City of Seattle
Department of Planning and Development
www.seattle.gov/dpd

SCREENING STANDARDS

NEW (Small) Multi Family

INDEX 6

Applicant Services Center
700 Fifth Avenue, Suite 2000
P. O Box 34019
Seattle, WA 98124-4019
Phone: (206) 684-8850

Multi Family – General Responsibilities

Screening Responsibilities: These standards are all required for a complete application and prior to routing for a review, but individually, are not a reason to reject an appointment. The screener must look at all aspects of a project submittal and determine whether the combination of missing items can be added during the appointment time constraints.

"**Project stoppers**" are corrections that require a substantial redesign.

Applicants are responsible for insuring that their submittal meets this checklist and standards prior to intake. The limited time of intake is not intended for applicants to complete their application materials.

O/S Screener: Responsible for completeness of plans and submittals for building, energy/mechanical reviews, building code items (stories and basements, type of construction, occupancy groups), fees, identifying review locations, O/S IP hours and in coordination with the LU Screener the Project Description.

LU Screener: Responsible for completeness of plans and submittals for Zoning Review including easements, No Protest Agreement, etc. Use per Land Use Code, Land Use review locations, Zoning IP hours, and in coordination with the O/S Screener the Project Description.

New Small Multi Family - General Requirements

Screening Overview (SCOPING):

Cover Sheet Completed

- Project Address matches the Address assigned by DPD.
- All portions of Cover Sheet completed including, Contact information, Project Number of Initially Approved Project, Floor Area, Grading, Energy/Mechanical Code Compliance Information etc.

Forms – all forms must be completed (Including but not limited to)

- Financial Responsibility Form
- Contact Disclosure Form
- Construction Storm Water Checklist if site disturbance is <5000 sq. feet.
- Equipment Sizing Form
- Waste Diversion Plan (Projects with an area of work greater than 750 square feet)
- Deconstruction & Salvage Assessment (Projects involving demolition with a work area greater than 750 square feet)
- No Protest Agreement **If** the Street is not developed with curbs, sidewalk etc.
- Pre-application Site Inspection Report.
- Target UA Form or Systems Analysis Calculations **if** selected on Coversheet

Project matches Addressing Review

- Address on all plan sheets match DPD Project Address.
- Legal Description matches legal description reviewed by Addressing.
- Plot Plan matches Plot Plan reviewed by Addressing.

Plot Plan, Floor Plan and Elevations agree

- Verify that the grade lines shown on the elevation match the specific site.

Plans are Microfilmable

- Good print contrast.
- Lettering is a minimum 1/8th inch.
- Plot plan is drafted at a minimum 1/8th inch or 1:10.
- Minimum ¼ inch scale for all other plans

Plans Required

- Four identical sets of plans with complete coversheets and stapled on left side
- Extra Plot Plan for Water Department
- Extra Plot Plan for Seattle Transportation if Street Improvements are required.

Copy of Structural Calculations Included if project is engineered

All Plans and Notes Indicated in Screening Checklist are Included

- Request to SPU for Water Availability Form

Land Use Code Analysis and Documentation

The following notes and calculations are required to demonstrate compliance with the Land Use Code. Dimensions and documentation on plans should clearly support your calculations. If the reviewer has to do the calculations, rather than spot check them for accuracy, the review will take longer.

Req	Prov	
General Information		
☒	☐	Identify Zoning of property
☒	☐	Identify Overlays that apply to property
☒	☐	Identify housing type (i.e. townhouses, ground related, apartments)
Density Calculations		
☒	☐	Identify lot area
☒	☐	Identify required minimum lot area per dwelling (i.e. 1/800 sq.ft, 1/1,200 sq.ft.)
☒	☐	Calculations for allowed density (i.e. 5,600 sq.ft. lot area/ 800 sq.ft. per unit = 7 units)
☒	☐	Identify proposed density (i.e. 5 units)
Lot Coverage		
☒	☐	Show calculations of area of all principal and accessory structures
☒	☐	Identify allowed lot coverage
☒	☐	Identify proposed lot coverage
☒	☐	Identify exceptions used (i.e. first 4' unenclosed decks),
Structure Height		
☒	☐	Identify maximum structure height allowed
☒	☐	Identify proposed structure height
☒	☐	Identify exceptions used (i.e. pitched roof, rooftop features, sloped lot height bonus)
Sloping lot height bonus documentation - **calculate to nearest inch**		
☒	☐	Show calculations for average elevation of low grade wall
☒	☐	Show calculations for average elevation of high grade wall
☒	☐	Show calculations for difference between average high and average low elevations
☒	☐	Identify distance between average low point and average high point
☒	☐	Show calculations for slope on lot (difference in average elevations divided by distance between these points)
☒	☐	Show calculations for additional height allowed (slope of lot divided by .06)
Structure Width		
☒	☐	Identify allowed structure width
☒	☐	Show calculations for proposed structure width
☒	☐	Identify if modulation standards met to increase structure width
☒	☐	Identify exceptions used (i.e.)
Structure Depth		
☒	☐	Identify depth of property
☒	☐	Show calculations for proposed structure(s) depth (Structure depth / Property depth)
☒	☐	Identify allowed structure depth
☒	☐	Identify exceptions used (i.e. first 4 feet of unenclosed decks)

Land Use Code Analysis and Documentation - continued

Req	Prov	
Setbacks		
Front		
☒	☐	Identify required front setback(s)
☒	☐	Provide calculations if front setback is an average of adjacent structures
☒	☐	Identify proposed front setback
☒	☐	Identify exceptions used (i.e. bay windows) and demonstrate code compliance for these features
Rear		
☒	☐	Identify required rear setback
☒	☐	Identify proposed rear setback
☒	☐	Identify exceptions used and demonstrate code compliance for these features
Side		
☒	☐	Identify depth of lot
☒	☐	Identify depth of structure
☒	☐	Identify height of structure
☒	☐	Identify required side setback for each side
☒	☐	Identify exceptions used and demonstrate code compliance for these features
Cluster		
☒	☐	Identify width of facing facades
☒	☐	Identify required setback(s)
☒	☐	Identify exceptions used and demonstrate code compliance for these features
☒	☐	Show calculations for required setback
Screening and Landscaping		
☒	☐	Calculation of required landscaping (3' x total length of property lines)
☒	☐	Calculations of proposed landscaped areas
☒	☐	Identify percent of ground cover, number of trees, number of shrubs
☒	☐	Identify number of street trees proposed
☒	☐	Show location of dumpsters and recycling containers and proposed screening
Open Space		
☒	☐	Identify required open space (i.e. 300 sq.ft. per unit, 800 sq.ft, etc.)
☒	☐	Identify proposed open space
☒	☐	Show open space calculations
☒	☐	Identify exceptions used and demonstrate code compliance for these exceptions
Light and Glare		
☒	☐	Identify areas to be screened (i.e. parking areas, recycling areas, interior garage lighting, etc.)
Parking and access		
☒	☐	Calculations of required parking
☒	☐	Identify number of units
☒	☐	Identify parking factor based on number of units
☒	☐	Show calculations of average unit size for non-townhouse projects
☒	☐	Identify number of parking spaces provided
☒	☐	Identify size of spaces provided (i.e. 10 spaces at 8' x 16', 3 spaces at 7 ½' x 15')
☒	☐	Identify exceptions used and demonstrate code compliance

Architectural Notes - (Unless specified on details or framing and floor plans)

Req	Prov	
Design Analysis		
☒	☐	Identify Building Code Edition (such as year, including amendments)
☒	☐	Type of Construction
☒	☐	Height per Building Code
☒	☐	Number of Stories and Basements
☐	☐	Area Separation analysis
☐	☐	Sprinkler analysis
☒	☐	Stairway headroom.
☒	☐	Handrail specifications
☒	☐	Guardrail height, intermediate rail and design strength
☒	☐	Allowable area calculations
☐	☐	Fire Alarm
☒	☐	Type of Occupancy
☒	☐	Egress/Exiting Analysis
☒	☐	Stair/Elevator shaft pressurization requirements or lobby requirements
☒	☐	Accessibility Conformance
☒	☐	Development Standard departure(s) approved through Design Review process
☐	☐	Occupant Load of Common Areas including Roof Decks
Accessibility Analysis		
☒	☐	Total number of Units
☒	☐	Number of Type A Units Required
☒	☐	Number of Type B Units Required
☒	☐	Type A Units: Number of Studios, 1 bedroom, 2 bedroom, etc.
☒	☐	Type B Units: Number of Studios, 1 bedroom, 2 bedroom, etc.
☒	☐	Total Number of Parking Spaces
☒	☐	Number of Barrier Free Parking Spaces Provided
☒	☐	Identify area of evacuation assistance
☒	☐	Path of travel to units
Mechanical & Ventilation Notes		
☒	☐	Identify Code Edition (such as year, including amendments)
☒	☐	Source Specific Fan Sizes (if not specified on floor plans)
☒	☐	Duct work gage between garage and living spaces
☒	☐	Whole house ventilation method (exhaust only, integrated forced air, etc.), include size, sone rating, and controls
☒	☐	Identify ventilation method for enclosed garages and public corridors per SMC Table 403.3.
Energy Notes		
☒	☐	Identify Code Edition (Such as year, including amendments).
☒	☐	Heated Floor Area (gross floor area minus the walls areas).
☒	☐	Area of Exterior Doors.
☒	☐	Area of Glazing in Exterior Walls.
☒	☐	Area of Skylights.
☒	☐	Glazing/Floor Area % (all glass).
Fire Notes		
☒	☐	Type of sprinkler system to be installed

Structural Notes - (Unless specified on details or framing and floor plans)

Design Loads Notes

- ☒ ☐ Floor Dead Load and Live Load
- ☒ ☐ Roof Dead Load and Live Load
- ☒ ☐ Wind Exposure and Speed
- ☒ ☐ Seismic Zone
- ☒ ☐ Soil Bearing Pressure
- ☒ ☐ Equivalent fluid Pressure

Foundation Notes

- ☒ ☐ Concrete Strength and Mix.
- ☒ ☐ Reinforcing Steel Grade Placement and Protection.
- ☒ ☐ Anchor bolt size, spacing, and washer/plate size.

Framing Notes

- ☒ ☐ Grade and species of all lumber used on this projects: beams, headers, joist, rafters, columns, studs & miscellaneous.
- ☒ ☐ Sheathing type, grade and index.
- ☒ ☐ Manufactured Trusses, Type and Manufacturer.
- ☒ ☐ Nailing and Blocking.
- ☒ ☐ Handrail specifications
- ☒ ☐ Guardrail design strength

Plot Plans

General Information

- ☒ ☐ Project site address.
- ☒ ☐ Scale 1” = 10’ or 1/8” = 1’
- ☒ ☐ Legal description(s) (Include easement legal description and recording number).
- ☒ ☐ Existing and proposed easement location and dimensions (side yard, ingress & egress, pedestrian access, etc.).
- ☒ ☐ King County Assessor’s Parcel Number (APN).
- ☒ ☐ North arrow.
- ☒ ☐ Identify and dimension all property lines. Show their bearings.

Street and alley information

- ☒ ☐ Names of adjacent streets.
- ☒ ☐ Street and Alley right-of-way width.
- ☒ ☐ Street, alley improvement type, and width (asphalt, concrete, gravel, 24’ wide, or specify “unimproved”).
- ☒ ☐ Sidewalk type, width, distance from property line(s) or specify “no sidewalk”.
- ☒ ☐ Curb height and type (concrete, asphalt, rolled, etc. or specify “no curbs”).
- ☒ ☐ Curbcut width and distance from adjacent property lines.
- ☒ ☐ Label curbcuts as “existing” or “proposed”.
- ☒ ☐ Sidewalk type and width, or specify “no sidewalk”.
- ☒ ☐ Show street trees and identify as “existing” or “proposed”
- ☒ ☐ Identify all physical restrictions to site access (utility poles, rockeries, street trees, Metro bus stops, etc.).

Plot Plans - continued

Req	Prov	
Utilities – Show existing and proposed		
☒	☐	Sewer mains (sanitary only or combination).
☒	☐	Storm drains and catch basins.
☒	☐	Water mains, fire hydrants and water meter.
☒	☐	Utility poles (light, power, street light, signals, and transit).
☒	☐	Stormwater disposal system or detention.
Development Information		
☒	☐	Dimension distances from all portions of the building to front, side, and rear property lines.
☒	☐	Dimension and label all portions of the structure (exterior walls, porches, decks, stairs, cantilevers, roof overhangs, chimneys, etc.).
☒	☐	Identify accessory structures and dimension distances from other structures and property lines.
☒	☐	Dimension distances between structures on property.
☒	☐	Label any assumed property lines.
☒	☐	Label and dimension surface parking space(s), driveways, parking aisles.
☒	☐	Identify slope of driveway
☒	☐	Show location of screening of parking (i.e. Fence, shrubs or identify exceptions being used)
☒	☐	Label and dimension rockeries, site retaining walls, fences, arbors, trellises, patios, walkways, etc..
☒	☐	Locate and dimension all window wells, fireplaces, chimneys, etc.
☒	☐	Caliper and species of exceptional and significant trees.
Calculations and details		
☒	☐	Specify location of rockery / retaining walls.
☒	☐	Construction access detail.
Height details		
☒	☐	Identify existing and finished grade at each building corner
☒	☐	For pitched roofs – identify elevation at top of plate, top of roof peak(s), (top of roof decks if applicable)
☒	☐	For flat roofs, - identify elevation at top of roof structure, top of roof decks if applicable
Additional requirements - Sloping lot height bonus details		
☒	☐	Locate and identify the average elevation point on high grade wall
☒	☐	Locate and identify the average elevation point on low grade wall
☒	☐	Show and dimension line between average high point and average low point
☒	☐	Provide topographic survey with 2 foot contours (minimum) by licensed surveyor
Open Space		
☒	☐	Label and dimension required open space
☒	☐	For ground related housing, identify unit the open space serves.
☒	☐	Indicate location of trees, shrubs, and groundcover.
☒	☐	Provide open space calculations

Plot Plans - continued

Req	Prov	
Landscaping		
☒	☐	Identify common and scientific names of proposed landscaping
☒	☐	Identify size and quantity of plantings proposed
☒	☐	Identify soil mix
☒	☐	Provide key to landscape symbols used

Floor Plans

Req	Prov	
General Information		
☒	☐	North arrow.
☒	☐	Scale ¼" = 1'.
☒	☐	Label Unit and Type For Accessibility
☒	☐	Use of each room (basement is not a use).
☒	☐	If framing is shown on floor plans, identify which floor level framing is shown (i.e. "1st floor plans, 2nd floor framing").
☒	☐	Reference call-outs for cross sections and details.
Floor plan information		
☒	☐	Overall dimensions of Unit.
☒	☐	Dimension location of all interior walls and columns, from each other and from outside of exterior walls.
☒	☐	Show fire walls, fire partitions and other fire rated assemblies.
☒	☐	Show fire barrier and fire rating between garage and units.
☒	☐	Show location of interior and exterior doors and windows.
☒	☐	Dimension door size on plan or provide schedule.
☒	☐	Show direction of all door swings.
☐	☐	Rating of corridors, exit enclosure and stairs including doors
☐	☐	Show and dimension exit separation
☐	☐	Identify Horizontal exits and refuge areas
☐	☐	Identify Exit passageways/ enclosures/exterior exit balconies
☒	☐	Show building exits
☒	☐	Show swing of building exit doors
☐	☐	Width of corridors and stairways/exterior exit balconies
☒	☐	Identify egress window(s), dimension sill height, net open area, clear open width, clear open height.
☒	☐	Dimensions for window sizes on plan or provide schedule. Include height, width, type (i.e. slider, casement, awning), U-value (factor) or call out key on plan.
☒	☐	Show and dimension critical ceiling breaks (i.e. sloped ceiling provisions, soffits, etc.).
☒	☐	Show location of all smoke detectors.
☒	☐	Show location of exhaust fans.
☒	☐	Attic access location and size.
☒	☐	Identify water heater location.

Floor plan information - continued

Req	Prov	
☒	☐	Show furnace location.
☒	☐	Identify kitchen sink, refrigerator, cooking appliances location.
☒	☐	Show toilet, bath and sink location.
☒	☐	Show decks, porches, landing, etc.
☒	☐	Identify partial height walls.

Stair information

☒	☐	Locate stairs.
☒	☐	Dimension width and landing size.
☒	☐	Dimension rise and run.
☒	☐	Handrail information.
☒	☐	Guardrail information.
☒	☐	Headroom height.
☒	☐	Winding stair dimensions (if used).
☒	☐	Spiral stair dimensions (if used).

Elevation Views

General Information

Req	Prov	
☒	☐	Scale ¼’ = 1’
☒	☐	Show and label north, south, east, and west elevation views.
☒	☐	Show and dimensions exterior architectural features (garden windows, bay windows, etc.).
☒	☐	Show window wells.
☒	☐	Indicate slope of pitched roofs.
☒	☐	Show location of doors and windows.
☒	☐	Identify existing and finished grade lines.
☒	☐	Identify the elevation of the existing and finished grade at each building corner
☒	☐	Identify the elevation of each floor
☒	☐	For pitched roofs – identify elevation at top of plate, top of roof peak(s), (top of roof decks if applicable).
☒	☐	For flat roofs - identify elevation at top of roof structure, top of roof decks if applicable and top of parapets.
☒	☐	Height of yard exceptions (decks, porches, stairs) from existing or finished grade, whichever is lower.
☒	☐	Height of cantilevered portions of structure from grade.
☒	☐	Height of chimney above structures within 10’.
☒	☐	Details of open railings on decks if yard or height exceptions used.

Foundation Plan

General Information

Req	Prov	
☒	☐	North Arrow.
☒	☐	Scale ¼” = 1’
☒	☐	Reference callouts for cross sections and details.

Foundation Plan – continued

Req	Prov	
Footing and foundation information		
☒	☐	Overall dimensions
☒	☐	Location and dimensions of posts from each other.
☒	☐	Dimension and locate spread footings.
☒	☐	Dimension continuous footings and foundation walls (width, height) or reference detail.
☒	☐	Specify reinforcement grade, size and spacing.
☒	☐	Specify thickness of slab and materials below slab.
☒	☐	Window wells construction information.
☒	☐	Crawl space vent size and locations.
☒	☐	Crawl space access (location and size).
☒	☐	Show location of posts and sizes of posts.
☒	☐	Locate and identify all steps in foundation or stem walls.
☒	☐	Show hold-down model #, location, anchor type, size and bolt embedment depth.
☒	☐	Show all first floor framing (size and span of beams and joists, direction of joists).
☒	☐	Show all cripple walls.
☒	☐	Show all shear wall / braced wall panels and indicate construction.

Floor Framing Plans

Req	Prov	
General Information		
☒	☐	North arrow.
☒	☐	Scale ¼” = 1’
☒	☐	Reference call-outs for cross sections and details.
☒	☐	Identify floor (1st floor, 2nd floor, etc.) and framing level.
Framing information		
☒	☐	Size and spacing of framing members (i.e. joists, beams).
☒	☐	Size and span of headers, beams, etc.
☒	☐	Dimension and size of framing around openings in floors, ceilings, and other horizontal diaphragms.
☒	☐	Locate all bearing walls and supporting floor framing.
☒	☐	Locate all bearing walls and bearing points from above.
☒	☐	Label the size and location of all post in walls carrying point loads.
☒	☐	Locate and identify all structural discontinuities, cantilever, offset bearing walls, floor level changes, etc.
☒	☐	Show hold-downs, or straps location and size.
☒	☐	Show all ledger connections.
☒	☐	Identify all shearwalls and/or braced and alternate braced wall panels. Provide a shear wall schedule.

Roof Framing Plan

Req	Prov	
General Information		
☒	☐	North arrow.
☒	☐	Scale ¼’ = 1’
☒	☐	Reference call-outs for cross sections and details.
Framing information		
		If using conventional framing
☒	☐	Specify ridge beam size and span.
☒	☐	Show location of collar ties (if used).
☒	☐	Specify rafter size, spacing, and span.
☒	☐	Specify header sizes and span.
		If using pre-manufactured trusses
☒	☐	Location of girder truss, hip master.
☒	☐	Specify truss span, spacing, type (common, scissor, gable end, etc.)
		For all framing types
☒	☐	Show all bearing members below (walls, beams, headers, etc.) giving size and span.
☒	☐	Specify size of framing around roof openings.
☒	☐	Indicate pitch of roof(s).
☒	☐	Location of roof openings (skylights, chimneys, etc.).
☒	☐	Dimension all eaves.

Building Section

Req	Prov	
General Information		
☒	☐	Min. ¼”=1’-0” scale.
☒	☐	Reference call-outs to construction details.
☒	☐	Dimension distance from floor to floor.
☒	☐	Ceiling height dimensions. (When using sloped ceiling provision, provide detailed dimensions).
☒	☐	Detailed dimensions if collar ties used.
☒	☐	Specify roof pitch / slope.
☒	☐	Illustrate unusual conditions (lofts, raised floor areas, unusual ceiling configurations, etc.).
☒	☐	Show Location and rating of all horizontal and vertical area and occupancy separations

WATCH FOR:

1. Floor plans **must show** the **location** of the section cut and reference the Building Section.
2. When multiple conditions are proposed and clarity is critical in order to show code compliance (such as unusual ceiling conditions), multiple building sections or partial sections may be appropriate.
3. Detailed information, such as insulation levels or a stair section, may be on the Building Section as long as the proposal is clear.

Construction Details

Req	Prov	
General Information:		
☒	☐	Minimum ¼" = 1' (3/4" = 1' or larger is commonly used for construction detail so detail is clearly presented).
Stair Detail		
☒	☐	Rise and run dimensions (Winders, spirals, or other unusual stairways may require a detail plan as well).
☒	☐	Dimension headroom height.
☒	☐	Handrail information (grasp requirements, extensions, and returns).
☒	☐	Guard information (rail height and spacing of intermediate rails).
☒	☐	Fire protection under stair (if enclosed).
Typical Wall Section (extending from roof/ceiling assembly to foundation/basement wall)		
Roof Detail		
☒	☐	Dimension eave.
☒	☐	Dimension height of collar tie from ridge and specify connections.
☒	☐	Show gutter, specify type
☒	☐	Specify roof insulation, R-value, and type.
☒	☐	Show fire protection at eave (if appropriate).
Wall Detail		
☒	☐	Size and number of top and bottom plates.
☒	☐	Stud sizing and spacing.
☒	☐	Exterior side: Siding, weather protection, structural sheathing (thickness and material); Veneer type (brick, stone) thickness, and attachment. Fire resistive assembly if appropriate.
☒	☐	Show interior wall construction including fire rating
☒	☐	Show fire wall construction.
☒	☐	Interior side: Insulation R-value and type; wall covering material and thickness (usually gypsum wall board).
☒	☐	Show height and construction of parapets including counter flashing and coping materials.

Typical Wall Section - continued

Req	Prov	
		Floor Detail
☒	☐	Sheathing material and thickness.
☒	☐	Location of framing members.
☒	☐	Foundation information or reference to separate detail.
☒	☐	Crawl space heights.
☒	☐	Vapor barrier material and thickness.
☒	☐	Perimeter slab and below grade wall insulation and R-value if applicable.
		Foundation/Basement Wall/Retaining Wall Details
☒	☐	Fully dimension.
☒	☐	Detail all differing conditions (reference to detail required on foundation plan).
☒	☐	Specify footing depth below grade.
☒	☐	Specify maximum backfill.
☒	☐	Indicate depth of cut in relationship to property line.
☒	☐	Specify re-bar location, size and spacing.
☒	☐	Specify sill plate size and material.
☒	☐	Specify anchor bolt size, spacing, embedment depth and washer size.
☒	☐	Footing drain location, size (at exterior wall) and its discharge point.
☒	☐	Spread footing detail(s) – post size, connections to footing, framing above.
		Shearwall Details
☒	☐	Show all Shear Wall / Braced Wall Panels locations, show construction and assembly details.
		Shearwall schedule
☒	☐	Sheathing material, thickness.
☒	☐	Required nail size, spacing.
☒	☐	Top and bottom plate connection to diaphragm.
☒	☐	Design capacity.
☒	☐	Floor to floor transfer details (hold down strap or nailing details).
☒	☐	Diaphragm to shear wall connections.
		Miscellaneous Details
☒	☐	Rockery / ecoblock cross section.
☒	☐	Rated wall construction details.
☒	☐	Masonry veneer connection detail if not shown on wall details.
☒	☐	Ledger connection (member size, connection size, and spacing) if not provided on framing plan.
☒	☐	Greenhouse connection if not included elsewhere in the plans.

WATCH FOR:

1. **Excavation exceeding 1H:1V from a property line** may require a cross-sectional detail. When necessary, bottom of footing elevations may be required on the Foundation Plan.
2. If an **elevator** is proposed, a detail section of the elevator shaft is required.
3. If a **masonry fireplace** is proposed, a detail section of the fireplace and chimney is required.