



# Engineered Grading Process, Guidelines & Forms

The Engineered Grading Process is a component of all projects that have been identified through the Inter-division Staff (IDS) review process as requiring engineered grading. Smaller projects (residential) are required to complete the Grading Permit Checklist.

A City of Flagstaff Engineering project manager will be assigned to each project as the single point of contact (SPOC) for items relating to an IDS project. For smaller projects a building inspector will be the assigned SPOC.

**Note:** The Permittee is responsible for the work to be performed in accordance with approved plans. The Permittee shall engage consultants, if required, to provide the professional services necessary for completing the approved Rough and Final Grading Certifications. It is the Permittee's responsibility to inform the City of any changes and shall provide revised plans for approval when required. In compliance with Senate Bill 1598 projects that do not submit complete required information will be deemed as an incomplete submittal.

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## **Process Outline**

### **1. Application for Grading Permit:**

The “Application for Grading Permit” must be submitted and issued before site work may begin. The Grading Permit Application is routed to Engineering, Stormwater, Planning and Building sections for approvals.

**Note:** The Stormwater Pollution Prevention Plan (SWPPP) and/or required erosion control plan (ECP) must be installed, inspected and approved prior to any ground disturbing activity including clearing and grubbing or any other work activities commencing at the site. The permittee shall schedule this inspection with the Stormwater Section once the site is prepared per the approved SWPPP or ECP.

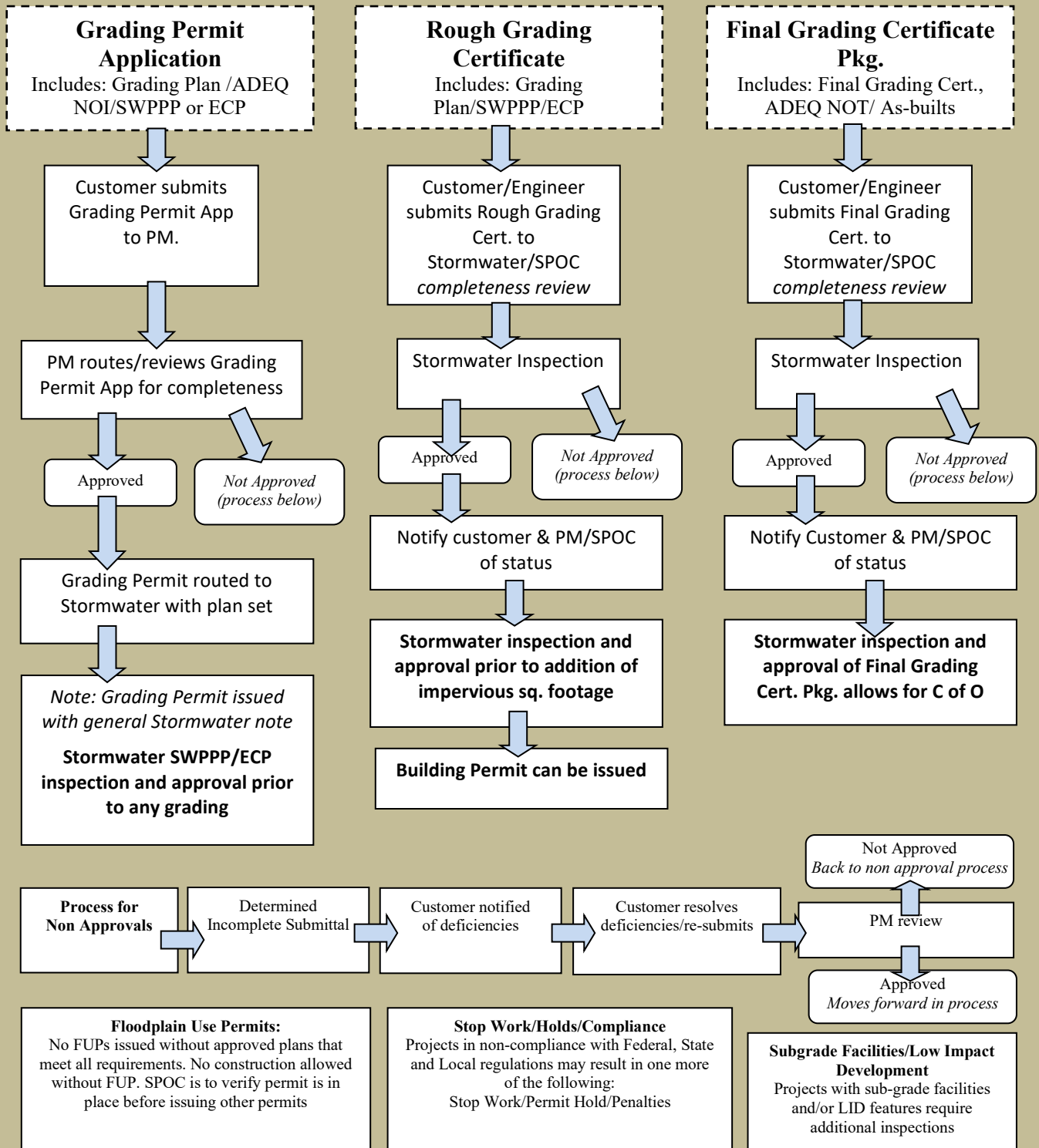
### **2. Rough Grading Certification:**

The “Rough Grading Certification” shall be submitted, reviewed, and approved by City staff prior to issuance of building permits and/or constructing any impervious horizontal surfaces (such as building floor slabs, roofs or pavement) at the site. The Rough Grading Certification is signed and sealed by a civil engineer and signed by grading contractor and geotechnical engineer. The permittee shall submit the completed Rough Grading Certification to the Engineering Project Manager.

### **3. Final Grading Certification:**

The “Final Grading Certification” must be submitted and approved prior to the issuance of a Certification of Occupancy (C of O), final acceptance of a subdivision or any project with a Final Grading Certificate. The permittee shall submit the completed Final Grading Certification to the Engineering Project Manager.

# City of Flagstaff Grading Process Outline



# Stormwater Pollution Prevention Plan & Erosion Control Plan Guidelines

As part of the City of Flagstaff's requirements to comply with the Federal Clean Water Act and the Arizona Pollutant Discharge Elimination System permit (AZPDES), the City requires all construction projects that disturb one acre or more of land, or disturb less than one acre but are part of a common plan of development that will ultimately disturb over an acre (i.e. lots in a subdivision), to file a Notice of Intent (NOI) for coverage under the Arizona Department of Environmental Quality's Construction General Permit (CGP). Projects that disturb over an acre must prepare a Storm Water Pollution Prevention Plan (SWPPP) for compliance with the CGP, and are required to submit the SWPPP Site Plan, or Erosion Control Plan, for City permitting. Projects that disturb less than one acre must provide an ECP. The City has adopted regulations to administer this program. These requirements are detailed in City of Flagstaff Title 12. The general purpose for these plans is to avoid impairment to the City's storm water drainage system and to control pollutants that may be discharged to the Waters of the U.S. The following requirements and procedures, pursuant to the contents of Title 12, will apply.

## Preparing the SWPPP:

- The SWPPP Site Plan or ECP should use the Best Management Practices (BMP's) outlined in the Arizona Department of Transportation's Erosion and Pollution Control Manual and or the Drainage Design Manual, Vol. III for Maricopa County Flood Control District. Electronic copies of this manual are available on-line.
- The SWPPP must be prepared by an Arizona Registered Civil Engineer; the SWPPP Site Plan or Erosion Control Plan and must be a part of the construction plans (Grading or Public Improvement Plans) submitted for city review.

## The Review Process:

- The city assigns an Engineering Project Manager to coordinate the review of private development projects as part of the IDS process, however to discuss the NOI, SWPPP Site Plan/ECP requirements for a project, contact the Stormwater Section directly
- Standard review fees and review times apply. See Application Review Timeline Flowchart.

## Permits:

- The City must review and approve your SWPPP Site Plan/ECP as part of a complete application.
- The Best Management Practices (BMP's) on the approved SWPPP Site Plan/ECP must be in place before site work commences.

## Inspections:

- The SWPPP Site Plan/ECP BMPs must be in place during the entire construction period of the project, or until permanent erosion and pollution prevention measures have been completed and approved.
- The city periodically inspects construction sites and may issue Correction Action Notices, Stop Work Orders, or deny additional permits if BMPs are not in place or are not properly maintained.

## Documents:

- The permit applicant must submit a Notice of Intent (NOI) and Notice of Termination (NOT) to Arizona Department of Environmental Quality (ADEQ) and provide proof of submittal to the City of Flagstaff.
- The NOI and approved SWPPP Site Plan or Erosion Control Plan must be on file before any earth disturbing activities commence.

- The NOT must be on file before the City will accept a subdivision, public improvement or Certificate of Occupancy.
- The As-builts and NOT shall be submitted concurrently with the Final Grading Certification.

## Erosion Control Plan Guidelines

Erosion Control Plans may be required on projects smaller than one acre including commercial projects, utility work and residential projects. The purpose of the ECP is to protect adjacent property, stormwater infrastructure as well as regulatory compliance. In general, an ECP will include a plan sheet that details stormwater BMPs. Please use the same BMP guidelines as a standard SWPPP Site Plan.

### Questions:

- For general questions regarding SWPPP Site Plans or ECPs, please contact the City's Stormwater Management Section 928-213-2470.

### References & Helpful Links:

- **Stormwater Construction General Permit – ADEQ Notice of Intent (NOI):**  
<http://www.azdeq.gov/enviro/water/permits/cgp.html>
- **Drainage Design Manual/BMPs**
  - **ADOT**
    - Erosion and Pollution Control Manual**  
<https://azdot.gov/business/engineering-and-construction/roadway-engineering/roadside-development/erosion-and-pollution-control-manual>
    - BMP Details**  
<https://azdot.gov/business/engineering-and-construction/roadway-engineering/roadside-development/overview>
  - **Maricopa County Flood Control District**
    - Drainage Design Manual, Volume III, Erosion Control**  
<https://www.maricopa.gov/2366/Resources>
    - BMPs**  
<http://www.fcd.maricopa.gov/970/Best-Management-Practices>
- **City of Flagstaff Stormwater Design Manual –** <http://www.flagstaff.az.gov/3702/Downloads>
- **City of Flagstaff Engineered Grading Packet-** Grading Process, Guidelines, Grading Permit Application Rough and Final Grading Certificates. <http://www.flagstaff.az.gov/DocumentView.asp?DID=8295>



# City of Flagstaff

## Engineering Division

211 W. Aspen Ave

P: (928) 213-2600

Flagstaff, AZ 86001

[www.flagstaff.az.gov](http://www.flagstaff.az.gov)

Staff Contact: [CDFrontCounter@flagstaffaz.gov](mailto:CDFrontCounter@flagstaffaz.gov)



Date Received	<b>Application for Grading Permit</b>		Permit Number
Project Name			
Site Address		COF Project Number	
Engineering Section Project Manager			
Proposed Starting Date		Proposed Completion Date	
ADEQ Notice of Intent (NOI) Authorization Number		Written SWPPP documents completed/available onsite. Initials:	
Earthwork Quantities (CY Cut & Fill)	Total <input type="checkbox"/> Import <input type="checkbox"/> Export (CY)	Address of <input type="checkbox"/> Source <input type="checkbox"/> Destination/Permit #	
Project Owner (deemed "responsible party" for legal purposes)			
Address		City, State, Zip	
Contact Name			
Contact Phone		Contact Email	
Contractor			
Address		City, State, Zip	
Contact Name			
Contact Phone		Contact Email	
Contractor's License #	Type	Expiration Date	
City Sales Tax #			
<b>Submittal Requirements</b> Required submittal information for a Grading Permit is provided in this application packet. Specific Information on Grading Permits is located in Section 13-07 of the Engineering Standards.			

<ol style="list-style-type: none"> <li>1. A flow chart describing the review process inclusive of applicable review time frames (administrative completeness review and substantive review) is attached.</li> <li>2. The City and an applicant may mutually agree in writing to extend the substantive review time frame (and also therefore the overall review time frame) by no more than 25% of the overall time frame.</li> <li>3. The City and an applicant may mutually agree in writing to allow the City to submit supplemental requests for information.</li> <li>4. An applicant may receive clarification from the City of how it is interpreting Section 13-07 of the Engineering Standards.</li> <li>5. <b>Repair of damage to Public Infrastructure arising from grading and associated activities is the sole responsibility of the project owner and contractor.</b></li> </ol>		
<p>_____ (Owner's Initials) I hereby certify that the information set forth on this form is complete and accurate and do hereby agree to comply with all applicable codes of the City of Flagstaff and the State of Arizona and with any conditions attached hereto, and request that all pertinent City personnel access my property at any time deemed necessary to inspect work being done relating to this permit.</p>		
<b>Project Owner Signature</b>		<b>Date</b>
<b>Contractor Signature</b>		<b>Date</b>
<b>For City Use</b>		
<b>Received By:</b>		<b>Fee Receipt #:</b>
<b>Approval:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No	<b>Staff Initial:</b>	<b>Date Approved:</b>

**Grading Permit Application Checklist**

For an application to be accepted, the applicant must provide all of the required information described on the application at the time of formal submittal. **Incomplete applications will not be accepted.** It is the responsibility of the applicant to ensure the accuracy of the application. The application shall be submitted to a Community Development Division staff person, and shall contain the following information:

1. Completed application form including ADEQ Notice of Intent (NOI) Authorization Number
2. Copy of Floodplain Use Permit issued by the City of Flagstaff (if applicable)
3. Two (2) paper sets of approved construction drawings.
4. Haul Route Map for > 500 CY of total Export or Import Material

**Staff Review:** Upon receiving a complete application, the application will be reviewed by City staff to determine if the submittal conforms to City of Flagstaff Code requirements.

**Approved Permit:** Upon review and approval of the application the applicant will be informed that the permit is ready to be picked up.

**Permit Fee:** The applicant shall pay the required permit fee at the time of permit pick up.

**Inspection:** When certifications are completed, the applicant must contact the Stormwater Section to schedule an inspection. The inspector will either approve the work as completed, or require additional corrections. Upon approval, the inspector will sign off on the work and record the approval in the City's permit tracking system.



<b>Date Received:</b>	<b>Final Grading Certificate</b>	<b>Project Owner:</b>
<b>Project Name:</b>		<b>Project Address:</b>

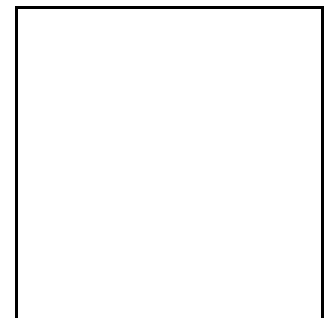
**A. CIVIL ENGINEER**

I am a registered Civil Engineer in the State of Arizona. I certify that I have visited the project site and the final grading substantially conforms to the approved grading plan(s). Work observed includes but is not limited to: all disturbed areas, locations that will be paved; cut and fill slopes; channels, swales, LID features, terraces, berms, all drainage facilities as indicated on the plan(s). Final stabilization measures have been implemented per the approved plans and the site is in compliance with ADEQ Notice of Termination (NOT) requirements.

The attached "As-Built Plans" verify that the detention basin was constructed in substantial conformance with the approved plans and I have determined that the total project detention storage volume provided equals or exceeds the volume required on the approved grading plans and drainage report. Additionally the As-Built Plans indicate that the outlet structure was constructed per the approved plans, including the associated inverts elevations.

- The attached As-Built Plans include all information as described per the As-Built checklist.
- This project includes a Floodplain Use Permit (FUP); all requirements have been met at this time.

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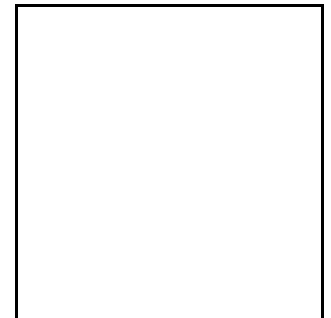
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SEAL

**B. GEOTECHNICAL ENGINEER**

I am a registered Geotechnical Engineer in the State of Arizona. I have inspected the site including: stability of cut and fill locations, construction of the private roads and parking lots (when applicable), and I certify that they were constructed in accordance with the geotechnical report, plans, specifications, and any revised recommendations, as applicable. As required by the International Building Code, Chapter 18, this statement is based upon observation during preparation of the natural ground, placement and compaction of fill, placement and compaction of Aggregate Base Course, and placement and compaction of the Asphaltic Concrete or Portland Cement Concrete.

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SEAL

**City of Flagstaff – Stormwater Section Approval**

Final grading was visually inspected and the surface drainage features appear to be constructed in substantial conformance with the approved plan(s) including final stabilization.

Final Grading Certification and As-Built Plans Approved:

YES       NO

ADEQ Notice of Termination completed, conditions met:

YES       NO

Stormwater Section Inspector: \_\_\_\_\_ Date: \_\_\_\_\_

Remarks: \_\_\_\_\_  
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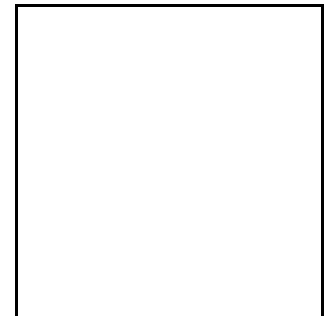
<b>Date Received:</b>	<b>Rough Grading Certificate</b>	<b>Project Owner:</b>
<b>Project Name:</b>	<b>Project Address:</b>	

**A. CIVIL ENGINEER**

I am a registered Civil Engineer in the State of Arizona. I certify that I have visited the project site and the rough grading substantially performs in accordance with the approved grading plan. The Stormwater Pollution Prevention Plan (SWPPP) or Erosion Control Plan (ECP) measures are in place per the approved plans. Work observed includes but is not limited to: all disturbed areas, locations that will be paved; cut and fill slopes; channels, swales, LID features, terraces, berms, all drainage facilities as indicated on the plan(s), detention basins including the *completed* associated outlet structure(s).

This project includes a Floodplain Use Permit (FUP); all requirements have been met at this time.

Comments: \_\_\_\_\_  
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SEAL

**B. GRADING CONTRACTOR (Permittee)**

I am the Grading Contractor. I certify that the rough grading substantially conforms to the approved grading plans and specifications. The Stormwater Pollution Prevention Plan (SWPPP) or Erosion Control Plan (ECP) measures are in place and maintained per the approved plans.

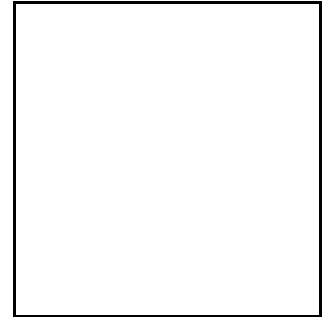
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Date: \_\_\_\_\_

**C. GEOTECHNICAL ENGINEER**

I am a registered Geotechnical Engineer in the State of Arizona. I certify that I have inspected the site and the rough grading work substantially conforms to the geotechnical report, plans, specifications, including any revised recommendations, as applicable. As required by the International Building Code, Chapter 18, this statement is based upon observation during preparation of the natural ground, and placement and compaction of fill. Where applicable, my statement is also based upon observation of buttress fills, finish slopes, or similar stabilization measures. I have prepared the report required by the International Building Code, Chapter 18, which includes test data, comments and revised recommendations as required.

Comments: \_\_\_\_\_  
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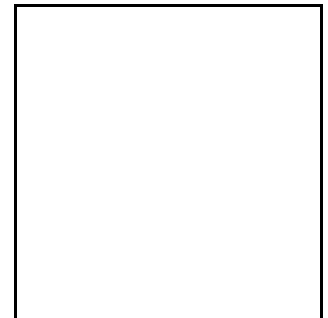
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SEAL

**D. LAND SURVEYOR**

I am a registered Land Surveyor in the State of Arizona. I certify that the construction staking was completed in accordance with the approved grading plan(s), and property lines have been located and staked in accordance with the approved site plan and lot description.

Remarks: \_\_\_\_\_  
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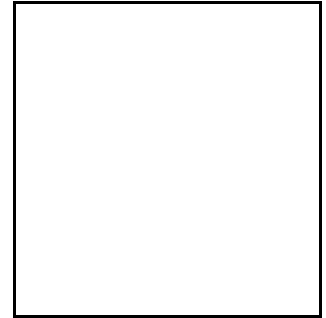
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SEAL

**E. SPECIAL INSPECTION OF RETAINING WALLS**

When the grading plan includes retaining walls, I certify that either I or a qualified professional have inspected the construction of the walls (including but not limited to the placement of the reinforcement steel and concrete).

Remarks: \_\_\_\_\_  
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SEAL

**City of Flagstaff – Stormwater Section Approval**

Rough grading was visually inspected and the surface drainage features appear to be constructed in substantial performance with the approved plan(s)

The Stormwater Pollution Prevention Plan (SWPPP) or Erosion Control Plan (ECP) measures are in place per the approved plans.

Remarks: \_\_\_\_\_  
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Date: \_\_\_\_\_