Purpose and Applications: This guide specification covers the Geberit installation system for wall-hung toilets, urinals, bidets and lavatories. These systems are suitable for new construction, remodeling or replacement applications.

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Contact Information: Contact manufacturer for more information on this or other products made by Geberit: Geberit, 2100 S. Clearwater Drive, Des Plaines, IL 60018. Telephone: 800-566-2100. Fax: 847-803-5454. Website: www.Geberit.us.

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Editor Note: Edit document to suit Project requirements and specifier practice. Specifier notes are shown in blue text like this. Optional text [**is shown in bold with brackets like this**]. Locations where language for Project-specific requirements is to be inserted are shown like this: <**insert language**>. Remove specifier notes and unused optional text in final version of the specification document.

Editor Note: The Construction Specifications Institute (CSI) recommends and supports use of its current MasterFormat section title and numbering system, shown below as:

SECTION 22 40 00 – PLUMBING FIXTURES

Alternatively, the following MasterFormat numbers may be used to suit Specifier practice:

SECTION 22 41 00 – RESIDENTIAL PLUMBING FIXTURES

SECTION 22 42 00 – COMMERCIAL PLUMBING FIXTURES

SECTION 22 40 00 – PLUMBING FIXTURES (CONCEALED CARRIER SYSTEMS)

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes: Concealed carrier systems and fixtures for wall-hung [**toilets**] [**urinals**] [**bidets**] [**and**] [**lavatories**].

Editor Note: Revise paragraph below to suit Project requirements. Add section numbers and titles according to CSI MasterFormat and specifier practice. This paragraph is intended for use only when a reader might reasonably expect to find work requirements in this Section, but those requirements are actually located in another, related section.

B. Related Sections: Section(s) related to this section include:

1. <**Insert Work Title**>: <**Insert Division number**> Section <**Insert Section title**>.

Editor Note: Standards numbers and titles in the article below are provided for specifier information and reference. The purpose of this Article is to fully identify standards that are referenced elsewhere using abbreviated nomenclature. Retain, edit or delete article to suit specifier practice and Project requirements.

1.2 REFERENCES

A. General: Standards listed by reference form a part of this specification section. Standards listed are identified by issuing authority, abbreviation, designation number, title or other designation. Standards subsequently referenced in this Section are referred to by issuing authority abbreviation and standard designation.

B. American National Standards Institute (ANSI):

1. ANSI Z124.4: Plastic Water Closet Bowls and Tanks.

C. American Society of Mechanical Engineers (ASME):

1. ASME A112.6.2: Framing-Affixed Supports for Off-The-Floor Water Closets with Concealed Tanks.

2. ASME A112.19.14: Six Liter Water Closets Equipped with a Dual Flushing Device.

D. American Society of Mechanical Engineers (ASME) / Canadian Standards Associations (CSA) – Harmonized Standards:

1. ASME A112.18.1/CSA B125.1: Plumbing Supply Fittings.

2. ASME A112.18.2/CSA B125.2: Plumbing Waste Fittings.

3. ASME A112.19.2/CSA B45.1: Ceramic Plumbing Fixtures.

4. ASME A112.19.5/CSA B45.15: Flush Valves and Spuds for Water Closets, Urinals, and Tanks.

E. American Society of Sanitary Engineering (ASSE):

1. ANSI/ASSE 1002: Anti-Siphon Fill Valves for Water Closet Tanks.

2. ASSE 1037: Performance Requirements for Pressurized Flushing Devices (Flushometers) for Plumbing Fixtures.

F. Canadian Standards Association (CSA):

1. CSA B125.3: Plumbing Fittings.

G. Gauley and Koeller:

1. Uniform North American Requirements for Toilet Fixtures (UNAR/UNAR-HET).

H. Geberit:

 1. Geberit Installation Manual.

I. International Association of Plumbing and Mechanical Officials (IAPMO):

1. IAPMO PS50: Flush Valves with Dual Flush Device for Water Closets or Water Closet Tank with an Integral Flush Valve with a Dual Flush Device.

J. International Organization for Standardization (ISO):

1. ISO 9001: Quality Management.

2. ISO 14001: Environmental Management.

3. ISO 14021: Environmental Labels and Declarations -- Self-Declared Environmental Claims (Type II environmental labelling).

K. United States Environmental Protection Agency, Office of Water (EPA):

1. WaterSense specification for tank-type toilets.

1.3 ADMINISTRATIVE REQUIREMENTS

Editor Note: Retain paragraph below if pre-installation meetings are required and edit to suit Project requirements.

A. Pre-installation Meetings: Conduct pre-installation meeting to clarify Project requirements, substrate conditions, manufacturer’s installation instructions and manufacturer’s warranty requirements.

1.4 PERFORMANCE REQUIREMENTS

Editor Note: Project requirements in paragraph below might include but not be limited to design loads.

A. Structural Performance Requirements: <**Insert requirements**>.

Editor Note: Retain paragraph below if compliance with a whole-building rating system (such as USGBC LEED, GBI GreenGlobes, or other) or specific sustainability-related design and construction aspects is required. Edit to suit Project requirements. Project requirements might include but not be limited to energy performance, recycled material content, regional materials, indoor air quality.

B. Environmental Performance Requirements: <**Insert requirements**>.

1.5 SUBMITTALS

A. Product Data: For each type of product required.

B. Shop Drawings: Showing methods of installation, plans, sections, elevations, details, interface with all materials not supplied by the plumbing fixture manufacturer, identification of proposed component parts and finishes, and where applicable, diagrams for power and control wiring.

C. Samples: Selection and verification samples for finishes, colors and textures. Submit two complete sample sets of each type of material required.

D. Certificates: Signed by manufacturer certifying materials comply with specified performance characteristics, criteria and physical requirements.

E. Test and Evaluation Reports: Showing compliance with specified performance characteristics and physical properties.

F. Manufacturer’s Instructions: Manufacturer installation, storage, maintenance and other instructions.

Editor Note: Retain paragraph below if compliance with a whole-building rating system (such as USGBC LEED, GBI GreenGlobes, or other) or specific sustainability-related design and construction aspects is required. Edit to suit Project requirements.

G. Sustainable Design Submittals in Compliance with ISO 14021:

1. Energy performance.

2. Recycled content.

3. Regional materials.

4. Indoor air quality.

5. <**Insert requirements**>.

H. Qualification Statements: For manufacturer [**and installer**].

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications:

1. Provider of advanced installer training.

2. EPA WaterSense Partner.

3. Charter Sponsor, Alliance for Water Efficiency.

4. Member in good standing of U.S. Green Building Council.

5. ISO 9001 Certified.

6. ISO 14001 Certified.

7. Capable of demonstrating an extended history of plumbing fixture and system design, production and innovation.

Editor Note: Retain when separate installer qualifications are required.

B. Installer Qualifications:

1. An entity utilizing workers competent in installation techniques required by manufacturer for the product types and applications indicated.

1.7 DELIVERY, STORAGE AND HANDLING

A. Comply with manufacturer’s ordering instructions and lead time requirements to avoid construction delays.

B. Deliver materials to Project in manufacturer’s original unopened, undamaged containers with identification labels intact.

C. Storage and Protection: Store materials and accessories protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by manufacturer off ground, under cover and not exposed to weather and construction activities.

1.8 WARRANTY

Editor Note: Coordinate article below with Conditions of the Contract and with Division 01 Closeout Submittals (Warranty) Section.

A. Special Warranty: Manufacturer's transferrable, non-prorated limited warranty.

1. Warranty Period, Tank and Carrier: Lifetime.

2. Warranty Period, Fill and Flush Valve: 10 years.

3. Warranty Period, Actuator Flush Plate: 1 year.

Editor Note: Retain paragraph below if a separate installation warranty, not provided by manufacturer, is required and edit to suit Project requirements.

B. Special Warranty: Installer's standard form in which installer agrees to repair or replace carrier system and related components that fail due to poor workmanship or faulty installation within the specified warranty period.

1. Warranty Period: <**Insert number of years**> years from date of Substantial Completion.

PART 2 PRODUCT

Editor Note: Copy article below for each fixture type, edit to suit Project and product requirements and re-insert text as many times as needed to describe additional fixture types. Editor Note: Add product features, performance characteristics, material standards, and descriptions as applicable. Use of terms such as "or equal" or "approved equal" or similar may cause ambiguity in specifications, requiring verification (procedural, legal and regulatory) and assignment of responsibility for the determination of "equal" products. Therefore it is recommended that terms such as these be avoided.

2.1 WALL-HUNG TOILETS

A. General: Provide dual-flush in-wall carrier system and concealed tank with actuator flush panel or pneumatic push button for wash-down, wall-hung toilets complying with the performance requirements indicated and the following:

1. UNAR-HET.

2. ANSI Z124.4.

3. ASME A112.6.2.

4. ASME A112.19.2/CSA B45.1.

5. ASME A112.19.5/CSA B45.15.

6. ASME A112.19.14.

7. ANSI/ASSE 1002.

8. CSA B125.3.

9. IAPMO PS50.

Editor Note: EPA WaterSense label applies to specific toilet bowls when paired with the Geberit installation system. Consult with Geberit for more information.

10. EPA WaterSense specification for tank-type toilets.

B. Basis-of-Design Product: Subject to compliance with requirements provide Geberit: Duofix Carrier Frame with [**Sigma concealed tank for 2x6 or deeper installation, front actuation**] [**Sigma concealed tank for 2x4 or deeper installation, front actuation**] [**Omega concealed tank for 2x6 or deeper installation, top actuation**].

C. Substitution Limitations: [**No substitutions**] [**All other manufacturers: Submit substitution request in accordance with Section 01 25 00 - "Substitution Procedures"**] <**Insert substitution limitations**>.

D. Toilet Carrier System:

Editor Note: Water consumption height varies by frame model. Edit sub-paragraph below to suit Project requirements and coordinate with other product selections below.

1. Water Consumption: **[Dual-flush ready, 1.6/0.8 gallons per flush (6/3 liters per flush) with effective flush volume of 1.1 GPF (4 LPF)]**

**[Dual-flush ready, 1.28/0.8 gallons per flush (4.8/3 liters per flush) with effective flush volume of 0.96 GPF (3.6 LPF)]**.

2. Fill Valve: Anti-siphon type with integrated water hammer arrestor.

3. Tank Material: High density polyethylene (HDPE) insulated to prevent condensation.

4. Carrier Material: 16-gauge powder coated steel.

5. Load Rating: 880 lbs. (400 kg) without damage to finished wall or carrier unit.

6. Toilet Bowl Height Adjustment: 15 to 19 inches (381 to 483 mm).

Editor Note: Nominal frame height varies by frame model. Edit sub-paragraph below to suit Project requirements and coordinate with other product selections below.

7. Nominal Frame Height: [**44-1/16 inches (1120 mm) for Sigma 2x6**] [**47-1/4 inches (1200 mm) for Sigma 2x4 (2016 version)**] [**32-1/4 inches (820 mm) for Omega**].

Editor Note: Retain paragraph below when a manually-operated, dual-flush unit with Sigma01 flush plate is required. Edit to suit Project requirements. Other system options may be configured. See current product information or contact Geberit for technical assistance.

E. Flush Actuator:

1. Actuation Type: Flush plate.

2. Operation Type: Manual.

3. Mechanism Type: Mechanical/pneumatic/hydraulic.

4. Plate Material: Plastic.

5. Finish/Color: <**Insert finish/color designation**>.

6. Model Designation for Sigma Tank: Sigma01 flush plate.

Editor Note: Retain paragraph below when a manually-operated dual-flush unit with Sigma20 flush plate is required. Edit to suit Project requirements. Other system options may be configured. See current product information or contact Geberit for technical assistance.

F. Flush Actuator:

1. Actuation Type: Flush plate.

2. Operation Type: Manual.

3. Mechanism Type: Mechanical/pneumatic/hydraulic.

4. Plate Material: [**Plastic**] [**Stainless steel**]

5. Finish/Color: <**Insert finish/color designation**>.

6. Model Designation for Sigma Tank: Sigma20 flush plate.

Editor Note: Retain paragraph below when a manually-operated dual-flush unit with Sigma21 flush plate is required. Edit to suit Project requirements. Other system options may be configured. See current product information or contact Geberit for technical assistance.

G. Flush Actuator:

1. Actuation Type: Flush plate.

2. Operation Type: Manual.

3. Mechanism Type: Mechanical/pneumatic/hydraulic.

4. Plate Material: [**Glass**] [**Slate**] [**Custom Owner-supplied, <Insert requirements>**]

5. Finish/Color: <**Insert finish/color designation**>.

6. Model Designation for Sigma Tank: Sigma21 flush plate.

Editor Note: Retain paragraph below when a manually-operated, dual-flush unit with Sigma30 flush plate is required. Edit to suit Project requirements. Other system options may be configured. See current product information or contact Geberit for technical assistance.

H. Flush Actuator:

1. Actuation Type: Flush plate.

2. Operation Type: Manual.

3. Mechanism Type: Mechanical/pneumatic/hydraulic.

4. Plate Material: Plastic.

5. Finish/Color: <**Insert finish/color designation**>.

6. Model Designation for Sigma Tank: Sigma30 flush plate.

Editor Note: Retain paragraph below when a manually-operated, dual-flush unit with Sigma50 flush plate is required. Edit to suit Project requirements. Other system options may be configured. See current product information or contact Geberit for technical assistance.

I. Flush Actuator:

1. Actuation Type: Flush plate.

2. Operation Type: Manual.

3. Mechanism Type: Mechanical/pneumatic/hydraulic.

4. Plate Material: Die-cast metal.

5. Inlay Material: [**Plastic**] [**Stainless steel**] [**Glass**] [**Custom Owner-supplied, <Insert requirements>**].

6. Finish/Color: <**Insert finish/color designation**>.

7. Model Designation for Sigma Tank: Sigma50 flush plate.

Editor Note: Retain paragraph below when a manually-operated, dual-flush unit with Sigma60 flush plate is required. Edit to suit Project requirements. Other system options may be configured. See current product information or contact Geberit for technical assistance.

J. Flush Actuator:

1. Actuation Type: Flush plate.

2. Operation Type: Manual.

3. Mechanism Type: Mechanical/pneumatic/hydraulic.

4. Plate Material: [**Glass**] [**Stainless steel**]

5. Finish/Color: <**Insert finish/color designation**>.

6. Model Designation for Sigma Tank: Sigma60 flush plate.

Editor Note: Retain paragraph below when a manually-operated, dual-flush unit with Sigma70 flush plate is required. Edit to suit Project requirements. Other system options may be configured. See current product information or contact Geberit for technical assistance.

K. Flush Actuator:

1. Actuation Type: Flush plate.

2. Operation Type: Manual.

3. Mechanism Type: Mechanical/pneumatic/hydraulic.

4. Plate Material: [**Glass**] [**Stainless steel**].

5. Finish/Color: <**Insert finish/color designation**>.

6. Model Designation for Sigma Tank: Sigma70 flush plate.

Editor Note: Retain paragraph below when a hands-free, dual-flush unit with Sigma10 flush plate is required. Edit to suit Project requirements. Other system options may be configured. See current product information or contact Geberit for technical assistance.

L. Flush Actuator:

1. Actuation Type: Flush plate.

2. Operation Type: Hands-free.

3. Mechanism Type: [**Electrical, AC powered using Geberit accessory transformer 115.861.00.1**] [**Electrical, DC battery powered**].

4. Frame Material: [**Plastic**] [**Stainless steel**]

5. Finish/Color: <**Insert finish/color designation**>.

6. Model Designation for Sigma Tank: Sigma10 flush plate.

Editor Note: Retain paragraph below when a hands-free, dual-flush unit with Sigma80 flush plate is required. Edit to suit Project requirements. Other system options may be configured. See current product information or contact Geberit for technical assistance.

M. Flush Actuator:

1. Actuation Type: Flush plate.

2. Operation Type: Hands-free.

3. Mechanism Type: Electrical, AC powered using Geberit accessory transformer 115.861.00.1.

4. Plate Material: Die-cast metal.

5. Inlay Material: Glass.

6. Finish/Color: <**Insert finish/color designation**>.

7. Model Designation for Sigma Tank: Sigma80 flush plate.

Editor Note: Retain paragraph below when a manually-operated, single-flush unit with Sigma30 flush plate is required. Edit to suit Project requirements. Other system options may be configured. See current product information or contact Geberit for technical assistance.

N. Flush Actuator:

1. Actuation Type: Flush plate.

2. Operation Type: Manual.

3. Mechanism Type: Mechanical/pneumatic/hydraulic.

4. Plate Material: [**Plastic**] [**Stainless steel**]

5. Finish/Color: <**Insert finish/color designation**>.

6. Model Designation for Sigma Tank: Sigma30 flush plate.

Editor Note: Retain paragraph below when a manually-operated, single-flush unit with Sigma10 flush plate is required. Edit to suit Project requirements. Other system options may be configured. See current product information or contact Geberit for technical assistance.

O. Flush Actuator:

1. Actuation Type: Flush plate.

2. Operation Type: Manual.

3. Mechanism Type: Mechanical/pneumatic/hydraulic.

4. Plate Material: [**Plastic**] [**Stainless steel**]

5. Finish/Color: <**Insert finish/color designation**>.

6. Model Designation for Sigma Tank: Sigma10 flush plate.

Editor Note: Toilet bowl fixtures compatible with the Geberit carrier system are manufactured by Blu Bathworks, Duravit, Icera, Kohler, Lacava, Laufen, Neo-Metro, DXV, ROCA, TOTO, Villeroy & Boch, Devon & Devon, Kallista and Tynan Plumbing. Consult with fixture manufacturer or Geberit for more information.

P. Compatible Toilet Bowl Fixture:

1. Manufacturer and Model Designation:

a. Blu Bathworks <**Insert designation**>.

b. Duravit <**Insert designation**>.

c. Icera <**Insert designation**>.

d. Kohler <**Insert designation**>.

e. Lacava <**Insert designation**>.

f. Laufen <**Insert designation**>.

g. Neo-Metro <**Insert designation**>.

h. DXV <**Insert designation**>.

i. ROCA <**Insert designation**>.

j. TOTO <**Insert designation**>.

k. Villeroy & Boch <**Insert designation**>.

l. Devon & Devon <**Insert designation**>.
m. Kallista <**Insert designation**>.

n. Tynan Plumbing <**Insert designation**>.

2. Material: [**Vitreous china**] [**Stainless steel**] <**Insert material**>.

3. Type: Wash down, two hole.

4. Height: [**Standard**] [**Child**] [**Handicapped**].

5. Rim Contour: [**Elongated**] [**Regular round front**] [**Compact**] [**Compact elongated**].

6. Color: [**White**] <**Insert color**>.

Q. Toilet Seat:

1. Manufacturer and Model Designation: <**Insert requirements**>.

2. Type: [**Residential**] [**Commercial**].

3. Material: [**Plastic**] [**Wood composite**] <**Insert material**>.

4. Shape: [**Elongated**] [**Regular round front**] [**Compact**] [**Compact elongated**].

5. Configuration: [**Open front**] [**Closed front**].

6. Color: [**Black**] [**White**] <**Insert color**>.

2.2 WALL-HUNG URINALS

A. General: Provide in-wall carrier system with actuator flush panel for wall-hung urinals complying with the performance requirements indicated and the following:

1. ASME A112.6.2.

2. ASSE 1037.

3. CSA B125.3.

B. Basis-of-Design Product: Subject to compliance with requirements provide Geberit: Duofix <**Insert model designation**>.

C. Substitution Limitations: [**No substitutions**] [**All other manufacturers: Submit substitution request in accordance with Section 01 25 00 - "Substitution Procedures"**] <**Insert substitution limitations**>.

D. Urinal Carrier System:

1. Water Consumption: 0.5 gallons per flush (1.9 liters per flush).

2. Carrier Material: 16-gauge powder coated steel.

3. Load Rating: 110 lbs. (50 kg) without damage to finished wall or carrier unit.

4. Nominal Frame Height: 44-1/16 inches (1120 mm).

Editor Note: Retain paragraph below when manually-operated unit with Type 30 flush plate is required and edit to suit Project requirements.

E. Flush Actuator:

1. Actuation Type: Flush plate.

2. Operation Type: Manual.

3. Mechanism Type: Mechanical/pneumatic/hydraulic.

4. Plate Material: Plastic.

5. Finish/Color: <**Insert finish/color designation**>.

6. Model Designation: Type 30 flush plate.

Editor Note: Retain paragraph below when manually-operated unit with Type 50 flush plate is required and edit to suit Project requirements.

F. Flush Actuator:

1. Actuation Type: Flush plate.

2. Operation Type: Manual.

3. Mechanism Type: Mechanical/pneumatic/hydraulic.

4. Plate Material: Die-cast metal.

5. Inlay Material: [**Plastic**] [**Stainless steel**] [**Glass**] [**Custom Owner-supplied, <Insert requirements>**].

6. Finish/Color: <**Insert finish/color designation**>.

7. Model Designation: Type 50 flush plate.

Editor Note: Retain paragraph below when manually-operated unit with Type 10 flush plate is required and edit to suit Project requirements.

G. Flush Actuator:

1. Actuation Type: Flush plate.

2. Operation Type: Manual.

3. Mechanism Type: Mechanical/pneumatic/hydraulic.

4. Plate Material: Stainless steel.

5. Finish/Color: <**Insert finish/color designation**>.

6. Model Designation: Type 10 flush plate.

Editor Note: Retain paragraph below when hands-free operated unit with Type 10 flush plate is required and edit to suit Project requirements.

H. Flush Actuator:

1. Actuation Type: Flush plate.

2. Operation Type: Hands-free.

3. Mechanism Type: [**Electrical, AC powered using transformer provided**] [**Electrical, DC battery powered**].

4. Frame Material: Stainless steel.

5. Finish/Color: <**Insert finish/color designation**>.

6. Model Designation: Type 10 flush plate.

Editor Note: Urinal fixtures compatible with the Geberit carrier system are manufactured by Blu Bathworks, Duravit, and Villeroy & Boch. Consult with fixture manufacturer or Geberit for more information.

I. Compatible Urinal Fixture:

1. Manufacturer and Model Designation:

a. Blu Bathworks <**Insert designation**>.

b. Duravit <**Insert designation**>.

c. Villeroy & Boch <**Insert designation**>.

2. Material: [**Vitreous china**] <**Insert material**>.

3. Type: Siphon jet [**with extended shields**].

4. Strainer or Trapway: [**Manufacturer standard**] <**Insert strainer type**> with integral trap.

5. Color: [**White**] <**Insert color**>.

2.3 WALL-HUNG BIDETS

A. General: Provide concealed carrier system for wall-hung bidets complying with the performance requirements indicated and the following:

1. ASME A112.18.1/CSA B125.1.

2. ASME A112.18.2/CSA B125.2.

3. ASME A112.19.2/CSA B45.1.

Editor Note: EPA WaterSense label applies to specific bidet fixtures. Consult with Geberit for more information.

4. EPA WaterSense Label.

B. Basis-of-Design Product: Subject to compliance with requirements provide Geberit: Duofix <**Insert model designation**>.

C. Substitution Limitations: [**No substitutions**] [**All other manufacturers: Submit substitution request in accordance with Section 01 25 00 - "Substitution Procedures"**] <**Insert substitution limitations**>.

D. Bidet Carrier System:

1. Carrier Material: 16-gauge powder coated steel.

2. Load Rating: 880 lbs. (400 kg) without damage to finished wall or carrier unit.

3. Nominal Frame Height: [**32-1/4 inches (820 mm)**] [**44-1/16 inches (1119 mm)**].

4. Fixture Rim Height Adjustment Range: 15 inches (381 mm) to 19 inches (483 mm).

Editor Note: Compatible bidet fixtures are manufactured by Blu Bathworks, Duravit, Icera, Lacava, Laufen, ROCA and Villeroy & Boch. Consult with fixture manufacturer or Geberit for more information.

E. Compatible Bidet Fixture:

1. Manufacturer and Model Designation:

a. Blu Bathworks <**Insert designation**>.

b. Duravit <**Insert designation**>.

c. Icera <**Insert designation**>.

d. Lacava <**Insert designation**>.

e. Laufen <**Insert designation**>.

f. ROCA <**Insert designation**>.

g. Villeroy & Boch <**Insert designation**>.

2. Material: Vitreous china.

3. Type: Two-hole wall hung, [**spray**] [**flushing rim**] [**spray with flushing rim**].

4. Overflow: [**Required**] [**Not required**].

5. Color: [**White**] <**Insert color**>.

F. Faucet:

1. Manufacturer and Model Designation: <**Insert requirements**>.

2. Body Material: <**Insert requirements**>.

3. Finish: <**Insert requirements**>.

4. Flow Rate: <**Insert requirements**>.

5. Mounting: <**Insert requirements**>.

6. Valve Handles: <**Insert requirements**>.

7. Inlets: <**Insert requirements**>.

8. Spout: <**Insert requirements**>.

9. Operation: <**Insert requirements**>.

10. Drain: <**Insert requirements**>.

2.4 WALL-HUNG LAVATORIES

A. General: Provide concealed carrier system for wall-hung lavatories complying with the performance requirements indicated and the following:

1. ASME A112.18.1/CSA B125.1.

2. ASME A112.18.2/CSA B125.2.

3. ASME A112.19.2/CSA B45.1.

B. Basis-of-Design Product: Subject to compliance with requirements provide Geberit: Duofix <**Insert model designation**>.

C. Substitution Limitations: [**No substitutions**] [**All other manufacturers: Submit substitution request in accordance with Section 01 25 00 - "Substitution Procedures"**] <**Insert substitution limitations**>.

D. Lavatory Carrier System:

1. Carrier Material: 16-gauge powder coated steel.

2. Load Rating: 330 lbs. (150 kg) without damage to finished wall or carrier unit.

3. Frame Height: 38-9/16 inches (979 mm).

4. Fixture Rim Height Adjustment Range: 31-1/2 inches (800 mm) to 39-1/2 inches (1000 mm).

Editor Note: Compatible lavatory fixtures are manufactured by Duravit, Lacava, Laufen and Villeroy & Boch. Consult with fixture manufacturer or Geberit for more information.

E. Compatible Lavatory Fixture:

1. Manufacturer and Model Designation:

a. Duravit, <**Insert designation**>.

b. Lacava, <**Insert designation**>.

c. Laufen, <**Insert designation**>.

d. Villeroy & Boch, <**Insert designation**>.

2. Material: Vitreous china.

3. Type: Two-hole mounting, wall hung, [**oval**] [**rectangular**].

4. Size: <**Insert requirements**>.

5. Faucet Hole Punching: [**One hole**] [**Two holes**] [**Three holes**].

6. Color: [**White**] <**Insert color**>.

F. Faucet:

1. Manufacturer and Model Designation: <**Insert requirements**>.

2. Body Material: <**Insert requirements**>.

3. Finish: <**Insert requirements**>.

4. Flow Rate: <**Insert requirements**>.

5. Mounting: <**Insert requirements**>.

6. Valve Handles: <**Insert requirements**>.

7. Inlets: <**Insert requirements**>.

8. Spout: <**Insert requirements**>.

9. Operation: <**Insert requirements**>.

10. Drain: <**Insert requirements**>.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that all substrate conditions are suitable for installation of carrier system and fixtures in compliance with manufacturer’s recommendations.

B. Do not begin installation until substrates have been properly prepared and any conditions not in compliance with manufacturer’s recommendations have been corrected.

3.2 INSTALLATION

A. General: Comply with manufacturer’s product recommendations, including but not limited to the Geberit Installation Manual, and installation information in product literature and on product packaging. Comply with Drawings [**and Shop Drawings**] for installing carrier, fixtures, hardware, accessories, and all related components.

B. Install carrier plumb and level. Anchor securely to structure in correct orientation to adjacent construction as indicated. Comply with installation instructions for proper integration into wall system.

C. Adjust fixtures, hardware and accessories as applicable for correct fit and reliable operation.

3.3 FIELD QUALITY CONTROL

A. Manufacturer’s Field Services: If requested by Owner, provide manufacturer’s field service consisting of product use recommendations and periodic site visits for observation of product installation in accordance with manufacturer’s recommendations.

1. Site Visits: <**Insert site visit requirements**>.

3.4 CLEANING

A. Remove protective films and non-permanent labels prior to 90 days after installation.

B. Remove excess sealant, soiling, dirt and other substances. Clean fixture surfaces. Avoid damaging coatings and finishes.

C. Repair or replace components broken, scratched or damaged during construction prior to Substantial Completion.

D. Remove and lawfully dispose of construction debris from Project site.

3.5 PROTECTION

A. Protect installed fixtures and finish surfaces from damage during construction until completion of Project and acceptance by Owner.

END OF SECTION 22 40 00 – PLUMBING FIXTURES (CONCEALED CARRIER SYSTEMS)