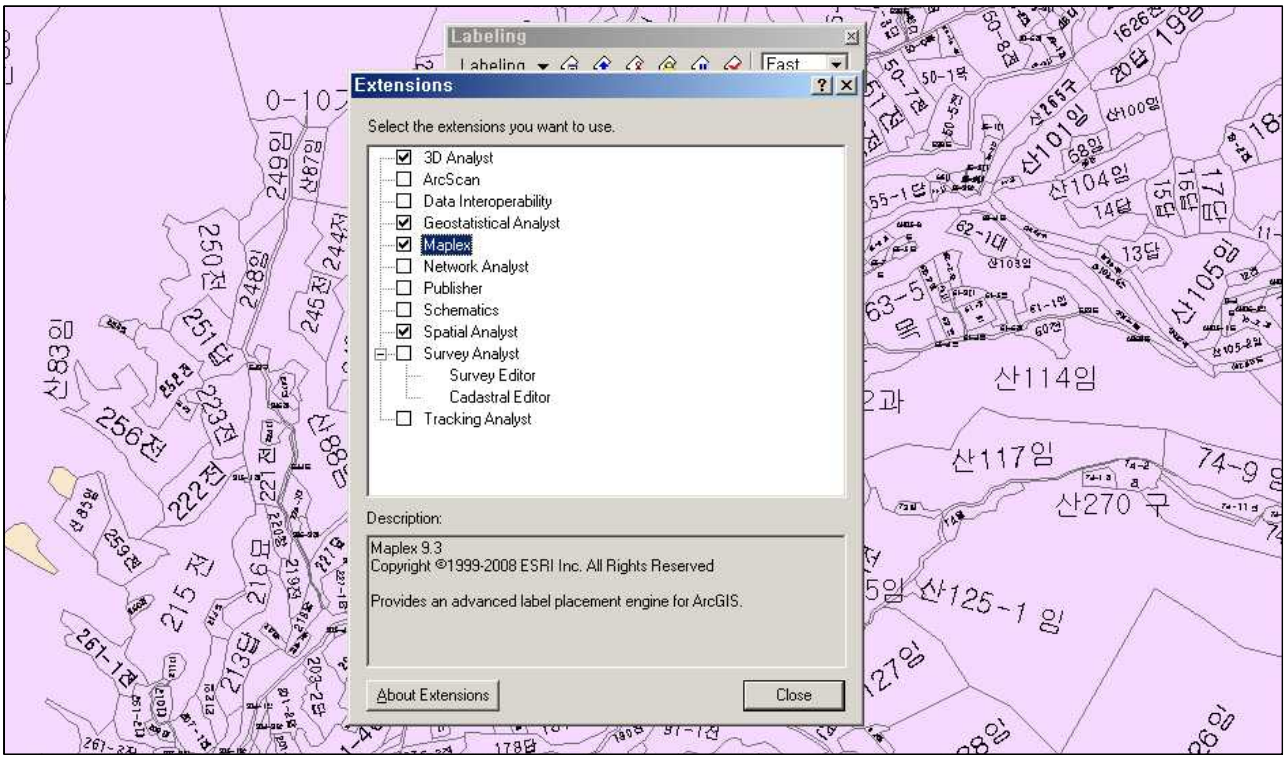
■ GIS와 CADMAP을 사용하는 방법

준비물

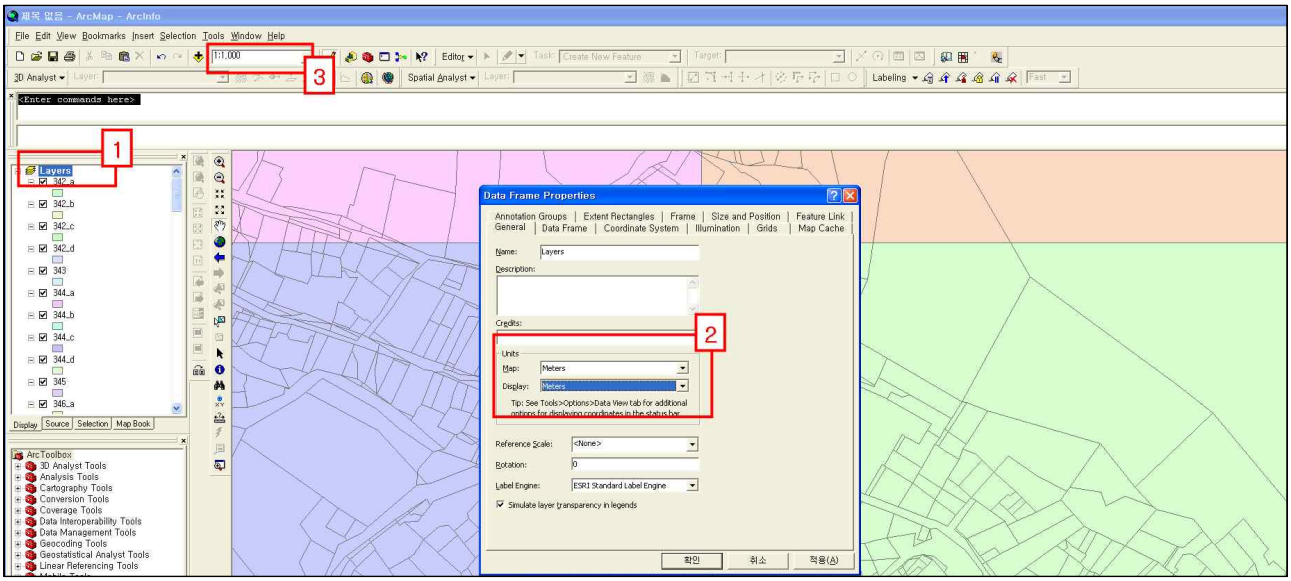
ArcMap, ArcCatalog, AutoCad Map, 연속지적도.shp

1. ArcMap을 열고 Tool / Extention / Maplex 체크

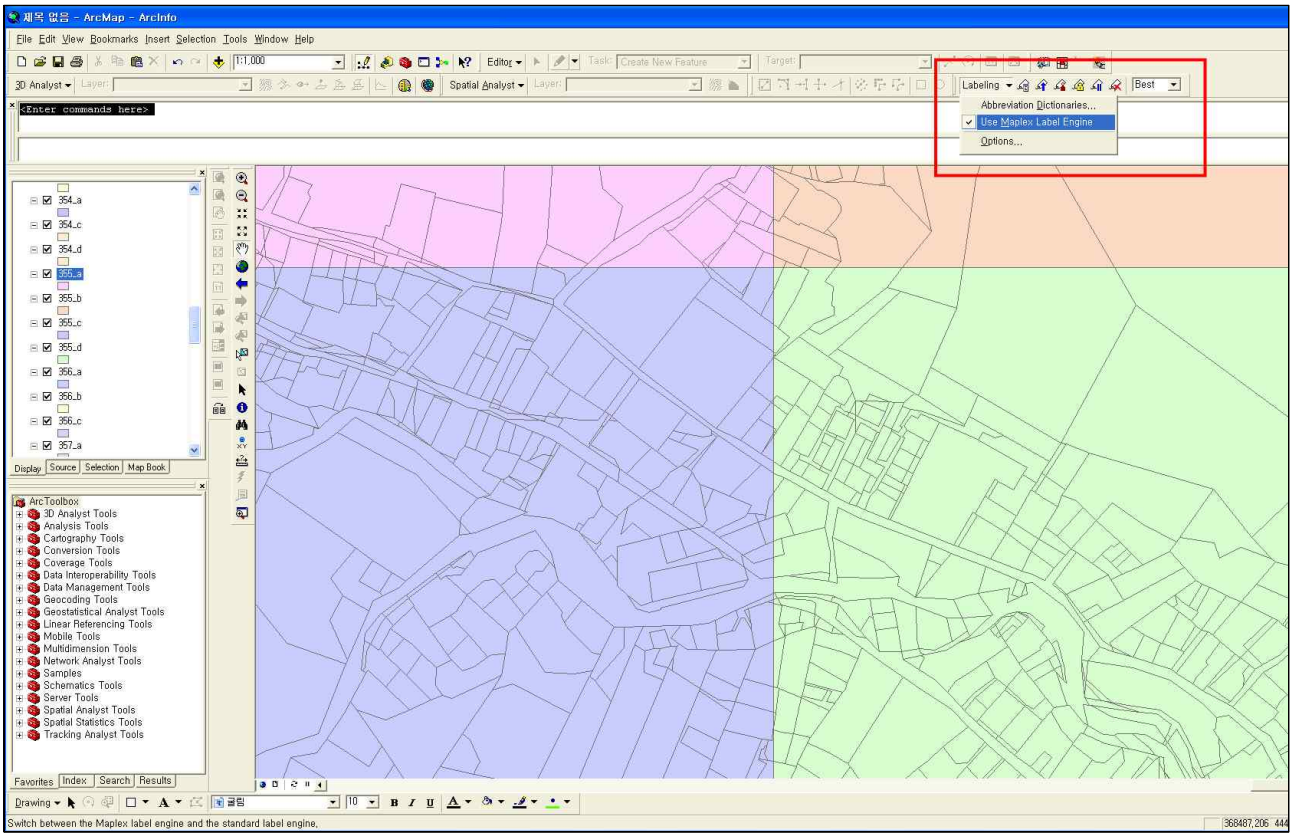


2. 상단 메뉴 View / Toolbars / Labeling 체크

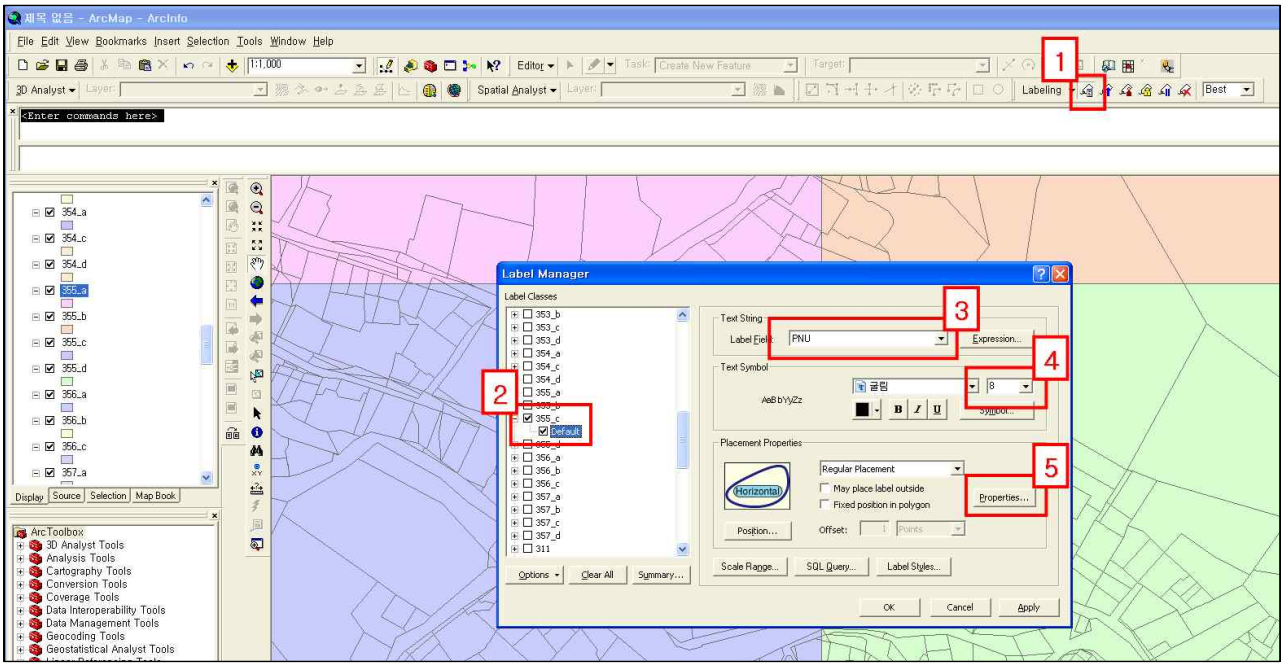
3. Shp파일을 불러오고, Layers에 가서 오른쪽 클릭 Properties로 들어가서 스케일 조정이 가능하게 단위를 설정해주고 스케일을 1:1,000 으로 맞춤(나중에 Text 크기 설정에 영향을 줌)



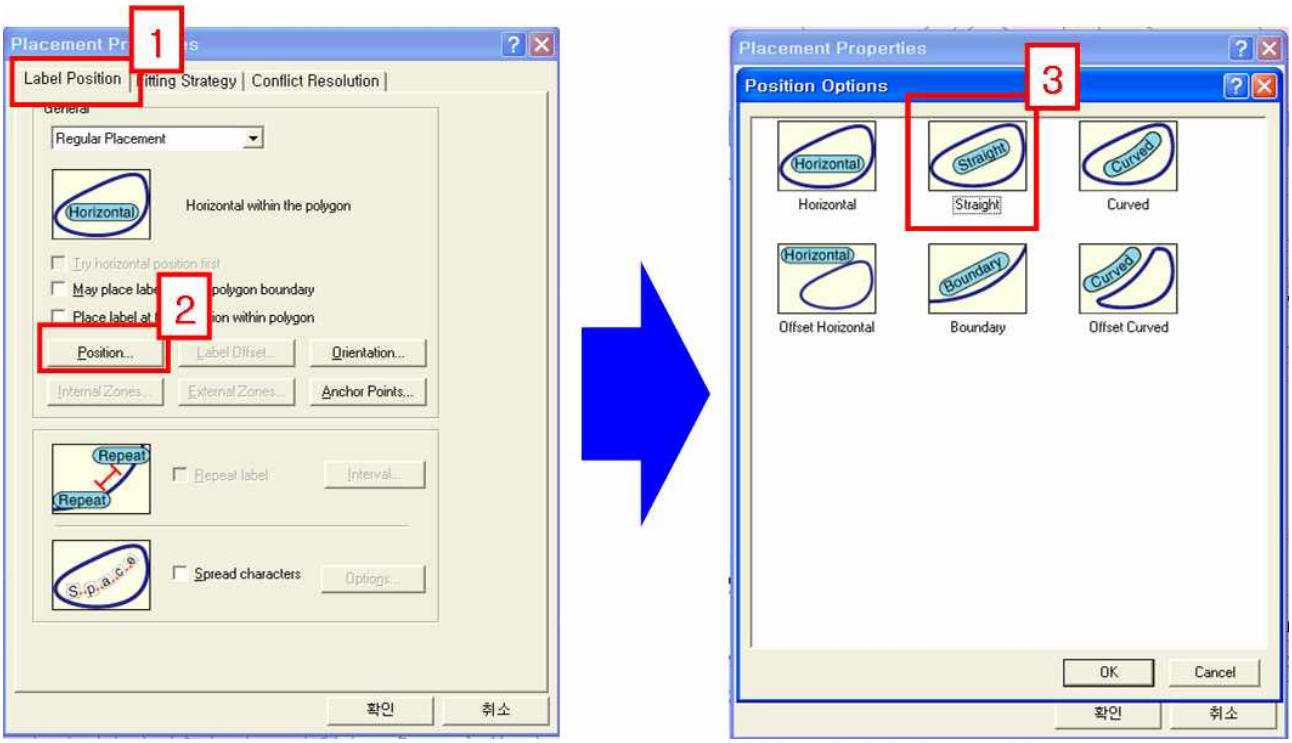
4. 빨강박스대로 설정을 해주고

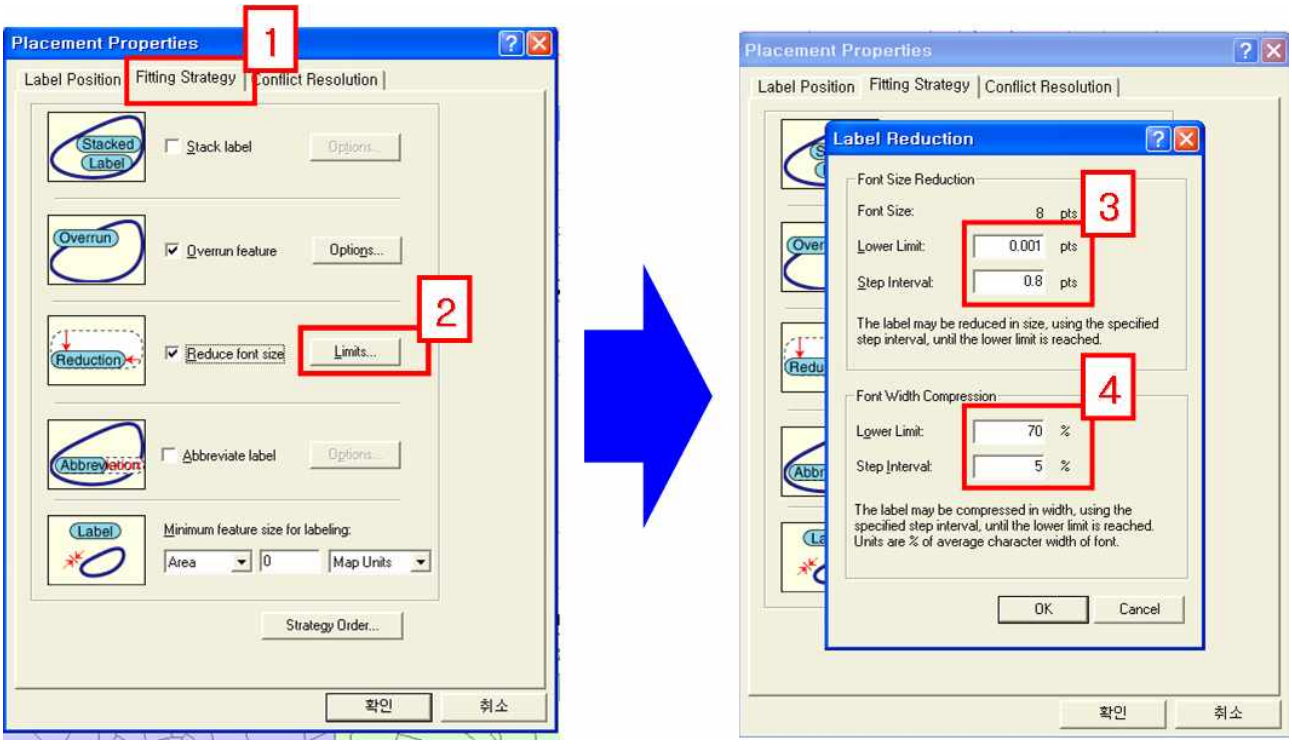


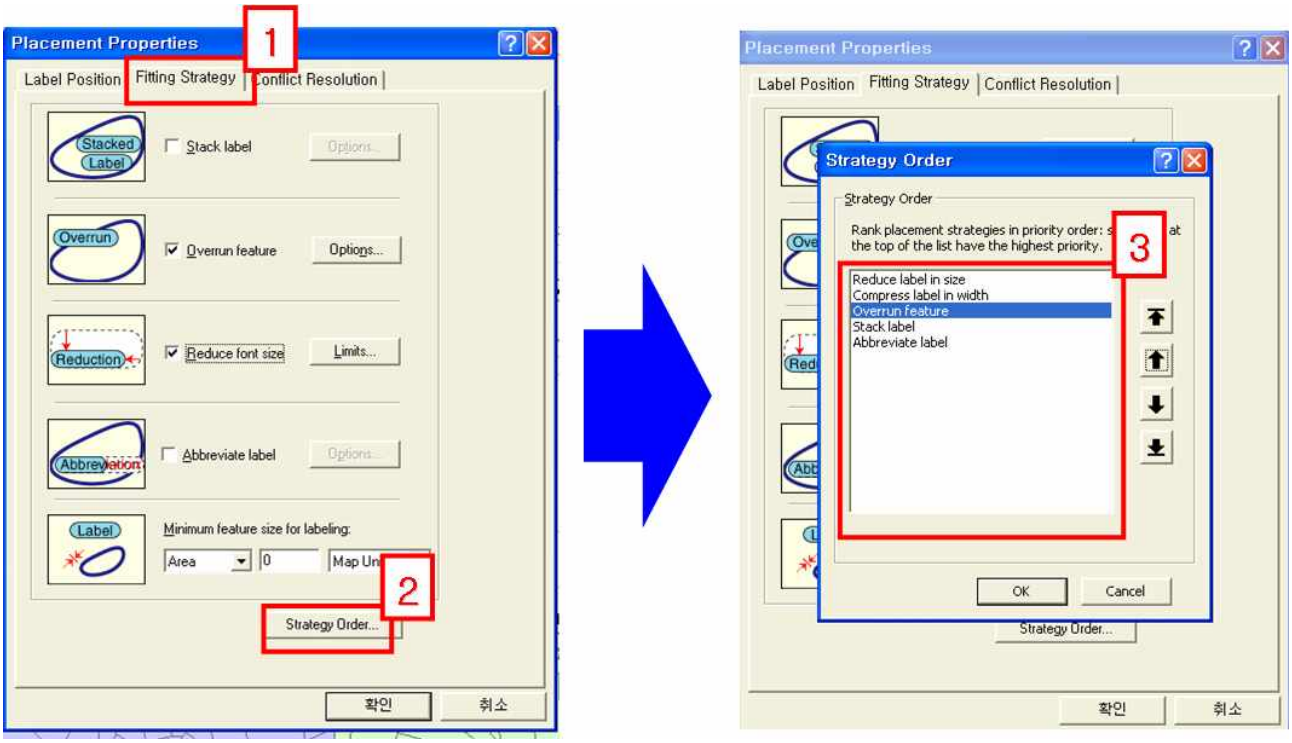
5. 1번 아이콘을 누르면 Label Manager 창이 뜸, 설정하려는 파일을 체크해주고, Default를 선택해주면 오른쪽에 제어창이 뜸. 라벨의 데이터(JIBUN)와 폰트를 설정해주고(이유는 묻지말고 8), 그다음 설정을 위해 5 체크

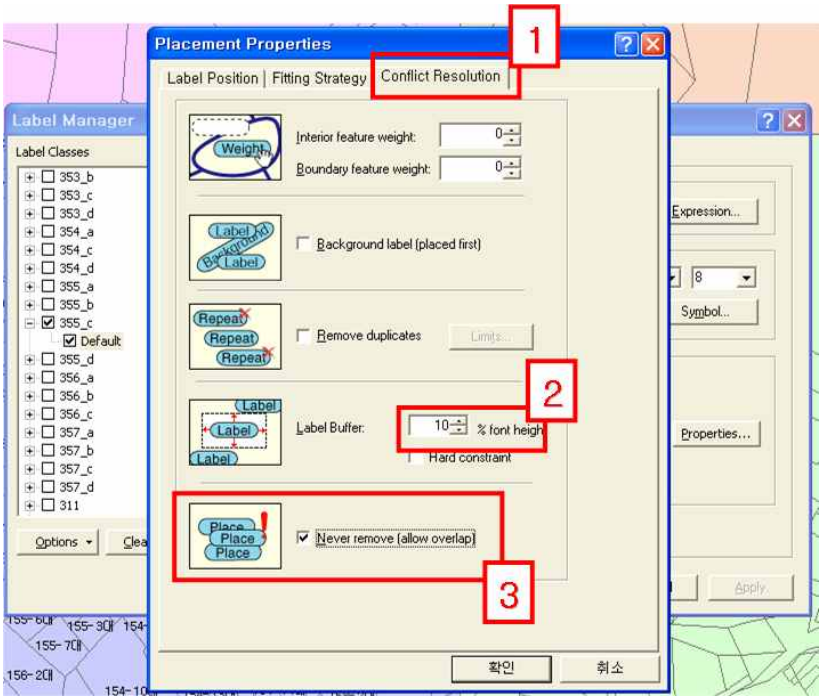

제목 없음 - ArcMap - ArcInfo
File Edit View Bookmarks Insert Selection Tools Window Help
Editor
Task: Create New Feature
Target:
3D Analyst
Spatial Analyst
Labeling
Best
<Enter commands here>
Label Manager
Label Classes
Text String
Label Field:
PNU
Expression...
Text Symbol
AaBbYyZz
Placement Properties
Regular Placement
May place label outside
Fixed position in polygon
Horizontal
Position...
Offset:
Points
Properties...
Scale Range...
SQL Query...
Label Styles...
Options
Clear All
Summary...
OK
Cancel
Apply
Display
Source
Selection
Map Book
ArcToolbox
3D Analyst Tools
Analysis Tools
Cartography Tools
Conversion Tools
Coverage Tools
Data Interoperability Tools
Data Management Tools
Geocoding Tools
Geostatistical Analyst Tools
1
2
3
4
5

6. 이제 순서대로

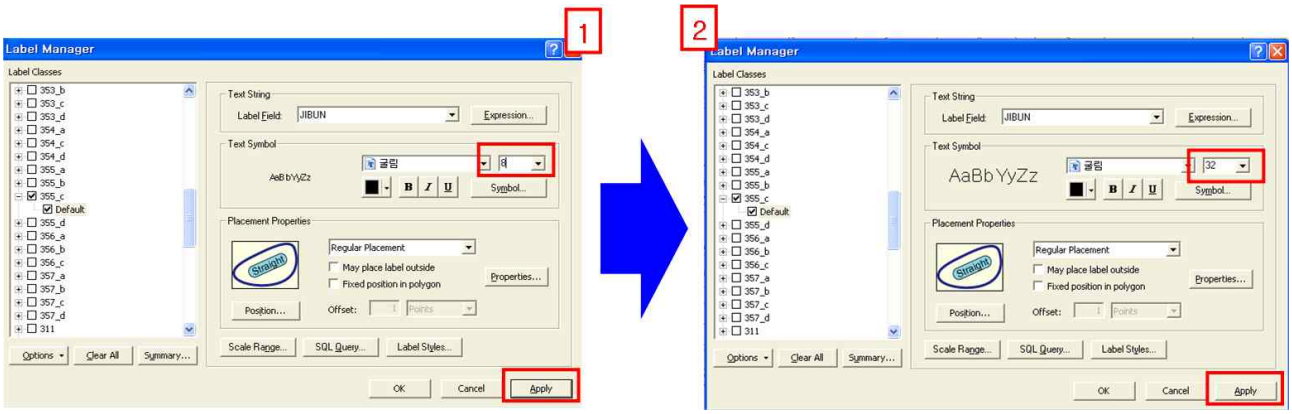

1
Label Position
Fitting Strategy
Conflict Resolution
Regular Placement
Horizontal
Horizontal within the polygon
2
Position...
Label Offset...
Orientation...
Internal Zones...
External Zones...
Anchor Points...
Repeat
Repeat label
Interval...
Spread characters
Options...
확인
취소
Placement Properties
Position Options
3
Horizontal
Straight
Curved
Offset Horizontal
Boundary
Offset Curved
OK
Cancel
확인
취소


Placement Properties
1
Label Position
Fitting Strategy
Conflict Resolution
Stacked Label
Stack label
Options...
Overrun
Overrun feature
Options...
2
Reduction
Reduce font size
Limits...
Abbreviation
Abbreviate label
Options...
Label
Minimum feature size for labeling:
Area
0
Map Units
Strategy Order...
확인
취소
Placement Properties
Label Position
Fitting Strategy
Conflict Resolution
Label Reduction
Font Size Reduction
Font Size:
8 pts
3
Lower Limit:
0.001 pts
Step Interval:
0.8 pts
The label may be reduced in size, using the specified step interval, until the lower limit is reached.
4
Font Width Compression
Lower Limit:
70 %
Step Interval:
5 %
The label may be compressed in width, using the specified step interval, until the lower limit is reached. Units are % of average character width of font.
OK
Cancel
확인
취소

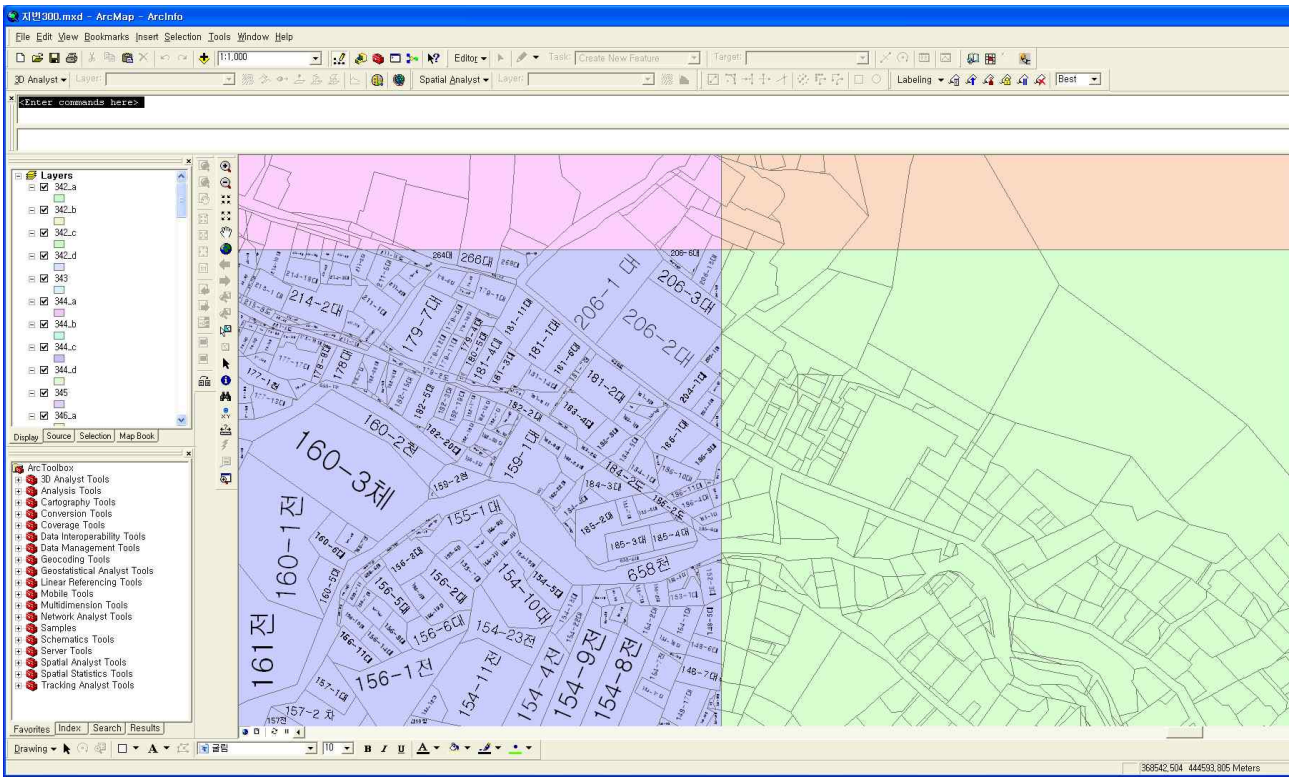

Placement Properties
1
Label Position
Fitting Strategy
Conflict Resolution
Stacked Label
Stack label
Options...
Overrun
Overrun feature
Options...
Reduction
Reduce font size
Limits...
Abbreviation
Abbreviate label
Options...
Label
Minimum feature size for labeling:
Area
0
Map Un
2
Strategy Order...
확인
취소
Placement Properties
Label Position
Fitting Strategy
Conflict Resolution
Strategy Order
Strategy Order
Rank placement strategies in priority order:
the top of the list have the highest priority.
3
Reduce label in size
Compress label in width
Overrun feature
Stack label
Abbreviate label
OK
Cancel
Strategy Order...
확인
취소


Label Manager
Label Classes
353_b
353_c
353_d
354_a
354_c
354_d
355_a
355_b
355_c
Default
355_d
356_a
356_b
356_c
357_a
357_b
357_c
357_d
311
Options
Placement Properties
1
Label Position
Fitting Strategy
Conflict Resolution
Weight
Interior feature weight:
0
Boundary feature weight:
0
Label
Background
Label
Background label (placed first)
Repeat
Repeat
Repeat
Remove duplicates
Limits...
Label
Label
Label
Label Buffer:
10
% font height
2
Hard constraint
Place
Place
Place
Never remove (allow overlap)
3
확인
취소
Expression...
8
Symbol...
Properties...
Apply

7. 위에 순서대로 하고 폰트크기 8에서 Apply 후 다시 폰트를 32로 변경하고 Apply



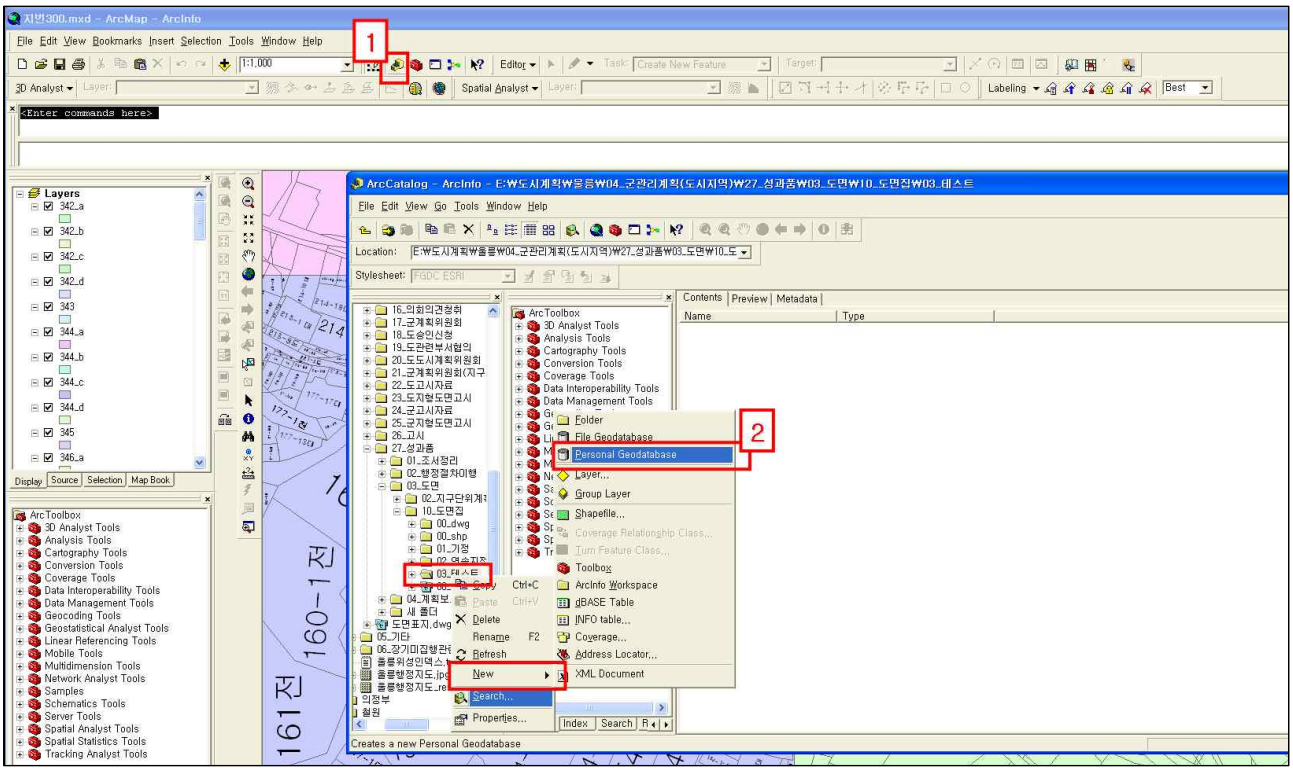
그러면 아래와 같이 지번라벨이 채워짐



이제 라벨을 CAD 파일로 전환하는 작업

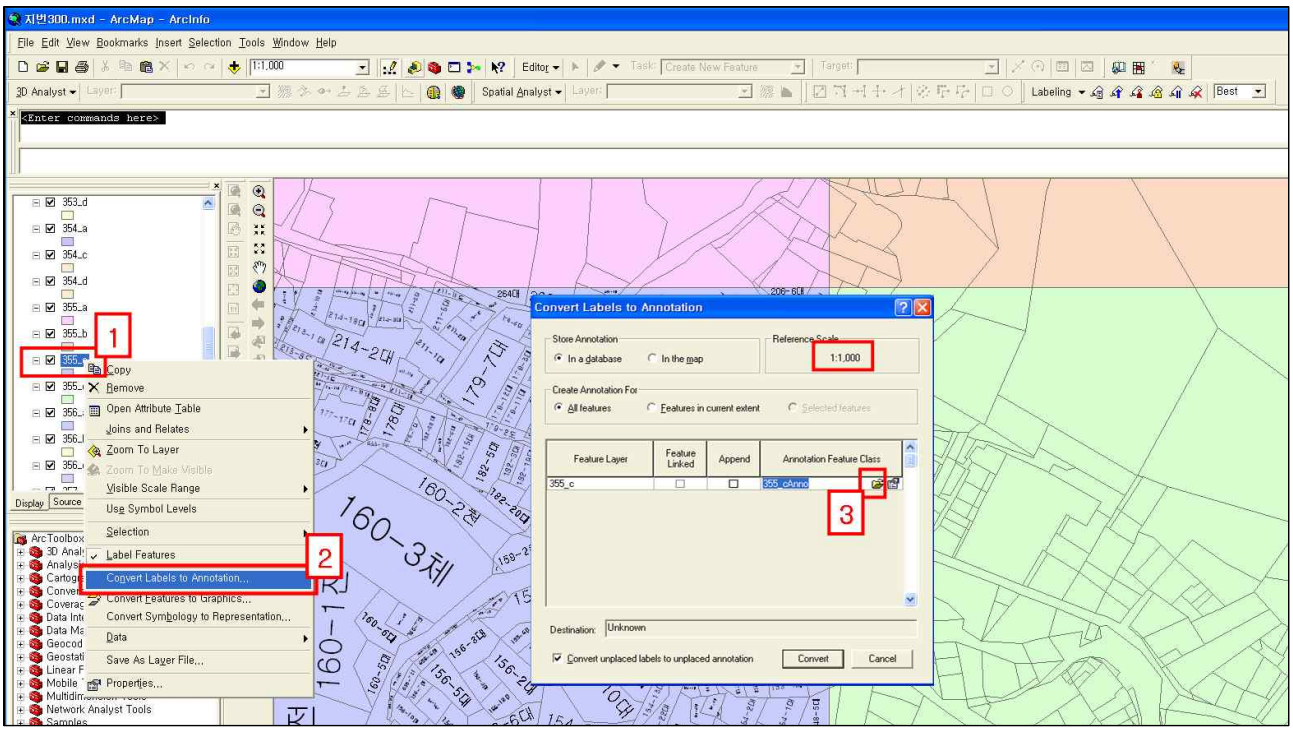
8. ArcCatalog를 실행시켜서 MDB파일을 새로 만듬

넣어둘 폴더를 선택하고 오른쪽 클릭 new – Personal Geodatabase – 파일명 설정

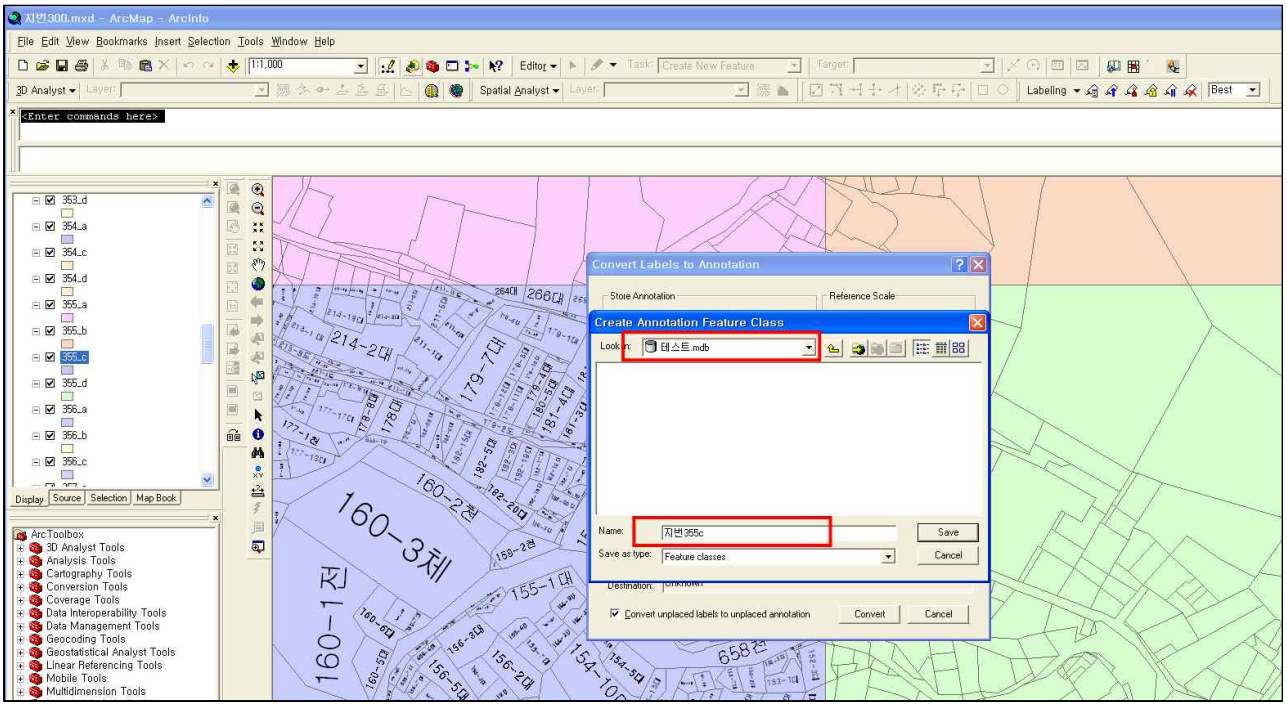


9. 다시 ArcGIS로 돌아와서 해당 Shp파일을 선택 – 오른쪽 클릭 – Convert Labels to Annotation

스케일 확인하고, 3을 선택해서 Annotation을 저장할 MDB파일 지정



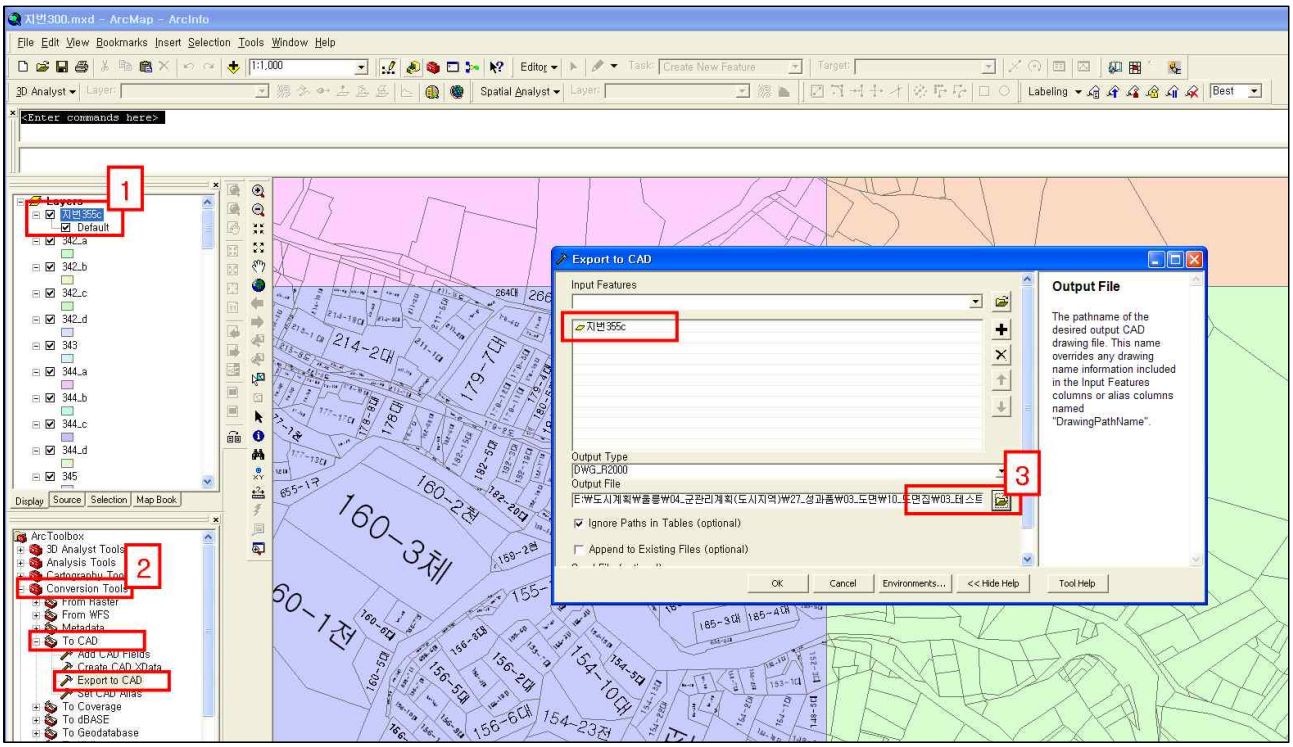
10. MDB파일 위치로 가서 MDB파일 더블클릭해서 파일안 Feature Class 이름 지정



11. Save – Convert 누르면 ①과 같이 생성,

Toolbox를 이용하여 Conversion Tools – To CAD – Export to CAD 해서

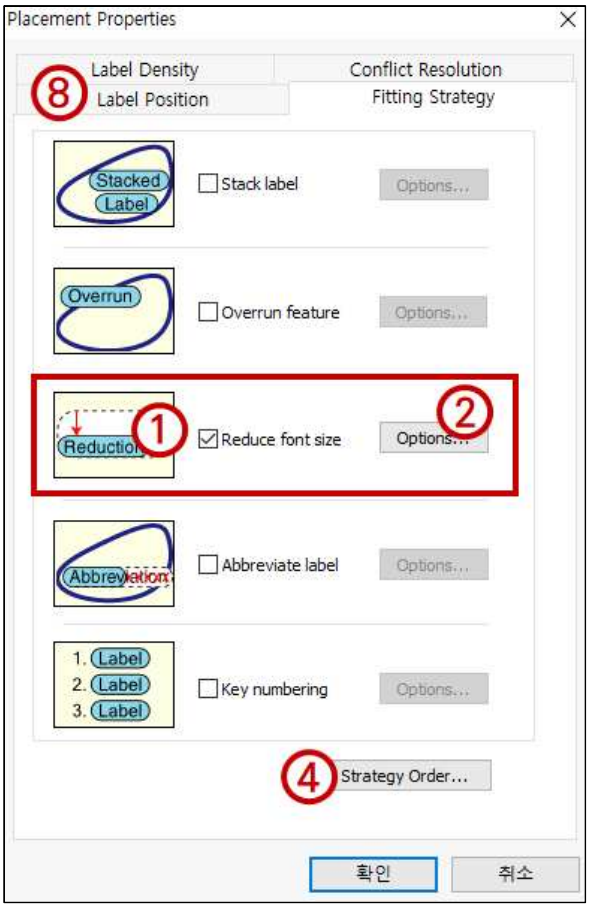
① 파일 마우스로 드레그해서 끌어오고, CAD파일 저장할 경로 설정해서 OK

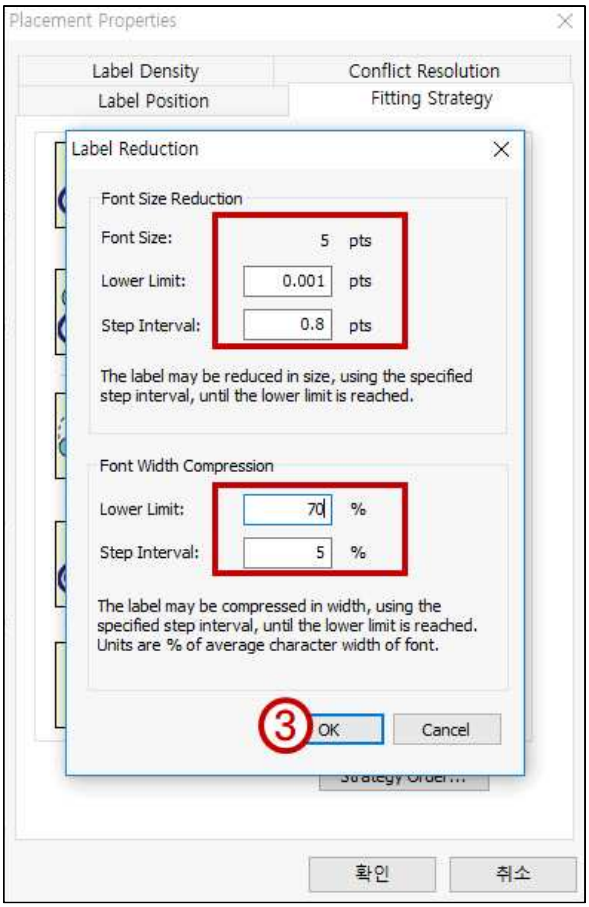


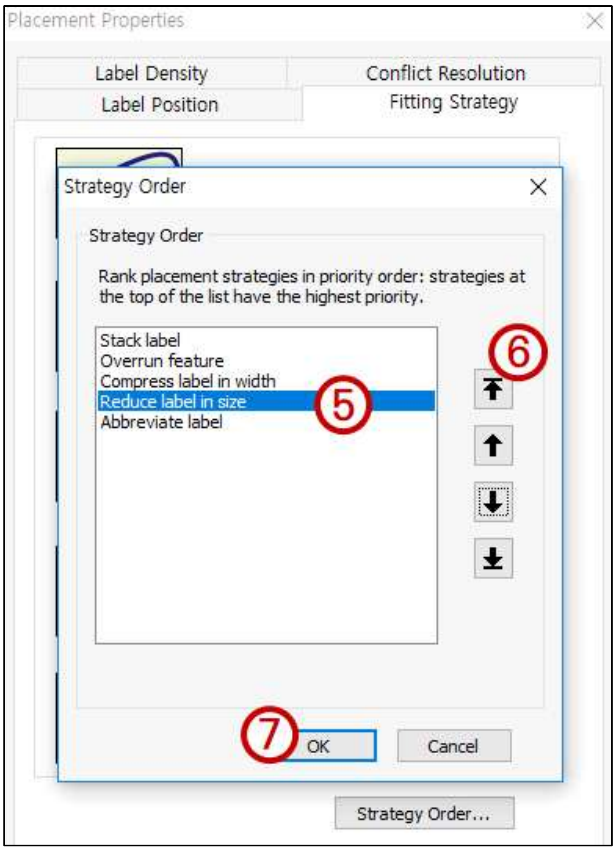
12. 그럼 이제 지적선형 CAD로 불러오고 생성한 지번CAD파일을 갖다 붙여서 쓰면 됨 – 끝

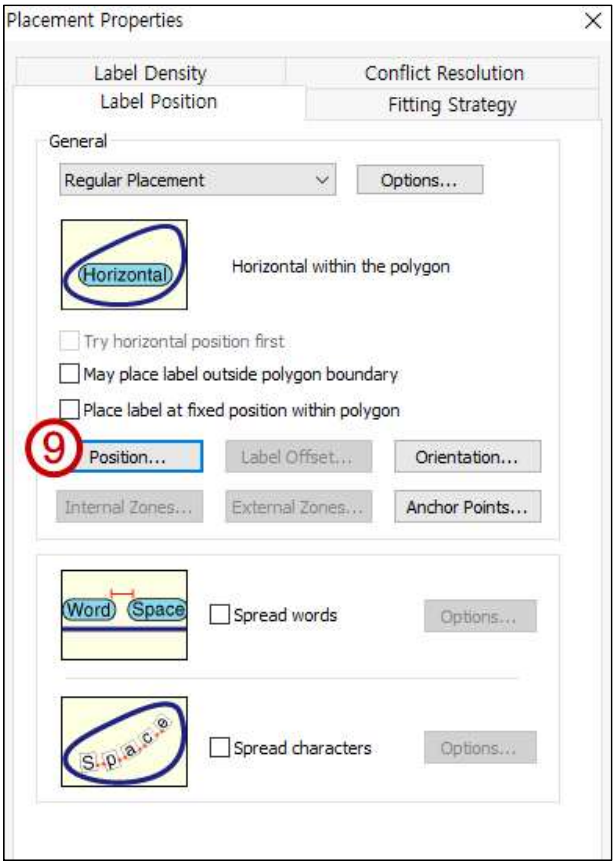
■ GIS에서 Label 만든 후 CAD로 내보내는 방법 (GIS만 이용, Arc GIS 10.1 기준)

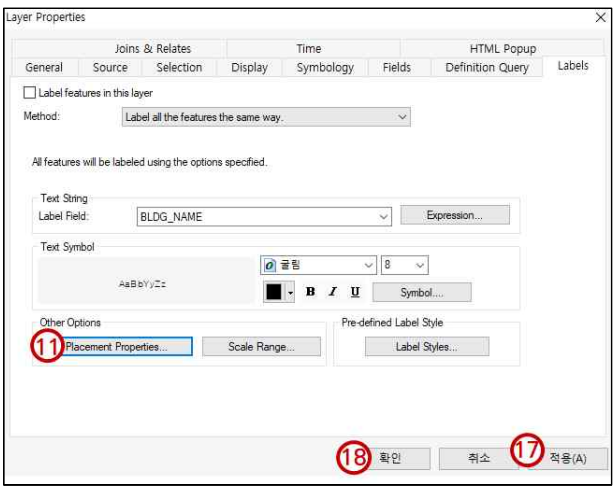
1. 지적도 SHP 불러오기
2. 필요한 만큼 데이터 자르기 (Draw > 드래그 > Selection > Select By Graphics > Export to Data > OK)
3. 스케일확인 (View > Data Frame Properties > Unit을 Meters로 설정)
4. 데이터확인 (Open attribute table에서 라벨에 사용할 데이터 어디에 있는지 확인)
5. 라벨넣기 (Properties > Label탭 > 원하는 글꼴, 5pt로 설정)
6. 라벨링하기 (메뉴바 우클릭 > Labeling 선택 > Use maplex engine 선택)
7. 다시 라벨 옵션 설정 (Label > placement properties > 설정 변경 및 확인)

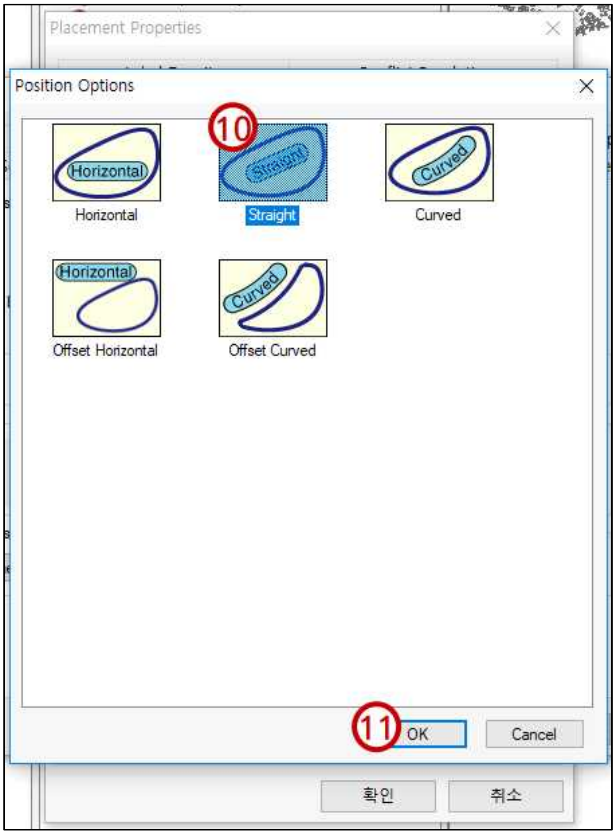


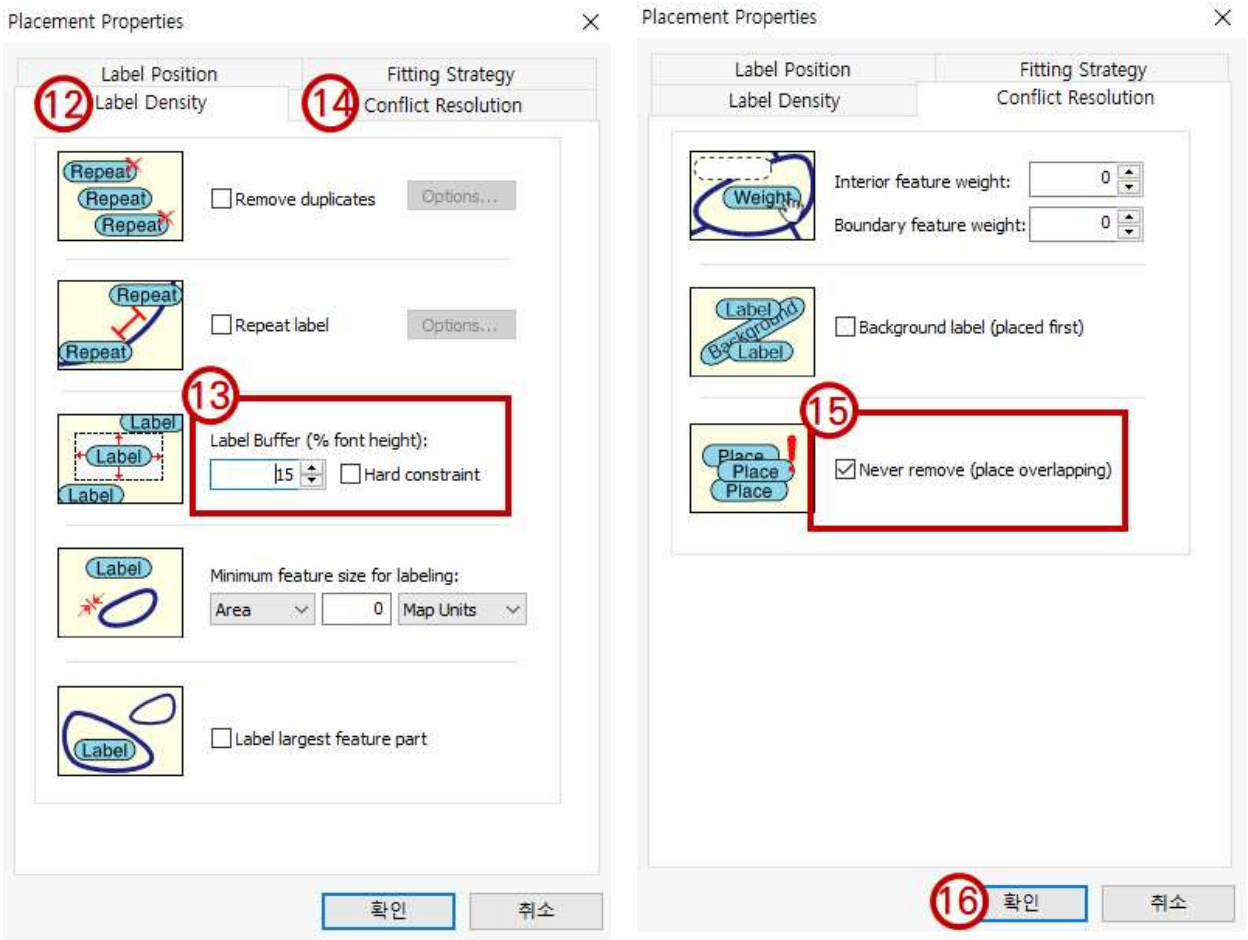



Placement Properties
Label Density
Conflict Resolution
Label Position
Fitting Strategy
Strategy Order
Strategy Order
Rank placement strategies in priority order: strategies at the top of the list have the highest priority.
Stack label
Overrun feature
Compress label in width
Reduce label in size
Abbreviate label
5
6
7
OK
Cancel
Strategy Order...


Placement Properties
Label Density
Conflict Resolution
Label Position
Fitting Strategy
General
Regular Placement
Options...
Horizontal
Horizontal within the polygon
Try horizontal position first
May place label outside polygon boundary
Place label at fixed position within polygon
9
Position...
Label Offset...
Orientation...
Internal Zones...
External Zones...
Anchor Points...
Word
Space
Spread words
Options...
S.p.a.c.e
Spread characters
Options...


Layer Properties
Joins & Relates
Time
HTML Popup
General
Source
Selection
Display
Symbology
Fields
Definition Query
Labels
Label features in this layer
Method:
Label all the features the same way.
All features will be labeled using the options specified.
Text String
Label Field:
BLDG_NAME
Expression...
Text Symbol
AaBbYyZz
Symbol...
Other Options
11
Placement Properties...
Scale Range...
Pre-defined Label Style
Label Styles...
18
확인
취소
17
적용(A)


Placement Properties
Position Options
10
Horizontal
Straight
Curved
Horizontal
Straight
Curved
Horizontal
Curved
Offset Horizontal
Offset Curved
11
OK
Cancel
확인
취소



8. 7번 설정 이후 지번이 필지 안에 잘 들어갔는지 꼭 확인할 것.
9. CAD로 빼내기 위해 문자 상태로 만들기 (Catalong > 저장할 위치 선택 후 우클릭 > New > File Geodatabase.gdb 생성 → 우클릭 New > Feature dataset > 임의로 이름 설정 > OK > 레이어 창에서 해당 레이어 선택 후 우클릭 > Convert Labels to Annotation > 폴더모양 아이콘 선택 (임의로 이름 설정한 폴더로 경로 지정해야함) > 이름설정 > Convert)
10. Convert한 해당 레이어를 캐드로 내보내기 (ArcToolbox > Conversion Tools > To CAD > Export to CAD > Input Features에 Convert한 데이터 > 캐드 버전 설정 > 파일경로설정 > OK)
11. 지정한 폴더로 가서 캐드 파일 확인하면 끝.