO CANE			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	WID	Width		L-4137
				R-2470
5C030	TREES			
Area	COC	Conspicuous Object Category	>= .4 mm WID (map scale)	R-2485
	DMT	Density Measure (% Tree /Canopy Cover)	and >= 5 mm LEN (map scale) and MLC 001 and VEG 19	R-2470 R-9010
	LEN	Length /Diameter		L-4125
	LMC	Landmark Category		L-4137
	VEG	Vegetation Characteristics		
	WID	Width		

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : VEGETATION (5)
SUBCATEGORY: WETLANDS (5D)

Fcode / FT	Feature Acode	Attribute	Inclusion Condition	Rule
5D030	SWAMP			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	TID	Tidal /Non-Tidal Category		L-4137
	WID	Width		R-2470
				T-0411
5D040	MARSH			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	TID	Tidal /Non-Tidal Category		L-4137
	WID	Width		R-2470
				T-0411

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : DEMARCATION (6)
SUBCATEGORY: BOUNDARIES /LIMITS /ZONES (TOPOGRAPHIC) (6A)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
6A000	ADMINISTRATIVE BOUNDARY			
Line	NM3	Name 3	(USE 16 or 23 or 26)	L-4131
	NM4	Name 4		L-4138
	USE	Use Status		L-4139
				L-4134
				L-4705

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : GENERAL (9)
SUBCATEGORY: CONTROL POINTS (9B)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
9B035	CONTROL POINT			
	Point	CPA	(CPA 01 or 02)	R-2415
		ZVL		R-2416
		Control Point Attribute Z Value		R-2417

TABLE I. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics - Continued.

PRODUCT : CG
CATEGORY : GENERAL (9)
SUBCATEGORY: MISCELLANEOUS (9D)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
9D015	POINT OF CHANGE			
Point	PCI	Point of Change Identifier	All required	L-4144
		* * * END OF REPORT * * *		

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs.

PRODUCT : CG ENVIRONS INSET
CATEGORY : CULTURE (1)
SUBCATEGORY: EXTRACTION (1A)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1A010	MINE			
Area	EXS	Existence Category	(PRO 9 or 10 or 15 or 16 or 17 or 19 or 24 or 28 or 29 or 38 or 46)	R-2411
	LEN	Length /Diameter		R-2470
	MIN	Mining Category	and (MIN 0 or 2 or 3 or 4 or 5 or 6 or 7)	L-4106
	NAM	Name Category		L-4109
	PRO	Product Category	and >= 5 mm WID (map scale)	L-4111
	WID	Width	and (EXS 6 or 28)	L-4125
				L-4137
				T-0420
				L-4140
				L-4147
				L-4148
				R-9004
				T-0419
				T-0421
				L-4139
Point	EXS	Existence Category	(PRO 9 or 10 or 15 or 16 or 17 or 19 or 24 or 28 or 29 or 38 or 46)	L-4106
	LEN	Length /Diameter		L-4109
	MIN	Mining Category	and (MIN 0 or 2 or 3 or 4 or 5 or 6 or 7 or 8)	L-4111
	NAM	Name Category		L-4125
	PRO	Product Category	and (EXS 6 or 28)	L-4137
	WID	Width	and < 5 mm WID (map scale)	L-4139
				L-4140
				L-4147
				L-4148
				T-0419
				T-0420
				T-0421

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : CULTURE (1)
SUBCATEGORY: EXTRACTION (1A)

Fcode	Feature Acode	Attribute	Inclusion Condition	Rule
1A030 QUARRY				
Area	EXS	Existence Category	(EXS 6 or 28)	L-4109
	LEN	Length /Diameter	and > 5 mm WID (map scale)	L-4111
	PRO	Product Category		L-4125
	WID	Width		L-4137
				L-4147
				R-9004
				T-0419
				T-0420
				T-0421
				R-2411
Point	EXS	Existence Category	(EXS 6 or 28)	L-4109
	LEN	Length /Diameter	and <= 5 mm WID (map scale)	L-4111
	PRO	Product Category		L-4125
	WID	Width		L-4137
				L-4147
				R-9004
				T-0419
				T-0420
				T-0421
1A040 RIG /SUPERSTRUCTURE				
Point	EXS	Existence Category	LMC 1	L-4111
	LMC	Landmark Category		L-4125
				L-4137
				T-0420
1A050 WELL				
Point	EXS	Existence Category	(EXS 6 or 28)	T-0414
	HYC	Hydrographic Category	and (HYC 2 or 3 or 6 or 8)	L-4137
	NAM	Name Category		L-4139
	PRO	Product Category		L-4140
				L-4147
				T-0420

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : CULTURE (1)
SUBCATEGORY: DISPOSAL (1B)

Fcode / FT	Feature Acode	Attribute	Inclusion Condition	Rule
1B000	DISPOSAL SITE /WASTE PILE			
Area	EXS	Existence Category		L-4137
	LEN	Length /Diameter	>= 5 mm WID (map scale)	R-2411
	PRO	Product Category	and (PRO 30, 32, 33, or 59)	R-2470
	WID	Width		R-2482
				T-0420
1B010	WRECKING YARD /SCRAP YARD			
Area	EXS	Existence Category		L-4137
	LEN	Length /Diameter	>= 5 mm WID (map scale)	R-2411
	WID	Width		R-2470
				R-2482
				T-0420

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : CULTURE (1)
SUBCATEGORY: PROCESSING INDUSTRY (1C)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1C030	SETTLING BASIN /SLUDGE POND			L-4137 R-2470 R-9004
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	
	WID	Width		

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : CULTURE (1)
SUBCATEGORY: POWER GENERATION (1D)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1D030	SUBSTATION /TRANSFORMER YARD			
Area	LEN	Length /Diameter	> .6 mm WID (map scale)	L-4137
	WID	Width		R-2411
				R-2470
				R-2482
Point	LEN	Length /Diameter	<= .6 mm WID (map scale)	L-4137
	WID	Width		

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : CULTURE (1)
SUBCATEGORY: ASSOCIATED INDUSTRIAL STRUCTURES (1F)

Fcode	Feature Acode	Attribute	Inclusion Condition	Rule
1F010	CHIMNEY /SMOKESTACK			
Point	HGT	Height Above Surface Level	>= 10 m HGT	L-4137
1F020	CONVEYOR			
Line	LEN	Length /Diameter	>= .85 mm LEN (map scale)	R-2464
1F030	COOLING TOWER			
Area	LEN	Length /Diameter	> .8 mm LEN	N-0000
Point	LEN	Length /Diameter	<= .8 mm LEN	R-0046
1F040	CRANE			
Point	CRA	Crane Attribute	All required	T-0812

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : CULTURE (1)
SUBCATEGORY: INSTITUTIONAL /GOVERNMENTAL (1H)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1H050	FORT			
Area	LEN	Length /Diameter		R-2403
	LMC	Landmark Category	LMC 1	R-2408
	NAM	Name Category	and > .8 mm WID (map scale)	R-2419
	WID	Width		R-2462
				R-2470
Point	LEN	Length /Diameter		R-2403
	LMC	Landmark Category	LMC 1	R-2408
	NAM	Name Category	and <= .8 mm WID (map scale)	R-2462
	WID	Width		

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : CULTURE (1)
SUBCATEGORY: AGRICULTURAL (1J)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1J030	FEED LOT /STOCKYARD /HOLDING PEN			
Area	EXS	Existence Category		L-4137
	LEN	Length /Diameter	>= 5 mm WID (map scale)	R-2411
	WID	Width		R-2482
				R-2470
				T-0420
1J050	WINDMILL /WINDMOTOR			
Point	LMC	Landmark Category	LMC 1	N-0000

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : CULTURE (1)
SUBCATEGORY: RECREATIONAL (1K)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1K030	AMUSEMENT PARK			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	NAM	Name Category		L-4132
	WID	Width		L-4133
				L-4137
				L-4139
				R-2411
				R-2470
				R-2482
				L-4140
1K040	ATHLETIC FIELD			
Area	LEN	Length /Diameter	>= 1.5 mm WID (map scale)	L-4132
	NAM	Name Category		L-4133
	WID	Width		L-4137
				L-4139
				L-4140
				R-2411
				R-2470
				R-2482
				L-4125
1K090	FAIRGROUNDS			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4132
	NAM	Name Category		L-4133
	WID	Width		L-4137
				L-4139
				L-4140
				R-2411
				R-2470
				R-2482
				L-4125

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : CULTURE (1)
SUBCATEGORY: RECREATIONAL (1K)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1K100	GOLF COURSE			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4132 L-4133 L-4137 L-4139 L-4140 R-2411 R-2470 R-2482 L-4125
	NAM	Name Category		
	WID	Width		
1K110	GRANDSTAND			
Area			No Attribute Required	L-4132 L-4133 L-4137 L-4139 L-4140 R-2411 R-2470 R-2482 L-4125
1K115	OUTDOOR THEATRE /AMPITHEATRE			
Area	NAM	Name Category	No Attributes Required	L-4132 L-4133 L-4137 L-4139 L-4140 R-2411 R-2470 R-2482 L-4125

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : CULTURE (1)
SUBCATEGORY: RECREATIONAL (1K)

Fcode	Feature				
FT	Acode	Attribute	Inclusion Condition	Rule
1K120	PARK			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	NAM	Name Category		L-4132
	WID	Width		L-4133
				L-4137
				L-4139
				L-4140
				R-2411
				R-2470
				R-2482
1K130	RACE TRACK			
Line	LEN	Length /Diameter	>= 5 mm LEN (map scale)	L-4125
	NAM	Name Category	and >= 2.5 mm WID (map scale)	L-4132
	WID	Width		L-4133
				L-4137
				L-4139
				L-4140
				R-2411
				R-2482
1K150	SKI JUMP			
Point	LMC	Landmark Category	LMC 1	L-4125
				R-2403
				R-2408
1K160	STADIUM			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	NAM	Name Category		L-4132
	WID	Width		L-4133
				L-4137
				L-4139
				L-4140
				R-2411
				R-2470
				R-2482

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : CULTURE (1)
SUBCATEGORY: RECREATIONAL (1K)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1K170	SWIMMING POOL			
Area	LEN	Length /Diameter	>= 1.5 mm WID (map scale)	L-4125
	WID	Width		L-4132
				L-4133
				L-4137
				R-2411
				R-2470
				R-2482
1K180	ZOO			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	NAM	Name Category		L-4132
	WID	Width		L-4133
				L-4137
				L-4139
				L-4140
				R-2411
				R-2470
				R-2482

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : CULTURE (1)
SUBCATEGORY: MISCELLANEOUS FEATURES (1L)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1L015	BUILDING			
Area	BFC	Building Function Category	IDN ANY	T-0400
	DBS	Diplomatic Building Structure	and (BFC 1 or 2 or 3 or 4 or 5 or 6 or	T-0401
	EBT	Educational Building Type	8 or 9 or 10 or 11 or 12 or 13 or	L-4139
	HWT	House of Worship Type	14 or 15 or 20 or 22 or 23 or 24 or	R-2457
	IDN	Identification Number	25 or 26 or 27 or 28 or 29 or 30 or	L-4102
	LEN	Length /Diameter	31 or 32 or 33 or 51 or 52 or 53 or	L-4103
	LMC	Landmark Category	54 or 55 or 56 or 57 or 58 or 59 or	L-4104
	NAM	Name Category	60 or 61)	L-4109
	REL	Religious Denomination	and > .8 mm WID (map scale)	L-4110
	WID	Width	OR BFC 7	L-4111
			and (HWT 2 or 3 or 4 or 6 or 9 or 11 or	L-4127
			16 or 20)	L-4128
			and > .8 mm WID (map scale)	L-4137
			and IDN ANY	T-0415
			OR (BFC 1 or 2 or 3 or 4 or 5 or 6 or	R-2402
			8 or 9 or 10 or 11 or 12 or 13 or	R-2403
			14 or 15 or 20 or 22 or 23 or 24 or	R-2404
			25 or 26 or 27 or 28 or 29 or 30 or	R-2405
			31 or 32 or 33 or 51 or 52 or 53 or	D-1701
			54 or 55 or 56 or 57 or 58 or 59 or	D-1700
			60 or 61)	R-2407
			and > .8 mm LEN (map scale)	R-2408
			and > .8 mm WID (map scale)	R-2409
			and LMC 1	R-2458
			and NAM ANY	R-2419
			OR BFC 7	L-4117
			and (HWT 2 or 3 or 4 or 6 or 9 or 11 or	L-4125
			16 or 20)	L-4140
			and > .8 mm LEN (map scale)	R-2487
			and > .8 mm WID (map scale)	L-4135
			and NAM ANY	

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : CULTURE (1)
SUBCATEGORY: MISCELLANEOUS FEATURES (1L)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1L015	BUILDING	(Continued)		
Point	BFC	Building Function Category	(BFC 1 or 2 or 3 or 4 or 5 or 6 or	L-4101
	DBS	Diplomatic Building Structure	8 or 9 or 10 or 11 or 12 or 13 or	L-4102
	EBT	Educational Building Type	14 or 15 or 22 or 23 or 24 or 25 or	L-4103
	EXS	Existence Category	26 or 27 or 28 or 29 or 30 or 31 or	L-4104
	HGT	Height Above Surface Level	32 or 33 or 50 or 51 or 52 or 53 or	L-4109
	HWT	House of Worship Type	54 or 55 or 56 or 57 or 58 or 59 or	L-4110
	IDN	Identification Number	60 or 61)	L-4111
	LEN	Length /Diameter	and <= .8 mm WID (map scale)	L-4100
	LMC	Landmark Category	OR BFC 7	L-4125
	NAM	Name Category	and (HWT 2 or 3 or 4 or 6 or 9 or 11 or	L-4128
	REL	Religious Denomination	16 or 20)	L-4132
	WID	Width	and <= .8 mm WID (map scale)	L-4137
			and IDN ANY	L-4139
			OR (BFC 1 or 2 or 3 or 4 or 5 or 6 or	R-2402
			8 or 9 or 10 or 11 or 12 or 13 or	R-2403
			14 or 15 or 20 or 22 or 23 or 24 or	R-2404
			25 or 26 or 27 or 28 or 29 or 30 or	R-2405
			31 or 32 or 33 or 51 or 52 or 53 or	R-2408
			54 or 55 or 56 or 57 or 58 or 59 or	R-2419
			60 or 61)	R-2457
			and <= .8 mm WID (map scale)	R-2409
			and LMC 1	T-0400
			and NAM ANY	T-0401
			OR BFC 7	R-2458
			and (HWT 2 or 3 or 4 or 6 or 9 or 11 or	R-2487
			16 or 20)	D-1700
			and <= .8 mm WID (map scale)	
			and NAM ANY	

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : CULTURE (1)
SUBCATEGORY: MISCELLANEOUS FEATURES (1L)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1L020	BUILT-UP AREA			
Area	EXS	Existence Category		L-4118
	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	NAM	Name Category		L-4129
	WID	Width		R-2400
				R-2401
				R-2459
				R-2468
				R-2470
				R-2473
				R-2482
				R-9002
				R-9003
				T-0418
				R-9006
				T-0405
1L030	CEMETERY			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4109
	NAM	Name Category	and (REL 1 or 2 or 4 or 3 or 0)	L-4125
	REL	Religious Denomination		L-4137
	WID	Width		L-4139
				L-4140
				R-2411
				R-2470
				R-2482
				R-9004

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : CULTURE (1)
SUBCATEGORY: MISCELLANEOUS FEATURES (1L)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1L045	COMPLEX OUTLINE			
Area	AFT	Aircraft Facility Type	(EXS 5 or 28)	L-4104
	BFC	Building Function Category	and (BFC 0, 1, 2, 3, 4, 5, 6, 7, 8, 9,	L-4117
	EXS	Existence Category	10, 11, 12, 13, 14, 15, 16, 17, 18,	L-4127
	IDN	Identification Number	19, 20, 21, 22, 23, 24, 25, 26, 27,	R-2406
	MST	Missile Site Type	28, 29, 30, 31, 32, 33, 35, 36, 37,	R-2407
	PPC	Power Plant Category	38, 39, 40, 41, 50, 51, 52, 53, 54,	R-2412
			55, 56, 57, 58, 59, 60, 61, or 62)	R-2421
			OR (BFC 0, 1, 2, 3, 4, 5, 6, 7, 8, 9,	R-2457
			10, 11, 12, 13, 14, 15, 16, 17, 18,	R-2487
			19, 20, 21, 22, 23, 24, 25, 26, 27,	T-0418
			28, 29, 30, 31, 32, 33, 35, 36, 37,	
			38, 39, 40, 41, 50, 51, 52, 53, 54,	
			55, 56, 57, 58, 59, 60, 61, or 62)	
			and MST ANY	
			OR (BFC 0, 1, 2, 3, 4, 5, 6, 7, 8, 9,	
			10, 11, 12, 13, 14, 15, 16, 17, 18,	
			19, 20, 21, 22, 23, 24, 25, 26, 27,	
			28, 29, 30, 31, 32, 33, 35, 36, 37,	
			38, 39, 40, 41, 50, 51, 52, 53, 54,	
			55, 56, 57, 58, 59, 60, 61, or 62)	
			and AFT 1	
			OR BFC 61	
			and PPC ANY	
1L070	FENCE			
Line	LEN	Length /Diameter	>= 25 mm LEN (map scale)	R-2463
	LMC	Landmark Category	and LMC 1	
1L130	MONUMENT			
Point	NAM	Name Category	All required	L-4109
	SSC	Structure Shape Category		L-4111
				L-4137
				L-4139
				L-4140

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : CULTURE (1)
SUBCATEGORY: MISCELLANEOUS FEATURES (1L)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1L135	NATIVE SETTLEMENT			
Area	CFD	Cultural Feature Density	>= .5 mm WID (map scale)	R-2400
	LEN	Length /Diameter		R-2401
	NAM	Name Category		L-4129
	NAS	Native Settlement Type		T-0418
	WID	Width		R-2470
				L-4118
				R-9002
				R-9003
				R-2459
				R-2468
				R-2473
				R-2482
				L-4125
1L160	PIPELINE /PIPE			
Line	LEN	Length /Diameter	(LOC 1 or 3 or 4)	R-2461
	LOC	Location /Origin Category	and (PRO 6 or 12 or 13 or 18 or 27 or 0)	R-2460
	PRO	Product Category		L-4137
			and >= 25 mm LEN (map scale)	T-0409
				L-4147
				R-2410
1L180	PUMPING STATION			
Area	LEN	Length /Diameter	>= .8 mm WID (map scale)	L-4109
	WID	Width		L-4110
				L-4125
				L-4137
				R-2408
				R-2411
				R-2419
				R-2482

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : CULTURE (1)
SUBCATEGORY: MISCELLANEOUS FEATURES (1L)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1L180	PUMPING STATION (Continued)			
Point	LEN	Length /Diameter		L-4109
	WID	Width	< .8 mm WID (map scale)	L-4110
				L-4125
				L-4137
				R-2408
				R-2419
1L208	SHANTYTOWN			
Area	CFD	Cultural Feature Density		R-2400
	LEN	Length /Diameter	>= .5 mm WID (map scale)	R-2401
	WID	Width		L-4109
				T-0418
				R-2470
				L-4118
				R-9002
				R-9003
				R-2459
				R-2468
				R-2473
				R-2482
				L-4125
1L240	TOWER (NON- COMMUNICATION)			
Point	TTC	Tower Type Category	All required	L-4109
				L-4111
				L-4137
1L260	WALL			
Line	LEN	Length /Diameter	>= 25 mm LEN (map scale)	R-2462
	LMC	Landmark Category	and LMC 1	R-2463

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : CULTURE (1)
SUBCATEGORY: STORAGE (1M)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1M010	DEPOT (STORAGE)			
Area	LEN	Length /Diameter	>= 1.0 mm WID (map scale)	L-4125
	LOC	Location /Origin Category		L-4137
	WID	Width		R-2403
				R-2408
				R-2411
				R-2419
				R-2482
1M020	GRAIN BIN			
Area	LEN	Length /Diameter	> .8 mm WID (map scale)	R-2408
	LMC	Landmark Category		R-2458
	WID	Width		R-2419
				L-4110
				L-4137
				T-0401
				L-4109
				L-4125
Point	LEN	Length /Diameter	<= .8 mm WID (map scale)	R-2408
	LMC	Landmark Category		R-2458
	WID	Width		L-4110
				L-4137
				T-0401
				L-4109
				L-4125
1M030	GRAIN ELEVATOR			
Area	HGT	Height Above Surface Level	> .8 mm WID (map scale)	R-2408
	LEN	Length /Diameter		R-2458
	LMC	Landmark Category		R-2419
	WID	Width		L-4110
				L-4137
				T-0401
				L-4109
				L-4125

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : CULTURE (1)
SUBCATEGORY: STORAGE (1M)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1M070	TANK			
Area	HGT			
	LEN	Length /Diameter	(PRO 6 or 12 or 13 or 18 or 27)	L-4147
	PRO	Product Category	and > .8 mm LEN (map scale)	
Point	HGT	Height Above Surface Level	(PRO 6 or 12 or 13 or 18 or 27)	L-4147
	LEN	Length /Diameter	and <= .8 mm LEN (map scale)	
	PRO	Product Category		
1M080	WATER TOWER			
Point	LEN	Length /Diameter	>= .8 mm LEN (map scale)	L-4111
	PRO	Product Category	and PRO 027	L-4137

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : CULTURE (1)
SUBCATEGORY: TRANSPORTATION R/R (1N)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1N010	RAILROAD TRACK			
Line	EXS	Existence Category	(EXS 6 or 28 or 5 or 7)	D-1702
	GAW	Gauge Width	and (RRC 0 or 2 or 3 or 8)	L-4105
	LOC	Location /Origin Category	and (RPS 1 or 3 or 4)	L-4109
	LTN	Lane /Track Number		L-4124
	NAM	Name Category		L-4125
	RGC	Railroad Gauge Category		L-4137
	RPS	Railroad Power Source		L-4139
	RRC	Railroad /Road Categories		L-4140
				L-4128
				T-0417
1N050	RR SIDING /RR SPUR			
Line	LEN	Length /Diameter	>= 2.5 mm LEN (map scale)	D-1702
	RGC	Railroad Gauge Category		R-9006
	RPS	Railroad Power Source		
	RSA	Rail Siding /Spur Attribute		
1N080	RR YARD			
Area	EXS	Existence Category	EXS 28	D-1702
				R-9006

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG
CATEGORY : CULTURE (1)
SUBCATEGORY: TRANSPORTATION /ROADS (1P)

Fcode / FT	Feature Acode	Attribute	Inclusion Condition	Rule
1P010	CART TRACK			
Line	WTC	Route Weatherability Category	WTC 2	T-0402
1P020	INTERCHANGE			
Line	EXS	Existence Category	(EXS 5 or 28)	N-0000
	LOC	Location /Origin Category	and (USE 26 or 72)	
	LTN	Lane /Track Number	and (TUC 6 or 7)	
	RST	Road /Runway Surface Type		
	TUC	Transportation Use Category		
	USE	Use Status		
	WTW	Width of Travelled Way		
1P030	ROAD			
Line	EXS	Existence Category	(TUC 6 or 7)	L-4112
	LTN	Lane /Track Number	and (USE 26 or 72)	L-4113
	MED	Median Category		L-4114
	NAM	Name Category		L-4115
	RST	Road /Runway Surface Type		L-4116
	TUC	Transportation Use Category		L-4118
	USE	Use Status		L-4119
	WTC	Route Weatherability Category		L-4120
	WTW	Width of Travelled Way		L-4121
				L-4122
				L-4123
				L-4142
				L-4143
				L-4144
				R-2411
				R-2480
				R-2481
				L-4146
				T-0416
				D-1700
				D-1702
				L-4109
				L-4136

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : CULTURE (1)
SUBCATEGORY: TRANSPORTATION /ROADS (1P)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1P030	ROAD	(Continued)		
	Line			L-4139 L-4140 R-2414 R-9002
1P050	TRAIL			
	Line	WTC	WTC 2	T-0402
		Route Weatherability Category		

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : CULTURE (1)
SUBCATEGORY: ASSOCIATED TRANSPORTATION (1Q)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1Q010	AERIAL CABLEWAY LINE /SKI LIFT LINE			
Line	LEN	Length /Diameter	>= 2.5 mm LEN (map scale)	L-4125
	USE	Use Status	and USE 1	L-4137
				R-2464
1Q040	BRIDGE /OVERPASS /VIADUCT			
Area	BDC	Bridge Design Category	(TUC 1 or 3 or 4)	L-4107
	BOT	Bridge Opening Type	and >= 3.4 mm WTW (map scale)	L-4125
	LC1	Load Class Type 1		L-4137
	LC2	Load Class Type 2		
	LC3	Load Class Type 3		
	LC4	Load Class Type 4		
	LEN	Length /Diameter		
	MCC	Material Composition Characteristics		
	MCP	Material Composition Primary		
	NAM	Name Category		
	OHC	Overhead Clearance Category		
	SHC	Safe Horizontal Clearance		
	TUC	Transportation Use Category		
	WTW	Width of Travelled Way		
Line	BOT	Bridge Opening Type	(TUC 1 or 3 or 4)	L-4107
	LEN	Length /Diameter	and <= 3.4 mm WTW (map scale)	L-4125
	MCP	Material Composition Primary		L-4137
	TUC	Transportation Use Category		
	WTW	Width of Travelled Way		
1Q060	CONTROL TOWER			
Point	TUC	Transportation Use Category	(TUC 3 or 12 or 13)	L-4104
				L-4110
				L-4125

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : CULTURE (1)
SUBCATEGORY: ASSOCIATED TRANSPORTATION (1Q)

Fcode	Feature Acode	Attribute	Inclusion Condition	Rule
1Q070	FERRY CROSSING			
			(TUC 1 or 3 or 4)	L-4125
Line	FER	Ferry Type		
	NAM	Name Category		
	TUC	Transportation Use Category		
1Q116	ROUTE MARKER			
			All required	R-2413
				R-2414
Point	NAM	Name Category		
	USE	Use Status		
1Q131	TUNNEL			
			(TUC 1 or 3 or 4)	L-4125
				L-4137
				L-4139
				T-0408
Line	NAM	Name Category		
	TUC	Transportation Use Category		
	WID	Width		
1Q132	TUNNEL ENTRANCE - EXIT			
			(TUC 3 or 4)	T-0408
Point	NAM	Name Category		
	TUC	Transportation Use Category		
	WID	Width		

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : CULTURE (1)
SUBCATEGORY: COMMUNICATION /TRANSMISSION (1T)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1T030	POWER TRANSMISSION LINE			
Line	KVA	Kilovolt Attribute	All required	L-4108
	NPL	Number of Parallel Lines		T-0403
				L-4125
				T-0405
				T-0406
				R-2410
				R-2486
1T050	STATION (COMMUNICATION)			
Area	IDN	Identification Number	> .8 mm WID (map scale)	R-2407
	LEN	Length /Diameter		R-2406
	NST	Radio Navigation /Communication		R-2408
				R-2419
	WID	Width		L-4102
				L-4127
				L-4117
Point	IDN	Identification Number	(NST 12 or 13 or 15 or 16 or 33) and <= .8 mm WID (map scale)	R-2407
	LEN	Length /Diameter		R-2406
	NST	Radio Navigation /Communication		R-2408
				L-4101
	WID	Width		L-4102
				L-4127
				L-4117
1T080	TOWER (COMMUNICATION)			
Point	NST	Radio Navigation /Communication	(NST 12 or 13 or 15 or 16 or 33)	L-4125
				L-4137

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : CULTURE (1)
SUBCATEGORY: AIRPORTS (1U)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
1U025	AIRCRAFT LANDING PAD			
Point	AFT	Aircraft Facility Type	(EXS 6 or 28) and AFT 2	N-0000
	EXS	Existence Category		
	NAM	Name Category		
1U160	RUNWAY			
Area	EXS	Existence Category	(EXS 6 or 28 or 5 or 7)	N-0000

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : HYDROGRAPHY (2)
SUBCATEGORY: COASTAL HYDRO (2A)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
2A010	COASTAL SHORELINE			
Line	ACC	Accuracy Category	(SLT 6 or 8 or 10 or 11 or 13 or 14) and VDC 7	T-0411
	SLT	Shoreline Type Category		
	VDC	Vertical Datum Category		
2A040	OPEN WATER (EXCEPT INLAND)			
Area	WID	Width	>= .5 mm WID (map scale)	R-2316

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : HYDROGRAPHY (2)
SUBCATEGORY: PORTS AND HARBORS (2B)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
2B040	BREAKWATER			
Line	VRC	Vertical Reference Category	VRC 1	N-0000
2B140	JETTY			
Line	VRC	Vertical Reference Category	VRC 1	N-0000
2B190	PIER, WHARF			
Area	NAM	Name Category		N-0000
	WID	Width	>= 1.5 mm WID (map scale)	
Line	NAM	Name Category		N-0000
	WID	Width	< 1.5 mm WID (map scale)	
2B230	SEAWALL			
Line	WID	Width	All required	R-9010

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : HYDROGRAPHY (2)
SUBCATEGORY: TIDE AND CURRENT INFORMATION (2G)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
2G010	CURRENT ARROW /FLOW ARROW			
	Point	CUR Current Type Category	CUR 4	R-2418 R-2467

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : HYDROGRAPHY (2)
SUBCATEGORY: INLAND WATER (2H)

Fcode / FT	Feature Acode	Attribute	Inclusion Condition	Rule
2H010	AQUEDUCT			
Line	ATC	Aqueduct Type Category	LOC 3	L-4109
	EXS	Existence Category	and (EXS 6 or 28)	L-4125
	LOC	Location /Origin Category	and >= .5 mm WID	L-4132
	WID	Width	OR LOC 1	L-4137
			and ATC 1	R-2410
				R-2418
				R-2467
				R-9006
Point	EXS	Existence Category	(EXS 6 or 28)	L-4109
	LOC	Location /Origin Category	and LOC 3	L-4125
	TRA	Traversability Attribute	and < .5 mm WID	L-4132
	WID	Width		L-4137
				R-2410
2H020	CANAL			
Line	EXS	Existence Category	(EXS 6 or 32)	L-4109
	HYC	Hydrographic Category		L-4125
	NAM	Name Category		L-4132
				L-4137
				L-4139
				L-4140
				R-2410
				R-2418
				R-2467
2H030	DITCH			
Line	HYC	Hydrographic Category	>= 2.5 mm LEN (map scale)	L-4125
	LEN	Length /Diameter	and (HYC 08 or 06)	R-2410

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : HYDROGRAPHY (2)
SUBCATEGORY: INLAND WATER (2H)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
2H040	FILTRATION /AERATION BEDS			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4109 L-4125 L-4137 R-2410 R-2470
	WID	Width		
2H050	FISH HATCHERY			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125 L-4132 L-4137 R-2470
	WID	Width		
2H060	FLUME			
Line	LEN	Length /Diameter	>= 2.5 mm LEN (map scale)	L-4125 R-2410
	LOC	Location /Origin Category		
2H070	FORD			
Line	LEN	Length /Diameter	Feature used only in connection with (1P030) roads	L-4125
2H075	INLAND SHORELINE			
Line	ACC	Accuracy Category	ACC 1 and (SLT 10, 11, 13, 14, or 15) OR ACC 2 and (SLT 6 or 8)	T-0411
	SLT	Shoreline Type Category		
2H080	LAKE /POND			
Area	HYC	Hydrographic Category	>= 1.0 mm WID (map scale) and (HYC 3 or 6 or 8)	L-4125 R-2470
	LEN	Length /Diameter		
	NAM	Name Category		
	WID	Width		
	WSC	Water Salinity Category		
	ZVL	Z Value		

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : HYDROGRAPHY (2)
SUBCATEGORY: INLAND WATER (2H)

Fcode	Feature Acode	Attribute	Inclusion Condition	Rule
2H090	**LAND SUBJECT TO INUNDATION**			
Area	HOC	Hydrographic Origin Category	>= 5 mm WID (map scale)	L-4125
	LEN	Length /Diameter		R-2470
	WID	Width		
2H110	**PENSTOCK**			
Line	LEN	Length /Diameter	>= 1.5 mm LEN (map scale)	L-4137
	LOC	Location /Origin Category		T-0409
				R-2461
				R-2460
				L-4125
2H130	**RESERVOIR**			
Area	EXS	Existence Category	>= 5 mm WID (map scale)	L-4125
	LEN	Length /Diameter		R-2470
	NAM	Name Category		
	WID	Width		
	ZVL	Z Value		
2H140	**RIVER /STREAM**			
Area	HYC	Hydrographic Category	(HYC 3 or 6 or 8)	R-2418
	NAM	Name Category	and > .5 mm WID (map scale)	R-2467
	WID	Width		
Line	HYC	Hydrographic Category	(HYC 3 or 6 or 8)	T-0412
	NAM	Name Category	and <= .5 mm WID (map scale)	R-2418
	WID	Width		R-2467
2H150	**SALT EVAPORATOR**			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	WID	Width		R-2470

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : HYDROGRAPHY (2)
SUBCATEGORY: INLAND WATER (2H)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
2H160	SABKHA			
Area	LEN	Length /Diameter		L-4125
	WID	Width	>= 5 mm WID (map scale)	R-2470
2H170	SPRING /WATER-HOLE			
Point	HYC	Hydrographic Category		T-0414
	SCC	Spring /Well Characteristic Category	(HYC 6 or 8)	L-4125

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : HYDROGRAPHY (2)
SUBCATEGORY: MISCELLANEOUS INLAND WATER (2I)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
2I010	CISTERN			
Point	LMC	Landmark Category	LMC 1	N-0000
2I020	DAM			
Area	EXS	Existence Category	(EXS 5 or 28)	N-0000
	MCP	Material Composition Primary	and (MCP 18 or 48)	
	NAM	Name Category	and >= 1.5 mm WID (map scale)	
	WID	Width		
Line	EXS	Existence Category	(EXS 5 or 28)	N-0000
	MCP	Material Composition Primary	and (MCP 18 or 48)	
	NAM	Name Category	and < 1.5 mm WID (map scale)	
	TUC	Transportation Use Category		
	WID	Width		
2I030	LOCK			
Area	EXS	Existence Category	(EXS 5 or 28)	N-0000
	NAM	Name Category		
2I050	WATER INTAKE TOWER			
Point	LMC	Landmark Category	LMC 1	N-0000

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : HYPSOGRAPHY (3)
SUBCATEGORY: RELIEF PORTRAYAL (3A)

Fcode / FT	Feature Acode	Attribute	Inclusion Condition	Rule
3A010	CONTOUR (LAND)			
Line	HQC	Hypsography Portrayal Category	(HQC 5 or 6) and MCP 98	R-2415
	MCP	Material Composition Primary		R-2416
	ZVL	Z Value		R-2417
3A030	SPOT ELEVATION			
Point	ACC	Accuracy Category	ACC 1	R-2415
	ELA	Elevation Accuracy	and MCP 23	R-2416
	MCP	Material Composition Primary	OR ACC 2	R-2417
	ZVL	Z Value	and ELA 2	
			and MCP 23	

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : PHYSIOGRAPHY (4)
SUBCATEGORY: EXPOSED SURFACE MATERIAL (4A)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
4A010	GROUND SURFACE			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	MCP	Material Composition Primary		L-4137
	WID	Width		R-2410
				R-2470
4A020	SALT PAN			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	R-2410
	WID	Width		R-2470

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : PHYSIOGRAPHY (4)
SUBCATEGORY: LANDFORMS (4B)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
4B010	BLUFF /CLIFF, ESCARPMENT			
Line	LEN	Length /Diameter	>= 1.5 mm LEN (map scale)	N-0000
4B071	CUT LINE			
Line	LEN	Length /Diameter	>= 1.5 mm LEN (map scale)	T-0410
4B090	EMBANKMENT			
Area	EFI	Embankment /Fill Identifier	EFI 3	T-0410
	NAM	Name Category		
Line	EFI	Embankment /Fill Identifier	>= 1.5 mm LEN (map scale) and (EFI 1 or 2 or 4)	T-0410
	LEN	Length /Diameter		
	NAM	Name Category		
	VRC	Vertical Reference Category		
4B110	FAULT			
Line			No Attribute Required	N-0000
4B135	ISLAND			
Area			All Required	N-0000
4B155	RAVINE/GORGE/CANYON			
Area	NAM	Name Category	All required	N-0000
4B170	SAND DUNES /SAND HILLS			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	SSC	Structure Shape Category		L-4137
	WID	Width		R-2410
				R-2470

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : VEGETATION (5)
SUBCATEGORY: CROPLAND (5A)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
5A010	CROPLAND (CULTIVATED)			
Area	FTC	Farming Type Category	>= 5 mm WID (map scale)	L-4125
	LEN	Length /Diameter	and VEG 004	L-4137
	VEG	Vegetation Characteristics	OR FTC 003	R-2470
	WID	Width	and >= 5mm WID (map scale)	
5A030	NURSERY			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	WID	Width		L-4137
				R-2470
5A040	ORCHARD /PLANTATION			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	PRO	Product Category		L-4137
	WID	Width		R-2470
5A050	VINEYARD /HOPS			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	WID	Width		L-4137
				R-2470

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : VEGETATION (5)
SUBCATEGORY: WOODLAND (5C)

Fcode / FT	Feature Acode	Attribute	Inclusion Condition	Rule
5C010	BAMBOO CANE			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	WID	Width		L-4137
				R-2470
5C030	TREES			
Area	COC	Conspicuous Object Category	>= .4 mm WID (map scale)	R-2485
	DMT	Density Measure (% Tree /Canopy Cover)	and >= 5 mm LEN (map scale) and VEG 19	R-2470 R-9010
	LEN	Length /Diameter		L-4125
	LMC	Landmark Category		L-4137
	VEG	Vegetation Characteristics		
	WID	Width		

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : VEGETATION (5)
SUBCATEGORY: WETLANDS (5D)

Fcode	Feature Acode	Attribute	Inclusion Condition	Rule
5D030	SWAMP			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	TID	Tidal /Non-Tidal Category		L-4137
	WID	Width		R-2470
				T-0411
5D040	MARSH			
Area	LEN	Length /Diameter	>= 5 mm WID (map scale)	L-4125
	TID	Tidal /Non-Tidal Category		L-4137
	WID	Width		R-2470
				T-0411

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : DEMARCATION (6)
SUBCATEGORY: BOUNDARIES /LIMITS /ZONES (TOPOGRAPHIC) (6A)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
6A000	ADMINISTRATIVE BOUNDARY			
Line	NM3	Name 3	(USE 16 or 23 or 26)	L-4131
	NM4	Name 4		L-4138
	USE	Use Status		L-4139
				L-4134
				L-4705

TABLE II. Feature/Attribute category, inclusion conditions, and product generation rules for city graphics environs - Continued.

PRODUCT : CG ENVIRONS INSET
CATEGORY : GENERAL (9)
SUBCATEGORY: CONTROL POINTS (9B)

Fcode FT	Feature Acode	Attribute	Inclusion Condition	Rule
9B035	CONTROL POINT			
			(CPA 01 or 02)	
Point	CPA	Control Point Attribute		R-2415
	ZVL	Z Value		R-2416
				R-2417

The digital copy of MIL-C-89303, dated 30 November 1990 does not include appendix "A". This appendix must be ordered separately, please fax this page to 215-697-9398 and include your complete mailing address below.

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CONCLUDING MATERIAL

Custodians:
DMA - MP

Preparing activity:
DMA - MP

(project MCGT-0027)

Review activities:
Air Force - 09
Army - PO
Navy - NO
Marine Corps - MC

User activities:
Air Force - 09

Army - CDRUSAETL-CEETL-TC-SA;
CDR25THINFDIV-APVG-DS; HQWESTCOM-APIN-MCG
USAATCAAS-ASQ-AS-AI;USA-FSTC-CB1

Navy - HQFMFEUR-USNAVACTS-UK;
CINCUSNAEUR-N39, ECJ2-T;
CINCUSPAC-J37;

Marine Corps - CGFMFLANT-AC/S;
CGFMFPAC-AC/S; CGMCCDC-IN11

DMA - DMAAC-DAP; DMACSC-LANT;
DMAHTC-IAGS, LOU-LUA, LOU-VRM,
SXO-SXM

DMS - DMS-MTM

Other - Canada: HQND-MCE

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

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I RECOMMEND A CHANGE:	1. DOCUMENT NUMBER	2. DOCUMENT DATE (YYMMDD)
	MIL-C-89303	901130

3. DOCUMENT TITLE

Military Specification City Graphics

4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME (Last, First, Middle Initial)	b. ORGANIZATION	
c. ADDRESS (Include Zip Code)	d. TELEPHONE (Include Area Code) (1) Commercial (2) AUTOVON (If applicable)	7. DATE SUBMITTED (YYMMDD)

8. PREPARING ACTIVITY

a. NAME	b. TELEPHONE (Include Area Code)	
Defense Mapping Agency	(1) Commercial 703-285-9240	(2) AUTOVON 356-9240
c. ADDRESS (Include Zip Code) ATTN: PRS, stop A-13 8613 Lee Highway Fairfax, VA 22031-2137	IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT:	