CITY OF DESERT HOT SPRINGS
ENGINEERING DEPARTMENT
COMMERCIAL PRECISE GRADING AND PAVING PLAN REVIEW CHECKLIST

PROJECT NAME:_____
TRACT, PARCEL MAP OR PROJECT ID NO._____
PLAN CHECKED BY:_____

	1ST CHECK	2ND CHECK	3RD CHECK	FINAL MYLAR	COMMENTS
DATE CHECKED:					
I. SUBMITTAL REQUIREMENTS – SEE PLAN CHECK REQUIREMENT CHECK LIST					
(1) ROUGH GRADING PLAN					
(1) STREET PLAN					
(2) ESTIMATES OF QUANTITIES AND COSTS					
(5) PRECISE GRADING PLANS					
(2) SOILS REPORT & UPDATE LETTER					
II. GENERAL SHEET REQUIREMENTS – ALL SHEETS					
A. MEDIUM					
1. 24"X36" SIZE. FINAL SUBMITTAL ON 3 MIL. MYLAR FILM					
2. NO "STICKY BACK" FILM, GLUED OR TAPED ON SECTIONS					
B. DRAFING/LAYOUT REQUIREMENTS					
1. PLAN NAME WITH TRACT, PM OR SDP NUMBER					
3. TYPE OF IMPROVEMENT PLAN, I.E. ROUGH GRADING PLAN.					
4. SECTION, TOWNSHIP AND RANGE					
5. REVISION BLOCK					
6. PREPARER'S NAME, ADDRESS, PHONE NUMBER					
7. BASIS OF BEARING AND APPROVED BENCH MARK					
8. SIGNATURE BLOCKS PROVIDED					
a. CITY SIGN OFF BLOCK – APPROVED BY: CITY ENGR., RCE #__,___, EXP. DATE – __/__/__.					
b. RESPONSIBLE ENGINEER'S SIGNATURE BLOCK AND SEAL – CHECK EXP. DATE					
c. PLAN CHECKER APPROVAL BLOCK					
d. OTHER AGENCYS SIGNATURE BLOCK(S) IF REQUIRED, I.E. CVWD, COUNTY OF RIVERSDIE, CITY OF INDIO					
9. USA DIG ALERT NOTE WITH PHONE NUMBER 1-800-227-2600					
10. SHEETS NUMBERED NUMERICALLY IN INCREASING ORDER – SHEET ___ OF ___					
11. 0.08" MINIMUM TEXT HEIGHT – CAD DRAFTED, 0.10" IF HAND DRAFTED					

LEGEND: √ = ACCEPTABLE ? = UNCLEAR (PROVIDE MORE DATA) NA = NOT APPLICABLE X = NOT ACCEPTABLE FOR REASONS SHOWN
UPDATED – 03/21/02

	1ST CHECK	2ND CHECK	3RD CHECK	FINAL MYLAR	COMMENTS
III. TITLE SHEET					
A. GENERAL NOTES PROVIDED					
B. GRADING NOTES PROVIDED					
C. GENERAL PAVING NOTES PROVIDED					
D. GENERAL SIGNING AND STRIPING NOTES PROVIDED					
E. INDEX MAP					
1. SCALE IS 1"=500' OR SMALLER - USE STANDARD SCALE					
2. SHEET COVERAGE IS SHOWN					
3. STREET NAMES AND PARCEL/LOT #S SHOWN					
4. LOCATIONS OF STORM DRAIN SYSTEMS (CATCH BASINS, CULVERTS, CROSS GUTTERS, INLETS, ETC) ARE SHOWN. DIRECTION OF DRAINAGE FLOW IN STREET WITH Q10 AND Q100 SHOWN AT DRAINAGE INLET LOCATIONS.					
F. VICINITY MAP					
1. ARTERIAL STREETS SHOWN					
2. ORIENT NORTH AS ON INDEX MAP					
3. PROJECT LOCATION INDICATED ON MAP					
4. SCALE NOTATION PROVIDED ("NTS" IS OK)					
G. LEGEND OF SYMBOLS USED, INCLUDES CONSTRUCTION NOTE SYMBOLS, TYPICALABBREVIATIONS, SPECIAL LINETYPES, HATCHING LEGEND, ETC.					
H. OWNER'S INFORMATION					
1. ASSESSOR PARCEL NUMBER					
2. SITE ADDRESS					
3. BRIEF LEGAL DESCRIPTION					
4. OWNER'S NAME/ADDRESS AND TELEPHONE NUMBER					
I. UTILITY AGENCY INFORMATION FOR:					
1. COACHELLA VALLEY WATER DISTRICT (CVWD)					
2. IMPERIAL IRRIATION DISTRICT (IID)					
3. SOUTHERN CALIFORNIA EDISON (SCE)					
4. SOUTHERN CALIFORNIA GAS					
5. VERIZON (FORMALY GTE)					
6. TIME WARNER CABLEVISION					
J. EARTHWORK VOLUMES – SHOWN RAW VOLUMES AND SHINKAGE, SUBSIDENCE, BULKING AND OVEREXCAVATION FACTORS.					
K. ROUGH GRADED STREET/DRIVE ISLE SECTIONS AND DETAILS (MAY BE SHOWN ON SEPARATE SHEET IF ROOM DOES NOT PERMIT ON TITLE SHEET). SHOW LIMITS OF ROUGH GRADE, DEPTH, AND ALL HINGE POINTS.					
L. FEMA FLOOD ZONE DESIGNATION.					
M. TYPICAL GRADING DETAIL(S).					

	1ST CHECK	2ND CHECK	3RD CHECK	FINAL MYLAR	COMMENTS
V. PLAN SHEETS					
A. GRADING AND PAVING PLAN SHOWS:					
1. NORTH ARROW (PREFERRED TO POINT UP OR TO THE RIGHT)					
2. 4" BAR SCALE – SCALE TO BE A TYPICALLY USED SCALE, I.E. 1"=20' OR LARGER.					
3. SHOW COMPLETE BOUNDARY NFORMATION AND LOT LINE ANNOTATION.					
4. SHOW ALL PARCEL/LOT NUMBERS.					
5. SHOW ALL EASEMENTS.					
6. SHOW ADJACENT RECORD MAP REFERNCES.					
7. DIMENSION STREET AND RIGHT OF WAY WIDTHS.					
8. PARKING FACILITY DESIGN STANDARDS SHALL BE CONSITENT WITH CHAPTER 9.150 OF THE LA QUINTA MUNICIPAL CODE. GENERAL GUIDELINES ARE AS FOLLOWS:					
a. EXCEPT FOR SINGLE FAMILY DETACHED, SINGLE FAMILY ATTACHED, DUPLEX AND TOWNHOME RESIDENTIAL USES, NO PARKING FACILITY SHALL BE DESIGNED SO THAT VEHICLES ARE REQUIRED TO BACK INTO A PUBLIC STREET.					
b. NO PARKING SPACE SHALL BE LOCATED WITHIN THREE FEET OF ANY PROPERTY LINE.					
c. WITH THE EXCEPTION OF SINGLE FAMILY DETACHED, SINGLE FAMILY ATTACHED AND DUPLEX RESIDENTIAL USES, ALL PARKING BAYS SHALL BE BORDERED BY CONTINUOUS CURBS TO SERVE AS DRAINAGE CHANNELS AND AS WHEEL STOPS. INDIVIDUAL WHEEL STOPS SHALL NOT BE PERMITTED IN LIEU OF SUCH CURBS.					
d. ALL DRIVEWAYS SHALL BE DESIGNED FOR POSITIVE DRAINAGE. IF AN INVERTED CROWN IS PROPOSED FOR A DRIVEWAY, THE CENTER PORTION SHALL BE A RIBBON GUTTER OF PORTLAND CEMENT CONCRETE RATHER THAN ASPHALTIC CONCRETE.					
e. PARKING LOT LAYOUTS SHALL PROVIDE A CLEAR HIERARCHY OF MAJOR ACCESS DRIVES (CONNECTING THE PARKING AREA TO THE PUBLIC STREET), FIRE LANES, LOADING AREAS, MINOR DRIVES, PARKING BAY MANEUVERING AREAS, ETC. PARKING SHALL NOT BE ARRANGED TO REQUIRE BACKING OUT INTO MAJOR ACCESS DRIVES.					
f. IN ORDER TO AVOID DEAD END AISLES, PARKING BAYS WITH TEN SPACES OR MORE SHALL CONNECT WITH OTHER PARKING BAYS OR DRIVE AISLES OR SHALL PROVIDE A TURNAROUND AREA AT THE END OF THE BAY.					

	1ST CHECK	2ND CHECK	3RD CHECK	FINAL MYLAR	COMMENTS
g. PARKING ACCESSWAYS ARE THOSE DRIVEWAYS THAT PROVIDE INGRESS OR EGRESS FROM A STREET TO THE PARKING AISLES, AND THOSE DRIVEWAYS PROVIDING INTERIOR CIRCULATION BETWEEN PARKING AISLES. NO PARKING IS PERMITTED ON AN ACCESSWAY.					
h. ALL PARKING FACILITIES TAKING ACCESS FROM A MAJOR, PRIMARY OR SECONDARY ARTERIAL HIGHWAY SHALL HAVE A PARKING ACCESSWAY BETWEEN THE ARTERIAL AND THE PARKING AISLES.					
i. PARKING ACCESSWAYS FROM ARTERIAL HIGHWAYS SHALL NOT HAVE PARKING SPACES TAKING DIRECT ACCESS THEREFROM AND SHALL NOT BE INTERSECTED BY A PARKING AISLE OR ANOTHER PARKING ACCESSWAY FOR A MINIIMUM DISTANCE OF THIRTY FEET FOR PROJECTS WITH ZERO TO TWO HUNDRED SPACES, FIFTY FEET FOR PROJECTS WITH TWO HUNDRED ONE TO THREE HUNDRED FIFTY SPACES, SEVENTY FIVE FEET FOR PROJECTS WITH THREE HUNDRED FIFTY ONE TO FOUR HUNDRED FIFTY SPACES, AND NINETY FEET FOR PROJECTS WITH FOUR HUNDRED FIFTY ONE SPACES OR MORE.					
j. PARKING ACCESSWAYS FROM NONARTERIAL STREETS AND HIGHWAYS SHALL NOT BE LESS THAN TWENTY FEET IN LENGTH FROM THE ULTIMATE CURB LINE OF THE ADJACENT STREET.					
k. ONE-WAY ACCESSWAYS SHALL HAVE A MINIMUM WIDTH OF FIFTEEN FEET, UNLESS THE ACCESSWAY IS A FIRE LANE, WHICH REQUIRES A MINIMUM OF TWENTY FEET.					
l. TWO-WAY ACCESSWAYS SHALL HAVE A MINIMUM WIDTH OF TWENTY-SIX FEET.					
m. ENTRY/EXIT DRIVEWAYS SHALL BE PLACED WHERE THEY RESULT IN THE LEAST INTERFERENCE WITH THE FLOW OF TRAFFIC ON THE PUBLIC STREET TO WHICH THEY CONNECT.					
n. JOINT ENTRY DRIVEWAYS ARE ENCOURAGED AND SHALL BE ARRANGED TO ALLOW PARKING LOT MANEUVERING FROM ONE ESTABLISHMENT TO ANOTHER WITHOUT REQUIRING EXIT TO THE STREET. ADJACENT PROPERTIES SHALL MAINTAIN AGREEMENTS WHICH PERMIT RECIPROCAL DRIVEWAY CONNECTIONS ACROSS PROPERTY LINES.					
o. REGULAR SPACE DIMENSIONS. ALL PARKING SPACES UP TO THE MINIMUM REQUIRED SHALL BE DESIGNED FOR REGULAR VEHICLE PARKING.					

	1ST CHECK	2ND CHECK	3RD CHECK	FINAL MYLAR	COMMENTS
REGULAR VEHICLE SPACES SHALL BE 9' WIDE, 17' LONG (WITH OVERHANG), and 19' LONG WITHOUT OVERHANG.					
p. COMPACT SPACE DIMENSIONS. COMPACT SPACES ARE PERMITTED ONLY IF SUCH SPACES ARE IN EXCESS OF THE MINIMUM PARKING REQUIREMENT FOR THE USE. COMPACT SPACES SHALL BE 8 ½' WIDE, 16' LONG (WITH OVERHANG), 17 ½ FEET LONG (WITHOUT OVERHANG).					
q. END SPACES. PARKING SPACES AT THE END OF A PARKING AISLE AGAINST A CURB OR WALL SHALL BE WIDENED BY TWO ADDITIONAL FEET AND/OR SHALL HAVE A BACKING OUT POCKET PROVIDED.					
r. PARALLEL SPACES. SPACES PROVIDED FOR PARALLEL PARKING SHALL BE A MINIMUM OF NINE FEET WIDE AND TWENTY FOR FEET IN LENGTH TO PERMIT ROOM FOR MANEUVERING. IF A WALL OR CURB IN EXCESS OF EIGHT INCHES IN HEIGHT IS ADJACENT TO THE PARALLEL PARKING SPACE, THE SPACE SHALL BE TEN FEET IN WIDTH. ALL END SPACES CONFINED BY A CURB SHALL BE THIRTY FEET LONG.					
s. ENTRY/EXIT DRIVEWAYS. ENTRY AND EXIT DRIVEWAYS FOR COMMERCIAL AND MULTIFAMILY PARKING LOTS SHALL BE A MINIMUM OF 28' WIDE PLUS ANY MEDIAN WIDTH (MEDIANS SHALL BE A MINIMUM OF 3' IN WIDTH). ADDITIONAL TURNING LANES, IF REQUIRED, SHALL BE A MINIMUM OF 12' IN WIDTH. MAXIMUM DRIVEWAY WIDTH SHALL BE 48' PLUS MEDIAN.					
t. INTERNAL DRIVEWAY WIDTHS SHALL CONFORM TO THE MINIMUM WIDTHS, DEPENDING ON THE ANGLE OF PARKING IN TABLE 9-13 (SHOWN BELOW).					

PARKING ANGLE (DEGREES)	**ONE-WAY AISLE WIDTH (FEET)**	**TWO-WAY ISLE WIDTH (FEET)**
0-44 (0 DEGREES = PARALLEL)	14'	26'
45-54	16'	26'
55-64	18'	26'
65-79	22'	26'
80-90	26'	26'

9. EXISTING CONTOURS SHALL BE SHOWN IN SCREENED OR DASHED LINE TYPES AT THE FOLLOWING INTERVALS:					
a. SHOW EXISTING CONTOURS A MINIMUM OF 15' BEYOND ALL PROPTERTY LINES OR AS NEEDED FOR DAYLIGHT OR TO JUSTIFY THE DESIGN.					
b. 1' MAXIMUM CONTOUR INTERVAL ON NORMAL AREAS.					
c. SHOW ½ FOOT CONTOURS IN VERY FLAT AREAS.					
10. SHOW PROPOSED CONTOURS IN HEAVY SOLID LINES. MATCH CONTOUR INTERVALS FOR REQUIRED EXISTING COUNTOURS.					

	1ST CHECK	2ND CHECK	3RD CHECK	FINAL MYLAR	COMMENTS
11. SHOW PAD ELEVATIONS OR DIRT ELEVATIONS TO THE NEAREST 0.1'. SHOW FINISHED FLOOR OR "HARD" SURFACE ELEVATIONS TO THE NEAREST 0.01'.					
12. FINISHED FLOOR ELEVATION SHALL BE A MINIMUM OF 1 FOOT ABOVE FLOOD ELEVATION IF THE PROPERTY IS LOCATED IN AN A, A1-30, AND/OR A0 FEMA ZONE.					
13. SHOW FINISHED PAD AND FLOOR ELEVATIONS OF ADJACENT PROPERTIES. NOTE IF VACANT.					
14. SHOW BUILDING FOOTPRINT OUTLINE. SHOW ANY DEPRESSED OR RAISED SLAB AREAS.					
15. SHOW ROOF OVERHANG LINE.					
16. SHOW SPOT ELEVATIONS ON EXISTING STRUCTURES NEAR PROPERTY LINES, SUCH AS WALLS, HEDGES, TREES, BUILDINGS, ETC.					
17. MINIMUM RATES OF GRADE SHALL BE AS FOLLOWS UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER:					
a. EARTH OR TURF SWALES ARE 0.50%, MIN.					
b. ASPHALT CONCRETE PAVEMENT – 1.0% MIN.					
c. PORTLAND CEMENT CONCRETE PAVEMENT – 1.0% MIN. FLOW IN PCC GUTTERS – 0.5% MIN.					
d. 5.0% MAX. SLOPE IN ALL GENERAL PARKING AREA. DRIVEWAYS MAY BE UPTO 10% IF ALTERNATE ADA ACCESSIBLE ROUTES ARE PROVIDED.					
e. HANDICAP STALLS ARE 2% OR LESS IN ALL DIRECTIONS.					
f. 2.0% MINIMUM SHEET FLOW AWAY FROM THE BUILDING TO A DRIVE ISLE OR STORM DRAIN SYSTEM.					
18. CONCENTRATED FLOWS SHALL BE CONVEYED ON PCC SURFACES.					
19. SHOW PROPOSED ELEVATIONS AT :					
a. TOP OF CURB/FLOW LINES ON PLANTER ISLANDS AND DRIVE ISLES.					
b. CONCRETE AND ASPHALT SURFACES.					
c. TOPS AND BOTTOM OF STAIRS.					
d. DOORWAY THRESHOLDS					
e. BUILDING CORNERS					
f. GRADE BREAKS					
g. ALL HIGH POINTS, FLOWLINES AND RIDGELINES					
h. ELEVATIONS AT CATCH BASINS, MANHOLES, JUNCTION STRUCTURES, BENDS, INLETS AND OUTLETS, AND RETENTION BASINS					
i. ANY OTHER ELEVATIONS PERTINENT TO THE GRADING DESIGN					
20. SHOW ROOF DRAINS WITH BOTH VERTICAL AND HORIZONTAL LOCATIONS. SHOW CONNECTION LOCATIONS TO ANY UNDERGROUND SYSTEM. THE ROOF EMERGENCY OVERFLOW DRAINS MUST BE ON INDEPENDENT LINES PER THE UBC.					

	1ST CHECK	2ND CHECK	3RD CHECK	FINAL MYLAR	COMMENTS
21. SHOW PROPOSED WATER AND SEWER LINES AND SERVICE LOCATIONS.					
22. SHOW CONCRETE STIPPLING ON PCC SURFACES. SHOW SHADING OR OTHER INDICATOR ON AC SURFACES. LABEL PLANTER AREAS.					
23. DETAILS OF ANY ON SITE DRAINAGE STRUCTURES, WALLS, SURFACE PROTECTION, ETC. SHALL BE SHOWN ON THE PLANS.					
24. NO DRAINAGE OVER RETAINING WALLS. USE CONCRETE "V" DITCHES, AREA DRAINS, DOWN DRAINS OR OTHER APPROVED DRAINAGE DESIGN.					
25. JOIN ELEVATIONS AND RELATIONSHIPS TO SURROUNDING PROPERTIES ARE SHOWN.					
26. SHOW LOCATIONS OF ALL EXISTING AND PROPOSED STRUCTURES, BURIED TANKS AND WELLS.					
27. LOCATION OF BLOCK WALLS AND OTHER STRUCTURES ARE CLEARLY SHOWN. SHOW TOP OF WALL, GROUND, AND TOP OF FOOTING ELEVATIONS.					
28. INCLUDE DISPOSITION NOTES FOR EXISTING FACILITIES. THE TERM "BY OTHERS" SHALL NOT BE USED BUT SHALL BE DEFINED.					
29. INCLUDE CONSTRUCTION NOTES ON EACH SHEET. DO NOT REFER BACK TO CONSTRUCTION NOTES ON THE TITLE SHEET.					
30. REFER TO CITY STANDARD DRAWING NO. IF APPLICABLE TO WORK. PROVIDE SPECIFICATIONS, NOTES, DETAILS OR OTHER APPROVED STANDARD DRAWING NO. IF DIFFERENT FROM CITY STANDARD.					
B. HORIZONTAL CONTROL PLAN SHOWS:					
1. NORTH ARROW (PREFERRED TO POINT UP OR TO THE RIGHT)					
2. 4" BAR SCALE – SCALE TO BE A TYPICALLY USED SCALE, I.E. 1"=40' OR LARGER.					
3. SHOW COMPLETE BOUNDARY INFORMATION AND LOT LINE ANNOTATION.					
4. SHOW ALL PARCEL/LOT NUMBERS.					
5. PROVIDE TYPICAL DIMENSIONS THROUGH PARKING LOT STALLS AND DRIVE ISLES.					
6. PROVIDE LINE AND CURVE DATA FOR CURBS.					
7. DIMENSION BUILDINGS FROM PROPERTY CORNERS TO BUILDING CORNERS.					
8. SHOW AND DIMENSION BUILDING SETBACKS AND PLANTER SETBACKS.					
9. SHOW AND LABEL PARKING LOT STALL AND DRIVE ISLE STRIPING, HANDICAP STRIPING, SIGNING AND OTHER TRAFFIC CONTROL (MAY BE SHOWN ON GRADING PLANS IF ROOM PERMITS).					
10. PROVIDE SUFFICIENT CONTROL AND DATA TO STAKE IMPROVEMENTS.					

	1ST CHECK	2ND CHECK	3RD CHECK	FINAL MYLAR	COMMENTS
VI. GENERAL REQUIREMENTS					
A. GEOTECHNICAL REPORT					
1. CHECK FOR CONFORMANCE WITH SOILS ENGINEER RECOMMENDATIONS.					
2. PLANS SIGNED BY SOIL'S ENGINEER.					
3. UPDATE LETTER IF SOILS REPORT IS MORE THAN 1 YEAR OLD.					
4. DELINEATE AREAS OF OVEREXCAVATION AND RECOMPACTION. WHERE DEPTH EXCEEDS 12", SOILS ENGINEER TO RECOMMEND COMPACTION IN THE FINAL REPORT.					
5. RECOMMENDATIONS FOR SHRINKAGE AND SUBSIDENCE.					
6. RECOMMENDATIONS FOR PERCOLATION PROVIDED IF MORE THAN 1" PER HOUR IS USED IN RETENTION BASIN SIZING.					
7. DELINEATE ON THE PLANS AND PROVIDE DETAILS FOR ROCK DISPOSAL AREAS AS RECOMMENDED BY THE SOILS ENGINEER.					
8. PAVEMENT DESIGN FOR "NORMAL" PAVEMENT SECTIONS AND "HEAVY" PAVEMENT SECTIONS. MINIMUM PARKING LOT PAVEMENT SECTION IS 3"AC OVER 4.5" AB.					
B. EROSION CONTROL REQUIREMENTS					
1. LOCAL AIR QUALITY MANAGEMENT PLAN (LAQMP) HAS BEEN SUBMITTED AND APPROVED BY THE CITY.					
2. NPDES AND STATE WATER RESOURCE REQUIREMENTS HAVE BEEN MET.					
C. DESIGN REQUIREMENTS					
1. PAD ELEVATIONS AND GRADING CONCEPTS ARE IN ACCORDANCE WITH THE APPROVED TENTATIVE MAP/SITE DEVELOPMENT PERMIT AND CONDITIONS OF APPROVAL.					
2. DRAINAGE SHALL BE CONDUCTED TO A STREET, NATURAL WATERCOURSE, RETENTION BASIN OR OTHER APPROVED LOCATION.					
3. A NOTARIZED LETTER OF PERMISSION/ACCEPTANCE FROM ADJACENT PROPERTY OWNER(S) REQUIRED FOR SLOPE ENCROACHMENT, ACCEPTANCE OF UN-NATUARL DRAINAGE OR OTHER OFF SITE GRADING OR WORK. INCLUDE LEGAL DESCRIPTION AND ASSESSOR'S PARCEL NUMBERS.					
4. RECIPROCAL ACCESS AND PARKING EASEMENTS/AGREEMENTS ARE IN PLACE.					
5. PROVIDE CC&R'S OUTLINING DRAINAGE RIGHTS AND MAINTENANCE RESPONSIBILITIES.					
6. STRUCTURAL CALCULATIONS ARE REQUIRED FOR ALL NON STANDARD WALLS. ALL WALL CONSTRUCTION IS BY SEPARATE PERMIT.					

	1ST CHECK	2ND CHECK	3RD CHECK	FINAL MYLAR	COMMENTS

COMMENTS: