



MINOR DESIGN REVIEW CHECKLIST

Per Development Code Section 17.16.130, a Minor Design Review is provided for all residential and commercial, mixed-use, industrial, and institutional projects which meet any of the following criteria:

Commercial, mixed-use, industrial, and institutional projects:

- New construction on vacant property, where the buildings are less than ten thousand (10,000) square feet in area.
- Structural additions or new buildings which are less than fifty percent (50%) of the floor area of existing on-site building(s), or between 1,001 square feet and 10,000 square feet in area, whichever is less.
- Reconstruction projects which are less than fifty percent (50%) of the floor area of existing on-site building(s), or between 1,001 square feet and 10,000 square feet in area, whichever is less.
- Projects involving substantial change or intensification of land use, such as the conversion of an existing building to a restaurant.
- Projects which exceed the thresholds for Site Development Review in section 17.16.100.

Residential projects:

- Residential construction involving four (4) or less dwelling units.
- Projects involving a substantial change or intensification of land use, such as the conversion of a residential structure to an office, commercial, or mixed-use.

SECTION 1: Filing Requirements

- ☐ 1. A Minor Design Review Application through our Online Permit Center at <https://www.cityofrc.us/onlinepermitcenter>.
- ☐ 2. Signed Property Owner Declaration Form (attached) uploaded to the online application. **NOTE: The form must be signed by the legal property owner, property manager, or other legal representative of the property. Invalid signatures will not be accepted and will delay the intake process.**
- ☐ 3. Signed Hazardous Waste Site Statement (attached) uploaded to the online application.
- ☐ 4. Development package (see Section 3) uploaded to online application. **NOTE: The development package must be in one single PDF file at a maximum size of 100 MB. Individual sheets or large files will not be accepted and will delay the intake process. Please follow the instructions for PDF Formatting Requirements for EDR Submission attached.**
- ☐ 5. Water Quality Management Plan (WQMP) uploaded to the online application. Priority Project requirements are on a separate handout available from the Engineering Services Department at <https://www.cityofrc.us/community-development/engineering>.
- ☐ 6. Filing Fees (see Section 2) will be assessed after all required documents are uploaded to the online application.



SECTION 2: Filing Fees

Refer to the Development Fee Schedule for most current fees (<https://www.cityofrc.us/community-development>). Additional fees may apply upon review of the application. Application fees include review for completeness review and up to 2 technical/design submittals. Additional processing fee will apply to 3rd and subsequent technical/design submittals.

- ☐ Minor Design Review See current fee list

SECTION 3: Plan Preparation Guidelines

All plans shall be clear, legible, and accurately scaled. Plans not conforming to these guidelines will not be accepted for processing.

- ☐ 1. All uploaded plan documents shall be provided in PDF format. In addition, the applicant is encouraged to submit CAD/3D CAD and Building Information Model (BIM) files) following the approval of a project.
- ☐ 2. All plans shall be drawn to an appropriate engineering and/or architectural scale, with the scale clearly labeled (Grading Plan scale should not typically exceed 1" = 40'). All elevations should, where feasible, be drawn to an architectural scale no smaller than 1/4" = 1'. All plans should be clear, legible, and accurately scaled.
- ☐ 3. All plans shall be clearly labeled with the title of each sheet and have a unique sheet number.
- ☐ 4. All site plans need to contain a north arrow and a legend identifying any symbols.
- ☐ 5. A one-sheet index map shall be provided when a plan cannot contain the entire project on one sheet.
- ☐ 6. Existing versus proposed improvements must be clearly identified and all items may not apply to all projects.

SECTION 4: Contents of Development Package

The items listed below are considered a minimum. Additional information may be necessary for clarification during the review process. At staff's discretion, certain information contained below may not be considered required, depending on the circumstances of a particular application.

PLEASE READ: The development package must be in one single PDF file at a maximum size of 100 MB. Individual sheets or large files will not be accepted and will delay the intake process. Please follow the instructions for PDF Formatting Requirements for EDR Submission attached.

- ☐ A. **Project Description:** A written project description shall accompany the application. This detailed description must include detail pertaining to the project, including but not limited to: narrative description of the project, proposed construction inclusive of proposed number of buildings, square footage to be built/added, thorough description of use, including hours of operation, number of employees, and number of parking spaces proposed. The project description shall also describe existing conditions of the site prior to proposed development. This includes a description of existing structures, uses, natural features (and whether these natural features will remain or be altered or removed). Note that additional information may be required of the project description as may be necessary depending on environmental determination.
- ☐ B. **Site Utilization Map:** This map shall show the location of the site and the relationship of the proposed project to existing surrounding uses. The map shall indicate the proposed project site plan and all of the following items within a 600-foot radius: all parcel lines and streets (r.o.w., improvements, drainage facilities), location and use of structures, adjacent access and circulation, and existing zoning and land use (the scale of this map shall not be less than 1" = 100').
- ☐ C. **Existing Site Plan:** Where a project site or project area may be redeveloped, in part or in whole, the development package shall include an existing site plan. The existing site plan shall illustrate all existing structures and identify if these structures shall remain, be removed, or be altered. The existing site plan shall illustrate existing building sizes in square feet and a brief description of the previous use of each building. The existing site plan shall also illustrate all vehicular and pedestrian access points and all landscaping, and if these features are proposed to remain or be removed or altered.



- ☐ **D. Detailed Site Plan (shall include the following):**
 - ☐ Name, address, phone number, and email address of the applicant and the author of the plan.
 - ☐ Property lines and lot dimensions
 - ☐ Site and block configurations
 - ☐ Dimensioned locations of:
 - ☐ Setbacks (actual) from all buildings to street curb face, and the side and rear property lines.
 - ☐ Street dedications and improvements (existing and proposed), including overhead utilities.
 - ☐ Access, both vehicular and pedestrian, showing service areas and points of ingress and egress.
 - ☐ Off-street parking and loading or outdoor storage areas showing location, number, and typical dimension of spaces and wheel stop location (where used).
 - ☐ All existing street improvements and driveways on adjacent and across-the-street properties within 200 feet of the site.
 - ☐ All proposed public-right-of-way street improvements and street sections in compliance with City's General Plan
 - ☐ Any existing or planned median islands within 200 feet of the site.
 - ☐ All buildings within 200 feet of the site.
 - ☐ Internal circulation pattern both vehicular and pedestrian. Show truck turning radii where applicable.
 - ☐ Distances between buildings and/or structures.
 - ☐ Building and accessory structure locations, including pavement/sidewalks, trellises, light standards, trash enclosures, transformers, double detector check (DDC), Fire Department connections (FDC), and monument signs, including dimensioned setbacks (front, rear, and sides).
 - ☐ Location, height, and materials of walls and fences.
 - ☐ For residential projects: Summary Table listing each lot, its floor plan, elevation treatment, and lot coverage. Also, provide a Unit Mix Table tallying how many of each floor plan, and elevation treatment.
 - ☐ Total existing impervious area (square feet)
 - ☐ Total new impervious area (square feet)
 - ☐ Total removal and replacement of impervious area (square feet)
 - ☐ Fire protection equipment (PIV, FDC, Risers, etc).



- ☐ E. **Conceptual Landscape Plan:** This plan shall include the following:
 - ☐ All proposed and existing structures and improvements as shown on the detailed site plan; however, all dimensions shall be excluded. Show roof outlines, including eave overhang.
 - ☐ Conceptual location of plants and a planting legend which identifies such things as:
 - ☐ Trees, shrubs, and ground cover areas or other softscape elements. Indicate intended function of plants (i.e. street tree, accent tree, canopy shade tree, screening hedge, etc.).
 - ☐ Water elements and public art.
 - ☐ Slope planting scheme.
 - ☐ Plazas, sidewalks, or other hardscape elements, such as special paving materials or rockscape.
 - ☐ Walls or fences and their materials.
 - ☐ Location and design of community amenities and a legend which identifies such things as:
 - ☐ Common or public open space/recreation areas.
 - ☐ Tot lots, barbeque areas, pools/spas, recreation buildings, sports courts, etc.
 - ☐ Primary and secondary project entry points and their treatment (textured paving, security gates, accent planting, entry walls, and/or monument signs).
 - ☐ Private and public sidewalks, greenbelts, and/or equestrian trails.
 - ☐ Emergency vehicle access.
 - ☐ Line of sight (a policy handout can be requested from the Engineering Services Department)
 - ☐ When the project is located in a designated Rancho Cucamonga Wildland-Urban Interface Fire Area, a defensible space landscaping plan or fire protection plan is required to be approved for the project to be deemed complete. See Section 5 below.
- ☐ F. **Elevations:**
 - ☐ Illustrative elevations of all sides of all buildings and structures. "Illustrative" building elevations means drawn with shadows to give depth with people, cars, or trees for scale. Do not cover the elevation with trees, cars, or people – place them behind or on the side. For projects subject to Article VIII, clearly identify building types for each building.
 - ☐ Conceptual locations of commercial signage (location, size, type) with a note that all signage will be under separate permit.
 - ☐ Illustrative elevations of all walls and/or fences.
 - ☐ Illustrative cross sections and enlargements or architectural elements or details as needed.
 - ☐ All exterior building materials shall be clearly labeled on each sheet of elevations.
 - ☐ Dimension the height of the highest wall and/or roof element and the height of any architectural features such as towers or cupolas.
 - ☐ Front elevations for single-family residential structures shall be drawn to an architectural scale of 1/4" = 1'0" (rear and side elevations may be drawn at 1/8" = 1'0").



- ☐ **G. Floor Plans:**
- ☐ All floors, including labels use of each room (bedroom, kitchen, game room, etc.)
- ☐ **H. Roof Plan**
- ☐ **I. Photometric Lighting Plan** A photometric lighting plan which includes light standards and fixture detail sufficient to determine shielding and lighting requirements in compliance with Development Code Section 17.58.
- ☐ **J. Phasing Plan:** If phasing is to occur, a plan shall indicate the limits of each phase.
- ☐ **K. Conceptual Master Plan:** If the project site is located adjacent to vacant/undeveloped property and/or minimally developed property that could be subject to future additional development, then a conceptual Master Plan is required to show (on the adjoining property) potential features/improvements such as, but not limited to, building locations (commercial/industrial); subdivision layout (residential); streets; trails; parking areas; access driveways and drive aisles; and landscaping.
- ☐ **L. Conceptual Grading Plan:** Proposed items shall be designated with solid lines and existing items with short dashes or screened. Projects which are subject to the Hillside Development Ordinance shall refer to the Ordinance for additional submittal requirements.
- ☐ Proposed grading – structures, curbs, walls (height), gutters, pavement, drainage structures, swales, mounding, slopes, open space, and trails. The plan shall include distances, spot elevations, gradients, contours, details, cross-sections, flow arrows, etc.
- ☐ Existing grading – same as for proposed grading, except shall be screened as a background for the proposed grading information.
- ☐ Maximum contour intervals shall conform to the following:
- | Slope | 2% or less | From 2% to 9% | Over 9% |
|----------|------------|---------------|---------|
| Interval | 2' | 5' | 10' |
- ☐ Prior to preparing the topographic survey, the applicant shall provide a topographic map showing the existing features within 200 feet beyond site boundaries (label "To remain" or "To be removed") – natural ground (contours), trees, structures, (pad and floor elevations), drainage courses, drainage facilities (type and size), streets, trails, and slopes. The applicant may also meet with City staff to determine the limits of topography.
- ☐ Structures – footprints, pad and floor elevations, retaining walls and stem walls.
- ☐ Cross-sections at all site boundaries shall be drawn to both an engineering horizontal and vertical scale showing existing and proposed grading, cut versus fill conditions, wall heights (including retaining walls), and elevation differences (maximum and minimum conditions) between off-site structures and those on-site. Sections shall extend through building pads and/or streets. Sections shall be drawn where the adjacent property is affected to the greatest extent.
- ☐ Separate cut and fill areas with a clearly identified line. In addition, one copy of the plan shall be submitted with fill areas colored in green and cut areas colored in red.
- ☐ Easements, property lines, rights-of-way.
- ☐ Natural areas to be preserved (undisturbed – no grading).
- ☐ Parkway culverts where drainage is directed to streets, except for single family residences.
- ☐ Retaining walls – top and footing elevations.
- ☐ Location, elevation, and size of proposed building pads.
- ☐ Provide a preliminary drainage report to determine storm drain requirements for the proposed development based on the drainage criteria outlined in the Engineering subdivision guidelines and drainage report requirements. Consider full



development of the area bounded by the project, as well as tributary areas upstream.

- ☐ For new development and significant redevelopment projects where a Preliminary Project-Specific Water Quality Management Plan (WQMP) is required, the Preliminary Project-Specific WQMP may consist of only a complete WQMP Site and Drainage Plan. This Plan shall be labeled "Preliminary WQMP Site and Drainage Plan."
- ☐ Streets – existing and proposed cross-sections, improvements, rights-of-way, etc. Show centerline radii and gradient.
- ☐ Existing and proposed sewers or other method of sewerage.
- ☐ Custom lot subdivision – show grading for streets, drainage, trails, and driveways that serve as emergency vehicle access roads (fire lanes) only. In addition, provide a separate plan showing possible future house plotting and lot grading to be completed on a lot-by-lot basis.
- ☐ Indicate location of benchmark(s).
- ☐ All sheets shall have the Geotechnical Engineer and Civil Engineer's California registration seal and original signature prior to plan submittal.

Original plan sheets shall be sufficiently clear. Scale selected for each sheet. One inch equals 40 feet (maximum) or one inch equals 20 feet for all projects.
- ☐ Cut and fill quantities, exclusive of street quantities in cubic yards. These shall also be placed on the plan cover sheet in addition to submittal by letter.
- ☐ Detailed plans of all surface and subsurface drainage devices, walls, cribbing, dams and other protective devices to be constructed with, or as part of, the proposed work, together with a map showing the drainage area and the estimated runoff of the area served by any drains.
- ☐ Provide dimensions, elevations, or proposed contours to be achieved by the grading.
- ☐ Show side yard swale at least 3 feet away from the building with a 2 percent slope longitudinally and 5 percent minimum – 20 percent maximum transversely.
- ☐ Show rear yard swale at 10 feet minimum away from the building with a 2 percent minimum and 6 percent maximum slope longitudinally and 5 percent minimum – 20 percent maximum transversely, or if greater than 10 feet from the building, 1 percent minimum longitudinally.
- ☐ Extend the earthen swale to the back of the sidewalk when the lots are at the cul-de-sac or knuckle.
- ☐ Provide all wall and retaining wall height, both existing and proposed with elevations.
- ☐ Show typical required setbacks for corner and interior lots on the cover sheet.
- ☐ Show the actual setbacks (property line to structure and all distance between structures).
- ☐ Provide cross-sections along all the property parameters and typical interior lots. If requested, additional cross-sections shall be provided.
- ☐ Provide driveways with a maximum slope of 10 percent, subject to Planning review and approval.
- ☐ Provide 18-foot area at 5 percent maximum slope in front of the garage. If not applicable, a driveway slope of 10 percent shall be provided. Any slopes exceeding 10 percent shall be subject to Planning and Economic Development Department review and approval.



- ☐ Total existing impervious area (square feet)
- ☐ Total new impervious area (square feet)
- ☐ Total removal and replacement of impervious area (square feet)
- ☐ **M. Overhead Utility Plan:** This plan shall be drawn to scale on an 8-1/2" x 11" format showing the location and type of existing utility lines and supporting poles on both sides of all streets, alleys, railroad and flood control channel rights-of-way adjacent to the project limits and extending to the first existing pole off-site from the site boundaries (see separate handout available from the Engineering Services Department).

SECTION 5: Fire District Submittal Requirements

For questions or to obtain additional information, please contact the Fire District at RCFire@CityofRC.us or 909-477-2770

- ☐ 1. The specifics of the buildings for this project, such as use, occupancy, square footage, height, number of stories and type of construction in accordance to the current California Building code must be included in the plans. The Building and Safety Services Department and Fire District require this information to provide the applicant with a complete review and applicable comments.
- ☐ 2. Annexation of the project into the Community Facilities District #85-1 or #88-1, as applicable, for fire protection services is required for new construction on sites that have not been previously annexed. Please contact the City's Special Districts division to determine if the site has been previously annexed or is required to be annexed as a condition of approval of this project. If annexation is required, proof of annexation is required for the project application to be deemed complete.
- ☐ 3. Proof of available fire flow must be obtained from the water purveyor, either Cucamonga Valley Water District (CVWD) or Fontana Water Company (FWC). Allow sufficient time for the water purveyor to perform the test and produce a letter confirming the available fire flow. The applicant can submit the proof of the fire flow letter to the case file for this project through the Online Permit Center. The letter must be current (within one-year of the request) and be site specific. The fire flow requirement will be deemed complete only if the available fire flow meets or exceeds the fire flow required in accordance with the California Fire Code Chapter 9 and Appendix B. The required fire flow may be reduced by up to 75%, but not less than 1,500 GPM at 20 psi for buildings other than one- and two-family dwellings, Group R-3, R-3.1, and R-4 buildings and townhouses if the building will be equipped with an automatic fire sprinkler system in accordance with National Fire Protection Association (NFPA) Standards 13, 13R, or 13D as applicable and allowed by these standards.
- ☐ 4. A fire department and emergency vehicle access plan in compliance with the minimum requirements established by Fire District Standard 5-1 is required to be submitted. The applicant is required to design the fire lanes in accordance with the Standard, including aerial apparatus access for buildings with a highest point in excess of 30 feet. If gates are proposed to be installed across emergency vehicle access roads (fire lanes) the gate locations are required to be noted and designed to the applicable Fire District Standard.
- ☐ 5. A fire protection or defensible space landscape plan is required for all projects in the designated Rancho Cucamonga Wildland-Urban Interface Fire Area. For a project consisting of a single residential building of Group R-3, R-3.1, or R-4, a defensible space landscape plan in accordance with the provisions of Fire District Standard 49-1 is required to be approved for the project to be deemed complete. For all other projects, a fire protection plan in accordance with the provisions of Fire District Standard 49-1 is required to be approved for the project to be deemed complete.
 - a. The provisions of the Standard are applicable to new construction, additions to existing buildings and structures, the construction or placement of accessory structures on a parcel in the designated Wildland-Urban Interface Fire Area, and defensible space landscaping required by the various applicable provisions of the California Code of Regulations.
 - b. When not already provided, defensible space as detailed in the Vegetation Management and Landscaping Requirements of this Standard is required to be provided when any of the following occurs:
 - i. Construction of a new occupiable building or an addition to an existing occupiable building.
 - ii. Construction of an addition to an existing habitable or occupiable building.
 - iii. Construction or placement of a new accessory structure or an addition to an existing accessory structure.
 - iv. Approval of an outdoor storage area for a vehicle or vehicles.



PROPERTY OWNER DECLARATION FORM

PROJECT INFORMATION

Name of Proposed Project:	
Location of Project:	
Assessor's Parcel Number:	
Applicant Name:	Phone Number:
	Email:
Address:	

Type of Review Requested

- | | | |
|---|--|--|
| <input type="checkbox"/> Certificate of Appropriateness | <input type="checkbox"/> Landmark Alteration Permit | <input type="checkbox"/> Similar Use Determination |
| <input type="checkbox"/> Certificate of Economic Hardship | <input type="checkbox"/> Large Family Daycare Permit | <input type="checkbox"/> Site Development Review |
| <input type="checkbox"/> Community Plan Amendment | <input type="checkbox"/> Mills Act | <input type="checkbox"/> Specific Plan Amendment |
| <input type="checkbox"/> Minor/Conditional Use Permit | <input type="checkbox"/> Minor Design Review | <input type="checkbox"/> Temporary Use Permit |
| <input type="checkbox"/> Major Design Review | <input type="checkbox"/> Minor Exception | <input type="checkbox"/> Tentative Subdivision Map |
| <input type="checkbox"/> Development Agreement | <input type="checkbox"/> Plan Check/Zoning Clearance | <input type="checkbox"/> Tree Removal Permit |
| <input type="checkbox"/> Development Code Amendment | <input type="checkbox"/> Planned Community | <input type="checkbox"/> Uniform Sign Program |
| <input type="checkbox"/> Entertainment Permit | <input type="checkbox"/> Pre-Zoning | <input type="checkbox"/> Vacation of Easement |
| <input type="checkbox"/> General Plan Amendment | <input type="checkbox"/> Public Convenience or Necessity | <input type="checkbox"/> Variance |
| <input type="checkbox"/> Hillside Design Review | <input type="checkbox"/> Reasonable Accommodation | <input type="checkbox"/> Zoning Map Amendment |
| <input type="checkbox"/> Home Occupation Permit | <input type="checkbox"/> Sign Permit | <input type="checkbox"/> Other: _____ |

OWNER DECLARATION

I declare that, ☐ I am the owner, ☐ I legally represent the owner, of real property involved in this application and do hereby consent to the filing of the above information. Further, by signing, I attest that all individuals and entities with financial commitments associated with the proposed development have been clearly identified as required pursuant to SB 1439. Further, by signing I attest that I can provide proof that I legally represent the owner.

Date:	Signature:	
Print Name and Title:	Phone Number:	
	Email:	
Address:		



HAZARDOUS WASTE SITE STATEMENT

I have been informed by the City of Rancho Cucamonga of my responsibilities pursuant to California Government Code Section 65962.5 (<http://leginfo.legislature.ca.gov/>) to notify the City as to whether the site for which a development application has been submitted is located within an area which has been designated as the location of a hazardous waste site (attached) by the Office of Planning and Research, State of California (OPR).

I have also been informed by the City of Rancho Cucamonga that, as the date of executing this statement, OPR has not yet compiled and distributed a list of hazardous waste site as required by said Section 65962.5.

I am informed and believe that the proposed site for which a development application has been submitted is not within an area specified in said Section 65962.5 as a hazardous waste site.

I declare under penalty of perjury of the laws of the State of California that the foregoing is true and correct.

Applicant: _____

Date: _____

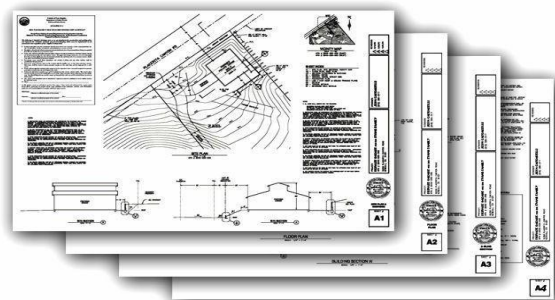


ONLINE PERMIT CENTER ELECTRONIC DOCUMENT REVIEW (EDR) SUBMISSION REQUIREMENTS

PDF FORMATTING REQUIREMENTS

Portable Document Format (PDF) is the industry standard for electronic plans. The City of Rancho Cucamonga only accepts PDF files for plan review. PDF files must be properly formatted as described below. Please read the following instructions carefully. Improperly formatted plans can delay the plan review process for your project.

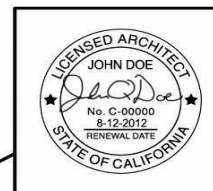
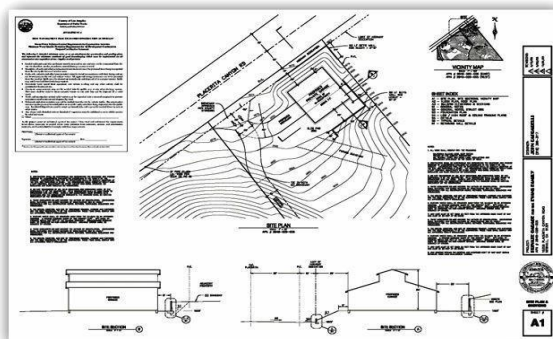
Layers:	No multiple layers. Layers must be merged or flattened.
Format:	Vector preferred
Resolution:	300 pixels per inch (PPI)
Color Depth:	Monochrome (1-bit)
File Size:	1 megabyte (MB) avg. per sheet. 100 MB total
Grouping:	Multiple-sheet PDF (single file with multiple sheets)



plans.pdf (multiple sheets)

✓ Correct

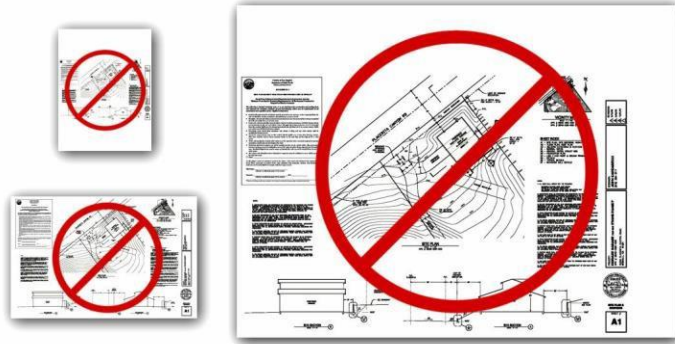
See "Formatting Q&A" on page 3 for more information on PDF file formatting and tips on how to create, convert, and merge PDF files. Each sheet of the plans must be sealed and signed by the designer of record. The signature may be applied to the drawing electronically (CCR Title 16, Div. 5, Sec. 411e).



✓ Correct



All sheets must be consolidated into one plan set up to a maximum size of 100 MB. Please consolidate plans to the fewest number of files possible.



Incorrect sheet size, scale, or margins will not be accepted.



Incorrect orientation will not be accepted.

FORMATTING Q&A:

Question: *Why does Rancho Cucamonga only accept PDF plans?*

Answer: Rancho Cucamonga is responsible for maintaining records of plans and providing the public with access to them. Files kept in our electronic database must be compatible with a wide range of computer software for storage, viewing, and printing. In addition, the file sizes must be manageable for transfer and for use by the public and City staff.

The PDF standard is constantly evolving, and Rancho Cucamonga will continue to evaluate these standards as necessary.

Question: *Are raster-based PDF files acceptable?*

Answer: Yes, assuming they meet the size limitation requirement of no more than 100 MB total. Vector-based PDF files are typically much larger than raster-based files. However, the City prefers vector-based files given the ability to scale these files.

Question: *How do I combine multiple PDFs into a single file?*

Answer: There are numerous PDF tools freely available on the Internet, which can be used to merge, rotate, and rearrange PDF files.



Question: *My PDF files are too big. What am I doing wrong?*

Answer: Properly formatted and compressed raster PDF files should not exceed 1MB per sheet. If your files are larger, you may have made one of the following errors:

- Saving the plans as 8-bit (grayscale) or 24-bit (full-color) raster files will drastically increase the file size. Even if the images contain only black and white objects, 8-bit and 24-bit files still contain all of the shade and color data. Plans must be saved as 1-bit (monochrome).
- Uncompressed files are much larger than compressed files. Construction plans contain mostly white space. The data required to store this white space can be significantly reduced. When converting your PDFs to raster images, be sure to use a form of lossless compression (such as LZW). When creating or saving PDF files, remember to specify "compressed."

Question: *How do I convert a vector-based PDF to a raster-based PDF if my file size is too large?*

Answer: The industry standard software for working with PDF files is Adobe Acrobat; however, there are numerous PDF tools freely available on the Internet.

Step 1: Save the vector-based PDF files as raster images (TIF or PNG). The format of the raster images is important (300 ppi, monochrome). We recommend TIF files with LZW compression.

Step 2: Convert the raster images back to compressed PDF files.

Step 3: Merge the individual PDF files into a single multi-sheet PDF file.

Question: *Some raster images are loading slowly in the PDF reader. What am I doing wrong?*

Answer: Transparent raster images require considerable resources to display. Even though the source image is not transparent, your CAD software may be plotting it with transparency (white pixels plotted as see-thru). Be sure to set image transparency "off" before plotting.