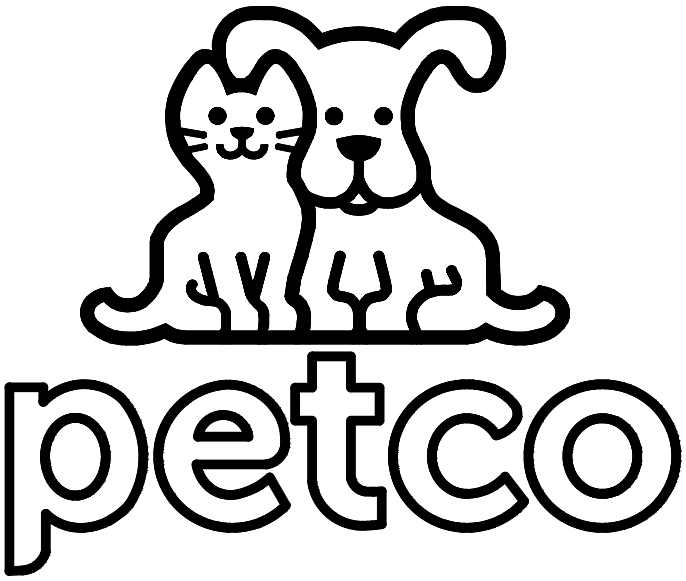

Tenant Improvement for a New PETCO Store

"Farmington Hills (MI) #T383"

Farmington Pointe
29335 Orchard Lake Road
Farmington Hills, MI 48334

Project Manual

Basis of Design: PETCO NEXUS CORE 12.5K Prototype

PETCO Job No. T383

Owner (Tenant in Fee): **PETCO ANIMAL SUPPLIES STORES, INC.**
654 Richland Hills Drive
San Antonio, TX 78245
(Refer to Section 01200 for contact information)

Architect (Tenant Improvement): **FRCH Design Worldwide**
311 Elm Street, Suite 600
Cincinnati, OH 45202

Mechanical/ Electrical Engineer (Tenant Improvement): **Polaris Consulting Engineers, PC**
214 W. Main Street, Suite 208
Moorestown, NJ 08057

Architect's Project Number 27281.000

September 17, 2014

Tenant Improvement for a
New PETCO Store "Farmington Hills (MI) #T383"
Farmington Pointe
29335 Orchard Lake Road
Farmington Hills, MI 48334

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New PETCO Store "Farmington Hills (MI) #T383"
Farmington Pointe
29335 Orchard Lake Road
Farmington Hills, MI 48334

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DIVISION 16 – ELECTRICAL

SECTION 00200

INSTRUCTIONS TO BIDDERS

PART 1 - GENERAL

1.01 PROJECT INFO

Petco Project #13T383
29335 Orchard Lake Rd.
Farmington, Hills, MI 48334

Petco Project Manager – Wade Rose
Phone: 858-880-6436
Email: Wade.Rose@Petco.com

1.02 INVITATION TO BIDDING CONTRACTORS: Petco invites a combined Bid Proposal for General Construction, Site Work to include Exterior Demolition, Concrete, Metal Work, Miscellaneous Steel, Woods & Plastics, Thermal & Moisture Protection, Doors, Windows & Glass, Interior and/or Exterior Finishes, Specialty Construction, Fire Suppression, HVAC, Plumbing & Drainage, Electrical Work.

A. Proposals shall be based on materials and methods described on the Drawings and Specifications. All local, state, and federal taxes shall be included in the Bid. Quote any Alternates, Unit Prices and give all Breakdowns included in Proposal Form. The total price indicated should be the total cost to Petco, including all Overhead and Profit.

B. Bid proposal shall include the cost of preparation and submittal of all shop drawings, samples, etc. as indicated and required herein and in all documents, including all sales taxes, delivery costs and all other incidental necessary expenses.

C. The Proposal shall not contain a recap of the work to be done, but shall be filled in appropriately in blank areas provided.

D. No bidder shall modify, withdraw or cancel his bid, or any part thereof, for sixty (60) days after the time established for receipt of the bid.

E. Any bulletins or addenda issued during the time of bidding are to be covered in the Bid Proposal Form and in the execution of the Contract shall become a part thereof. The bidder shall be responsible for transmitting Addenda information to all concerned with their bid. Receipt of Addenda shall be acknowledged on the Bid Proposal Form.

F. No bid modification will only be considered unless an email is sent to the specific Petco Construction Manager via email.

1.03 WARNING TO BIDDING CONTRACTORS: Contractors having built previous Petco projects must become familiar with the contract documents for ***THIS*** project. Since Petco building prototypes, policies, procedures, and Petco Vendor/Contractor division of responsibilities are subject to change, past contract document standards are not necessarily the same standards for this project.

1.04 DISTRIBUTION OF BIDDING DOCUMENTS:

A. Each invited Bidding Contractor will be required to download the Project Manual, the complete set of full-size drawings and all other bid documents from Petco's collaborative website "Petco Projects". Reproductions of said documents are by the Bidding Contractor at the Contractor's expense.

B. Revisions and/or Addendums to the drawings will be issued by the Architect of record and at the direction of the Petco Construction Manager: These documents are available for download from Petco's collaborative website "Petco Projects". Reproductions of said documents are by the Bidding Contractor at the Contractor's expense.

1.05 EXAMINATION OF DOCUMENTS

A. Each Bidder shall examine all Contract Documents, noting particularly all requirements that will affect his work in any way. Failure to fully acquaint themselves with the amount and nature of work required to complete his Division of the work in conformity with all requirements for the Project as a whole will not be considered subsequently as a basis for extra compensation.

B. Should a Bidder find discrepancies in or omissions from the Drawings or Specifications, or should he be in doubt as to their meaning, he shall at once send an RFI via "Petco Projects" to the Architect who will respond to the RFI via "Petco Projects" giving instructions to all Bidders. Neither Owner nor Architect will be responsible for any verbal instructions.

1.06 MANDATORY PRE-BID MEETING:

A. A Mandatory Pre-Bid Meeting will be held to review the scope of work, view the proposed Petco Tenant Space, and to address Bidding Contractor's questions. The Petco Construction Manager will prepare a "Pre-Bid Meeting Report" consisting of relevant clarifications or changes for distribution to all Bidding Contractors attending the Pre-Bid Meeting. The final document will be distributed as an addendum by the Architect of record, (see note above 1.04B).

B. The Pre-Bid Meeting invitation along with the date & time will be will be established by the Petco Construction Manager and be distributed through Petco's collaborative website "Petco Projects".

C. Bidding Contractors intending to submit a Bid Proposal ***MUST*** attend the Pre-Bid Meeting, and must record their meeting attendance on the appropriate Pre-Bid Meeting Sign-in Form provided by the Architect or the Petco Construction Manager. Any Bid Proposal received from a Bidding Contractor who has not attended the Mandatory Pre-Bid Meeting will ***NOT*** be considered.

1.07 EXAMINATION OF SITE

A. In submitting a Bid for the work each Bidder will be held to have previously examined the site and satisfied himself as to the conditions under which he shall be obligated to operate in performing his part of the work or that will in any manner affect the work under the Contract.

B. A mandatory pre-bid meeting will be held on site for all bidders to familiarize themselves with existing conditions, (see note 1.06)

1.08 CLARIFICATION OF BIDDING DOCUMENTS BY THE ARCHITECT:

A. During the Bidding Phase, the Project Architect is available to clarify the bidding documents.

i. The Architect will respond to questions and/or requests for information submitted *ONLY* by the Bidding Contractors and *ONLY* through “Petco Projects”. No emails and/or phone calls will be accepted. The Architect will respond within 48hrs to all Bidding Contractors through “Petco Projects”.

ii. Unless otherwise directed by the Petco Construction Manager, the Project Architect will *NOT* provide responses to Bidding Contractors questions that are received less than 72 hours prior to the Bid Due Date and Time.

B. No Product Substitutions will be considered by the Architect during the bidding phase. However, Contractors proposing substitutions should refer to appropriate Section in the project manual for information pertaining to Voluntary Bid Alternates.

1.09 DELIVERY OF CONTRACTOR’S BID DOCUMENTS:

A. All Contractors’ bid documents must be uploaded to “Petco Projects” in PDF format in the order listed below.

i. Attachment A – Form of Proposal
ii. Attachment B – Schedule of Values
iii. Attachment C – List of Drawings
iv. Attachment D – Voluntary Bid Alternates (if any)
v. Attachment E – Contractors’ Certificate of Insurance
vi. Attachment F – Proof of Valid State License

B. In addition to the information noted in 1.09A, all Schedule of Values amounts need to be entered into “Petco Projects” by the Bidding Contractor in the designated sections as required.

C. All sections *MUST* be completed. Any blank sections or changes of any kind may result in your proposal being rejected.

D. Unit prices must be completed at time of bid submission. No qualifications, clarifications, etc of bid are allowed. No alternates unless specifically requested by the Petco Construction Manager.

1.10 CONTRACT AWARD:

A. After the winning GC is informed that they are the successful contractor, the Petco Construction Coordinator will prepare and forward two (2) original contracts to the contractor. No later than three (3) working days after receipt, the contracts must be executed (signed, dated, witness signature and Corporate Seal if applicable) and returned to Petco, via overnight courier, to the attention of the Petco Construction Coordinator, Construction Department, along with a current original Certificate of Insurance naming Petco as the additional insured. No work will begin without receipt of all of the aforementioned. Petco reserves the right to rescind the offer to enter into a contract if the above procedure is not followed. Upon full execution of the contract, you will promptly be notified to commence with construction. Notification in writing will be provided to all Bidders upon determination of the successful Bidder. After the job is awarded, the successful Bidder will receive their copy of the fully executed Contract.

B. The Bid Documents will be reviewed privately by Petco. Information pertaining to contract award will be released by Petco and is not available to the Architect.

C. Petco intends to award the contract for construction to the lowest bid, qualified bidder. However, Petco is not obligated to award the contract for construction to either the lowest bid, or to any Bidding Contractor.

1.11 CONSTRUCTION PHASE CRITICAL DATES:

A. Refer to the Agreement Between Owner and Contractor for definitions of the Construction Phase Critical Dates.

B. If any bidder cannot meet the required schedule, he shall disqualify himself.

1.12 UTILITY COMPANY RULES:

A. Rules of local Utility companies shall be complied with. Before bid is submitted, the contractor shall check with each utility company supplying services to this work, and shall determine all requirements and include in his bid the cost of same.

1.13 OWNER'S SPECIALTY ITEMS

A. Contractor shall install items furnished by Petco, as indicated on the drawings.

B. Contractor's bid to include receiving, unloading, inventory, storage, protection, installation, labor, equipment and erection materials required to completely install all of the items provided by Petco and installed by the Contractor.

(END OF SECTION)

FORM OF PROPOSAL

TO: PETCO Animal Supplies Stores Inc.
654 Richland Hills Drive
San Antonio, TX 78245
PM: Wade Rose

1. The Undersigned Bidding Contractor,

_____
Bidding Contractor's Name

_____
Address

_____
City/ State

_____
Telephone No./ Fax No.

Certifies a careful review of all Bidding Documents, including but not limited to the Instructions to Bidders, the Construction Drawings and the Project Manual, entitled:

Tenant Improvement for a New PETCO Store
"Farmington Hills (MI) #T383"
Farmington Pointe
29335 Orchard Lake Road
Farmington Hills, MI 48334

and bound together as Architect's Project No. 27281.000, PETCO PM Job No. T383 dated September 17th, prepared by or under the direction of the Architect:

FRCH Design Worldwide
311 Elm Street, Suite 600
Cincinnati, OH 45202

and the Engineer(s) named on the specific engineer('s) drawings.

2. The construction agreement for this project will be PETCO's Agreement between Owner and Contractor, which will be provided by PETCO to the lowest bid, qualified Contractor for review and execution prior to award of this contract for general construction.

3. **BASE BID (Base Bid Contract Sum):**

_____

_____

($_____) DOLLARS.

4. ITEMIZED BID BREAKDOWN: The Undersigned Bidding Contractor certifies that all bid prices shall be based on the products specified in the Construction Drawings and Project Manual with no variations or substitutions. The Total Base Bid Contract Sum is further itemized in the attached Attachment B- Schedule of Values and Attachment C- Unit Costs. The Undersigned Bidding Contractor acknowledges that the Total Base Bid Contract Sum and Bid Alternates itemized in this Bid Proposal are fixed for a minimum of one hundred twenty (120) calendar days after the date of receipt of this Bid Proposal by PETCO.

4.1 BID ALTERNATES:

1. Bid Alternate No. 1: (Exterior Sun Control Window Film):
   If this Bid Alternate is accepted, the amount to ADD TO the Base Bid is:

   ADD _____ $(_____) DOLLARS

5. VOLUNTARY BID ALTERNATES (Refer to Section 01100): The Contractor shall attach a supplementary proposal describing Voluntary Bid Alternates (if any).

6. CONSTRUCTION DURATION: The Undersigned Bidding Contractor acknowledges that construction of this project must be commenced in a timely manner, and fully completed by the Date of Final Completion, fully within the dates established, and as further defined in the Agreement Between Owner and Contractor. The Construction Duration stated includes weekends and holidays.

7. The Undersigned Bidding Contractor acknowledges that any additive or deductive work authorized by PETCO, and any additional cost of authorized overtime labor that is subject to Payment by PETCO, will be added or deducted from the Total Base Bid Contract Sum.

8. The Undersigned Bidding Contractor certifies that all Bidding Documents, including but not limited to the Instructions to Bidders, Agreement Between Owner and Contractor, the Construction Drawings and the Project Manual have been carefully examined by the Bidding Contractor; and that the Bidding Contractor has become informed by review of all Bidding Documents and the Bidding Contractor's field observations regarding existing site conditions and site conditions contemplated in the work to be done; and that the Bidding Contractor will provide all materials, labor and equipment, and assume all construction and related responsibilities even where not specifically mentioned but which are necessarily required or reasonably implied to obtain the completed conditions contemplated, in accordance with all Bidding Documents as prepared and interpreted by the Architect.

9. The Undersigned Bidding Contractor acknowledges receiving the following addendum(s) from the Architect during the bidding phase:

   Addendum No. _____ Addendum Date _____

   Addendum No. _____ Addendum Date _____

10. CONTRACTOR'S INSURANCE: The Undersigned Bidding Contractor submits with this Bid Proposal a **CERTIFICATE FROM THE INSURANCE COMPANY** stating that the Bidding Contractor can and will be insured to the limits required by PETCO, as stated in the Agreement between Owner and Contractor. The Undersigned Bidding Contractor agrees that insurance will be purchased and maintained, and that the Bidding Contractor will deliver a copy of the Insurance Certificate to PETCO.

11. SIGNATURES: The Undersigned Bidding Contractor states that he/ she/ they are the only person/ persons having an interest in this Bid Proposal.

If this Bid Proposal is submitted by an unincorporated company or partnership, then the Bid Proposal shall be signed in the company or partnership name, and additionally signed by all partners or members of the company in their individual names.

_____
Company Legal Name

_____
Business Address

_____
Owner/ Partner Signature/ Printed Name

_____
Owner/ Partner Signature/ Printed Name

Date: _____

If this Bid Proposal is submitted by a corporation, then the President or other Corporate Officer shall sign and attach the corporate seal, and further attested to by the corporation's Secretary.

_____
Legal Name of Corporation

_____
Business Address

_____
Signature of President or Other Corporate Officer/ Printed Name

Date: _____

Attest: _____
Signature of Corporate Secretary

Corporate Seal:

Attachments:

- Attachment B- Schedule of Values
- Attachment C- PETCO Unit Costs
- Voluntary Bid Alternates (if any)
- Certificate of Insurance

ATTACHMENT A
List of Drawings

Drawings prepared for PETCO Animal Supplies Stores Inc., by FRCH Architects and Polaris Consulting Engineers, entitled "Tenant Improvement for a New PETCO Store 'Farmington Hills (MI) #T383, Farmington Pointe, 29335 Orchard Lake Road, Farmington Hills, MI 48334", Architect's Project Number 27281.000, PETCO Job Number T383:

Sheet	Drawing Title	Revision	Date
A0.1	Code Data, Project Data	100% Set	09/25/14
A0.2	PETCO Vendor / Contractor Furnished Items	100% Set	09/25/14
A1.2	Demolition Plan	100% Set	09/25/14
A2.1	Floor Plan and Partition Types	100% Set	09/25/14
A2.2	Floor Finish Layout Plan	100% Set	09/25/14
A2.3	Store Fixture Plan	100% Set	09/25/14
A2.4	Reflected Ceiling Plan	100% Set	09/25/14
A2.5	Roof Plan	100% Set	09/25/14
A3.1	Door & Finish Schedule	100% Set	09/25/14
A4.1	Exterior Elevations	100% Set	09/25/14
A5.1	Building Sections, Wall Sections	100% Set	09/25/14
A5.2	Exterior Wall Sections	100% Set	09/25/14
A5.3	Wall Sections	100% Set	09/25/14
A5.4	Partition Types	100% Set	09/25/14
A5.5	Partition Types	100% Set	09/25/14
A6.1	Exterior Details	100% Set	09/25/14
A7.1	Large Scale Plans	100% Set	09/25/14
A7.2	Loading Area Large Scale Plan and Section	100% Set	09/25/14
A7.3	Dog Park Area Large Scale Plan, Section and Elevations	100% Set	09/25/14
A8.1	Interior Details	100% Set	09/25/14
A8.2	Interior Details	100% Set	09/25/14
A8.3	Interior Details	100% Set	09/25/14
A8.4	Interior Details	100% Set	09/25/14
A9.1	Interior Elevations	100% Set	09/25/14
A9.2	Interior Elevations	100% Set	09/25/14
A9.3	Interior Elevations	100% Set	09/25/14
S1.0	Storefront Plan	100% Set	09/25/14
S1.1	Storefront Sections & Details	100% Set	09/25/14
S1.2	Storefront Sections & Details	100% Set	09/25/14
S1.3	Exterior Concrete Slab Plan & Details	100% Set	09/25/14
S2.0	Mech Support Framing Plan & Exterior Wall Openings	100% Set	09/25/14
S2.1	Mech Support Framing Details & Notes	100% Set	09/25/14
PME1.1	Plumbing/ Mechanical/ Electrical General Information	100% Set	09/25/14
P1.1	Plumbing General Information & Schedules	100% Set	09/25/14
P2.1	Plumbing Plan	100% Set	09/25/14
P3.1	Sanitary Large Scale Plans and Details	100% Set	09/25/14
P3.2	Water Large Scale Plans and Details	100% Set	09/25/14
P4.1	Plumbing Riser Diagrams and Details	100% Set	09/25/14
M1.1	Mechanical General Information and Schedules	100% Set	09/25/14
M2.1	Mechanical Plan	100% Set	09/25/14
M3.1	Mechanical Large Scale Plans and Details	100% Set	09/25/14
M3.2	Mechanical Details	100% Set	09/25/14
E1.1	Electrical General Information and Schedules	100% Set	09/25/14
E1.2	Panel Schedules	100% Set	09/25/14
E1.3	Electrical Single Line Diagram and Details	100% Set	09/25/14
E2.1	Electrical Lighting Plan	100% Set	09/25/14
E2.1A	Electrical Lighting Dimensional Plan	100% Set	09/25/14
E2.2	Electrical Power Plan	100% Set	09/25/14
E2.3	Sound and Communication System	100% Set	09/25/14
E2.4	Security System Plan	100% Set	09/25/14

E2.5	Energy Management System Plan	100% Set	09/25/14
E3.1	Electrical Large Scale Plans and Details	100% Set	09/25/14
E3.2	Electrical Large Scale Plans and Details	100% Set	09/25/14
EMS1.1	Energy Management System Information and Details	100% Set	09/25/14

ATTACHMENT B
Schedule of Values
PETCO "Common Name #T383"

This Schedule of Values shall be submitted with the Form of Proposal.
Architect Note: Edit Line Items below where applicable/ not applicable for THIS project.

	DIVISION 1 - GENERAL REQUIREMENTS	**Sub-Total**	**Div. Total**
01010	Contractor's Acquisition of Building Permit	$	
01010	Temporary Facilities	$	
01010	Temporary Utilities	$	
01410	Contractor's Materials/ Assemblies Testing Agency	$	
01010	Winter Conditions & Winter Protection	$	
01010	Contractor's Insurance	$	
01010	Layout and Engineering	$	
01700	Cleanup (Daily and Final)	$	
01200	Contractor's Project Administration (overhead)	$	
01200	Contractor's Site Supervision, Travel Costs	$	
01010	Contractor's Acquisition of Final Certificate of Occupancy	$	
-	Other _____	$	
	TOTAL GENERAL REQUIREMENTS		$

	DIVISION 2 - SITEWORK	**Sub-Total**	**Div. Total**
02060	Demolition	$	
02060	Site Clearing	$	
02060	Rock Removal	$	
02060	Unsuitable Soil Excavation & Disposal	$	
02200	Excavation & Backfill (includes approved fill material)	$	
02200	Preliminary & Final Grading	$	
	Site Concrete/ Masonry (NOT including Building Concrete/ Masonry)	$	
	Retaining Walls (NOT including Building Foundation Work)	$	
	Site Lighting and Foundations	$	
02220	Trenching	$	
02510	Asphalt Paving (including Pavement Striping)	$	
02520	Concrete Paving	$	
02810	Irrigation System	$	
02950	Landscaping	$	
15400	Storm Drainage System	$	
15400	Gas Service to Tenant Space	$	
15400	Domestic Water Service to Tenant Space (includes Meter Pit; Vault; Check Valve)	$	
15300	Fire Suppression Water Service to Tenant Space (includes Meter Pit; Vault; Detector Check)	$	
15400	Sanitary Sewer Service to Tenant Space	$	
16000	Electrical Service to Tenant Space (includes Transformer; Meter; Primary)	$	
-	Other _____	$	
	TOTAL SITEWORK		$

	DIVISION 3 - CONCRETE	**Sub-Total**	**Div. Total**
03300	Concrete Footings & Foundations (including Reinforcing)	$	
02710	Foundation Dampproofing	$	
02720	Foundation Waterproofing & Drainage System	$	
03300	Concrete Slabs on Grade (including Reinforcing)	$	
03310	Concrete Floor Preparation	$	
-	Other _____	$	

ATTACHMENT B
Schedule of Values
PETCO "Common Name #T383"

TOTAL CONCRETE $ _____

	DIVISION 4 - MASONRY		**Sub-Total**	**Div. Total**
04420	Concrete Unit Masonry			
		(Materials) $ _____		
		(Labor) $ _____		
	Total Concrete Unit Masonry		$ _____	
	Concrete Masonry Wall Reinforcing		$ _____	
-	Other _____		$ _____	
	TOTAL MASONRY			$ _____

	DIVISION 5 - METALS		**Sub-Total**	**Div. Total**
05120	Structural Steel (including 05200 Metal Joists & 05300 Metal Decking)		$ _____	
		(Materials) $ _____		
		(Labor) $ _____		
	Total Structural Steel		$ _____	
05400	Cold Formed Metal Framing (Structural)		$ _____	
05500	Metal Fabrications		$ _____	
-	Other _____		$ _____	
	TOTAL METALS			$ _____

	DIVISION 6 - WOOD & PLASTICS	**Sub-Total**	**Div. Total**
06200	Rough & Finish Carpentry	$ _____	
-	Other _____	$ _____	
	TOTAL WOOD & PLASTICS		$ _____

	DIVISION 7 - THERMAL & MOISTURE PROTECTION	**Sub-Total**	**Div. Total**
07210	Building Insulation	$ _____	
07240	Water Managed EIFS	$ _____	
07250	Exterior Insulation Finish System Repairs	$ _____	
07500	Modified Bitumen Roofing System	$ _____	
07540	Roofing System Repairs	$ _____	
07600	Sheet Metal (Coping and Roofing/ Fascia Panels)	$ _____	
07720	Roof Accessories	$ _____	
07920	Sealants & Caulking	$ _____	
-	Other _____	$ _____	
	TOTAL THERMAL & MOISTURE PROTECTION		$ _____

	DIVISION 8 - DOORS & WINDOWS	**Sub-Total**	**Div. Total**

ATTACHMENT B
Schedule of Values
PETCO "Common Name #T383"

08100	Metal Doors & Frames	$ _____	
08300	Special Doors	$ _____	
08410	Aluminum Entrance Doors & Storefront	$ _____	
08710	Finish Hardware	$ _____	
08800	Glazing	$ _____	
-	Other _____	$ _____	
	TOTAL DOORS & WINDOWS		$ _____

	DIVISION 9 - FINISHES	**Sub-Total**	**Div. Total**
09260	Gypsum Wallboard Partition System (including light gauge metal framing)	$ _____	
09310	Ceramic Tile	$ _____	
09510	Acoustical Ceiling	$ _____	
09650	Resilient Flooring and Accessories	$ _____	
09650	VCT Replacement x 500 tiles (see Section 01100)	$ _____	Allowance
09660	Resilient Sheet Flooring and Accessories	$ _____	
09670	Epoxy Finish on Concrete	$ _____	
09900	Painting	$ _____	
09910	Concrete Sealer	$ _____	
-	Other _____	$ _____	
	TOTAL FINISHES		$ _____

	DIVISION 10 - SPECIALTIES	**Sub-Total**	**Div. Total**
10300	Miscellaneous Specialties	$ _____	
10300	Installation of PETCO-Furnished Items	$ _____	
10400	Supplementary Building & Pylon Signage Work by Contractor	$ _____	
-	Other _____	$ _____	
	TOTAL SPECIALTIES		$ _____

	DIVISION 15 - MECHANICAL	**Sub-Total**	**Div. Total**
15255	Seismic Restraints	$ _____	
15300	Fire Suppression System	$ _____	
15400	Plumbing Systems	$ _____	
15500	HVAC Systems	$ _____	
-	Other _____	$ _____	
	TOTAL MECHANICAL		$ _____

ATTACHMENT B
Schedule of Values
PETCO "Common Name #T383"

	DIVISION 16 - ELECTRICAL		**Sub-Total**	**Div. Total**
16000	Electrical Systems (except Lighting)			
		(Materials) $		
		(Labor) $		
	Total Electrical Systems (except Lighting)		$	
16000	Electrical System Panelboard		$	
16000	Lighting			
		(Materials) $		
		(Labor) $		
	Total Lighting		$	
16000	Fire Alarm System		$	
16000	Supplementary Security Alarm System Work by Contractor		$	
16600	Supplementary Energy Management System Work by Contractor		$	
-	Other _____		$	
	TOTAL ELECTRICAL			$

BID PROPOSAL SUMMARY

Base Bid Subtotal

Divisions 1 thru 16 Sub-Total	$
Contractor's Profit	$
Taxes	$
BASE BID CONTRACT SUB-TOTAL (Not Including Bid Alternates)	$

	BID ALTERNATES:		**Total Selected by PETCO**
08800	1. Provide Exterior Sun Control Window Film	$	
	To be completed by PETCO at Bid Opening: TOTAL BID ALTERNATES SELECTED BY PETCO		*$*

To be completed by PETCO at Bid Opening:
TOTAL BASE BID CONTRACT SUM (Including Selected Bid Alternates) *$* _____

ATTACHMENT C
Unit Costs

This form shall be completed by the Contractor and submitted with the Bid Proposal.

Concrete Floor Preparation	$_____	Per 100 sq. ft.
Concrete, 3000 psi	$_____	Per cubic yard
Concrete, 4000 psi	$_____	Per cubic yard
Concrete, bulk	$_____	Per cubic yard
Concrete Removal, (e.g. old foundations, slabs, etc.)	$_____	Per cubic yard
Concrete Curbing	$_____	Per lineal foot
Debris Removal (e.g. soil mixed with brick, concrete, wood, etc.)	$_____	Per cubic yard
Hazardous Soil Removal and Disposal (heavy metal-based)	$_____	Per cubic yard
Hazardous Soil Removal and Disposal (petroleum-based)	$_____	Per cubic yard
Import and Placement of Common Fill	$_____	Per cubic yard
Import and Placement of Structural Fill	$_____	Per cubic yard
Paving (regular)	$_____	Per square yard
Paving (heavy duty)	$_____	Per square yard
Replacement VCT Flooring in excess of Allowance	$_____	Per tile
Rock Excavation, bulk	$_____	Per cubic yard
Rock Trenching	$_____	Per cubic yard
Rock Disposal	$_____	Per cubic yard
Timber Piles (including delivery & pile driving, in excess of _____ lineal feet Base Bid)	$_____	Per lineal foot
Unsuitable Soil Excavation (reuse onsite)	$_____	Per cubic yard
Unsuitable Soil Excavation (offsite disposal)	$_____	Per cubic yard

(Architect Note: edit above where applicable)

SECTION 00400

“PETCO PROJECTS” COLLABORATIVE WEBSITE

PART 1- GENERAL

1.01 DEFINITIONS

A. CONSTITUENTS – Will be defined as, but not limited to, Landlords, Developers, General Contractors, Architects, Engineers, and Vendors.

1.02 SCOPE

A. Petco communicates and collaborates with its Constituents using “Petco Projects” website. It allows work requests, negotiation, and correspondence in a semi-open environment. Our Global Accounts, consultants, contractors, Landlords, real estate brokers, developers, and legal counsel all will be required to utilize “Petco Projects”'. This communication tool is provided to you at no additional cost. You will be added to projects so you can perform your responsibilities using this collaborative website.
B. We will make every effort to minimize the use of “hardcopy” documents when possible. In some cases, you will be required to submit items on traditional paper medium or “hardcopy” as well as in electronic format to the website.

1.03 PARTICIPATION

A. The use of “Petco Projects” is mandatory for all Petco projects. Documents to be translated in electronic format through the “Petco Projects” website include as a minimum:

1. Code Checks
2. Site Plans
3. Building Elevations
4. Pylon Sign Exhibits
5. Payment Applications
6. LOI’S
7. Miscellaneous Documents
8. Plans and Specifications
9. Design Guidelines
10. RFI’S
11. Change Orders
12. Contracts
13. Lease Negotiations
14. Shop Drawings
15. Test Reports
16. Meeting Notes
17. Project Close-Out Info and Documents
18. Construction Progress Reports and Photos

1.04 USER SYSTEM REQUIREMENTS

A. Personal Computer with a Microsoft Windows with NT, ME, Vista, Windows 7 Operating System or above. Pentium III processor or above and a minimum of 20 gigabytes of hard disk storage,128 megabytes of RAM, Ethernet Card, a writeable CD drive, and a JAVA enabled internet browser min. IE9 or above.
B. DSL or equivalent high speed internet access.
C. High definition Laser or Inkjet printer.
D. An SVGA (or better) monitor.
E. Sound card with speakers.
F. High definition color scanner

1.05 COST

A. The system will be provided at no cost to constituents other than for training.

1.06 TRAINING

A. Training will be provided to the User based on their role within the project. You will be provided with a user manual specific to your role in any project that provides a step-by-step instructions, graphical instructions, and process documentation. If you need additional education, it can be obtained by contacting Mignon Ayala at 858-453-7845 x3753. Education is role specific but you may have as many people in attendance as needed. We will conduct the session on-line, real-time using a third-party vendor. We suggest utilizing a conference room with a high-speed Internet connection for training groups larger than two individuals.
B. Training will be at the sole cost and expense of the User.
C. The use of “Petco Projects” may require skills not traditionally required on past Petco projects. You will not receive additional compensation or time extensions for delay, unforeseen conditions, inefficiency, or technical difficulty due to the use of “Petco Projects”.

   Petco Contact – Mignon Ayala 858-453-7845 x3753 email:mignon.ayala@petco.com

END OF SECTION

SECTION 01010

SUMMARY OF WORK

1.01 SUMMARY: The provisions of the Agreement between the Owner and Contractor and this Project Manual are hereby made a part of the Contract for general construction. All subcontractors are referred to the PETCO/ Contractor Agreement for construction insurance requirements, and instructions regarding general conduct and management of the work.

1.02 DIVISION OF RESPONSIBILITIES TERMINOLOGY:

A. "Contractor": Where referenced in some Project Manual Sections, the term "Contractor" refers to the person or entity responsible for providing all tenant improvement construction work, with the exception of work provided otherwise by "PETCO Vendor" in direct contract agreement with PETCO Animal Supplies, Inc.

B. "PETCO Vendor": Where referenced in some Project Manual Sections, the term "PETCO Vendor" refers to a DIFFERENT person or entity from the terms "Contractor". "PETCO Vendor" is responsible for providing tenant-specific work independent from the work of the "Contractor", and in direct contract agreement with PETCO Animal Supplies.

1.03 CONSTRUCTION DRAWINGS AND PROJECT MANUAL:

A. Construction Drawings shall not be scaled in order to determine locations of items of construction. Larger scale details take precedence over smaller scale details. Dimensioned details take precedence over non-dimensioned details.

B. The words "shall be" and "shall" may be omitted in the Project Manual and replaced with a colon (;); this substitutions indicates mandatory phrases to the same extent as if the words "shall be" or "shall" were included.

1.04 ENVIRONMENTAL ASSESSMENT: Removal of hazardous materials, if identified by any environmental assessment performed by an environmental engineer contracted by PETCO, shall be completed by way of a hazardous materials removal contract executed by either PETCO or the Landlord, independent from and prior to the Date of Commencement. *(if applicable)*

1.05 PERMIT SUBMISSION, REVIEWS, APPROVALS & FEES:

A. Permit Submission by Contractor: The Contractor shall submit the application for the Main (general) Buildiing Permit Submission, and shall include all Architect/ Engineer signed/sealed construction drawings, project manual specifications and other required documents.

1. The Contractor will coordinate with the Architect to provide follow-up coordination with the local jurisdiction, as required, with respect to building-related issues that impact the approval and release of the Main (general) Building Permit.
2. The cost of Architect/ Engineer signed/ sealed construction drawings, project manual specifications and other required documents, and transmittal to the Contractor will be PETCO's responsibility.
3. Time and material costs for the Contractor's delivery to and pickup from the local jurisdiction, as applicable, will be the Contractor's responsibility.

B. Building Permit Fees: Unless Building Permit Fees are required for the local jurisdiction's acceptance of the Application for Building Permit at the time of the Architect's submission, all Building Permit Fees shall be the Contractor's responsibility, shall be due and payable to the local jurisdiction according to the local jurisdiction's requirements, and shall be included by the Contractor in the Base Bid.

1. The Contractor shall enter a Line Item cost on Attachment B- PETCO Schedule of Values for the expected cost of the Main (general) Building Permit.
2. Permit Issuance to Contractor: If the Architect is responsible for submission of the application for the Main (general) Building Permit to the local jurisdiction, the Architect will notify the PETCO Project Manager when all jurisdictional reviews have been completed and the application for the Main (general) Building Permit has been approved for release. The Contractor will then be responsible for receipt of the Main (general) Building Permit and for payment of all related permit fees.

C. Contractor License or Local Subcontractor Permits: If the Contractor or any subcontractor is required by the state or local jurisdiction to obtain an applicable Contractor License, or any other Local Subcontractor Permits, so as to permit legal work to be provided for this project, then the Contractor is responsible for all costs incurred to satisfy these jurisdictional requirements.

1. The cost of any and all Contractor License(s), subcontractor trade permits, services and inspections shall be the Contractor's responsibility and shall be included in the Base Bid.
2. The printing cost for drawings, specifications and other construction documents required for any Contractor License(s) or subcontractor trade permits shall be the Contractor's responsibility, and shall be included in the Base Bid.

D. Final Certificate of Occupancy: The Contractor is responsible for providing the local jurisdiction Final Certificate of Occupancy, or its equivalent permit, so to allow PETCO to commence full retail and service operations, on or before the Date of Final Completion.

1.06 SITE UTILITIES:

A. Applications for Site Utility Service to the PETCO Tenant Space shall be coordinated by the Contractor with the PETCO Project Manager. Local Site Utility Providers' points of contact may be included in the drawings for reference purposes.

B. The Contractor shall coordinate the issuance of all Letters of Request for Site Utility Services with the PETCO Project Manager WITHOUT DELAY following the award of the contract for general construction, so as to confirm site utility services and schedule connections at the earliest possible calendar date.

C. All coordination of provisions for the Site Utility Services by the Contractor shall be included in the Base Bid. Fees due and payable to the local utility so as to facilitate provisions for Site Utility Services will be either PETCO's responsibility, or PETCO may coordinate with the Contractor for payment by the Contractor, with reimbursement by PETCO to the Contractor at direct cost.

1.07 GENERAL CONSTRUCTION:

A. The Contractor shall be responsible for security of the building throughout the term of construction work, and shall be responsible for all costs incurred.

B. The Contractor shall be in charge of general construction; shall superintend the entire construction of the project; shall coordinate between subcontractors regarding what materials, labor and equipment must be provided by each; shall save PETCO loss or annoyance by reason of suits or claims of infringement of any patent; shall protect PETCO against all liens, accidents to the public neighboring premises and parties employed on the work; and shall carry on all construction in an expeditious and workmanlike manner.

C. Motorized Lifts: The Contractor and subcontractors shall provide for the use of all-terrain motorized lifts where necessary for the performance of pertinent work in the Base Bid.

Motorized lifts used for interior construction shall have tires taped to protect finish concrete floor surfaces.

1.08 WINTER CONDITIONS AND WINTER PROTECTION:

A. The Contractor shall include in the Base Bid all winter conditions and winter protection costs associated with the general contract for construction under prevailing winter conditions. “Winter Conditions” is defined as all conditions (high wind velocity included) in which weather and/or ambient temperature may impair building and/or site construction operations. “Winter Protection” is defined as the costs associated with or incurred in order to complete all work within the scope of the general contract for construction, within the calendar time as further defined by the PETCO/ Contractor Agreement, for construction under prevailing winter construction conditions, and is inclusive of any means necessary to perform such general construction, including but not limited to the following:

1. Temporary heat;
2. Temporary power;
3. Temporary lighting;
4. Cold weather concrete work;
5. Cold weather masonry work;
6. Deicing and/or snow removal;
7. Frozen ground removal (frost-ripping);
8. Stone base if required for site access for construction vehicles;
9. Temporary tenting (protection) of construction work to maintain working temperature;
10. Trenching and excavation, including all costs for over-excavation as may be required for site or building foundation footings.
11. Labor, materials and equipment required for any winter conditions related provisions.

1.09 PREPARATION OF THE SITE AND ACCESS MAINTENANCE: The initial phase of construction shall include all site preparation as specified in order to establish all rough grades to allow for the intended, designed site drainage. This initial site preparation work shall include all provisions for the installation of pavement stone base material, in order to establish maintainable access on the project site and around the building perimeter. The complete building perimeter must be accessible by tractor-trailers, subject to physical site limitations. The stone base and site storm drainage system shall be constructed as detailed on the drawings pavement sections, and shall be maintained by the Contractor during the course of construction at no additional cost to PETCO. Maintenance of the stone base and site storm drainage system by the Contractor shall include, but is not limited to replacing all “soft” or failing area of the site that may develop during the course of construction.

1.10 STRUCTURAL STEEL SUBCONTRACT:

A. The Structural Steel Subcontractor shall refer to architectural drawings as well as structural, mechanical and electrical drawings, and shall coordinate with the Contractor’s superintendent for proper location of work under this contract.

B. The Structural Steel Subcontractor shall install all structural steel, shall furnish and install miscellaneous structural metal items, and furnish to the Contractor other miscellaneous steel items to be installed by the Contractor; all as shown on the drawings or further specified in the project manual.

C. Structural Steel Construction Drawings shall NOT be scaled. Larger scale details take precedence over smaller scale details. Dimensioned details take precedence over non-dimensioned details.

1.11 FIRE SUPPRESSION SYSTEM SUBCONTRACT:

A. The Fire Suppression System Subcontractor shall refer to the architectural drawings, as well as the fire suppression, plumbing, mechanical and electrical drawings, and shall coordinate with the Contractor's superintendent for proper location of all work under this contract.

B. The Fire Suppression System Subcontractor shall furnish and install all piping and fixtures as shown on the drawings or called for in the project manual, and as otherwise required to provide a complete and operational fire suppression system to the extent required for acceptance and approval by the local jurisdiction.

C. Unless otherwise specified, work shown and as reasonably inferred should be considered new construction and a part of the scope of work.

D. Neither PETCO nor the Architect have information pertaining to fire suppression system Flow Test Data.

1.12 PLUMBING AND DRAINAGE SUBCONTRACT:

A. The Plumbing Subcontractor shall refer to the architectural drawings, as well as the plumbing, mechanical and electrical drawings, and shall coordinate with the Contractor's superintendent for proper location of all work under this contract.

B. The Plumbing Subcontractor shall furnish and install all piping and fixtures shown on the drawings or called for in the project manual, and shall cooperate with the Contractor regarding provisions for temporary water for use by the Contractor and subcontractors during construction.

C. Unless otherwise specified, work shown and as reasonably inferred should be considered new construction and a part of the scope of work.

1.13 HEATING, VENTILATION, AND AIR CONDITIONING SUBCONTRACT:

A. The HVAC Subcontractor shall refer to the architectural drawings, as well as the plumbing, mechanical drawings and electrical drawings, and shall coordinate with the Contractor's superintendent for proper location of all work under this contract.

B. The HVAC Subcontractor shall furnish and install all heating, ventilating, and air conditioning work as shown on the drawings or called for in the project manual, except as specified otherwise in Section 15500– HVAC Systems. The HVAC Subcontractor shall coordinate with the Contractor regarding provisions for temporary heat for use by the Contractor and subcontractors during construction.

C. Unless otherwise specified, work shown and as reasonably inferred should be considered new construction and a part of the scope of work.

1.14 ELECTRICAL SUBCONTRACT:

A. The Electrical Subcontractor shall refer to the architectural drawings, as well as the plumbing, mechanical and electrical drawings, and shall coordinate with the Contractor's superintendent for proper location of all work under this contract.

B. The Contractor and/or Electrical Subcontractor shall furnish and install all electrical work as shown on the drawings or called for in the project manual, except as specified otherwise in Section 16000-Electrical Systems. The Electrical Subcontractor shall coordinate with the Contractor regarding provisions for temporary power for use by the Contractor and subcontractors during construction.

C. Unless otherwise specified, work shown and as reasonably inferred should be considered new construction and a part of the scope of work.

1.15 PETCO NATIONAL ACCOUNTS & PETCO/CONTRACTOR FURNISHED ITEMS:

A. The Contractor shall fully coordinate with the PETCO Project Manager regarding provisions and scheduling for delivery of products, labor and materials provided by specified construction product and building operations systems suppliers, for those items which the Contractor must either provide or install.

B. PETCO/ Contractor Furnished Items as further specified in Section 10300- PETCO-Furnished & Contractor-Provided Items may be divided into the following general divisions:

1. "National Account" (Purchased by PETCO): As further defined in Section 10300-PETCO-Furnished & Contractor-Provided Items and specific project manual sections, PETCO has entered into National Accounts with various construction product and building operations Vendors. PETCO direct purchases these national account products with the following division of responsibilities between PETCO and the Contractor:

   a. Furnished and installed by PETCO/ PETCO's Vendor.
   b. Furnished by PETCO/ PETCO's Vendor and installed by the Contractor.
   c. Partially furnished and/or installed by PETCO/ PETCO's Vendor, and partially furnished and/or installed by the Contractor.

2. "Inventory Agreement" (Purchased by the Contractor): As further defined in specific Project Manual Sections, PETCO has entered into the National Inventory Agreements with various construction product and building operations Vendors.

   a. The Contractor shall furnish and install these National Inventory Agreement construction products and building operations systems.
   b. The cost for construction products and building operations systems to be purchased by the Contractor under the PETCO Inventory Agreement with the product manufacturer has generally been pre-established.

1.16 CONSTRUCTION PUNCHLIST INSPECTION & 11 MONTH WARRANTY INSPECTION:

A. The PETCO Project Manager will conduct a Construction Punchlist Inspection on or about the Date of Substantial Completion as further described in Section 01700-Contract Closeout.

1. The Contractor will receive a copy of the PETCO Project Manager's Construction Punchlist.
2. The Contractor shall provide all follow-up work to complete all Construction Punchlist items on or prior to the Date of Final Completion in accordance with the requirements of the PETCO/ Contractor Agreement.

B. The PETCO Project Manager will conduct an Eleven Month Warranty Punchlist Inspection on or about eleven (11) months after the Date of Substantial Completion, but in any event prior to the completion date of the Contractor's One Year Warranty period.

1. The Contractor will receive a written copy of the PETCO Project Manager's Eleven Month Warranty Punchlist.
2. The Contractor shall provide all follow-up work to complete all Warranty Punchlist items on or prior to the completion date of the Contractor's One Year Warranty period, or as otherwise agreed to in writing with the PETCO Project Manager, in accordance with the requirements of the PETCO/ Contractor Agreement.

END OF SECTION

SECTION 01100

BID ALTERNATES, VOLUNTARY BID ALTERNATES
& ALLOWANCES

1.01 BID ALTERNATES:

A. The Contractor shall include provisions for the following Bid Alternates as listed in the Form of Proposal, and shall state the amount, in dollars, to ADD TO or DEDUCT FROM the Base Bid Contract Sum. If there is no change in the amount of the Base Bid Contract Sum, then write "NO CHANGE" in the Form of Proposal. The Contractor shall be bound by all requirements and conditions of the construction drawings and the project manual as they relate to the Bid Alternates.

1. Bid Alternates quoted on the Contractor's Form of Proposal will be reviewed and accepted or rejected at PETCO's option. Accepted Bid Alternates will be identified in the Owner/Contractor Construction Agreement and included in the Total Contract Sum.
2. The Contractor shall coordinate all related work and modify all surrounding conditions as necessary to integrate the work of each accepted Bid Alternate.

B. Bid Alternate No. 1: Exterior Sun Control Window Film: Refer to all Drawings, Project Manual (general) and Project Manual Section 08800, and state the amount to ADD TO the Base Bid to provide Exterior Sun Control Window Film to single and/or insulating glazing, where shown on the drawings (may not be at all exterior glazing). (*If applicable)*

C. There are no other Bid Alternates established for this project.

1.02 VOLUNTARY BID ALTERNATES:

A. PETCO encourages and will consider Voluntary Bid Alternates, if prepared and submitted by the Contractor, for the express purpose of reducing the total project cost. The Contractor may, at the Contractor's option, prepare and submit proposed voluntary bid alternates as attachments to the Form of Proposal at the time of bid submission.

B. If included as part of the Voluntary Bid Alternate, product substitutions other than those specifically approved in this project manual can only be considered by PETCO and the Architect/ Engineer if comprehensive product data is submitted to the Architect/ Engineer during the bid review process--and if so requested by PETCO. The Architect/ Engineer will NOT review proposed product substitutions during the project's bidding phase.

1. Voluntary Bid Alternates attached to the Contractor's Form of Proposal will be reviewed and accepted or rejected at PETCO's option. Accepted Voluntary Bid Alternates will be identified in the Agreement Between Owner and Contractor and included in the Total Contract Sum.
2. The Contractor shall coordinate all related work and modify all surrounding conditions as necessary to integrate the work of each accepted Voluntary Bid Alternate.

1.03 ALLOWANCES:

A. The Contractor shall include in the Base Bid Contract Sum the Allowances described in this Section, in the amounts noted on the Form of Proposal (if any).

B. The Allowance amount has been pre-established by PETCO, and will be adjusted as an additive or deductive Change Order during the course of construction when actual costs are verified and submitted to the PETCO Construction Project Manager.

C. Allowance for Replacement of VCT Flooring: Refer to the Drawings and Project Manual Section 09650. There is an allowance for removal of, and replacement of 500 square feet of existing vinyl composition tile flooring. The labor and materials value shall be stated and included in the Schedule of Values form that is provided to PETCO with the Form of Proposal (Section 00300).

D. There are no other Allowances established for this project.

END OF SECTION

SECTION 01200

CONSTRUCTION ADMINISTRATION

1.01 NOT USED

1.02 CONSTRUCTION DOCUMENTS AT THE JOBSITE: The Contractor shall keep a set of Drawings, the Project Manual, Addenda and Construction Change Bulletins, and copies of all approved submittals at the Jobsite for reference throughout the Construction Duration.

1.03 CONTRACTOR'S CONSTRUCTION PROGRESS SCHEDULE:

A. The PETCO-approved Construction Progress Schedule will be an integral part of the project record, and shall establish completion dates for critical path tasks and other non-critical path construction tasks.

B. The Contractor's Construction Progress Schedule shall graphically show, preferably by Gantt Chart format, the order and interdependence of all major construction tasks necessary to complete the work, and the sequence in which each activity is to be accomplished. The Construction Progress Schedule shall include, but not necessarily be limited to the following:

1. PETCO Tenant Space Construction Date of Commencement.
2. Scheduled submission of required Submittals to the Architect.
3. Work integration of major sub-trades.
4. Optimum delivery dates of PETCO-Furnished Items to the jobsite (dates may be agreed and furnished by the PETCO Project Manager).
5. Date of PETCO Tenant Space Substantial Completion.
6. Final inspection, testing, and final cleanup.
7. Date of Tenant Space Turnover to PETCO or Date of PETCO Tenant Space Final Completion.
8. Submission of Closeout Documents to PETCO.
9. Last Date of Change Order Request submission to PETCO.

C. An updated, revised Construction Progress Schedule shall be submitted to the PETCO Project Manager with each Application for Payment.

1.04 CONTRACTOR'S JOBSITE OFFICE:

A. Contractor's Jobsite Office: Unless otherwise agreed with the PETCO Project Manager, the Contractor shall provide and maintain a weather-tight, freestanding jobsite trailer for the use by the Contractor, subcontractors and the PETCO Project Manager. Subcontractors may furnish their own similar storage facilities, if required.

B. Alternative Contractor's Jobsite Office (Renovation): This renovation project might permit the use of enclosed existing areas adjacent to the limits of construction for the PETCO project. However, the use of such space as the Contractor's jobsite office shall be only as specifically permitted by the PETCO Project Manager or Landlord, in lieu of a freestanding jobsite construction trailer.

1. The PETCO Project Manager is not obligated to coordinate the use of any enclosed existing area adjacent to the limits of construction with the Landlord. The Contractor is solely responsible for coordinating availability and access to such space, and the cost for use of such space shall be a part of the Base Bid.
2. The Contractor shall not use existing area within the limits of construction for the Contractor's Jobsite Office.

C. The Contractor shall keep a set of Drawings, the Project Manual, Addenda and Construction Bulletins, copies of all approved submittals, and a current, updated Construction Schedule in the Jobsite Office.

D. The Contractor's Jobsite Office shall be removed from the jobsite no later than the Date of Final Completion, except as may be otherwise directed or approved by the PETCO Project Manager.

1.05 CONTRACTOR'S ON-SITE TELEPHONE, FAX MACHINE AND E-MAIL:

A. Contractor's On-Site Telephone: The Contractor shall install and maintain an On-Site Telephone complete with Answering Machine or Answering Service. The Contractor shall maintain all telephone and answering functions in working condition at ALL times of the day for the Construction Duration.

B. Contractor's FAX Machine: The Contractor shall install a fax machine with a separate telephone incoming telephone number and maintain the FAX machine in working condition, at all times, for the Construction Duration. The incoming FAX line must be set to receive FAX transmission at ALL times of the day for the Construction Duration.

C. Contractor's On-Site E-Mail: The Contractor shall install and maintain a secured, On-Site E-Mail System to send and receive e-mail. The Contractor shall maintain e-mail and telephone functions in working condition for the Construction Duration.

D. The Contractor's Telephone and FAX machine may be removed from the jobsite after the Date of Substantial Completion, but in any event no later than the Date of Final Completion, except as may be otherwise directed by the PETCO Project Manager.

1.06 CONTRACTOR'S "CONSTRUCTION PHASE REQUEST FOR INFORMATION (RFI)" FORM:

A. The Contractor may request clarifications for information contained in the Construction Drawings or the Project Manual from the Architect, via use of the "Construction Phase Request for Information" form (aka "RFI Form") that follows this Project Manual Section. The Contractor is encouraged to provide a "Proposed Solution" as part of the RFI Form, using supplementary sketches as may be necessary to convey the Contractor's proposed solution adequately to the Architect.

B. The RFI form is available for e-mail use and electronic editing (MSWord format), and will be provided via e-mail by the Project Architect if requested.

C. The Architect will review and respond to RFIs prepared by the Contractor's Project Manager or the Contractor's Project Superintendent ONLY. Subcontractors' requests for information will be addressed ONLY when prepared by the Contractor's Project Manager or Contractor's Project Superintendent.

D. Architect Sub-Consultants: The Contractor shall NOT contact any Architect's Sub-Consultants (e.g. Structural Engineer, Mechanical/ Electrical Engineer, etc.) directly, either by telephone, FAX or by fax RFI Form. ALL communication with the Architect's consultants MUST be with the direct involvement of the Architect.

E. The Architect's response to an RFI is NOT an authorization to proceed with extra work. The Contractor shall NOT proceed with "additional" or "extra work" without authorization from the PETCO Project Manager. Any work initiated by the Contractor without prior approval by the PETCO Project Manager may be considered by PETCO to be at the Contractor's risk and possibly at the Contractor's expense.

1.07 CONTRACTOR'S "CONSTRUCTION 'RFI' TRACKING REPORT" FORM:

A. The Contractor shall track the status of submitted, resolved and un-resolved Requests For Information, via use of the "Contractor's RFI Tracking Report" Form that follows this Project Manual Section.

B. The Contractor shall submit an updated "Contractor's RFI Tracking Report" Form to the PETCO Project Manager on a periodic, regular basis, with frequency to be coordinated with the PETCO Project Manager.

C. The "Contractor's RFI Tracking Report" form is available for e-mail use and electronic editing (in MSWord format), and can be provided to the Contractor via e-mail by the Project Architect, if requested.

1.08 CONTRACTOR'S CONSTRUCTION PROGRESS WEEKLY MEETINGS:

A. Attendance: The Contractor's designated representatives, including the Contractor's Project Manager, Contractor's On-Site Project Superintendent and major subcontractors' representatives, should attend the Contractor's Construction Progress Weekly Meetings.

B. Weekly Meeting Agenda: The Construction Progress Meeting agenda should include, but not be limited to discussion and review of the following items:

1. Review of the previous Construction Progress Meeting Report, with specific attention to clarifications and/or corrective resolutions.
2. Review of the Construction Progress Schedule, including a thorough review of the sequence of critical path items.
3. Review of Construction Activities such as:

    a. Major material deliveries and/or delays; purchase orders issued.
    b. Work started, work completed and work in progress.
    c. Labor and other problems, their apparent causes, proposed solutions, who must act to effect a determination, and their impact on the Construction Progress Schedule.
    d. Accident reports, including persons involved and circumstances of the accident.
    e. Resolved/ unresolved status of Contractor RFIs to the Architect, and status of Construction Bulletins (if any) issued by the Architect.
    f. Coordination of PETCO Vendor-furnished items.

C. Meeting Reports: The Contractor shall furnish a copy of the written Construction Progress Meeting report to the PETCO Project Manager.

1.09 CONTRACTOR'S WEEKLY CONSTRUCTION PROGRESS PHOTOGRAPHS:

A. Starting one week after the Date of Tenant Space Construction Commencement, and then every Friday of each week thereafter, the Contractor shall send Digital Construction Progress Photographs to the PETCO Project Manager.

B. Digital Photographs Format: A minimum of twenty-four (24) Digital Construction Progress Photographs shall be sent on a weekly basis, each Friday, to the PETCO Project Manager. Photographs shall show, in summary, the progress of construction work. A descriptive Narrative should be included in the e-mail, where appropriate.

C. Digital Photographs shall be sent via email, with the Project Name identified in the email cover description, to the following e-mail address.

D. Alternative to Digital Photographs: Subject to acceptance by the PETCO Project Manager, the Contractor shall prepare and send a minimum of twenty-four (24) color 4"x6" photographs each week, with the subject matter comprehensively representing the general progress of the work completed to date, with each photograph labeled on the reverse in permanent ink, without damaging the print side, ***"PETCO Farmington Hills (MI) #T383/ PETCO PM Job #T383"***, the Date that photographs were taken, and keyed to an attached Descriptive Narrative.

E. All photographs shall be in focus and with minimum distortion. Select locations to provide diversified overall views and close-up views of the work, from positions that are expected to remain accessible throughout the progress of the work.

1.10 CONTRACTOR'S SECURED STORAGE AND MATERIALS STAGING:

A. The Contractor shall include in the Base Bid all provisions for unloading, receiving, inventorying and secured storage of PETCO's Vendor-Furnished Items which are either installed by PETCO's Vendor(s), or installed by PETCO's Contractor as otherwise described in other Project Manual Sections. Unless other means are utilized, subject to the approval of the PETCO Project Manager, the Contractor shall provide and maintain a weathertight, freestanding trailer for Secured Storage and Staging of PETCO Vendor-Furnished Items.

1. The Contractor shall furnish Vendor Lists of Goods indicating delivery and acceptance of PETCO Vendor-Furnished Items at the PETCO Project Manager's request.
2. The Contractor may coordinate the scheduled delivery of PETCO Vendor-Furnished Items with the PETCO Project Manager.
3. Vendor List of Goods shall be retained for the Contractor's follow-up walkthrough inspection with the PETCO District Manager per Section 01700-Contract Closeout.

B. This renovation project might permit the use of enclosed existing space adjacent to the limits of construction for the PETCO project for secured storage and staging. However, the use of such space shall be only as specifically permitted by the PETCO Project Manager or the Landlord in lieu of a freestanding secured storage trailer.

1. The PETCO Project Manager is not obligated to coordinate the use of any enclosed existing interior space adjacent to the limits of construction with the Landlord. The Contractor is solely responsible for coordinating availability and access to such space, and the cost for use of existing adjacent interior space shall be included in the Base Bid.
2. The Contractor shall NOT use existing areas within the limits of construction for Secured Storage and Staging unless permitted by the PETCO Project Manager.

C. The Contractor is responsible for verifying the condition of the shopping containers as received; and shall verify that the List of Goods 'shipped' corresponds with the actual goods 'received'. Refer to Section 10300- PETCO-Furnished & Contractor-Provided Items for additional description of Contractor responsibilities for Contractor's Receipt of PETCO Vendor-furnished items to the Jobsite.

1.11 CONTRACT CLOSEOUT: Refer to Section 01700- Contract Closeout for details of the following.

A. Local Jurisdiction Closeout Documents.
B. Final Certificate Of Occupancy.
C. Contractor's Written Request For Punchlist Inspection.
D. Construction Punchlist Inspection.
E. Contractor's Written Notice Of Punchlist Completion.

F. Contractor's Notice of Change Order Request Status.
G. Spare Parts, Maintenance And Extra Materials.
H. Verification Of Vendor Lists Of Goods Received with PETCO District Manager.
I. Project Record Construction Documents.
J. Building Maintenance Manuals.
K. Final Application for Payment.
L. Last date for submission of Change Order Requests.

1.12 PUNCHLIST INSPECTION: The PETCO Project Manager will visit the project site on or about the Date of Substantial Completion, and will prepare a Project Punchlist of incomplete or deficient work that must be completed by the Contractor prior to the Date of Final Completion or Date of Tenant Space Turnover to PETCO.

1.13 WARRANTY PUNCHLIST INSPECTION: The PETCO Project Manager will visit the project site on or about eleven months after the Date of Substantial Completion, to conduct and prepare an Eleven Month Warranty Punchlist Inspection of existing, deficient work prior to the expiration of the Contractor's Warranty period.

END OF SECTION

(Contractor's "Construction Phase Request For Information" Forms To Follow)
(Contractor's "Construction RFI Tracking Report" Form To Follow)

Contractor's Construction Phase Request for Information

PETCO "Farmington Hills (MI) #T383"

Petco Job No. T383 Contractor's RFI #: _____

To (Project Architect): Jason Patterson e-mail Jpatterson@frch.com

From (Contractor): _____ e-mail _____

By submitting this Request for Information, the Contractor certifies that the Contractor's superintendent and all involved subcontract trades have thoroughly reviewed the Construction Drawings AND the Project Manual, and the "Field Problem" described in this Request for Information cannot be reconciled without the Architect's Review and Response.

Contractor's Information Request to Architect: *Describe "Field Problem" AND Contractor's Proposed Solution*

Type your question here

Contractor's Representative: _____ Date/ Time Sent: _____

Contractor's Sketch is Attached? _____ Refer to Detail/ Drawing OR Project Manual/ Section: _____

Unless more extensive review is required, the Architect should provide response within 2 working days after receipt of the Contractor's RFI. The Architect will issue a Response (via FAX) to both the Contractor and the PETCO Project Manager.

Architect's Response to Contractor: Architect's sketch attached or to follow: SK# _____ Dated: _____

Architect to type response here

Project Architect: _____ Date/ Time Sent: _____

Architect will e-mail the Response (Adobe Acrobat version) to: PETCO Project Manager Wade Rose (e-mail: Wade.Rose@petco.com) AND to the Contractor.

NOTE--The Architect's Response to the Contractor's Request for Information does NOT represent or constitute a directive to proceed with any Changes to the Contract's Scope of Work. The Contractor MUST seek express approval from the PETCO Project Manager if changes in the Contract Sum or Time may result from executing the work according to the Architect's Response.

PETCO "Farmington Hills (MI) #T383"

RFI STATUS REPORT

PETCO PM Job No. T383

Contractor's Name HERE

RFI#	Request For Information Description	Date Sent to Architect	Date Received from Architect

NOTE: This Submittal Status Report is intended for the Contractor's use in accordance with Section 01200 requirements. Contact the Project Architect and Request an electronic copy of this form, if desired.

SECTION 01340

SUBMITTALS

1.01 DIVISION OF RESPONSIBILITIES TERMINOLOGY: Where referenced in this Section, “Landlord Contractor” refers to the SAME entity as “Contractor”. Refer to Section 01010- Summary of Work for additional “Division of Responsibilities Terminology” information.

1.02 SUMMARY:

A. The Contractor shall prepare and submit all products and assemblies identified in this Section’s List of Project Submittals as a “Required Submittal”, no later than three (3) weeks after the Date of Commencement, and revise and resubmit submittals to the Architect, if required, to ensure compliance with the contract documents.

B. The Architect/ Engineer’s review of the Contractor submittals is extended as a courtesy to the Contractor in interpreting the requirements of, and to verify compliance with, the construction documents. Unless noted as a “Required Submittal” in this Section’s List of Project Submittals, the Contractor shall NOT prepare submittals for products and assemblies that the Contractor intends to furnish for this project “as specified” with no substitution.

C. Photocopies of the Architect/ Engineer’s drawings are NOT acceptable as submittals.

D. Refer to the construction drawings for supplementary, non-standard items that may be specifically noted to be submitted for review.

E. All submittals MUST be reviewed first by the Contractor, and received by the Architect no later than three (3) weeks after the Date of Commencement or Date of Tenant Improvement Start of Construction.

1.03 CONTRACTOR REQUESTED PRODUCT SUBSTITUTIONS:

A. Contractor-requested product substitutions will only be considered for acceptance by the Architect if the following conditions are met:

1. Documented Delivery Problem: The Contractor must provide substantial written documentation to support a claim of a delivery problem which is in conflict with the construction schedule, including but not limited to copies of correspondence to and from the product manufacturer which demonstrates that a delivery problem exists relative to the timely completion of construction work. A Contractor-requested product substitution will NOT be considered if the Contractor or any subcontractor has delayed executing subcontract for labor agreements or scheduling subcontract work from the time of construction contract award.
2. Construction Cost Savings: A Contractor-requested product substitution must result in a net savings in total construction cost, with the proposed credit to PETCO itemized and submitted along with the product substitution request.
3. The product substitution request must be submitted to the Architect in writing, using the Request for Product Substitution form that follows this Section.
4. The Contractor must demonstrate that the requested product substitution is equal to or superior to the product specified in the Project Manual.
5. The Contractor is solely responsible for the full coordination of the work of any trade that may be affected by the Architect’s acceptance of the Contractor’s product substitution.
6. A product substitution request that is accepted by the Architect is valid only upon the Contractor’s receipt of the Architect’s written acceptance.
7. The Architect may reject a product substitution request if deemed to be in PETCO’s best interest.

1.04 CONTRACTOR'S SUBMITTAL PREPARATION AND REVIEW:

A. Submittals shall consist of manufacturer's scale drawings, catalogs or descriptive literature, stating the complete characteristics of equipment as indicated on the drawings or in the Project Manual. Erection drawings, if applicable, shall be submitted to indicate the locations, arrangements, and sizes of products or assemblies.

B. Prior to submittal delivery to the Architect, the Contractor MUST carefully review and coordinate all aspects of each submittal item, and shall verify that each item submitted is in conformance with the construction documents.

1. The Contractor MUST annotate each product submittal to clearly indicate the product model or type proposed for use, in order to adequately distinguish the proposed model or product from among others which may be also depicted.
2. The Contractor MUST affix a Submittal Review Stamp and signature certifying that a thorough review has been provided. The Submittal Review Stamp shall include:

    a. Text similar to the following statement: *"This submittal has been reviewed by (Contractor's Name) and is in compliance with the Contract Documents".*
    b. Contractor's company name, and authorized reviewer's legibly printed name and date of review.

3. Submittal copies received by the Architect that do not bear the Contractor's submittal review stamp and signature will be returned to the Contractor without review.
4. Electronic PDF format submittals are preferred and must be in the following format:
    a. A single PDF file inclusive of all submitted products PER SPECIFICATION SECTION (i.e. all plumbing submittals required per 15400 in a single PDF file, all mechanical submittals required per 15500 in a single PDF file, etc.)
    b. A Submittal Cover Transmittal referencing the project name and location with index of products.
    c. Complete annotated product submittal with all model #'s and accessories identified.

C. Product Data and other Submittals NO LARGER THAN 11" x 17" format:

1. The Contractor shall submit no more than four (4) Contractor-reviewed, stamped and signed submittal copies:

    a. The Submittal Cover Transmittal shall include the PETCO project name, shall clearly identify the accompanying documents as a Project Submittal, and shall include the Contractor's name.
    b. Fax Transmissions of Submittals are acceptable ONLY if specifically noted in the List of Required Submittals in this Section or as specifically authorized in advance by the PETCO Project Manager, and are acceptable only as a means of expediting the review of specific time-critical building products and assemblies. Hard copies of submittals sent via fax transmission must also be sent concurrently to the Architect for the Architect's review.
    c. Submittals received by fax that are not specifically noted on the List of Required Submittals in this Section will NOT be reviewed by the Architect/ Engineer.

D. Shop Drawings or other product data LARGER THAN 11" x 17" format:

1. The Contractor shall submit one (1) Contractor-reviewed, stamped and signed copy of each shop drawing.
2. Upon completion of submittal review, the Architect will:

a. Retain one copy reproduction for the engineer/ consultant if reviewed by that consultant.
b. Return the reviewed submittal Reproducible (one original) to the Contractor.

3. All additional copies required by the Contractor shall be prepared by the Contractor at the Contractor's expense, upon receipt of the reviewed submittal Reproducible from the Architect.

1.05 ARCHITECT'S SUBMITTAL REVIEW:

A. The Architect/ Engineer shall review submittals in a timely manner and will note necessary corrections, including all corrections necessary relating to artistic effect. The Contractor shall subsequently provide any corrections to submittals required by the Architect/ Engineer.

B. The Architect/ Engineer's review of submittals shall not relieve the Contractor from responsibility for any deviation from the drawings or specifications, unless the Contractor has, in writing, called the Architect/ Engineer's attention to such specific deviation at the time of submittal. The Architect/ Engineer's review shall also not relieve the Contractor from either responsibility for unidentified submittal errors or omissions; or from coordination of the provisions for the installed submittal item; or from interface with other items of construction affected by such deviation.

C. The Architect/ Engineer will affix the submittal review stamp and complete submittal review one of three ways:

1. "No Corrections Noted": The Contractor should distribute the copies.
2. "Make Corrections Noted": the Contractor shall make corrections, and should distribute copies. The Contractor shall NOT re-submit corrected submittals to the Architect/ Engineer that are "Approved As Noted".
3. "Revise and Resubmit or Rejected": The Contractor shall have "Rejected" submittals corrected and re-submitted promptly to the Architect/ Engineer.

1.06 USE OF SUBMITTALS AT THE JOBSITE:

A. Every submittal at the jobsite must bear the Architect/ Engineer's submittal review stamp.

1. The Contractor must keep at all times one copy of each approved submittal at the jobsite, in good order and available for reference by PETCO.
2. "Rejected" submittals shall NOT be permitted on the jobsite.

1.07 SUBMITTAL ERRORS, DEVIATIONS, OR OMISSIONS: Should errors, deviations, or omissions in a submittal be noted by the Architect/ Engineer after the submittal has been reviewed and returned to the Contractor, all corrective work necessary as a result of errors, deviations, or omissions shall be provided by the Contractor, irrespective of the status of, or review comments of any prior submittal review by the Architect/ Engineer.

(Refer to List of Required Submittals, next page)

1.08 LIST OF REQUIRED SUBMITTALS:

Section	Submittal Description	To be Reviewed By	Remarks	
03300	**Cast- In- Place Concrete**			*Not if Exhibit B*
	Anchor Bolt Layout	Architect (Structural Engineer)	*Contractor Submittal*	*Not if Exhibit B*
	Concrete Accessories Product Data	Architect (Structural Engineer)	*Contractor Submittal*	*Not if Exhibit B*
	Concrete Mix Designs*	Architect (Structural Engineer)	*Contractor Submittal*	*Not if Exhibit B*
	Concrete Test Reports	Architect (Structural Engineer)	*Contractor Submittal*	*Not if Exhibit B*
	Reinforcing Steel	Architect (Structural Engineer)	*Contractor Submittal*	*Not if Exhibit B*
03360	**Special Concrete Floor Finish**			
	Product Data	PETCO Project Manager	*Contractor Submittal*	
	Applicator Qualifications	PETCO Project Manager	*Contractor Submittal*	
	Polished Concrete Samples	PETCO Project Manager	*Contractor Submittal*	
04220	**Concrete Unit Masonry**			*Not if Exhibit B*
	Concrete Masonry Product Data	Architect (Structural Engineer)	*Contractor Submittal*	*Not if Exhibit B*
	Concrete Masonry Color Samples	Architect	*Contractor Submittal*	*Not if Exhibit B*
	Coarse / Fine Grout Mix Designs	Architect (Structural Engineer)	*Contractor Submittal*	*Not if Exhibit B*
	Mortar Mix Design	Architect (Structural Engineer)	*Contractor Submittal*	*Not if Exhibit B*
	Wall Reinforcing Placement Shop Drawing	Architect (Structural Engineer)	*Contractor Submittal*	*Not if Exhibit B*
05120	**Structural Steel**			*Not if Exhibit B*
	Structural Steel Shop Drawings	Architect (Structural Engineer)	*Contractor Submittal*	*Not if Exhibit B*
05200	**Metal Joists**			*Not if Exhibit B*
	Metal Joists Shop Drawings	Architect (Structural Engineer)	*Contractor Submittal*	*Not if Exhibit B*
05300	**Metal Decking**			*Not if Exhibit B*
	Metal Decking Product Data	Architect (Structural Engineer)	*Contractor Submittal*	*Not if Exhibit B*
06200	**Rough & Finish Carpentry**			
	Casework Shop Drawings	Architect	*Contractor Submittal*	
07240	Water-Managed EIFS			*Not if Exhibit B*
	Product Data	Architect	*Contractor Submittal*	*Not if Exhibit B*
	EIFS Color Samples	Architect	*Contractor Submittal*	*Not if Exhibit B*
07500	**Roofing System**			*Not if Exhibit B*
	Product Data	Architect	*Contractor Submittal*	*Not if Exhibit B*
08100	**Metal Doors & Frames**			
	Metal Doors and Frames Product Data	Architect	*Contractor Submittal*	
	Door and Frame Schedule	Architect	*Contractor Submittal*	
08410	**Aluminum Entrance Doors & Storefront**			
	Interior Storefront Shop Drawings	Architect	*Contractor Submittal*	*Interior if Exhibit B*
	Automatic Sliding Entrance Drs Shop Dwgs	Architect	*Contractor Submittal*	
	Interior Manual Sliding Door Shop Dwg	Architect	*Contractor Submittal*	*Doggie Day Camp*
08710	**Finish Hardware**			
	Finish Hardware List	Architect	*Contractor Submittal*	
	Finish Hardware Product Data	Architect	*Contractor Submittal*	
08800	**Glass & Glazing**			
	Spandrel Glass Color Chart	PETCO Project Manager	*Contractor Submittal*	
09523	**Linear Metal Wall System**	Architect	*Contractor Submittal*	
09650	**Resilient Flooring**			
	Concrete Slab Moisture Testing Results	PETCO Project Manager	*Contractor Submittal*	
09660	**Resilient Sheet Flooring**			
	Concrete Slab Moisture Testing Results	PETCO Project Manager	*Contractor Submittal*	
09670	**Epoxy Flooring on Concrete**			
	Concrete Slab Moisture Testing Results	PETCO Project Manager	*Contractor Submittal*	
10300	Pre-Fab Dock Shelter (for use with speed lift)	Architect	*Contractor Submittal*	*Not if Exhibit B*
10400	**Building & Pylon Signage**			
	Signage Shop Drawings	Architect (PME Engineer)	*Contractor Submittal*	
10530	**Metal canopy**	Architect	*Contractor Submittal*	
15300	**Fire Suppression System**			
	Piping Layout Shop Drawings	Architect (PME Engineer)	*Contractor Submittal*	
	Hydraulic Calculations	Architect (PME Engineer)	*Contractor Submittal*	
	Fire Suppression Product Data	Architect (PME Engineer)	*Contractor Submittal*	
15400	**Plumbing Systems**			
	Floor Drains and Hair Interceptors	Architect (PME Engineer)	*Contractor Submittal*	
	Plumbing Fixture & Fittings Data	Architect (PME Engineer)	*Contractor Submittal*	
	Piping Materials Data	Architect (PME Engineer)	*Contractor Submittal*	
15500	**HVAC Systems**			
	RTU Product Data	Architect (PME Engineer)	*Contractor Submittal*	
	Ductwork Shop Drawings	Architect (PME Engineer)	*Contractor Submittal*	
	Flue Vent Product Data	Architect (PME Engineer)	*Contractor Submittal*	
	Grilles, Register, Diffusers Product Data	Architect (PME Engineer)	*Contractor Submittal*	
	RTU Thermostats	Architect (PME Engineer)	*Contractor Submittal*	
	Exhaust Fan product data	Architect (PME Engineer)	*Contractor Submittal*	
	Unit Heaters product data	Architect (PME Engineer)	*Contractor Submittal*	
16000	**Electrical Systems**			
	Lighting Fixture product data	Architect (PME Engineer)	*Contractor Submittal*	

Electrical Panel Shop Drawings	Architect (PME Engineer)	*Contractor Submittal*
Power Pole Product Data	Architect (PME Engineer)	*Contractor Submittal*

END OF SECTION

("Contractor's Request for Product Substitution" form to follow)

Contractor's Construction Phase Request for Product Substitution

PETCO "Farmington Hills (MI) #T383"

Petco Job No. T383

To (PETCO Project Manager): Wade Rose FAX: 858-909-2689

To (Project Architect): Jason Patterson FAX: 513-241-5152

From (Contractor): _____ FAX: _____

Contractor's Representative_____ Date / Time Sent: _____

By submitting this Request for Product Substitution, the Contractor and all involved subcontract trades certify that they have thoroughly reviewed the Construction Drawings AND the Project Manual, and a Product Substitution for a product of equal or superior quality, as compared to the product specified, is warranted for the reasons described.

Contractor's Product Substitution Request: _____

_____

_____

_____

_____

Contractor's Reason(s) for Substitution Request: _____

_____

_____

_____

Contractor's Proposed CREDIT IF the Product Substitution is accepted: $(_____)DOLLARS

Architect's Response to Contractor/ PETCO: _____

_____

_____

NOTES 1) The CONTRACTOR must submit all necessary Product Data for both the product specified and the product substitution requested, so as to demonstrate that the Product Substitution requested is equal to or superior to the Product specified. 2) The Architect's Response to the Contractor's Request for Information does not represent or constitute a directive to proceed with any Changes to the Contract's Scope of Work. The Contractor must seek expressed approval from the PETCO Project Manager if changes in the Contract Sum or Time may result from executing the work according to the Architect's Response. 3) The Architect is not obligated to review and respond to a Request for Product Substitution-- unless so directed by the PETCO Project Manager.

PETCO "Farmington Hills (MI) #T383"
SUBMITTAL STATUS REPORT

FRCH Architects

FRCH Job # 27281.000

Date of Tenant Improvement Construction Commencement: xx/xx/xx		*Date for Project Architect to begin sending (weekly) Submittal Status Reports to PETCO Project Manager: xx/xx/xx*						
Section	**Submittal Description**	**Date Received by Architect**	**Submittal Review by**	**Date Sent to Consultant**	**Date Received From Consultant**	**Date Reviewed by Architect**	**Action Taken by Submittal Reviewer**	**Date Sent to Contractor**
Civil	Product Data:		Civil					
02520	Concrete Paving Mix Design		Civil					
	Concrete Paving Test Reports		Civil					
03300	Anchor Bolt Layout		Struc. Engr.					
	Concrete Accessories product data		Struc. Engr.					
	Concrete Mix Designs		Struc. Engr.					
	Concrete Test Reports		Struc. Engr.					
	Reinforcing Steel Shop Drawings		Struc. Engr.					
04220	Concrete Masonry Color Samples		Architect					
	Concrete Masonry Product Data		Archt & Struc					
	Coarse/ Fine Grout Mix Designs		Struc. Engr.					
	Mortar Mix Designs		Struc. Engr.					
	Wall Reinforcing Placement Drawings		Struc. Engr.					
05120	Structural Steel Shop Drawings		Struc. Engr.					
05200	Metal Joists Shop Drawings		Struc. Engr.					
05300	Metal Decking Product Data		Archt & Struc					
06200	Cabinet Shop drawing		Architect					
	Cabinet product data		Architect					
07240	Water Managed EIFS product data		Architect					
	EIFS color samples		Architect					
07500	Roofing Product Data		Architect					
08100	Metal Doors and Frames product data		Architect					
	Door & Frame Schedule		Architect					
	Dade Co. Product Notice of Acceptance		Architect					
08410	Aluminum Storefront shop drawings		Architect					
	Al. Sliding Entrance Doors shop drawings		Architect					
	Al. Sliding Entrance Doors Product Data		Architect					
	Dade Co. Product Notice of Acceptance		Architect					
08710	Finish Hardware Schedule/ List		Architect					
	Finish Hardware product data		Architect					
08800	Spandrel Color Chart (exterior glazing)	Do not submit Spandrel Color Charts to the Architect. Send to the PETCO Project Manager for Review and Color Selection.						

PETCO "Farmington Hills (MI) #T383"
SUBMITTAL STATUS REPORT

FRCH Architects

FRCH Job # 27281.000

Section	Submittal Description	Date Received by Architect	Submittal Review by	Date Sent to Consultant	Date Received From Consultant	Date Reviewed by Architect	Action Taken by Submittal Reviewer	Date Sent to Contractor
09310	Ceramic Tile Product Data		Architect					
	Concrete Floor Testing results	Send Concrete Floor Testing results to the PETCO Project Manager for record purposes (not for review and approval).						
09650	Resilient Flooring Product Data		Architect					
	Concrete Floor Testing results	Send Concrete Floor Testing results to the PETCO Project Manager for record purposes (not for review and approval).						
09660	Resilient Sheet Flrg Product Data		Architect					
	Concrete Floor Testing results	Send Concrete Floor Testing results to the PETCO Project Manager for record purposes (not for review and approval).						
09670	Epoxy Finish on Concrete Product Data		Architect					
	Concrete Floor Testing results	Send Concrete Floor Testing results to the PETCO Project Manager for record purposes (not for review and approval).						
10300	Pre-Fab Dock Shelter (for use with speed lift)		Architect					
15300	FS Piping shop drawings		PME Engr					
	Hydraulic Calculations		PME Engr					
	Fire Suppression Product Data		PME Engr					
15400	Floor Drains, Hair Interceptor Product Data		PME Engr					
	Plumbing Fixtures/ Fittings Product Data		PME Engr					
	Piping Materials Product Data		PME Engr					
15500	HVAC Rooftop Unit Product Data		PME Engr					
	HVAC Ductwork shop drawings		PME Engr					
	Grilles, Registers, Diffusers Product Data		PME Engr					
	RTU Thermostats Product Data		PME Engr					
	Unit Heaters Product Data		PME Engr					
	Flue Vent Product Data		PME Engr					
	Exhaust Fan Product Data		PME Engr					
16000	Lighting Fixture Product Data		PME Engr					
	Electrical Panel Shop Drawings		PME Engr					

NOTE TO CONTRACTOR: This Submittal Status Report form is to be used by PETCO's Tenant Improvement Architect to report the status of submittals receipt, review and processing to the PETCO Project Manager.

	High-lighted YELLOW -- indicates Submittals for PETCO As-Is Project, where applicable.
	High-lighted GREEN -- Submittal for PETCO Exhibit B or As-Is Project where exterior spandrel color may have to be approved.
	High-lighted LT. GREEN -- These submittals not usually listed for Exhibit B projects--building shell detailing is by Landlord's Architect.

SECTION 01410

CONSTRUCTION QUALITY CONTROL SERVICES

PART 1 GENERAL

1.01 SUMMARY:

A. Construction Quality Control Services will be provided by PETCO's Testing/Inspection Agency in a contract for services with PETCO. Additional testing and inspections shall be provided and/or coordinated directly by the Contractor as defined in this Section, and will NOT be under PETCO's Testing/Inspection Agency's scope of work.

B. Both PETCO's and Contractor's Testing/Inspection Agency(s)' Project Engineer(s) shall be a Professional Engineer licensed in Michigan. All test reports, inspection reports and correspondence shall be certified by the Testing/Inspection Agency's Licensed Professional Engineer.

C. Both PETCO's and Contractor's Testing/Inspection Agency(s) may reject materials or workmanship which do not meet standards either at the storage plant or at the jobsite, and shall notify the PETCO Project Manager immediately and in writing, of any rejection of materials or workmanship.

D. The Contractor shall permit both PETCO's and Contractor's Testing/Inspection Agency(s) access to the jobsite at all times, and shall provide supplementary labor and equipment as may be required.

1.02 SPECIAL INSPECTIONS:

A. Special Inspections may be required by the local jurisdiction. If the Testing/Inspection Agency is so licensed or otherwise approved to provide same, Special Inspections may be provided under the Testing/Inspection Agency's scope of work subject to approval and authorization of the PETCO Project Manager.

B. The Contractor shall advise the Architect and the PETCO Project Manager in a timely manner if the Contractor is advised of any applicable requirements for Special Inspections.

1.03 CONSTRUCTION QUALITY CONTROL SERVICES PROVIDED BY PETCO'S TESTING/INSPECTION AGENCY:

A. Grading and Sitework Material Testing and Site Inspections: *(if applicable)*

1. Inspections:

a. The Testing/Inspection Agency shall provide Density Testing at fill and backfill areas, and shall inspect on-site and imported fill and backfill, and test (re-test) as necessary to determine compliance with the contract requirements and suitability for the intended purpose
b. The Testing/Inspection Agency shall provide Field Moisture Density Relationship Tests and Laboratory Soils Tests on soil samples from in-place material.
c. The Testing/Inspection Agency shall provide inspection and testing for scarifying and re-compacting of cleaned subgrade, and for excavating, filling and grading as the work progresses.

2. The Testing/Inspection Agency shall provide subgrade and backfill site evaluation of bearing soils for footings, foundation piers, foundation walls, grade beams, interior and exterior concrete slabs.
3. The Testing/Inspection Agency shall provide site evaluation of backfill for utility lines.
4. The Testing/Inspection Agency shall provide testing of asphalt paving and graded aggregate base course (if required), including:

    a. In-place density testing of aggregate base course.
    b. In-place density testing of asphalt paving.
    c. Modified proctor test.
    d. Marshall stability and flow test.
    e. Extraction and gradation.

B. Pile Driving Inspection and Testing: *(if applicable)* The Testing/Inspection Agency shall provide pile load tests, and shall monitor and log pile driving operations.

C. Concrete Material Testing and Site Inspections: *(if applicable)*

1. The Testing/Inspection Agency shall provide on-site reinforcing steel inspections and shall verify that reinforcing steel bars are in compliance with the specified standards.

2. The Testing/Inspection Agency shall provide on-site and off-site concrete testing and placement inspections.

    a. Site Inspections of footings, piers, walls and other small concrete pours, and concrete slabs on grade.

        1) The Testing/Inspection Agency shall provide continuous placement inspections on concrete with designed compressive strength greater than 2000 psi.
        2) The Testing/Inspection Agency shall make slump tests to verify conformance with specified slump throughout the progress of concrete placement, or for at least every 75 cubic yards of concrete placed.
        3) The Testing/Inspection Agency shall check air content throughout progress of concrete placement, for at least every truckload of air-entrained concrete.
        4) The Testing/Inspection Agency shall verify that finished concrete surfaces will have the level or slope tolerance required in the drawings.
        5) Test Reports shall include record of cubic yards of concrete placed, previous concrete yardage placed and total concrete placed to date.
        6) Test Reports shall report other data which may have a bearing on the quality or strength of concrete, and report if any concrete has been rejected.
        7) Test Reports shall include Testing/Inspection Agency inspector's name, time of arrival and departure and total hours for day.

    b. Concrete test cylinder compression testing.

        1) The Testing/Inspection Agency shall take samples and make tests in accordance with applicable ASTM standards.
        2) The Testing/ Inspection Agency shall provide 4 molded concrete test cylinders for each 75 cubic yards or fraction thereof, of each class of concrete for each day's placement.
        3) The Testing/Inspection Agency shall test 1 cylinder at 7 days, 2 cylinders at 28 days, and retain 1 cylinder for later testing if required.

4) Testing Reports shall include compression test reports for each cylinder, the conditions as received from the field, the date cast and date tested, required compression strength, number of days cured in the field and in the laboratory, the concrete pour location where the test material was taken, and other information meeting ASTM C39 standards.
5) Testing Reports shall include the amount and admixtures types used at the project site, cylinder fabrication-identification number, design strength, slump, air content, weight of concrete per cubic foot, truck number from which taken and location of placement with yardage of concrete placed at each location, as well as site conditions including time of test, temperature range and weather conditions.

D. Masonry (concrete and other) Material Testing and Site Inspections: *(if applicable)*

1. Masonry Reinforcement Inspection: The Testing/Inspection Agency shall verify the placement of concrete masonry reinforcing in accordance with the contract documents.
2. Masonry Grout and Mortar Inspection and Testing: The Testing/Inspection Agency shall provide tests to determine compliance of grout and mortar with the specification standards. Grout and mortar samples shall be tested on the basis of one test per every 2000 concrete masonry units or part thereof, with a minimum of 5 tests for each material.

E. Structural Steel Material Testing and Site Inspections: *(if applicable)*

1. Testing and Inspection of structural steel which may be provided by the Testing/Inspection Agency, but ONLY at the specific direction of the PETCO Project Manager.

a. If so authorized by the PETCO Project Manager, the Testing/Inspection Agency shall provide tests to determine compliance of structural steel with the specified requirements.
b. If so authorized by the PETCO Project Manager, the Testing/Inspection Agency shall procure identified test specimens from the steel fabricator, subject to a 50 mile one-way distance limitation. Distance traveled which exceeds the 50 mile one-way distance limitation shall be paid by PETCO and backcharged to the Contractor.
c. If testing is so authorized by the PETCO Project Manager and indicates that the test material is not in compliance with the specified requirements, the cost of said testing shall be backcharged to the Contractor.
d. If testing is so authorized by the PETCO Project Manager and if structural steel is identified by heat and/or melt numbers, and is furnished with mill analysis and test reports, then the Testing/Inspection Agency shall provide not less thatn one tension and one bend test for each ten tons or fraction thereof.
e. If testing is so authorized by the PETCO Project Manager and if structural steel is NOT identified by heat and/or melt numbers, then the Testing/Inspection Agency shall provide not less than one tension and one bend test for each five tons or fraction thereof. Additional tests shall be provided at the direction of the PETCO Project Manager.

1.04 TESTING AND INSPECTIONS PROVIDED BY CONTRACTOR'S TESTING/INSPECTION AGENCY:

A. Portland Cement Certificates of Compliance:

1. The Contractor shall obtain the Certificates of Compliance from the cement manufacturer which are delivered to the concrete producer.

2. The Certificates of Compliance must identify the cement as to production lot, bin, or silo number, dating and routing of shipment, and compliance with the specified standards.
3. The Contractor shall promptly provide all Certificates of Compliance and other test results to the Testing/Inspection Agency, and shall provide other specific physical and chemical data if required by the Architect/Engineer.

B. Aggregate Sieve Analysis Test and Specific Gravity Test:

1. Provide one aggregate test, unless the character of material changes, material is substituted, or additional aggregate testing is requested by the Architect/Engineer.
2. Testing sample from conveyor belts or batching gates at the ready-mix plant shall include a Sieve Analysis Test and Specific Gravity Test to determine product compliance with specified standards and grading.
3. The Contractor shall promptly provide all Sieve Analysis Test and Specific Gravity Test results to the Testing/Inspection Agency, and shall provide other specific physical and chemical data if required by the Architect/Engineer.

C. Laboratory Design Mix:

1. The Contractor shall provide the Concrete Mix Design, in accordance with ACI 318, Chapter 5, after approval of the aggregate, and whenever the character or source of materials is changed.
2. The Contractor shall provide copies of the Concrete Mix Designs for all mixes, as prepared by a Licensed Professional Engineer, to the Testing/Inspection Agency.
3. Laboratory Design Mix shall also be submitted to the Architect/Engineer per Section 01340-Submittals.

D. Concrete Test Reports:

1. Concrete Test Reports shall contain concrete supplier, weather, air temperature (range), required strength of concrete, water-cement ratio, weight per cubic yard at the batching plant, source and type of aggregates and cement, and moisture content of aggregate.
2. Concrete Test Reports shall also be submitted to the Architect/Engineer per Section 01340-Submittals.

E. Concrete Core Tests:

1. The Contractor shall provide supplementary concrete core tests when specifically directed by the PETCO Project Manager because of low cylinder test results.
2. The concrete core(s) shall be cut from locations directed by the PETCO Project Manager or Architect/Engineer, per ASTM C42, and prepared and tested per ASTM C39.

F. Metal Deck Fastening Inspection: *(new construction, if applicable)*

1. Prior to the start of metal decking installation, the Contractor shall verify that the materials at the jobsite comply with the specified standards, that the installing subcontractor is qualified and fully informed as to the procedures to be followed.
2. During installation, the Contractor shall verify that materials are installed in strict accordance with the manufacturer's recommendations.
3. Upon completion of the metal decking installation, the Contractor shall retain the services of a Licensed Professional Engineer to obtain certification that the metal deck fastening was provided in accordance with applicable standards.

4. Letter of Certification: The Contractor shall send the Engineer's Letter of Certification to the PETCO Project Manager, and shall include a copy of the letter in the Building Maintenance Manuals per Section 01700-Contract Closeout.

G. Roof Inspection and Testing: *(if applicable)*

1. Prior to the start of roofing installation, the Contractor shall verify that the materials at the jobsite comply with the specified standards, that the installing subcontractor is qualified and fully informed as to the procedures to be followed.
2. During installation, Contractor shall verify that materials are installed in strict accordance with the manufacturer's recommendations.
3. Warranty Inspection: Upon completion of the roofing installation, the Contractor shall contact the roofing manufacturer to provide a warranty inspection.

1.05 ROOFING INSPECTION BY PETCO'S ROOFING INSPECTION AGENCY: *(if applicable)*

A. In addition to the roofing manufacturer's inspection as a part of the manufacturer's roofing warranty program, PETCO may elect to have an independent Roofing Inspection Agency inspect the in-progress or completed installation of the roofing system.

B. In the event that the PETCO Project Manager contracts directly with an independent Roofing Inspection Agency for roofing inspection services, the Contractor shall provide complete access to all roofing materials prior to installation, complete access to the area to receive roofing work as a part of the contract for general construction, and complete access to the Contractor and/or subcontractor's field records with respect to all roofing provisions.

1.06 TESTING AND INSPECTION NOT REQUIRED BY PETCO: PETCO does NOT require inspection of or testing of mill tests on cement and steel, or design and inspecting concrete formwork.

1.07 TEST REPORTS FORMAT AND DISTRIBUTION REQUIREMENTS:

A. All Test and Field Reports must include the Project Name, Project Address, Contractor's Name and Date Inspection and/or Testing was provided. All reports shall be typewritten, and shall bear the signature and seal of the Project Testing Laboratory Engineer. The distribution of all report copies shall be noted on ALL reports. The Testing/Inspection Agency shall distribute all Test and Field Reports no later than seven (7) calendar days after providing that portion of the inspection and testing work.

B. Report Distribution: One copy of all Test and Field Reports or Special Inspections shall be sent by the Testing/Inspection Agency directly to the PETCO Project Manager, Project Architect, Project Structural Engineer *(if applicable)* and the Contractor.

END OF SECTION

SECTION 01700

CONTRACT CLOSEOUT

1.01 NOT USED

1.02 SUMMARY:

A. The Contractor shall provide an orderly and efficient project closeout and transfer of the completed work to PETCO, including timely delivery of the Closeout Documents and related items to PETCO, no later than 60 Calendar Days after the Date of Final Completion or Tenant Space Turnover to PETCO, including the following, as further described in this Section:

1. Local Jurisdiction Closeout Documents.
2. Final Certificate of Occupancy.
3. Contractor's Written Request For Punchlist Inspection.
4. Construction Punchlist Inspection.
5. Contractor's Written Notice of Punchlist Completion.
6. Contractor's Notice of Change Order Request Status.
7. Notice of Completion.
8. Spare Parts, Maintenance And Extra Materials.
9. Verification of Vendor Lists of Goods Received.
10. Project Record Construction Documents.
11. Building Maintenance Manual.
12. Final Application for Payment.

B. Requests for Change Orders must be received by the PETCO Project Manager no later than ninety (90) days after the Date of Final Completion or Date of Tenant Space Turnover to PETCO. Requests for Change Orders received after this time will not be considered.

1.03 LOCAL JURISDICTION CLOSEOUT DOCUMENTS: The Contractor shall promptly provide to PETCO any and all additional closeout documents, forms and applications which may be required for submittal to the local jurisdiction by the Architect of Record or Engineer(s) of Record to satisfy local project closeout and Final Certificate of Occupancy requirements.

1.04 FINAL CERTIFICATE OF OCCUPANCY: The Contractor shall obtain and install the Final Certificate of Occupancy in the Store display location where directed by the PETCO Project Manager. The Contractor shall include copies of the Final Certificate of Occupancy in the Building Maintenance Manuals provided to PETCO as further described in this Section.

1.05 CONTRACTOR'S WRITTEN REQUEST FOR PUNCHLIST INSPECTION: The Contractor shall submit written notice to the PETCO Project Manager, in a timely manner so as to allow adequate scheduling of the punchlist site visit, that the Contractor has reviewed the contract documents, inspected the installed, completed work and verified the work is complete and ready for the PETCO Project Manager's Construction Punchlist Inspection.

1.06 CONSTRUCTION PUNCHLIST INSPECTION:

A. The Construction Punchlist Inspection will be provided by the PETCO Project Manager on or about the Date of Substantial Completion. A copy of the Construction Punchlist, which will list items as "Incomplete" (not completed within the Construction Time established in the Lease Agreement) or as "Punchlist Items" (provided within the Construction Time established in the Lease Agreement but needing additional work to correct deficient or incomplete work), will be provided to the Contractor.

B. The Contractor shall complete all items noted on the Construction Punchlist within the time limit stated in the Lease Agreement. Unless otherwise agreed to in writing by the PETCO Project Manager, all Construction Punchlist items must be completed by the Contractor to the satisfaction of the PETCO Project Manager, no later than the Date of Final Completion.

1.07 CONTRACTOR'S NOTICE OF PUNCHLIST COMPLETION: The Contractor shall submit a written Notice of Punchlist Completion to the PETCO Project Manager prior to the Contractor's submitting the Final application for Payment, acknowledging that all corrective work for all punchlist items is complete and has been previously accepted in agreement with the PETCO Project Manager. The Contractor shall include copies of the Contractor's Notice of Punchlist Completion in the Building Maintenance Manuals provided to PETCO as further as described in this Section.

1.08 CONTRACTOR'S NOTICE OF CHANGE ORDER REQUEST STATUS: The Contractor shall submit written notice to the PETCO Project Manager, along with the Final Application for Payment, that there may be Change Order Request(s) forthcoming. All Change Order Requests must be received by the PETCO Project Manager no later than ninety (90) days after the Date of Final Completion. Change Order Requests received after this time will not be considered.

1.09 NOTICE OF COMPLETION: The Contractor shall provide a completed Notice of Completion form to the PETCO Project Manager no later than fourteen (14) days after the day of the Punchlist Inspection. This form is provided by PETCO, and is included in the Project Manual after this Section.

1.10 SPARE PARTS, MAINTENANCE AND EXTRA MATERIALS: The Contractor shall deliver all products, spare parts and maintenance and extra materials specified, to the project site, and place in a location approved or designated by the PETCO Project Manager. The delivery of all spare parts and maintenance materials should be acknowledged by the PETCO Project Manager prior to project site turnover to PETCO.

1.11 VERIFICATION OF VENDOR LISTS OF GOODS RECEIVED WITH PETCO DISTRICT MANAGER:

A. The Contractor is responsible for all provisions for Secured Storage of all PETCO-Furnished Items, some of which are Contractor-Installed and some of which are installed by PETCO or PETCO Vendors per Section 01200-Construction Administration.

B. Prior to installation of PETCO-Furnished Items, the Contractor shall schedule a Walkthrough Inspection of Vendor Goods received with the PETCO District Manager. This Walkthrough Inspection may be coordinated with the PETCO Project Manager. The purpose of the walkthrough inspection is to verify that all goods have been received or can be subsequently ordered by PETCO, and to verify that all goods have been maintained, secured appropriately and are on hand for the Contractor's or PETCO's Vendor(s) installation.

C. Following completion of the Walkthrough Inspection with the PETCO District Manager, the Contractor shall obtain the District Manager's signature on all verified List(s) of Vendor Goods received. These signed-off Lists shall be copied and included in the Building Maintenance Manuals as further described in this Section.

1.12 PROJECT RECORD CONSTRUCTION DOCUMENTS ON COMPACT DISC:

A. The Contractor shall maintain one set of the Project Record Construction Documents on the jobsite throughout the course of construction. The Contractor shall transpose all revisions to the work from field-use construction documents to the Project Record Construction Documents, shall record all pertinent information in a timely manner concurrent with the construction progress, and shall deliver the resulting prepared set of Project Record Construction Documents to PETCO upon completion of all construction work.

1. Record Construction Drawings: The Contractor shall provide to PETCO, one (1) set of bond photocopy and two identical Compact Discs of scanned drawing images, and shall include all revisions to the work after the issuance of the Conformance Set drawings, noted on the drawings by the Contractor, including but not limited to:

    a. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
    b. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the work.
    c. Record of all changes to the work authorized by Change Bulletin or other directive from PETCO (if any).

2. The Contractor shall store Project Record Construction Documents at the jobsite, but shall keep these documents separate from the documents used for construction reference purposes and field work.
3. At the completion of construction, the Contractor shall prepare two identical Compact Discs in plastic sleeves, with scanned drawing images in either TIF or PDF format. The Compact Discs must each identify the PETCO project, with handwritten or label-generated description on a peel-off sticker.
4. At the completion of construction, the Contractor shall provide one complete set of bond photocopy drawings, to be left on site in the Plan Holder at the Telephone Board in the Pre-Sales Room. The Plan Holder is to be located as shown on the drawings and as specified in Section 10300.
5. The Contractor shall submit Project Record Construction Documents to the PETCO Project Manager.

1.13 SUBMITTALS: Submittals and shop drawings bearing the Contractor's/ Architect's/ Engineer's submittal review "approval" stamps, shall be maintained at the jobsite throughout the course of construction, for reference by the Contractor, and the PETCO Project Manager, and/or a Testing/ Inspection Agency.

1.14 BUILDING MAINTENANCE MANUAL ON COMPACT DISC:

A. Building Maintenance Manual--CD Format:

1. The Contractor shall prepare two identical Compact Discs in plastic sleeves, with scanned or converted Portable Document Format (PDF) copies of the following project data. The Compact Discs must each identify the PETCO project, with handwritten or label-generated description on a peel-off sticker.

2. Organizational Content:

    a. "Table of Contents".
    b. "Part 1": Directory with listing names, addresses, and telephone numbers of Architect, Consulting Engineers, Contractor, Subcontractors and Major Equipment Suppliers.
    c. "Part 2": The Contractor shall compile all operation and maintenance instructions, organized and subdivided by sequential Project Manual CSI Section and arranged within each CSI Section by system. The following documentation shall be included:

        1) List of equipment.
        2) Parts list of each equipment component.
        3) Operating instructions and significant design criteria.
        4) Maintenance instructions for equipment and systems.

5) Maintenance instructions for special finishes, including recommended cleaning methods and special precautions, including the identification of detrimental cleaning agents.

d. "Part 3": The Contractor shall include items as detailed in the List of Building Maintenance Manual Parts 2, 3 and 4 Contents Requirements.

e. "Part 4": The Contractor shall include a copy of each product warranty, service warranty and/or other guarantee document from manufacturers as specified in other Project Manual Sections.

1.15 LIST OF BUILDING MAINTENANCE MANUAL PARTS 2, 3 & 4 CONTENTS:

Section Reference	Description	Building Maintenance Manuals (BMM)	BMM Part	
	BMM Table of Contents	To be included in BMM	-	
	BMM Director	To be included in BMM	Part 1	
01700	**Contract Closeout**			
	Copy of PETCO Notice to Proceed	To be included in BMM	Part 3	*Not applicable if Exhibit B*
	Copy of Building Permit	To be included in BMM	Part 3	*Not applicable if Exhibit B*
	Copy of Final Certificate of Occupancy	To be included in BMM	Part 3	
	Project Punchlist	To be included in BMM	Part 3	
	Copy of Notice of Punchlist Completion	To be included in BMM	Part 3	*Not applicable if Exhibit B*
	Copy of Contractor's Project Warranty	To be included in BMM	Part 3	*Not applicable if Exhibit B*
05300	**Metal Decking**			*Structural Deck ONLY*
	Metal Deck Inspection	To be included in BMM	Part 3	
	Engineer's Certification Letter	To be included in BMM	Part 3	
07240	**Water Managed EIFS**			*Use 07240 OR 07250*
07250	**Exterior Insulation Finish System Repairs**			*Use 07240 OR 07250*
	Manufacturer Warranty	To be included in BMM	Part 4	
	Copy of Subcontractor Warranty			*Not applicable if Exhibit B*
07530	**Modified Bitumen Roofing System**			*Not applicable if Exhibit B*
	Mfr. Product Warranty	To be included in BMM	Part 4	*Not applicable if Exhibit B*
	Copy of Subcontractor Warranty			*Not applicable if Exhibit B*
07540	**Roofing System Repairs**			
	Copy of Subcontractor Warranty	To be included in BMM	Part 4	*Not applicable if Exhibit B*
07600	**Sheet Metal**			
	Manufacturer Product Warranty	To be included in BMM	Part 4	
	Copy of Subcontractor Warranty	To be included in BMM	Part 4	*Not applicable if Exhibit B*
07190	**Moisture Mitigation Systems**			
	Mfr(s) Product Warranty (-ies)	To be included in BMM	Part 4	
07920	**Sealants & Caulking**			
	Mfr(s) Product Warranty (-ies)	To be included in BMM	Part 4	
	Copy of Subcontractor Warranty	To be included in BMM	Part 4	*Not applicable if Exhibit B*
08100	**Metal Doors & Frames**			
	Mfr. Product Warranty	To be included in BMM	Part 4	
08300	**Special Doors**			
	Rolling Door Mfr. Product Warranty	To be included in BMM	Part 4	
	Double Acting Door Mfr. Product Warranty	To be included in BMM	Part 4	
08410	**Aluminum Entrance Doors & Storefront**			
	Storefront Mfr. Product Warranty	To be included in BMM	Part 4	
	Automatic Doors Operating Instructions	To be included in BMM	Part 2	
	Automatic Doors Mfr. Product Warranty	To be included in BMM	Part 4	
	AAADM Compliance Form	To be included in BMM	Part 3	
	Copy of Subcontractor Warranty	To be included in BMM	Part 4	*Not applicable if Exhibit B*
08800	**Glazing**			
	Glazing Mfr. Product Warranty	To be included in BMM	Part 4	
	Window Film Mfr. Product Warranty	To be included in BMM	Part 4	
	Spandrel Glass Mfr. Product Warranty	To be included in BMM	Part 4	
	Copy of Subcontractor Warranty	To be included in BMM	Part 4	*Not applicable if Exhibit B*
09510	**Acoustical Ceiling**			
	ACT Mfr. Product Warranty	To be included in BMM	Part 4	
	Copy of Subcontractor Warranty	To be included in BMM	Part 4	*Not applicable if Exhibit B*
09650	**Resilient Flooring**			
	Flooring Mfr. Product Warranties	To be included in BMM	Part 4	
	Flooring Adhesive Product Warranties	To be included in BMM	Part 4	
	Copy of Subcontractor Warranty	To be included in BMM	Part 4	*Not applicable if Exhibit B*
09660	**Resilient Sheet Flooring**			
	Flooring Mfr. Product Warranty	To be included in BMM	Part 4	
	Flooring Adhesive Product Warranty	To be included in BMM	Part 4	

	Copy of Subcontractor Warranty	To be included in BMM	Part 4	*Not applicable if Exhibit B*
09670	**Epoxy Finish on Concrete**			
	Epoxy Mfr. Product Warranty	To be included in BMM	Part 4	
09910	**Concrete Sealer**			
	Sealer Mfr. Product Warranty	To be included in BMM	Part 4	
	Copy of Subcontractor Warranty	To be included in BMM	Part 4	*Not applicable if Exhibit B*
10300	**Miscellaneous Specialties**			
	Dock Bumpers Mfr. Product Warranty	To be included in BMM	Part 4	
	Dock Leveler Mfr. Product Warranty	To be included in BMM	Part 4	
	Dock Shelter Mfr. Product Warranty	To be included in BMM	Part 4	
	Scissor Lift Product Warranty	To be included in BMM	Part 4	
	SpeedLift Product Warranty	To be included in BMM	Part 4	
	Window Shades Product Warranty	To be included in BMM	Part 4	*If applicable*
15300	**Fire Suppression System**			
	Operation & Instructions Manuals	To be included in BMM	Part 2	
	Copy of Subcontractor Warranty	To be included in BMM	Part 4	*Not applicable if Exhibit B*
	Record Drawings	*Provide ALL Construction Documents field revisions.*		
15400	**Plumbing**			
	Operations & Instruction Manuals	To be included in BMM	Part 2	
	Sterilization Certificate	To be included in BMM	Part 3	
	Mfr. Product Warranties	To be included in BMM	Part 4	
	Copy of Subcontractor Warranty	To be included in BMM	Part 4	*Not applicable if Exhibit B*
	Record Drawings	*Provide ALL Construction Documents field revisions.*		
15500	**HVAC Systems**			
	Operation & Instruction Manuals	To be included in BMM	Part 2	
	Air Balancing Report	To be included in BMM	Part 3	
	HVAC System Startup Statement	To be included in BMM	Part 4	
	Mfr. Product Warranties	To be included in BMM	Part 4	
	Copy of Subcontractor Warranty	To be included in BMM	Part 4	*Not applicable if Exhibit B*
	Record Drawings	*Provide ALL Construction Documents field revisions.*		
16000	**Electrical Systems**			
	Operations & Instruction Manuals	To be included in BMM	Part 2	
	Ampacity Test Report	To be included in BMM	Part 3	
	Mfr. Product Warranties	To be included in BMM	Part 4	
	Energy Management System Startup Deficiency Report	To be included in BMM	Part 4	
	Copy of Subcontractor Warranty	To be included in BMM	Part 4	*Not applicable if Exhibit B*
	Record Drawings	*Provide ALL Construction Documents field revisions.*		

1.16 FINAL APPLICATION FOR PAYMENT: *(As-Is project)*

A. Final Application for Payment: The Contractor shall submit the Final Application for Payment to PETCO identifying the Total Adjusted Contract Sum, previous Certificates for Payment, and Total Balance Due including retainage. Final Payment may be withheld in whole or in part by PETCO if any of the required Closeout Documents have not been submitted unless the requirements for same are otherwise waived by the PETCO Project Manager.

B. Final Unconditional Release of Liens: The Contractor shall obtain, prepare and submit one (1) certified copy of Final Unconditional Release of Liens, in a form acceptable to PETCO, from the Contractor and each subcontractor providing work for this project, with the Final Application for Payment. Final Payment may be withheld in whole or in part by PETCO without receipt of valid Final Unconditional Release of Liens documents.

1.17 CONTRACTOR AND SUBCONTRACTOR WARRANTIES: *(As-Is project)*

A. Contractor Warranty: The Contractor shall provide a written Contractor's Warranty of Project Construction to the PETCO Project Manager in accordance with the requirements of the Owner/Contractor Agreement. If the Contractor's Warranty of Project Construction cannot be included with the Building Maintenance Manuals submitted after the Date of Final Completion due to status of interim and/or final payments, then the Contractor shall submit a "Letter of Intent" to issue the Contractor's Warranty of Project Construction with the Building Maintenance Manuals.

B. Subcontractor Warranties: The Contractor shall include Subcontractor Warranties as further described in the pertinent Project Manual Sections with the Building Maintenance Manuals submitted after the Date of Final Completion.

END OF SECTION

(PETCO "Notice of Completion" form to Follow)

SECTION 01710

CONSTRUCTION & FINAL CLEANING

1.01 NOT USED

1.02 SUMMARY: The Contractor shall maintain the building and jobsite in a standard of cleanliness throughout the construction period as described in this Section.

1.03 WORK NOT INCLUDED: Work not included in the Contractor's scope of cleaning work is limited to any portion of the work accepted and occupied by PETCO prior to the Date of Substantial Completion or Date of Tenant Space Turnover to PETCO, or any area excluded from the requirements of this Section by PETCO.

1.04 CONSTRUCTION PROGRESS CLEANING:

A. Jobsite construction cleanup shall be provided as required to prevent accidents to personnel, protect all work in place, and to ensure completion of the project in an orderly manner. Jobsite construction cleanup shall consist of the removal of all mud, oil, grease, sand, gravel, dirt, trash, scrap debris and excess materials, from any floor space or walking surface on the jobsite that may cause tripping or other accidents involving workmen, ladders, or equipment.

B. The roof surface shall be cleaned on a regular basis throughout the course of construction to ensure that no construction debris damages the roof membrane.

1.05 FLOOR WAXING (NEW VINYL TILE AND OTHER STORE FLOORING): *(if new construction)*

A. Work must be scheduled to allow Vinyl Composition Tile Flooring adhesive and installation to cure for a minimum of 48 hours, or as may be alternatively recommended by the flooring manufacturer, before commencement of the first wet maintenance work.

B. VCT Flooring must be clean free of marks, paint overspray, stains and smudges.

C. In order to provide a premium appearance standard, the Contractor shall provide Floor Waxing of new VCT Flooring in accordance with Butcher's "Art of Floor Care Training Guide".

D. The Contractor shall provide Butcher's "Hot Springs Cleaner" and automatic floor scrubber cleaning in accordance with Butcher's "Art of Floor Care Training Guide".

E. The Contractor shall apply five (5) even, medium coats of Butcher's "Mainstay Floor Finish", Part #931032, using a clean mop finish, and ensuring that each successive coat is completely dry to the touch before recoating.

F. The scope of Floor Stripping & Waxing work is floor cleaning, followed by the application of two (2) slop coats of new finish over all Vinyl Composition Tile <u>with the exception of flooring FC-07A</u> (at Grooming Salon and Grooming Reception) and all Vinyl Sheet Flooring.

1.05 FLOOR RESTORATIVE MAINTENANCE AND WAXING (EXISTING VCT): *(if existing VCT)*

A. Provide restorative maintenance in accordance with the flooring manufacturer's written recommendations, if the flooring manufacturer is known; or otherwise provide restorative maintenance in accordance with Butcher's "Art of Floor Care Training Guide".

B. Floor Stripping:

1. If floor stripping is determined as the appropriate means of restorative maintenance, in lieu of the alternative Floor Cleaning method further described, or to restore the premium appearance standard, when soil has penetrated to the floor surface, the Contractor shall clean and strip the existing floor finish prior to the application of new wax, with Butcher's "Cutting Edge No Rinse Stripper", Part #321492.
2. The Contractor shall apply five (5) coats of even, medium coats, of Butcher's "Mainstay Floor Finish", Part #931032, using a clean mop finish, and ensuring that each successive coat is completely dry to the touch before recoating.

C. Floor Cleaning:

1. If floor cleaning is determined as the appropriate means of restorative maintenance, in lieu of Floor Stripping, or to restore the foundation of the floor finish and gloss when the floor no longer responds to burnishing, the Contractor shall provide Butcher's "Hot Springs Cleaner" and automatic floor scrubber cleaning in accordance with Butcher's "Art of Floor Care Training Guide".
2. The Contractor shall apply five (5) even, medium coats of Butcher's "Mainstay Floor Finish", Part #931032, using a clean mop finish, and ensuring that each successive coat is completely dry to the touch before recoating.

D. Floor Waxing:

1. Not ALL new Vinyl Tile is to be cleaned and waxed. For instance, Flooring FC-07A is a no-wax floor that shall be cleaned within "final construction cleaning" standards. Refer to Section 09650-Resilient Flooring.
2. In order to provide a premium appearance standard, the Contractor shall provide Floor Waxing of new VCT Flooring in accordance with Butcher's "Art of Floor Care Training Guide".
3. Allow any new VCT Flooring installation (including patch-in work) to cure a minimum of 48 hours, or as recommended by the flooring manufacturer, before the first wet maintenance.
4. The Contractor shall provide Butcher's "Hot Springs Cleaner" and automatic floor scrubber cleaning in accordance with Butcher's "Art of Floor Care Training Guide".
5. The Contractor shall apply five (5) even, medium coats of Butcher's "Mainstay Floor Finish", Part #931032, using a clean mop finish, and ensuring that each successive coat is completely dry to the touch before recoating.

1.06 NOT USED

1.07 CONTRACTOR'S FINAL CLEANING OF OTHER SURFACES:

A. The Contractor shall provide Final Cleaning immediately prior to the Punchlist Inspection, and as scheduled and coordinated with the PETCO Project Manager.

B. The Contractor shall remove paper labels from glass, fixtures and equipment only after the respective items have been inspected, verified, and approved to ensure that each item complies with the construction documents requirements. Remove paint from and clean all permanent labels and plates so that they remain legible. Permanently attached equipment labels and plates shall not be removed.

C. In addition to a general "broom clean" condition, the Contractor shall provide cleaning of the following building exposed surfaces:

1. Exposed Structural Steel (interior and exterior): Clean free of dirt and paint overspray. Remove bar joist shipping tags and structural steel shipping labels. Provide touch-up paint as required.

2. Painted Surfaces (interior and exterior): Clean free of marks, paint overspray, stains and smudges. Provide touch-up paint as required.
3. Concrete Floors (interior): Clean free of marks, paint overspray, stains and smudges. Buff concrete floors.
4. VCT Flooring: Clean free of marks, stains and smudges that appear after floor stripping & waxing but prior to the Date of Substantial Completion or Date of Tenant Space Turnover to PETCO.
5. Vinyl Sheet Flooring: Clean free of marks, stains and smudges that appear after floor stripping & waxing but prior to the Date of Substantial Completion or Date of Tenant Space Turnover to PETCO.
6. Aluminum storefront and glass (interior and exterior): Remove labels, paint overspray and protective shipping items. Polish aluminum and glass.
7. Finish Hardware (interior and exterior): Clean free of marks, paint overspray, stains and smudges. Polish finish hardware.
8. Toilet Fixtures and Accessories: Remove protective coverings and labels. Clean free of marks, paint overspray, stains and smudges. Clean toilet fixtures; polish accessories.
9. Stainless steel and other miscellaneous metal surfaces: Remove protective coverings and labels. Clean free of marks, paint overspray, stains and smudges.
10. General exposed interior surfaces: Clean free of marks, paint overspray, stains and smudges. Leave uniformly clean and dust free.
11. Roof: Clean free of any and all remaining construction debris.

1.08 FINAL EXTERIOR CLEANUP:

A. Final Exterior Cleanup shall be performed prior to the PETCO Project Manager's Punchlist Inspection, and as scheduled and coordinated with the PETCO Project Manager.

B. No construction debris or miscellaneous unspecified materials shall be left or discarded on this project site.

C. Construction debris and materials scheduled for disposal shall be removed from the project site in a legal means for a locally permitted manner of disposal.

D. The following Exterior of Tenant Space finishes shall be cleaned as described, weather conditions permitting. If weather conditions do not allow final site cleaning at the time of the PETCO Project Manager's Punchlist Inspection, the Contractor shall coordinate an alternative means of Final Site Cleanup completion with the PETCO Project Manager:

1. Exterior concrete slabs and sidewalks adjoining the PETCO Tenant Space: Clean free of mud, dirt, and debris. Power sweep and clean with water and detergent as required.
2. Exposed concrete foundations and/or retaining walls: Remove bond breaker, dirt and discoloration. Vacuum upon completion.
3. Asphaltic and concrete paving adjoining the PETCO Tenant Space: Clean free of construction-generated mud, dirt, and trash. Power sweep and clean with water and detergent as required.
4. Directional signage: Clean free of construction-generated marks, stains and smudges.

END OF SECTION

SECTION 01730

REFERENCE STANDARDS

1.01 SUMMARY:

A. Any material or procedure specified by reference number, symbol, or title of a standard such as a commercial standard, federal specification, trade association standard, technical society standard, or other similar standard document shall comply with the requirement in the latest revision thereof and any amendment or supplement thereto, except as may be limited as to type, class or grade, or modified in such reference. Reference documents shall be considered an integral part of this Project Manual as if included in their entirety.

B. The Contractor shall comply with requirements of association, trade, or Federal Standards, except when more stringent requirements are specified or are required by applicable codes.

C. Should a specified reference standard conflict with the Construction Documents, the Contractor shall request a clarification from the Architect before proceeding with the work, by using the RFI Form per Section 01200- Construction Administration.

1.02 SCHEDULE OF REFERENCES:

AA	Aluminum Association	818 Connecticut Avenue NW, Washington DC 20006
AABC	Associated Air Balance Council	1000 Vermont Avenue NW, Washington DC 20005
AASHTO	American Assn. Of State Highway and Transportation Officials	444 North Capitol Street NW, Washington DC 20001
ACI	American Concrete Institute	Box 19150, Redford Station, Detroit MI 48219
ADC	Air Diffusion Council	230 North Michigan Avenue, Chicago IL 60601
AI	Asphalt Institute	Asphalt Institute Building, College Park MD 20740
AISC	American Institute of Steel Construction	400 North Michigan Avenue, 8th Floor, Chicago IL 60611
AISI	American Iron and Steel Institute	1000 16th Street NW, Washington DC 20036
AITC	American Institute of Timber Construction	333 W. Hampden Avenue, Englewood CO 80110
AMCA	Air Movement & Control Assn.	30 West University Drive, Arlington Heights IL 60004
ANSI	American National Standards Institute	1430 Broadway, New York NY 10018
APA	American Plywood Association	P.O. Box 11700, Tacoma WA 98411
ARI	Air Conditioning & Refrigeration Institute	1501 Wilson Boulevard, Arlington VA 22209
ASHRAE	American Society of Heating, Refrigerating & Air Conditioning Engineers	1791 Tullie Circle NE, Atlanta GA 30329
ASME	American Society of Mechanical Engineers	345 East 47th Street, New York NY 10017
ASPA	American Sod Producers Assn.	4415 West Harrison Street, Hillside IL 60162
ASTM	American Society for Testing & Materials	1916 Race Street, Philadelphia PA 19103
AWI	Architectural Woodwork Institute	2310 South Walter Reed Drive, Arlington VA 22206
AWPA	American Wood Preservers' Assn.	7735 Old Georgetown Road, Bethesda MD 20014
AWS	American Welding Society	550 LeJeune Road, NW, Miami FL 33135
AWWA	American Water Works Association	6666 West Quincy Avenue, Denver CO 80235
BIA	Brick Institute of America	11490 Commerce Park Drive, Reston VA 22091
CDA	Copper Development Association	57th Floor, Chrysler Building, 405 Lexington Avenue, New York NY 10174
CLFMI	Chain Link Fence Mfrs. Institute	1101 Connecticut Avenue NW, Washington DC 20036
CRSI	Concrete Reinforcing Steel Institute	933 Plum Grove Road, Schaumburg IL 60195

DHI	Door and Hardware Institute	7711 Old Springhouse Road, McLean VA 22102
EJCDC	Engineers' Joint Contract Committee/ American Consulting Engineers Council	1015 15th Street NW, Washington DC 20005
EJMA	Expansion Joint Manufacturers Association	25 North Broadway, Tarrytown NY 10591
FGMA	Flat Glass Marketing Association.	3310 Harrison, White Lakes Professional Bldg., Topeka KS 66611
FM	Factory Mutual System	P. O. Box 688, Norwood MA 02062
FS	Federal Specifications GSA Specifications & Consumer Info. Distribution Section (WFSIS)	Washington Navy Yard, Bldg. 197, Washington DC 20407
GA	Gypsum Association	1603 Orrington Avenue, Evanston IL 60201
ICBO	International Conference of Building Officials	5360 S. Workman Mill Road, Whittier CA 90601
IEEE	Institute of Electrical & Electronics Engineers	345 East 47th Street, New York NY 10017
IMIAC	All Weather Council International Masonry Institute	815 15th Street NW, Washington DC 20005
MBMA	Metal Building Mfrs. Association	1230 Keith Building, Cleveland OH 44115
MIL	Military Specification Naval Publications & Forms Ctr.	5801 Tabor Avenue, Philadelphia PA 19120
ML/SFA	Metal Lath/ Steel Framing Assn.	221 North LaSalle Street, Chicago IL 60601
NAAMM	National Assn. of Architectural Metal Manufacturers	221 North LaSalle Street, Chicago IL 60601
NCMA	National Concrete Masonry Assn.	P. O. Box 781, Herndon VA 22070
NEBB	National Environmental Balancing Bureau	8224 Old Courthouse Road, Vienna VA 22180
NEMA	National Electrical Mfrs. Assn.	2101 "L" Street NW, Washington DC 20037
NFPA	National Fire Protection Assn.	1619 Massachusetts Avenue NW, Washington DC 20036
NSWMA	Nat'l Solid Wastes Mngmt. Assn.	1730 Rhode Island Avenue NW, Washington DC 20036
NWMA	National Woodwork Mfrs. Assn.	205 W. Touhy Avenue, Park Ridge IL 60068
PCA	Portland Cement Association	5420 Old Orchard Road, Skokie IL 60077
PCI	Prestressed Concrete Institute	201 North Wells Street, Chicago IL 60606
PS	Product Standard	U. S. Department of Commerce, Washington DC 20203
SID	Steel Deck Institute	P. O. Box 9506, Canton OH 44711
SDI	Steel Door Institute	712 Lakewood Center North, 14600 Detroit Avenue Cleveland OH 44107
SIGMA	Sealed Insul. Glass Mfrs. Assn.	111 East Wacker Drive, Chicago IL 60601
SJI	Steel Joist Institute	1205 48th Avenue North, Suite A, Myrtle Beach SC 29577
SMACNA	Sheet Metal & Air Conditioning Contractors' National Association	8224 Old Court House Road, Vienna VA 22180
SSPC	Steel Structures Painting Council	4400 Fifth Avenue, Pittsburgh PA 15213
TCA	Tile Council of America Inc.	P. O. Box 326, Princeton NJ 08540
UL	Underwriters' Laboratories Inc.	333 Pfingston Road, Northbrook IL 60062
WWPA	Western Wood Products Assoc.	1500 Yeon Building, Portland OR 97204

END OF SECTION

SECTION 02060

DEMOLITION WORK

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY:

A. The Contractor shall provide all labor, materials, services, insurance and equipment, including but not limited to the following:

1. Disconnection of all utilities, including utility contacts as may be necessary.
2. Shoring, bracing or otherwise securing the structures as required for the demolition work. The Contractor shall retain the services of a Licensed Professional Engineer to design the shoring and bracing, if necessary and/or if required by the local jurisdiction.
3. Demolition, removal and disposal of all debris caused by demolition work, as well as all debris found on site at the commencement of demolition work.
4. Securing, filling and/or stabilizing the surface of the site where foundations, slabs or paving are removed.
5. Erection of barricades temporary fencing and lighting as required by the local jurisdiction. The Contractor is solely responsible for protecting the public and all property during all phases of demolition work.

1.03 PERMITS, JURISDICTION APPROVALS AND SCHEDULING:

A. The Contractor is solely responsible for timely application of, the securing of and the payment of all Demolition Permits, notices, licenses, and certifications necessary in order to provide all demolition work.

B. All demolition work which is included as part of the Agreement Between Owner and Contractor shall be provided within the contract time stipulated for general construction. Delays in providing any phase of the demolition work shall not be valid basis for extra cost or contract time extension to the Agreement Between Owner and Contractor.

PART 2 PRODUCTS

2.01 EXISTING CONDITIONS VERIFICATION BY CONTRACTOR: *(if applicable)*

A. The Contractor shall verify existing conditions that are uncovered as a result of limited demolition work and provide existing conditions information to the Architect.

B. At the time that limited demolition is substantially complete, or in any event immediately upon completion of limited demolition work, the Contractor shall accurately survey, or re-survey where applicable, those existing conditions which are identified on the Demolition Plan as being critical tenant information for PETCO.

C. Survey or Re-survey information and descriptive notations shall be legibly written by the Contractor on a fullsize copy of the Demolition Plan drawing, shall be certified as “accurate and complete” by the Contractor’s duly authorized representative, and copies shall be sent to the following addressees, no later than fourteen (14) days after the Date of Commencement of the Tenant Improvement work:

1. **PETCO Animal Supplies, Inc**.
Construction Department

Attention: Wade Rose, Project Manager
654 Richland Hills Drive
San Antonio, TX 78245
Telephone 858-880-6436

2. FRCH Design Worldwide
311 Elm Street, Suite 600
Cincinnati, OH 45202

PART 3 EXECUTION

3.01 EXISTING CONDITIONS:

A. The Contractor shall completely document the condition of all adjacent buildings and improvements that may be affected by the demolition, with photographs, videotape and/or field notes prior to commencement of demolition work. This documentation shall be certified and agreed to in writing by all property owners involved and PETCO. The Contractor is solely responsible for the condition of remaining on-and-off-sites structures and utilities. The Bid Proposal shall include permanently securing all adjacent affected structures against weather and vandal intrusion. Materials used for securing shall match existing construction.

B. Commencement of demolition work constitutes the Contractor's acceptance of such existing conditions as being fully a part of the scope of demolition work. PETCO assumes neither responsibility for the condition of the structures on the site, nor any continuation of the condition existing at the time of the Bid Proposal submission or any time thereafter prior to the commencement of demolition work. In order to be relieved of responsibility for repairing damaged or defective areas which have changed in scope or status since the Bid Proposal was submitted to PETCO, the Contractor must inform the PETCO Project Manager in writing of any such altered conditions before the commencement of demolition work.

C. The Contractor shall examine the site's physical characteristics, including, without limitation, the nature and location of the work, topography, and general and local conditions, including, without limitation, those bearing on:

1. Accessibility to the site for construction vehicles, equipment, storage, and workmen, and availability of parking for automobiles, trucks and construction equipment.
2. Availability of water and electric power, and of storage and working spaces and parking areas for vehicles at the site.
3. Demolition as required.
4. Disposal of excavated materials, rubbish, waste, and debris.
5. Accessibility of the site and roads.
6. Character, quality and quantity of surface and subsurface conditions to be encountered.
7. Improvements, obstructions, and location of drainage and sewer lines, water, gas, and other utility service lines or piping.
8. Relationship that the proposed work will have to the adjoining structures and property, both public and/or private.
9. Types and kinds of equipment and facilities required to properly provide demolition work.

D. The Contractor shall assume all risks regarding damage or loss to the structures, whether by reason of fire, theft, or other casualty, occurring on or after commencing demolition work. Damage or loss shall NOT relieve the Contractor from the Contractor's obligation to complete demolition work.

E. At the time of demolition of areas adjacent to existing structures that are scheduled to remain, the project Structural Engineer shall be on site to observe the work. The Contractor shall notify the Architect, in writing, of the date for this work to be provided, at least one week prior to the scheduled work.

3.02 MAINTENANCE OF TRAFFIC AND ACCESS:

A. Throughout the progress of the work, the Contractor shall not interfere with the use of or access to adjacent to the buildings or properties. The Contractor shall conduct operations with minimum interference to public or private thoroughfares, and shall maintain protected egress or access at all times.

B. The Contractor shall not close or otherwise obstruct sidewalks or streets without obtaining and paying for the proper permits to do so. The Contractor shall maintain access to fire hydrants at the street, and at all times, from within the area of demolition and new construction areas.

3.03 HANDLING OF MATERIALS:

A. When the nature of demolition work requires the reuse of existing structure(s), the Contractor shall erect and maintain dust chutes for the disposal of materials, rubbish and debris.

1. At all locations where the debris is to be transferred vertically for a distance of 10 feet or more, the Contractor shall provide an enclosed chute. The chute shall not extend in an unbroken line for more than 20 feet, and shall be provided with substantial breaks at intervals not greater than 20 feet, so as to prevent descending materials or debris from attaining dangerous speed. Debris shall not spill from the bottom of the chute directly onto the ground; the bottom of the chute shall be equipped with a gate or stop with suitable provisions for closing off or regulating the flow of debris, so that the final drop of debris shall be into either an approved collection hopper or truck.
2. A hose with nozzle connected to an adequate water supply shall be provided near the bottom of each chute, and shall be used as necessary to wet down debris for dust control.

B. Remove salvage and debris from the site as it accumulates. Do not store, sell, burn, or otherwise dispose of debris on the site. Keep all pavement and areas adjacent to and leading from the site clean and free from mud, dirt, and debris at all times.

3.04 DUST CONTROL: Control dust spread generated as a result of demolition operations at all times, including non-working hours, weekends, and holidays. Sprinkle or treat with dust suppressors, the soil at the site, haul roads, and other areas disturbed by demolition operations.

3.05 NOISE CONTROL: When available and required, make the maximum use of EPA certified “low-noise-emission products”.

3.06 DEMOLITION:

A. Provide all shoring and bracing as may be necessary, to protect adjacent property against damage which might occur from falling debris or any other cause related to demolition.

1. Provide weather protection to adjacent remaining structure(s), if necessary, after the removal work.
2. The use of explosives is NOT permitted.

B. Protection of Utility Services Lines:

1. Notify all utility companies, on behalf of PETCO, to terminate all services to the building or Tenant Space, unless such utilities are established to be re-used in their as-found condition. Each utility company shall be made aware of the necessity to remove meters or related appurtenances as may be required.
2. Prior to the commencement of demolition, mark the location of all utility lines back to the right-of-way line, with an indication where they cross the property line.
3. Seal and cap connections to all utilities as per rules and regulations of the local jurisdiction, have services turned off at the existing valves by and under the direct supervision of the pertinent utility company
4. Follow all requirements of the utility company with regard to utility removals. If there is a conflict between the utility company requirements and the contract documents, the more stringent of the requirements shall be required.
5. Water, Fire Sprinkler (if existing), Sanitary Sewer, Storm Sewer and Electric: Disconnect and cap at the service main(s) and remove line(s).
6. Gas: Piping containing gas shall be disconnected from all sources of gas and be thoroughly purged with air, water, or inert gas before any cutting or welding is provided. Disconnect and cap at service main(s) and remove line(s).
7. Other Utility: Disconnect and cap at service main(s) and remove line(s).
8. Utility catch basins or inlets shall be completely removed, and the void remaining from the removal shall be backfilled.

C. If utility service mains are located across the street/public right-of-way from the property, then utilities may be capped and disconnected at the property line, unless other requirements are enforced by the utility company.

D. Materials that are a permanent part of the structures scheduled for demolition shall become the Contractor's property, and shall be removed from the site by the Contractor at the Contractor's expense.

1. Remove any personal property, equipment, machinery, trade or other fixtures.
2. Do not remove large portions of the building whole or substantially as whole; demolish them completely. Demolish building walls in small sections. Completely remove floor construction, as well as any other superstructures in the work area.
3. Remove all footings, foundation walls and other substructures.

E. Backfill, tamp street openings made for removal of water taps, bulk-heading house drains, or for any other purpose. Maintain street openings in safe condition.

3.07 CLEANING:

A. Remove debris as it accumulates. Do not store or permit debris to accumulate on site. If the Contractor fails to remove excess debris promptly, the PETCO Project Manager reserves the right to cause same to be removed at the Contractor's expense.

B. Upon work completion, remove tools, materials, plants, apparatus, temporary toilet, and rubbish of every sort. Leave the premises clean, neat and orderly.

END OF SECTION

SECTION 02200

EARTHWORK
(PETCO “Farmington Hills (MI) #T383”)

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY:

A. The Contractor shall provide labor and materials to complete clearing and grubbing, stripping of topsoil, excavating, filling, grading and backfilling as indicated on the drawings and as specified in this Section.

B. The Contractor shall be directed by the Geotechnical Engineer whose services, as specified in Section 01410-Construction Quality Control Services, have been retained by PETCO.

C. The Contractor shall review the site plan and the foundation plan with the Geotechnical Engineer prior to construction. The Geotechnical Engineer shall make a final recommendation on the site and foundation preparations which shall be binding to the Contractor and shall become a part of these specifications.

D. The Contractor shall include in the Base Bid all costs, including but not limited to survey, undercutting and structural fill, for footing and foundation excavations to the frostline and/or bearing strata as defined in the Geotechnical Investigation Report, or specific additional depth to achieve the design bearing capacity as may be specified by the Geotechnical Engineer and/or the Structural Engineer.

E. The Contractor’s completion, certification and delivery of Section 00300-Form of Proposal to PETCO represents that the Contractor has completely reviewed the Geotechnical Investigation Report, has a thorough understanding of the soils, substrata profiles and recommendations defined in the Geotechnical Investigation Report, and shall provide a foundation system which meets the design parameters as defined in the Geotechnical Investigation Report.

1.03 WORK NOT INCLUDED: Excavation and backfilling for demolition (where applicable), water, sanitary sewer, gas, plumbing and mechanical, and electrical work as included under their respective project manual sections.

PART 2 PRODUCTS

2.01 TEMPORARY SHORING AND BRACING: Engineering of Temporary Shoring and Bracing for construction shall be the Contractor’s responsibility.

PART 3 EXECUTION

3.01 SURFACE PREPARATION:

A. Strip areas of existing bituminous paving as specified in Section 02060-Demolition Work. Remove and dispose of debris in a legal manner. Precautions shall be exercised during the removal of existing structures at the site. Any existing utilities, foundations and floor slabs shall be removed, then the excavations shall be cleared of all foreign debris and then backfilled with approved compact fill material.

B. Clear unpaved areas of the project site of trees, shrubs, and other vegetation only as indicated on the drawings, or as otherwise directed. Completely remove stumps, roots, and other debris protruding through the ground surface. Remove heavy growth of grass from areas before stripping. All trees and substantial growths of vegetation shall be left standing unless shown specifically to be removed. Where possible, relocate existing trees and shrubs in lieu of destroying them.

C. After removals of all surface debris, strip topsoil to a minimum depth of 6" and 10 feet beyond the proposed building footprint area. Strip topsoil no deeper than the existing material. Stockpile topsoil on the project site in a location approved or designated by the PETCO Project Manager. Construct topsoil storage piles to freely drain surface water and cover topsoil, if required, to prevent wind blown dust.

D. Where trees are indicated to be left standing, stop topsoil stripping at a distance to prevent damage to the main root system. Use only hand methods for grubbing within this area.

E. Fill depressions caused by clearing and grubbing operations with satisfactory soil material, unless further excavation or earthwork is indicated.

F. Existing loose wet fill materials shall be stripped from the floor slab, spread footings and continuous wall footings, and pavement areas. The stripped loose wet fill material shall be washed or stockpiled for later use. Exact depths of stripping shall be determined by the Geotechnical Engineer in the field at the time that stripping work is provided.

G. After stripping, all areas at or below grade must be proofrolled to densify the exposed soils and to detect soft zones that may require further treatment. Proofrolling shall be performed with an equipment method approved by the Geotechnical Engineer. Areas which rut or deflect excessively shall be undercut to firm soil, than backfilled with controlled, compacted fill. All proofrolling must be performed under the direction of the Geotechnical Engineer.

H. After stripping and prior to filling or regarding any portion of the site, the Geotechnical Engineer shall examine the existing subgrade fill material and thoroughly evaluate and confirm this material's suitability for foundation and pavement support.

I. Proofrolling shall be performed using a heavy pneumatic tire roller in tandem with a heavy vibratory roller of 25 to 30 tons.

3.02 EXCAVATION:

A. Excavation work shall be performed on an "unclassified basis" down to bottom of footing, bottom of slab and grade elevations required; that is, the Contractor shall provide for the removal of all earth, masonry, or other obstructions regardless of the type or hardness of such formations. The cost of all such excavation work shall be included in the contract base bid price.

B. Footings: In order to prepare the area for construction of footings, excavate to the required footing bottom elevation. Care shall be taken during excavating for the foundation to avoid disturbance of the underlying soils. Conventional backhoe type equipment may be used, except in the last few inches where hand excavation methods may be required. The Geotechnical Engineer shall examine the bottom of the footing excavations and probe the soils below to a depth equal to one and one-half (1-1/2) times the width of wall footings. The examination shall include hand auger borings and penetrometer testing. The Geotechnical Engineer shall certify that no voids were encountered, and that the soil is capable of supporting the design bearing pressure indicated on the drawings. Loose or unduly soft materials shall be removed to the depth specified by the Geotechnical Engineer, the excavation bottom shall be proofrolled and backfilled with an approved select structural fill or

as directed by the Geotechnical Engineer. Footing excavations shall not be left overnight or in average weather conditions. Concrete shall be placed as soon as practical after footing excavation work is completed. All work shall be performed at no additional cost to PETCO.

C. Floor Slabs and Paved Areas: The floor slabs and paved areas shall be constructed on undisturbed site soil or structural fill. Prior to the placing of concrete floors or pavements, or before any floor supporting fill is placed, the organic, loose, or obviously compressive materials must be removed. The subgrade shall be proofrolled until the grade offers an unyielding surface or until the specified degree of compaction has been achieved. Areas of yield shall be excavated and backfilled with clean, compacted soil. Pavement considerations, including requirements for underdrains shall be verified with the Geotechnical Engineer prior to the time of floor slab and paved area construction.

D. Maintain all benchmarks, monuments, and other reference points. The Contractor shall replace any benchmarks, monuments, and other reference points which are disturbed or destroyed during the course of construction, unless otherwise directed.

E. The Contractor shall immediately notify the PETCO Project Manager when any unforeseen underground piping is encountered prior the start of any excavation work. The Contractor shall be responsible for any damage caused as a result of any improper care of utility service lines.

F. Excavate or fill to proper elevation with allowances for floor slabs, walls, forms, center, shoring and inspection of foundations.

G. Bottoms of footings shall be firm, level, clean and clear of any loose materials and shall be kept dry. Protect the bottom of excavations from frost and saturation. Densify footing bottoms with a mechanical tamper as directed by the Geotechnical Engineer.

H. Trenches shall be sharp and true in dimension.

I. Unless otherwise noted, grade areas under floor slabs that rest on earth to a smooth firm surface ready to receive 6” stone base consisting of well grades 3/4” stone aggregate as approved by the Geotechnical Engineer.

J. Work excavated to a greater depth than required by the drawings and project manual specifications shall be filled with concrete or as directed by the Geotechnical Engineer.

K. Excavations for foundation walls shall be at least twelve (12) inches clear of foundation wall faces. Protect all foundation wall embankments.

L. The Contractor shall not stockpile material removed from the excavation in a location immediately adjacent to the excavation so as to prevent this potential surcharge load from causing embankment collapse.

M. An excavation slope of one and one-half (1-1/2) horizontal to one (1) vertical shall reduce the possibility of sheer failure. The sides of the excavation shall be protected by plastic sheeting to prevent the soils from drying.

3.03 SHORING & BRACING:

A. Engineering of Temporary Shoring and Bracing for construction shall be the Contractor’s responsibility.

B. Slope sides of excavations to comply with local codes and ordinances having jurisdiction. Shore and brace where sloping is not possible for whatever reason. Maintain the sides and slopes of excavations until the time of completion of backfilling operations.

C. Provide all necessary materials for shoring and bracing, including but not limited to sheet piling, uprights, stringers, and cross braces, all to be maintained in good condition.

D. Establish all jobsite requirements for trenching, shoring, and bracing in compliance with local codes and authorities having jurisdiction.

3.04 DEWATERING:

A. Prevent surface water and subsurface or groundwater from flowing into excavations and flooding the project site and surrounding areas.

B. Do not allow water to accumulate in excavations. Remove water to prevent softening of foundation bottoms and undercutting of footings, and prevent soil changes detrimental to the stability of subgrades and foundations. Provide and maintain all pumps, well points, sumps, suction and discharge lines, and all other dewatering system components necessary to convey water from excavations.

C. Convey water removed from excavations and rainwater to collecting or run-off areas. Establish and maintain temporary drainage ditches and other diversions outside excavation limits for each part of the structure. Do not use trench excavations as temporary drainage ditches.

D. The prevailing groundwater level shall be determined prior to excavation. Extend only one foot into the prevailing groundwater; intrusion of groundwater into the excavation can be controlled by installation of perimeter drains routed to sump pumps. Should the proposed excavation extend more than one foot into the excavation, then an extensive drainage system, well points, or other compressive dewatering procedures shall be used for this purpose. Site dewatering is not recommended since this may have detrimental effect on adjacent structures.

E. Permanent perimeter drains and sumps shall be installed as recommended by the Geotechnical Engineer.

3.05 FILL & BACKFILL:

A. Fill operations under floor slabs shall proceed immediately and shall be completed prior to the placement of foundation walls or mechanical equipment installation.

B. All structural fill materials used for the project shall be a clayed sand or sandy clay with a maximum liquid limit of 40. The structural fill shall be compacted to a minimum density of 95% of the maximum modified Proctor dry density (ASTM D1557). All fill material shall be subject to the approval of the Geotechnical Engineer.

C. When sufficient fill material of satisfactory character is not available on the project site, fill material of the required character shall be brought to the site by the Contractor at the Contractor’s expense.

D. One hundred (100) pound samples of each material to be used as fill shall be submitted to the Geotechnical Engineer for approval, two weeks prior to commencing fill operations. Fill material shall not be sued as compacted fill until approved by the Geotechnical Engineer.

1. Fill material imported from an off-site source shall be tested prior to construction use, at the Contractor's expense, to determine the suitability of the fill material and standard Proctor parameter. Test reports shall be submitted to the Geotechnical Engineer.

E. Final acceptance of on-site fill material or off-site material shall rest with the Geotechnical Engineer, whose decision shall be final and binding upon the Contractor. Acceptance of any material by the Geotechnical Engineer shall not relieve the contractor of his responsibility to have all fill material used conform to the samples approved by the Geotechnical Engineer.

F. Fill Placement:

1. Fill shall be placed in maximum nine-inch loose lifts and each lift shall be compacted as follows:

a. Fills supporting foundations and below the top one foot of floor slabs shall be compacted to at least 95% of the soil's maximum dry density as determined by the maximum modified Proctor dry density (ASTM D1557).
b. Soil moisture during placement shall be maintained at or above the optimum moisture content so that the required compaction can be achieved.

2. Backfill against walls and utility trenches shall be placed in six-inch loose lifts and each lift shall be compacted for every 2000 square feet of fill area and every two (2) feet of fill lift. Utility trench backfill shall be tested every 50 linear feet.

G. Compaction of stone base shall be least 95% of the modified Proctor maximum dry density (ASTM D1557).

H. The elevation of the top of the compacted fill shall be as indicated and is generally the entire area under the building and parking areas and in no distance shall be closer than five (5) feet from the building line. The slopes of all compacted embankments shall not be steeper than 2 horizontal to 1 vertical.

I. The last layer of fill shall be smooth, hard, and prepared to receive 6" or 8" stone base, as applicable.

J. All subsoil earth required in addition to that available from the site, shall be furnished by the Contractor, who shall establish the earth to complete all fill, backfill, and grading work to elevations required or shown, at no additional cost to PETCO.

K. All excess fill material and excavated material shall be removed from the project site at no additional cost to PETCO.

3.06 FINAL APPROVAL: Immediately before placing foundation or floor slabs on compacted fill, the Geotechnical Engineer shall inspect the subgrade. The Contractor shall remove any soft fill and replace with properly compacted material at the Contractor's expense. After the placing of foundation walls, the backfill shall be placed, inspected, and accepted prior to pouring floor slabs. Rain, frost, and other factors that, in the opinion of the Geotechnical Engineer are potentially damaging to the fill, occurring after the Geotechnical Engineer's final approval but before or during pouring shall require additional inspection of the compacted fill for approval by the Geotechnical Engineer. Corrections required shall be made at the Contractor's expense.

3.07 GRADING:

A. Rough and finish grade to indicated finish grade. Finish grade grass areas with topsoil of minimum thickness of 6 inches. Furnish all necessary subsoil to establish finished grades when topsoil is distributed to elevations shown. Existing grades, new grades, and contours

shall be as indicated on the Site Plan. At completion, finish grades shall be smooth and to within 1" tolerance, ready for seeding and sodding.

B. All additional topsoil required to complete grading, landscaping, and preparation for seeding shall be furnished by the Contractor at no additional cost to PETCO; and shall be fertile, natural soil, typical of the locale, without containing stones, clay and weeds.

C. All indicated grading is intended to drain surface water away from the building. If it appears that this intent does not exist in some portion of the work, the Contractor shall notify the PETCO Project Manager of such conditions before proceeding with any site work affected by this condition.

3.08 SOIL EROSION & SEDIMENTATION CONTROL: Earthwork operations and procedures shall be as indicated on the drawings and/or conducted in compliance with the requirements of the regulations for Control of Geotechnical Erosion and Sedimentation, as may be stipulated by authorities having jurisdiction over this work.

3.09 CLEANING UP: After the completion of building construction, all surplus materials and debris shall be removed from the project site. No dumping is permitted on the project site. The Contractor shall leave the site in a clean and neat condition with all paving washed down.

3.10 PROTECTION:

A. Protect all utilities, improvements, trees, shrubs, and landscaping from damage, whether located within or beyond the contract limits, that are scheduled to remain. Repair any damage incurred.

B. Provide guardrails, warning signs and/or lights at open excavations for the protection of workmen and others.

C. Maintain all benchmarks, monuments and other reference points. The Contractor shall replace any benchmarks, monuments, and other reference points that are disturbed or destroyed during the course of construction, unless otherwise directed.

D. The use of explosives is NOT permitted unless otherwise approved.

3.11 SUBSOIL DATA:

A. The subsoil data included with the project manual as a Geotechnical Investigation Report is for the Contractor's informational purposes only. The data on subsurface conditions is not intended as representation or warranties of the accuracy or continuity between soil borings. The Architect and PETCO assume no responsibility for interpretations or conclusions drawn therefrom by the Contractor. The data is made available for the convenience of the Contractor only. Refer to Section 01420 – Site Investigation Data.

B. Additional test borings and other exploratory operations may be made by the Contractor at the Contractor's option, at no additional cost to PETCO.

C. The recommendations of the Geotechnical Investigation Report shall be followed by the Contractor in addition to Section 02200-Earthwork. Any deviation from the recommendations of the Geotechnical Investigation Report without prior approval from the Geotechnical Engineer may be made by the Contractor at the Contractor's risk, and any expense incurred by the Contractor, as a result of rejection of the Contractor's deviations by the Geotechnical Engineer, shall be borne by the Contractor.

END OF SECTION

SECTION 02220

TRENCHING

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY: The Contractor shall provide utility trench excavations; compacted bedding under fill, over utilities to subgrade elevations; backfilling and compaction; and compliance with State trenching act and laws, trench safety engineering design and OSHA standards.

1.03 RELATED WORK: Section 02200- Earthwork; Section 03310- Concrete Floor Preparation.

1.04 REFERENCES:

A. ANSI/ ASTM C136- Method for Sieve Analysis of Fine and Coarse Aggregates.

B. ANSI/ ASTM D698- Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures, Using 5.5 lb. (2.49) kg) Rammer and 12 inch (304.8 mm) Drop.

C. ANSI/ ASTM D1556- Test Method for Density of Soil in Place by the Sand-Cone Method.

D. ASTM D2922 and ASTM D3017- Nuclear Method.

1.05 TRENCHING: Trench safety design shall be in compliance with applicable City and State codes and in compliance with Federal Regulations Part 126 of OSHA, Sub-part P is incorporated by reference.

PART 2 PRODUCTS

2.01 FILL MATERIALS: Fill materials shall have a plasticity index not less than 4 and not greater than 15. All select fill shall be compacted to a dry density of at least 95 percent ASTM 698; slope all trenches to drain.

PART 3 EXECUTION

3.01 EXCAVATION:

A. Excavate subsoil as required for sanitary sewer, water and gas piping to municipal utilities.

B. Cut trenches sufficiently wide to enable installation of utilities and allow inspection.

C. Excavation shall not interfere with normal 45 degree bearing force splay of foundations.

D. Hand trim excavation for bell and spigot pipe joints. Remove all loose matter.

E. Removed lumped subsoil, boulders, and rock up to 1/3 cubic yard as measured by volume.

F. Correct any over-excavated or unauthorized excavations at no cost to PETCO.

G. Stockpile excavated material in a designated on-site location if scheduled for re-use, and remove excavated material from site that is not to be re-used.

3.02 BEDDING FILL: Support all piping during the placement and compaction of bedding fill.

3.03 BACKFILLING:

A. Backfill trenches to the indicated contours and elevations. The top surface of general backfill shall be within 1" of the required elevations.

B. Systematically backfill to allow maximum time for natural settlement. Do not backfill over porous, wet, frozen or spongy subgrade surfaces.

C. Granular Fill: Place and compact materials in continuous layers not exceeding 8 inches compacted depth.

D. Maintain optimum moisture content of backfill materials to attain required compaction density.

3.04 FIELD QUALITY CONTROL: *(for work requiring Testing Agency, if applicable)*

A. Field testing including tests and analysis of fill material will be provide by the Testing/ Inspection Agency per ANSI/ ASTM D698 and as specified in Section 01410- Construction Quality Control Services.

B. Compacting testing will be provided by the Testing/ Inspection Agency in accordance with ANSI/ ASTM D1556, Nuclear ASTM 689, ASTM D2922, ASTM 3011 and Section 01410- Construction Quality Control Services.

C. If tests indicate that the fill material or work does not meet specified requirements, the Contractor shall remove the deficient fill material, replace and re-test fill material at no cost to PETCO.

3.05 PROTECTION OF FINISHED WORK: The Contractor shall provide additional fill and re-compact all fill areas which are subjected to the Contractor's or any subcontractor's vehicular traffic, until the Date of Final Completion.

3.06 CONCRETE SLAB INFILL AT BUILDING FLOOR SLAB TRENCHING:

A. The Contractor shall provide reinforced concrete at interior trenching per Section 03300- Cast in Place Concrete. Provide welded wire fabric reinforcement for concrete slab and trenching infill, and reinforcing dowels where the new concrete slab for trenching infill abuts existing concrete slab.

B. Moisture/ Vapor Barrier: Provide a moisture/vapor barrier, located under a 3-inch layer of approved, granular self-draining compactable fill under the subsequently placed concrete slab. The moisture/vapor barrier shall consist of "Visqueen" or equal manufactured polyethylene sheeting product, 6 mils minimum thickness, with all joints taped and sealed per ASTM D2130.

C. Reinforcement of Concrete Slab Topping shall be in accordance with the following minimum standards, or as may be superseded by the local jurisdiction; or as may be otherwise specified by the building shell architect/ engineer:

1. Slab on Grade Trench Construction: 3000 psi Concrete slab on grade; reinforced with ASTM A185 Welded Wire Fabric; and placed on vapor barrier and prepared subgrade.
2. Structural Slab: As specified by the building shell engineer.
3. Dowels: Provide ASTM A615, Grade 60, 1/2" diameter x 8" deformed reinforcing dowels spaced 32" on center maximum, 4" epoxy embed into existing concrete slab.

D. Epoxy Adhesive: The Contractor shall provide epoxy product equal to Rawl Dowel-Fast, two-component, non-sagging (ASTM C-881 Types I, II, IV and V/ Grade 3 Classes B and C) epoxy by Powers Fastening Inc., New Rochelle NY (914-235-6300).

1. Compressive Strength (ASTM D-695): 10,000 psi.
2. Tensile Strength (ASTM D-638): 3500 psi at 7 days.
3. Flexural Strength (ASTM D-790): 5300 psi.
4. Bond Strength (ASTM C-882): 2000 psi concrete to concrete, 2-day moist cure; 2000 psi steel plate to concrete, 2-day moist cure.

E. Finish of Concrete Slab Topping shall be per Section 03310- Concrete Floor Preparation.

END OF SECTION

SECTION 02510

ASPHALT PAVING

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY:

A. Provide asphaltic concrete paving where shown on the drawings, as specified in this Section, and as needed for a complete and proper installation.

B. The base course shall be constructed as part of the initial phase of construction and shall be maintained so as to keep the site accessible during all construction phases. (*if applicable)*

1.03 RELATED WORK: Refer to the Civil Engineer's Site Development Drawings for asphalt paving sub-base specification. (*if applicable*)

1.04 SUBMITTAL: No submittal is required for the work of this Section except as may be required by the Civil Engineer's construction documents.

1.05 QUALITY ASSURANCE:

A. All paving work shall be in accordance with the state highway department's latest standard specification for road and bridge construction.

B. The Contractor shall protect building walls and other improvements against damage and staining which may result from the installation of asphaltic concrete paving.

1.06 WARRANTY: The Contractor shall include a copy of the paving subcontractor's warranty for all work provided under the general contract for construction for a term of 1 year after the Date of Substantial Completion. This warranty shall be included in the Building Maintenance Manuals per Section 01700- Contract Closeout.

PART 1 PRODUCTS

2.01 MATERIALS:

A. Paving: All Regular Duty asphaltic paving, Heavy Duty asphaltic paving and paving design(s) shall be provided as indicated on the Site Development Drawings.

B. Parking Lines: Provide parking line products per Section 09900- Painting, or as otherwise required by the local jurisdiction in lieu of the specified paint type and color. (*if applicable)*

PART 3 EXECUTION

3.01 PAVING INSTALLATION:

A. All paving installation methods shall be in accordance with the state highway department's currently applicable paving standards for road and bridge construction.

B. No paving shall be placed when temperature is below 40°F, unless specific alternate installation techniques are approved in advance by PETCO.

C. No paving shall be installed until all site utility work specified under paved areas is complete.

D. Sub-base preparation: Sub-base course must be rough leveled, compacted and not excessively wet prior to the installation of the base course.

1. Minimum sub-base for areas designated as “heavy duty paving”. 8” minimum AASHTO #57 crushed stone.
2. Minimum sub-base for areas designated as “regular-“ or “normal-“ duty paving: 6” minimum AASHTO #57 crushed stone.

E. Base Course: Compaction shall be provided by rolling with 10-ton roller equipment. Finished surfaces shall be smooth, without bumps or depressions, and positively sloped to drain towards inlets, curbs or edges as indicated on the applicable site drawings.

F. Wearing Course: Final preparation shall be pneumatically rolled and then finally compacted with 10-ton roller equipment or as otherwise specified. Installed paving shall be equal to state highway department standards, with clean, sharp edges, and a smooth finish surface without depressions or bumps, laid in a warped plane that will allow water to drain towards inlets, curbs or edges.

3.02 PARKING LINES AND PAVEMENT PAINTING: (*if applicable)*

A. Sweep and clean paving surface to remove loose material and dust prior to painting.

B. Apply parking lines with mechanical equipment to produce uniform straight edges. Provide two paint coats at the paint manufacturer’s recommended rate of application.

C. Accessible Parking Spaces: Parking space symbols for accessible parking spaces shall be painted using pre-manufactured symbol templates meeting local jurisdiction graphic requirements.

END OF SECTION

SECTION 02520

CONCRETE PAVING

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY:

A. Provide reinforced concrete paving and pavement markings where shown on the drawings, as specified in this section, and as needed for a complete and proper installation.

B. Concrete paving base course aggregate shall be provided during the initial phases of construction and shall be maintaining during the entire project in order to keep the site accessible during construction.

1.03 SUBMITTAL: No submittal is required for the work of this Section except as may be required by the Civil Engineer's construction documents. *(if applicable)*

PART 2 PRODUCTS

2.01 FORMS: Provide wood or metal formwork, including adequate bracing, to the lines and grades shown on the drawings, and within industry standard vertical and alignment tolerances. Earth forms are not permitted for concrete paving.

2.02 REINFORCEMENT:

A. Fabricate reinforcement to the required shapes and dimensions, with fabrication tolerances complying with the CRSI "Manual of Standard Practices", and comply with the following minimum requirements:

1. Reinforcing bars: ASTM A615, Grade 60, unless otherwise shown on the drawings, using deformed bars for #3 and larger reinforcing.
2. Welded Wire Fabric: ASTM A185.
3. Bending ACI 318.

2.03 CONCRETE:

A. Comply with the following minimum requirements:

1. Portland Cement: ASTM C150, Type I or II, low alkali.
2. Aggregate: ASTM C30, uniformly graded and clean. Do not use aggregate types known to cause excessive shrinkage.
3. Coarse Aggregate: Crushed rock or washed gravel, minimum size No. 4, and maximum size between 3/4" and 1-1/2".
4. Fine Aggregate: Natural washed sand of hard, durable particles varying from fine to particles passing a 3/8" screen, of which at least 12% shall pass a 50 mesh screen.
5. Water: Clean and potable.
6. Additives: Fly ash is NOT PERMITTED in the concrete mix. Other Additives are permitted only as approved and recommended in the concrete mix design.

2.04 OTHER MATERIALS: Provide other materials, not specifically described but as required for a complete and proper installation, as selected by the Contractor and subject to approval.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this Section will be provided, shall correct conditions detrimental to the timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

3.02 PLACEMENT OF BASE COURSE AGGREGATE:

A. Base Course Aggregate: Spread and compact the specified base course aggregate to the compacted thickness shown on the drawings, and to a minimum 95% of maximum modified Proctor dry density (ASTM D1557). Use limited amounts of water, only as needed to achieve the specified compaction. Correct deviations in the base course by removing materials, replacing with new materials, and reworking or recompacting as required.

B. Base Course Thickness Tolerance: Provide the compacted base course thicknesses shown on the drawings within a tolerance of plus one-half inch (+0.5”) to minus one-half inch (-0.5”).

C. Smoothness Tolerance: Provide the base course to the lines and grades shown on the drawings within a tolerance of five-hundredths feet (0.05’) vertically and one inch (1”) alignment at any point.

3.03 CONCRETE PAVING INSTALLATION:

A. Upon completion of the installation of the base course and formwork, install reinforcement as shown on the drawings, and per Section 03300- Cast-In-Place Concrete.

B. Transit mix concrete in accordance with ASTM C94 and Section 03300-Cast-In-Place Concrete. Do not use concrete that has stood over 30 minutes after leaving the mixer, or concrete that is not placed within 60 minutes after water is introduced into the mix.

C. Place concrete in accordance with ACI 304 and Section 03300- Cast-In-Place Concrete.

D. Provide control joints, expansion joints and sawcut joints as shown on the drawings.

3.04 CURING & PROTECTION: Protect concrete from premature drying, excessively hot or cold temperatures and mechanical injury.

END OF SECTION

SECTION 02530

ASPHALT PATCHING & CRACK SEALING

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY: Provide asphalt patching and crack sealing where shown schematically on the drawings, as specified herein, as directed by the PETCO Project Manager, and as needed for a complete and proper installation. The drawings do not purport to indicate every location requiring asphalt patching and crack sealing. Existing conditions must be field verified to determine the extent of the work.

1.03 REFERENCES: Federal Specifications (FS): SS-S-1614(1) Sealing Compound, Jet-Fuel Resistant, Hot-Applied; One Component, for Portland Cement and Tar Concrete Pavements; ASTM Publication D-3405: Specification for Joint Sealants, Hot Pours, for Concrete and Asphalt Pavements.

1.04 SUBMITTAL: No submittal is required for the work of this Section.

PART 2 PRODUCTS

2.01 BITUMINOUS ASPHALT PATCHING: Asphalt patching materials must conform to applicable State Specifications for Highways, Streets and Bridges. Asphaltic Concrete-Base Course shall be per Item 340 Type "B" and a minimum stability of 35. Bitumen shall be AC-20 viscosity graded asphalt.

2.02 ASPHALT PATCHING TACK COAT: Asphalt emulsion shall meet specifications for Type SS-1 at a 50/50 dilution rate. Tack coat rate shall be 0.10 to 0.15 gallons per square yard.

2.03 ASPHALT PATCHING/PAVING BASE COURSE: Base course aggregate material shall meet State Highway specification standards.

2.04 ASPHALT PATCHING/PAVING SUBGRADE: Subgrade material shall be provided as described in Section 02200 - Earthwork. *(if applicable)*

2.05 CRACK SEALING EQUIPMENT: The unit applicators used for heating and installing hot-poured sealant materials shall be mobile and shall be equipped with a double-boiler, agitator-type kettle with an oil medium in the outer space for heat transfer, a direct-connected pressure type extruding device with nozzles shaped for inserting in the crack to be filled, positive temperature devices for controlling the temperature of the sealant. The applicator unit shall be so designed that the sealant will circulate through the delivery hose and return to the inner kettle when not sealing cracks.

2.06 CRACK SEALANT: Sealant shall conform to Fed. Spec. SS-S-1614 or ASTM D-3405.

PART 3 EXECUTION

3.01 ENVIRONMENTAL REQUIREMENTS: Air and surface temperature must be at least 40 degrees F. Do not provide asphalt repair and crack sealing work during snow, rain or sleet.

3.02 MARKING AND CUTTING OF ASPHALT AREA TO BE PATCHED:

A. Areas to be patched shall be marked and coordinated with the PETCO Project Manager. The markings shall be properly located and considered to be a minimum of one (1) foot beyond the visibly damaged areas.

B. Cutting and removal of damaged pavement: Asphaltic concrete surface shall be sawcut for the full

depth. Recompact existing base course aggregate to receive new asphalt paving.

C. Construction of new pavement section:

1. If necessary, the base course aggregate shall be provided at a minimum thickness of eight (8) inches for areas of heavy duty paving and six (6) inches for regular duty paving.
2. The tack coat shall be applied to the base course aggregate surface as well as the sides of the excavation at a rate of 0.10 to 0.15 gallons per square yard.
3. The asphaltic concrete shall be placed to achieve a minimum three (3) inches to a maximum of four (4) inches of compacted surface with the top being level with the existing surface or elevation of the curb surface.

3.03 PROTECTION OF ASPHALT PATCHING: After final rolling, do not permit vehicular traffic of any kind until the pavement has cured and hardened, or for at least six (6) hours.

3.04 CRACK INSPECTION: Inspect the areas designated for crack sealing. Cracks less than one quarter inch (1/4") in width shall NOT be sealed. Cracks larger than one quarter inch (1/4") width shall be sealed using the crack sealing material. All cracks to be sealed shall be routed, and cleaned by directing a jet of compressed air into the opening and blowing out debris or dirt. Cracks that cannot be cleaned by a jet of compressed air shall be broomed vigorously with a stiff bristle boom and then blown clean.

3.05 CRACK SEALANT PREPARATION: Hot-poured sealant materials shall not be heated in excess of the safe heating temperature recommended by the manufacturer as shown on the sealant containers. Sealant that has been overheated or subjected to heating for over three hours or that has remained in the applicator at the end of the day's operation shall be withdrawn and wasted and discarded.

3.06 CRACK SEALANT INSTALLATION:

A. Cracks shall be sealed immediately following the cleaning of the crack and following the placement of separating and/or blocking media if these are required. The crack shall be surface dry, and the atmospheric temperature and pavement temperature within the crack opening shall both be above 50 degrees F at the time of application of the sealant.

B. In-place sealant which is not completely bonded to the crack walls, or develops cohesive failures within the sealant, or contains voids or entrapped air, or fails to set to a tack-free condition with 24 hours will be rejected. Sealant may be rejected at any time prior to the final acceptance of the project. Sealant which is rejected shall be removed from the crack and replaced in a manner satisfactory to the PETCO Project Manager.

3.07 REMOVAL OF ASPHALT PAVING AND/OR CRACK SEALANT DEBRIS: All damaged asphalt or base course material shall be removed from project site by the contractor, and moved to the Contractor's storage facility or an approved landfill. Any Hazardous Materials shall be disposed of properly in accordance with local requirements.

END OF SECTION

SECTION 03300

CAST-IN-PLACE CONCRETE

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY: Provide cast-in-place concrete, including formwork, reinforcement and special finishes where shown on the drawings, as specified in this Section, as needed for a complete installation.

1.03 RELATED WORK: Section 07210-Building Insulation; foundation insulation.

1.04 SUBMITTAL: No submittal is required for the work of this Section IF provided per the construction documents. *(minor concrete work, if applicable)*

1.05 SUBMITTAL:

A. The Contractor shall submit Concrete Mix Designs and Concrete Test Reports meeting ACI318-Chapter 5 standards and per Section 01340-Submittals.

1. The Concrete Mix Designs and Concrete Test Reports Submittals may be sent to the Architect by fax, if the Architect is notified at least 24 hours in advance.
2. If this submittal is sent to the Project Architect by fax, then the hard copies of this submittal shall additionally be sent to the Architect per Section 01340-Submittals.

B. Submit Reinforcing Steel Shop Drawings and Concrete Accessories Product Data in sufficient detail to demonstrate compliance with the work of this Section.

1.06 QUALITY ASSURANCE:

A. The Contractor shall NOT commence placement of concrete until the Concrete Mix Designs and Concrete Test Reports Submittals have been reviewed by the Architect/ Engineer.

B. The Contractor shall provide access for and cooperate with the Testing/ Inspection Agency per Section 01410-Construction Quality Control Services.

C. Admixtures: When field service is requested for admixture use, a qualified concrete technician employed by the concrete manufacturer shall be available to assist in proportioning concrete materials, and to advise on proper use of admixture and adjustment of concrete mix proportions to meet jobsite and climatic conditions. The concrete mix shall meet ACI 318 standards.

D. Concrete Floor Slab Tolerance: Floor Slabs except in rooms or areas with designed floor slopes for floor drains, shall have a floor flatness as determined in accordance with ASTM E1155, and shall have the following properties:

	Average Value	**Minimized Local**
Flatness (FF)	FF = 35	FF = 24
Levelness (FL)	FL = 25	FL = 17

PART 2 PRODUCTS

2.01 CONCRETE FORMWORK: The Contractor shall design, erect, support, brace, and maintain Concrete Formwork so it will safely support vertical and lateral loads that might be applied, until such loads can be supported safely by the concrete structure.

2.02 MOISTURE/ VAPOR BARRIER: Moisture/ Vapor Barrier shall be provided above 2 inches of approved granular fill (or as approved by the Building Shell Geotechnical Engineer) to accommodate a minimum uniform load rating of 150 p.s.f. and a concentrated load of 5 kips, and under the subsequently placed concrete slab. The moisture/ vapor barrier shall be equal to Stego Wrap (15 mil) Vapor Barrier by Stego Industries LLC, Griffolyn Vaporguard by Reef Industries or premoulded membrane with PLASTMATIC CORE by W.R. Meadows. The vapor barrier shall conform to ASTM E1745, Class A or B. The membrane shall have a water-vapor permeance rate no greater than 0.012 perms when tested in accordance with ASTM E154, Section 7. Vapor Barrier shall be no less than 10 mil thick in accordance with ACI 302.1R-96.

2.03 REINFORCEMENT FOR CONCRETE SLAB ON GRADE:

A. Reinforcing bars: ASTM A615, Grade 60, deformed bars for #3 and larger reinforcing.

B. Welded Wire Fabric: ASTM A185.

C. Reinforcing Bending: ACI 318.

2.04 CONCRETE:

A. Comply with the following minimum requirements:

1. Portland Cement: ASTM C150, Type I or II, low alkali.
2. Aggregate, General: ASTM C33, uniformly graded and clean; Aggregate, Coarse: Crushed rock or washed gravel with minimum size between ¾" and 1-1/2", maximum size, number 4; Aggregate, Fine: Natural washed sand of hard and durable particles varying form fine to particles passing a 3/8" screen, with 12% passing 50-mesh screen.
3. Water: Clean and potable.
4. Fly ash is NOT PERMITTED in the concrete mix.

B. Provide concrete with the compressive strengths and limiting slumps as shown on the drawings. When such strengths and slumps are not shown on the drawings, provide the following minimum requirements:

1. Concrete footings and piers: 3000 psi with 4" maximum slump.
2. Slab on grade, Interior: 4000 psi, 4" maximum slump.
3. Concrete walls, Exterior: 4000 psi, 4" maximum slump.
4. Concrete walks, curbs, slabs on grade, site lighting exposed bases Exterior: 4000 psi, 4" maximum slump, air-entrained, in accordance with governing codes.

2.05 CONCRETE CURING/ CONCRETE FINISHES:

A. Concrete Curing Compound:

1. Provide at all new interior and exterior concrete slabs on grade.
2. Provide concrete curing compound equal to "L&M Cure", water soluble, water-based, clear, sprayable non-residual concrete curing agent, by L&M Construction Chemicals Inc., Omaha NE (402-453-6600).
3. Specification Standard: USDA approved and VOC compliant.
4. The slab shall be cured for at least 60 days prior to installing joint fillers (control, construction, perimeter joints, etc.) which shall be cleaned and filled with joint filler.

B. Concrete Sealer: Refer to Section 09910- Concrete Sealer.

C. Detectable Warning Surface Finish:

1. The Contractor shall provide a Detectable Warning concrete surface finish on handicap ramp surfaces and adjacent landing areas as shown on the drawings or as may be required by the local jurisdiction.
2. Detectable Warning Surface: The Contractor shall provide a Coarse Broom Finish on the designated handicap ramp surfaces and adjacent landing areas unless the local jurisdiction requires an alternative finish. In the event that the local jurisdiction requires an alternative finish, the Contractor shall provide the alternative finish at no additional expense to PETCO.

2.06 ADMIXTURES:

A. Calcium chloride is NOT permitted.

B. Water reducing admixture may be used for better workability, shrinkage reduction, plasticity and adhesiveness of all concrete conformity to ASTM C494, Type D (water reducing and retarding). Acceptable manufacturers:

1. Euclid Chemical Company, Cleveland OH (800-321-7628).
2. Sonneborn/ Chemrex Inc., Shakeopee MN (800-433-9517).
3. W.R. Meadows Inc./ SealTight Elgin IL (708-683-4500).

C. Relative durability factor of 100% instead of 80% (as required by ASTM C494) shall be used. No admixture with rapid or excessive bleeding or which will require concrete to be reconsolidated, re-vibrated or re-tempered shall be used.

D. Air Entrainment Admixture: ASTM C260.

2.07 NOT USED

2.08 OTHER MATERIALS, WHERE APPLICABLE:

A. Grout: Provide non-shrink, non-staining water resistant grout meeting ASTM C1107-89 for package dry, hydraulic-cement grout (non-shrinkable). Acceptable products “EUCO N-S Grout”, by Euclid Chemical Company; or “CG-86 Construction Grout”, by W.R. Meadows Inc./ SealTight.

B. Bonding Agent: Provide polymer resin emulsion.

C. Patching Cement: Provide premixed compound with non-metallic aggregate, cement, water reducing and plasticizing agents equal to “Thorite” by Thoro Systems Products.

D. Waterstop: Provide rubber or polyvinylchloride, 12 inches wide, with heat sealed joints.

E. Construction Joint: Provide pre-manufactured keyed construction joints equal to 24 gauge galvanized steel “Key-Loc Joint” system, by Form-A-Key Products Division, Louisville KY.

F. Expansion Joint: Provide expanded polyethylene, low-density closed cell foam expansion joint filler with zip strip.

G. Form Release Agent: Provide colorless material that will not stain concrete, absorb moisture or impair natural bonding or color characteristics of coating intended for use on concrete.

H. Interior Control Joint and Sawcut Joint Filler: Provide filler/sealant at all interior control joints and sawcut joints which are not covered with a subsequent finish floor, equal to:

1. Everjoint polymer reinforced control joint filler, by L&M Construction Chemicals Inc.
2. JointMaster EJC, hybrid epoxy-urethane elastomeric jont filler, by Polyamerica Inc., Carollton GA (800-762-1678).

I. Exterior Control Joint Sealers and Fillers: The Contractor shall provide one-component, moisture curing polyurethane sealant meeting Federal Spec. TT-S-00227E, ASTM C90, equal to "THC-901" sealant, by Tremco, Beachwood OH.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this Section will be provided; shall correct conditions detrimental to the timely and proper completion of the work; and shall NOT proceed until unsatisfactory conditions are corrected.

3.02 REINFORCING:

A. Comply with the following, as well as the specified standards, for details and methods of reinforcing placements and supports.

1. Clean reinforcement and remove loose dust and mill scale, earth, and other materials that reduce bond with concrete.
2. Position, support, and secure reinforcement against displacement by forms, construction, and the concrete placement operations.
3. Place reinforcement to obtain the required coverage for concrete protection.
4. Install welded wire fabric in as long lengths as practicable, lapping adjoining pieces one full mesh minimum. Welded wire fabric pieces wire tied per reference standard.
5. Unless otherwise shown on the drawings, or required by governmental agencies having jurisdiction, lap bars 24 diameters minimum.

3.03 EMBEDDED ITEMS:

A. Minimum Concrete Coverage: The Contractor shall provide a minimum of 2" concrete cover over the top of the embedded conduit. The conduit shall be located under the welded wire fabric, and the concrete depth shall be increased accordingly to accommodate the minimum clearances specified. The Contractor shall accurately locate bolts, inserts, and other required items in the concrete, secured so they will not be displaced. The Contractor shall provide sleeves or core-drill finished concrete to receive guardrails, handrails or fencing. Increase the thickness of the concrete and maintain minimum concrete coverage if the outside diameter of the conduit exceeds 30% of the concrete thickness.

B. Structural Concrete: The Contractor shall NOT embed piping, other than electrical ducts and conduit, in structural concrete. Minimum coverage as specified must be maintained.

3.04 TRANSIT MIX CONCRETE: Transit mix concrete per ASTM C94.

3.05 PLACING CONCRETE: Do not permit concrete to free drop more than 6'-0". Deposit concrete in horizontal layers not deeper than 24", and avoid inclined construction joints. Provide a maximum variation of surface flatness for all slabs of 1/8" in 10 linear feet.

3.06 CONSOLIDATION: Consolidate each layer of concrete immediately after placing, by use of internal concrete vibrators supplemented by hand spading, rodding, or tamping. Do not vibrate forms or reinforcement, or use vibrators to transport concrete inside the forms.

3.07 JOINTS:

A. Construction Joints: Provide sawcut joints and keyed control joints.

B. Expansion Joints: Do not permit reinforcement or other embedded metal items that are being bonded with concrete (except dowels in floors bonded on only one side of the joints) to extend continuously through any expansion joint.

3.08 SCHEDULE OF CONCRETE FINISHES:

A. Interior concrete floor slab scheduled to receive Resilient Flooring, (Refer to Finish Schedule on Drawings): Floated, with hard steel troweled finish; curing compound; Grinding or acrylic vinyl flash patch, trowel applied, if required; control joint and sawcut joint sealer.

B. Interior concrete floor slab scheduled to receive Epoxy Finish: Broom finish; refer to Section 09670- Epoxy Finish on Concrete.

C. Interior concrete floor slab scheduled to receive Concrete Sealer: Refer to Section 09910- Concrete Sealer.

D. Exterior Stairs and Sidewalks: Light Broom Finish.

E. Exterior Slabs EXCEPT Exterior Stairs and Sidewalks: Medium Broom Finish.

END OF SECTION

SECTION 03310

CONCRETE FLOOR PREPARATION

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY:

A. The Contractor shall provide concrete floor preparation of existing concrete floors where shown on the drawings, as specified in this section, and as needed for a complete and proper preparation to receive subsequent floor surfacing.

B. Floor preparation as specified in this Section is intended where existing conditions require the use of mechanical abrading equipment or chemical removers as supplementary methods of floor preparation to receive scheduled finish floor materials. Floor preparation includes the partial or complete removal of existing under-slab items that protrude above the finish floor line and, if left in place without modifications or removal, would subsequently affect the installation and performance of applied finish floor materials.

1.03 RELATED WORK:

A. Section 03300-Cast-In-Place Concrete.

B. Section 09650-Resilient Flooring.

C. Section 09660-Resilient Sheet Flooring.

D. Section 09670-Epoxy Flooring on Concrete.

PART 2 PRODUCTS

2.01 HEAVY DUTY FLOOR CLEANING:

A. For existing floor surfaces requiring Floor Cleaning as part of the Concrete Floor Preparation, EXCEPT at floor surfaces scheduled to receive Vinyl Composition Tile (VCT), provide a heavy duty biodegradable citrus-based degreaser product equal to Citrex by L & M Construction Chemicals Inc., Omaha NE (800-362-3331).

B. For existing floor surfaces scheduled to receive Vinyl Composition Tile (VCT), provide a heavy-duty concrete floor cleaning product that is compatible with the finish flooring and flooring adhesives to be installed.

2.02 ETCHING AND LAITANCE REMOVER: For floor surfaces scheduled to receive Resilient Flooring, furnish a muriatic acid 10% Etching and Laitance Remover solution, with supplementary rinsing and neutralizing agents, all as specifically approved as a compatible product by the flooring product manufacturer. Do NOT use Etching and Laitance Remover for surfaces scheduled to receive Concrete Sealer.

2.03 FLOOR ABRADING WORK: If required in order to install the floor covering specified in the floor area subject to floor abrading, provide floor abrading equipment designed to provide dry, dustless surface shotblast abrading and utilizing an integral vacuum system, equal to abrading equipment as manufactured by Wheelabrator Blastrac, Berlin NJ. All equipment, materials and methods shall be in compliance with pertinent regulations of governmental agencies having jurisdiction.

2.04 FLOOR PATCHING PRODUCTS:

A. Flash Patch and Skim Coating:

1. For cracks, minor holes, crevices, score marks, control and construction joints, the Contractor shall provide concrete patching product compatible with finish flooring adhesives, equal to products by Armstrong World Industries, Lancaster PA (800-448-1405).

a. Armstrong S-194 Patch, Underlayment and Embossing Leveler.
b. Armstrong S-183 Fast Setting Cement-Based Underlayment.
c. Armstrong S-184 Fast Setting Cement-Based Patch and Skim Coat.

2. For holes and larger patches, provide concrete patching product equal to L & M Durapatch Industrial, fiber-reinforced high-strength cement-based patching system, by L & M Construction Chemicals Inc.

a. Acceptable Alternative: Provide “Ardex SD-P Instantpatch”, self-drying, fast-setting, Concrete Underlayment Patch, by Ardex Engineered Cements, Aliquippa PA (724-203-5000).

2.05 FLOOR LEVELING PRODUCTS:

A. Floor Leveling (Underlayment): Provide Self-Leveling Underlayment Concrete equal to “Ardex K-15”, Ardex Engineered Cements, Aliquippa PA (724-203-5000), at areas scheduled to receive finish flooring, and in quantities and layers of application necessary to achieve the level tolerance as recommended by the flooring product manufacturer.

B. Floor Leveling (Concrete Topping): Provide Self-Leveling Concrete Topping equal to “Ardex K-500”, by Ardex Engineered Cements, at areas scheduled to receive no additional finish flooring with the possible exception of Concrete Sealer/ Hardener.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this Section will be provided, shall correct conditions detrimental to the timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

3.02 CONCRETE FLOOR PREPARATION: Provide all Concrete Floor Preparation work in accordance with governmental agencies having jurisdiction, and as recommended by the flooring product manufacturers and their respective trade association standards.

END OF SECTION

SECTION 03360

POLISH CONCRETE FLOOR FINISH

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY:

A. This is the recommended specification for ULTRAFLOR® DIAMATIC® Polished Concrete System

B. Complete installation details are provided in the DIAMATIC Technical Brochures available at www.ultraflor.com

1.03 RELATED WORK:

A. Section 03310- Concrete Floor Preparation.

1.04 SUBMITTAL:

A. Product Data: Submit Manufacturer's technical literature for each product indicated, specified or required. Include manufacturer's technical data, application instructions, recommendations and MSDS.

B. Installer Qualifications: Data for company, principal personnel, experience, and training. Provide a letter documenting installer's accreditation and certification compliance, as specified under quality assurance.

C. Maintenance Data: Provide manufacturer's instructions for maintenance of installed work, including methods and frequency recommended for maintaining optimum condition under intended use. These instructions should contain precautions against cleaning products and methods, which may be detrimental to finishes and performance.

1.05 QUALITY ASSURANCE:

A. Manufacturer Qualifications: The ULTRAFLOR® DIAMATIC Polished Concrete System consists of a process and products engineered and manufactured by DIAMATIC. Any substitutions are not permitted and void warranty.

B. Installer Qualifications (CONTACT: TODD PARKER @ 1.858.864.6313) for a current Elite Qualified Installer in your area:

a. Installer must be a DIAMATIC ELITE installer for the ULTRAFLOR® Polished Concrete System, including the use of DIAMATIC equipment, diamond abrasives, DIAMATIC concrete preparation, joint treatment as well as chemical hardening and finishing materials.

b. Installer must be experienced in performing specified work similar in design, products and scope of this project, with a documented track record of successful, in-service performance and with sufficient production capabilities, facilities and personnel to produce specified work. (Approved in writing by Diamatic Management Services)

c. A factory-trained, competent supervisor must be maintained on site during all times during which specified work is performed.

d. Installer must provide written documentation from Diamatic Management Services (DMS) confirming the Installer's current accreditation and training from DIAMATIC on installation of the ULTRAFLOR® DIAMATIC Polished Concrete System and related equipment and processes. Failure to provide current accreditation will void any warranty implied or otherwise associated with the ULTRAFLOR® System.

C. Mock-Up: Before performing the work in this section, an adequate number of on-site mock-ups of the ULTRAFLOR® DIAMATIC Polished Concrete System representative of specified process, surface, finish, color and joint design/treatments must be installed for review and approval. These mock-ups should be installed using the same Installer personnel who will perform work. Approved mock-ups may become part of completed work, if undisturbed at time of substantial completion.

D. Static Coefficient of Friction: A reading of not less than 0.5 for level floor surfaces shall be achieved and documented, as determined by a certified NFSI walkway auditor using the NFSI 101-A quality control test.

E. Test Reports: Comply with the provisions of the following specifications and standards, except as otherwise noted or specified, or as accepted or directed by the Owner and/or Architect. All test data shall be recorded and submitted upon completion of job.

a. Section 03 30 00, Cast-In-Place Concrete

b. ASTM E1155, Standard Test Method for Determining Floor Flatness and Levelness using the F number system must be performed by General Contractor

c. ASTM E430, Standard Test Method for Measurement of Gloss of High-Gloss Surfaces by Abridged Goniophotometry

d. ASTM G23-81 Standard Test Method for Ultraviolet Light and Water Spray Resistance

e. ACI 302 1 R-04 Guide for Concrete Floor and Slab Construction

F. Pre-Installation Conference: Prior to the installation of the ULTRAFLOR® DIAMATIC Polished Concrete System, a on-site conference shall be conducted to review specification requirements.

a. Required attendees include the Owner, Architect, General Contractor, ULTRAFLOR® DIAMATIC Polished Concrete System Subcontractor for Quality Assurance.

b. The minimum agenda shall include:

a. Tour of work area, inspection and discussion of preparation of substrate and other pre-Installation conditions and issues.

b. Review of System requirements, including drawings, specifications and other contract documents.

c. Review of required submittals and completion status.

d. Review and finalization of installation schedule, verification of availability of required materials, trained Installer personnel, equipment, proper electrical power to avoid any type of delay.

e. Limit access to work area by other trades to reduce possible damage to the floor before, during and after completion.

f. Review of required inspection, testing, certification and material usage accounting procedures.

g. Review of methods and procedures for installation, including manufacturer's written instructions.

h. Review of governing regulations and requirements for insurance, certifications, inspection and testing, if applicable.

i. Review of temporary protection requirements during and after installation.

j. Review of cleaning procedures during and after installation.

k. Documentation proceedings, including corrective measures or actions required, and provision of a written copy of record to each participant.

1.06 SITE CONDITIONS

A. Comply with manufacturer's written instructions for substrate temperature and moisture content, ambient temperature and humidity, ventilation and other conditions affecting the floor finish.

B. Close areas to traffic during and after ULTRAFLOR DIAMATIC Polished Concrete System application for a time period recommended by the manufacturer.

C. Inspect the existing substrate and document unsatisfactory conditions in writing. Verify that surfaces and site conditions are ready to receive work. Correct unacceptable conditions prior to installation of System. Commencement of work constitutes acceptance of substrate conditions.

D. Existing concrete must be cured for a sufficient time period recommended by DIAMATIC before the application can begin.

E. Where new or existing concrete is not within specified tolerances, install an approved ULTRAFLOR Polished Concrete Repair System and Topping Material at the required thickness to achieve tolerances. Comply with tolerance requirements in Section 03 30 00.

F. Protect existing concrete and the new ULTRAFLOR DIAMATIC Polished Concrete System from contamination by petroleum, oil, hydraulic fluid, acid, acidic detergents, paint and other liquid dripping from trades and equipment working over these substrates. If construction equipment must be used on these substrates, diaper all components that may drip fluids.

G. Prohibit the placement and storage of construction materials over new ULTRAFLOR Polished Concrete System, to include ferrous metals and steel members.

H. Prohibit vehicle parking and pipe cutting operations over new and existing concrete as well as the new ULTRAFLOR Polished Concrete System.

I. Moisture Vapor Testing

1. Test existing concrete for moisture vapor transmission according to methods indicated in ASTM F1869. Acceptable results: not more than 5 pounds per 1,000 square feet in 24 hours.

2. Test existing concrete for relative humidity using in situ probes according to ASTM F2170. Acceptable results: not more than 80%.

PART 2 – PRODUCTS

2.01 SYSTEM

A. The ULTRAFLOR Polished Concrete System is an engineered and integrated complete installation system requiring strict adherence to all specified installation processes, equipment, diamond abrasives, concrete preparation, joint treatment and chemicals to achieve the intended result. Any substitutions from the specified products and/or processes will void the system warranty.

2.01 MATERIALS

A. DIAMATIC EQUIPMENT

1. DIAMATIC BMG-780: Planetary Grinder and Polisher, Large Platform: 32” planetary floor polisher. Head pressure of 700 lbs.

2. DIAMATIC Micro Polisher MPS-1721-1727 - Burnisher: Specific weight and RPM are required to reach temperature of 110˚F for application of FLOR-FINISH application.

3. DIAMATIC 5” Hand Held Low Speed Grinder: 5” hand floor polisher for edges with variable speed control range of 500 – 2200 RPM.

4. DIAMATIC 180EC: Walk Behind edging grinder/polisher.

5. Vacuums: BDC-3140 or other approved 300 CFM Dust Collection System approved by Diamatic.

6. Crack Chaser: 7” Crack Vac with dolly or a hand held 5” grinder with a .375” thick/V-Cut diamond blade.

7. DIAMATIC Condor Applicator for application of ULTRAFLOR Treatments.

8. DIAMATIC ride on and walk behind floor scrapers with beveled steel scraper blades of various widths for removal of floor coverings.

9. DIAMATIC BMC335 Shaver: Self-propelled shaver/leveler for slab surface demolition, leveling and level 3 cuts.

10. Power generator capable of supplying a minimum output of 45kw and up, and 480 Volt three phase power.

11. DIAMATIC Diamond Abrasives and Blades

a. Premium Metal Segment Diamonds – 18/20, 20/25, 30/40, 60/80, 120/140 Grit of extra extra soft,extra soft,soft,medium,hard,extra hard and extra extra hard bonded metal diamonds.

a. Note: Concrete has hardness levels of extra soft, medium up to extra hard. The hardness of the concrete will determine the required hardness of the metal bonded diamonds:

1. Extra Hard Concrete: Extra Soft metal bonded diamonds

2. Hard Concrete: Soft metal bonded diamonds

3. Medium Concrete: Medium metal bonded diamonds

4. Soft Concrete: Hard metal bonded diamonds

5. Extra Soft Concrete: Extra Hard metal bonded diamonds

b. Transitional Ceramic Diamonds by Diamatic: #0, #1, #2 Grits

c. Hybrid Flex-res Resin Bonded Diamonds: 50, 100, 200, 400, 800, 1500, 3000 Grits

d. FLOR-GRIT Diamatic Diamond Impregnated Pads: 200, 400, 800, 1500, 3000 Grits

B. ULTRAFLOR® DIAMATIC CONCRETE TREATMENT CHEMICALS

1. DIAMATIC FLOR-SIL™ Lithium Densifier for standard concrete and terrazzo surfaces

2. DIAMATIC FLOR-FINISH Stain and Wear Protection Treatment (high-gloss) Powered by Dow Corning.

3. DIAMATIC FLOR-FINISH L Stain and Wear Protection Treatment (low-gloss) Powered by Dow Corning

4. DIAMATIC FLOR Maintainer™ Gloss, Stain and Wear Protection Routine Maintenance Treatment

C. DIAMATIC ULTRAFLOR CONCRETE REPAIR AND TOPPING MATERIALS

1. Where less than 1/8" width crack repair is required prior to polishing, the Color and Material must be approved by Diamatic prior to being installed.

2. Where greater than 1/8" width crack repair is required prior to polishing, the Color and Material must be approved by Diamatic prior to being installed.

3. Where concrete control joints are required to be repaired prior to polishing, the Color and Material must be approved by Diamatic prior to being installed.

D. DIAMATIC COLORING SYSTEM

Drawing Key Symbol: "FC-02":

1. Where a coloring application is required DIAMATIC FLOR-COLOR™ LITHO-DYE Micronized water borne translucent dye shall be used.

2. The specified color shall be Petco/Diamatic "Petco Leather" for all areas to receive color.

E. FLOOR PROTECTION MATERIALS

1. To prevent minor damage from light trade traffic during build out of site, an approved Construction grade flooring protection material for the ULTRAFLOR DIAMATIC Polished Concrete System shall be installed.

PART 3 – EXECUTION

3.01 EXAMINATION

A. Inspect all concrete substrates and conditions under which the ULTRAFLOR® DIAMATIC Polished Concrete System to be installed.

B. Verify that all surfaces and site conditions are ready to receive work; document and correct conditions detrimental to timely and proper installation of work. Beginning work constitutes acceptance of substrate condition.

C. Verify that existing concrete has cured a minimum of 28 days and meets finish and surface profile requirements in Division 03 Section “Cast-In-Place Concrete,” before installing the ULTRAFLOR DIAMATIC Polished Concrete System.

D. Conduct pre-installation conference, per Section 1.3 F.

3.02 PREPARATION

A. DEMOLITION

1. Clear surfaces of any debris and construction materials.

2. If a generator is not provided by the Installer, power connections for the equipment of the ULTRAFLOR® DIAMATIC Polished Concrete System shall be provided and prepared by general contractor (if there is no power on-site power shall be provided by owner or general contractor with a generator).

3. Using the appropriate mechanical means and methods, remove existing floor coverings and coatings, including but not limited to carpet VCT, ceramic tile and grout, wood, epoxy/ urethane, quartz, mastic, adhesives, paint or other non-concrete floor materials. Adhesives must be removed to their penetrated depth.

    a. Note: The mechanical removal of resilient flooring, backing, lining felt, cutback and other adhesives can be hazardous, as certain materials may contain asbestos or crystalline silica. Do not sand, dry sweep, dry scrape, drill, saw, bead blast, grind, mechanically chip or pulverize these materials, as harmful dust may result. Inhalation of this dust may cause asbestosis or other bodily harm. Please consult the adhesive manufacturer, the Resilient Floor Covering Institute (www.rfci.com) and all applicable government agencies for rules and regulations concerning the handling and removal asbestos-containing materials.

    b. Prevent any damage to concrete slab surface during demolition from chipping hammers. Existing flooring should be removed mechanically with walk-behind or ride-on scraping equipment.

4. Prepare the existing concrete mechanically via scarification, shot blasting or other means, including diamond grinding by using aggressive, metal bonded DIAMATIC Polycrystalline diamonds (18/20 Grit or 30/40 Grit), to remove all contaminants and provide a sound concrete surface free of laitance, glaze, efflorescence, curing compounds, form-release agents, dust, dirt, grease, oil and other contaminants.

5. Chemical preparation of the substrate is NOT acceptable, including but not limited to acid etching, sweeping compounds, solvents and adhesive removers.

6. Suppress dust during demolition with the use of dust collection equipment to reduce or eliminate airborne concrete and substrate dust.

7. Where existing concrete is cracked, damaged, spalled, not within specified tolerance, or contains unacceptable levels of contaminates or moisture vapor, the Elite Installer of the ULTRAFLOR® DIAMATIC Polished Concrete System will evaluate conditions and proceed with appropriate ULTRAFLOR System components.

B. CONCRETE REPAIR

1. Cracks (Indoor/Outdoor)

a. Crack repair shall be completed after the first metal bond diamond grind and floor cleaning.

1. Cracks to be repaired in the concrete surface shall be crack chased out on a high-speed angle grinder to a minimum depth of 3/8” and made to eliminate any feathered edges.

2. The edges of the crack may be taped to eliminate possible staining from repair material.

3. Clean out any dust or debris and then apply the approved matching joint / crack color through Diamatic to fill the crack chased areas.

4. All crack filling material shall be overfilled.

b. Cracks smaller than 1/8” can be left as a part of the finished concrete, unless otherwise specified. Cracks shall be vacuumed to remove all loose debris and contaminates.

c. Cracks smaller than 1/8” can be filled with a approved material and color by Diamatic.

d. Cracks greater than 1/8” shall be filled with a approved material and color by Diamatic.

e. Cracks shall be overfilled and shall be subsequently ground down to the level of the concrete surface.

f. All crack filling material shall be installed and allowed to cure in strict accordance with the manufacturer’s recommendations before proceeding with the next step in the ULTRAFLOR process.

C. Spalls (Indoor/Outdoor)

1. Spall repair to be completed after the first metal bond diamond grind and floor cleaning, or prior to the beginning of the ULTRAFLOR process installation.

2. For polishing instructions, please refer to the individual ULTRAFLOR DIAMATIC specifications for each component.

3. Spalls up to 4” (10 cm) wide and 1” (2.5 cm) deep shall be filled with approved patching material by Diamatic. Allow a minimum of 16 to 24 hours drying time prior to beginning the ULTRAFLOR polishing process.

4. Spalls greater than 4” (10 cm) wide and 1” (2.5 cm) deep shall be filled with a approved material by Diamatic. Allow a minimum of 16 to 24 hours drying time prior to beginning the ULTRAFLOR polishing process.

D. Large Area Concrete Repair (Indoor)

1. Where large area concrete repair is needed, DIAMA-TOP shall be used in accordance with the information presented in the Technical Brochure. For polishing instructions, please refer to the DIAMA-TOP component specification.

E. Joint Fill (Indoor/Outdoor)

1. All joint fill materials shall be installed in accordance with the written recommendations approved by Diamatic.

2. For the best results all joints should be filled after the first pass of metal bonded diamonds, but before any further grinding continues.

3. If the joint filling will occur after the polishing process, apply DIAMATIC FLOR- SIL or DIAMATIC FLOR-HARD, tape, or soap to the edge of the concrete to keep the joint filler from staining the concrete.

4. Prior to filling joints, repair badly spalled joint edges per ACI 302.1R-04.

a. Grind the outside edges of all spalls to eliminate any feathered edges and make sure that the minimum depth of the spall is ½”. Mechanically prepare the joint area, and chip out any concrete less than ½” in depth.

5. Once the spalled areas are repaired, the entire joint and spall areas shall be filled with a approved Color & Material approved by Diamatic. Once cured, saw cut the joint to the original dimensions and then clean the joint.

6. Slightly overfill the joint with enough material to shave flush with the concrete. If the level of the joint filler sinks down, immediately add enough material to over fill the joint. Shave the joint filler flush with the concrete with a shaving tool with a sharp blade.

7. Remove all tape and/or soap from the surface around the joint.

8. Micro-Polish the surface with appropriate grit DIAMATIC FLOR-GRIT pad.

3.02 GLOSS ATTAINMENT (ASTM E430)

A. Gloss readings are not to be obtained through the use of any microfilming products, sealers, coatings, enhancers or as the result of resin transfer from resin bond abrasives.

B. Readings shall be taken not less than 10’ (3 m) on center in field areas and within 1’ (0.3 m) of floor area perimeters. In no case shall a reading be below 2% of specified minimum sheen:

1. Level B Sheen – Medium Gloss reading of 41 to 55. 800 grit diamond finish.

C. For instructions on achieving gloss levels, refer to the appropriate sub-section of section 3.04 below.

3.04 POLISHING

Use the grinding and polishing steps outlines below to achieve the desired level of cut and level of gloss. Please note that when grinding and polishing a cross hatch pattern should be used.

A. CUT LEVELS

a. LEVEL 2 CUT / a slightly deeper cut the exposes the fine aggregates and begins to expose the coarse aggregates. Also referred to as a salt and pepper finish.

B. CUT LEVEL 2 / Selected Finish

C. LEVEL B-Medium Gloss :

Drawing Key Symbol: “FC-09A” (Retail, Cat Visit Room and Hallway):

1. GRIND/POLISH #1: 60/80 Premium Grit Metal Bonded Diamonds by Diamatic.
2. Broom and vacuum the floor to remove all residual dust.
3. GRIND/POLISH #2: #1 Transitional Diamonds, Ceramic Bonded by Diamatic.
4. Broom and vacuum the floor to remove all residual dust.
5. GRIND/POLISH #3: 200 Grit Hybrid Resin Bonded Diamonds by Diamatic.
6. Broom and vacuum the floor to remove all residual dust.
7. GRIND/POLISH #4: 400 Resin Bonded Diamonds by Diamatic.
8. Broom and vacuum the floor completely to remove all residual dust. Using an auto-scrubber the floor may be wet cleaned to insure a completely clean surface before the FLOR COLOR™ application begins. Allow the surface to **dry completely** before beginning the FLOR COLOR™ application.

   NOTE: Where drawings call for no color to be applied, skip step 9 and proceed to step 10.

9. Apply the DIAMATIC FLOR-COLOR™ LITHO DYE at the rate of 400-500 square feet per gallon. The application shall be done according to the FLOR COLOR™. Technical Information Sheet. Allow the surface to dry completely before continuing, a minimum of 45 minutes to 2 hours depending on the ambient temperature.
10. Apply DIAMATIC FLOR-SIL™ per application instructions at a rate of 400 square feet per gallon (Actual rates may vary due to concrete porosity).
11. Allow DIAMATIC FLOR-SIL™ to dry before continuing on to the next step.
12. GRIND/POLISH #5: 800 Resin Bonded Diamonds by Diamatic.
13. Broom and vacuum the floor to remove all residual dust.
14. MICROPOLISH/BURNISH #1: FLOR-GRIT 800 Diamond Impregnated Pad by Diamatic.
15. Dry mop the floor clean to remove all debris.

16. Apply DIAMATIC FLOR-FINISH (High Gloss) per application instructions at a rate of 2,500 square feet per gallon (Actual rates may vary due to concrete porosity). (1st coat)

17. Allow to dry a minimum of 15 minutes.

18. MICROPOLISH/BURNISH #2: FLOR-GRIT 800 Diamond Impregnated Pad by Diamatic.

19. Dry mop the floor clean to remove all debris.

20. Apply DIAMATIC FLOR-FINISH (High Gloss) per application instructions at a rate of 3,000 square feet per gallon (Actual rates may vary due to concrete porosity).(2nd coat)

21. Allow to dry a minimum of 15 minutes.

22. MICROPOLISH/BURNISH #2: FLOR-GRIT 1500 Diamond Impregnated Pad by Diamatic.

23. Dry mop the floor clean to remove all debris.

24. Apply DIAMATIC FLOR-FINISH (High Gloss) per application instructions at a rate of 3,000 square feet per gallon (Actual rates may vary due to concrete porosity). (3rd coat)

25. Allow to dry a minimum of 15 minutes.

26. MICROPOLISH/BURNISH #2: FLOR-GRIT 1500 Diamond Impregnated Pad by Diamatic.

Drawing Key Symbol: “FC-0B” (Restrooms):

1. GRIND/POLISH #1: 60/80 Premium Grit Metal Bonded Diamonds by Diamatic.

2. Broom and vacuum the floor to remove all residual dust.

3. GRIND/POLISH #2: #1 Transitional Diamonds, Ceramic Bonded by Diamatic.

4. Broom and vacuum the floor to remove all residual dust.

5. GRIND/POLISH #3: 200 Grit Hybrid Resin Bonded Diamonds by Diamatic.

6. Broom and vacuum the floor to remove all residual dust.

7. GRIND/POLISH #4: 400 Resin Bonded Diamonds by Diamatic.

8. Broom and vacuum the floor completely to remove all residual dust. Using an auto-scrubber the floor may be wet cleaned to insure a completely clean surface before the FLOR COLOR™ application begins. Allow the surface to dry completely before beginning the FLOR COLOR™ application.
NOTE: Where drawings call for no color to be applied, skip step 9 and proceed to step 10.

9. Apply the DIAMATIC FLOR-COLOR™ LITHO DYE at the rate of 400-500 square feet per gallon. The application shall be done according to the FLOR COLOR™. Technical

Information Sheet. Allow the surface to dry completely before continuing, a minimum of 45 minutes to 2 hours depending on the ambient temperature.

10. Apply DIAMATIC FLOR-SIL™ per application instructions at a rate of 400 square feet per gallon (Actual rates may vary due to concrete porosity).

11. Allow DIAMATIC FLOR-SIL™ to dry before continuing on to the next step.

12. GRIND/POLISH #5: 800 Resin Bonded Diamonds by Diamatic.

13. Broom and vacuum the floor to remove all residual dust.

14. MICROPOLISH/BURNISH #1: FLOR-GRIT 800 Diamond Impregnated Pad by Diamatic.

15. Dry mop the floor clean to remove all debris.

16. Apply PolyAspartic Clear Top-Coat with ¼" NAP ROLLER (Lint Free or MoHair)

3.05 EDGES

A. Where desired, polished edge work of all areas shall be done with a 5" or 7" DIAMATIC Hand Held or Walk Behind polishing tool. The edge polishing process will match the corresponding steps outlined above for the desired gloss level, and each edge polishing step shall be done immediately after the matching main polishing step.

B. The edges and the main floor must be at the 400 grit level before the application of the FLOR-COLOR LITHO-DYE.

C. NOTE: All grinding and polishing completed with grinder/polisher equipment connected to a dust collector.

3.06 ACCEPTANCE

A. Remove all installation materials and any foreign materials resulting from the installation, from the site. Diamatic ELITE Installers will remove dust from polishing process from site as part of their scope.

B. Clean adjacent surfaces and materials.

C. Perform post job walk to ensure that the ULTRAFLOR Concrete System has been completed per the process spec.

D. Take pictures of final product for documentation and submittal. (Please e-mail photos to Todd.Parker@DiamaticUSA.com .

3.07 PROTECTION

A. Prevent any spills or stains from coming into contact with the floor. Clean any spills that may occur as quickly as possible.

B. Avoid moisture for 72 hours after installation. Don't permit standing water for this period or place any protective plastic sheeting, rubber matting, rugs or furniture that can prevent proper drying, thereby trapping moisture, which can result in a cloudy effect on the floor. Refer to product technical data sheet for complete details and requirements.

C. Protect the finished ULTRAFLOR DIAMATIC Polished Concrete System from continuing construction and build out as needed by installing a approved Protective Floor Covering.

1. The installation of the Protective Covering must be approved by the Installer and General Contractor of the ULTRAFLOR installation.

2. If the Protective Cover is damaged during use, then that section must be cut out and replaced to maintain the integrity of the protective covering.

3. The Protective Cover can be removed after build out is complete.

3.08 ONGOING MAINTENANCE FOR WARRANTY ENFORCEMENT

A. IMPORTANT NOTICE: Maintaining the ULTRAFLOR DIAMATIC Polished Concrete System and adherence to a recommended cleaning schedule will help the floor hold its mechanically polished gloss longer and greatly reduces the absorption of spilled liquids. The treated concrete floor is easily maintained by regular cleaning with the Maintenance/Post Cleaning procedure, accompanied by Micro-Polishing. Specific maintenance recommendations shall be provided by DMS or a certified ULTRAFLOR® installer.

B. Newly Installed ULTRAFLOR DIAMATIC Polished Concrete System

1. Restrict water cleaning for 72 hours after installation of ULTRAFLOR. Use only a dry mop to clean. Avoid putting mats or covering treated surface to allow coating to fully cure out. Light traffic after 24 hours. Refer to product technical data bulletin for complete details and requirements.

2. DO NOT USE cleaners that are acidic or that have citrus (de-limonene) or Butyl compounds. Although the ULTRAFLOR DIAMATIC Polished Concrete System is chemical and stain resistant, the application of these high acid cleaners may etch the surface and cause a residual stain. Regular maintenance and cleaning will help prolong surface shine.

C. Daily Maintenance and Cleaning

1. Once the system is fully cured out (min. 72 hours), routinely sweep, dry mop and wash with neutral pH cleaners or water using a mechanical auto scrubber with vacuum to pick up any residual standing water.

2. DO NOT USE cleaners that are acidic or that have citrus (de-limonene) or Butyl compounds. Although the ULTRAFLOR® DIAMATIC Polished Concrete System is chemical and stain resistant, the application of these high acid cleaners may etch the surface and cause a residual stain. Regular maintenance and cleaning will help prolong surface shine.

D. Monthly Cleaning or Quarterly Maintenance (dependent upon floor wear and traffic) Contact DMS (858 864 6313).

1. Follow the daily maintenance process.

2. Apply DIAMATIC FLOR-MAINTAINER diluted with parts water using a DIAMATIC CONDOR APPLICATOR or microfiber pad at a coverage rate of 8000 to 10000 square feet per gallon.

3. Burnish/Micro-Polish with DIAMATIC FLOR-GRIT diamond impregnated pad.

4. Dry mop to remove any debris.

5. DO NOT USE cleaners that are acidic or that have citrus (de-limonene) or Butyl compounds. Although the ULTRAFLOR® DIAMATIC Polished Concrete System is chemical and stain resistant, the application of these high acid cleaners may etch the surface and cause a residual stain. Regular maintenance and cleaning will help prolong surface shine.

E. ULTRAFLOR® Rejuvenation (recommended application every 1 to 2 years depending upon floor wear and traffic) Contact DMS for project specific recommendations. Contact information: Todd Parker @ (858) 864-6313

END OF SECTION

SECTION 04220

CONCRETE UNIT MASONRY

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY: The Contractor shall provide concrete masonry infill where shown on the drawings, as specified in this Section, and as needed for a complete installation.

1.03 RELATED WORK: Section 09900-Painting, for masonry stain specification.

1.04 SUBMITTAL: The Contractor shall submit Coarse and Fine Grout Mix Designs meeting ASTM C476, and Mortar Mix Design meeting ASTM C270, to the Architect prior to placement, per Section 01340-Submittals.

1.05 QUALITY ASSURANCE: The Testing Inspection Agency will provide concrete masonry Grout and Mortar Field Test Reports per Section 01410-Construction Quality Control Services.

PART 2 MATERIALS

2.01 CONCRETE MASONRY:

A. Concrete Unit Masonry shall be equal to products by Superlite Block, Tuscon, AZ (800-366-7877). Where shown on the drawings, provide normal or medium weight hollow load bearing concrete masonry units comply with ASTM C90, Type I/Moisture Controlled, 1800 psi Compressive Strength. Provide accessory shapes including, but not limited to corners and bond beams. All accessory shapes shall match the adjacent CMU texture.

1. Drawing Key Symbol “CMU-SP” (Split-Face): Standard Color Bone with accent color Harvest Brown.
2. Drawing Key Symbol “CMU-SM” (Smooth-Face): Standard Color Bone with accent color Harvest Brown.

B. Product Requirements:

1. Normal or medium weight hollow load bearing concrete masonry units per ASTM C90.
2. Type I/ Moisture-Controlled Units; 1800 psi minimum Compressive Strength.
3. Dimensions: Nominal 16” long by 8” high by the depth shown on the drawings.
4. Provide accessory shapes including, but not limited to corners and bond beams. All accessory shapes shall match the adjacent CMU texture.

C. Bond: Running bond with tooled joint.

2.02 MORTAR & GROUT:

A. General:

1. Portland Cement: Comply with ASTM C150, Type I.
2. Aggregate: Provide clean, sharp, graded aggregate free from deleterious amounts of dust, lumps, shale, alkali, surface coatings, organics, and meeting ASTM C144.
3. Admixtures: Do not use admixtures unless specifically approved in advance.

B. Mortar:

1. Lime: Provide hydrated lime complying with ASTM C207, or quicklime per ASTM C5.
2. Provide ONLY Type “M” or Type “S” mortar per ASTM C270. Type “N” mortar is NOT permitted.
3. Proportions: Masonry mortar shall be proportioned per ASTM C270-89.
4. Minimum: Compressive Strength: 2000 psi at 28 days.

C. Grout:

1. Provide grout in accordance with ASTM C476.
2. Fine and Coarse aggregate grout shall be proportioned per ASTM C476-83.
3. Minimum Compressive Strength: 3000 psi at 28 days.
4. Fine Grout: Provide where the grout space is less than 3” in its least dimension.
5. Coarse Grout: Provide in all reinforced masonry cells, masonry cells adjacent to reinforced cells requiring grout, and bond beams.

D. Non-shrink Grout: Per Section 03300-Cast-In-Place Concrete.

2.03 REINFORCEMENT & ACCESSORIES:

A. Reinforcing: Contractor shall provide bars per ASTM A615, Grade 60; with bending per ACI 318; provide Wire Reinforcement per ASTM A82.

B. Truss-type Wall Reinforcement: The Contractor shall provide D/A 310 Truss by Dur-O-Wal Inc., Arlington Heights IL (708-577-6400).

1. Acceptable Alternative: Lox All Truss-Mesh, by Hohmann & Barnard Inc., Hauppage NY (516-234-0600).
2. Other product subject to Architect’s approval per Section 01340-Submittals.

2.04 CONTROL JOINTS:

A. The Contractor shall provide Dur-O-Wal Rapid Rubber Control Joint or Rapid Poly-Joint D/A 2006 / 2007, by Dur-O-Wal Inc., Arlington Heights IL (708-577-6400).

1. Acceptable Alternative: Hohmann & Barnard #QS rubber control joint or #VS control joint, by Hohmann & Barnard Inc., Hauppage NY (516-234-0600).
2. Other product subject to approval of Product Substitution per Section 01340-Submittals.

2.05 CMU INFILL INSULATION: Provide loose perlite fill in all concrete masonry cells of new infill construction, that are not otherwise grouted solid for structural purposes. *(Remodel, infill at insulated shell, if applicable)*

2.06 WALL FLASHING: The Contractor shall provide “Perm-A-Barrier”, 40 mil rubberized asphalt and polyethylene sheet wall flashing, by W.R. Grace Masonry Products. PVC wall flashing is NOT permitted.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this Section will be provided; shall correct conditions detrimental to the timely and proper completion of the work; and shall NOT proceed until unsatisfactory conditions are corrected.

3.02 ENVIRONMENTAL CONDITIONS: Do not place masonry units when air temperature is below 40 degrees F. Protect masonry during construction from direct exposure to wind and sun when erected in ambient air temperature of 99 degrees F (shade), and less than 50% relative humidity.

3.03 INSTALLATION:

A. Wall Flashings: Install at base of walls, over lintels, stepped flashing to follow roof slope at parapets, other locations. Form end dams at horizontal flashing terminations to prevent water entry into the wall cavity. Provide manufacturer-approved sealant at overlaps forming end dams.

B. Weep Holes: Provide weep holes at 32” o.c. at all cavity walls, above spandrel flashings, and above flashings over openings. Weep holes shall be maintained with a cotton wick.

C. Control Joints: Provide concrete masonry control joints where shown on the drawings, but at no more than 30’-0” intervals.

D. Cover top of CMU walls at the end of each day’s work using waterproof, reinforced paper or canvas weighted down into position.

END OF SECTION

SECTION 05120

STRUCTURAL STEEL

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY: The Contractor shall provide structural steel and accessories as shown on the drawings, as specified in this section, and as needed for a complete installation.

1.03 SUBMITTAL: The Contractor shall submit sufficient technical data, and complete shop drawings showing all members, spans, connections and similar data to demonstrate compliance per Section 01340- Submittals.

1.04 QUALITY ASSURANCE:

A. The steel structure is a non-self-supporting steel frame, and is dependent upon diaphragm action of the metal roof deck and attachment to the masonry walls for stability and resistance to wind and seismic forces. The Contractor shall provide all means and methods of temporary support necessary for stability and resistance to wind and seismic forces, until the steel frame, metal roof deck and all exterior walls are completely installed and are capable of providing support.

B. The Contractor shall provide welding with electric arc process, in accordance with AWS "Code for Arc and Gas Welding in Building Construction" and all local codes having jurisdiction.

C. In addition to complying with pertinent codes and regulations, all structural steel work shall comply with AISC "Specifications for Design, Fabrication, and Erection of Structural Steel for Building", AISC "Code of Standard Practice", and "Specification for Structural Joints Using ASTM A325 or A490 Bolts".

D. Structural Steel Inspection: Structural steel inspection shall be provided per Section 01410- Construction Quality Control Services.

1.05 DELIVERY, STORAGE, AND HANDLING: Deliver materials to the jobsite property marked to identify the location for which they are intended. Store to maintain identification and prevent damage, off the ground, using pallets or other supports, and to permit easy access for inspection.

1.06 WARRANTY: The Contractor shall include a copy of the Steel Erector/ Installer's Warranty for all work provided under the general contract for construction for a term of 1 year after the Date of Substantial Completion, in the Building Maintenance Manuals, submitted per Section 01700- Contract Closeout.

PART 2 PRODUCTS

2.01 MATERIALS:

A. Provide the following where called for on the drawings or otherwise required.

1. Rolled steel shapes, plates and bars: ASTM A36.
2. Cold formed steel plates, etc.: ASTM A283, Grade C.
3. Steel Tubing: ASTM A500/A501, Grade B (Fb = 27,700 psi; E = 24.000, 000 psi).
4. Steel Pipe: ASTM A53, Type E or S, Grade B.

5. Machine Bolts: ASTM A307, Grade A, and ANSI B18.2, square and/or hexagonal heads.
6. High Strength Bolts: ASTM A325, Type F.
7. Arc Welding Electrodes: ASTM A233, E70XX series.

2.02 FABRICATION:

A. Shop fabrication and assembly: Fabricate items of structural steel per AISC specifications and as shown on the approved shop drawings. Provide finish surfaces of members exposed in the final structure free from marking, burrs, and other defects.

B. Assemble and weld built-up sections by methods that will produce true alignment of axes without warp. Do NOT flame cut holes or enlarge holes by burning.

C. Thoroughly clean structural steel, removing all loose mill scale, grease, dirt, and foreign matter by scraping or sandblasting. Apply the specified paint to dry film thickness not less than 1.5 mils. Do not paint contact surfaces of high strength bolted members.

2.03 GALVANIZING: Provide per ASTM A123, minimum 1.25 oz. per square foot. Galvanize steel items embedded in concrete slabs and/or as noted on drawings.

2.04 OTHER MATERIALS: Provide other materials, not specifically described but required for a complete and proper installation, as selected by the contractor, subject to approval.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this section will be provided, shall correct conditions detrimental to the timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

3.02 ERECTION:

A. Surveys:

1. Establish permanent benchmarks necessary for accurate erection of structural steel.
2. Check elevations of concrete surfaces and locations of anchor bolts and similar items, before erection proceeds.

B. Temporary shoring and bracing:

1. Provide temporary shoring and bracing members with connections of sufficient strength to bear imposed loads.
2. Provide temporary guylines to achieve proper alignment of the structure for erection.
3. Remove temporary connections and members when permanent members are in place and final connections are made.

C. Anchor Bolts:

1. Furnish and install anchor bolts and other connections required for securing structural steel to adjacent work.
2. Provide templates and other devices as needed for presetting bolts and other anchors to accurate locations.

D. Setting bases and bearing plates:

1. Clean concrete bearing surfaces free from bond reducing materials, and then roughen to improve bond to surface.
2. Clean the bottom surface of base and bearing plates.
3. Set loose and attached base plates and bearing plates for structural members in wedges or other adjusting devices.
4. Tighten anchor bolts after supported members have been positioned and plumbed.
5. Do not remove wedge or shims but, if protruding, cut off flush with the edge of the base or bearing plate prior to packing with grout.
6. Pack non-shrink grout solidly between bearing surfaces and bases or plates to assure that no voids remain. Use non-shrink grout per Section 03300- Cast-In-Place Concrete.
7. Finish exposed surfaces, protect installed materials, and allow to cure in strict compliance with the manufacturer's recommendations.

E. Field Assembly:

1. Set structural frames accurately to the lines and elevations indicated.
2. Align and adjust the members forming part of a complete frame or structure before fastening permanently.
3. Clean the bearing surfaces and other surfaces that will be in permanent contact before assembly.
4. Adjust as required to compensate for discrepancies in elevation and alignment.
5. Level and plumb individual members of the structure within specified AISC tolerances.
6. Establish required leveling and plumbing measurements on the mean operating temperature of the structure, making allowances for the difference between temperature at time of erection and the mean temperature at which the structure will be when completed and in service.
7. Comply with AISC specifications for bearing, adequacy of temporary connections, alignment, and removal of paint on surfaces adjacent to welds.

F. Gas Cutting: Do not use gas cutting torches for correcting fabricating errors in structural framing, except on secondary members where prior approval is obtained. When gas cutting is permitted, finish the gas cut section to a sheared acceptable appearance.

3.03 PAINTING:

A. Secure all required approvals of welding and connections prior to application of field primer.

B. Prime coat structural steel and fittings, except galvanized items, with light gray primer on all exposed members.

1. Prepare surfaces by removing loose rust, loose mill scale, spatter, slag and flux deposits. Clean steel in accordance with Steel Structures Painting Council SP-3, "Power Tool Cleaning".
2. After erection, clean spots and surfaces where paint has been removed, damaged, or burned off, field bolts and other field connections not concealed in the finished work.
3. Remove dirt, oil and grease.
4. Apply a spot coat of the approved primer.
5. Do not apply paint to wet, damp, oily, or improperly prepared surfaces.
6. Spray apply the primer, filling joints and corners, and covering surfaces with a smooth unbroken film of at least 1.5 dry mils thickness.

END OF SECTION

SECTION 05200

METAL JOISTS

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY: The Contractor shall provide Metal Joists as shown on the drawings, as specified in this Section, and as needed for a complete installation.

1.03 SUBMITTALS: The Contractor shall submit sufficient technical data to demonstrate compliance with the specified requirements, and complete shop drawings showing all members, spans, connections and similar data, per Section 01340- Submittals.

1.04 QUALITY ASSURANCE:

A. Provide welding with electric arc process and in accordance with AWS “Code for Arc and Gas Welding in Building Construction”.

B. In addition to complying with pertinent codes and regulations, all work shall comply with AISC “Specifications for Design, Fabrication and Erection of Structural Steel for Building”, “Code of Standard Practice”, AISC “Specification for Structural Joints Using ASTM A325 or A490 Bolts”, and “Standard Load Tables” and pertinent specifications of the Steel Joist Institute.

C. Welding shall comply with the provisions of Section 05120- Structural Steel.

1.05 DELIVERY AND STORAGE:

A. Deliver materials to the jobsite properly marked to identify the intended location.

B. Use markings corresponding to markings shown on the approved shop drawings.

C. Store in a manner to maintain identification and prevent damage, off the ground, using pallets or other supports, and to permit easy access for inspection.

PART 2 PRODUCTS

2.01 MATERIALS: Provide steel joists and accessories system in the dimensions and arrangements shown on the drawings.

2.02 FABRICATION:

A. Fabricate the steel joist system in strict accordance with the approved shop drawings and the requirements of governmental agencies having jurisdiction, and in accordance with the following, where applicable:

1. Verify dimensions prior to fabrication.
2. Provide top and bottom joist chord extensions where indicated on the drawings or otherwise required.
3. Camber joists to accommodate the dead load deflection.

B. Primer: Except where galvanizing may be called for on the drawings or the approved shop drawings, shop-prime the steel joist system using one coat of a light gray primer on all exposed members meeting Fed. Spec. TT-P-636.

2.03 OTHER MATERIALS: Provide other materials, not specifically described but required for a complete and proper installation.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this Section will be provided, shall correct conditions detrimental to the timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

3.02 INSTALLATION:

A. Coordinate as required with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this section.

B. Install the work of this section in strict accordance with the original design, the approved shop drawings, pertinent requirements of governmental agencies having jurisdiction, and the manufacturer's recommended and approved installation procedures.

END OF SECTION

SECTION 05300

METAL DECKING

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY: The Contractor shall provide Metal Decking as shown on the drawings, as specified in this Section, and as needed for a complete installation.

1.03 SUBMITTALS: The Contractor shall submit shop drawings and sufficient technical data showing the layout of decking, with details of materials, gauges, accessories, openings, finishes, welds, and other pertinent data per Section 01340- Submittals.

1.04 QUALITY ASSURANCE: All metal deck shall be in accordance with the pertinent Steel Deck Institute specification and Factory Mutual-approved.

1.05 DELIVERY, STORAGE & HANDLING: In compliance with Section 05120- Structural Steel.

1.06 METAL DECK INSPECTION FOR MECHANICALLY FASTENED METAL DECK:

A. The Contractor shall provide the Metal Deck Fastening Inspection as specified in Section 01410- Construction Quality Control Services.

B. Letter of Certification: The Contractor shall send the Engineer's Letter of Certification to the PETCO Project Manager, and include copies of the letter in the Building Maintenance Manuals. Refer to Section 01340- Submittals and Section 01700- Contract Closeout.

1.07 METAL DECK INSPECTION FOR WELDED METAL DECK FASTENING:

A. If welding is required or indicated on the drawings, then the Contractor shall schedule, pay for and provide a welding inspection and Letter of Certification by a Licensed Professional Engineer.

B. Letter of Certification: The Contractor shall send the Engineer's Letter of Certification to the PETCO Project Manager, and include copies of the letter in the Building Maintenance Manuals. Refer to Section 01340- Submittals and Section 01700- Contract Closeout.

PART 2 PRODUCTS

2.01 METAL DECK UNITS:

A. Design metal deck units in accordance with AISC "Specification for Design of Light Gage Cold Formed Steel Structural Members", with appropriate steel fiber stress and maximum live load deflection limitations.

B. Provide pattern as shown on the drawings, galvanized in accordance with ASTM A446, Grade A, and ASTM A525, designation G60, with properties, shape, pattern, and loading capacities in accordance with the Steel Deck Institute and Factory Mutual.

C. Primer Color: Shop-prime the exposed side of metal decking using one coat of Federal Specification TT-P-636, Color White primer.

2.02 ACCESSORIES:

A. Provide metal deck fasteners as detailed or specified on the drawings.

B. Provide accessories specifically designed to be used with metal decking and the uses shown on the drawings, and provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor, subject to approval.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this Section will be provided, shall correct conditions detrimental to the timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

3.02 INSTALLATION:

A. Prior to start of installation, verify that beams are in proper alignment and that surfaces are clean for welding. Place each unit on the supporting steel framework; and adjust to final position prior to permanent welding. Align each unit and fasten into final location in accordance with the manufacturer's and SDI's recommended installation procedures as approved.

B. Install all accessory items in accordance with the manufacturer's recommended installation procedures as approved.

3.03 TOUCH UP PAINTING: Upon completion of installation, and as a condition of acceptance, the Contractor shall visually inspect and identify surfaces where finish was damaged, and touchup paint galvanized surfaces with zinc-rich primer or other galvanized repair paint approved for the purpose, and shall additionally provide touchup paint at adjacent damaged surfaces as required.

END OF SECTION

SECTION 05400

COLD-FORMED METAL FRAMING

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY: The Contractor shall provide cold-formed metal framing and accessories at exterior and interior metal framed assemblies where shown on the drawings, as specified in this Section, and as needed for a complete and proper installation.

1.03 RELATED WORK: Section 09260- Gypsum Wallboard & Partition System.

1.04 SUBMITTAL: No product submittal is required for the work of this Section IF provided per the construction documents. Any Request for Product Substitution must be submitted per Section 01340- Submittals.

PART 2 PRODUCTS

2.01 All framing stud and joist members shall be of the type, size and gauge shown on the drawings, and shall be equal to products manufactured by Dietrich Industries Inc., Pittsburgh PA (412/ 281-2805).

2.02 Framing studs and joists shall be formed from steel conforming to ASTM A446; Grade D for 14 GA and 16 GA; Grade B for 18 GA, 20 GA and 25 GA; and galvanized per ASTM A 653. Structural calculations should be prepared utilizing one of the following:

SQ	Grade 22	minimum yield strength 33
SQ	Grade 40	minimum yield strength 40
SQ	Grade 50	minimum yield strength 50

2.03 All galvanized 18, 20 and 25 gauge framing studs and joists, and all galvanized track, bridging, end closures and accessories shall be formed from steel conforming to ASTM A653, SQ Grade 33, with a minimum yield of 33,000 psi.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this section will be provided, shall correct conditions detrimental to the timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

3.02 ERECTION:

A. Tracks shall be securely anchored to the supporting structure. Axially loaded studs shall be installed in a manner which will assure that ends of the studs are positioned in the track with a minimum gap, prior to stud and track attachment.

B. At track butt joints, abutting pieces of track shall be securely anchored to a common structural element, or they shall be butt-welded or spliced together.

C. Studs shall be plumbed, aligned and securely attached to the flanges or webs of both upper and lower tracks.

D. Jack studs or cripples shall be installed below windowsills, above window and door heads, at free standing stair rails, and elsewhere to furnish support, and shall be securely attached to supporting members.

E. Wall stud bridging shall be attached in a manner to prevent stud rotation. Bridging rows shall be spaced for walls up to 10’-0” height, with one row at mid-height; and for walls exceeding 10’-0” height, with bridging rows spaced not to exceed 5’-0” on-center.

F. Provisions for structure vertical movement shall be provided where indicated on the drawings using a manufactured Vertical Slide Clip system or other means per the manufacturer’s recommendations.

3.03 ERECTION (AXIAL LOAD-BEARING):

A. Tracks shall be securely anchored to the supporting structure.

B. Complete uniform and level bearing support shall be provided for the bottom track. At track butt joints, abutting pieces of track shall be securely anchored to a common structural element, or they shall be butt welded or spliced together.

C. Jack studs shall be installed bellow windowsills, above window and door heads and at freestanding stair rails, and shall be securely attached to supporting members.

D. Wall stud bridging shall be installed in a manner to provide resistance to both minor axis bending and rotation. Bridging rows shall be equally spaced not to exceed 5’-0” on-center for wind loading only, or 4’-0” on-center for axial loading.

3.04 ERECTION OF COLD-FORMED STEEL JOISTS:

A. Joists shall be located directly over bearing studs or a load distribution member shall be provided at the top track.

B. Provide web stiffeners at reaction points; and joist bridging, where indicated on the drawings.

C. Provide an additional joist under parallel partitions when the partition length exceeds one-half the joist span and around all floor and roof openings that interrupt one or more spanning members unless otherwise noted.

D. End blocking shall be provided where joist ends are not otherwise restrained from rotation.

END OF SECTION

SECTION 05500

METAL FABRICATIONS

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY:

A. The Contractor shall provide miscellaneous metal work as shown on the drawings, as specified in this Section, and as needed for a complete and proper installation, such as:

1. Anchor bolts, washers and nuts.
2. Angle frames for rooftop mounted equipment openings, including but not necessarily limited to exhaust fans, roof hatch, and rooftop HVAC units (part of building shell construction).
3. Angle and/or channel jambs at masonry openings (part of building shell construction).
4. Banner Anchors at building exterior (Front Elevation) wall and top of parapet coping.
5. Bearing Plates.
6. Bollards with Chain.
7. Door Lintels and other masonry opening lintels (part of building shell construction).
8. Exterior Metal Stairs (part of building shell construction).
9. Hitching Rings.
10. Ladder to roof hatch.
11. Leveling Plates.
12. Loading Dock Leveler and Dock Bumper angle (part of building shell construction).
13. Metal Pipe Railings.
14. Rainwater Conductor Guards (part of building shell construction).
15. Rodent Barrier Hardware Cloth.
16. Security Mesh at exterior metal-framed walls, exterior soffits or interior demising partitions.
17. Concealed Tube Steel Structural Columns at aluminum storefront (part of building shell construction).
18. Unistrut and all-thread support rods for suspended plumbing, mechanical and electrical equipment and other assemblies.
19. Additional miscellaneous steel items that may not be listed but are required for this project; refer to the drawings.

1.03 SUBMITTAL: No submittal is required for the work of this Section.

PART 2 PRODUCTS

2.01 MATERIALS:

A. Comply with following standards, as pertinent.

1. Rolled steel plates, shapes, and bars: ASTM A36.
2. Cold formed steel plates, etc.: ASTM A283, Grade C.
3. Steel tubing: ASTM A500/A501, Grade B. (Fb = 27,700 psi, E = 24,000,000 psi).
4. Steel bars and bar-size shapes: ASTM A306, Grade 65 or ASTM A36.
5. Cold finished steel bars: ASTM A108.
6. Cold rolled carbon steel sheets: ASTM A336.
7. Galvanized carbon steel sheets: ASTM A526, with ASTM A525, G90 zinc coating.
8. Stainless steel sheets: AISI Type 302 or 304, 24 gauge, with number 4 finish.
9. Gray iron casting: ASTM A47.
10. Malleable iron castings: ASTM A48, Class 10.

11. Steel pipe: ASTM A53, Type E or S, Grade B.
12. Concrete inserts: Threaded or wedge-type galvanized malleable cast iron per ASTM A27. Required bolts, shims and washers, hot-dip galvanized per ASTM A153.

2.02 FASTENERS:

A. General: For exterior use and where built into exterior walls, provide zinc-coated fasteners; provide fasteners of type, grade, and class required for the particular use.

B. Comply with the following standards as applicable.

1. Bolts and nuts: provide hexagon-head regular type, ASTM A307, Grade A.
2. Lag Bolts: provide square head type complying with Fed. Spec. FF-B-561.
3. Machine Screws: provide cadmium plated steel type, Fed. Spec. FF-S-111.
4. Washers: Plain Washers to be Fed. Spec. FF-W-92, round, carbon steel; Lock Washers to be Fed. Spec. FF-W-84, helical spring type carbon steel.
5. Toggle Bolts: provide type, class, and style needed, Fed. Spec. FF-B-588.
6. Anchorage Devices: provide expansion shield, Fed. Spec. FF-S-325.

2.03 BANNER ANCHORS AT BUILDING EXTERIOR (FRONT ELEVATION):

A. Coping-Mounted Banner Anchors: The Contractor shall furnish and install banner anchors on the building shell's parapet coping, where shown and as detailed on the drawings, consisting of stainless steel components, by McMaster-Carr Supply Company, Los Angeles CA (562-692-5911; www.mcmaster.com) and supplementary sealant and roofing membrane components, as detailed. Each Coping-Mounted Banner Anchor assembly consists of the following parts:

Part of Assembly	**Thread/ Remarks**	**McMaster-Carr Part No.**
Headless Hanger Screw	3/8"-16 Thread, 1 per banner anchor	90915A636 (18-8 Stainless Steel)
Stainless Steel Fender Washer, 1.5" OD	For 3/8" screw size, 1 per banner anchor	90313A115 (18-8 Stainless Steel)
Rubber Washer, 5/8" OD	For 3/8" screw size, I per banner anchor	90130A031
Eye Nut, Oval Eye	3/8" - 16 Thread, 1 per banner anchor	3061T25 (316 Stainless Steel)
Roof Membrane Patch and roofing sealant	See Detail	

B. Wall-Mounted Banner Anchors: The Contractor shall furnish and install recessed banner anchors on the building exterior wall, where shown and as detailed on the drawings. Provide one (1) of either Model #14-501, Model #14-500, or Model #14-530, Cup Anchor with cross bar or eye (varies according to the model ordered), by Recreonics Inc., Louisville KY (800-428-3254; website www.recreonics.com) at each Wall-Mounted Banner Anchor location.

1. Installation: As detailed on the drawings, permanently install the Cup Anchor in a core-drilled hole in the exterior masonry wall, so that the face of the Cup Anchor is aligned with the face of building shell masonry.
2. Grout the void space by using either non-shrink grout colored the same as the masonry, or by using an injection epoxy system equal to HIT HY20 Injection Adhesive Anchoring System for Masonry Construction, by Hilti, Tulsa OK (800-879-8000). Mask the face of the Cup Anchor during grouting work.

2.04 BOLLARDS:

A. Interior Bollards shall be 4-1/2" diameter, 42" height, Schedule 10 steel pipe bollards with powder-coated finish marked with black-and-yellow striped tape, and with 1/4" thick, slotted base plate to receive four mounting anchors, equal to Part No. 57895T47, by McMaster-Carr Supply Company, Los Angeles CA (562-692-5911; www.mcmaster.com).

1. Chain: Provide length of chain adequate to span the distance between interior bollards' chain eye anchors with no more than approximately 4" sag, equal to McMaster-Carr Part No. 3594T49, zinc plated, ungraded steel straight link chain, material diameter 0.25", inside link width 0.45", inside link length 1.55", approximately 7 links per foot.
2. Chain Eye Anchor: Provide one Chain Eye, field welded to each side of an Interior Bollard that is shown on the drawings to receive Chain. The Chain Eye Anchor should be located on all Bollards intended to receive chain, at an equal, 38" height above the floor.
3. Connector: Provide two (2) threaded connectors, one at each end of a section of chain, equal to McMaster-Carr Part No. 3711T23 "Oval with Large Opening", zinc plated steel.
4. Mounting Anchors: Secure each Interior Bollard to the concrete floor slab with four (4) epoxy grouted anchor bolts or expansion anchors, sized for 3" minimum anchorage depth.

B. Exterior Imbed Bollards: Provide Galvanized Schedule 40 pipe bollards, filled with concrete and provided with finished concrete cap, and anchored in concrete footings as detailed on the drawings.

2.05 NOT USED

2.06 HITCHING RINGS (at Pet Grooming Areas):

A. The Contractor shall furnish and install Hitching Rings, where shown on the drawings, consisting of stainless steel components, by McMaster-Carr Supply Company, Los Angeles CA (562-692-5911; www.mcmaster.com). Each Hitching Ring Assembly consists of the following parts:

Part of Assembly	**McMaster-Carr Part No.**	**Remarks**
Tie-Down Ring	McMaster Carr Part No. 31665T22 316 Stainless Steel	1 per hitching ring
Screws, No. 6 x 2"	McMaster Carr Part No. 90315A442 18-8 Stainless Steel	4 per hitching ring

B. Description: Base Plate 1-3/8" x 1-9/16"; Base Plate Ring Diameter 3/4"; Large Ring Diameter 1-5/8".

C. Secure each Hitching Ring to concealed wood blocking or sheet metal reinforcing with stainless steel fasteners where shown on the drawings.

2.07 METAL LADDER AND RAILINGS:

A. Fabricate ladder as shown on drawings, in accordance with local applicable construction codes, and in accordance with ANSI 14.3 "Safety Requirements for Fixed Ladders".

B. Ladder shall support a live load of 100 lb / s.f. with stringer deflection not exceeding L/360 of span; railings and attachments shall resist a lateral force of 300 lbs. at any point.

C. Prime paint all components. Finish paint ladder, as indicated on the drawings and per Section 09900-Painting.

2.08 RODENT BARRIER HARDWARE CLOTH:

A. Provide 4 x 4 mesh (1/4" x 1/4"), 23 gauge, galvanized steel, welded wire hardware cloth, in 48" rolls, by TWP Inc., Berkeley CA (800-227-1570; www.twpinc.com), Midwest Air Technologies Inc. (800-628-8815; www.midwest-air.com).

1. Alternative Supplier: Wire Cloth Part No. 9217T46 by McMaster-Carr Supply Company, Los Angeles CA (562-692-5911; www.mcmaster.com)

B. Secure Rodent Barrier Hardware Cloth, concealed behind the subsequently installed gypsum wallboard finish, to the bottom track and face of framing of all Petco Tenant Space perimeter partitions that are common with the inside surface of the tenant space building shell's exterior walls, and secure to the bottom track and face of framing of all tenant separation partitions.

2.09 SECURITY MESH: *(Architect: Check shell design and PETCO PM if security mesh is warranted)*

A. Provide carbon steel security mesh equal to ASM #1.0-16F (1.090" SWD x 2.56" LWD center to center of bond), with overall 0.48" thickness, 77% open area, maximum carbon content 0.15%, as manufactured by AMICO, Birmingham AL (800-366-2642). Conventional higher carbon expanded metal mesh, not manufactured specifically for security purposes, is NOT permitted for this use.

1. Provide security mesh sections installed in a continuous, staggered pattern to a minimum height of at least 8 feet above the finish floor, or to an additional height if so specified on the drawings.
2. Install Security Mesh directly to the metal stud demising partition framing on the PETCO side of the partition exterior side of the exterior wall metal framing.
3. In the event that an existing finished demising partition is scheduled to receive a furred or other supplementary finish on the PETCO-side of the partition, then the security mesh shall be installed on the existing partition finish, with anchorage through existing finish (-es) to the wall framing.

2.10 TRASH ENCLOSURE, GATE AND HARDWARE:

A. Provide a trash enclosure as detailed on the drawings, with galvanized, heavy duty gate hardware equal to the following:

1. Gate Hinges: Provide two pair of full surface plain bearing heavy weight Welding Hinges, equal to #1850 as manufactured by Hager, St. Louis MO (800-325-9995).
2. Cane Bolt: Provide two 18" length x 1/2" diameter Cane Bolts, equal to Hager #1408.

2.11 SHOP PAINT: Provide primer meeting Fed. Spec. TT-P-636. Prime paint components, Color Primer Red. For repair of galvanizing, use a high zinc dust content paint complying with MIL-P-21035.

2.12 GALVANIZING: Galvanize items to be embedded in concrete slabs and as noted on drawings, in accordance with ASTM A123, minimum 1.25 oz/ sq. ft.

2.13 FABRICATION: Fabricate with accurate angles and surfaces that are true to the required lines and levels, grinding exposed welds smooth and flush, forming exposed connections with hairline joints and using concealed fasteners wherever possible. Prior to shop painting or priming, properly clean metal surfaces as required for the applied finish and for the proposed use of the item. On surfaces inaccessible for painting after assembly or erection, apply two primer coats.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this section will be provided, shall correct conditions detrimental to the timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

3.02 INSTALLATION: Set work accurately and anchored firmly into position, plumb and level. Work embedded in concrete shall be treated as specified, and set with concrete patching material as specified in Section 03300-Cast-In-Place Concrete. Where field welding is required, comply with AWS recommended procedures for shielded metal-arc welding for appearance and quality of weld and for methods to be used in correcting welding work. Grind exposed welds smooth, and touch-up shop prime coats. Do not cut, weld, or abrade surfaces which have been hot-dip galvanized after fabrication and which are intended for bolted or screwed field connections. Clean and re-prime field welds, bolted connectors, and abraded areas of shop priming or finish material.

END OF SECTION

SECTION 06200

ROUGH & FINISH CARPENTRY

PART 1 GENERAL

1.01 NOT USED

1.02 ROUGH CARPENTRY SUMMARY:

A. Rough Carpentry: The Contractor shall provide carpentry work including materials and fasteners as needed for a complete and proper installation, including but not limited to:

1. Concealed mounted blocking as may be required for wall-mounted items that cannot be supported by metal strapping.
2. Surface mounted plywood at the Pre-Sales room.
3. Wood blocking to shim level at all HVAC rooftop unit roof curbs.
4. Plywood wainscot at the Pre-Sales room.
5. Other wood assemblies (interior and/or exterior) as may be indicated on the drawings.

1.03 FINISH CARPENTRY SUMMARY:

A. Base and Wall Cabinets: The Contractor shall provide the following:

1. Break Room: Base Cabinets and Wall Cabinets.
2. Cage Room: Storage Cabinets and Wall Cabinets.
3. Wellness Room: Wall Cabinet.

B. Plastic Laminate Countertops: The Contractor shall provide Plastic Laminate Countertops on particleboard underlay.

1. Break Room.
2. Office.
3. Other locations if indicated on the drawings.

C. Plastic Laminate Accessory Items: The Contractor shall provide Plastic Laminate Accessory Items on particleboard underlay:

1. Coat Rack at Break Room.
2. Clipboard Rack at Office, located above countertop, under shelf.
3. Shelves with support brackets at Office.
4. Shelf at Work Room.

1.04 SUBMITTAL: The Contractor shall submit cabinet shop drawings and product data in sufficient detail to demonstrate compliance with the requirements of this Section.

PART 2 PRODUCTS

2.01 LUMBER AND PLYWOOD:

A. Rough Carpentry (non-structural blocking) shall be Hem-Fir or equal, No. 2 grade or better. Plywood at Pre-Sales shall be 5/8” thick Sanded Plywood Panel, APA Interior B-D.

B. Pressure Treated Plywood (where fire retardant wood is required by code or jurisdiction): Provide fire retardant treated plywood, with flame spread rating of 25 or less when tested in

accordance with ASTM E-84, equal to “Exterior Fire-X” treatment, by Hoover Treated Wood Products Inc., Thompson GA (706-595-5058).

C. Fire Retardant Treated Wood and Plywood (where fire retardant wood is required by code or jurisdiction): Provide AWPA Type A fire retardant treatment, flame spread rating of 25 or less when tested in accordance with ASTM E-84, equal to “Pyro-Guard” treatment, by Hoover Treated Wood Products Inc.

1. Alternative Applied Fire Retardant Coating: Provide spray or immersed Fire Retardant Coating achieving a Class “B” rating, equal to Flame Control Coating System, No. 129 Varnish Base Coat and No. 130 Varnish Overcoat Low Sheen, by Flame Control Coatings Inc., Niagara Falls NY (716-282-1399).

a. Fire Hazard Classification: Tested per ASTM E-84.
b. Acceptable Alternate: Provide Flame Stop I-DS, pyrolitic fire retardant penetrant, by Flame Stop Inc., Ft. Worth TX (877-397-7867; www.flamestop.com).

1) Class A one-coat system, dries clear, applied by spray, brush or roll application, or immersion, on clean previously stained wood as scheduled.
2) Fire Hazard Classification: Tested per ASTM-E-84; NFPA 255; UL 723.

2.02 BASE AND WALL CABINETS:

A. Provide AWI Custom quality grade base and wall cabinets in the dimensions and arrangement shown on the drawings.

1. Break Room, Cage Room, Wellness Room:

a. Drawing Key Symbol “PL-04” On vertical surfaces color shall be Formica color #961-58, “Fog”. Drawing, Key Symbol “PL-05” On horizontal surfaces shall be Formica color #8824-58 “White Drops” Matte Finish, grain runs long. No product substitutions.

B. Cabinet and Drawer Hardware:

1. Cabinet Door Hinges: equal to Blum 125 degree, self-closing.
2. Drawer slides: equal to Blum Metabox-320 Series.
3. Shelf Pins: 8mm plated metal, with holes spaced 32mm on centers.
4. Cabinet Door and Drawer Pulls: Contractor shall provide one Wire Pull, 4” wrought brass with chromium plated finish, equal to Ives #38, by HB Ives, Wallingford CT (800-525-0336) at each sliding drawer, and at each hinged cabinet door.

2.03 PLASTIC LAMINATE COUNTERTOPS:

A. Provide post-formed and standard plastic laminate countertops in the dimensions and arrangement shown on the drawings.

1. Break Room, Wellness Room: Provide Post-formed Countertop with integral 4” backsplash and front edge, with field-applied, square-edged sidewall trims.

a. Drawing Key Symbol “PL-04” On vertical surfaces color shall be Formica color #961-58, “Fog”. Drawing, Key Symbol “PL-05” On horizontal surfaces shall be Formica color #8824-58 “White Drops” Matte Finish, grain runs long. No product substitutions.

2. Office: Provide Standard, Square-Edge Countertop.

a. Drawing, Key Symbol “PL-05” On horizontal surfaces shall be Formica color #8824-58 “White Drops” Matte Finish, grain runs long. No product substitutions.

B. Countertop Support Brackets:

1. Provide Knape Vogt #208 Ultimate L-Bracket, 500mm size, 19.5” depth x 12.9” height, Color White, by Knape & Vogt Mfg. Co., Grand Rapids MI (616-459-3311; www.kv.com).
2. Acceptable Mfr: Stanley #795-257555 Heavy Duty Shelf Bracket, 20” depth x 13” height, Color White.

2.04 PLASTIC LAMINATE COAT RACK:

A. Provide plastic laminate on 3/4” particleboard coat rack at the Break Room.

1. Drawing Key Symbol “PL-04” On vertical surfaces color shall be Formica color #961-58, “Fog”.

B. Coot Hooks: Contractor shall provide four coat hooks on the Coat Rack, equal to Ives #405, by HB Ives, Wallingford CT (800-525-0336).

2.05 PLASTIC LAMINATE CLIPBOARD RACK:

A. Provide plastic laminate on face and edges of 4” x 3/4” x length of wall elevation, particleboard clipboard rack at the Office.

1. Drawing Key Symbol “PL-04” On vertical surfaces color shall be Formica color #961-58, “Fog”.

B. Clipboard Rack Hooks: Contractor shall provide zinc-plated screw-in L-hooks (approximately 1/2” leg) at 12” OC, with minimum 6” spaced distance to adjacent shelf brackets.

2.06 PLASTIC LAMINATE SHELVES (OFFICE):

A. Where shelves are shown on the drawings, provide plastic laminate on face and edges of 18” x 3/4” x length of wall elevation, particleboard shelf.

1. Drawing Key Symbol “PL-04” On vertical surfaces color shall be Formica color #961-58, “Fog”.

B. Shelf Support Brackets:

1. Provide Knape Vogt #208 Ultimate L-Bracket, 400mm size, 15.6” depth x 10.6” height, Color White.
2. Alternative Mfr: Stanley #795-257550 Heavy Duty Shelf Bracket, 16” depth x 10” height, Color White.

2.07 PLASTIC LAMINATE SHELF (WORK ROOM):

A. Where shown on the drawings, provide plastic laminate on face and edges of 12” x 60” x 3/4” particleboard shelf.

1. Drawing Key Symbol “PL-04” On vertical surfaces color shall be Formica color #961-58, “Fog”.

B. Shelf Support Brackets:

1. Provide Knape Vogt #208 Ultimate L-Bracket, 300mm size, 11.6” depth x 8.3” height, Color White, by Knape & Vogt Mfg. Co.
2. Alternative Mfr: Stanley #795-257545 Heavy Duty Shelf Bracket, 12” depth x 8” height, Color White.

2.08 STOREFRONT WINDOW LEDGE AT RETAIL: (if applicable)

A. Provide post-formed plastic laminate window ledge as shown on the drawings. Except for the alternative manufacturers listed, no plastic laminate substitution is permitted.

1. Drawing Key Symbol “PL-04” On vertical surfaces color shall be Formica color #961-58, “Fog”.

PART 3 EXECUTION

3.01 FINISH CARPENTRY: Set and secure finish carpentry items in place, rigid, plumb and square. Permanently fix items using appropriate anchorages. Provide trim for scribing and site cutting. Countersink semi-concealed anchorage devices used to wall mount components and conceal with filler to match surrounding wood, place flush with surrounding surfaces. Carefully scribe finished items that are against other building materials, leaving 1/32” gaps.

END OF SECTION

SECTION 06600

EXTERIOR COMPOSITE WOOD PLANKING

PART 1 - GENERAL

1.1 NOT USED

1.2 SUMMARY

A. Section includes composite wood wall planking.

B. Related Sections:

1. Division 05 Section "Cold-Formed Metal Framing" for cold-formed metal framing supporting metal-faced composite wall panels.
2. Division 07 Section "Metal Plate Wall Panels" for solid metal plate wall panels.
3. Division 07 Section "Sheet Metal Flashing and Trim" for field-formed flashings and other sheet metal work not part of metal-faced composite wall panel assemblies.

C. References

1. ASTM D-7032-04: Standard Specification for Establishing Performance Ratings for Wood-Plastic Composite Deck Boards and Guardrail Systems (Guards or Handrails), ASTM International.
2. ASTM D-7031-04: Standard Guide for Evaluating Mechanical and Physical Properties of Wood-Plastic Composite Products, ASTM International
3. ASTM E-84-01: Test Method for Surface Burning Characteristics of Building Materials, ASTM International.
4. ASTM D 570: Water Absorption of Plastics
5. ASTM D 1761: Mechanical Fasteners in Wood
6. ASTM D -1413-99: Test method for Wood Preservatives by Laboratory Soil-block Cultures
7. ASTM C177: Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus

1.3 DEFINITION

A. Composite Wood Planks Assembly: Composite wood planks, attachment system components, miscellaneous metal framing, and accessories necessary for a complete wall veneer finish system.

1.4 PERFORMANCE REQUIREMENTS

A. General Performance: Composite wood planks assemblies shall comply with performance requirements without failure due to defective manufacture, fabrication, installation, or other defects in construction.

B. Fire Test response characteristics per ASTM E-84.

1.5 SUBMITTALS

A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of composite wood wall planking and accessory.

B. Shop Drawings: Show fabrication and installation layouts of composite wood planks; details of edge conditions, joints, planking profiles, corners, anchorages, attachment system, trim, flashings, closures, and accessories; and special details. Distinguish among factory-, shop-, and field-assembled work.

1. Accessories: Include details of the following items:

a. Flashing and trim.
b. Anchorage systems.

C. Samples of Selection: For each type of composite wood plank indicated with factory-applied color finishes.

1. Include similar Samples of trim and accessories involving color selection.
2. Include manufacturer's color charts consisting of strips of cured sealants showing the full range of colors available for each sealant exposed to view.

D. Samples for Verification: For each type of exposed finish required, prepared on Samples of size indicated below:

1. Composite Wood Planks: 4” long. Include fasteners, closures, and other composite wood plank accessories.
2. Exposed Sealants: For each type and color of joint sealant required.
3. Exposed Fasteners: Provide Samples of each type of exposed fasteners indicating color, finish and anti-corrosion information.

E. Delegated-Design Submittal: For composite wood planking assembly indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation where required by authority having jurisdiction.

F. Coordination Drawings: Exterior elevations, drawn to scale, on which the following items are shown and coordinated with each other, using input from installers of the items involved:

1. Wall planks and attachments.
2. Framing / supporting elements.
3. Penetrations of wall by pipes and utilities.
4. Waterproofing flashing details.

G. Compatibility and Adhesion Test Reports: From sealant manufacturer, indicating the following:

1. Materials forming joint substrates and joint-sealant backings have been tested for compatibility and adhesion with joint sealants.
2. Interpretation of test results and written recommendations for primers and substrate preparation needed for adhesion.

H. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for each product.

I. Field quality-control reports.

J. Maintenance Data: Composite wood planks to include maintenance manuals.

K. Warranties: Samples of special warranties.

1.6 QUALITY ASSURANCE

A. Testing Agency Qualifications: Qualified according to ASTM E 329 for testing indicated.

B. Source Limitations: Obtain each type of composite wood planks from single source from single manufacturer.

C. Fire-Resistance Ratings: Where indicated, provide composite wood planks identical to those of assemblies tested for fire resistance per ASTM E 119 by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

1. Indicate design designations from UL's "Fire Resistance Directory" or from the listings of another qualified testing agency.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver components of composite wood planks, and other manufactured items so as not to be damaged or deformed. Package composite wood planks for protection during transportation and handling.

B. Unload, store, and erect composite wood planks in a manner to prevent bending, warping, twisting, and surface damage.

C. Store composite wood planks on a flat and level surface with blocking, covered with suitable weather tight and ventilated covering. Store composite wood planks to ensure dryness, with positive slope for drainage of water. Do not store composite wood planks in contact with other materials that might cause staining, denting, or other surface damage.

D. Support planking bundles on supplied dunnage.

E. When stacking plank bundles, supports to start at each end and spaced 2’ max on center with supports aligning vertically.

F. Do not stack bundles higher than 6 bundles on 12’ high

1.8 PROJECT CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit assembly of composite wood planks to be performed according to manufacturer's written instructions and warranty requirements.

B. Field Measurements: Verify locations of structural members by field measurements and indicate measurements on Shop Drawings.

1.9 COORDINATION

A. Coordinate composite wood planks assemblies with rain drainage work, flashing, trim, and construction of studs, soffits, and other adjoining work to provide a leak proof, secure, and noncorrosive installation.

1.10 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of composite wood planks that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Structural failures, including rupturing, cracking, or puncturing.
b. Deterioration of composite wood planks and other materials beyond normal weathering.

2. Warranty Period: 10 years from date of Substantial Completion.

B. Special Warranty on Plank Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace composite wood planks that show evidence of deterioration of factory-applied finishes within specified warranty period.

C. Provide manufactures warranty against rot, decay, splitting, checking, splintering, fungal damage, and termite damage for a period of 10 years. In addition provide the Fade and Stain Warranty against food staining and fading beyond 5 Delta E (CIE units) for a period of 10 years.

PART 2 - PRODUCTS

2.1 MISCELLANEOUS METAL FRAMING

A. Miscellaneous Metal Framing, General: ASTM C 645, cold-formed metallic-coated steel sheet, ASTM A 653/A 653M, G40 hot-dip galvanized or coating with equivalent corrosion resistance unless otherwise indicated.

B. Hat-Shaped, Rigid Furring Channels

C. Cold-Rolled Furring Channels: Minimum 1/2-inch wide flange.

D. Fasteners for Miscellaneous Metal Framing: Of type, material, size, corrosion resistance, holding power, and other properties required to fasten miscellaneous metal framing members to substrates.

2.2 MISCELLANEOUS MATERIALS

A. Aluminum Extrusions: ASTM B 221 alloy and temper recommended by manufacturer for type of use and finish indicated.

B. Fasteners: Self-tapping screws, bolts, nuts, self-locking rivets and bolts, end-welded studs, and other suitable fasteners designed to withstand design loads. Provide exposed fasteners with heads matching color of composite wood planks by means of plastic caps or factory-applied coating. Provide EPDM, PVC, or neoprene sealing washers.

2.3 COMPOSITE WOOD PLANKING: Ref. Drawing A4.1

A. General: Provide factory-formed and -assembled, composite wood planks panels fabricated from two metal facings bonded, using no glues or adhesives, to solid, extruded thermoplastic core; formed into profile for installation method indicated. Include attachment system components and accessories required for weather tight system.

1. Products: Where Composite Wood Plank products are specified, contact Jason Scott of Cali Bamboo, 6675 Mesa Ridge Road, San Diego, CA 92121, 858-799-0585, 888-788-2254, www.calibamboo.com . Any substitutions require approval from architect and Petco Project Manager.
   a. Bronze Infinity Grooved Edge Composite Wood Planks by GreenClaimed
   b. 16 foot lengths
   c. 5-1/4" wide planks
   d. 7/8" thick planks
   e. Surface Milling: True Organics Wood Grain
   f. Edge Milling: Hidden Fastener grooves
   g. Hardness: 1820 lb-force
   h. Water Absorption: 3.7% (ASTM D1037)
   i. Specific Gravity: 1.08 (ASTM D2395)
   j. Modulus of Rupture: 2,300 psi (ASTM D4761)
   k. Modulus of Elasticity: 340,000 psi (ASTM D4761)
   l. Maximum framing span: 16 inches on center
   m. Maximum end to end gap: 1/16" per 20"
   n. Warranty: 10 years
   o. Moisture Lockout Deck Sealer required at all cut / exposed planks
   p. Infinity Hidden Fasteners
   q. 1X3 pressure treated, exterior grade wood furring

PART 3 - Test	**Test Method**	**Value**	
Flame spread	ASTM E 84	60	
Thermal Expansion	ASTM D 1037	1.9 x 10-5 inch/inch/degreeF	
Moisture Absorption	ASTM D 1037	< 1%	
Nail Withdrawal	ASTM D1761	163 lbs/in	
Screw Withdrawal	ASTM D1761	558 lbs/in	
Fungus Resistance	ASTM D1413	Rating - no decay	
Termite Resistance	AWPAE1-72	Rating = 9.6	
		Ultimate (Typical)Values *	**Design Values**
Compression Parallel	ASTM D198	1588 psi	540 psi
Compression Perpendicular	ASTM D143	1437 psi	540 psi
Bending Strength	ASTM D198	3280 psi	500 psi
Shear Strength	ASTM D143	1761 psi	360 psi

* Ultimate strength values are not meant for design analysis. Design values are for temperatures up to 130F (54C)

PART 4 - EXECUTION

4.1 EXAMINATION

A. Examine substrates, areas, and conditions for compliance with requirements for installation tolerances, composite wood planks supports, and other conditions affecting performance of the Work.

1. Examine wall framing to verify that girts, angles, channels, studs, and other structural panel support members and anchorage have been installed within alignment tolerances required by composite wood planks manufacturer.
2. Examine wall sheathing to verify that sheathing joints are supported by framing or blocking and that installation is within flatness tolerances required by composite wood planks.
3. Verify that weather-resistant sheathing paper has been installed over sheathing or backing substrate to prevent air infiltration or water penetration.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

1. Install according to composite decking installation guidelines. http://www.calibamboo.com/mm5/pdf/installation_guides/infinity_installation.pdf
2. Cut, drill, and rout using carbide tipped blade
3. All board ends, including ripped/exposed deck board cores need to be sealed using MoistureLockout™ End Board Sealer for full warranty coverage. Sealer must be applied thick enough to exposed area to provide even coat. Proof of purchase must accompany any warranty claims filed for excessive swelling/cracking of board ends.
4. Do not use composite wood material for structural applications

C. Cleaning
1. Following cleaning recommendations as found in composite decking installation guide at; http://www.calibamboo.com/mm5/pdf/care_and_maintenance_sheets/cali_bamboo_bamdeck_maintenance.pdf

4.2 COMPOSTIE WOOD PLANKING INSTALLATION

A. General: Install composite wood planks according to manufacturer's written instructions in orientation, sizes, and locations indicated on Drawings. Install planks perpendicular to stud furring unless otherwise indicated.

1. Start planking installation at top inside corner with pre drilled counter sunk screws on face of planks 1” from outer edge of plank. Fasteners finish shall be manufacturer approved finish to match plank, #9 x 2” Trim Head Screws. Drill screws in perpendicular to plank, not at an angle. Do not overdrive screw and avoid splitting of plank. Do not nail. Provide stainless steel screws within 1 mile of coasts.

2. Shim or otherwise plumb substrates receiving composite wood planks.
3. Place a Infinity Deck clip in the groove of the plank centered on framing member and fasten screw with corresponding bit. Do not overdrive.
4. Slide next plank onto the exposed Infinity Deck clips providing a ¼" gap with a spacing tool. Continue to add planks and clips.
5. Install flashing and trim as metal-faced composite wall panel work proceeds.
6. Apply elastomeric sealant continuously, as necessary for waterproofing.
7. Provide weather tight escutcheons for pipe and conduit penetrating exterior walls.
8. Apply Moisture Lockout Deck Sealer on all cut / exposed planks.

B. Metal Protection: Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic action as recommended by composite wood plank manufacturer.

C. Joint Sealers: Install gaskets, joint fillers, and sealants where indicated and where required for weather tight performance of composite wood plank assemblies. Provide types of gaskets, fillers, and sealants indicated or, if not indicated, types recommended by manufacturer.

D. Clip Installation: Attach plank clips to supports at each composite wood plank groove joints at locations, spacings, and with fasteners recommended by manufacturer. Attach routed-and-returned flanges of wall panels to plank clips with manufacturer's standard fasteners.

END OF SECTION

SECTION 07190

MOISTURE MITIGATION SYSTEMS

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY: The Contractor shall provide Moisture Mitigation if the new or existing concrete subfloor exceeds the finish flooring or adhesive manufacturer's measured Moisture Emission limits.

1.03 RELATED WORK:

A. Section 03310- Concrete Floor Preparation.

B. Section 09650- Resilient Flooring.

C. Section 09660- Resilient Sheet Flooring.

D. Section 09670- Epoxy Finish on Concrete.

1.04 SUBMITTAL: No product submittal is required for the work of this Section IF provided per the construction documents. Any Request for Product Substitution must be submitted per Section 01340- Submittals.

1.05 WARRANTY: Provide the Moisture Mitigation System manufacturer product warranty in the Building Maintenance Manual per Section 01700-Contract Closeout.

PART 2 PRODUCTS

2.01 MOISTURE MITIGATION FOR VINYL COMPOSITION TILE AND VINYL SHEET FLOORING:

A. The acceptable moisture emission level for Vinyl Composition Tile and Vinyl Sheet Flooring may not exceed 5.0 pounds per 1000 square feet per 24 hours.

B. Moisture Mitigation Treatment: The Contractor shall provide concrete slab treatment using products by Koester American Corporation, Virginia Beach VA (757-425-1206; www.koesterusa.com). Application shall be by a manufacturer-approved applicator.

1. For Moisture Emission Level of over 5.0 to 10.0 pounds per 1000 square feet per 24 hours, and pH less than 14: Provide Koester VAP I pH single coat vapor control treatment.
2. For Moisture Emission Level of over 10.0 to 25.0 pounds per 1000 square feet per 24 hours, and pH less than 14: Provide Koester VAP I 2000 single coat vapor control treatment.

C. Acceptable Alternative Moisture Mitigation Treatment: The Contractor shall provide Creteseal CS2000, concrete slab vapor control treatment using product by Creteseal Concrete Waterproofing Products Inc., Anaheim CA (800-278-4273, www.creteseal.com).

2.02 MOISTURE MITIGATION FOR EPOXY FLOORING:

A. The acceptable moisture emission level for Epoxy Flooring may not exceed 3.0 pounds per 1000 square feet per 24 hours.

B. Concrete surfaces may be shot-blasted for concrete moisture testing, but must be shot-blasted for the subsequent epoxy flooring installation.

1. For concrete moisture testing, the steel bead shot size should be a #230 to #280 mesh profile to obtain a satisfactory surface, or as may be alternatively recommended by the Moisture Mitigation product manufacturer.
2. For shot-blast preparation required for epoxy flooring installation, refer to Section 09670-Epoxy Finish on Concrete.

C. Moisture Mitigation Treatment: The Contractor shall provide concrete slab treatment using products by Koester American Corporation, Virginia Beach VA (757-425-1206; www.koesterusa.com). Application shall be by a manufacturer-approved applicator.

1. For Moisture Emission Level of over 3.0 to 10.0 pounds per 1000 square feet per 24 hours, and pH less than 14: Provide Koester VAP I pH single coat vapor control treatment.
2. For Moisture Emission Level of over 10.0 to 25.0 pounds per 1000 square feet per 24 hours, and pH less than 14: Provide Koester VAP I 2000 single coat vapor control treatment.

D. Acceptable Alternative Moisture Mitigation Treatment: The Contractor shall provide Creteseal CS2000, concrete slab vapor control treatment using product by Creteseal Concrete Waterproofing Products Inc., Anaheim CA (800-278-4273, www.creteseal.com).

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this Section will be provided, shall correct conditions detrimental to the timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

3.02 CONCRETE FLOOR SHOTBLAST: Clean all surfaces to receive moisture vapor reduction system. Shotblast all floors and clean surfaces with vacuum to remove all residue off the substrate. Remove all defective materials, and foreign matter such as dust, adhesives, leveling compounds, paint, dirt, floor hardeners, bond breakers, oil, grease, curing agents, form release agents, efflorescence and laitance. Repair all cracks, expansion joint, control joints, and open surface honeycombs and fill in accordance with product manufacturer recommendations. Inform moisture mitigation system manufacturer if concrete additives like chlorides or any other soluble compounds that can contaminate surfaces have been used in the concrete mix. Reinforcing fibers must be burned off, scraped and vacuumed. Do not Acid Etch.

3.03 CONCRETE FLOOR PREPARATION:

A. A cementitious underlayment system with an approved epoxy primer, if required by the flooring manufacturer, may be used to level and smooth surfaces after shotblasting the floor on top of the water vapor reduction system. The underlayment system utilized must be installed in accordance with the underlayment system manufacturer’s printed instructions and within the specified limits. No underlayment system containing gypsum shall be allowed.

B. When water based adheslves are utilized in the floor covering installation, use an approved underlavment system with primer prior to the Installation of the flooring system. Please consult the adhesive manufacturer for their minimum recommended thickness of cementitious underlavment to absorb excess moisture In the adhesive. Leveling of the substrate shall not be considered part of the water vapor reduction system.

3.04 INSTALLATION: Install all work of this section in strict accordance with the construction details, requirements of governmental agencies having jurisdiction, and the manufacturer's recommended installation procedures.

END OF SECTION

SECTION 07210

BUILDING INSULATION

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY: Provide Building Insulation where shown on the drawings, as specified in this Section, and as needed for a complete and proper installation.

1.03 NOT USED

1.04 SUBMITTAL: No product submittal is required for the work of this Section IF provided per the construction documents. Any Request for Product Substitution must be submitted per Section 01340- Submittals.

PART 2 PRODUCTS

2.01 MATERIALS:

A. Rigid Insulation: Provide rigid insulation equal to products by Dow Chemical Company, Midland MI (800-441-4369).

1. Perimeter Slab Insulation: Provide 1-1/2" thick (R-7.5) rigid insulation board equal to "Dow Styrofoam Score Board". *(new construction, if applicable)*
2. Masonry Interior Wall Insulation: Provide 1-1/2" thick (R-7.5) rigid insulation board equal to "Dow Styrofoam Z-Mate Board". *(limited applications & conditions)*

B. Fiberglass Batt Insulation: Provide Fiberglass Batt Insulation equal to products by CertainTeed Corp., Valley Forge PA (800-523-7844); Owens Corning, Toledo OH (800-438-7465); Johns Manville, Denver CO (800-644-4013); or Knauf Fiber Glass, Shelbyville IN (800-825-4434).

C. Exterior Wall Thermal Insulation: Provide either 3-1/2" thick foil faced glass fiber batts with an insulation-only value of R-11 in wall cavities less than 3-5/8"; or provide 6" thick foil faced glass fiber batts with an insulation-only value of R-19 at exterior wall construction where wall cavities are at least 6". Insulation shall be equal to CertainTeed CertaPro FSK-25 Faced Batts (with integral vapor retarder, for use in concealed applications only) rated with surface burning characteristics per ASTM E84, including Maximum Flame Spread Index 75; and Maximum Smoke Developed Index 150.

D. Interior Partition Thermal Insulation: Provide 3-1/2" thick foil faced glass fiber batts with an insulation-only value of R-11, where shown or scheduled on the Drawings. Insulation shall be equal to CertainTeed CertaPro Thermal FSK-25 Faced Batts (with integral vapor retarder, for use in exposed applications) rated with surface burning characteristics per ASTM E84, including Maximum Flame Spread Index 25; and Maximum Smoke Developed Index 450.

E. Interior Sound Attenuation (concealed): Provide 3-1/2" unfaced glass fiber batts for interior sound attenuation purposes at walls, at suspended ceilings and other locations where shown or scheduled on the Drawings. Insulation shall be equal to CertainTeed CertaPro AcoustaTherm Batts, rated with surface burning characteristics per ASTM E84, including Maximum Flame Spread Index 25; and Maximum Smoke Developed Index 50.

F. Interior Sound Attenuation (exposed): Provide 3-1/2" PSK-faced (White) glass fiber batts for interior sound attenuation purposes at exposed structure and other locations where shown or

scheduled on the Drawings. Insulation shall be equal to Owens-Corning Flame Spread 25-PSK Fiberglass, with color White polypropylene-scrim-kraft facing, rated with surface burning characteristics per ASTM C665, Type III, Class A; Maximum Flame Spread Index 25; and Maximum Smoke Developed Index 50.

G. White Vinyl Kraft Liner: Provide sheet liner over existing roof/ ceiling insulation that will be exposed in the new construction, with color White, polypropylene-scrim-kraft (PSK) facing equal to Advanced Kraft Systems products by Lamtec Corporation, Flanders NJ (973-584-5500). Rated with surface burning characteristics per ASTM E84, including Maximum Flame Spread Index 25 (film exposed); and Maximum Smoke Developed Index 40 (film exposed).

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this Section will be provided, shall correct conditions detrimental to the timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

3.02 INSTALLATION: Install all work of this section in strict accordance with the construction details, requirements of governmental agencies having jurisdiction, and the manufacturer's recommended installation procedures.

END OF SECTION

SECTION 07240

WATER MANAGED E.I.F.S.

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY: Provide a mechanically attached, Water Managed Exterior Insulation and Finish System, as shown on the drawings, as specified in this Section, and as needed for a complete and proper installation.

1.03 RELATED WORK: Section 06200- Rough & Finish Carpentry and Section 09260- Gypsum Wallboard & Partition System; product specifications for EIFS substrates.

1.04 SUBMITTAL: No product submittal is required for the work of this Section IF provided per the construction documents. Any Request for Product Substitution must be submitted per Section 01340- Submittals. Submit EIFS Product Data and EIFS Color Samples per Section 01340- Submittals requirements, in sufficient detail to demonstrate compliance with the requirements of this Section.

1.05 QUALITY ASSURANCE: The Water Managed Exterior Insulation and Finish System manufacturer's specifications and recommended standard installation details shall be followed completely, and shall be considered a part of this Section as if the manufacturer's specification was included in its entirety.

1.06 WARRANTY:

A. Manufacturer's Warranty: The Contractor shall provide the Manufacturer's Standard 12-Year Product Warranty in the Building Maintenance Manuals submitted per Section 01700- Contract Closeout.
B. Installer's Warranty: The Contractor shall include a copy of the EIFS installer's warranty for all work provided, for a term of 1 year after the Date of Substantial Completion, in the Building Maintenance Manuals submitted per Section 01700- Contract Closeout.

PART 2 PRODUCTS

2.01 ACCEPTABLE WATER-MANAGED EIFS MANUFACTURERS:

A. Basis of Design: Provide Outsulation MD, by Dryvit Systems Inc., Warwick RI (401-822-4100).

1. Sheathing: Provide Exterior Gypsum Sheathing, meeting ASTM C79 requirements for water-resistant core or Type X core, product type subject to acceptance by the EIFS manufacturer as part of the warranted EIFS system. Refer to Section 09260- Gypsum Wallboard & Partition System. Do NOT provide Exterior Gypsum Sheathing without also providing exterior plywood sheathing backup at any location where PETCO signage is scheduled to be provided.
2. Air/ Weather Barrier: Dryvit "Backstop" acrylic Air/ Weather Barrier.
3. Flashing Trims: Manufacturer's standard, as designed and manufactured for the intended purpose.
4. Exterior Insulation Board: Dryvit OMD Exterior grooved EPS insulation board, board thickness minimum 1-1/2" with 3/4" EPS deep v-groove reveals where shown on the drawings, leaving a minimum 3/4" EPS material thickness. EPS Board shall be aged/ air-dried for the equivalent of six weeks prior to installation.
5. Mechanical EPS Fasteners:

a. Wind Devil Fasteners, by Wind-Lock Corporation, Leesport PA (800-872-5625). No substitutions are permitted.

1) Light Gauge Steel Framing: Type LM fastener and plate system, 5/8" minimum penetration into framing.
2) Heavy Gauge Steel Framing: Type S fastener and plate system, 5/8" minimum penetration into framing.
3) Masonry: Type ME expansion fastener and plate system, 1" minimum penetration into masonry.

b. Mechanical EPS Fasteners may not be a part of the standard Dryvit Outsulation MD system, however, it is an Architect-required component for this project in addition to adhesive application which is required as a part of the manufacturer's warranted system.

6. Exterior Basecoat: Dryvit Exterior Basecoat.
7. Reinforcing Mesh:

a. Above 8'-0" height at adjacent finish grade: Dryvit Standard Reinforcing Mesh (4.3 oz. per square yard).
b. Below 8'-0" height at adjacent finish grade: Dryvit Panzer 15 Reinforcing Mesh (15 oz. per square yard), applied as a secondary reinforcement under USG Standard Reinforcing Mesh at these wall areas.

8. Textured Finish: Dryvit Exterior Textured Finish, trowel applied, minimum installed thickness 1/16" over reinforcing, 3/16" maximum thickness.
9. Color/ Texture (Drawing Key Symbol "EIFS-01"): Color # PETC011030; Texture "Dryvit Sandblast".

B. Acceptable Alternative Water Managed EIFS: Provide Senerflex Cdsystem (controlled drainage), by Senergy, Cranston RI (800-221-9255).

1. Sheathing: Provide Exterior Gypsum Sheathing, meeting ASTM C79 requirements for water-resistant core or Type X core. Refer to Section 09260- Gypsum Wallboard System. Do NOT provide Exterior Gypsum Sheathing at any location where PETCO signage is scheduled to be provided; provide an Alternative Sheathing as follows:

a. Alternative Sheathing: Exterior Plywood Sheathing, if shown on the drawings, product type subject to acceptance by the EIFS manufacturer as part of the warranted EIFS system. Refer to Section 06200- Rough & Finish Carpentry.
b. Alternative Sheathing: Cement Board, if shown on the drawings, product type subject to acceptance by the EIFS manufacturer as part of the warranted EIFS system. Refer to Section 09260- Gypsum Wallboard & Partition System.

2. Weather Resistive Barrier Membrane: Tyvek StuccoWrap Weather-Resistant Barrier, by Dupont Tyvek, Wilmington DE (800-448-9835).
3. Drainage Mat: Senergy Drainage Mat, three-dimensional drainage core consisting of fused entangled filaments.
4. Flashing Trims: Manufacturer's standard, as designed and manufactured for the intended purpose.
5. Exterior Insulation Board: EPS insulation board, ASTM C578 Type 1, board thickness minimum 1-1/2" with 3/4" deep v-groove reveals where shown on the drawings, leaving a minimum 3/4" EPS material thickness. EPS Board shall be aged/ air-dried for the equivalent of six weeks prior to installation.
6. Mechanical EPS Fasteners:

a. Wind Devil Fasteners, by Wind-Lock Corporation, Leesport PA (800-872-5625) or equivalent fastener as recommended by USG.

1) Light Gauge Steel Framing: Type LM fastener and plate system, 5/8" minimum penetration into framing.
2) Heavy Gauge Steel Framing: Type S fastener and plate system, 5/8" minimum penetration into framing.
3) Masonry: Type ME expansion fastener and plate system, 1" minimum penetration into masonry.

7. Exterior Basecoat: Senerflex Standard Base Coat, 100% acrylic, mixed with portland cement.
8. Reinforcing Mesh:

a. Above 8'-0" height at adjacent finish grade: Flexguard 4 Standard Reinforcing Mesh.
b. Below 8'-0" height at adjacent finish grade: Flexguard 15 Reinforcing Mesh, applied as a secondary reinforcement under Flexguard 4 Standard Reinforcing Mesh at these wall areas.

9. Textured Finish: Senerflex Exterior Textured Finish, 100% acrylic, trowel-applied, minimum installed thickness 1/16" over reinforcing, 3/16" maximum thickness.
10. Color/ Texture (Drawing Key Symbol "EIFS-1"): Color #PETC011030; Texture Senerflex Fine Texture".

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this Section will be provided, shall correct conditions detrimental to timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

3.02 INSTALLATION:

A. The Water Managed EIFS manufacturer's specifications and recommended standard installation details shall be followed completely, and shall be considered a part of this Section as if the manufacturer's specification was included in its entirety.

B. Install the work of this section in accordance with the shop drawings and with pertinent requirements of governmental agencies having jurisdiction, anchoring all components firmly into position straight, level, and plumb within a tolerance of 1:1000 vertical and horizontal.

C. The overall minimum base coat thickness shall be sufficient to fully embed the mesh in multiple base coat applications.

D. EIFS surfaces in contact with sealants shall be coated with manufacturer-approved sealer.

E. EIFS panel tolerance: Maximum variance from plane shall be 1/4" within a 4-foot radius.

END OF SECTION

SECTION 07250

EXTERIOR INSULATION FINISH SYSTEM REPAIRS

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY: Provide an repairs to existing Exterior Insulation Finish System, as shown on the drawings, as specified in this Section, and as needed for a complete and proper installation.

1.03 RELATED WORK: Section 06200- Rough & Finish Carpentry and Section 09260- Gypsum Wallboard & Partition System; product specification for EIFS substrates. *(if applicable)*

1.04 SUBMITTAL: No product submittal is required for the work of this Section IF provided per the construction documents. Any Request for Product Substitution must be submitted per Section 01340- Submittals.

1.05 QUALITY ASSURANCE: The Exterior Insulation Finish System manufacturer's specifications and recommended standard installation details shall be followed completely, and shall be considered a part of this Section as if the manufacturer's specification was included in its entirety.

1.06 WARRANTY:

A. Manufacturer's Warranty: The Contractor shall provide the Manufacturer's Standard 12-Year Product Warranty in the Building Maintenance Manuals submitted per Section 01700- Contract Closeout.

B. Installer's Warranty: The Contractor shall include a copy of the EIFS installer's warranty for all work provided, for a term of 1 year after the Date of Substantial Completion, in the Building Maintenance Manuals submitted per Section 01700- Contract Closeout.

PART 2 PRODUCTS

2.01 ACCEPTABLE EIFS MANUFACTURERS:

A. Basis of Design: Provide Outsulation EIFS System, by Dryvit Systems Inc., Warwick RI (401-822-4100).

1. Sheathing: Exterior Gypsum Sheathing, meeting ASTM C79 requirements for water-resistant core or Type X core, product type subject to acceptance by the EIFS manufacturer as part of the warranted EIFS system. Refer to Section 09260- Gypsum Wallboard & Partition System. Do NOT provide Exterior Gypsum Sheathing without also providing exterior plywood sheathing backup at any location where PETCO signage is scheduled to be provided.
2. Air/ Weather Barrier: Dryvit "Backstop" acrylic Air/ Weather Barrier.
3. Flashing Trims: Manufacturer's standard, as designed and manufactured for the intended purpose.
4. Exterior Insulation Board: Dryvit Exterior EPS insulation board, board minimum thickness 3/4" deep or thicker as shown on the drawings, with a minimum 3/4" EPS material thickness at its least section. EPS Board shall be aged/ air-dried for the equivalent of six weeks prior to installation.
5. Mechanical EPS Fasteners:

a. Wind Devil Fasteners, by Wind-Lock Corporation, Leesport PA (800-872-5625). No substitutions are permitted.

1) Light Gauge Steel Framing: Type LM fastener and plate system, 5/8" minimum penetration into framing.
2) Heavy Gauge Steel Framing: Type S fastener and plate system, 5/8" minimum penetration into framing.
3) Masonry: Type ME expansion fastener and plate system, 1" minimum penetration into masonry.

b. Mechanical Fasteners may not be a part of the standard Dryvit system; however, it is an Architect-required component for this project in addition to adhesive application which may be required as a part of the manufacturer's warranted system.

6. Exterior Basecoat: Dryvit Exterior Basecoat.
7. Reinforcing Mesh:

a. Above 8'-0" height at adjacent finish grade: Dryvit Standard Reinforcing Mesh (4.3 oz. per square yard).
b. Below 8'-0" height at adjacent finish grade: Dryvit Panzer 15 Reinforcing Mesh (15 oz. per square yard), applied as a secondary reinforcement under USG Standard Reinforcing Mesh at these wall areas.

8. Textured Finish: Dryvit Exterior Textured Finish, trowel applied, minimum installed thickness 1/6" over reinforcing, 3/16" maximum thickness.
9. Color/ Texture (Drawing Key Symbol "EIFS-1"): Color to be determined; Texture "Dryvit Sandblast".

B. Acceptable Alternative EIFS: Provide Senerflex EIFS System, by Senergy, Cranston RI (800-221-9255).

1. Sheathing: Exterior Gypsum Sheathing, meeting ASTM C79 requirements for water-resistant core or Type X core. Refer to Section 09260- Gypsum Wallboard System. Do NOT provide Exterior Gypsum Sheathing at any location where PETCO signage is scheduled to be provided; provide an Alternative Sheathing as follows:

a. Alternative Sheathing: Exterior Plywood Sheathing, if shown on the drawings, product type subject to acceptance by the EIFS manufacturer as part of the warranted EIFS system. Refer to Section 06200- Rough & Finish Carpentry.
b. Alternative Sheathing: Cement Board, if shown on the drawings, product type subject to acceptance by the EIFS manufacturer as part of the warranted EIFS system. Refer to Section 09260- Gypsum Wallboard & Partition System.

2. Weather Resistive Barrier Membrane: Tyvek StuccoWrap Weather-Resistant Barrier, by Dupont Tyvek, Wilmington DE (800-448-9835).
3. Drainage Mat: Senergy Drainage Mat, three-dimensional drainage core consisting of fused entangled filaments.
4. Flashing Trims: Manufacturer's standard, as designed and manufactured for the intended purpose.
5. Exterior Insulation Board: EPS insulation board, ASTM C578 Type 1, insulation board board with minimum thickness 3/4" deep or thicker as shown on the drawings, with a minimum 3/4" EPS material thickness at its least section. EPS Board shall be aged/ air-dried for the equivalent of six weeks prior to installation.
6. Mechanical EPS Fasteners:

a. Wind Devil Fasteners, by Wind-Lock Corporation, Leesport PA (800-872-5625) or equivalent fastener as recommended by USG.

1) Light Gauge Steel Framing: Type LM fastener and plate system, 5/8" minimum penetration into framing.
2) Heavy Gauge Steel Framing: Type S fastener and plate system, 5/8" minimum penetration into framing.
3) Masonry: Type ME expansion fastener and plate system, 1" minimum penetration into masonry.

7. Exterior Basecoat: Senerflex Standard Base Coat, 100% acrylic, mixed with portland cement.
8. Reinforcing Mesh:

   a. Above 8'-0" height at adjacent finish grade: Flexguard 4 Standard Reinforcing Mesh.
   b. Below 8'-0" height at adjacent finish grade: Flexguard 15 Reinforcing Mesh, applied as a secondary reinforcement under Flexguard 4 Standard Reinforcing Mesh at these wall areas.

9. Textured Finish: Senerflex Exterior Textured Finish, 100% acrylic, trowel applied, minimum installed thickness 1/16" over reinforcing, 3/16" maximum thickness.
10. Color/ Texture (Drawing Key Symbol "EIFS-1"): Color to be determined; Texture Senerflex Sand Texture.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this Section will be provided, shall correct conditions detrimental to timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

3.02 INSTALLATION:

A. The EIFS manufacturer's specifications and recommended standard installation details shall be followed completely, and shall be considered a part of this Section as if the manufacturer's specification was included in its entirety.

B. Install the work of this section in accordance with the shop drawings and with pertinent requirements of governmental agencies having jurisdiction, anchoring all components firmly into position straight, level, and plumb within a tolerance of 1:1000 vertical and horizontal.

C. The overall minimum base coat thickness shall be sufficient to fully embed the mesh in multiple base coat applications.

D. EIFS surfaces in contact with sealants shall be coated with manufacturer-approved sealer.

E. EIFS panel tolerance: Maximum variance from plane shall be 1/4" within a 4-foot radius.

END OF SECTION

SECTION 07500

ROOFING SYSTEM

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY: Provide roofing work, including supplementary roofing flashing and sealant work, as required, and in methods acceptable to maintain the roofing manufacturer's warranty.

1.03 SUBMITTAL: No submittal is required for the work of this Section.

1.04 RELATED WORK:

A. Refer to Section 07720-Roof Accessories for description of accessory items including but not limited to roof hatch, roof hatch safety railing, walkway pads, pipe flashings and curb flashings.

B. Refer to Section 10400-Exterior Building & Pylon Signage. The Roofing Subcontractor shall provide supplementary roofing flashing and sealant work, as required, upon completion of the building signage installation.

1.05 QUALITY ASSURANCE:

A. Subcontractor: All roofing work shall be provided by a single roofing company experienced with the type of roofing required and roofing product manufacturer-approved.

B. Special Requirements of Regulating Agencies: The complete, installed roofing system shall meet the following agency approvals:

1. Classified by Underwriters' Laboratories Inc., Class "A" Fire Rating.
2. Approval by Factory Manual as an I-90 assembly.

1.06 DELIVERY, STORAGE, & HANDLING: Storage of Materials shall be per the roofing manufacturer's specifications.

1.07 WARRANTY:

A. Manufacturer's Warranty: The Contractor shall provide the roofing manufacturer's standard warranty, signed by the roofing manufacturer's authorized representative, effective for a warranty term of ten (10) years from the Date of Substantial Completion in the Building Maintenance Manual submitted per Section 01700-Contract Closeout.

B. Existing Roofing System: All work shall be provided so as to maintain any existing roofing warranty in force. *(if applicable)*

PART 2 PRODUCTS

2.01 ROOFING SYSTEM: Roofing system may be any of the following single-ply roof membranes:

A. Scrim-reinforced Thermoplastic Polyolefin (TPO) single-ply membrane.

1. Carlisle Sure-Weld Adhered White reinforced TPO Roofing System, by Carlisle SynTec Incorporated (www.carlisle-syntec.com).

2. GAFMC EverGuard® TPO Specification #:T-MA-N-I-45, Color White, by GAF Materials Corporation - Wayne NJ (www.gaf.com).
3. Johns Manville Fully Adhered TPO single-ply roofing system, Color White, by Johns Manville Corporation, Denver CO (www.jm.com).
4. Other Color White, single-ply membrane TPO roofing product subject to PETCO review and acceptance.

B. Polyester reinforced thermoplastic (PVC) single-ply membrane.

1. Duro-Last Specially Formulated Roofing Membrane, Exposed Face, Color White, by Duro-Last Roofing, Inc. www.duro-last.com.
2. Johns Manville UltraGard SR-80 PVC single-ply roofing system, mechanically fastened, .080" polyester reinforced PVC membrane, by Johns Manville Corporation, Denver CO www.jm.com. Membrane shall conform to ASTM D4434 Standard Classification, and Energy Star, solar reflectance rating of 83%.
3. Other Color White, single-ply membrane PVC roofing product subject to PETCO review and acceptance.

C. Ethylene propylene diene terpolymer (EPDM) single-ply rubber roofing membrane.

1. Carlisle Sure-Seal Sure-White Design "A" Fully Adhered Roofing System.All, by Carlisle SynTec Incorporated (www.carlisle-syntec.com).
2. Other Color White single-ply membrane EPDM roofing product subject to PETCO review and acceptance.

2.02 ROOF INSULATION:

A. Roof insulation for the roofing system shall be mechanically attached, and composed of perlite composition rigid board insulation overlay on isocyanurate roof insulation board, and may be a factory-laminated composite panel at the Contractor's option, subject to the roofing membrane manufacturer's approval as part of the manufacturer's warranted roofing system.

1. The total R-Value of roof insulation system(s) shall be R-30 minimum.

B. Rigid Board Insulation: Equal to Johns Manville "Retro-Fit Plus" thermal roof insulation overlay board, by Johns Manville Corporation, Denver CO (800-654-3103).

C. Isocyanurate Roof Insulation Board: Equal to Johns Manville "Energy 3" isocyanurate roof insulation underlay, by Johns Manville Corporation, Denver CO (800-654-3103).

1. Composition: Closed cell polyisocyanurate foam core bonded to non-asphaltic fiber reinforced facers.
2. U-Value: U-.033 maximum (R-Value: R-30 minimum).
3. Approvals: Factory Mutual Class 1; Underwriters' Laboratories Class A.

D. Means of Roof Insulation Attachment: Provide mechanical attachment of roof insulation system to metal roof deck in accordance with roofing manufacturer's specification, and subject to approval by the roofing manufacturer as an integral part of the warranted roofing system.

2.03 PIPE & OTHER PROJECTIONS: Subject to approval by the roofing manufacturer as an integral part of the warranted roofing system.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this Section will be provided, shall correct conditions detrimental to timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

3.02 GENERAL:

A. All installation practices shall be according to the roofing manufacturer's printed instructions, in strict accordance with the pertinent requirements of governmental agencies having jurisdiction, and in a manner needed to secure the specified warranty.

B. Daily Cleanup: The Contractor shall provide daily removal and disposal from the roof surface of all fasteners, scraps, containers, and other debris resulting from the roofing system installation after the roofing membrane installation has commenced.

END OF SECTION

SECTION 07540

ROOFING SYSTEM REPAIRS

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY:

A. The Contractor shall provide supplementary roofing work at the existing roofing system where indicated on the drawings, as specified in this section, and as needed for a complete and proper installation.

B. The Contractor shall coordinate all aspects of supplementary roofing work with the Landlord *(if applicable),* and shall provide all protective means necessary during the course of this work.

1.03 RELATED WORK: Refer to Section 07720-Roof Accessories for description of accessory items including but not limited to roof hatch, walkway pads, pipe flashings and curb flashings.

1.04 SUBMITTAL: No submittal is required for the work of this Section.

1.05 QUALITY ASSURANCE:

A. Manufacturer's Specifications: All roofing material manufacturer's specifications shall be followed completely and shall become a part of this specification as if the manufacturer's specification was included entirely herein.

B. Roofing Subcontractor: All roofing work shall be provided by a single roofing company experienced with the type of roofing required. The Roofing Subcontractor shall be an Approved Installer as designated by the roofing product manufacturer.

1.06 SUPPLEMENTARY ROOFING WORK TO MAINTAIN EXISTING WARRANTY: *(if applicable)*

A. The Contractor shall retain the Landlord's Roofing Subcontractor for all supplementary roofing work required as a result of new construction, including but not necessarily limited to roofing accessory items provided by the Contractor as part of the contract for general construction, so as to maintain any and all roofing warranties in effect:

Roofing Subcontractor's Name
Address
City, State
Telephone Number

B. The Contractor is responsible for all superintendent work customarily required for all other subcontractors working under the Contractor's direction.

1.07 DELIVERY, STORAGE & HANDLING:

A. Storage of Materials:

1. Stand goods on a clean floor to keep all items free from foreign matter.
2. Store roofing materials in a dry place, on raised platforms and cover with waterproof tarpaulins, inside or in closed vans, protected from the sun and the weather.

3. Store adhesives, primer, pourable sealer and sealants in a dry area, with a temperature maintained as recommended by manufacturer.
4. Do not store uncured flashing membrane on roof or at temperatures over 75 deg F.

1.08 WARRANTY: The Contractor shall include a copy of the Roofing Subcontractor's Warranty for all work provided under the general contract for construction for a term of 1 year after the Date of Substantial Completion in the Building Maintenance Manuals submitted to the PETCO Project Manager after the Date of Final Completion, in accordance with Section 01700-Contract Closeout requirements.

PART 2 PRODUCTS

2.01 FLASHING: Provide reinforced membrane flashing at all roof penetrations and parapets, except as noted otherwise in manufacturer's written specifications and drawings. Refer to the roofing manufacturer's Flashing Specifications for applicable conditions.

2.02 COUNTERFLASHING: Provide reinforced membrane flashing at all vertical roof parapet conditions, installed continuous to termination over the parapet blocking and under the parapet coping. All counterflashing products shall be provided in accordance with the roofing manufacturer's recommendations as an integral part of the warranted roofing system (if any). Refer to the roofing manufacturer's Flashing Specifications for applicable conditions.

2.03 PIPE AND OTHER MEMBRANE PENETRATIONS: Piping and other roofing membrane penetration flashings shall be subject to the approval of the Roofing Manufacturer, as an integral part of the warranted roofing system. The Contractor shall verify the status of any existing Roofing Warranty and roofing specifications with the Landlord, with the assistance of the PETCO Project Manager, if required. Products shall be equal to pre-manufactured pipe boots by Portals Plus Inc., Bensenville IL (708-766-5240).

2.04 HORIZONTAL PIPE MOUNTING PEDESTALS: The Contractor shall provide pre-manufactured pipe mounting pedestals for rooftop horizontal gas piping as specified in Section 07720-Roofing Accessories. Unless specifically approved in roofing manufacturer-published documentation, wood blocking is NOT an acceptable support system for horizontal gas piping.

2.05 OTHER MATERIALS: Provide other materials, not specifically described but required for a complete and proper installation, subject to the roofing manufacturer's approval as an integral part of the warranted roofing system.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this Section will be provided, shall correct conditions detrimental to the timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

3.02 GENERAL:

A. All installation practices shall be as specified in this section, according to the roofing manufacturer's printed instructions, in strict accordance with the pertinent requirements of government agencies having jurisdiction, and in a manner needed to secure the specified warranty.

B. Scheduling of Work: Any roofing work, including laying of insulation, commenced on any one calendar day shall be completed entirely within that day. No phased or partial application of the roofing system will be permitted. If any building roof area cannot be completed in a single

day, a roofing manufacturer-approved weather tight dam or cutoff shall be made to protect that portion of the uncompleted work.

C. Verify that substrata are dry, smooth, clean, and free from sharp projections and depressions, properly graded to outlets, and that metal fittings are in proper place prior to commencement.

D. Flashing of Roof Penetrations: All roof penetrations for supporting equipment, plumbing or HVAC equipment shall be flashed and finished by the Roofing Subcontractor ONLY.

E. Confinement of Materials: Do not allow fluid or plastic materials to spill or migrate beyond the surfaces of intended application or to flow into gutters or rainwater conductors.

F. Water Cut-Offs: Where insulation is installed, water cutoffs shall be provided to protect the insulation at the end of each day's work or when rain or snow is imminent. Water cut-offs shall be constructed in accordance with the manufacturer's specifications.

G. Daily Cleanup: The Contractor shall provide daily removal and disposal from the roof surface of all fasteners, scraps, containers, and other debris resulting from the roofing system installation after the roofing membrane installation has commenced.

3.03 CORRECTIVE WORK: Deficient installation noted on the PETCO Punchlist Inspection must be corrected by the Roofing Subcontractor ONLY, and made ready for re-inspection by PETCO Project Manager, no later than the Date of Final Completion or Date of Tenant Space Turnover to PETCO.

END OF SECTION

SECTION 07600

SHEET METAL

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY:

A. Provide sheet metal products and accessories where noted on drawings, as specified in this Section, and as needed for a complete installation, including but not limited to the following:

1. Metal Roofing Panels.
2. Metal vented and non-vented Soffit Panel.
3. Miscellaneous sheet metal closures and accessory items.
4. Parapet Coping.
5. Rainwater Conductors.

1.03 SUBMITTAL: No product submittal is required for the work of this Section IF provided per the construction documents. Any Request for Product Substitution must be submitted per Section 01340- Submittals.

1.04 WARRANTY:

A. Manufacturer's Warranty: The Contractor shall include the Sheet Metal Manufacturer's standard 20 year warranty on finish durability (for Kynar 500/ Hylar 5000 finish) and workmanship, in the Building Maintenance Manuals submitted per Section 01700-Contract Closeout.

B. Installer's Warranty: The Contractor shall include a copy of the Installer's Warranty for all work provided, for a term of 1 year after the Date of Substantial Completion, in the Building Maintenance Manuals submitted per Section 01700-Contract Closeout.

PART 2 PRODUCTS

2.01 SHEET METAL PRODUCT MANUFACTURERS:

A. "Basis of Design": Aluminum products by ATAS International Inc., Allentown PA (610/395-8445).

1. Soffit Panels: ATAS Series WLS 120 Wind-lok Soffit Panels and WVS 120 (vented), with perimeter trim and mouldings as detailed on the drawings.
2. Building Shell Coping: ATAS .040", embossed texture, with accessories as detailed on the drawings.
3. Sheet Metal Colors:

a. Building Shell Coping: Color to be selected from product manufacturer's standard colors.
b. PETCO Entrance Feature: Provide roofing panels and related coping trim with color equal to ATAS International Brite Red #17.

B. Acceptable Alternative: Merchant & Evans Industries Inc., Burlington NJ (800/ 257-6215)

C. Acceptable Alternative: Reynolds Metals Company, Eastman GA (800/ 841-7774).

D. Acceptable Alternative: Product Substitution subject to approval per Section 01340-Submittals.

2.02 SHEET METAL REQUIREMENTS:

A. Sheet Metal Coping: Pre-finished 3004 Aluminum Alloy H-12 to H-14, tempered per ASTM B209; 12'-0" lengths with splice plates. Provide concealed anchors that resist wind uplift and permit expansion and contraction with temperature changes. Coping Corners shall be 45 degree shop-mitered and heliarc welded. Field fabricated coping corners with sealant applied at non-welded mitered meeting joints is NOT permitted.

B. Sheet Metal Accessories: Exposed Sheet Metal Accessories shall be the same material and finish as the coping. All welds shall be ground and shop painted to match the field color. Provide Expansion Joints at 20' to 30' intervals to prevent thermal movement distortion.

Description	Thickness/Texture
Coping Cap	.040"/embossed texture
Cont.hold-down cleat	.040"
Splice plates (concealed)	.032"
Splice plates (exposed)	.040"/embossed texture
Rainwater Conductors	.040"/embossed texture
Flashing	.040"/embossed texture
Closure (exposed)	.040"/embossed texture
Drip edges	.040"/embossed texture
12" Roofing Panels	.040"/embossed texture
12" Soffit Panels	.032"/smooth
12" Soffit Panels/vented	.032"/smooth, perforated
Fasteners	#14 w/neoprene washers

2.03 OTHER ACCESSORY COPING ITEMS:

A. Anchor cleats: Provide stainless steel or aluminum, designed to allow for expansion and contraction of the adjacent construction.

B. Exposed fasteners: Aluminum or stainless steel, with separate washers with hot bonded neoprene faces; stainless steel for wood connection.

C. Sealant or non-curing, non-skinning butyl, polyisobutylene tape: Provide between surfaces during assembly with a minimum amount exposed on the completed installation.

D. Coping Underlayment: Provide Type 15 or 30 asphalt rag felt per Fed. Spec. HH-R-595B.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this Section will be provided, shall correct conditions detrimental to the timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are needed.

3.02 INSTALLATION: Attachments and joints shall allow for expansion/contraction from temperature changes without distortion or elongation of fastener holes. Flashing shall be installed per AA, NRCA, and SMACNA Architectural Sheet Metal manuals.

3.03 RAINWATER CONDUCTORS DRAINAGE: Rainwater conductors shall tie to subsurface storm drainage system or shall terminate at finish grade and discharge onto pre-cast concrete splashblocks, as may be detailed on the Drawings.

END OF SECTION

SECTION 07720

ROOF ACCESSORIES

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY:

A. The Contractor shall provide roof accessories where shown on the drawings, as specified in this Section, and as needed for a complete and proper installation, using means and methods necessary to maintain the specified roofing manufacturer's warranty:

1. RTU (Rooftop Unit) and Exhaust Fan roof curbs.
2. RTU Retrofit Roof Curb Adapters.
3. Miscellaneous Sealant and Flashing Work.
4. Pipe Mounting Support Pedestals.
5. Roof Hatch.
6. Roof Hatch Safety Railing System.
7. Roof Walkway Pads

1.03 SUBMITTAL: No product submittal is required for the work of this Section IF provided per the construction documents. Any Request for Product Substitution must be submitted per Section 01340- Submittals.

1.04 QUALITY ASSURANCE: All supplementary roofing flashing and sealant work shall be provided per the roofing manufacturer's recommendations, so as to maintain the specified roofing warranty.

PART 2 PRODUCTS

2.01 MATERIALS:

A. ROOFTOP UNIT & OTHER MECHANICAL EQUIPMENT ROOFCURBS:

1. HVAC Rooftop Units: The Contractor shall provide the Rooftop Unit (RTU) roof curbs.
2. Exhaust Fans: The Contractor shall provide Exhaust Fan roofcurbs as required.
3. The Contractor shall provide treated wood blocking and shims as required to provide a level top of roofcurb elevation to receive all rooftop mechanical equipment.
4. Refer to the mechanical drawings and Section 15500- HVAC Systems.

B. RTU RETROFIT ROOF CURB ADAPTERS:

1. Reuse existing roof curbs and provide custom adapter extensions for installation of new rooftop equipment, equal to roof curb adapters by Roof Products Inc., Chattanooga TN (800-262-6669).
2. Contractor shall provide existing roof curb measurements and all pertinent data related to the new rooftop equipment to the fabricator.

C. MISCELLANEOUS SEALANT & FLASHING WORK: The Roofing Subcontractor, or others under the supervision of the Roofing Subcontractor shall provide supplementary roofing flashing and sealant work upon completion of the Building Signage installation using means and methods necessary to maintain the specified roofing manufacturer's warranty.

D. PIPE MOUNTING SUPPORT PEDESTALS: Provide pre-manufactured pipe mounting pedestals for rooftop horizontal gas piping equal to Pillow Block Pipestands with accessory Pipe Straps, by Miro Industries Inc., Midvale UT (801-566-3680).

1. Acceptable Alternative Product/ Manufacturer: RPS-Pipe mounting pedestals, equipment rail and pipe strap accessories, by Roof Products & Systems Corporation, Bensenville IL (708-595-7320).
2. Unacceptable Alternative Product: Wood blocking is NOT an acceptable pipe support system for horizontal gas piping.
3. The Contractor shall coordinate quantity and locations with the Plumbing Subcontractor.
4. The Contractor may either secure or NOT secure pipe mounting pedestals to the roof membrane, but in any event, it must be in accordance with the roofing manufacturer's recommendations, so as to maintain the roofing manufacturer's warranty.
5. Submittal: No product submittal is required.

E. ROOF HATCH: Provide a roof hatch equal to Type S-20 by Bilco Company, New Haven CT (203-934-6363, www.bilco.com).

1. Acceptable alternative manufacturer: Provide Model #G3844 by Acudor Products Inc., Cedar Grove NJ (201-857-1800).
2. Acceptable alternative manufacturer (Safety Railing Ready): Provide Model LH-G by Dur-Red Products, Cudahy CA (323-771-9000).
3. Acceptable alternative manufacturer (Safety Railing Ready): Provide Model RHG3036 by Marathon Roofing Products Inc., Buffalo NY (716-685-3340).
4. Roof Hatch shall be 36" x 30", 14 gauge fiberglass-insulated box-type design; 22 gauge galvanized steel liner; hydraulic assist and self-latching outside turn handle; inside and outside padlock provisions; factory primed.
5. Unpainted exterior. Interior to be field painted.
6. Submittal: No product submittal is required.

F. ROOF HATCH SAFETY RAILING SYSTEM: Provide a Roof Hatch Safety Railing System equal to Bil-Guard Hatch Rail System Model RL-S (for Roof Hatch size 30" x 36") by Bilco Company, New Haven CT (203-934-6363, www.bilco.com).

1. Acceptable alternative manufacturer: Model # RHSR-SS (for Roof Hatch size 30" by 36" with hatchway ladder mounted on the 30" side of the hatch, opposite latch lid hinges), by Safety Rail Source, Harleysville PA (877-723-3766).
2. Submittal: No product submittal is required.
3. Provide alternative Roof Hatch Safety Railing System model, if required due to a roof hatch configuration that is NOT as described.

G. ROOF WALKWAY PADS: Provide flexible, fully adhered homogeneous, non-laminated, skid-resistant pads, equal to Firestone #364Q, 30" x 30" x 0.3" rubber walkway pads with raised tread pattern, by Firestone Building Products Company (800-428-4442), or as recommended by the roofing manufacturer.

1. Pads shall be fully adhered with minimum 2" spacing, maximum 6" spacing between pads, for roof protection walkways adjacent to Roof Hatch; and adjacent to HVAC Rooftop Units.
2. Submittal: No product submittal is required.

I. Provide all other Roof Accessories as may be required for the proper completion of the work.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this Section will be provided, shall correct conditions detrimental to the timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are needed.

3.02 INSTALLATION: Install the work of this Section per the manufacturer's recommendations, anchoring all items firmly into position.

END OF SECTION

SECTION 07920

SEALANTS & CAULKING

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY:

A. The Contractor shall provide all labor, materials and equipment for caulking and sealant work, and make all joints wind and weathertight, at the following general locations:

1. All joints between door, storefront and miscellaneous frames and masonry.
2. Silicone Sealant at Tub Room wall inside corner joints.
3. Sawcut Scoring Joint between Chemically Stained Concrete Floor colors in the Retail area. *(for chemically treated concrete floor)*
4. All joints where a wind and weathertight joint is required, including but not limited to exterior hose bibbs and other plumbing, mechanical, electrical and other utility penetrations through the exterior wall assembly, and roof and roof parapet penetrations.
5. Rodent Control: All holes, gaps and meeting joints at exterior wall and tenant separation partitions greater than 1/4" in any dimension must be sealed so as to prevent rodent infiltration.
6. All control joints at interior and exterior masonry and concrete.
7. All control joints at interior gypsum wallboard partitions.
8. All sawcut control joints at interior and exterior concrete slabs.
9. All joints where a neat appearance is required between dissimilar materials.
10. Fire safing and fire sealant where fire separation assemblies are required, including but not limited to partitions at the underside of roof decking, and structural, plumbing, mechanical and electrical penetrations through fire separation wall assemblies.

1.03 SUBMITTAL: No product submittal is required for the work of this Section IF provided per the construction documents. Any Request for Product Substitution must be submitted per Section 01340- Submittals.

1.04 WARRANTY:

A. Manufacturers' Warranties: The Contractor shall include the product manufacturers' standard warranties in the Building Maintenance Manuals submitted per Section 01700- Contract Closeout.

B. Installer's Warranty: The Contractor shall include a copy of the installer's warranty for all work provided for a term of 1 year after the Date of Substantial Completion, in the Building Maintenance Manuals submitted per Section 01700- Contract Closeout.

1.05 DELIVERY, STORAGE & HANDLING: Do not retain material at the jobsite that has exceeded the shelf life recommended by the manufacturer.

PART 2 PRODUCTS

2.01 MATERIALS:

A. Sealants: As manufactured by Tremco, Cleveland OH, or equivalent products manufactured by Dow Corning, Pecora, or Sonneborn.

B. Typical Exterior Joints: “Tremco Dymeric” high performance epoxidized polyurethane meeting TT-S-00227E, Type II, Class A, 19-GP-24, ASTM C920-86. Provide manufacturer approved primer for joints contacting any anodized aluminum finish prior to installation of this product.

C. Façade and Building Abutment Joints, above grade: Where new construction abuts existing adjacent construction (e. g. zero-lot-line conditions), provide precompressed, expandable above-grade wall joints equal to Greyflex System, closed cell foam, color black, in dimension size(s) as required for closure of field-verified voids, as manufactured by Emseal Joint Systems Ltd., Westborough MA (508-836-0280). Supplementary primary sealant as further specified in this section shall be applied as a secondary closure to this system unless otherwise approved by the PETCO Project Manager. *(if applicable)*

D. Façade and Building Abutment Joints, below grade: Where new construction abuts existing adjacent construction (e.g. zero-lot-line conditions), provide precompressed, expandable below-grade wall joints equal to Series 20H System of foam, epoxy adhesive and topcoat, in dimension size(s) as required for closure of field-verified voids, as manufactured by Emseal Joint Systems Ltd., Westborough MA (508-836-0280). *(if applicable*)

E. Sealant at Façade and Building Abutment Joints, above grade: Provide sealant equal to Dynatrol II, Type II two-part polyurethane sealant, as manufactured by Pecora Corporation, Harleysville PA (800-523-6688) as a secondary closure to this joint system unless otherwise approved by the PETCO Project Manager. *(if applicable*)

F. Typical Interior Joints: “Mono” one-part acrylic terpolymer sealant, meeting ASTM C834.

G. Interior Sawcut Scoring Joints at Retail Area: Provide Lithoseal Trafficalk-3G, sealant, (one) Color as selected by PETCO, by L.M. Scofield Company, Douglasville, Georgia and Los Angeles, California (800-800-9900) or the appropriate Division Office*. (for chemically treated concrete floor)*

H. Joints in Metal Components: “Acoustical Sealant” non-drying synthetic rubber material for non-porous surfaces or product as specifically recommended by the metal products manufacturer.

I. Glazing Compound: Refer to Section 08800- Glazing.

J. Firestopping: Provide non-sag, one component sealant, meeting ASTM E814, ASTM 84, IEEE 634 and listed as UL 1479. The following are acceptable products: *(fire separation assembly, if applicable)*

1. FIRECODE compound with THERMAFIBER Safing Insulation, by USG Corporation, Chicago IL (312-321-4221).
2. FYRE-Shield Sealant, by Tremco, Beachwood OH (800- 321-7906).
3. CAFCO TPS Firestop Putty, by Isolatek International, Stanhope NJ (201-347-1200).

K. Sealant Colors:

1. When the sealant is NOT painted by a subsequent construction operation as indicated on the drawings, the color for each sealant installation is to be selected to closely

match the color of at least one of the adjacent surfaces. The PETCO Project Manager will be the judge as to the acceptability of the Contractor's proposed color selection.

2. In concealed installations, use standard Color Gray or Black sealant.
3. Should as acceptable color not be available from an approved substitute manufacturer not herein listed, except at additional charge, then the Contractor shall provide such premium colors acceptable to the PETCO Project Manager at no additional cost to PETCO.

2.02 PRIMERS: Use only those primers that have been tested for durability on the surfaces to be sealed and are specifically recommended for this installation by the manufacturer of the sealant used.

2.03 BACKUP MATERIALS: Use only those backup materials that are non-absorbent, non-staining, and specifically recommended for this installation by the manufacturer of the sealant used.

2.04 MASKING TAPE: For masking around joints, provide an appropriate masking tape which will effectively prevent application of sealant on surfaces not scheduled to receive it, and which is removable without damage to substrate.

2.05 OTHER MATERIALS: Provide other materials, not specifically described but required for a complete and proper installation, as selected by the contractor subject to approval.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this section will be provided, shall correct conditions detrimental to the timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

3.02 PREPARATION: Prepare all adjacent surfaces to achieve acceptable surface for bond without damage to adjacent finishes.

3.03 INSTALLATION: Install Sealants and Caulking in strict accordance with the manufacturer's recommended installation procedures.

END OF SECTION

SECTION 08100

METAL DOORS & FRAMES

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY: The Contractor shall purchase interior and exterior hollow metal doors and metal door frames from a PETCO Inventory Agreement Vendor, where shown on the drawings, as specified in this Section, and as needed for a complete and proper installation.

1.03 RELATED WORK:

A. Section 08410- Aluminum Entrance Doors & Storefront.

B. Section 08710- Finish Hardware; metal doors and frames shall be purchased from the same Inventory Agreement supplier as the Metal Doors and Frames specified in this Section.

1.04 NOT USED

1.05 SUBMITTALS:

A. Metal Doors and Frames Product Data: Submit manufacturer's product data indicating compliance with the standards specified in this Section.

B. Door and Frame Schedule: Submit door and frame schedule keyed to the Door Schedule in the drawings, in detail adequate to verify compliance with the standards specified in this Section.

1.06 WARRANTY: The Contractor shall include a copy of the Metal Door and Frame manufacturer's standard product warranty in the Building Maintenance Manuals, submitted per Section 01700- Contract Closeout.

PART 2 PRODUCTS

2.01 HOLLOW METAL DOORS & FRAMES (INVENTORY AGREEMENT):

A. The Contractor shall purchase Interior and Exterior Metal Doors and Frames from Girtman & Associates in an Inventory Agreement, and shall install all doors and frames. The Contractor shall coordinate delivery of Metal Doors and Frames with the following:

GIRTMAN & ASSOCIATES INC. / GIRTMAN TOTAL OPENINGS, LLC.
Contact: Jamie Stewart e-mail: jstewart@girtman.com
7115 Cockrill Bend Blvd., Nashville TN 37209
Tel. 855-447-8600, Ext 1511
FAX 615-350-6686

No product substitutions are permitted.

2.02 METAL DOOR REQUIREMENTS:

A. Interior Hollow Metal Doors:

1. Interior Hollow Metal Doors shall be 1-3/4", 18 gauge cold rolled steel manufactured flush with visible edge seams, 1/8" bevel on hinge and lock edges, top and bottom

inverted 14 gauge cold rolled steel channels spot welded within the door, with honeycomb core.
2. Doors shall be internally reinforced with 14 gauge steel reinforcement for closers.
3. Mortised hardware reinforcements shall be factory drilled and tapped.
4. Doors shall be phosphatized and receive one coat of baked on primer.

B. Exterior Hollow Metal Doors:

1. Exterior Hollow Metal Doors shall be 1-3/4", 16 gauge cold rolled steel manufactured flush with visible edge seams, 1/8" bevel on hinge and lock edges, top and bottom inverted 14 gauge cold rolled steel channels spot welded within the door, sound deadened with one pound density polystyrene laminated to inside panel faces. Perimeter voids shall be honeycomb filled.
2. Doors shall be internally reinforced with 14 gauge steel reinforcement for closers.
3. Mortised hardware reinforcements shall be factory drilled and tapped.
4. Outswinging exterior metal doors shall be provided with top weather caps.
5. Doors shall be phosphatized and receive one coat of baked on primer.

2.03 METAL DOOR FRAME REQUIREMENTS:

A. Hollow Metal Frame Standards (Typical for all Interior and Exterior Doors):

1. Hollow metal frames shall be 16 gauge flush cold rolled steel, fully arc-welded, 2" faces (4" head where applicable for masonry openings) reinforced with 8 gauge steel hinge reinforcements, 16 gauge strike reinforcement, drilled for door silencers at the rate of (3) per strike jamb and (2) per head of door pairs.
2. Exterior Door Frames and the Interior Door Frame at Pre-Sales shall be fully arc-welded frames with welded joints ground smooth.
3. Interior Fire-Rated Door Frames shall be fully arc-welded frames with welded joints ground smooth.
4. Interior Door Frames shall be Knocked-down EXCEPT for the Interior Door Frame scheduled at Pre-Sales.
5. Frames shall be furnished with a minimum of 6 wall anchors and (2) base anchors of manufacturer's standard design for the intended wall construction.
6. Frames shall be fitted for strikes and full mortise hinges as specified in Section 08710-Finish Hardware.
7. Frames shall be phosphatized and receive one coat of baked on prime paint.
8. Exterior Hollow Metal Frames shall receive a bituminous rust-resistive coating on the inside concealed surfaces of the metal frames, in addition to the prime coat, or shall be hot-dipped galvanized.
9. Exterior Door Frames shall bear the Product Notice of Acceptance--current jurisdiction approval and product acceptance, if required by the jurisdiction.

2.04 VISION LITE & LOUVER FRAME IN METAL DOOR:

A. Provide beveled, mitered and welded glass retainer vision lite frame and louver frame, in sizes scheduled, by Air Louvers Inc., Pico Rivera CA (310-948-3495).

1. Acceptable alternative: A-J Manufacturing Co. Inc., Kansas City MO (800-247-5746).
2. Other manufacturer as selected by the PETCO Inventory Agreement Vendor.

B. Louver Frame and Louver: Provide 20 gauge, fixed slat louvers with frame halves framing both sides of the door opening cut-out, with primer prepared for field painting, and sized nominally as shown on the drawings (reference "Door Types" and "Door Schedule" on the drawings).

C. Vision Lite Frame: Provide minimum 20 gauge vision lite frame, pre-punched with countersunk mounting holes, with baked on powder coat gray primer prepared for field painting, and 1/4” thick clear tempered glass at non fire-rated door assemblies.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this section will be provided, shall correct conditions detrimental to the timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

3.02 INSTALLATION OF EXTERIOR DOOR FRAMES: Exterior hollow metal door frames shall be solid grouted.

3.03 INSTALLATION OF FIRE-RATED DOORS AND FRAMES: Provide solid grout in hollow metal door frames where required as a component of the fire rated wall assembly.

3.04 INSTALLATION: The Contractor shall prepare the masonry and other openings as found, and shall install Hollow Metal Doors and Frames per the Manufacturer’s Written Instructions and industry standards.

END OF SECTION

SECTION 08300

SPECIAL DOORS

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY: The Contractor shall provide the Pre-Sales/ receiving exterior Door; and Double Acting Traffic Impact Doors at the Pre-Sales room; and the Building Signage Access Door where shown on the drawings.

1.03 RELATED WORK: Section 08100-Metal Doors & Frames; hollow metal door frame for the Double Acting Traffic Impact Doors at the Pre-Sales room.

1.04 SUBMITTAL: No submittal is required for the work of this Section IF provided per the construction documents. Any Request for Product Substitution must be submitted per Section 01340-Submittals.

1.05 WARRANTY: The Contractor shall include copies of the manufacturers' standard product warranties in the Building Maintenance Manual per Section 01700-Contract Closeout.

PART 2 PRODUCTS

2.01 PRE-SALES/ RECEIVING EXTERIOR DOOR:

A. Rolling Door (Building Exterior, located at Pre-Sales room):

1. Exterior Rolling Door: Provide rolling door equal to Overhead Door Corporation 625 series, face mounted rolling door by:
   Overhead Door Corporation
   2501 S. State Highway 121, suite 200
   Lewisville, TX 75067
   800-275-3290, phone 469-5459-7100, fax 972-906-1499
   www.overheaddoor.com, email at info@overheaddoor.com

   a. Rolling Door Construction: Metal/foam/metal insulated sandwich, interlocking slat construction; manual operation with chain hoist.
   b. Locking: Provide with interior bottom bar slide bolt lock.
   c. Finish: Manufacturer's standard polyester topcoat, Color Brown/ White or as selected by the building shell architect from the manufacturer's standard colors.

2. Acceptable Alternate: Model CFW, face mounted rolling service door by Cornell Iron Works Inc., Mountaintop PA (800-233-8366).

   a. Rolling Door Construction: Metal/foam/metal insulated sandwich, interlocking slat construction; manual operation with Type CF chain.
   b. Locking: Provide with interior bottom bar slide bolt lock.
   c. Finish: SpectraShield Polyester Powder Coating Color as selected by the building shell architect from the manufacturer's standard colors.

3. Acceptable alternate: Product Substitution, subject to approval per Section 01340-Submittals.

B. Sectional Overhead Door (Acceptable alternative to Rolling Door):

1. Provide Overhead Door Corporation Thermacore 591 Series OR 426 Series.
2. Door Assembly: Metal/ foam/ metal insulated sandwich panel construction, with EPDM thermal break and ship-lap design with rounded water channels.

    a. Door assembly shall additionally include rabbeted meeting rails forming weathertight joints and full-width interlocking structural rigidity.

3. Manual Operation: Chain hoist with gear reducers, and pull rope.
4. Finish: Manufacturer's prefinished, interior and exterior, with no manufacturer's labels.

    a. Exterior Color: To be selected from manufacturer's standard colors.
    b. Interior Color: To be selected from manufacturer's standard colors.

5. Acceptable alternate: Product Substitution, subject to approval per Section 01340-Submittals.

2.02 DOUBLE ACTING TRAFFIC IMPACT DOORS:

A. The Contractor shall purchase the Double Acting Traffic Impact Door from Girtman & Associates in an Inventory Agreement, and shall install the doors and door frame. The Contractor shall coordinate delivery of these doors and door frame with the following:

GIRTMAN & ASSOCIATES INC. / GIRTMAN TOTAL OPENINGS, LLC.
Contact: Jamie Stewart e-mail: jstewart@girtman.com
345 Mason Road La Vergne, TN 37086
Tel. 615-964-600 ext 1511 FAX 615-942-1171

B. Provide Model No. SCP-8 Double Acting Traffic Impact Doors by Eliason Easy Swing Door Division, Kalamazoo MI (800-828-3655). No product substitution is permitted.

1. Door Construction: .032" high pressure decorative laminate on both sides; stainless steel edge trim and top hardware cover; clear acrylic 9"x30" vision panels set in black rubber molding; "easy swing" zinc plated hinges; 18" height by 18 gauge stainless steel armor plates on both sides.
2. Finish: Custom Color, Wilsonart Color Beige #1530-60 matte, both sides of door.

2.03 Rolling Security Grille:

A. General

Supply and install where indicated Rolling Security Grille / folding aluminum closure model "SYSTEM S-126

Brick Pattern" as manufactured by MobilFlex Inc.. National Account rep Claire Touzin
TEL 418-831-6652 (1-800-216-FLEX-3539)
FAX 418-831-7817 (1-800-254-FLEX-3539)

B. Exclusions

Work not included in this section: preparation of the opening, overhead track supports, storage pockets, miscellaneous trim and field painting.

C. Submittals

Submittals (shop drawings, installation instructions, operation and maintenance instructions) shall be in accordance with

general instructions.

D. "SYSTEM S-126 Brick Pattern" by MobilFlex Inc.
Curtain

1. The top and bottom of each section is fitted with an aluminum panel 4" (102mm) high. This panel consists of an aluminum extrusion 1/16" (1,6mm) thick and composed of modules with a 15° angle between them to facilitate the operation of the closure. The curtain is constructed of vertical rods of 5/16" (8mm) in diameter. The spacing between the rods is 2-5/8" (67mm) in a brick pattern. These rods are linked together by flat horizontal bars of 1/8" x 5/8" x 6-5/8" (3mm x 16mm x 168mm). These bars are spaced vertically every 12" (305mm) by aluminum sleeves of 1/2" (13mm) in diameter.

2 Locking

a. Lead post shall be equipped with a hook bolt lock with MobilFlex cylinders each side.

b. Lead post shall engage a full height wall jamb.

c. Trailing post shall be self-locking at the top and bottom inside the storage pocket.

d. Free floating intermediate posts shall be located at all curves and at recommended intervals of 10 feet (3m) or 5 feet (1,5m) for counter top units. Intermediate posts shall be equipped with self-adjusting spring loaded drop bolts activated from the inside only. Drop bolts shall engage dustproof stainless steel receptacles.

E. Track

1. Curtain shall be hung from an overhead track 1-5/16" (33mm) wide by 1-9/16" (40mm) high. Track shall be tempered aluminum alloy 6351-T6.
2. Curves where required shall be 14" (356mm) radius standard.

F. Stacking

1. Stacking shall not exceed a depth of 1.15" per foot of closure width plus 3" for each post (lead, end or intermediate). (95mm/lin. m + 76mm per post). Full egress doors add 7" (178mm).

5. Finish

Finish shall be standard clear anodized.

G. Installation

1. Verify that other trades have completed all preparation work.
2. Verify dimensions of opening prior to installation.

I. Installation

1. Install closure as per printed instructions from MobilFlex and approved shop drawing.
2. Clean and adjust closure to ensure smooth operation.

2.04 BUILDING SIGNAGE ACCESS DOOR:

A. Refer to building shell construction drawings. *(if applicable, if clearly established, acceptable location, and certain to be provided)*

A. Provide Acudor Series #SF-2000, nominal door size 24"x24", prime coated steel, 16 gauge door and frame, with piano hinge, by Acudor Products Inc., Cedar Grove NJ (201-857-1800), at the following locations and with the following additional features:

1. Soffit Access Door (Exterior): Provide with cylinder lock and key.
2. Ceiling Access Door (Interior): Provide at the Retail Area ceiling at access to the entrance pediment rooftop enclosure, complete with stainless steel screwdriver cam latch.

C. Acceptable alternative: Cesco Products (888-422-3726; www.cescoproducts.com).

D. Finish: The Contractor shall paint the Building Signage Access Door to match adjacent finish surfaces.

PART 3 EXECUTION

3.01 INSTALLATION:

A. The Rolling Door or Sectional Overhead Door at Pre-Sales shall be installed in accordance with the manufacturer's printed instructions and as otherwise detailed on the drawings.

B. The Double Acting Traffic Impact Door at Pre-Sales shall be installed in accordance with the manufacturer's printed instructions and as otherwise detailed on the drawings.

C. The Building Signage Access Door shall be installed in accordance with the manufacturer's printed instructions and as otherwise detailed on the drawings.

END OF SECTION

SECTION 08410

ALUMINUM ENTRANCE DOORS & STOREFRONT

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY: The Contractor shall provide exterior Aluminum Storefront; interior windows aluminum channel glazing frames; interior aluminum swing doors; interior aluminum manual sliding door; interior and exterior Automatic Sliding Entrance Door Units with Transoms, and exterior and interior aluminum door hardware where shown on the drawings, as specified in this Section, and as needed for a complete and proper installation.

1.03 RELATED WORK: Section 08710-Finish Hardware for Aluminum Door door finish hardware that shall be provided by the Contractor's selected hardware supplier. Some, but not all, Aluminum Door Finish Hardware will be furnished by a PETCO Inventory Agreement Vendor. The Contractor shall install all door finish hardware except where specifically noted to be installed by PETCO.

1.04 NOT USED

1.05 SUBMITTALS:

A. Interior Storefront Shop Drawings/ Product Data: Submit Shop Drawings and Product Data per Section 01340-Submittals, showing the dimensions of work to be fabricated; type, size and spacing of fasteners; material thickness, painted finish type and finish Colors; and the interface of this work with adjacent trades. *(Interior if Exhibit B, shell by others)*

1. Engineer's Certification: If specifically required by the local jurisdiction, exterior aluminum storefront shop drawings shall be signed and sealed by a registered professional engineer licensed to practice in the State of Michigan, as a certification that the exterior aluminum storefront has been engineered by either the manufacturer or the manufacturer's engineer/agent to meet the more stringent of either the Building Code or local wind load requirements for exterior aluminum storefront.
2. Interior Automatic Sliding Entrance Door/ Transom Unit(s) Product Data: The Contractor shall submit Product Data per Section 01340-Submittals, in sufficient detail, showing the dimensions of work; type, size and spacing of fasteners; material thickness, finish Colors; and the interface of this work with adjacent trades.
3. Interior Manual Sliding Aluminum Door Unit Product Data: The Contractor shall submit Product Data per Section 01340-Submittals, in sufficient detail, showing the dimensions of work; material thickness, finish Color; and the interface of this work with adjacent trades.

1.06 QUALITY ASSURANCE:

A. Aluminum Storefront and Automatic Sliding Entrance Door Unit shall bear the Product Notice of Acceptance--current jurisdiction approval and product acceptance, if required by the jurisdiction.

B. Storefront Structural Engineering: The Contractor and storefront manufacturer shall be responsible for providing an engineered storefront system which meets the most stringent of either the pertinent Model Building Code or local wind load requirements for exterior aluminum storefront and interior storefront at the Vestibule which may be subject to exterior wind load requirements. The Contractor and storefront manufacturer shall provide all integral vertical and horizontal structural reinforcements as may be required, but may not be

specifically shown on the drawings, as a part of the manufacturer-engineered storefront system, to meet applicable model code and local wind load requirements.

C. Interior and exterior Manual Operation Aluminum Doors with glass lites shall be provided with a 10” bottom door rail.

D. Automatic Sliding Entrance Door Units shall be manufactured and installed per ANSI A156.10 for power operated pedestrian doors.

E. The Contractor shall provide inspection and certification of the installed Automatic Sliding Entrance Doors by an AAADM-certified inspector as further specified in this Section.

1.07 WARRANTY:

A. Automatic Sliding Entrance Doors/ ANSI 156.10 Compliance: The Contractor shall include a copy of a completed “American Association of Door Manufacturer (AAADM) Inspection Form”, as proof of the installed automatic door unit(s) compliance with ANSI 156.10 standards, in the Building Maintenance Manual submitted to PETCO per Section 01700-Contract Closeout. The Automatic Sliding Entrance Door Unit(s) shall be inspected and the AAADM Inspection Form shall be signed by an AAADM-certified inspector before either placing the automatic doors in operation, or prior to the Date of Substantial Completion or Date of Tenant Space Turnover to PETCO, whichever is earlier.

B. Aluminum Entrance Doors and Storefront Manufacturer’s Warranty: The Contractor shall provide the manufacturer’s aluminum storefront and entrance door warranty to replace work of this Section that fails due to defective materials or workmanship within three (3) years from the Date of Substantial Completion or Date of Tenant Space Turnover to PETCO.

C. Aluminum Storefront Installer’s Warranty: The Contractor shall include a copy of the aluminum storefront installer’s warranty for all work provided, for a term of 1 year after the Date of Substantial Completion, in the Building Maintenance Manual submitted to PETCO per Section 01700-Contract Closeout.

D. Automatic Sliding Entrance Door Units Product Warranty: The Contractor shall provide the manufacturer’s standard Three Year product warranty.

E. Automatic Sliding Entrance Door Units Installer’s Warranty: The Contractor’s Installer shall provide a warranty for all work provided under the general contract, including labor to repair or replace defective parts and transportation, for one (1) year from the Date of Substantial Completion.

PART 2 PRODUCTS

2.01 ALUMINUM STOREFRONT & MANUAL ALUMINUM SWING DOORS (EXTERIOR AND INTERIOR):

A. Aluminum Storefront and Doors shall be equal to products by Kawneer Company Inc., Bloomsburg PA.

1. Unless otherwise accepted by the PETCO Project Manager, acceptable alternative manufacturers are limited to the following:

a. Leed Himmel Industries Inc., Hamden, CT (203-248-2886).

b. Tubelite Architectural Systems, Reed City, MI (616-832-2211).
c. United States Aluminum Corporation, Waxahachie, TX (214-937-9651).
d. Oldcastle Building Envelope, Terrell, TX (972-551-6100).

2. Interior Storefront: Typical Aluminum Section 4-1/2" x 1-3/4" to receive 1/4" nominal single pane glass. Finish Type and Color shall be per the Color Schedule in this Section.
3. Exterior Storefront: Typical Aluminum Section 4-1/2" x 2" to receive 1" nominal insulating glass 4-1/2" x 1-3/4" to receive 1/4" nominal single pane glass, with other aluminum extrusion profiles where shown on the drawings. Finish Type and Color shall be per the Color Schedule in this Section.

B. Acceptable Aluminum Storefront and Doors:

Manufacturer	**Thermal**	**Non-Thermal**	**Entrance Doors**
Kawneer	451T	Trifab II 450	190 Series Narrow Stile
Leed Himmel	Series 4500-T	Series 1500	Series AB Narrow Stile
Tubelite	14000-T Series	4500 Series	D-36 Narrow Stile
U.S. Aluminum	Series IT451	Series 450-S	#250 Narrow Stile
Oldcastle Building Envelope	Series 3000-S	Series 2000	Series 212 Narrow Stile

C. Aluminum Manual Operation Entrance Doors (interior):

1. Provide 10" bottom door rail.
2. Single Acting Door:

a. Door Stile Face Shape: Beveled.
b. Offset Pivot Hinges: Clear Anodized Finish.
c. Push/ Pull Hardware: 1" tubular horizontal Push Bar and vertical Pull Bar, Clear Anodized Finish.

4. Double Acting Door (interior):

a. Door Stile Face Shape: Radiused.
b. Double Acting Hinges: Refer to Section 08710-Finish Hardware.
c. Push/ Pull Hardware: 1" tubular horizontal Push Bar on both sides of double acting doors, Clear Anodized Finish.
d. Bottom Pivot: Center acting.

2.02 NOT USED

2.03 AUTOMATIC SLIDING ENTRANCE DOOR UNITS (Vestibule interior and exterior):

A. The Contractor shall purchase and install Gyro Tech Automatic Sliding Entrance Door Units with Transoms, from NABCO Entrances Inc. via an Inventory Agreement. The Contractor shall coordinate delivery of Door Units with Transoms, to the jobsite, with:

NABCO ENTRANCES INC.
Contact: Laura Eidler, National Accounts Coordinator
e-mail: leidler@nabcoentrances.com
Tel. 262-682-5794 FAX 262-679-3319

No product substitutions are permitted.

B. Finish:

1. The Interior Sliding Entrance Door Unit and Transom shall be Clear Anodized Finish.
2. Exterior Automatic Sliding Entrance Door Unit and Transom's finish/ color shall be Dark Bronze Anodized Finish (or shall match the building shell's exterior storefront finish/ color).

C. Automatic Sliding Entrance Door Units with Transoms:

Drawing Mark	**Stationary (O)** **Stationary w/ Breakout (SO)** **Operating (SX)**	**Gyro Tech Unit Designation**
AU-1 (Exterior) 14'-0" unit	O-SX-SX-O	GT1175 Bi-Part "Whisper" Slider, fixed sidelites
AU-2 (Interior) 14'-0" unit	O-SX-SX-O	GT1175 Bi-Part "Whisper" Slider, fixed sidelites

1. Automatic Door Actuator: Provide Operator and Header, with Motion and Presence Detectors.
2. Control Switch: Provide five-position control switch (i.e. off-exit-automatic-reduced opening-hold open). Control Switch must be located on the "Retail" side of the interior automatic sliding entrance door units; and on the "Vestibule" side for the exterior automatic sliding entrance door unit.
3. Locking: Provide two-point locking latch bolt, mortise cylinder with interior-side thumb turn, and 7-pin interchangeable construction core (Vestibule-side for interior door units, exterior side of exterior door unit). Refer to Section 08710-Finish Hardware for balance of door finish hardware to be provided by the Contractor.
4. Threshold: Provided by the automatic sliding entrance door manufacturer, multi-piece with optional removal of sloped edge on interior side of vestibule to coordinate with mat installation, ADA-compliant, 1:2 maximum slope, surface mounted saddle threshold, located at the door opening.
5. Glazing: The Contractor shall provide 1/4" non-insulated glazing for doors, sidelite and transom units per Section 08800-Glazing.

2.04 ALUMINUM BRAKE METAL: Provide .063" Brake Metal, with factory-finished color as scheduled in this Section to match adjacent aluminum storefront, as detailed on the Drawings, and as required for a complete installation.

2.05 SAFETY RAIL AT INTERIOR SIDE OF EXTERIOR STOREFRONT: *(if applicable)*

A. Provide Safety Rail system mounted to the interior face of exterior storefront, when the exterior storefront's horizontal aluminum framing mullion is not located between 21" and 34" height above the finish floor.

1. Rail: Provide equal to Kawneer #104-060, 6" H. x 1.25" W.
2. The Safety Rail shall receive Wall Bumper trim as specified in Section 10300.

2.06 ALUMINUM STOREFRONT, SWING DOOR, SLIDING DOOR COLOR SCHEDULE:

Description (Location)	**Finish Type/Finish Color**
Building Exterior (Exterior Storefront, Exterior Automatic Sliding Entrance Door Unit with Transom)	Contractor shall verify with the Building Shell drawings; the exterior automatic sliding entrance door unit finish / color shall match the building shell's exterior storefront finish/ color.

Building Interior (Safety Rail, if req'd)	To match the exterior storefront finish/ color
Building Interior (Vestibule)	Clear Anodized
Building Interior (all other)	Clear Anodized or Satin Anodized
Brake Metal	Color to match adjacent aluminum color, as scheduled

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this Section will be provided; shall correct conditions detrimental to the timely and proper completion of the work; and shall NOT proceed until unsatisfactory conditions are corrected.

3.02 INSTALLATION:

A. Provide a bituminous paint/ zinc chromate or similar separation material where aluminum is in contact with steel or other dissimilar material.

B. Install brake metal closures, with concealed fasteners wherever possible, for complete finished appearance. Vertical brake metal shall be continuous, without horizontal joints.

C. Manual Door Adjustment: 8.5 ft-lbs (exterior), 5.0 ft-lbs (interior) maximum opening force.

D. Miscellaneous Warning Signs: Provide applied safety decals as required for code compliance for the Automatic Sliding Entrance Doors and as specified per Section 10300- PETCO-Furnished & Contractor-Provided Items. Decals for automatic sliding doors, decal colors and locations shall meet latest version of the ANSI/BHMA A156.10 and A156.19 standards. Improper or missing decals constitute a violation of the ANSI/BHMA standard. Refer to elevation drawing of door and door manufacturer for more information.

END OF SECTION

SECTION 08710

FINISH HARDWARE

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY:

A. The Contractor shall purchase Door Finish Hardware from the PETCO Inventory Agreement Vendor as shown on the drawings, as specified in this Section, and as required for a complete installation, except where finish hardware items may be specifically noted to be provided by PETCO or others.

B. Some parts of the door finish hardware for aluminum entrance doors shall be furnished by the aluminum door supplier, including typically:

1. Aluminum Door Hinges or Pivots.
2. Aluminum Door Pulls and Push Bars.
3. Aluminum Door flush bolts at pairs of doors.
4. Aluminum Door Closers and closer accessories (surface and overhead concealed)

1.03 RELATED WORK:

A. Section 08100- Metal Doors & Frames; interior and exterior metal doors & frames shall be purchased from the same Inventory Agreement supplier as the Door Finish Hardware specified in this Section.

B. Section 08410- Aluminum Entrance Doors & Storefront; some door finish hardware may be furnished by the aluminum door manufacturer.

1.04 SUBMITTALS:

A. Finish Hardware Schedule/ List: Submit finish hardware schedule/ list.

B. Finish Hardware Product Data: Submit product data for all finish hardware items, with the specified finish hardware clearly identified.

PART 2 PRODUCTS

2.01 DOOR FINISH HARDWARE (INVENTORY AGREEMENT): The Contractor shall purchase Door Finish Hardware from the PETCO Vendor via an Inventory Agreement, and shall install Door Finish Hardware. The Contractor shall coordinate purchase and delivery of Door Finish Hardware with:

GIRTMAN & ASSOCIATES INC. / GIRTMAN TOTAL OPENINGS, LLC.
Contact: Jamie Stewart - e-mail: jstewart@girtman.com
7115 Cockrill Bend Blvd., Nashville TN 37209
Tel. 855-447-8600, Ext 1511
FAX 615-350-6686

No product substitutions or alternative suppliers are permitted.

2.02 DOOR FINISH HARDWARE NOTES:

A. Except as may be specified otherwise, finishes shall be as follows:

Typical Finish Hardware Item	US, BHMA, other	Finish Description
Hinges (interior), Cylinder, Thumbturn, Deadlock, Interchangeable Store Core, Leverset, Door Push Plates, Door Pulls	626, US26D	Satin Chromium Plated
Hinges (exterior), Kickplate, Armor Plate	32D	Satin Stainless Steel
Silencer	other	Gray rubber
Threshold, Weatherstripping	other	Mill Finish Aluminum

B. Accessibility Compliance: Leversets and door thresholds shall be provided to meet Americans with Disabilities Act standards.

2.03 DOOR HARDWARE, ACCEPTABLE MANUFACTURERS:

A. Acceptable Manufacturers (with Key Abbreviations Used in Finish Hardware Schedule):

1. AR Adams Rite Manufacturing Co., City of Industry CA (310-699-0511).
2. BE Best Lock Corporation, Indianapolis IN (317-849-2250).
3. HA Hager Hinge Co., St. Louis MO (800-325-9995).
4. IV HB Ives, New Haven CT.
5. GS Girtman & Associates' Supplier.
6. KA Kaba Ilco Corp., Winston Salem, NC 27105 (800-849-8324)
7. LC LCN Closers, Princeton IL (800-526-2400).
8. NO Norton Door Control, Charlotte NC (704-283-2101).
9. PE Pemko, Ventura CA (805-642-2600).
10. RD Rudolph Desco Company Inc., Englewood Cliffs NJ (www.desco-group.com).
11. RX Rixson Specialty Door Controls, Monroe NC (800-457-5670; www.rixson.com)
12. SC Schlage Lock Company, San Francisco CA (800-847-1864).
13. TR Trimco/BBW, Los Angeles CA (323-362-4191; www.trimcobbw.com).
14. VD Von Duprin (www.vonduprin.com).
15. ZE Zero International Inc., Bronx NY (800-635-5335).

2.04 FINISH HARDWARE SCHEDULE: Refer to Drawing Sheet A3.1 "Door Schedule" for Hardware Set Numbers.

A. HARDWARE SET NO. 1: AL Automatic Sliding Entrance Door (Vestibule to exterior)

Furn. By	Quan	Mfr.	Model No.	Description
Contractor*	1	AR	MS+4002	*Armored Strike
Contractor*	1	AR	MS+1890	*Hookbolt Latch/ Lock
Contractor*	1	AR	4036	*Temporary Cylinder
Contractor*	1	AR	4066	*Mortise Turn Knob Cylinder (at Vestibule side)
Contractor*	1	See Section 08410		*Saddle Threshold 1/2" max height (1:2 maximum slope)
Girtman	1	SC	80-103	Mortise Cylinder with Interchangeable Construction Core (at exterior side)
Girtman	1	Instakey	IKSF-H-R7-626-A	Instakey Permanent Core
Girtman	1	SC	80-035	Interchangeable Store Core
Contractor*	1	TR	7741BC	*Adhesive Sign (1" black letters on contrasting background) "This Door To Remain Unlocked When The Building is Occupied"

Notes for this Hardware Set:

1. *Indicates door finish hardware that is NOT included in the Petco Inventory Agreement Vendor (Girtman's) scope. This door finish hardware shall be furnished by the aluminum door supplier or other Contractor-designated supplier.
2. See Paragraph 3.02 regarding Store Cores and Interchangeable Cores.
3. Adhesive Sign shall be mounted to the header above the automatic sliding entrance door unit, or as may be otherwise directed by the jurisdiction.

B. HARDWARE SET NO. 2: AL Automatic Sliding Entrance Door (Retail to Vestibule)

Furn. By	Quan	Mfr.	Model No.	Description
Contractor*	1	AR	MS1850S	*Deadlock
Contractor*	1	AR	4036	*Temporary Cylinder
Contractor*	1	AR	4066	*Mortise Turn Knob Cylinder (at interior side)
Contractor*	1	See Section 08410		*Saddle Threshold 1/2" max height (1:2 maximum slope)
Girtman	1	SC	80-103	Mortise Cylinder w/ Interchangeable Construction Core (at Vestibule side)
Girtman	1	SC	7181tk1 x 1-1/8"	Thumbtum
Girtman	1	Instakey	IKSF-H-R7-626-A	Instakey Permanent Core
Girtman	1	SC	80-035	Interchangeable Store Core
Contractor*	1	TR	7741BC	*Adhesive Sign (1" black letters on contrasting background) "This Door To Remain Unlocked When The Building is Occupied"

Notes for this Hardware Set:

1. *Indicates door finish hardware that is NOT included in the Petco Inventory Agreement Vendor (Girtman's) scope. This door finish hardware shall be furnished by the aluminum door supplier or other Contractor-designated supplier.
2. See Paragraph 3.02 regarding Store Cores and Interchangeable Cores.
3. Adhesive Sign shall be mounted to the header above the automatic sliding entrance door unit, or as may be otherwise directed by the jurisdiction.

HARDWARE SET NO. 3.1: Grooming Reception to Salon, and Grooming Reception to Cage Room)

Furn. By	Quan.	Mfr.	Model No.	Description
Contractor*	2	See Section 08410		*Offset Pivot Hinges
Contractor*	2	See Section 08410		*Push/ Pull bars
Contractor*	1	AR	MS1850S	*Deadlock
Contractor*	1	LC	1460-DEL	*Parallel Arm Closer w/ adjustable delayed action and cover (at push side)
Contractor*	1	LC	1460-18PA	*Closer Drop Plate
Contractor*	1	LC	1460-148	*Closer Soffit Plate
Contractor*	1	HA	520-SN	*Aluminum Saddle Threshold 1/2" x 5" w/ w/ neoprene gasket
Girtman	1 set	HA	736S	Silicone Weatherstripping (head and jambs)
Girtman	1	HA	236W-US26	Wall Mounted Door Bumper

Notes for this Hardware Set:

1. *Indicates door finish hardware that is NOT included in the Petco Inventory Agreement Vendor (Girtman's) scope. This door finish hardware shall be

furnished by the aluminum door supplier or other Contractor-designated supplier.

D. HARDWARE SET NO. 4 AL Entrance Door (interior, double acting, door between Grooming Salon and Cage Room)

Furn. By	Quan.	Mfr.	Model No.	Description
Contractor*	1	LC	6030	*Concealed Overhead Closer
Contractor*	1	See Section 08410		*Bottom Pivot
Contractor*	2	See Section 08410		*Push bars (one at each side of door)
Contractor*	1	HA	403S-A	*Saddle Threshold 1/4" x 4"
Contractor*	2	-	Mfr. Std.	*Dummy Cylinder (provided at the Contractor's option IF the door is pre-drilled for a cylinder)

Note for this Hardware Set:

1. *Indicates door finish hardware that is NOT included in the Petco Inventory Agreement Vendor (Girtman's) scope. This door finish hardware shall be furnished by the aluminum door supplier or other Contractor-designated supplier.

F. HARDWARE SET NO. 6: HM Interior Door (Office)

Furn. By	Quan.	Mfr.	Model No.	Description
Girtman	3	HA	ECBB1100	Full Mortise Hinge 4.5" x 4.5"
Girtman	1	SC	ND80BD RHO	Storeroom Lever Lock (F86) w/ Interchangeable Construction Core
Girtman	1		IKSF-H-R7-626-A	Instakey Permanent Core
Girtman	1		SF-LT-112	Lazy Cam Tailpiece
Girtman	1	SC	80-035	Interchangeable Store Core
Girtman	1	LC	4031	Closer w/ adjustable delayed action and cover (at "Room" side)
Girtman	1	HA	194S	Kickplate 10" x 34" (at non-swing door side)
Girtman	1	HA	403S-A	Saddle Threshold 1/4" x 4"
Girtman	1	RD	DS-6	Security Door Viewer
Girtman	1	HA	267S	Door Stop (floor mounted)
Girtman	3	HA	307D	Silencers

Note for this Hardware Set:

1. See Paragraph 3.02 regarding Store Cores and Interchangeable Cores.

G. HARDWARE SET NO. 7: HM Interior Door (Hallway to Break Room)
And HARDWARE SET NO. 7.1: HM Interior Door (Hallway to Work Room)

Furn. By	Quan.	Mfr.	Model No.	Description
Girtman	3	GS	ECBB1100	Full Mortise Hinge 4.5" x 4.5"
Girtman	1	YA	E4721LN B AU	Programmable Access Control Lockset with cylinder (for HARDWARE SET No. 7 only)
Girtman	1	SC	AL70BD SAT	Classroom Lever Lock (F84) w/ Interchangeable Construction Core (for HARDWARE SET NO. 7.1 only)
Girtman	1		IKSF-H-R7-626-A	Instakey Permanent Core
Girtman	1		SF-LT-112	Lazy Cam Tailpiece
Girtman	1	SC	80-035	Interchangeable Store Core

Girtman	1	LC	4031 LD/PA	Closer w/ adjustable delayed action and cover (at “Room” side)
Girtman	1	HA	194S 10” x 34”	Kickplate (at non-swing door side)
Girtman	1	HA	403S-A	Saddle Threshold 1/4” x 4”
Girtman	1	HA	268F	Cast Floor Stop and Holder
Girtman	3	HA	307D	Silencers

Note for this Hardware Set:

1. See Paragraph 3.02 regarding Store Cores and Interchangeable Cores.

H. HARDWARE SET NO. 8 HM Exterior, Means of Egress Door (located at Hallway from Retail to exterior)

Furn. By	Quan.	Mfr.	Model No.	Description
Girtman	3	GS	ECBB1101 BB1199 if >42”x80”	Full Mortise Hinge 4.5”x4.5”, Stainless Steel w/ Non-Removable Pin
Girtman	1	VD	22EO	Rim Exit Device
Girtman	1	LC	4040 XP	Closer w/ cover (at interior side)
Girtman	1	HA	520SN	Aluminum Saddle Threshold w/ neoprene gasket
Girtman	1 set	HA	862S	Weatherstripping
Girtman	1	HA	810SA	Door Frame Top Rain Cap
Girtman	1	HA	782S V	Door Sill Rain Cap
Girtman	1	RD	DS-6	Security Door Viewer
Girtman	1	-	-	* 1” Red Letters on White Background, Vinyl Adhesive Sign, text “EMERGENCY EXIT ONLY—ALARM WILL SOUND”

Notes for this Hardware Set:

1. Vinyl Adhesive Sign to be mounted on center of door, at a height of 60” AFF to center of sign.
2. This Door’s Security Door Viewer to be mounted at a height of 60” AFF to center.

I. HARDWARE SET NO. 9: HM Interior Door (located at Mens and Womens Restrooms)

Furn. By	Quan.	Mfr.	Model No.	Description
Girtman	3	GS	ECBB1100	Full Mortise Hinge 4.5” x 4.5”
Girtman	1	SC	AL40S-SAT-626	Privacy Lever Lock (F76)
Girtman	1	LC	4031 LD/PA	Closer w/ cover (at Restroom side)
Girtman	1	HA	194S	Kickplate 10” x 34” (at Hallway side)
Girtman	1	HA	403S-A	Saddle Threshold 1/4” x 4”
Girtman	1	HA	268F	Cast Floor Stop and Holder
Girtman	3	HA	307D	Silencers

J. HARDWARE SET NO. 10: HM Interior Door (Wellness Room to Work Room)

Furn. By	Quan.	Mfr.	Model No.	Description
Girtman	3	GS	ECBB1100	Full Mortise Hinge 4.5” x 4.5”
Girtman	1	SC	ND80BD RHO	Storeroom Lever Lock (F86) w/ Interchangeable Construction Core
Girtman	1		IKSF-H-R7-626-A	Instakey Permanent Core
Girtman	1		SF-LT-112	Lazy Cam Tailpiece
Girtman	1	SC	80-035	Interchangeable Store Core
Girtman	1	LC	4031 H/PA	Closer w/ adjustable delayed action

				and cover (at “Room” side) Hold Open
Girtman	1	HA	403S-A	Saddle Threshold 1/4” x 4”
Girtman	3	HA	307D	Silencers

Note for this Hardware Set:

1. See Paragraph 3.02 regarding Store Cores and Interchangeable Cores.

L. HARDWARE SET NO. 12: Double Acting Doors (interior, located from Retail to Pre-Sales):

Furn. By	Quan.	Mfr.	Model No.	Description
Girtman	1	HA	676S	Aluminum Plate 1/8” x 3” x 72” (1/8” single edge bevel, no flutes)

Note: For this Hardware set, if floor finishes are the same on each side of door (sales and pre-sales) do not provide door threshold. Edit door schedule as required, remove hardware set number.

M. HARDWARE SET NO. 13: HM Exterior Door (located at Pre-Sales)

Furn. By	Quan.	Mfr.	Model No.	Description
Girtman	3	GS	ECBB1101 BB1199 if >42”x80”	Full Mortise Hinge 4.5”x4.5”, Stainless Steel w/ Non-Removable Pin
Girtman	1	VD	22EO	Rim Exit Device
Girtman	1	LC	4040 XP	Closer w/ cover (at Pre-Sales side)
Girtman	1	HA	194S	Armorplate 30” x 34” (at Pre-Sales side)
Girtman	1	HA	520SN	Aluminum Saddle Threshold 1/2”x5” w/ neoprene gasket
Girtman	1 set	HA	862S	Weatherstripping, mill finish (2 x 84”; 1 x 36”)
Girtman	1	HA	810SA	Door Frame Top Rain Cap
Girtman	1	HA	782S V	Door Sill Rain Cap
Girtman	1	RD	DS-6	Security Door Viewer
Girtman	1	-	-	* 1” Red Letters on White Background, Vinyl Adhesive Sign, text “EMERGENCY EXIT ONLY—ALARM WILL SOUND”

Note for this Hardware Set:

1. This Door’s Security Door Viewer to be mounted at a height of 60” AFF to center.

N. HARDWARE SET NO. 14: Exterior Rolling Door and Roof Hatch (located at Pre-Sales):

Furn. By	Quan.	Mfr.	Model No.	Description
Girtman	1	SC	KS41F1200	Padlock w/ interchangeable construction core
Girtman	1		IKSF-H-R7-626-A	Instakey Permanent Core
Girtman	1		SF-LT-112	Lazy Cam Tailpiece
Girtman	1	SC	80-037	Interchangeable Store Core

Note for this Hardware Set:

1. See Paragraph 3.02 regarding Store Cores and Interchangeable Cores.

O. N/A

P. TRASH ENCLOSURE GATE HARDWARE:

Furn. By	Quan.	Mfr.	Model No.	Description

Contractor*	4	HA	1850	*Full surface plain bearing heavyweight Welding Hinge
Contractor*	2	HA	1408	*Cane Bolt 18" L x 1/2"

PART 3 EXECUTION

3.01 RENOVATION WORK:

A. Where existing interior or exterior doors are scheduled for re-use, the Contractor may refurbish existing door finish hardware to provide the same function, features and applicable building code compliance as if the door finish hardware is provided new, except as may be specifically noted in the Finish Hardware Schedule, or as otherwise directed by the PETCO Project Manager.

B. All existing doors scheduled for reuse shall be fitted with new Latchsets, Leversets or Mortise Cylinders with new Interchangeable Cores, and all retrofit installations shall be consistent with the PETCO door finish hardware and keying criteria established in this Section.

3.02 GENERAL:

A. Door Closers: Adjust aluminum and hollow metal Door Closer operation, so that from a 90 degree open position, the time required to move the door to an open position of 12 degrees (via the door's closing action) is 5 seconds minimum. *(ANSI A117.1 standard)*

B. Store Cores: Where an Interchangeable Store Core is specified, the Contractor shall provide the interchangeable construction core. Upon completion of construction, the Contractor shall leave the interchangeable construction core in place. The Interchangeable Store Cores shall be purchased by the Contractor from the PETCO Vendor, along with the balance of the finish hardware specified in this Section, but the Interchangeable Store Cores will be furnished by the PETCO Vendor directly to PETCO. The interchangeable Store Cores will be installed by PETCO Vendor to replace the interchangeable construction cores. .

C. Door Rain Hood: Install with galvanized or stainless steel masonry expansion anchors; provide sealant as a closure between edge of door rain hood and exterior building masonry.

END OF SECTION

SECTION 08800

GLAZING

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY:

A. The Contractor shall provide glazing and glazing accessories, where shown on the drawings, as specified in this Section, and as needed for a complete and proper installation.

1. Glazing at Automatic Sliding Entrance Door/ Sidelite Units.
2. Glazing at Exterior Storefront and Swinging Aluminum Doors.
3. Glazing at Interior Windows and Interior Aluminum Door Lites.
4. Applied Exterior Opaque Window Film at exterior glazing.
5. Transparent Mirror at interior glazing, where shown on the drawings.

1.03 NOT USED

1.04 SUBMITTAL: No product submittal is required for the work of this Section IF provided per the construction documents. Any Request for Product Substitution must be submitted per Section 01340- Submittals.

1.05 WARRANTY:

A. The Contractor shall include the Glazing Manufacturer's Two (2) Year Warranty against defects on all glass products in the Building Maintenance Manuals per Section 01700- Contract Closeout.

B. Installer's Warranty: The Contractor shall provide of the glazing installer's warranty for all work, for a term of 1 year after the Date of Substantial Completion, in the Building Maintenance Manuals per Section 01700- Contract Closeout.

PART 2 PRODUCTS

2.01 VISION GLASS:

A. General: Provide the glass type and thickness shown on the drawings or specified in this Section.

B. Tempered Glass: All tempered glass provided must comply with Fed. Spec. DD-G-1403 and ANSI Z97.1 and bear the appropriate permanent labels EXCEPT where temporary labels are specifically allowable by applicable code or allowable by the jurisdiction.

1. General: Provide the glass type and thickness shown on the drawings or specified in this Section.
2. Provide 1/4-inch thickness Tempered Glass. *(NEXUS Prototype)*
3. Insulating Glass Units (Exterior Storefront): Type G, SIGMA No. 64-7-2 double pane Clear Glass; outer pane 1/4 inch; inner pane 1/4 inch; and total unit thickness 1 inch. Clear insulating units shall have a maximum shading coefficient of 0.80 or less. Provide tempered insulated glazing where shown on the Drawings.

C. Wire Glass: Provide Type III, Class 1, Kind A, Form 1, with pattern M3 wire mesh, 1/4 inch thickness. *(fire rated door assemblies, if applicable)*

2.02 EXTERIOR OPAQUE WINDOW FILM:

A. Provide Tinting Film equal to 3M Scotchcal Window Film, Color White OR as selected by the Landlord and/or the PETCO Project Manager, at the interior side of the exterior opaque glazing where shown on the drawings, by 3M Construction Products (877/ 777-7580 or 401/ 233-7800). The 3M Construction Products representative may furnish qualified local distributors and installers in this project locale.

B. Product Mock-up: This product MUST be approved, on-site, by the PETCO Project Manager. This film must be opaque (not transparent or translucent), and shall completely conceal interior elements when viewed from the exterior, unless accepted by the PETCO Project Manager. Final product selection may be dictated by similar applications elsewhere in the shopping center vicinity; by the Landlord; or by local ordinance.

2.02 NOT USED

2.03 TRANSPARENT MIRROR (CAGE ROOM DOORS):

A. Provide Transparent Mirror (One-Way Glass) at the Grooming Reception-to-Cage Room door, and at the Grooming Salon-to-Cage Room door, equal to Pilkington Mirropane E.P., with reflective mirror coating facing towards the Grooming Salon side (at door to Grooming Salon) and at the Grooming Reception side (at door to Cage Room).

1. Nominal Thickness 1/4".
2. Glass Substrate: Pilkington Optifloat Grey Tinted glass.
3. Visible Transmittance: 12%.
4. Visible Reflectance: 60%.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this Section will be provided, shall correct conditions detrimental to timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

3.02 INSTALLATION: In addition to complying with pertinent codes and regulations of the local jurisdiction, the Contractor shall comply with pertinent recommendations contained in the Flat Glass Marketing Association's "Glazing Sealing Systems Manual", and "Glazing Manual".

END OF SECTION

SECTION 09260

GYPSUM WALLBOARD & PARTITION SYSTEM

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY: Provide light gauge metal studs and accessories, and gypsum wallboard (cement board where scheduled), accessories and gypsum wallboard finishing as indicated on the drawings, as specified in this Section, and as needed for a complete and proper installation.

1.03 RELATED WORK: Section 05400- Cold Formed Metal Framing.

1.04 SUBMITTAL: No product submittal is required for the work of this Section IF provided per the construction documents. Any Request for Product Substitution must be submitted per Section 01340- Submittals.

1.05 QUALITY ASSURANCE:

A. Provide gypsum wallboard finish work consistent with the standards as established by Gypsum Association specification number GA-214-90 “Levels of Gypsum Board Finish”.

B. Ambient Temperature for Finishing: Gypsum wallboard finishing work shall be provided ONLY when the ambient controlled air temperature is no less than 50 degrees F and rising.

PART 2 PRODUCTS

2.01 METAL STUDS AND ACCESSORIES:

A. Metal Studs: Provide metal framing studs equal to products by Dietrich Metal Framing, Pittsburgh PA (412-281-2805; www.dietrichmetalframing.com).

1. Acceptable Alternative: Marino-Ware, South Plainfield NJ (800-627-4661; www.marinoware.com).
2. Acceptable Alternative: Unimast Incorporated, Schiller Park IL (www.unimast.com).

B. Provide standard punched steel studs, dip galvanized, per Fed. Spec. QQ-S-698 and Fed. Spec. QQ-S-775d, Class D, sized in accordance with the field conditions, partition type scheduled and limiting heights for non-structural composite and non-composite tables provided by the manufacturers and as summarized in the table in this Section.

1. Furring shall be 20 gauge, 7/8” hat sections.
2. Bottom Track: Provide dip galvanized steel bottom track, same gauge as the partition framing.
3. Accessories: Provide all accessories such as tracks, clips, anchors, fastening devices, sound attenuation pencil rods and resilient clips, and other required accessories.

Nonstructural Unbraced Partition Framing Limiting Heights (Composite and Non-Composite) Deflection Limit l/240; Uniform 5 PSF Lateral Load				
Framing Type	**Manufacturer/ SSMA Reference**	**See Note 1**	**See Note 2**	**See Note 3**
2-1/2" x 20 GA at 16"OC	Dietrich 250S125-27	12'-1"	*No listing*	*No listing*
	Marino-Ware 212DWS20	12'-1"	11'-7"	11'-7"
	Unimast 212ST	13'-10"	13'-0"	13'-0"
2-1/2" x 25 GA at 16"OC	Dietrich 250S125-18	11'-3"	*No listing*	*No listing*
	Marino-Ware 212DWS25	11'-3"	9'-6"	9'-6"
	Unimast 212ST	12'-6"	11'-0"	11'-0"
3-5/8" x 20 GA at 16"OC	Dietrich 362S125-27	15'-8"	*No listing*	*No listing*
	Marino-Ware 358DWS20	15'-8"	15'-0"	15'-0"
	Unimast 358ST	17'-11"	17'-3"	17'-3"
3-5/8" x 25 GA at 16"OC	Dietrich 362S125-18	14'-4"	*No listing*	*No listing*
	Marino-Ware 358DWS25	14'-4"	14'-6"	14'-6"
	Unimast 358ST	16'-0"	14'-6"	14'-6"
6" x 20 GA at 16"OC	Dietrich 600S125-27	23'-2"	*No listing*	*No listing*
	Marino-Ware 6DWS20	23'-2"	23'-1"	23'-1"
	Unimast 600ST	26'-1"	25'-6"	25'-6"
6" x 25 GA at 16"OC	Dietrich 600S125-18	19'-9"	*No listing*	*No listing*
	Marino-Ware 6DWS25	19'-9"	n.a.	n.a.
	Unimast 600ST	20'-0"	20'-0"	20'-0"
"Note 1"	Partition with Gypsum Wallboard on both sides ("Composite")			
"Note 2"	Partition with Gypsum Wallboard full height on one side, partial height Gypsum Wallboard on the other side ("Non-Composite")			
"Note 3"	Furred Partition with Gypsum Wallboard on one side ("Non-Composite")			

2.02 DEFLECTION TRACK METAL FRAMING:

A. Deflection Partition (single or double track system):

1. Secure jamb studs and/or king studs to the deflection runner while allowing for deflection, by using 20 gauge slip clips on each side of jamb stud/ King stud legs, using pre-manufactured clips equal to "Slip Clip" product, by Fire Trak Corp., Kimball MN (800-394-9875).

   a. Acceptable alternative: Provide VertiClip SL slide clip, by The Steel Network, Raleigh NC (919-845-1025).
   b. Acceptable alternative: Provide SliptrackSystems, slotted deflection track for interior walls, by Dietrich Metal Framing, Pittsburgh PA (412-281-2805; www.dietrichmetalframing.com).
   c. Acceptable alternative: Other product, subject to substitution-submittal review by the Architect per Section 01340 requirements.

2. Provide spaced metal roof deck securing plates as shown on the drawings, when the partition and Deep Leg Track run perpendicular to the metal deck flutes.

2.03 GYPSUM WALLBOARD:

A. Interior Gypsum Wallboard (Drawing Key Symbol "GYP." or standard abbreviation "GYP. BD."), where scheduled on the drawings):

1. Provide gypsum wallboard complying with ASTM C36 and Fed. Spec. SS-L-30D, in 48" widths and in such lengths as will result in a minimum of joints.

2. Regular Wallboard: Provide Type III, Grade R, Class 1, 5/8" thick.
3. Fire-Retardant Wallboard: Provide Type III, Grade X, Class 1, UL listed, 5/8" thick.
4. Acceptable product/ manufacturers:

    a. Sheetrock products, by USG, Chicago IL (800-950-3839; www.usg.com).
    b. Gyproc products, by Domtar Gypsum, Ann Arbor MI (800-366-8271).
    c. G-P Gypsum products, by Georgia-Pacific, Atlanta GA (404-652-4000).
    d. Gold Bond Gypsum products, by National Gypsum Company, Charlotte NC (704-365-7300).
    e. Gypsum products by Temple-Inland, Diboll TX (409-829-1220).
    f. No other product manufacturers are permitted.

B. Interior Moisture-Resistant Gypsum Wallboard (Drawing Key Symbol "M.R. GYP." where scheduled on the drawings):

1. Provide mold- and moisture-resistant gypsum wallboard at walls and ceiling, equal to the following product/ manufacturers:

    a. "Sheetrock Water-Resistant 5/8" Regular Gypsum Panels", by United States Gypsum Company, Chicago IL.
    b. 5/8" XP Fire-Shield Wallboard, by National Gypsum Company, Charlotte NC.

C. Exterior Sheathing for EIFS substrate: Provide Dens-Glass Gold, Glass Mat Faced Exterior Sheathing by G-P Gypsum Corporation, subject to acceptance by the EIFS manufacturer as part of the warranted EIFS system. Paper-faced exterior gypsum sheathing is NOT an acceptable product substitution.

2.04 CEMENT BOARD SYSTEM:

A. Interior Cement Board (Drawing Key Symbol "CEM. BD.", where scheduled on the drawings):

1. Provide Dens-Shield, 5/8" tile backer, by Georgia-Pacific.
2. Acceptable Alternative: Provide Durock, 5/8" cement board, and related components, including Durock corrosion resistant screws and Durock Interior Tape, by USG.
3. Acceptable Alternative: Provide HardiBacker 500, 5/8" thick, fiber-cement interior ceramic tile underlayment, by James Hardie Building Products Inc., Mission Viejo CA (800-942-7343).

2.05 METAL TRIM:

A. Form from zinc coated steel not lighter than 26 gauge, complying with Fed. Spec. QQ-S-775, Type I, Class D or E.

B. Casing Beads: Provide galvanized steel channel-shaped casing beads at exposed wallboard edges, equal to USG Series No. 200, at locations including but not limited to horizontal edges at top of partial height partitions, and vertical and horizontal edges where gypsum wallboard abuts other materials.

C. Corner Beads: Provide angle shapes with wings not less than 7/8" wide and perforated for nailing and joint treatment, equal to USG Dur-A-Bead corner bead.

D. Edge beads for use at perimeter of ceilings:

1. Provide angle shapes with wings not less than 3/4" wide.
2. Provide concealed wing perforated for nailing, and exposed wing edge folded flat.

E. Control Joints: Provide staple-applied roll-formed zinc control joints equal to USG Control Joint No. 093 where shown on the drawings. Provide flush caulk bead to fill 1/4" open slot after protective tape is removed after adjacent wallboard finishing.

2.06 JOINT SYSTEM: Provide a jointing system, including reinforcing tape and compound, designed as a system to be used together and as recommended for this use by the manufacturer of the gypsum wallboard approved for use on this work. Jointing compound may be used for finishing if so recommended by its manufacturer.

2.07 FASTENING DEVICES:

A. Metal Framing Floor Tracks: For fastening wall framing floor tracks to concrete floors/ slab on grade construction, provide powder-driven fasteners equal to HILTI X-DWI, 3/4" Dome Head Nail, Smooth Shank 0.145" diameter Shot Pins spaced 32" on center maximum, meeting the standards of ICBO Evaluation Report No. 2388 (ICBO Evaluation Service Inc., Whittier CA).

B. Gypsum Wallboard: For fastening gypsum wallboard in place on metal studs and metal channels, use flat-head screws, shouldered, specially designed for use with power-driven tools, not less than 1" long, with self tapping threads and self drilling points.

C. Cement Board: For fastening Cement Board in place on metal studs and metal channels, use corrosion resistant, wafer-head screws manufactured specifically for this product installation, not less than 1" long, with self tapping threads and self drilling points.

2.08 FLOOR RUNNER GROUT: Provide commercial grout for leveling the floor runner member of steel stud partitions as required.

2.09 OTHER METAL TRIM: The drawings do not represent locations and requirements for all metal trims. The Contractor shall carefully review the drawings and the installation, and shall provide metal trims as typically recommended.

2.10 OTHER MATERIALS: Provide other materials, not specifically described but required for a complete and proper installation of the work.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this Section will be provided, shall correct conditions detrimental to the timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

3.02 METAL FRAMING INSTALLATION: Provide Metal Framing Installation tolerance of 1:200 horizontally and 1:360 vertically.

3.03 CEMENT BOARD INSTALLATION: Provide a polyethylene sheet, 6 mil minimum thickness, water barrier membrane tape-secured to metal framing behind and prior to the cement board installation.

3.04 CONTROL JOINT SPACING:

Provide Control Joint Spacing in accordance with current Gypsum Association standards or as follows for gypsum construction:

Construction & Location	**Maximum Single Dimension, Feet**	**Maximum Single Area, Square Feet**
Interior Partition	30 ft	-
Interior Ceiling, w/ perimeter relief	50 ft	2500 SF

Interior Ceiling, w/o perimeter relief	30 ft	900 SF
Exterior Ceiling	30 ft	600 SF

3.05 GYPSUM WALLBOARD FINISHING COMPOUNDS: Provide a Gypsum Association Level 3 gypsum board finish. All joints and interior angles shall have tape embedded in joint compound and two separate coats of joint compound applied over all joints, angles, fastener heads and accessories. All joint compound shall be smooth and free of tool marks and ridges.

3.06 WALL TEXTURE: At the Contractor's option, and prior to painting per Section 09900- Painting, the Contractor may elect to provide, at no additional cost to PETCO, an applied "Light Orange Peel" texture per USG Bulletin SA-933 (from USG "Texture and Finish Products"). The Contractor shall apply wall texture uniformly to all exposed wallboard-faced partitions, except that wall texture need not be applied where a finished (painted) surface is not scheduled.

END OF SECTION

SECTION 09310

CERAMIC TILE

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY: The Contractor shall provide Interior Ceramic Wall Tile and floor tile where shown on the drawings, as specified in this Section, and as needed for a complete and proper installation.

1.03 SUBMITTAL: No product submittal is required for the work of this Section IF provided per the construction documents. Any Request for Product Substitution must be submitted per Section 01340- Submittals.

1.03 WARRANTY: The Contractor shall include a copy of the installer's warranty for all work provided, for a term of 1 year after the Date of Substantial Completion, in the Building Maintenance Manual per Section 01700-Contract Closeout requirements.

PART 2 PRODUCTS

2.01 WALL TILE:

A. Ceramic Wall Tile "T-01"

1. Provide products by Crossville, national acct rep contact Natasha Appel, (214-517-6298) nappel@crossvilleinc.com order fulfillment contact Toni Hale (888-224-6568 ext 3997) . No product substitution is acceptable.
2. Drawing Key Symbol "T-01": 'Tea For Two' #WT02, Gloss 4"X8" nominal

B. Ceramic Wall Tile "T-02"

1. Provide products by Crossville, national acct rep contact Natasha Appel, (214-517-6298) nappel@crossvilleinc.com order fulfillment contact Toni Hale (888-224-6568 ext 3997)
2. Drawing Key Symbol "T-02": 'Vapor' Honed Finish, #AV242 6"x24" nominal

C. Ceramic Wall Tile "T-05"

1. Provide products by Crossville, national acct rep contact Natasha Appel, (214-517-6298) nappel@crossvilleinc.com order fulfillment contact Toni Hale (888-224-6568 ext 3997)
2. Drawing Key Symbol "T-05": 'White Mosaic VI' #SBC3 1"x3" nominal

D. Ceramic Wall Tile "T-06" at Tub Room Wall Tile:

1. Provide "Semi-Gloss", Color #100 White, size 6" x 6" x 5/16" or 4-1/4" x 4-1/4" x 5/16" with 1/16" joints, by Dal-Tile Corporation, Dallas TX. Contact Tamara Grandusky 415-290-8302, 877-556-5728, tamara.grandusky@daltile.com
2. Bullnose Trim: Provide Dal-Tile bullnose trim #S4669 and outside corner bullnose trim #SCRL/4669 (size 6" x 6") or #S4449 and outside corner bullnose trim #SCRL/4449 (size 4-1/4" x 4-1/4") at the tile-cased door opening(s).
3. Acceptable Field Tile Alternative: Provide Color #25 Ice White Bright, size 4-1/4" x

4-1/4" by American Olean (215-822-7300). Provide corresponding bullnose trim and outside corner bullnose trims at the tile-cased door opening(s).

2.02 WALL TILE SETTING MATERIALS:

A. Waterproofing/ Crack Isolation Membrane: Provide a one-part, trowelable, elastomeric waterproofing, crack isolation membrane equal to RedGard Waterproofing and Crack Prevention Membrane by Custom Building Products, Seal Beach, CA (800.282.8786)

B. Adhesive Mortar: Provide a one-part, latex-modified mortar equal to FlexBond, Ultra-Premium Latex-Modified Thin Set Mortar, by Custom Building Products, Seal Beach, CA (800.282.8786)

C. Grout:

1. Drawing Key Symbol "G-01": Grooming Salon and Grooming Reception provide non-sanded 1/8" grout joint width, with Prism Sure Color Tile Grout, www.custombuildingproducts.com. Color shall #386 'Oyster Gray'. No product substitution is acceptable.

2. Drawing Key Symbol "G-02": Tub Room Wall Tile: Provide non-sanded 1/16" grout joint width, with Prism Sure Color Tile Grout, by Custom Building Products, Seal Beach, CA (800.282.8786). Color shall be Bright White #381.

3. Drawing Key Symbol "G-03": Restroom Wall Tile: Provide non-sanded 1/8" grout joint width, with Prism Sure Color Tile Grout, by Custom Building Products, Seal Beach, CA (800.282.8786). Color shall be Alabaster #333

4. Wall Grout Sealer: Provide wall grout sealer recommended by the tile grout manufacturer, equal to Aqua Mix Grout Sealer, by Custom Building Products, Seal Beach, CA (800.282.8786)

2.03 WALL TILE SUBSTRATE: Provide WonderBoard Cement Board, by Custom Building Products, Seal Beach, CA (800.282.8786) as a wall substrate under ceramic wall tile at the Tub Room. Provide "Dens-Shield" Moisture Resistant Gypsum Wallboard, by Georgia Pacific, Atlanta, GA (800.225.6119) where scheduled in the drawings (Finish Schedule) and as specified in Section 09260-Gypsum Wallboard & Partition System.

2.04 OTHER MATERIALS: Provide other materials, not specifically described but required for a complete and proper installation.

2.05 FLOOR TILE

A. Floor Tile "T-03"

1. Provide products by Crossville, national acct rep contact Natasha Appel, (214-517-6298) nappel@crossvilleinc.com order fulfillment contact Toni Hale (888-224-6568 ext 3997)
2. Drawing Key Symbol "T-03": 'Fog' Honed Finish, #AV243 6"x24" nominal

B. Floor Tile "T-04"

1. Provide products by Crossville, national acct rep contact Natasha Appel, (214-517-6298) nappel@crossvilleinc.com order fulfillment contact Toni Hale (888-224-6568 ext 3997)
2. Drawing Key Symbol “T-04”: ‘Clay’ Honed Finish, #AV245 6”x24” nominal

C. Floor Tile Setting Materials:

1. Floor Preparation: Provide floor preparation equal to LevelLite Self-Leveling Underlayment, SpeedFinish Patching & Finishing Compound and Water proofing products by Custom Building Products, Seal Beach, CA (800.282.8786)
2. Waterproofing/ Crack Isolation Membrane: Provide a one-part, trowelable, elastomeric waterproofing, crack isolation membrane equal RedGard Waterproofing and Crack Prevention Membrane by Custom Building Products, Seal Beach, CA (800.282.8786)
3. Adhesive Mortar: Provide a one-part, latex-modified mortar equal to FlexBond, Ultra-Premium Latex-Modified Thin Set Mortar, by Custom Building Products, Seal Beach, CA (800.282.8786).
4. Floor Grout: Provide epoxy-modified floor grout equal to CEG-Lite 100% Solids Commercial Epoxy Grout, by Custom Building Products, Seal Beach, CA (800.282.8786) Color shall be #386 Oyster Gray.

2.06 OTHER MATERIALS: Provide other materials, not specifically described but required for a complete and proper installation.

2.07 FLOOR TILE (QUARRY TILE): *(Remodel--not Rover Prototype)*

A. Quarry Tile at Tub Room floor and Aquarium Area floor and wall base: Provide Quarry Basics X-Colors, Color #15X Malibu Beach, size 6” x 6” x 1/2” nominal, by Metropolitan Ceramics, Canton OH (800-325-3945). Provide #Q1665 bullnose cove tile, size 6” x 6” x 1/2”, and formed outside and inside corner trims as wall base where required.

B. Floor Tile Setting Materials:

1. Floor Preparation: Provide floor preparation equal to LevelLite Self-Leveling Underlayment, SpeedFinish Patching & Finishing Compound and Water proofing products by Custom Building Products, Seal Beach, CA (800.282.8786)
2. Waterproofing/ Crack Isolation Membrane: Provide a one-part, trowelable, elastomeric waterproofing, crack isolation membrane equal RedGard Waterproofing and Crack Prevention Membrane by Custom Building Products, Seal Beach, CA (800.282.8786)
3. Adhesive Mortar: Provide a one-part, latex-modified mortar equal to FlexBond, Ultra-Premium Latex-Modified Thin Set Mortar, by Custom Building Products, Seal Beach, CA (800.282.8786).
4. Floor Grout: Provide epoxy-modified floor grout equal to CEG-Lite 100% Solids Commercial Epoxy Grout, by Custom Building Products, Seal Beach, CA (800.282.8786) Color shall be (TBD).

2.08 WALL TILE SUBSTRATE: Provide “Dens-Shield” Moisture Resistant Gypsum Wallboard, by Georgia Pacific, Atlanta, GA (800.225.6119) as a wall substrate under ceramic wall tile at the Tub Room. Provide Moisture Resistant Gypsum Wallboard where scheduled in the drawings (Finish Schedule) and as specified in Section 09260-Gypsum Wallboard & Partition System.

2.09 QUARRY TILE -TO- VCT FLOOR TRANSITION: Provide 3/8" x 1-1/2" floor transition/ reducer from 1/2" Quarry Tile to 1/8" VCT. Refer to Section 09650- Resilient Flooring for product specification. *(Remodel--not Rover Prototype)*

2.10 OTHER MATERIALS: Provide other materials, not specifically described but required for a complete and proper installation.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this Section will be provided, shall correct conditions detrimental to the timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are needed.

3.02 TILE INSTALLATION:

A. General: Comply with ANSI A108.1, ANSI A108.2, and the "Handbook for Ceramic Tile Installation" of the Tile Council of America. Maintain minimum temperature limits and installation practices recommended by the product manufacturers.

B. Environmental Conditions:

1. Tile shall be installed only when moisture-resistant gypsum wallboard tile, adhesive, and air temperature are above 40 degrees F, and temperature must remain at this temperature or higher for at least 24 hours after application of tile.
2. Steel framing to receive moisture-resistant gypsum wallboard shall be structurally sound, free from bow, and in compliance with local building code requirements.

C. Limits of Tile: Terminate tile neatly at obstructions, edges, and corners without disruption of pattern or joint alignment.

D. Joint Pattern: Lay tile in grid pattern. Align joints when adjoining tiles on walls are on the same size. Layout tile work, and center the tile fields both directions on each wall area.

E. Cleaning: Upon completion of placing and grouting, clean the work of this Section in accordance with recommendations of the manufacturers of the materials used.

END OF SECTION

SECTION 09510

ACOUSTICAL CEILING

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY: Provide Acoustical Ceiling where shown on the drawings, as specified in this Section, and as needed for a complete and proper installation. If required by the local jurisdiction, provide supplementary acoustic ceiling installation techniques due to the building location with a Seismic Zone, in which seismic restraints are required.

1.03 RELATED WORK: Refer to Section 15255-Seismic Restraints for specification of supplementary acoustic ceiling installation techniques.

1.04 SUBMITTAL: No submittal is required for the work of this Section IF provided per the construction documents. Any Request for Product Substitution must be submitted per Section 01340-Submittals.

1.05 WARRANTY:

A. The Contractor shall provide the manufacturer's standard ceiling tile warranty for dimensional stability against sagging, warping, shrinkage, and delamination of the face materials, in the Building Maintenance Manual per Section 01700-Contract Closeout.

B. Installer's Warranty: The Contractor shall provide the installer's warranty for all work provided, for a term of one year from the Date of Substantial Completion, in the Building Maintenance Manual per Section 01700-Contract Closeout.

1.06 REFERENCE STANDARDS:

A. Comply with the applicable provisions of the following:

1. ASTM C635-Metal Suspension System for Acoustical Tile and Lay-In Panel Ceilings.
2. ASTM C636-Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels.
3. ASTM E580-Standard Practice for Application of Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels in Areas Requiring Seismic Restraints (if seismic restraints are required by the local jurisdiction).

PART 2 PRODUCTS

2.01 "T" GRID SYSTEMS: Provide systems of supporting members, anchors, wall cornices, adapters for light fixtures, and grilles, and accessories of every type required for a complete suspended "T" grid system of the arrangement shown on the drawings, complying with pertinent requirements of Underwriters Laboratories, Inc. and governmental agencies having jurisdiction.

2.02 ACOUSTICAL CEILING GRID AND TILE:

A. Provide products by Armstrong Interiors. Contact Monty Gillespie (513-309-1495, vlgillespie@armstrong.com), to verify product availability. No product substitution is acceptable.

B. Drawing Key Symbol “CF-04”: Designer Note: At Non-Prototypical Retail Area Ceiling, provide for at least 4 feet of CF-04 ceiling tiles from all sides of a ceiling diffusers, then CF-06 beyond; modify Reflected Ceiling Plan drawing notations for this requirement.

1. Grid: Armstrong Prelude 15/16”, Color White WH.
2. Ceiling Tile: Armstrong Ceramaguard #605”, Nonperforated Square Edge lay-in Ceiling Panels, 24” x 48” x 5/8” (1.4 lbs./ SF), with scrub-able factory-applied plastic finish, Color White WH.

C. Drawing Key Symbol “CF-06”:

1. Grid: Armstrong Prelude 15/16”, Color White WH.
2. Ceiling Tile: Armstrong “Cortega Colortone #769-WH”, Square Edge lay-in Ceiling Panels, 24” x 48” x 5/8” (0.6 lbs./ SF), Color White.

D. Drawing Key Symbol “CF-08” (field tile):

1. Grid: Armstrong Prelude 15/16”, Color White WH.
2. Ceiling Tile: Armstrong “Cortega Colortone #770-WH”, Square Edge lay-in Ceiling Panels, 24” x 24” x 5/8” (0.6 lbs./ SF), Color White.

2.03 CEILING ACCESSORIES:

A. Eggcrate Diffuser at Vestibule: Provide 24” x 48” panel (cut to fit), 1/2” x 1/2” eggcrate pattern, Color White, by Outwater Plastics Industries Inc., Woodridge NJ (973/ 472-3580).

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this Section will be provided, shall correct conditions detrimental to the timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

3.02 INSTALLATION:

A. The Contractor shall provide suspended acoustical ceiling per ASTM C636, ASTM E580 and pertinent UL design requirements, or per governmental agencies having jurisdiction.

B. Lateral Bracing: Secure lateral bracing to structural members, and at right angles to the direction of the partition and at four ways in the large ceiling areas.

C. The Contractor shall provide hold-down clips on ceiling panels within 20 feet of exterior doors, at Restrooms and the Vestibule, and/or when required by governmental agencies having jurisdiction.

3.03 CLEANUP: In addition to cleanup requirements specified in other sections, the Contractor shall completely remove fingerprints and traces of soil from the surfaces of the suspended ceiling tile grid and acoustical materials, using only cleaning materials recommended for the cleaning purposes by the manufacturer of the material being cleaned.

END OF SECTION

SECTION 09546

LINEAR METAL WALL SYSTEM

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Un-perforated metal wall panels.
2. Universal carrier systems.
3. Coordinate layout and installation of items penetrating or being installed in wall system with responsible trades.

1.2 SUBMITTALS

A. Make submittals in accordance with Section 013300.

B. Product Data: Manufacturer's published literature, including specifications.

C. Shop Drawings: Submit shop drawings, drawn to scale, and indicating penetrations and wall mounted items.

D. Samples for Verification: For finish and color specified.

1. Three 11 inch long samples.

1.3 QUALITY ASSURANCE

A. Manufacturer/Installer Qualifications:

1. Provide components produced by a single manufacturer with a minimum 5 years experience in actual production of specified products and with resources to provide consistent quality in appearance and physical properties, without delaying the work.
2. Provide carrier system components produced by a single manufacturer to provide compatible components for a complete metal wall system installation.
3. Perform installations using a firm with installers having no less than 3 years of successful experience on projects of similar size and requirements.

1.4 DELIVERY, STORAGE AND HANDLING

A. Deliver system components in manufacturer's original unopened packages, clearly labeled.

B. Store components in fully enclosed dry space. Carefully place on skids, to damage from moisture and other construction activities.

C. Handle components to prevent damage to surfaces and edges, and to prevent distortion and other physical damage.

1.5 PROJECT CONDITIONS

A. Begin system installations only after spaces are enclosed and weather-tight, and after all wet work and overhead work have been completed.

B. Prior to starting installations, allow materials to reach ambient room temperature and humidity intended to be maintained for occupancy.

1.6 WARRANTY

A. Provide specified manufacturer's warranty against defects in workmanship, discoloration, or other defect.
   1. Warranty Period: One (1) year from date of Substantial Completion.

1.7 MAINTENANCE & EXTRA MATERIALS

A. Maintenance Instructions: Provide manufacturers standard maintenance and cleaning instructions for finishes provided.

PART 2 - PRODUCTS

2.1 MANUFACTURER

A. Design Basis: Hunter Douglas Architectural Products, Inc., National Account order fulfillment rep Bob Krug (770-542-1206, bob.krug@hunterdouglas.com), National Account rep Ron Rice 770-542-1207 "Luxalon" linear metal ceiling system.

2.2 MATERIALS

A. Panel Profile Type: Deep Box 2, roll formed, 0.020 inch interior thick aluminum with square edges; B-03
   1-5/32 inch wide, 5/8 inch deep with 27/32 inch reveal to form a 2 inch module.

   1. Panel length: 16 feet.

B. Panel Finish:
   1. Wood veneer, 0.025 inch; #9004 Red Oak Veneer, rift cut, Class A finish, clear finish; B-03

2.3 METAL CARRIER SYSTEMS, GENERAL

A. Carrier: Universal hat shaped, 0.038 inch roll-formed aluminum section with hook shaped tabs spaced to receive ceiling panels at 2 inch on center and 27/32 inch apart.
1. Support holes spaced 4 inch on center.

B. Finish: Factory applied black enamel.

2.4 ACCESSORIES

A. Panel Splice: Formed aluminum insert designed to snap-fit between ends of two ceiling panels.
   1. Finish: Match wall panels.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and structural framing to which acoustical metal panels attach or abut, with Installer present, for compliance with requirements specified in this and other Sections that affect installation and anchorage, and other conditions affecting performance of metal panel ceilings.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Measure each wall area and establish layout of metal pan units. Comply with layout shown on drawings.

B. Survey substrate for wall attachment to assure squareness and proper elevation for wall panel installation.

3.3 INSTALLATION

A. General: Install metal pans in strict accordance with manufacturers shop drawings provided and manufacturer's written instructions.

B. Install edge moldings and trim of type necessary to conceal edges of metal pan.
   1. Screw attach moldings to substrate at intervals not more than 18” O.C. and not more than 6” from ends, plumb and level.

C. Scribe and cut metal panel units for accurate fit at penetrations by, other work through walls.
   1. Stiffen edges of cut units as required to eliminate evidence of buckling or variations in flatness exceeding referenced standards for stretcher-leveled metal sheet.

D. Install metal panel units in coordination with carrier system.
   1. Align joints in adjacent courses to form uniform, straight parallel joints.
   2. Fit adjoining units to form flush, tight joints. Scribe and cut units for accurate fit at borders and around construction penetrating walls.
   3. Remove protective film from panels only when space is completely clean and free of airborne particles. Use white cotton gloves for final installation of panels into grid system.

3.4 ADJUST AND CLEAN

A. Adjust components to provide uniform tolerances.

B. Replace panels that are scratched, dented or otherwise damaged.

C. Clean exposed surfaces with non-solvent, non-abrasive commercial type cleaner.

END OF SECTION

SECTION 09650

RESILIENT FLOORING

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY: The Contractor shall provide Vinyl Composition Tile, Vinyl Base and related accessory items where shown on the drawings, as specified in this Section, and as needed for a complete and proper installation.

1.03 RELATED WORK:

A. Section 01710- Construction & Final Cleaning, reference for final floor cleaning and waxing.

B. Section 03310- Concrete Floor Preparation.

C. Section 07190- Moisture Mitigation Systems.

D. Section 09660- Resilient Sheet Flooring.

1.04 SUBMITTAL: The Contractor shall provide Concrete Floor Testing results to the PETCO Product Manager per Section 01340 requirements. This submittal is for the PETCO Project Manager's records only. No other product submittal is required for the work of this Section IF provided per the construction documents. Any Request for Product Substitution must be submitted per Section 01340- Submittal

1.05 QUALITY ASSURANCE:

A. Concrete Floor Testing:

1. Moisture Emission Level Test: The Contractor shall provide testing to confirm moisture vapor emission levels, in accordance with ASTM F 1869.98 "Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride". This testing must be provided in an enclosed, temperature controlled building shell approximately 30 days prior to the resilient flooring installation.

    a. Maximum Acceptable Moisture Emission Level: Moisture Vapor shall not exceed 5.0 pounds per 1000 square feet per 24 hours.
    b. Note that the specified "acceptable" emission level for this flooring product may be different than for other flooring products scheduled.

2. Alkali Test: The Contractor shall provide testing for alkalinity before the installation of resilient flooring, to confirm pH between 5 to 9.
3. Bond Test: The Contractor shall provide a Bond Test as recommended by the flooring manufacturers, to confirm the compatibility of resilient flooring adhesives to the concrete floor after removal of old adhesives, curing agents, breaker compounds, dust inhibitors, oil, grease, paint and other special surface treatments and conditions.
4. Concrete Slab Vapor Control Treatment shall be provided if the Maximum Acceptable Moisture Emission Level exceeds the limit specified, or if the Alkalinity pH as tested is above 9.

B. Resilient Flooring Installation shall be in accordance with ASTM F 710-98 "Standard Practice for Preparing Concrete Floors to Receive Flooring". If required due to existing conditions, Moisture and pH Mitigation shall be provided per Section 07190-Moisture Mitigation Systems.

C. Vinyl Composition Floor Tile adjacent to the Aquarium Area must be completely installed prior to the installation of Epoxy Flooring.

1.06 WARRANTY:

A. Moisture Mitigation: If provided, then the Contractor shall provide the Moisture Mitigation: System manufacturer's product warranty in the Building Maintenance Manual per Section 01700-Contract Closeout.

B. Flooring: The Contractor shall provide the flooring manufacturer's product warranty in the Building Maintenance Manual per Section 01700-Contract Closeout.

C. Flooring Adhesive: The Contractor shall provide the flooring adhesive manufacturer's product warranty in the Building Maintenance Manual per Section 01700-Contract Closeout.

PART 2 PRODUCTS

2.01 VINYL COMPOSITION TILE:

A. No substitutions to the products specified in this section are acceptable.

B. Where Armstrong Interiors products are specified, contact Alice McAnn, Account Manager / Retail National Accounts (626-398-5143; ALMcann@Armstrong.com) for Petco's national account pricing and to verify product availability. No product substitution is permitted.

C. Where Amtico products are specified, contact Bob Clyburn, National Accounts Manager (bob.clyburn@amtico.com; Ph. 949-201-5045; for Petco's national pricing and to verify product availability. No product substitution is permitted.

D. Where Centiva products are specified, contact Tom Muck, National Accounts Manager (tmuck@centiva.com; Ph. 256-767-4990 x246; for Petco's national pricing and to verify product availability. No product substitution is permitted.

D. Drawing Key Symbol "FC-01A"

1. Provide Armstrong Standard Excelon Imperial Texture, 12" x 12" x 1/8" vinyl composition tile.

    a. Color Buttercream Yellow #51800.

2. Installation pattern: Parquet pattern, with grain direction alternating in adjacent tile units.
3. Provide final Cleaning and Waxing per Section 01710-Construction & Final Cleaning.

I. Vinyl Composition Tile (Drawing Key Symbol "FC-07A" :

1. Provide Amtico Spacia, 18" x 18" x 1/8" vinyl composition tile, available from Amtico International, Atlanta GA.

    a. Color: Spacia #SS5S4597 "Fossil Stone".

2. Installation pattern: Parquet pattern, with grain direction alternating in adjacent tile units.
3. This product DOES NOT receive final Waxing per Section 01710-Construction & Final Cleaning. Provide general "final construction cleaning" only.

J. Flooring Adhesives:
   1. Normal Traffic Areas: Provide waterproof and stabilized type adhesive, such as Armstrong full-spread adhesives S-89, S-515, S-700 or S-750, or as otherwise recommended by the flooring manufacturer.
   2. Wet Areas: Provide Mapei Ultra/ Bond G 19 two-part epoxy adhesive at all VCT–3 located within a minimum of 10 feet of the store's water-filled Aquarium fixtures. For areas farther than 10 feet from the store's water-filled Aquarium fixtures, the installer may provide the same waterproof and stabilized flooring adhesive as provided for VCT-1 type adhesive, or as may be alternatively recommended by the flooring manufacturer.
   3. If a Moisture Mitigation product is provided due to existing concrete floor moisture and pH levels, as specified in Section 07190- Moisture Mitigation Systems, then provide a compatible flooring adhesive.

2.02 VINYL WALL BASE:

A. Provide products by Johnsonite. Contact Laurie Baatz (800-899-8916; lbaatz@johnsonite.com). No substitution is acceptable.

B. Drawing Key Symbol "WB-01":

   1. Provide Johnsonite Traditional 1/8" Vinyl coved toe 4" wall base, "Ecolibirum EB-20 charcoal WG"
   2. Wall Base Adhesive: Provide waterproof and stabilized type adhesive as recommended by the vinyl base manufacturer.

2.03 MOISTURE MITIGATION: If either the measured Moisture Emission Level or the pH Level are above the flooring adhesive manufacturer's limits, then the Contractor shall provide concrete slab moisture mitigation treatment per Section 07190-Moisture Mitigation Systems.

2.04 OTHER MATERIALS: Provide non-staining type Concrete Slab Primer as required and as recommended by the flooring manufacturers.

2.05 VINYL TRANSITION (AQUARIUM AREA): *Not Applicable for Rover II Prototype*

A. Vinyl Transition (at transition from VCT to epoxy or VCT finish; Drawing Key Symbol "xx": Provide Armstrong Feature Tile Excelon #56790, Color Black I, unit size 1" x 24" ONLY, by Armstrong World Industries, Lancaster PA (800-448-1405). No product substitution is permitted; however, the Contractor should field verify that the existing store's Vinyl Transition matches this specification, before ordering product.

   1. Adhesive: Provide Mapei Ultra/ Bond G 19 two-part epoxy adhesive at all vinyl transition located within a minimum of 10 feet of the store's water-filled Aquarium fixtures.

B. Vinyl Transition (at transition from VCT to concrete floor/ concrete sealer; Drawing Key Symbol "xx"): Provide Reducer Transition equal to Type RRS-XX-B, .080" x 1-1/4", color Black, by Johnsonite, Chagrin Falls OH (800-899-8916).

C. Vinyl Transition MUST be installed in its final location prior to the epoxy flooring installation. It is intended that the Vinyl Transition top surface be taped off for surface protection by the Contractor, and used as a finishing screed for the epoxy flooring installation work.

2.06 MOISTURE MITIGATION: If either the measured Moisture Emission Level or the pH Level are above the flooring adhesive manufacturer's limits, then the Contractor shall provide concrete slab moisture mitigation treatment per Section 07190-Moisture Mitigation Systems.

2.07 OTHER MATERIALS: Provide non-staining type Concrete Slab Primer as required and as recommended by the flooring manufacturers.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS:

A. The Contractor shall examine the subfloor prior to installation to determine that surfaces are smooth and free from cracks, holes, ridges, and other defects that might prevent adhesive bond or impair durability or appearance of the flooring material.

B. The Contractor shall inspect the subfloor prior to installation to determine that surfaces are free from curing, sealing, parting and hardening compounds; residual adhesives; adhesive removers; and other foreign materials that might prevent adhesive bond. The Contractor shall visually inspect for evidence of moisture, alkaline salts, carbonation, dusting, mold, or mildew. If there are visible indications of mold and mildew, the source of the problem must be located and corrected.

C. The Contractor shall verify that moisture content of concrete slabs, building air temperature, and relative humidity are within the limits recommended by the product manufacturer. If the measured Moisture Emission Level and pH Level are above the flooring adhesive manufacturer's limits, then the Contractor shall provide concrete slab moisture mitigation treatment per Section 07190-Moisture Mitigation Systems.

D. The Contractor shall not proceed with the installation until any unsatisfactory conditions have been corrected. Installation indicates acceptance of substrates with regard to conditions existing at the time of installation.

3.02 PREPARATION:

A. Subfloor: Verify that substrate is smooth, level, at required finish elevation, and with no more than 1/8" in 10'-0" variation from level. Fill and level cold joints, cracks or depressions with a flooring manufacturer-accepted cementitious patching compound.

B. Priming: Apply concrete slab primer if so recommended by the resilient flooring manufacturer, and in accordance with the manufacturer's recommendations.

3.03 INSTALLATION:

A. General: Broom clean or vacuum the surfaces to be covered. Install materials only after finishing operations, including painting, have been completed, and after permanent heating system is operating.

B. For installation of resilient flooring directly over a Moisture Mitigation system, the contractor shall use a 100% solids adhesive, and/ or contact type adhesives with long working times that can be applied to substrates with a pH up to 10. The method of use is to apply the contact type adhesives to the substrate and allow the materials water to flash off prior to the flooring installation. Test proper adhesion of adhesive to moisture mitigation product prior to the installation of the entire flooring system.

C. Installing Vinyl Composition Tile:

1. Lay tile units from center marks established with principal walls, discounting minor offsets, so that units at opposite edges of the room are of equal width. Adjust as necessary to avoid cut widths less than 3” wide at room perimeter.
2. Match tile units for color and pattern by using tile from cartons in the same sequence as manufactured and packaged.
3. Pattern: Varies, refer to the specific tile scheduled and described in this Section.

D. Installing Transitions: Install transitions where vinyl tile abuts an exposed concrete floor, where shown on the drawings, or in accordance with the manufacturer’s recommendations. The Vinyl Transition MUST be installed in its final location prior to the epoxy flooring installation. It is intended that the Vinyl Transition top surface be taped off by the Contractor, and used as a finishing screed for the subsequently installed epoxy flooring.

E. Installing Vinyl Base: Install Vinyl Base where shown on the drawings, and in accordance with the manufacturer’s recommendations.

3.04 CLEANING:

A. Vinyl Composition Tile and Transitions: Remove excess adhesive and other blemishes from exposed surfaces, using a neutral cleaner recommended by the manufacturer. Apply cleaner and wax products; then buff in accordance with Section 01710-Construction & Final Cleaning requirements, immediately prior to the Date of Substantial Completion. Not all vinyl flooring is to be waxed; refer to the specific flooring specification in this Section.

B. Vinyl Base: Remove excess adhesive and other blemishes from exposed surfaces, using a neutral cleaner recommended by the manufacturer.

END OF SECTION

SECTION 09660

RESILIENT SHEET FLOORING

PART 1 GENERAL

1.01 DIVISION OF RESPONSIBILITIES TERMINOLOGY: Where referenced in this Section, “Contractor” refers to the SAME entity as “Landlord Contractor”. Refer to Section 01010-Summary of Work for additional “Division of Responsibilities Terminology” information.

1.02 SUMMARY: The Contractor shall provide heat welded Resilient Sheet Flooring with Integral Base, and related accessory items where shown on the drawings, as specified in this Section, and as needed for a complete and proper installation.

1.03 RELATED WORK:

A. Section 01710- Construction & Final Cleaning, reference for final floor cleaning and waxing.

B. Section 03310- Concrete Floor Preparation.

C. Section 07190- Moisture Mitigation Systems.

D. Section 09650- Resilient Flooring. Reference this Section for flooring layout procedure, based on obtaining a flooring layout CADfile from Petco’s Tenant Improvement Architect.

1.04 SUBMITTAL: The Contractor shall provide Concrete Floor Testing results to the PETCO Product Manager per Section 01340 requirements. This submittal is for the PETCO Project Manager’s records only. No other product submittal is required for the work of this Section IF provided per the construction documents. Any Request for Product Substitution must be submitted per Section 01340- Submittals.

1.05 QUALITY ASSURANCE:

A. Concrete Floor Testing:

1. Moisture Emission Level Test: The Contractor shall provide testing to confirm moisture vapor emission levels, in accordance with ASTM F 1869.98 “Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride”. This testing must be provided in an enclosed, temperature controlled building shell approximately 30 days prior to the resilient flooring installation.

    a. Maximum Acceptable Moisture Emission Level: Moisture Vapor shall not exceed 5.0 pounds per 1000 square feet per 24 hours.
    b. Note that the specified “acceptable” emission level for this flooring product may be different than for other flooring products scheduled.

2. Alkali Test: The Contractor shall provide testing for alkalinity before the installation of resilient flooring, to confirm acceptable pH between 5 and 9.
3. Bond Test: The Contractor shall provide a Bond Test as recommended by the flooring manufacturer, to confirm the compatibility of resilient flooring adhesives to the concrete floor after removal of old adhesives, curing agents, breaker compounds, dust inhibitors, oil, grease, paint and other special surface treatments and conditions.
4. Concrete Slab Vapor Control Treatment shall be provided if the Maximum Acceptable Moisture Emission Level exceeds the limit specified, or if the Alkalinity pH as tested is above 9.

B. Resilient Flooring Installation shall be in accordance with ASTM F 710-98 “Standard Practice for Preparing Concrete Floors to Receive Flooring”. If required due to existing conditions, Moisture and pH Mitigation shall be provided per Section 07190-Moisture Mitigation Systems.

1.06 WARRANTY:

A. Moisture Mitigation: If provided, then the Contractor shall provide the Moisture Mitigation: System manufacturer’s product warranty in the Building Maintenance Manual per Section 01700-Contract Closeout.

B. Flooring: The Contractor shall provide the flooring manufacturer’s product warranty in the Building Maintenance Manual per Section 01700-Contract Closeout.

C. Flooring Adhesive: The Contractor shall provide the flooring adhesive manufacturer’s product warranty in the Building Maintenance Manual per Section 01700-Contract Closeout.

D. Installer’s Warranty: ***NOT USED***

PART 2 PRODUCTS

2.01 VINYL SHEET FLOORING:

A. Where Armstrong Interiors products are specified, contact Lisa Cavataio, Account Manager / Retail National Accounts (773-868-0270; lvcavataio@armstrong.com) for Petco’s national account pricing and to verify product availability. No substitution is acceptable.

C. Drawing Key Symbol “FC-04”

1. Sheet Flooring: Provide heat-welded, Protect-All Specialty Flooring System with 6” high wall base, Color Dark Gray Matte, by Oscoda Plastics Inc., Oscoda MI (800-544-9538). No product substitutions are permitted.

    a. Heat Welding Rod Color shall be Color Dark Gray Matte.

2. Installer Qualifications: A manufacturer-approved installer, certified and qualified for heat-welded seams, must install this product.

3. Installation Accessories: Provide only manufacturer-approved concrete slab primer, trowel-able underlayments and patching compounds, water-resistant adhesive and seam sealer.

D. Drawing Key Symbol “FC-05”

1. Provide Armstrong Marmorette LP090, Pumice Gray, Linoleum
2. Weld Rod: Provide Armstrong weld rod intended for heat welding of seams.

E. Drawing Key Symbol “FC-06A”

1. Provide Armstrong Connection Corlon, Color #88704 Stone Harbor, Vinyl Sheet Flooring with backing.
2. Weld Rod: Provide Armstrong weld rod intended for heat welding of seams.

F. Adhesive:

1. Provide Armstrong adhesive #3599.
2. If a Moisture Mitigation product is provided due to existing concrete floor moisture and pH levels, as specified in Section 07190- Moisture Mitigation Systems, then the Contractor shall provide a compatible flooring adhesive.

2.02 INTEGRAL WALL BASE (Drawing Key Symbol “WB-06”): Provide integral flash cove wall base by extending sheet flooring six (6) inches up the wall using adhesive, and accessories recommended and approved by the flooring manufacturer.

2.03 ACCESSORIES:

A. Top Edge Trim Cap: Provide extruded aluminum cap molding equal to #ALU0214-S, Color Clear (satin), 11/16” concealed, 1/4” leg, 7/32” projection from face of wall, sized to receive 3/32” product, 12 foot length, by Outwater Plastics Industries Inc., Bagota NJ (800-835-4400, 888-688-9283; www.outwater.com).

B. For patching, smoothing, and leveling monolithic subfloors (concrete, terrazzo, quarry tile, ceramic tile, and certain metals), provide cement-based underlayment; or cement-based patch and skim coat.

C. For sealing joints between the top of integral cove cap and irregular wall surfaces such as masonry, provide plastic filler applied according to the manufacturer's recommendations.

D. Provide a fillet support strip for integral cove base with a minimum radius of 1 in. (2.54 cm) of wood or plastic.

E. Provide door thresholds as scheduled on the drawings and specified in Section 08710-Finish Hardware.

2.04 MOISTURE MITIGATION: If either the measured Moisture Emission Level or the pH Level are above the flooring adhesive manufacturer’s limits, then the Contractor shall provide concrete slab moisture mitigation treatment per Section 07190-Moisture Mitigation Systems.

2.05 NOT USED

PART 3 EXECUTION

3.01 SURFACE CONDITIONS:

A. The Contractor shall examine the subfloor prior to installation to determine that surfaces are smooth and free from cracks, holes, ridges, and other defects that might prevent adhesive bond or impair durability or appearance of the flooring material.

B. The Contractor shall inspect the subfloor prior to installation to determine that surfaces are free from curing, sealing, parting and hardening compounds; residual adhesives; adhesive removers; and other foreign materials that might prevent adhesive bond. The Contractor

shall visually inspect for evidence of moisture, alkaline salts, carbonation, dusting, mold, or mildew.

C. The Contractor shall verify that moisture content of concrete slabs, building air temperature, and relative humidity are within the limits recommended by the product manufacturer.

D. The Contractor shall not proceed with the installation until any unsatisfactory conditions have been corrected. Installation indicates acceptance of substrates with regard to conditions existing at the time of installation.

3.02 PREPARATION:

A. Smooth concrete surfaces, removing rough areas, projections, ridges, and bumps, and filling low spots, control or construction joints, and other defects with underlayment, patch and skim coat as recommended by the flooring manufacturer.

B. Remove paint, varnish, oils, release agents, sealers, and waxes. Remove residual adhesives as recommended by the flooring manufacturer. Remove curing and hardening compounds not compatible with the adhesives used, as indicated by a bond test or by the compound manufacturer's recommendations for flooring. Avoid organic solvents.

C. Provide subfloor Calcium Chloride Tests (and Bond Tests) to determine if surfaces are dry; free of curing and hardening compounds, old adhesive, and other coatings; and ready to receive flooring.

D. Vacuum or broom-clean surfaces to be covered immediately before the application of flooring. Make subfloor free from dust, dirt, grease, and all foreign materials.

3.03 INSTALLATION OF VINYL SHEET FLOORING:

A. Install flooring in strict accordance with the latest flooring manufacturer’s printed installation instructions.

B. For installation of resilient flooring directly over a Moisture Mitigation product, the contractor shall use a 100% solids adhesive, and/ or contact type adhesives with long working times that can be applied to substrates with a pH up to 10. The method of use is to apply the contact type adhesives to the substrate and allow the materials water to flash off prior to the flooring installation. Test proper adhesion of adhesive to moisture mitigation product prior to the installation of the entire flooring system.

C. Install flooring wall to wall before the installation of floor-set cabinets and equipment. Extend flooring into toe spaces, door recesses, closets, and similar openings.

D. If required, install flooring on pan-type floor access covers. Maintain continuity of color and pattern within pieces of flooring installed on these covers. Adhere flooring to the subfloor around covers and to covers.

E. Scribe, cut, and fit or flash cove to permanent fixtures, columns, walls, partitions, pipes, outlets, and built-in furniture and cabinets.

F. Adhere flooring to the subfloor without cracks, voids, raising and puckering at the seams. Roll with a 100-pound roller in the field areas. Hand-roll flooring at the perimeter and the seams to assure adhesion. Refer to specific rolling instructions of the flooring manufacturer.

G. Lay flooring to provide a minimum number of seams. Avoid cross seams, filler pieces, and strips. Match edges for color shading and pattern at the seams in compliance with the manufacturer's recommendations.

H. Install flooring with adhesives, tools, and procedures in strict accordance with the manufacturer's written instructions. Observe the recommended adhesive trowel notching, open times, and working times.

I. Prepare heat-welded seams with special routing tool supplied for this purpose, and heat weld with vinyl welding rods in seams. Use methods and sequence of work in conformance with written instructions of the flooring manufacturer. Finish all seams flush and free from voids, recesses, and raised areas.

J. Provide integral flash cove wall base where scheduled on the drawings, including cove fillet support strip and Top Edge Trim Cap. Construct flash cove base in accordance with the flooring manufacturer's instructions. Heat-weld seams with special routing tool supplied for this purpose, and heat weld with vinyl welding rods in seams.

3.04 INSTALLATION OF VINYL SHEET FLOORING ACCESSORIES:

A. Fill voids with plastic filler along the top edge of the integral cove cap on masonry surfaces or other similar irregular substrates.

B. Place resilient edge strips tightly butted to flooring, and secure with adhesive recommended by the edge strip manufacturer. Install edge strips at edges of flooring that would otherwise be exposed.

C. Top Edge Trim Cap:

1. Secure Top Edge Trim Cap to wall, with mechanical fasteners at 6 inches on center.
2. Provide concave-tooled white silicone sealant bead at top of Top Edge Trim Cap against FRP Wall Panel finish.

3.05 NOT USED

3.06 CLEANING & PROTECTION:

A. The Contractor shall protect installed flooring as recommended by the flooring manufacturer against damage from rolling loads, other trades, or the placement of fixtures and furnishings.

B. The Contractor shall provide cleaning in accordance with Section 01710- Construction & Final Cleaning requirements.

END OF SECTION

SECTION 09670

EPOXY FINISH ON CONCRETE

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY: The Contractor shall provide the Epoxy Finish on Concrete, including integral Epoxy Cove Base with Top Edge Trim Cap, where scheduled, as specified in this Section, and as needed for a complete installation.

1.03 RELATED WORK:

A. Section 07190- Moisture Mitigation Systems.

B. Section 09650- Resilient Flooring.

1. Vinyl Composition Floor Tile and Transition adjacent to the Aquarium Area must be completely installed prior to the installation of the Epoxy Flooring.
2. Reference this Section for flooring layout procedure, based on obtaining a flooring layout CAD file from Petco's Tenant Improvement Architect.

C. Section 09660- Resilient Sheet Flooring. A similar Top Edge Trim Cap is also detailed and specified for use with Resilient Sheet Flooring.

1.04 SUBMITTAL: The Contractor shall provide Concrete Floor Testing results to the PETCO Product Manager per Section 01340 requirements. This submittal is for the PETCO Project Manager's records only. No other product submittal is required for the work of this Section IF provided per the construction documents. Any Request for Product Substitution must be submitted per Section 01340- Submittals.

1.05 QUALITY ASSURANCE:

A. Concrete Floor Testing:

1. Moisture Emission Level Test: The Contractor shall provide testing to confirm moisture vapor emission levels, in accordance with ASTM F 1869.98 "Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride". This testing must be provided in an enclosed, temperature controlled building shell approximately 30 days prior to the epoxy flooring installation.

a. Maximum Acceptable Moisture Emission Level: Moisture Vapor shall not exceed 3.0 pounds per 1000 square feet per 24-hour period.
b. Note that the specified "acceptable" emission level for this flooring product is different than for other flooring products scheduled.

2. Alkali Test: The Contractor shall provide testing for alkalinity before the installation of epoxy flooring, to confirm pH between 5 and 9.

B. If required due to existing conditions, Moisture and pH Mitigation shall be provided per Section 07190-Moisture Mitigation Systems.

1.06 WARRANTY:

A. Manufacturer's Warranty: The Contractor shall provide the manufacturer's standard written warranty, in the Building Maintenance Manual submitted per Section 01700-Contract Closeout.

B. Building Maintenance Manual: Provide Product Manufacturer's written maintenance information in the Building Maintenance Manual submitted per Section 01700-Contract Closeout.

PART 2 PRODUCTS

2.01 EPOXY FINISH SYSTEM:

A. Provide products by The Sherwin-Williams Company, General Polymers Brand, Cincinnati OH. Contact Melinda Stein (800-543-7694 x3422; melinda.j.stein@sherwin.com). No substitution is acceptable.

B. Drawing Key Symbol "FC-04A": The Contractor shall provide "Ceramic Carpet #400" Epoxy Decorative Floor Finish product.

C. Drawing Key Symbol "WB-04": The Contractor shall provide "Ceramic Carpet #400" integral Epoxy Cove Base, 6 inches high with radiused cove.

D. Application: Primer, 3579 Standard Primer; Surfacer, 1/8" nominal thickness. Ceramic Carpet #400; Grout and Seal Coats, one and two coats of 3744 High Performance CR Epoxy.

E. Color shall be Ceramic Carpet 319 Sandpoint.

2.02 TOP EDGE TRIM, EPOXY SCREED FLOOR TRIM:

A. Where applicable, provide edge trims equal to Schluter Systems Inc., Plattsburgh NY (800-472-4588).

B. Top Edge Trim: Provide Schluter Schiene Model A30, Color Clear Anodized or Mill Finish (natural aluminum), sized to receive 1/8" flooring, in nominal 8-foot lengths, at epoxy wall base, at top edge of finish, prior to the epoxy flooring application.

C. Epoxy Screed Floor Trim (straight-edge): Provide Schluter-Schiene-AE, clear anodized aluminum finish, at the open perimeter edge of the floor epoxy prior to the epoxy flooring application.

D. Epoxy Screed Floor Trim (curved edge): Provide Schluter-Schiene-AE-R, clear anodized aluminum finish with a special perforated anchoring leg to allow the profile to be radiused, at the open perimeter edge of the floor epoxy prior to epoxy flooring application.

2.03 MECHANICAL ABRADING EQUIPMENT: The Epoxy Finish installer shall provide dry, dustless surface "shot-blast" mechanical abrading and integral vacuuming of the concrete floor surface. Mechanical abrading materials and methods shall be in compliance with pertinent regulations of the local jurisdiction. Chemical Stripping or other treatment of the concrete floor surface is NOT permitted.

2.04 MOISTURE MITIGATION: If the measured Moisture Emission Level and pH Level are above the flooring adhesive manufacturer's limits, then the Contractor shall provide concrete slab moisture mitigation treatment per Section 07190-Moisture Mitigation Systems.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS:

A. The Contractor shall examine the areas and conditions under which work of this Section will be provided, shall correct conditions detrimental to timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

B. Prior to application of the Epoxy Finish, the area must be “dried-in”, well ventilated, and finish lighting in place, and permanently heated with the temperature between 65 to 85 degrees F.

C. The Contractor shall furnish either temporary or permanent phase 208V power (or other power source as may be required) for use by the Epoxy Finish Installer.

D. Concrete must be free of curing compounds, sealers, old adhesives and all incompatible substances.

3.02 EPOXY FINISH INSTALLATION:

A. Preparation of Concrete Substrate: All preparation of concrete substrate shall be per ASTM D-4259 (Sec. 6 Mechanical Abrading, Sec. 8 Abrasive Blast) and/ or ASTM D4260 (Chemical Preparation). Preparation of concrete substrate shall be in accordance with product manufacturer’s written instructions. Remove all existing loose coatings if present and/or any sealer, bond breakers, oils and greases to expose a clean substrate followed by mechanical abrading with dustless equipment. Substrate shall be sound and profiled meeting ICRI standard guidelines 03732 for coating of concrete with sealers, coatings, and polymer overlays. This profile is SCP-3 CSP3-5 (Concrete Surface Profile).

B. Vinyl Composition Floor Tile and Transition adjacent to the Aquarium Area must be completely installed prior to installation of Epoxy Flooring. It is intended that the Vinyl Transition top surface be CAREFULLY and thoroughly taped off by the Contractor or the epoxy flooring installer, and used as a finishing screed for the epoxy flooring.

C. Application of Epoxy Resinous Coating System shall be per product manufacturer’s written instructions for each of the respective products.

D. Coating Sequence: The Coating Sequence shall utilize 3579 Standard primer and Ceramic Carpet #400 Decorative Broadcast (1/8” floor system):

1. Prepare the surface by mechanical profile.
2. Apply 3579 Standard Primer at a uniform rate of 250 sf./ gal. Allow to cure.
3. Apply 3561 Epoxy Resin Glaze at a uniform rate of 140-145 sf. gal.
4. Broadcast 319 Sandpoint quartz at a uniform rate of approximately 1/2 lb. per sq. ft.
5. Cure (cure time may vary depending on hardener selection, from 2 to16 hours).
6. Sweep up excess broadcast quartz.
7. Apply 3561 Epoxy Resin Glaze at a uniform rate of approximately 65 to 7080 sf. per gal. This application serves as a base coat for the second broadcast.
8. Broadcast 319 Sandpoint Quartz at a uniform rate of approximately 1/2 lb. per foot.
9. Sweep up excess broadcast.
10. Apply Grout coat of 3744 High Performance CR Epoxy evenly with no puddles at 100 sf. per gal.
11. Apply a Seal Coat of 3744 High Performance CR Epoxy evenly with no puddles at 200 sf./ gal.
12. Apply PAce-Cote 4844 in place of 3744 High Performance CR Epoxy in TUB and CAGE rooms.
13. Floor Transition at VCT: Provide a smooth flush epoxy transition from the installed Epoxy Finish to adjacent VCT by taping off the VCT edge. Remove the tape and clean the adhesive residue from the adjacent VCT after epoxy work is complete in this area.

14. Floor Transition at polish concrete: Provide a smooth flush epoxy transition from the installed Epoxy Finish to adjacent polish concrete floor by creating a bevel cut where the two materials are to meet. The polish concrete side of the bevel cut is to be taped and epoxy is to be applied up to and into the bevel cut. Remove the tape and clean the adhesive residue from the polish concrete after epoxy work is completed. *(applies only to stores with polish concrete at sales floor)*

E. Cracks and Joints: Correct surface voids with Aggregate and 3561 Epoxy Resin Glaze in accordance with the manufacturer's written instructions. Correct surface cracks, crazing, control joints with EPO-FLEX HD Epoxy or 3580 Crack & Joint Filler per the manufacturer's written instructions.

F. Integral Epoxy Cove Base: Provide integral Epoxy Cove Base, 6 inches high, radius cove, installed with Epoxy Cove Base 3561V materials in all areas scheduled to receive epoxy flooring unless specifically noted otherwise. Cove radius shall be not less than 3/4", and shall be applied directly to a sound wall surface. The same quartz color shall be used to match the floor and sealed to achieve a smooth surface.

G. Top Edge Trim Cap:

1. Secure Top Edge Trim Cap to wall, through FRP Wall Panel finish, with mechanical fasteners at 6 inches on center.
2. Provide concave-tooled white silicone sealant bead at top of Top Edge Trim Cap against FRP Wall Panel finish.

H. Integral Epoxy Cove Base: After installation of the Top Edge Trim Cap, provide integral Epoxy Cove Base, 6 inches high, radiused cove, installed with Epoxy Cove Base 3561V materials in all areas scheduled to receive epoxy flooring unless specifically noted otherwise. Cove radius shall be not less than 3/4", and shall be applied directly to a sound wall surface. The same quartz color shall be used to match the floor and sealed to achieve a smooth surface.

3.03 Finish resulting from any work provided by the Contractor's employees, or any subcontractor or subcontractor's employees, shall be repaired and replaced by the Contractor at no cost to PETCO.

END OF SECTION

SECTION 09720

SPECIAL WALL SURFACES

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY: Provide Special Wall Surfaces where shown on the drawings, as specified in this Section, and as needed for a complete and proper installation.

1.03 SUBMITTAL: No submittal is required for the work of this Section IF provided per the construction documents. Any Request for Product Substitution must be submitted per Section 01340-Submittals.

1.04 WARRANTY: The Contractor shall provide the manufacturers' standard product warranties in the Building Maintenance Manuals per Section 01700-Contract Closeout.

PART 2 PRODUCTS

2.01 FRP/ PRE-FINISHED INTERIOR WALL PANELS AND TRIM MOLDINGS: *(NEXUS Prototype)*

A. FRP panels and trim moldings shall be purchased by the Contractor from this PETCO Inventory Agreement Vendor, and installed by the Contractor:

CRANE COMPOSITES
Contact: Linda R. Ruse (e-mail lruse@cranecomposites.com)
2017 N. Pacey Road, Phoenix AZ 85037
Tel. 310-857-9036
Website: www.cranecomposites.comz

No product substitutions are permitted.

B. Drawing Key Symbol "WF-01": The Contractor shall provide "Glasbord-P", Color #85 Standard White, pebble embossed, Class C fire rated PIF per ASTM A-84. No product substitutions are permitted.

1. WF-01 Vinyl Trim Moldings:

Trim Type/ FRP Condition	**Crane Composites Model #**	**Color**
Inside Corner	M.IC 0085	#85 Standard White
Outside Angle (for Corners)	M.OA 0085	#85 Standard White
Exposed Edge (Cap)	M.CP 0085	#85 Standard White
Panel Joint (Division)	M. DB 0085	#85 Standard White

2. Adhesive: Provide adhesive manufactured for FRP work, equal to Titebond Solvent-Free Fast Grab FRP Adhesive.

2.02 NOT USED

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this Section will be provided, shall correct conditions detrimental to the timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected. Commencement of installation work constitutes acceptance of the substrate surface.

3.02 INSTALLATION: Install all Special Wall Surfaces according to the manufacturers' standard written instructions, using adhesives, fasteners and trim moldings manufactured for the intended purpose, and per the manufacturer's recommendations. Exposed mechanical fasteners are NOT permitted.

END OF SECTION

SECTION 09900

PAINTING

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY: The Contractor shall paint exposed exterior and interior finished wall and ceiling surfaces, and equipment including, but not necessarily limited to, exposed plumbing piping and insulation, HVAC ductwork, and electrical conduit and junction boxes, with primer and paint materials listed on the Painting Schedule in this Section, and as needed for a complete and proper installation.

1.03 RELATED WORK:

A. Section 03310- Concrete Floor Preparation.

B. Section 09260-Gypsum Wallboard & Partition System.

1.04 WORK NOT INCLUDED:

A. Unless otherwise indicated, painting is NOT required on surfaces in concealed areas and inaccessible areas such as furred spaces, utility tunnels, pipe spaces and duct shafts.

B. Metal surfaces of anodized aluminum, stainless steel, chromium plate, and similar finished materials will not require painting under this Section except as otherwise specified.

C. Do not paint moving parts of operating units; mechanical or electrical parts such as valve operators; linkages; sensing devices and motor shafts, unless otherwise indicated. Do not paint over required labels or equipment identification, performance rating, or nameplates.

1.05 SUBMITTAL: No submittal is required for the work of this Section IF provided per the construction documents. Any Request for Product Substitution must be submitted per Section 01340-Submittals.

1.06 QUALITY ASSURANCE:

A. Paint Coordination:

1. The Contractor shall provide a prime coat that is compatible with the finish coat(s). Prime coat may be tinted towards the finish color as specified in this Section.
2. The Contractor shall review other sections of the Project Manual as required so as to verify that the proper prime coat is used and to ensure compatibility of the total coating system with the substrate.
3. The Contractor shall promptly notify the Architect, in writing, if there are anticipated problems in using the specified coating system.
4. The Contractor shall provide barrier coat(s) over non-compatible primers, or remove the primer and re-prime as may be required.

1.07 DELIVERY, STORAGE AND HANDLING: The Contractor shall store paint materials at a minimum ambient temperature of 45° F and a maximum of 90° F, in a well ventilated area, unless required otherwise by the manufacturer's printed recommendations. The Contractor shall take precautionary measures to prevent fire hazards and minimize the potential for spontaneous combustion.

1.08 WARRANTY: The Contractor shall provide the Painting Subcontractor's Warranty for all work provided under the general contract for construction for a term of 1 year after the Date of

Substantial Completion, in the Building Maintenance Manual submitted to PETCO after the Date of Final Completion per Section 01700-Contract Closeout.

1.09 EXTRA PAINT STOCK: Upon completion of painting work, the Contractor shall deliver to the jobsite, for secured storage at a location designated by the PETCO Project Manager, an extra stock of one (1) gallon of each color, type and sheen of paint used in the work, with each container tightly sealed and clearly labeled with contents and the location where used.

PART 2 PRODUCTS

2.01 PAINT MATERIALS:

A. Except as specifically noted, all paint products shall be purchased by the Contractor from Glidden Professional Paints Contact Rick Garlin 317-318-5800 garlin@ppg.com. No substitutions are acceptable.

B. Exterior stain on concrete masonry shall be by OKON Inc., Lakewood Co (800-237-0565). No manufacturer substitutions are permitted. *(if applicable)*

C. General:
1. All paint coatings shall conform to all state and local regulations including VOC/VOS rules in effect at the time of paint application. If water-based paints are required by the local jurisdiction, then the Contractor shall provide water-based paints approved by the manufacturer for the intended use. All paint products shall be formulated without lead or mercury.
2. Primer, finish coat, and thinner materials shall be from a single manufacturer's unified system of painted finishes. Use only manufacturer-recommended equipment for paint application.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS-GENERAL:

A. The Contractor shall examine the areas and conditions under which work of this Section will be provided, shall correct conditions detrimental to timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

B. Temperature: The Contractor shall NOT apply solvent-thinned paints when the temperature of surfaces to be painted and the surrounding air temperatures are below 50 degrees F or above 100 degrees F, unless otherwise permitted by the manufacturer's printed recommendations.

C. Weather Conditions: The Contractor shall NOT apply paint in snow, rain, fog, or mist; or when the relative humidity exceeds 85% RH, and shall not apply paint to damp or wet surfaces, unless otherwise permitted by the manufacturer's printed recommendations. Paint applications may be provided during inclement weather only when within the temperature and humidity parameters specified by the paint manufacturer.

3.02 SURFACE CONDITIONS-CONCRETE FLOOR: *(painted floor, if applicable)*

A. In addition to the Surface Conditions-General above, the Contractor shall verify that the surface is clean, dry, sound and offer sufficient profile to achieve adequate adhesion.

B. Minimum substrate cure is 28 days at 75° F.

C. Remove all form release agents, curing compounds, salts, efflorescence, laitance and other foreign matter by sandblasting, shot-blasting, mechanical scarification, or suitable chemical means.

D. Provide skim coating of prepared concrete floor surface in Work Room and Wellness Room, per Section 03310-Concrete Floor Preparation.

E. Do not use hydrocarbon solvent for cleaning. Refer to ASTM D4260. Rinse thoroughly to achieve a final pH between 8.0 and 11.0. Allow to dry thoroughly prior to coating.

F. Concrete Floor Testing:

1. Moisture Emission Level Test: The Contractor shall provide testing to confirm moisture vapor emission levels, in accordance with ASTM F 1869.98 “Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride”. This testing must be provided in an enclosed, temperature controlled building shell or tenant space.

    a. Maximum Acceptable Moisture Emission Level: Moisture Vapor shall not exceed 3.0 pounds per 1000 square feet per 24 hours.
    b. Note that the specified acceptable emission level for this floor coating product may be different than for other finish flooring products scheduled.

2. Concrete Slab Vapor Control Treatment shall be provided if the Maximum Acceptable Moisture Emission Level exceeds the limit specified, or if the Alkalinity pH as tested is above 9.

3.03 MATERIALS PREPARATION: Mix and prepare paint per the manufacturer’s recommendations. Store paints in tightly covered containers when materials are not in use. Maintain containers used in storage, mixing and application of paint in a clean condition, free from foreign materials and residue.

3.04 SURFACE PREPARATION:

A. Provide surface preparation and cleaning procedures per the paint manufacturers’ printed recommendations.

B. Remove items that are already in place and that are not intended to receive the scheduled paint finish; or provide surface-applied protection prior to surface preparation cleaning and painting procedures.

C. Preparation of Exposed Shell Interior Face (at Retail Area, if applicable):

1. If an exposed interior shell construction, without applied furring and gypsum wallboard, is scheduled for this project’s Retail Area, and such exposed construction is acceptable to the PETCO Project Manager, then the Contractor shall provide an interior face of finish quality that is acceptable to the PETCO Project Manager, via the PETCO Project Manager’s field inspection.

    a. Exposed concrete unit masonry, if applicable, shall be uniform in appearance, with visible voids patched with mortar, flush with the adjacent concrete unit face. Mortar joints shall be formed concave suitable for exposed surfaces. Untooled flush cut mortar joints are not acceptable. Remove excess mortar, mortar smears, dirt and masonry.
    b. Exposed concrete wall panels, if applicable, shall be uniform in appearance, with visible voids larger than 1/2” in any direction patched with a non-shrink,

cementitious patching product, and tooled flush with the adjacent concrete wall panel face. Remove excess concrete projections.

c. Alternative exposed construction shall be finished similar to above descriptions, and with similar finish quality.

D. Preparation of Metal and Wood Surfaces:

1. Clean metal and wood surfaces free of dirt, oil, grease, and other foreign substances.
2. Galvanized metal surfaces: Use solvent for initial cleaning and treat the surface thoroughly with phosphoric acid etch solution; remove solution before proceeding.
3. Smooth finished wood surfaces exposed to view. Use varying degrees of coarseness in sandpaper to produce a uniformly smooth and unmarred wood surface.
4. Allow to dry thoroughly before application of paint.

E. Preparation of existing exposed metal, structural or plate steel:

1. Clean metal surfaces free of grease and oil, and clean in accordance with Steel Structures Painting Council publication SSPC-SPA-63 “Solvent Cleaning”, followed by removal of all loose, scaling paint by hand scraping or with power tools.
2. Rusted surfaces shall be cleaned in accordance with SSPC-SP2-63 “Hand Tool Cleaning” or SSPC-SP3-633 “Power Tool Cleaning”.
3. Where heavy rust, corrosion or deteriorated coatings exist, the surface should be abrasive blast cleaned in accordance with SSPC-SP6-63 “Commercial Blast Cleaning”. The abrasive-blasted surface must be blown off with compressed air to remove blast product traces, and must be painted within 24 hours with rust inhibitive primer.
4. Weathered, unpainted galvanized iron surfaces must be wire-brushed or power washed to remove “white rust” deposits prior to application of galvanizing primer.

3.05 PAINT APPLICATION:

A. Primer and Painting:

1. Touchup shop-applied prime coat(s) which may have been damaged, and touchup bare metal or other substrate areas prior to start of the application of finished coat(s).
2. Tinting: Paint Primer coat shall be tinted towards the color of successive finish coats.
3. The “number of coats” indicated on the Painting Schedule is the minimum number of coats required. Additional coats required for complete coverage shall be applied at no additional cost to PETCO.
4. Visible defects: Sand and dust between coats to remove defects visible to the unaided eye from a distance of five feet from the surface.

B. Brush Paint Application: Brush out and work the brush coats onto the surfaces in an even film, working to the specified thickness. Cloudiness, spotting, holidays, laps, brush marks, runs, sag, and other visible surface imperfections are not acceptable.

C. Spray Paint Application:

1. Except as otherwise specifically accepted by the PETCO Project Manager, spray application should be limited to metal framework and similar surfaces where hand brushwork would be inferior.
2. Where spray application is provided, apply each coat to provide the hiding equivalent of an equivalent brush coat. Do NOT double-back the spray paint, in an attempt to build up a two-coat film thickness in one pass.

D. Remove, refinish, or repaint any work that is not in compliance with the specified requirements.

E. Miscellaneous Surfaces and Procedures:

1. Exposed Mechanical and Electrical items:

a. Paint access doors, pipes, conduit, junction boxes, ducts, grilles, registers, vents and similar items which are not factory pre-finished/ pre-painted, to match the paint color of the adjacent wall or ceiling surface, unless otherwise shown on the drawings or as otherwise directed by the PETCO Project Manager.
b. Clean metal with solvent, prime and apply two coats of alkyd enamel.
c. Do NOT paint factory pre-finished surfaces, except as otherwise specified.

2. Exposed Piping Insulation: Apply one coat of latex paint on insulation that has been sized or primed under other sections; apply two coats on such surfaces when unprepared. Match color of adjacent surfaces. Remove band before painting, and reinstall band after painting.
3. Hardware: Paint prime coated hardware to match adjacent surfaces.
4. Exposed Vents: Apply two coats of heat-resistant paint.

3.06 EXTERIOR SURFACES PAINTING SCHEDULE:

A. Concrete Masonry (exterior, painted): *to be used when painting existing exterior exposed CMU*

First Coat	Glidden Professional Concrete Coatings Block Filler Primer 3010-1200
Second AND Third Coats	Glidden Professional Ultra-Hide 150 Exterior Flat Paint 2210V Series color to be selected by architect and approved by Petco.
Paint Type/ Sheen	Acrylic Latex/ Flat

B. Concrete Masonry (exterior, stained): *to be used when staining existing exterior exposed CMU*

First Coat	Glidden Professional Bond Prep Clear Sealer/Primer/ Chalk Binder 73474/5
Second AND Third Coats	Glidden Professional Concrete Coatings Acrylic Concrete Stain 3610 color to be selected by architect and approved by Petco.
Paint Type/ Sheen	100% acrylic emulsion masonry paint/ Flat

C. Ferrous and Galvanized Metal (exterior HM Doors and similar metal surfaces, where applicable):

First Coat	Glidden Professional Devoe Coatings Devflex 4020PF DTM Primer and Flat Finish
Second AND Third Coats	Glidden Professional Devoe Coatings Devflex 4216L High Performance Acrylic Semi-Gloss
Paint Type/ Sheen	Acrylic Latex/ Gloss

D. Concrete & Asphalt Safety Markings (exterior):

First, Second Coats	Glidden Professional Aexcel High Performance Acrylic Traffic Marking Paint 85093/85094
Paint Type	Latex

3.07 INTERIOR SURFACES PAINTING SCHEDULE:

A. Interior Exposed Construction (e.g., columns, roof structural steel, exposed piping and ductwork):

First Coat	PPG Speedhide / Super Tech 6-726XI, must be tinted as scheduled
Second AND Third Coats	PPG Speedhide / Super Tech 6-726XI, must be tinted as scheduled
Paint Type/ Sheen	Latex/ Eggshell

B. Interior Exposed Construction (metal roof deck, roof structural steel, exposed piping and ductwork):

First Coat (if Steel & Rusty Galvanized, with acrylic primer)	PPG Speedhide / Super Tech 6-726XI, must be tinted as scheduled
First Coat (if Steel, acrylic primer)	PPG Speedhide / Super Tech 6-726XI, must be tinted as scheduled
Second AND Third Coats	PPG Speedhide / Super Tech 6-726XI, must be tinted as scheduled (with Third coat IF required for complete coverage)
Paint Type/ Sheen	Acrylic/ Flat

C. Interior Doors and Door Frames:

First Coat	Glidden Professional Devoe Coatings Devflex 4020PF DTM Primer and Flat Finish
Second AND Third Coats	Glidden Professional Devoe Coatings Devflex 4216L High Performance Acrylic Semi-Gloss
Paint Type/ Sheen	Latex/ Semi-gloss

D. Wood:

First Coat	Glidden Professional Hi Hide Primer Sealer 1000-1200
Second AND Third Coats	Glidden Professional Ultra-Hide No VOC Interior Semi-Gloss Paint 1415 Series
Paint Type/ Sheen	Latex/ Semi-gloss

E. Gypsum Wallboard:

First Coat	Glidden Professional Hi Hide Primer Sealer 1000-1200
Second AND Third Coats*	Glidden Professional Ultra-Hide No VOC Interior Eggshell Paint 1411 Series
Paint Type/ Sheen	Latex/ Eggshell

F. Moisture Resistant Gypsum Wallboard (e.g. Tub Room ceiling, Work Room, Restroom walls):

First Coat	Glidden Professional Hi Hide Primer Sealer 1000-1200
Second AND Third Coats	Glidden Professional Devoe Coatings Devflex 4216L High Performance Acrylic Semi-Gloss
Paint Type/ Sheen	Latex/ Semi-Gloss

G. Water Resistant Finish on Gypsum Wallboard (e.g. Retail Wall behind Aquariums)

First Coat	Glidden Professional Hi Hide Primer Sealer 1000-1200
Second AND Third Coats	PPG-Pitt Glaze 16-551 Water based Semi-Gloss Epoxy
Paint Type/ Sheen	Epoxy/ Semi-Gloss

3.08 PAINT COLORS: The following custom colors shall be provided as scheduled on the drawings:

A.	Drawing Key “PT-00”:	Color: N/A, primer as specified
B.	Drawing Key “PT-01 EG”:	Color PPG #A1842 “Frost” eggshell
C.	Drawing Key “PT-01 SG”:	Color PPG #A1842 “Frost” semi-gloss
D.	Drawing Key “PT-01 HG”:	Color PPG #A1842 “Frost” high gloss
E.	Drawing Key “PT-01 EP”:	Color PPG #A1842 “Frost” epoxy paint
F.	Drawing Key “PT-02 EG”:	Color PPG #A0127 “Crystal” eggshell
G.	Drawing Key “PT-02 SG”:	Color PPG #A1842 “Crystal” semi-gloss
H.	Drawing Key “PT-03”:	Color PPG #A1791 "HERON GRAY"
I.	Drawing Key “PT-04”:	Color PPG #A1839 "GRAY TWEED" eggshell
J.	Drawing Key “PT-05”:	Color PPG #A0924 "HAVE NO FEAR" eggshell
K.	Drawing Key “PT-06”:	Color PPG #A1335 "BLUE NOTE" eggshell
L.	Drawing Key “PT-07”:	Color PPG #A0689 "BRILLIANCE"
M.	Drawing Key “PT-08”:	Color PPG #A1909 "WEXFORD FOG" semi-gloss
N.	Drawing Key “PT-09”:	Color PPG #A1656 "FOG GRAY"
O.	Drawing Key “PT-10”:	Color PPG #A0949 "THYME" eggshell
P.	Drawing Key “PT-11”:	Color Ben. Moore #309 "CHALKBOARD"
Q.	Drawing Key “PT-12”:	Color PPG #A1843 “WHITE PEARL” eggshell

END OF SECTION

SECTION 09910

CONCRETE SEALER

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY: Provide Concrete Sealer on interior concrete floors where scheduled on the drawings, as specified in this Section, and as needed for a complete and proper installation.

1.03 SUBMITTAL: No submittal is required for the work of this Section IF provided per the construction documents. Any Request for Product Substitution must be submitted per Section 01340-Submittals.

1.04 DELIVERY, STORAGE AND HANDLING: The Contractor shall store materials in a dry, enclosed area protected from moisture exposure, and shall maintain the storage area's temperature in a range allowed by the manufacturer.

1.05 WARRANTY: Provide the Manufacturer's Standard Product Warranty in the Building Maintenance Manuals submitted per Section 01700-Contract Closeout.

PART 2 PRODUCTS

2.01 CONCRETE SEALER/ HARDENER (Drawing Key "FC-08A"):

A. The Contractor shall provide DIAMATIC FLOR-FINISH (High Gloss) where scheduled on the drawings.

B. No other alternatives accepted for this section.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: Surfaces shall be clean and free of all contaminants, film-forming curing compounds or sealers. The Contractor shall correct conditions detrimental to timely and proper completion of the work of this Section, and shall not proceed until unsatisfactory conditions are corrected. Concrete must be cured for a minimum of three (3) days prior to the application of Concrete Sealer.

3.02 APPLICATION:

1. MICROPOLISH/BURNISH #1: FLOR-GRIT 800 Diamond Impregnated Pad by Diamatic.

2. Dry mop the floor clean to remove all debris.

3. Apply DIAMATIC FLOR-FINISH (High Gloss) per application instructions at a rate of 2,500 square feet per gallon (Actual rates may vary due to concrete porosity).

4. Allow to dry a minimum of 15 minutes.

5. MICROPOLISH/BURNISH #2: FLOR-GRIT 1500 Diamond Impregnated Pad by Diamatic.

END OF SECTION

SECTION 10300

PETCO-FURNISHED & CONTRACTOR-PROVIDED ITEMS

PART 1 GENERAL

1.01 REFERENCE: The Division of Responsibilities is described in this Section and on an abbreviated list on Drawing Sheet A0.2. There are additional, miscellaneous Contractor-Provided Items listed in this Section that are NOT listed on Drawing Sheet A0.2.

1.02 DIVISION OF RESPONSIBILITIES TERMINOLOGY:

B. "Contractor": The Contractor shall furnish and install PETCO Inventory Agreement products and assemblies; shall install some PETCO National Account products and assemblies; and shall coordinate provisions for these and PETCO Vendor-provided products and assemblies; all as described in the drawings, in this section, and other Project Manual Sections.

C. "PETCO Vendor": Where referenced in this Section, "PETCO Vendor" refers to a different entity from "Contractor". The PETCO Vendor will provide tenant-specific work in contract agreement with PETCO. The PETCO Vendor may be either a product supplier only, that delivers products or assemblies to the project site, or may furnish and install the specific products and assemblies.

D. "PETCO Employee": Some PETCO-Furnished Items will be installed by PETCO's Employees.

1.03 PETCO NATIONAL ACCOUNT AND INVENTORY AGREEMENTS:

A. National Account (Purchased by PETCO): PETCO has secured National Accounts with some construction product Vendors. PETCO direct purchases these national account products with some variation of the following division of responsibilities between PETCO and the Contractor:

1. Furnished and installed by the PETCO Vendor.
2. Furnished by the PETCO Vendor, and installed by the Contractor.
3. Partially furnished and/or installed by the PETCO Vendor, and partially furnished and/or installed by the Contractor.
4. The Contractor must coordinate with the PETCO Project Manager regarding provisions and scheduling for delivery of products, labor and materials provided by PETCO under National Account agreements with specified product and assembly suppliers, for those items that the Contractor must either install (only), or furnish AND install.

B. Inventory Agreement (Purchased by the Contractor): As further defined in this Section and in other Project Manual Sections, PETCO has secured Inventory Agreements with some construction product manufacturer/ suppliers.

1. Unless specifically approved in advance, and approved in writing, by the PETCO Project Manager, the Contractor shall provide these Inventory Agreement construction products, with no substitutions permitted.
2. The cost for PETCO Inventory Agreement products, to be purchased by the Contractor, has generally been pre-established with the manufacturer/ supplier.

1.04 LIST OF PETCO-FURNISHED AND CONTRACTOR-PROVIDED ITEMS:

A. PETCO-Furnished and Contractor-Provided Items and Division of Responsibilities are also described in abbreviated form on the Architectural Drawings (Drawing Sheet A0.2). The

Contractor is responsible for satisfying labor, materials, and equipment requirements for each respective item as may be further detailed in this or other Project Manual Sections.

A0.2 Mark	Item Description	Reference Drawings, Section(s)
1.	Automatic Sliding Entrance Doors	A2.1, A3.1, A7.1, 08410
2.	Banner Anchors (at Front Elevation)	A4.1, 05500
3.	N/A	
4.	Cabinets, Countertops, Coat Rack, Shelves	A2.1 A7.1, A9.1, 06200, 08710
5.	Cart Corral (Exterior and Interior)	A2.1, A7.1, 10300
6.	Cash Register Point of Sale (POS) System	A2.3, E-dwgs, 16000
7.	Computer Equipment	A2.3, 10300
8.	Employee Time Clock	10300
9.	Energy Management System	16000
10.	Entrance Floor Mat	A2.1, A3.1, A7.1, 10300
11.	Fire Alarm & Security System	E2.3, 16000
12.	Fire Extinguishers	A2.3, 10300
13.	Grooming Reception Counter and accessory wall with Swinging Doors	A2.3, A7.1, 10300
14.	Hollow Metal Doors and Frames, Door Finish Hardware	A3.1, 08710
15.	HVAC Rooftop Units (RTUs)	A2.4, M-dwgs, 15500
16.	Interior PETCO Store Graphics	10300
17.	Light Fixtures and Lamps	E-dwgs, 16000
18.	Loading Dock Equipment (part of building shell) b. Dock Shelter (for used with speed lift) c. Speed Lift (surface mounted)	A2.1, A6.1, 10300
19.	Shopping Carts	A2.3, A7.1, 10300
20.	Sound & Communication System	E2.4, 16000
21.	Store Safe	A2.3, A7.1, 10300
22.	Telephone System	10300, 16000
23.	Toilet Room (and other room) Accessories, including Install Kits containing extra accessories shall be temporarily stored in Restrooms for Petco Manager's use	A7.1, A9.1, 10300
24.	Wall Bumpers	A7.1, A9.1, 10300
25.	Wall Cornerguards	A7.1, A9.1, 10300
26.	Window Shades	A2.1, 10300
27.	Wire Shelving	A7.1, 10300
28.	Store Fixtures/ Equipment: AQUARIUM AREA and WORK ROOM AQ1 Freezer AQ2 Plant Tank AQ3 Bagging Station AQ4-AQ11 Aquatics Tanks	A2.3, A7.1, P-dwgs, E-dwgs, 10300
	AQ12 Feeder Warehouse AQ13 Prep Sink AQ20	
29.	Store Equipment: BREAK ROOM BR1 Vending Machine	A2.3, A7.1, 10300

	BR2 Refrigerator BR3 Lockers BR5 Table	
30.	Store Fixtures: RETAIL AREA Check Lanes CL1, CL2, CL3 Check Lane and Power Pole CL4 Store Safe	A2.3, E-dwgs, 10300, 16000
31.	General Furnishings OFFICE F1 File Cabinet F2 Desk F3 Chair F4 Folding Table F5 Computer Table F6 Book Case F7 Fax Machine	A2.3, 10300
32.	Store Fixtures: RETAIL AREA Gondola G1-G7 Gondola	A2.3, 10300
33.	Store Furnishings/ Equipment: GROOMING SALON GR1 Grooming Table GR2 Shop Vacuum GR3 Animal Kennel with Dryer GR4 Animal Kennel GR5 Grooming Hose GR6 Washer and Dryer GR7 Shampoo Dispenser GR8 Fixed Grooming Tub	A2.1, A2.3, A7.1, A9.1, P-dwgs, M-dwgs, E-dwgs, 10300
34.	Store Fixtures: RETAIL AREA Reptile Habitats RTL1 Reptile Habitat RTL2 Reptile Petter	A2.3, M-dwgs, E-dwgs, 10300
35.	Store Fixtures: RETAIL AREA Small Animal Habitats SA3 Ferret Petter SAM1 Small Animal Habitat	A2.3, M-dwgs, E-dwgs, 10300
36.	Store Fixtures/ Furnishings/ Equipment: RETAIL AREA SF1 21 HL Pet Bar SF2 12 HL Pet Bar SF3 End Cap Pet Bar SF4 Vending Machine SF5 Quick Tag SF6 Kid's Ride SF7 Avanti Cards SF8 Kiosk SF9 Gift Fixture SF10 Litter Bin SF11 Apparel Fixture SF12 Dump Bin SF13 Pallet SF14 Half-Pallets SF15 H-Fixture SF16 Cat Furniture W3, W4, W13, W14, W15 Wall Fixture Units	A2.3, 10300
37.	Trellis(es) Decorative Trees	A2.4 and A8.4 A2.3

	Painted Branches Focal Walls	A9.3 A2.3

1.05 ADDITIONAL CONTRACTOR-PROVIDED ITEMS NOT LISTED ON DRAWING SHEET A0.2:

A. The Contractor shall furnish and install the following items where shown on the drawings. Some items may be available for purchase by the Contractor through a PETCO Inventory Agreement with the supplier/ vendor, as further described in this Section:

1. Accessibility Signage.
3. Emergency Personal Eyewash Station.
5. Manhole Covers and Frames, Gratings and Inlets.
6. Miscellaneous Warning Signs.
7. Plan Holder at Telephone Board.
8. Precast Concrete Parking Bumpers.
9. Rapid Access Key Vault (Knox Box).
10. Stainless Steel Column Coverings.
11. Tactile/ Detectable Warning Surface Tile.
12. Cast-in-place Tactile / Detectable Warning Tile.
13. Surface Applied Tactile / Detectable Warning Surface Tile.

PART 2 PRODUCTS

2.01 SCHEDULE OF PETCO-FURNISHED AND CONTRACTOR-FURNISHED ITEMS:

A. Where other Sections are referenced, those Sections should also be referred to for additional descriptions of the divisions of responsibilities for the respective item.

1. Automatic Sliding Entrance Doors:
Automatic Sliding Entrance Doors shall be furnished and installed by the Contractor.

2. Banner Anchors:
Banner Anchors shall be furnished and installed by the Contractor at the building exterior where shown on the drawings.

3. Cabinets, Countertops, Coat Rack, Shelves:
Cabinets, Countertops, Coat Rack and Shelves shall be furnished and installed by the Contractor.

4. Cart Corral (Exterior) and Cart Corral (Interior):

a Exterior Cart Corral (Inventory Agreement): The Parking Lot Cart Corral shall be purchased by the Contractor from this PETCO Inventory Agreement Vendor, and installed by the Contractor:

NATIONAL CART COMPANY INC.
3125 Boschertown Road, St. Charles MO 63301
Tel. 800-455-3802; FAX 636-723-4477; website: www.nationalcart.com

1) No product substitutions or alternative product suppliers are permitted. No submittals are required for these products. Lead Time for order processing and fabrication is 2 weeks; allow for additional shipping time.
2) The Contractor shall furnish and install one (1) Series 360, Model #

CC-360-14, Cart Corral with custom PETCO signage on file with the company. This model is furnished with galvanized steel base plates for securement.

3) Installation: The Parking Lot Cart Corral shall be installed by the Contractor in PETCO's customer parking lot, where designated by the PETCO Project Manager (and may be subject to Landlord's approval). Securing fasteners shall be provided by the Contractor.

b. Cart Corral (Interior): The Interior: Cart Corral shall be furnished and installed by the Contractor at the Retail Area, where shown on the drawings.

1) Interior Cart Corral at the Retail Area shall consist of chrome posts and railings, Double Rail System, Vogue post 35-1/2" height, Model V components, by Alvarado Manufacturing Company, Chino CA (800-423-4143; www.alvaradomfg.com).
2) No product substitution is permitted.
3) Installation by the Contractor shall be with Contractor-furnished double expansion anchors and bolts inserted into pre-drilled concrete slab holes.

c. Interior Cart Bumper: The Interior Cart Bumper shall be purchased by the Contractor from this PETCO Inventory Agreement Vendor, and installed by the Contractor where shown on the drawings:

MCCUE CORPORATION
Contact: Inside Sales
35 Congress Street, Salem MA 01790
Tel. 800-800-8503; FAX 508-741-2542; website: www.mccuecorp.com

No product substitution or alternative product supplier is permitted. No submittal is required for this product. This Inventory Agreement Vendor is also the source for Wall Bumpers, specified elsewhere in this Section.

1) The Floor-Anchored Cart Bumper shall be CartStop Model RE, Part No. CSR, Color "Gray 105". Provide field-cut-to-size rail with lengths as shown on the drawings. If the cart bumper shown on the drawings is an L-shaped or U-shaped bumper configuration, then provide Roller Corner CSRC2 at each corner.
2) The Cart Bumper should be purchased over-sized (2 foot increments) and field cut to the specified lengths.
3) Install the floor-secured Interior Cart Bumper in accordance with the manufacturer's printed instructions, with Contractor-furnished anchoring cement and inserted into pre-drilled concrete slab holes.

5. Cash Register Point of Sale (POS) System (National Account):
The Point of Sale System will be furnished and installed by a PETCO Vendor. The Contractor shall furnish and install supplementary electrical work.

6. Computer Equipment (National Account):
Computer Equipment will be furnished to the jobsite and installed by a PETCO Vendor.

7. Employee Time Clock (National Account):
The Employee Time Clock will be furnished to the jobsite and installed by a PETCO Vendor. The Contractor shall furnish and install the junction box, conduit and pull string, and power supply.

8. Energy Management System (National Account):

Partial Work will be provided by a PETCO Vendor. The Contractor shall provide supplementary electrical work.

9. Entrance Floor Mat (located at the Vestibule):

    a. The Contractor shall furnish and install surface mounted Helix Z2 floor mat with Helix Z1 borders by Grand Entrance with replaceable 9x12 sections with exterior grade brush tread (polypropylene fibers). Helix Z1 tiles will allow for field cutting for custom fit. Open sides of mat shall be restrained with extruded aluminum tapered frames anchored to concrete floor slab. Sliding door thresholds shall have tapered section omitted from installation to allow mat to meet flush with sliding door thresholds and restrained with extruded aluminum tapered frame with 90 degree leg. Color shall be 9305 Espresso. Frames shall match finish of storefront system in vestibule, otherwise anodized bronze. Manufacture rep contact Mike Hanlin 888-424-6287.
    b. Acceptable Alternative: The Contractor shall furnish and install Model “Supreme NOP”, 3/8” tuft Entrance Floor Mat, Color Sable Brown, Entrance Floor Mat tiles, 18” or 19-11/16” square (43.2 SF per case / sold by case), by Mats Inc., Stoughton MA (contact Donna Macleod 800-628-7462 x241).
    c. Adhesive: The Contractor shall provide adhesive equal to Durabond D-870 Carpet Tile & Pad Adhesive, by Bostik Findley, Middletown MA (888-592-8558; www.bostikfindley-us.com).
    d. Installation: The Contractor shall field cut and install the Entrance Floor Mat Tiles to cover the entire Vestibule floor surface, and the floor mat shall be finished tight to the adjacent door thresholds.
    e. Submittal: No submittal is required for this product.

10. Fire Alarm & Security System (National Account):
    Partial Work will be provided by a PETCO Vendor. The Contractor shall provide supplementary electrical work.

11. Fire Extinguishers:

    a. The Contractor shall furnish and install Fire Extinguishers where shown on the drawings, or as may be additionally required by the jurisdiction’s fire marshal. Fire Extinguishers shall be equal to Model No. MP6, Multi-Purpose Dry Chemical, UL Rating 3A-40B:C, nominal capacity 6 pounds dry chemical, with bracket Model No. 862, by Larsen’s Manufacturing Company, Minneapolis MN (800-527-7367).
    b. Wall/ Column Bracket: Provide (non-standard) bracket Model No. 862, by Larsen’s Manufacturing Company.
    c. Installation: Unless otherwise designated by the jurisdiction fire marshal, the Contractor shall install Fire Extinguishers at a uniform height of no more than 48” from floor to top of the fire extinguisher handle.

12. Grooming Reception Counter, Accessory Low Wall and Swinging Doors (National Account):

    a) The Grooming Reception Counter, Accessory Low Wall and Swinging Doors will be delivered to the jobsite by a PETCO Vendor.
    b) The Contractor shall offload the Grooming Reception Counter, Accessory Wall and Swinging Doors, and shall assemble and install the Grooming Reception Counter, Accessory Wall and Swinging Doors.

14. Hollow Metal Doors and Frames, Door Finish Hardware:

Hollow Metal Doors, Frames and Door Finish Hardware will be purchased by the Contractor from a PETCO Inventory Agreement Vendor. Except for the installation of store cores, all Hollow Metal Doors, Frames and Door Finish Hardware shall be installed by the Contractor.

15. HVAC Rooftop Units (Inventory Agreement):
The Contactor shall furnish and install HVAC Rooftop Units and structural provisions.

16. Interior PETCO Store Graphics (National Account):
Interior Surface-Mounted Wall Graphics and Bracket-Mounted Graphics will be furnished and installed by one or more PETCO Vendors.

17. Light Fixtures and Lamps (Inventory Agreement):
The Contractor shall furnish and install Light Fixtures and Lamps.

18. Loading Dock Equipment (Inventory Agreement):

    a. INVENTORY AGREEMENT: Loading Dock Equipment shall be purchased by the Contractor from this PETCO Inventory Agreement Vendor, and installed by the Contractor:

       STAR EQUIPMENT INC.
       Contact: Ken Doriott
       2100 107th Lane NE, Blaine MN 55443
       Tel. 763-783-9420 x124 FAX 763-783-9501

    b. No product substitutions or alternative product suppliers are permitted.

    c. No submittals are required for these products. However, prior to placing the purchase order, the Contractor should review the final Speed-Lift side-of-lift bridge placement, and the Speed-Lift field orientation with the PETCO Project Manager, to ensure that the orientation shown on the drawings is consistent with PETCO's store operations off-loading requirements at this site.

    h. Dock Shelter (for use with speed lift):

       1) The Contractor shall furnish and install pre-fabricated aluminum canopy by Elite Aluminum Corporation (1-800-535-4837 b.peacock@elitealuminum.com) or equal and provide shop drawings to architect for review. Contractor to provide product approved system as required for jurisdiction's requiring such along with copy of product approval.
       2) Warranty: Provide the manufacturer's standard warranty in the Building Maintenance Manual submitted per Section 01700-Contract Closeout.

    k. Speed-Lift: The Contractor shall furnish and install Speed-Lift Model SL-5000-A by Superior Handling Equipment Inc., Ormond Beach FL. Contact Sales Department or Beth Vollmer (President) (sales@superiorlifts.com or bvollmer@superiorlifts.com; Ph. 800-221-4339, 386-677-0004; FAX 386-677-0022).

       1) Prior to placing the purchase order, the Contractor should review the Speed-Lift side-of-lift bridge placement, and the Speed-Lift field orientation with the PETCO Project Manager, to ensure that the orientation shown on the drawings is consistent with PETCO's store operations off-loading requirements at this site.

2) Capacity: 5000 pounds.
3) Motor: 230 volts, 3 phase, 5 hp.
4) Usable Platform Size: 60” x 84”.
5) Extended Bridge: 48”.
6) Side-Off Platform (SOP).
7) Shipping Weight: 3100 pounds.
8) Provide power provisions in accordance with dock lift manufacturer’s requirements.
9) Warranty: Provide the manufacturer’s standard one-year warranty in the Building Maintenance Manual submitted per Section 01700-Contract Closeout.
10) Operations Manual: Provide the manufacturer’s equipment operation instructions in the Building Maintenance Manual submitted per Section 01700-Contract Closeout.

19. Shopping Carts (National Account):
Shopping Carts will be furnished to the jobsite and installed by one or more PETCO Vendors.

20. Sound & Communication System (National Account):
The Sound & Communication System will be furnished and installed by a PETCO Vendor. The Contractor shall furnish and install the junction boxes, conduit and pull-string, and power supply.

21. Store Safe (National Account):
The Store Safe will be furnished to the jobsite, and offloaded and installed by one or more PETCO Vendors.

22. Telephone System (National Account):
The Telephone System will be provided by a PETCO Vendor. The Contractor shall furnish and install the telephone backboard, junction boxes, conduit and pull string, and power supply.

23. Toilet Room (and other room) Accessories:

a. Partial NATIONAL ACCOUNT: The Contractor shall coordinate the delivery of Accessories with the PETCO Project Manager, and shall install PETCO’s Vendor-Furnished Accessories as furnished from PETCO’s distribution warehouse. No product substitution or alternative product supplier is permitted.

b. INVENTORY AGREEMENT: Hand Dryers in Toilet Rooms shall be purchased from this PETCO Inventory Agreement Vendor and installed by the Contractor:

HAINES JONES & CADBURY
Contact: Selinna Hale (selinna.hale@hjcinc.com)
Tel. 800-459-7099

No product substitution or alternative product supplier is permitted. No submittal is required for this product.

1) Provide Excel Dryer, Inc., Xlerator Hand Dryer XL-SB, brushed stainless steel. Where required, also provide the Xlerator Recess Kit #40502.
2) Contractor is responsible for furnishing and installing all necessary wall blocking, fasteners and electrical junction boxes to the unit.

3) The Contractor shall install the hand dryer where indicated on the drawings OR as otherwise directed by PETCO Project Manager. The Contractor shall provide final electrical connections to the unit.

c. Contractor-Provided Items: The Contractor shall install the following PETCO Vendor-furnished items, and shall furnish all Wall Anchor Fasteners required for the installation of these PETCO Vendor-furnished Accessories (products by Fort James Corporation):

1) Toilet Paper Dispenser: 9" Twin Jumbo Bath Tissue Dispenser.
2) Toilet Seat Cover Dispenser: SafeGard White Plastic, 500 Sheet Capacity.
3) Soap Dispenser.

d. Other Rooms Accessories: Soft Pull Paper Towel Dispenser shall be furnished by the PETCO Vendor for the following rooms. The Contractor shall install the Paper Towel Dispenser where indicated on the drawings OR as otherwise directed by the PETCO Project Manager:

1) Break Room
2) Work Room

e. The Contractor shall provide all other Toilet Room Accessories indicated and scheduled, equal to Bobrick Washroom Equipment Inc., North Hollywood CA (818-764-1000).

1) Alternative: American Specialties Inc. (ASI), Yonkers NY (914-476-9000).
2) Alternative: Bradley Corporation, Menomonee Falls WI (414-251-6000).

f. Provide Type 304 stainless steel, satin finish and surface mounted Washroom Accessories at the locations shown on the drawings:

Restroom Items	**Bobrick**	**ASI**	**Bradley**
Mirror 24" x 36"	B-165/ 2436	0620	781
Side Wall Grab Bar	B-6806 x 42"	3200 x 42"	812 x 42"
Side Wall Vertical Grab Bar	B-6806 x 18"	3200 x 18"	812 x 18"
Rear Wall Grab Bar	B-6806 x 36"	3200 x 36"	812 x 36"
Hand Bag / Man Bag Hook	B-2116	7382	931
Coat Hook *Mounted to back of door*	B-2116	7382	931
Sanitary Napkin Disp.	B-270	0852	4722-15
Vertical Wall-Mounted Baby Changing Station	KB101-00 Cream	No equivalent "vertical" unit	No equivalent "vertical" unit
Horizontal Wall-Mounted Baby Changing Station *(Acceptable Alternative)*	KB100-0 Cream	9012	9612 Ivory
Mop Holder *At Janitor Closet, locate above Floor Sink*	B-223	8215-3	9953
Recessed Trash Receptacle	B-43644	20458	344 with liner #P11-004

Grooming Room Items	**Bobrick**	**ASI**	**Bradley**
Mirrors, sized as indicated on drawings	Not available	Not available	Not available

24. Wall Bumpers (Inventory Agreement):

    a. INVENTORY AGREEMENT: Wall Bumpers shall be purchased from this PETCO Inventory Agreement Vendor and installed by the Contractor:

       MCCUE CORPORATION
       Contact: Inside Sales
       35 Congress Street, Salem MA 01790
       Tel. 800-800-8503; FAX 508-741-2542; website: www.mccuecorp.com

       No product substitution or alternative product supplier is permitted. No submittal is required for this product. This Inventory Agreement Vendor is also the source for the Interior Cart Bumper, specified elsewhere in this Section.

    b. Provide Greenguard 3 Half-Round 3" rigid wall bumpers, and (where applicable) Outside Corners and End Caps at interior walls and storefront, where shown or described on the drawings.
    c. Color: Provide Color "Gray 105" at all locations.
    d. All corner transitions shall be installed with #GGC-35-604 Outside Corners; all end terminations shall be installed with #GGE-35-604 Snap-On End Cap. The drawings do not necessarily indicate all locations for all outside corner or end termination items. The Contractor is responsible for determining quantities and locations based on actual field conditions.
    e. Install Wall Bumper Rails in a single horizontal row at the height noted above the finish floor with screws and #GGB-35-400 predrilled PVC rail retainer.

25. Wall Cornerguards:

    a. The Contractor shall provide Wall Cornerguards equal to Model No. CG-18-4 (90 degree), Model No. CG-19-4 (135 degree), Color No. 132 Clear Lexan wall cornerguards, by Outwater Plastics Industries Inc., Woodridge NJ (973-472-3580).

       1) Acceptable Alternative: Provide Model No. 421290 (90 degree), Model No. 4212135 (135 degree), Color Clear Polycarbonate, by Institutional Products Corporation, Muskego WI (800-543-1729).

    b. Standard features: Size 2-1/2" x 2-1/2" wing, 90 degree or 135 degree, where applicable; thickness: 0.10" minimum, 44" length, mounted to 48" height above floor, with bottom located at top of wall base.
    c. Means of Attachment: Panhead self-tapping screws in pre-drilled holes; adhesive mounting is NOT permitted.
    d. Locations: Provide Wall Cornerguards at all outside exposed corners of interior gypsum wallboard partitions.

26. Window Shades:

    a. The Contractor shall furnish and install MechoShade Clutch Operated, Manual Interior Roll-Screen Solar Shade, with wall mount brackets, by MechoShade Systems Inc., Long Island City NY. Contact: Jerry Feldman; Office 732-339-0751 Ext 6033; Cell # 732-991-1395.

       1) Fabric: EuroVeil 5300 dense basket weave, 5% openness factor.
       2) Fabric Color: #5304 Sand.
       3) Fascia Color: Clear Aluminum.
       4) Accessories as listed below and as required for a complete installation.

b. Acceptable Alternative: Provide Hunter Douglas Clutch Operated, Manual Interior Roller Shade, with wall mount brackets, by Hunter Douglas Contract, Los Angeles CA (800-727-8953; 888-243-0144).

1) Fabric: Phifer Shearweave 4000 fabric, 5% openness factor.
2) Fabric Color: #Q12 Pebblestone.
3) Fascia Color: Clear Aluminum, or to be selected by PETCO Project Manager from the manufacturer's standard colors (Contractor to provide samples).
4) Accessories as listed below and as required for a complete installation.

c. Acceptable Alternative: Provide Lutron Standard Clutch Manual Interior Roller Shade, with wall mount brackets, by Lutron Shading Solutions, Ashland VA (800-446-1503).

1) Fabric: Phifer Shearweave 4000 fabric, 5% openness factor.
2) Fabric Color: #Q12 Pebblestone.
3) Fascia Color: Clear Aluminum, or to be selected by PETCO Project Manager from the manufacturer's standard colors (Contractor to provide samples).
4) Accessories as listed below and as required for a complete installation.

d. Standard Accessories: Window Shades shall be provided complete with:

1) Reverse-side Fascias, where the rolled shade and housing is visible through the storefront.
2) Fascia End Caps at open ends of shade housings.
3) Child-safe chain retainer at each chain.

e. Field Measurements: The Window Shade shall be surface mounted to the interior side (and face) of the aluminum framing.
f. Installation: The Contractor shall install the Window Shades per the manufacturer's instructions.
g. Warranty: Provide the manufacturer's Standard Warranty in the Building Maintenance Manual per Section 01700 requirements.

27. Wire Shelving: Wellness Room, Cage Room, Tub Room, Janitor Closet:
Wire Shelving with integral wall brackets will be furnished by a PETCO Vendor. The Contractor shall offload wire shelving; shall furnish concealed wall strapping and wall anchors; and shall install the wire shelving.

28. Store Fixtures/ Equipment: Aquarium Area and Work Room

a. NATIONAL ACCOUNT: Aquarium Area equipment will be furnished and installed by this PETCO Vendor, with supplementary work provided by the Contractor.

MARINELAND RETAILER SYSTEMS
Contact: Karl Cockrell (Karl.Cockrell@unitedpetgroup.com)
2911 Douglas Drive, Bossier City LA 74111
Tel. 318-747-6500 FAX 318-747-2504

b. AQ1 Freezer: The Freezer will be furnished to the jobsite, offloaded and installed by a PETCO Vendor.

c. AQ2 Plant Tank, AQ4 and AQ8 Aquatics Tanks, and AQ12 Feeder Warehouse:

1) This equipment will be furnished and installed by a PETCO Vendor.
2) The Contractor shall provide final plumbing and electrical connections.

d. AQ3 Bagging Station:
1) The Bagging Station will be furnished to the jobsite in several pre-assembled units by a PETCO Vendor.
2) The Contractor shall offload, assemble and install the Bagging Station, and provide final plumbing and electrical connections.

e. AQ13 Prep Sink (Sink with drain board in Work Room):
The Prep Sink shall be furnished and installed by the Contractor.

f. AQ7, AQ12:
1) This equipment will be furnished and installed by the PETCO Vendor.
2) The Contractor shall provide Power Pole, final plumbing and electrical connections.

29. Store Fixtures: Break Room (National Account, except where noted)

a. BR2 Refrigerator
The Refrigerator will be furnished to the jobsite, offloaded and installed by a PETCO Vendor.
b. BR3 Lockers
Employee Lockers will be furnished to the jobsite, offloaded and installed by a PETCO Vendor.
c. BR5 Table
The Table will be furnished to the jobsite, offloaded and installed by a PETCO Vendor.

30. Store Fixtures: Retail Area Check Lanes (National Account):

a. CL1, CL2 and CL3 Check Lane (Cash Wrap) Fixture, Power Pole

1) The Check Lane Fixtures and Power Poles will be furnished to the jobsite by a PETCO Vendor.
2) The Contractor shall offload, assemble and install the Check Lane Fixtures and Power Poles, shall provide the junction boxes and electrical provisions at all Power Pole locations; shall provide supplementary conduit to the point of connection at the junction box, and shall provide final electrical connections.

31. General Furnishings/ Equipment (National Account):

a. F1 through F7 General Furnishings and Office Equipment will be furnished to the jobsite, offloaded, assembled and installed by a PETCO Vendor.

32. Store Fixtures: Retail Area Gondola (National Account):

a. G1 through G7 Gondola Fixture Units will be furnished to the jobsite, offloaded, assembled and installed by a PETCO Vendor and PETCO Employees.
b. The Contractor shall provide electrical power supply to the roof deck (ceiling) mounted junction box located above Gondola Fixture Units requiring power provisions; shall provide conduit and wiring from the Gondola Fixture Units to the roof deck (ceiling) mounted junction boxes; and shall provide final electrical connections.

33. Store Fixtures/ Furnishings/ Equipment: Grooming Room (various National Accounts)

    a. GR1 Grooming Table will be furnished to the jobsite by a PETCO Vendor.
        1) The Contractor shall offload the Grooming Table.
        2) A PETCO Vendor will assemble and install the Grooming Table.

    b. GR3 Animal Kennel with Dryer, and GR4 Animal Kennel will be furnished to the jobsite and installed by a PETCO Vendor
    c. GR2 Shop Vacuum, GR5 Grooming Hose, and GR7 Shampoo Dispenser will be furnished to the jobsite, offloaded, assembled and installed by a PETCO Vendor.
    d. GR6 Washer and Dryer will be furnished to the jobsite, offloaded and installed by a PETCO Vendor.

        1) The Contractor shall provide all plumbing, mechanical and electrical provisions, including washer hose fitting connections, dryer vent transition and dryer vent piping through roof, and roof flashing, where shown or specified on the drawings.

34. Store Fixtures: Retail Area Reptile Habitats (National Account)

    a. RTL1 Reptile Habitat, RTL1 Reptile Petter will be furnished to the jobsite, offloaded and installed by a PETCO Vendor.
    b. The Contractor shall provide final electrical connections.

35. Store Fixtures: Retail Area Small Animal Habitats (National Account)

    a. SAM1 Small Animal Habitat, SA3 Ferret Petter (National Account) will be furnished to the jobsite, offloaded and installed by a PETCO Vendor.
    b. Power Drop: The Contractor shall provide junction box and power at the roof deck (ceiling) where shown on the electrical drawings, and shall provide final electrical connections.
    c. Mechanical Air Distribution: The Contractor shall provide air distribution in close coordination with the assembly work provided by the PETCO Vendor (installer).

36. Store Fixtures / Furnishing/ Equipment: Retail Area

    a. SF1 through SF10 (National Account) will be furnished to the jobsite, offloaded, assembled and installed by a PETCO Vendor and PETCO Employees.
    b. W3, W4, W13, W14, W15 Wall Fixture Units will be furnished to the jobsite, offloaded, assembled and installed by a PETCO Vendor and PETCO Employees.

37. Store Fixtures / Pet Clean Up Station: Exterior

    a. Pet Clean Up Station / Outdoor Sanitation Station: The Pet Clean Up Station shall be purchased by the Contractor from this PETCO Inventory Agreement Vendor, and installed by the Contractor where shown on the drawings:

        Sureway Tool & Engineering Company
        2959 Hart Drive
        Franklin Park, IL 60131
        Tel. 847-801-3010
        website: www.surewaytool.com

    b. No product substitution or alternative product supplier is permitted. No submittal is required for this product.

c. Part #s:
    a. 18067-101: sign plate
    b. 18067-1100: trash weldment
    c. 18067-103: trash top plate
    d. 18067-105: trash ring
    e. 18067-106: trash spine
    f. 18067-107: trash body
    g. 18067-109: bottom trash plate
    h. 18067-115: trash hinge
    i. 18067-114: bag holder face
    j. 18067-1200: bag housing
    k. 18067-110: peak bucket
    l. 18067-111: peak bracket
    m. 18067-112: shelf
    n. 18067-113: bag holder bottom
    o. 18067-108: trash tube

d. Install the Pet Clean Up Station as indicated on the drawings. Post shall be set in ground with concrete, 12” dia x 30” deep.

38. Painted “Branches” pattern on perimeter walls: Retail Area

a. Contractor shall provide painted patterns on walls. Drawings provide design intent and limits of painted area. Petco Construction Manager will only provide a stencil for the painter to use to layout the patterns required. Painter shall be responsible for all labor and materials.

39. Decorative Trellis: Retail Area(s)

a. Contractor shall provide framing materials and installation to suspend track lighting and decorative wood trellis.

b. Framing: Contractor shall provide unistrut framing suspended from roof structure with threaded roods, painted to match exposed roof structure. All unistrut framing shall be connected using mechanical fasteners. Threaded rods shall have double locking nut fasteners at each connection to framing members.

c. Track Light Fixture shall be mounted to dedicated unistrut framing for each track, painted to match exposed roof structure. All exposed conduits and junction boxes shall be painted to match exposed roof structure.

d. Decorative wood trellis: Faux wood beams shall be constructed of ridged light weight foam with continuous styrene veneer finished as indicated on drawings to represent wood by manufacturer. All beams shall have matching end caps. Top of beams shall be open / exposed to allow mounting to wood blocking with embedded brackets provided by the beam manufacturer. Manufacturer of faux wood beams:

RockTenn Retail Soultions
www.rocktennretailsolution.com
214-843-3048
Contact: Patti Ellis

e. Submit shop drawings of assembly and samples of finishes to architect for approval prior to installation.

2.02 ADDITIONAL CONTRACTOR-PROVIDED ITEMS:

A. Accessibility Signage: Provide accessibility signage equal to Brighter Image Braille Stock Signs by Allstate Sign & Plaque Corp., Nassau County NY (800-240-6039; www.allstatesign.com).

1. Interior Room Wall Signs:

a. Accessible Mens Restroom: Allstate X-5671, size 6" x 9".
b. Accessible Womens Restroom: Allstate X-5688, size 6" x 9".
c. Accessible Break Room: Allstate X-Custom, size 6" x 9", Copy: "Break Room".
d. Provide all Interior Room Signs Provide signage with White letters or symbols, on Blue sign color equal to Federal Standard 595-B, Color No. 15090.
e. Sign Installation: Provide one sign at the side of each door for the rooms listed above, using double-faced adhesive back tape, and locate at a height of 60" above the finish floor to the centerline of the sign, adjacent to the latch side of the door, and 12" from the outside edge of the door frame to the centerline of the sign (adjust this dimension plus/ minus if field conditions limit placement).

C. Emergency Personal Eyewash Station (located at the Tub Room):

1. The Contractor shall furnish and install an Emergency Personal Eyewash Station where shown on the drawings, consisting of a double (2) 32-ounce bottles of isotonic saline wash and a wall-mounted safety station (bottle holder), 5 lbs.
2. Provide equal to Model No. 320004620000 by Honeywell, available from W.W. Grainger Inc. (www.grainger.com) as item 3ARD8.
3. Installation: Secure the wall-mounted safety station with wall anchors suitable for cement board substrate (wall anchors and screws are NOT furnished with the product).

E. Manhole Cover and Frames, Gratings and Inlets: The Contractor shall furnish and install all cast iron manhole covers and frames where shown and specified on drawings.

F. Miscellaneous Warning Signs: The Contractor shall furnish and install miscellaneous warning signs equal to products by Seton Identification Products, Branford CT (800-243-6624) in the Locations where noted:

Sign Description	Model/ Size	Location
Fire Extinguisher	13895 4"x12"	Wall above each Fire Extinguisher
Caution Automatic Door	28824 6-1/2" Dia.	Each Automatic Sliding Entrance Door Leaf, center of door, 60" AFF to center

G. Plan Holder at Telephone Board:

1. Provide a Plan Holder for a set of Contractor-provided Petco Tenant Space drawings. Drawings shall be provided as specified in Section 01700-Project Closeout.
2. Provide a 4" diameter x 32" long Schedule 40 PVC pipe, with a cemented end cap at one end, and a flexible end cap / end cover at the other (open) end.

3. Secure the Plan Holder pipe horizontally at the bottom of the Telephone Board, with three metal pipe clamps. Refer to the Electrical Drawings for the location of the Plan Holder pipe on the Telephone Board.
4. Provide ten feet of 1/16" diameter stranded aircraft cable, with one end of the aircraft cable attached to the bound roll of Petco Tenant Space drawings at the binding edge, via a Contractor-provided punched metal grommet, and aircraft cable ferrule clinch connectors. Secure the other end of the aircraft cable to the inside of the Plan Holder pipe to the cemented end cap, via drilled holes and aircraft cable ferrule clinch connectors.

H. Pre-cast Concrete Parking Bumpers: The Contractor shall furnish and install at each parking space where indicated on site plan, an 8" x 8" x 6'-0" long (or half-length per local standard) chamfered, surface mounted pre-cast concrete parking bumper. Anchor bumper to paving with two (2) 1/2" diameter x 18" long reinforcing rods.

I. Rapid Access Key Vault (a.k.a. Knox Box; furnished and installed by the Contractor, if required by the fire marshal or the local jurisdiction):

1. The Contractor shall provide a recessed, rapid entry key storage box for emergency building access where shown on the drawings, or as may be otherwise designated by the fire marshal or the local jurisdiction. The Rapid Access Key Vault product shall be as approved or recommended by the local jurisdiction, and might be equal to one of the following products, subject to the Contractor's confirmation with the fire marshal or other local authority:

   a. Model No. 3200-R Heavy Duty Knox Box, with Model No. RMK recessed masonry mounting kit, by The Knox Company, Irvine CA (800-552-5669).
   b. Model No. LB1 Fail-Safe Key-Lock Box with tamper switch, by Fail-Safe, Maitland FL (800-946-8832).

2. The Contractor shall coordinate a timely processing and transmitting the Key for the Rapid Access Key Vault, between PETCO and the fire marshal or other local authority, so as to not impact the issuance of occupancy permits.

J. Stainless Steel Column Coverings (Retail Area):

1. From top of finished floor, provide 42" high, 22 gauge, Type 304, #4 finish, shop-formed Stainless Steel Column Covers equal to products fabricated by Acudor Products Inc., 80 Little Falls Road, Fairfield NJ 07004, 800-722-0501; 973-575-5120; e-mail: bcurran@acudor.com, attn.: Barbara Curran).
2. Provide Column Covers at all exposed, freestanding structural columns, and all gypsum wallboard-wrapped freestanding columns in the Tenant Space. The top edge of the Column Covering must be polished or finished so as to provide a rounded or eased edge; an unfinished, square edge cut is not acceptable. Provide continuous 100% clear silicone sealant with tooled bead where cover meets column surface at top and at bottom where cover meets tight to floor finish.
3. Secure Column Coverings with construction adhesive and pop rivet fasteners as detailed on the drawings. Locate seam on least conspicuous face of column.

K. Tactile / Detectable Warning Surface Tile:

1. Cast-in-Place Tactile/ Detectable warning surface tile: Provide Vitrified Polymer Composite (VPC) Cast-In-Place Tactile Tile equal to Armor-Tile, by Engineered Plastics Inc. (800-682-2525).
2. Physical Properties:

a. Size: 12” x 12” x 3/16” nominal.
b. Water Absorption: 0.35% maximum, when tested per ASTM D570.
c. Slip Resistance: 0.90 minimum combined wet/ dry static coefficient of friction on top of domes and field area, when tested per ASTM C1028.
d. Compressive Strength: 18,000 psi minimum, when tested per ASTM D695.
e. Tensile Strength: 10,000 psi minimum, when tested per ASTM D638.
f. Flexural Strength: 24,000 psi minimum, when tested per ASTM C293.
g. Flame Spread: 25 maximum, when tested per ASTM E84.

L. Cast-in-place Tactile / Detectable Warning Tiles:

1. ADA compliant; an epoxy polymer composition with an ultraviolet-stabilized coating with aluminum oxide particles in the truncated domes. The tile shall incorporate an in-line dome pattern of truncated domes 0.2” in height, 0.9” diameter at the base, and 0.4” diameter at top of dome spaced 2.35” nominal as measured on a diagonal and 1.70” nominal as measured side by side. For wheelchair safety the field area shall consist of a non-slip surface with a minimum of 40 - 90º raised points 0.045” high, per sq. in.
2. Color: Safety Yellow, (Federal Color # 33538) colorfast, UV stabilized coating.
3. Provide where shown on the drawings.

M. Surface Applied Tactile / Detectable Warning Surface Tile.

1. Surface Applied Tiles: ADA compliant; an epoxy polymer composite with an ultraviolet-stabilized coating with aluminum oxide particles in the truncated domes. The tile shall incorporate an in-line dome pattern of truncated domes 0.2” in height, 0.9” diameter at the base, and 0.4” diameter at top of dome spaced 2.35” nominal as measured on a diagonal and 1.70” nominal as measured side by side. The tile shall have with twelve countersunk fastening holes, and perimeter beveled edges. For wheelchair safety the field area shall consist of a non-slip surface with a minimum of 40 - 90º raised points 0.045” high, per sq. in.
2. Color: Safety Yellow, (Federal Color # 33538) colorfast, UV stabilized coating.
3. Provide where shown on the drawings.

PART 3 EXECUTION

3.01 “FINAL LAYOUT” STORE FIXTURE PLAN: A “Final Layout” Store Fixture Plan MAY be issued by PETCO for Final Layout purposes, and MAY be made available for field reference. Information contained on the “Final Layout” Store Fixture Plan may vary slightly from the Store Fixture Plan shown on the drawings. In the event of conflict, the information shown on the “Final Layout” Store Fixture Plan supersedes, unless otherwise directed by the PETCO Project Manager.

3.02 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work described in this Section will be provided, shall correct conditions detrimental to the timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

3.03 INSTALLATION: The Contractor shall coordinate the interface of the items of this Section with all affected trades so as to ensure proper and adequate provisions in the work of those trades under their respective scopes of work. Except where installation is scheduled to be by others, the Contractor shall install the items where shown on the drawings, in strict accordance with the manufacturer’s written recommendations and the requirements of governmental agencies having jurisdiction, securing all components firmly into position, level and plumb.

END OF SECTION

SECTION 10400

EXTERIOR BUILDING SIGNAGE

PART 1 GENERAL

1.01 NOT USED

1.02 SUMMARY:

A. PETCO's Vendor will provide the complete prefabricated exterior building signage and pylon signage as specified in this Section, and as indicated on the drawings, with supplementary work provided by the Contractor.

B. Related Work by Contractor:

1. The Contractor shall provide all final electrical connections and materials as required and called for on the drawings.
2. The Contractor shall provide supplementary roofing flashing and sealant work as required upon completion of the building signage installation.
3. Exterior Building Signage: The Contractor shall install all flashings and sealants as required and called for on the drawings.
4. Pylon Signage: The Contractor shall provide signage footings, foundations and anchor bolts, as required and called for on the drawings. The Contractor shall provide underground electrical provisions.

1.03 SUBMITTAL: No submittal is required for the work of this Section.

PART 2 PRODUCTS

2.01 PETCO SIGNAGE NATIONAL ACCOUNT: The Contractor shall coordinate the installation of Exterior Building Signage with the following PETCO National Account Vendor:

COORDINATE WITH PETCO PM.

No product substitution or alternative product supplier is permitted.

2.02 EXTERIOR BUILDING SIGNAGE: Typical exterior building signage consist of "PETCO" internally illuminated channel letters; and "PETCO" logo" graphic box sign cabinet.

2.03 NOT USED

2.04 OTHER MATERIALS: The Contractor shall provide other materials not specifically described but required for a complete and proper installation of the exterior building signage system.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS:

A. The Contractor shall examine the areas and conditions under which work of this section will be provided; shall correct conditions detrimental to timely and proper completion of this work; and shall NOT proceed until unsatisfactory conditions are corrected.

B. Exterior walls to receive signage shall be completely finished as scheduled.

3.02 ERECTION:

A. Exterior building signage shall be installed by PETCO's Vendor, in accordance with the sign fabrication drawings, and related Architectural and Structural drawings.

B. Neither PETCO's Vendor nor the Contractor shall field cut ANY structural members or signage members.

C. All exterior wall penetrations shown on drawings shall be located and verified by full-size installation templates furnished by PETCO's Vendor.

D. The Contractor shall provide all interior and rooftop sealant work to close all wall and parapet openings created by the signage installer for the purpose of the building signage installation. Wall penetrations shall be sealed, patched, and painted by the Contractor after the work is completed by PETCO's Vendor.

E. The Contractor shall provide materials and final electrical connections from the point of the rough wiring and stub-out at the interior face of the exterior wall.

END OF SECTION

SECTION 10530

CANOPIES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Extruded aluminum overhead hanger rod style canopies.
2. Delegated-Design.

1.2 REFERENCES

A. American Society of Civil Engineers (ASCE) 7 - Minimum Design Loads for Buildings and Other Structures.

B. American Welding Society (AWS):

1. D1.2 - Structural Welding Code - Aluminum.

C. ASTM International (ASTM):

1. B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.

1.3 SYSTEM DESCRIPTION

A. Design Requirements: Design awnings to withstand:

1. Live and dead loads in accordance with California Building Code.
2. Movement caused by an ambient temperature range of 120 degrees F and a surface temperature range of 160 degrees F.

B. Seismic Performance: Canopies shall withstand the effects of earthquake motions determined according to ASCE 7.

1. The term "withstand" means "the unit will remain in place without separation of any parts from the device when subjected to the seismic forces specified.

1.4 SUBMITTALS

A. Submittals for Review:

1. Shop Drawings: Include locations, profiles, sizes, supports, attachments, and finishes.
2. Samples:
   a. 3 by 3 inch paint samples showing available colors.

B. Delegated-Design Submittal: For canopies indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1. Detail fabrication and assembly of {Insert portion of work}.
2. Detail fabrication including anchorages and attachments to structure.
3. Design Calculations: Calculate requirements for selecting vibration isolators and seismic restraints.

1.5 QUALITY ASSURANCE

A. Fabricator and Installer Qualifications: Minimum 5 years documented experience in work of this Section.

B. Source Limitations for Canopies: Obtain canopy assemblies from single manufacturer.

C. Welding Qualifications: Qualify procedures and personnel according to the following:

1. AWS D1.2/D1.2M, "Structural Welding Code - Aluminum."

1.6 PROJECT CONDITIONS

A. Field Measurements: Verify actual dimensions of construction contiguous with canopies by field measurements before fabrication.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturers:

1. Design Basis: Contract Documents are based on “Super Lumideck Flat Soffit canopy” products and system by Mapes Canopies (888-273-1132).

2.2 MATERIALS

A. Decking: Consists of 3 inch extruded flat soffit 0.078 inch decking style pan (minimum 0.032 aluminum).

B. Intermediate framing members: Extruded aluminum, alloy 6063-T6.

C. Fascia: As indicated including the following options:

1. Standard: 8 inch extruded GM ~~J~~ style (minimum 0.125 aluminum)
2. Optional: 8 K style (minimum 0.032 aluminum).

2.3 ACCESSORIES

A. Anchors: Stainless steel.

2.4 FABRICATION

A. Connections: Mechanically assembled utilizing 3/16 fasteners with a minimum shear stress of 350 lb. compression sleeve at through-bolts. Prewelded or factory-welded connections are not acceptable.

B. Ship in preassembled sections.

C. Concealed Drainage. Drain water from covered surfaces into intermediate trough; directed to either the front for front drainage or to the rear for ground level discharge via designated downspouts

D Shop assemble in largest practical sizes for shipment

E. Provide anchors and brackets required for attachment of framing, of same material and finish as framing.

2.5 FINISHES

A Aluminum: Chemically clean and apply manufacturer's standard 2-Coat Kynar finish, sprayed and baked.

1. Color: “Interstate Blue.”

B. Hanger Rods: Chemically clean and apply manufacturer's standard 2-Coat Kynar powder coat finish, sprayed and baked.

1. Color: “Interstate Blue.”

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install in accordance with manufacturer’s instructions and approved Shop Drawings.

B. Accurately position with horizontal lines level, free from distortion.

C. Secure in place using anchors best suited to substrate.

3.2 ADJUSTING

A. Clean and touch up scratches and abrasions in finish coat with same finish as originally applied.

END OF SECTION

SECTION 15255

SEISMIC RESTRAINTS

PART 1 GENERAL

1.01 DIVISION OF RESPONSIBILITIES TERMINOLOGY: Refer to Section 01010- Summary of Work for additional “Division of Responsibilities Terminology” information.

1.02 SUMMARY:

A. Unless otherwise noted, all plumbing, fire suppression, mechanical and electrical equipment shall be mounted on vibration isolators to prevent the transmission of vibration and mechanically transmitted sound to the building structure. Vibration isolators shall be selected in accordance with the weight distribution so as to produce reasonable uniform deflections.

B. All isolators and isolation materials shall be selected and certified using published or factory certified data. Any variance or noncompliance with these specification requirements shall be corrected by the Contractor in an approved manner.

C. The Contractor shall provide Seismic Restraints in accordance with applicable seismic code requirements. The Contractor and subcontractors impacted by this requirement must determine the applicable local requirements which apply to this project type (Mercantile/ Retail Use or as otherwise designated on the drawings cover sheet at “Code Data”).

1.03 WORK NOT INCLUDED:

A. Seismic restraints may not be required for the following in order to meet seismic code requirements:

1. Gas piping less than 1” I.D. and other piping less than 2-1/2” I.D.
2. Piping in boiler and mechanical rooms less than 1-1/4” I.D.
3. All rectangular ducts less than 6 sq.ft. in cross sectional area.
4. All round ducts less than 28” in diameter.
5. All clevis piping suspended by individual hangers 12” in length or less from the top of the pipe support to the bottom of the support for the hanger.

1.04 RELATED WORK: Section 09510- Acoustical Ceiling; Section 15300- Fire Suppression System; Section 15400- Plumbing Systems; Section 15500- HVAC Systems.

1.05 SUBMITTAL: No product submittal is required for the work of this Section IF provided per the construction documents. Any Request for Product Substitution must be submitted per Section 01340- Submittals.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURER/MANUFACTURER RESPONSIBILITIES:

A. All vibration isolation mounts shall be supplied by a single manufacturer. Acceptable suppliers are Mason Industries Inc., Peabody Noise Control Inc., Vibration Mountings & Controls Inc. or Amber/ Booth Company.

1. Manufacturer/ supplier shall determine vibration isolation and seismic restraint sizes and locations. Provide piping, equipment isolation systems and seismic restraints as required. Provide installation instructions and drawings.

2. Manufacturer/ supplier shall provide calculations as may be required to determine restraint loads resulting from seismic forces required by applicable provisions of the seismic code. Seismic calculations shall be certified by a licensed engineer, experienced in the design of restraints for flexibly mounted equipment.

2.02 VIBRATION ISOLATION MOUNT TYPES:

A. General:

1. All metal parts of vibration isolation units installed out-of-doors shall be cold-dip galvanized, cadmium plated or neoprene coated after fabrication. Galvanizing shall meet ASTM Salt Spray Test Standards and Federal Test Standard No. 144.
2. Labor saving accessories can be an integral part of isolators supplied to provide initial lift of equipment to operating height, hold piping at fixed elevations during installation and initial system filling operations, and similar installation advantages. However, accessories must not degrade the vibration isolation system.

B. Type FSN (Housed Floor Spring and Neoprene):

1. Spring isolators shall be housed single spring mounts for seismic and restrained service. Spring diameter shall be not less than 0.8 of the compressed height of the spring at the design load. Springs shall have a minimum additional travel to solid equal to 50% of the actual deflection. Springs shall be so designed that the ration of horizontal stiffness to vertical stiffness is approximately one. All mounts shall have leveling bolts.
2. The spring element in the isolator shall either be set in a neoprene cup and have a steel washer to distribute the load evenly over the neoprene or each isolator shall be mounted on a type DNP isolator. If the DNP isolator is used, a rectangular bearing plate of sufficient size to load the pad uniformly in the range of 40 to 50 psi shall be provided. If the spring isolator is supplied with a neoprene friction pad, a stainless steel, aluminum or galvanized steel plate shall be used between the friction pad and the type DNP isolator. The type DNP isolator, separator plate and friction pad shall be permanently adhered to one another and to the bottom of the bearing plate.
3. If the isolator is to be fastened to the building structure and a type DNP isolator is used under the bearing plate, neoprene grommets shall be provided for each bolt hole in the base plate. The hold down bolt assembly shall include washers to distribute load evenly to the grommet. Bolts and washers are to be galvanized.
4. Type FSN isolators shall be equal to Mason Model “SSLFH” with the appropriate neoprene pad (if used) selected from type DNP or approved equal.

C. Type FN (Floor Neoprene): Neoprene isolators shall be neoprene-in-shear type with steel reinforced top and base with a minimum static deflection of 0.35”. All metal surfaces shall be covered with neoprene. The top and bottom surfaces shall be ribbed. Bolt holes shall be provided in the base and the top shall have a threaded fastener. The mounts shall include leveling bolts that may be rigidly connected to the equipment. Type FN isolators shall be equal to Mason Model “ND”.

D. Type DNP (Neoprene Pad): neoprene pad isolators shall be of 3/4” thick waffled neoprene in 2” square modules separated by a thin web. Provide load distribution plate as required. Type DNP isolators shall be equal to Mason Model “Super W”.

E. Type HS (Hanger Spring): Vibration isolation hangers shall consist of a freestanding laterally stable steel spring set into a neoprene cup, contained within a steel housing. The neoprene cup shall be manufactured with a grommet (or other means) to prevent the hanger rod from contacting the hanger housing. A steel washer shall be provided in the neoprene cup to evenly distribute load onto the neoprene. Spring diameter and hanger housing lower hole

sizes shall be large enough to permit the hanger rod to swing through a 30°arc before contacting the housing. Spring elements shall have a minimum additional travel to solid equal to 50% of the actual deflection. Type HS isolators shall be equal to Mason Type 30.

F. Type HSN (Hanger Spring and Neoprene or Glass Fiber): Vibration isolation hangers shall consist of a freestanding, laterally stable steel spring and a neoprene or a glass fiber element in series, contained within a steel housing. A neoprene neck bushing (or other means) shall be provided where the hanger rod passes through the hanger housing. Spring diameters and hanger housing lower hole sizes shall be large enough to permit the hanger rod to swing through a 30° arc before contacting the housing. Spring elements shall have a minimum additional travel to solid equal to 50% of the actual deflection. The neoprene element shall be designed to have a 0.3" minimum static deflection. Type HSN isolators shall be equal to Mason Type 30N.

G. Type HN (Hanger neoprene or Glass Fiber): Vibration isolation hangers shall consist of a neoprene-in-shear or glass fiber element contained in a steel housing. A neoprene neck bushing (or other means) shall be provided where the hanger rod passes through the hanger housing to prevent the rod from contacting the hanger housing. The diameter of the hold in the housing shall be sufficient to permit the hanger rod to swing through a 30° arc before contacting the hanger housing. Type HN isolators shall be equal to Mason Model "HD".

2.03 EQUIPMENT BASES:

A. Type BC (Base-Curb):

1. Type BC vibration isolation curb bases shall be equal to Mason Model "CMAB", curb type isolation bases. Spring isolators shall be selected and positioned along the curb to achieve the minimum static deflection called for in the schedule; the static deflection shall be constant around the entire periphery of the base. Springs shall be freestanding, laterally stable with a diameter of not less than 0.8 times the compressed height, and have additional travel to solid that is at least 50% of the actual deflection. Resilient neoprene snubbers shall be provided at the corners of the base to limit movement of equipment under wind load to 1/4".
2. The isolation curb base shall be made weathertight by sealing all around the periphery with closed cell neoprene or flexible vinyl. A closed cell sponge gasket or field caulking shall be used between the equipment unit and isolation curb for a weathertight seal.

B. Type BSF (Base-Steel Frame): Type BSF bases shall be equal to Mason Model "WFSL". Steel base frames shall consist of structural steel sections sized, spaced and connected to form a rigid base which will not twist, rack, deform or deflect in any manner which will negatively affect the operation of the supported equipment or the vibration isolation mounts. The thickness of steel frame bases shall be at least 1/10 the longest dimension of the base but not more than 12".

C. Type BK (Inertia Pad): Type BK bases shall be equal to Mason Model "K". Type BK shall consist of rectangular structural beam or channel concrete forms for floating foundations. The base depth need not exceed 12" unless specifically recommended by the base manufacturer for mass or rigidity. In general, bases shall be a minimum of $1/12^{th}$ of the longest dimension of the base, but not less than 6". Forms shall include minimum concrete reinforcement consisting of ½" rebars or angles welded in place on 6" centers running both ways in a layer 1-1/2" above the bottom, or additional steel as is required by the structural conditions. Forms shall be furnished with steel members to hold anchor-bolt sleeves when the anchor bolts fall in concrete locations. Height saving brackets shall be employed in all mounting locations to maintain a 1 inch clearance below the base.

2.04 SEISMIC RESTRAINING TYPES:

A. General: Restraints shall be capable of safely accepting 0.5 G external forces without failure, or 1.0 G for life safety equipment. Restraints shall maintain equipment, piping and ducts in a captive position. Restraints shall not short circuit vibration isolation systems or transmit objectionable vibration or noise. Restraints shall be provided on all equipment as scheduled on drawings or as may be otherwise required by the local jurisdiction.

B. Spring Seismic Restraint, Type I: Provide equal to Mason Model “SSLFH”. Restraints shall comply with general characteristics of spring isolators have minimum O. D. to O. H. of 0.8 to 1 and minimum runout of 50% to solid. Restraints shall incorporate snubbing restraint in all directions. Restraints shall be capable of supporting equipment at a fixed elevation during equipment erection. Cast or aluminum housings, unless ductile iron, are not acceptable. System to be field bolted or welded to deck with 1.0 G acceleration capability.

C. Seismic Restraint, Type II: Provide equal to Mason Model Z-10-11 and Z-1225. Each corner or side shall incorporate a seismic restraint having a minimum 5/8: thick resilient pad limit stops working in all directions. Restraints shall be made of plate, structural members or square metal tubing concentric within a welded assembly incorporating resilient pads. Angle bumpers are not acceptable. System to be field bolted or welded to deck with 1.0 G acceleration capability.

D. Seismic Restraint, Type III: provide equal to Mason Model SCB. Metal cable type with approved and fastening devices to equipment and structure. System to be field bolted to deck or overhead structural members using two-sided beam clamps to steel or appropriately designed insert for concrete. All parts of system including cables and clamps, (excluding fastenings) are to be single vendor furnished to assure seismic compliance.

E. Seismic Restraint, Type IV: Provide equal to Mason Model BR, RBA. Double deflection neoprene isolator encased in ductile iron or steel casing minimum 0.30 static deflection. System to be field bolted or welded to deck with 1.0 G acceleration capacity.

F. Seismic Restraint, Type V: Non-isolated equipment to be field bolted or welded (powder shots not accepted) to resist seismic forces unless under 100% shear force is required.

2.05 FLEXIBLE PIPE CONNECTIONS:

A. Type K:

1. Flexible EPDM connectors shall be used on all equipment as indicated on the Drawings and as on the equipment schedule. Connectors shall be manufactured of multiple plys of friction nylon tire cord with an EPDM cover and liner. No steel wire or rings shall be used as internal pressure reinforcement. Straight connectors shall have two spheres with a centered molded-in external ductile iron ring to maintain the two spherical shapes. Two-inch and smaller sizes may have threaded ends. Floating flanges shall have a recess to lock the bead wire in the raised EPDM flanges. Tapered twin sphere connectors as described above shall be used where line size changes are required in straight piping runs.
2. Twin sphere connectors shall have a minimum rating of 250 psi at 179°F. and 165 psi at 250°F. Elbows and reducing twin spheres shall have a minimum pressure rating of 220 psi at 170°F and 145 psi at 250° F. Neoprene materials shall be limited to 220° F. Certified safety factors shall be a nominal 4 to 1 with minimum acceptable test results of 3.6 to 1. Tests shall cover burst, flange leakage, extension without control rods and flange retention at 50% OF BURST PRESSURE WITHOUT CONTROL RODS.

3. Submittals shall include two test reports by independent consultants showing minimum reduction of 20DB in vibration accelerations and 10DB in sound pressure levels at typical blade passage frequencies.
4. Twin sphere, reducing twin sphere and reducing elbows shall be Superflex MFTNC or MFTFU, MFTCR and MFLRR; standard radius equal elbows Mason-Flex MFNEC; control rods Type ACR, as manufactured by Mason Industries Inc.

2.06 PIPE ANCHORS: Type PA: Provide an all directional acoustical pipe anchor, consisting of a telescopic arrangement of two sizes of steel tubing separated by a minimum half inch thickness of heavy duty neoprene material. Vertical restraints shall be provided by similar material arranged to prevent vertical travel in either direction. All directional anchors shall be equal to Mason type 'ADA'.

2.07 VIBRATION ISOLATION SCHEDULE:

UNIT	ISOLATOR TYPE	MIN. STATIC DEFL. (IN)	BASE TYPE	REMARKS
Air Handling Unit Fan on Floor & Grade	FSN	1.5"	---	
In-Line Return & Exhaust Fans Fan Coils Hung from Structure	HSN	1.5"	---	
Air Handling Unit Fans Hung from Structure	HSN	1.5"	---	
Pumps on Grade	FSN	0.75"	BSF	
Pumps on Suspended Floors	FSN	1.5"	BSF	
Curb Mounted Exhaust Fans<1 HP	---	---	---	Internal Neoprene Grommets
Curb Mounted Exhaust Fans>1 HP	---	1.0"	BC	

PART 3 EXECUTION

3.01 APPLICATION: Miscellaneous pieces of mechanical equipment such as expansion tanks shall be vibration isolated from the building structure by Type NH isolators unless their position in the piping system requires higher degrees of isolation.

3.02 INSTALLATION OF VIBRATION ISOLATION EQUIPMENT:

A. Installation of vibration isolation equipment shall be in accordance with the manufacturer's written instructions.

B. Isolation Mounts:

1. All vibration isolators shall be aligned squarely above or below mounting points of the supported equipment.
2. Isolators for equipment with bases shall be located on the sides of the bases which are parallel to the equipment shaft unless this is not possible because of physical constraints.
3. If a housekeeping pad is provided, the isolators shall bear on the housekeeping pad and the isolator base plate shall rest entirely on the pad.
4. Hanger rods for vibration isolated support shall be connected to structural beams or joints; not from the floor slab between beams and joists. Provide intermediate support members as necessary.
5. Vibration isolation hanger elements shall be positioned as high as possible in the hanger rod assembly but not in contact with the building structure, and so that the hanger housing may rotate a full 360 degrees without contacting any object.
6. Parallel running pipes may be hung together on a trapeze which is isolated from the building. Isolator deflections must be the largest determined by the provisions for pipe isolation. Do not mix isolated and non-isolated pipes on the same trapeze.

7. No pipes or equipment shall be supported by other pipes or equipment.
8. Resiliently isolated pipes shall not contact any rigid building structure or equipment.
9. The installed and operating heights of vibration isolated equipment mounted on Unit FSNTL isolators shall be identical. Limit stops shall be out of contact during operation.
10. Adjust all leveling bolts and hanger rod bolts so the isolated equipment is level and in proper alignment with connecting ducts or pipes.
11. Vertical pipe risers shall be supported by or suspended from Type HSN hangers and piping anchored or guided with type PA anchors.
12. Plumbing water piping in mechanical rooms shall be suspended from Type HSN hangers.

3.03 SEISMIC RESTRAINTS FOR NON-ISOLATED EQUIPMENT:

A. Plumbing:

1. All ceiling suspended piping not excluded by diameter or distance requirement from support, and ceiling mounted equipment: Seismic Restraint Type III.
2. All floor mounted equipment, including but not limited to tanks, domestic water heaters, etc: Seismic Restraint Type V.

B. Mechanical Equipment:

1. All ceiling suspended piping and ductwork not excluded by diameter or distance requirement from support: Seismic Restraint Type III.
2. All ceiling mounted equipment including, but not limited to, fans, AHU's, tanks, stacks, VAV boxes, and unit heaters: Seismic Restraint Type III.
3. All floor mounted equipment: Seismic Restraint Type V.

END OF SECTION

SECTION 15300

FIRE SUPPRESSION SYSTEM

PART 1 GENERAL

1.01 DIVISION OF RESPONSIBILITIES TERMINOLOGY: Refer to Section 01010- Summary of Work for additional “Division of Responsibilities Terminology” information.

1.02 SUMMARY:

A. The Contractor shall provide a Fire Suppression System where shown on the drawings, as specified in this section, and as needed for a complete and proper installation including, but not necessarily limited to:

1. Applications and fees for all plumbing permits, services, and inspections.
2. Obtain Flow Test data.
3. Shop drawings.
4. Sprinkler piping systems complete with valves, fittings, and specialties.
5. Sprinklers.
6. Alarm check valve.
7. Backflow prevention device (as may be required by the local jurisdiction).
8. Detector check valve (as may be required by the local jurisdiction).
9. Draining and testing piping.
10. Fire department connection.
11. Valve supervisory switches.
12. Water flow detecting alarm.
13. Access door for valves, etc., as required.
14. Concrete pads and pits as required.
15. All necessary hangers, inserts, and incidentals as required for a complete system.
16. Seismic Restraints (as may be required by the local jurisdiction).
17. Testing and adjusting of the Fire Suppression System.

1.03 RELATED WORK:

A. Refer to Section 09900- Painting for description of paint work related to exposed overhead Fire Suppression System piping. All exposed overhead Fire Suppression System piping and supports shall be dry-fall painted to match adjacent painted exposed surfaces.

B. Refer to Section 15255- Seismic Restraints.

1.04 SUBMITTAL: Submit Fire Suppression Shop Drawings; Hydraulic Calculations; and Fire Suppression Product Data per Section 01340-Submittals requirements, in adequate detail to demonstrate compliance with the requirements of this Section.

1.05 QUALITY ASSURANCE:

A. Fire Suppression System Layout:

1. The Contractor may request a Reflected Ceiling Plan CAD file (prepared in AutoCAD format) from the Petco Project Manager and the Petco Tenant Improvement Architect, via e-mail:

Project Architect’s Name: Jason Patterson
Project Architect’s Email Address: jpatterson@frch.com

The Petco Tenant Improvement Architect should provide the requested CAD file within two working days of the Contractor's request.

2. The Architect will provide the most current Reflected Ceiling Plan information available at the time of the Contractor's request for the Reflected Ceiling Plan CAD file. Should a subsequent Construction Bulletin be issued that impacts the fire suppression system layout, it is the Contractor's responsibility to request a revised, updated CAD file from the Architect.

B. Codes and Regulations:

1. The Fire Sprinkler Contractor shall be licensed with applicable state and local jurisdictions, and evidence of the ability of this contractor to provide work of this scope shall be provided to the PETCO Project Manager upon request.
2. The Contractor shall apply for, pay for and obtain all necessary permits and fees required by any applicable state and local jurisdictions, including all connection charges and fees.
3. The following specifications are minimum requirements and shall govern, except that applicable building codes, Underwriter Laboratory requirements and/or drawings shall govern when the requirements are in excess hereof.
4. All work shall be in accordance with the "Standards of the National Fire Protection Association for Installation of Sprinkler and Systems", NFPA 13 (latest edition), as referenced in the design criteria shown on the prototype fire suppression system drawings, the local fire marshal, and any other authorities having jurisdiction.
5. Make all necessary arrangements, give all notices and obtain all permits required by the utilities companies for connection to water main and for installation of detector check valves, backflow preventers, vaults, etc., in order to provide a complete system.
6. Prepare all necessary shop drawings and complete hydraulic calculations required for this sprinkler system installation. Drawings and calculations shall be reviewed and approved by the local fire department, the State Insurance Governing Board, and all other authorities having jurisdiction.

C. Fire suppression system piping with visible rust, labels or surface dirt shall be cleaned prior to painting in accordance with Section 09900- Painting surface preparation requirements. Piping with visible rust, labels or surface dirt which are not otherwise painted, such as semi-concealed piping, shall be cleaned free of rust, labels and surface dirt.

PART 2 PRODUCTS

2.01 MATERIALS:

A. The Contractor shall provide all required materials, new and in conformance with the requirements of the local jurisdiction.

B. Piping and fittings:

1. Piping: Provide Schedule 40 black steel ASTM A135 for all threaded piping. Schedule 10 lightwall piping (Grooved Piping Only) ASTM A135 is permitted for sizes 8" and smaller, only where allowed by NFPA 13, and only where not subject to physical damage during activity within a retail store. In no case will wall thickness less than Schedule 10 be allowed.
2. Fittings: Provide forged steel screwed, cast iron screwed, or mechanical grooved couplings with composition sealing gasket and steel fastening hardware.

C. Valves: National Fire Protection Association (NFPA) approved by 175 PSI design.

1. Control Valves: Provide rising system (OS&Y) iron body, bronze mounted. Milwaukee No. F-4 or approved equal.
2. Drain Valves: Provide angle or globe pattern type, screwed with brass bodies and trimmings and iron wheeled handles.
3. Check Valves: Provide iron body with bronze swing disc and hinge for 175 psi water working pressure. Viking Model “D”.
4. Waterflow: Provide Potter VSR Water Flow Switch with two sets of contacts.
5. Ball Drip: Note that check valve in Fire Department Siamese Connection shall be tapped for 3/4” ball drip. Siamese connection line shall be tapped for 3/4” ball drip and shall be furnished with Star automatic ball drip valve.

D. Sprinkler Heads: Provide Viking automatic spray sprinklers upright or pendant with orifice as required and of the required temperature rating as manufactured by the Viking Corporation, Hastings, Michigan or approved equal. Stock of extra sprinklers (6 of each type used), wrench and locking cabinet shall be provided. Sprinkler heads occurring in areas that have finished ceilings shall be recessed type with white escutcheons (provide quick response where required). Sprinkler heads in toilet areas and areas with surface mounted lighting fixtures on ceiling shall be pendent type with extended chrome escutcheons (provide quick response where required) Finish on pendent heads shall be chrome. Sprinkler heads shall be UL listed and FM approved. Provide high temperature sprinklers in areas where required such as unit heaters etc.

E. Detector Check: Provide a detector check in the sprinkler system water main. Detector check shall be Viking Model “E” complete with by-pass, shutoff valve, magnetic line disc meter and swing check valve, where required by the administrative authority.

F. Provide water flow detectors in the sprinkler system mains where shown. Detectors shall be installed in the mains at the point of entry into the building. Detectors shall be Potter Model “VSR-D”, vane type, and shall be designed for mounting on either vertical or horizontal piping. Detectors shall not be mounted in a fitting or within 12 inches of any fitting that changes the direction of water flow. Detectors shall have a sensitivity setting to signal any flow of water that equals or exceeds the discharge from one sprinkler head. Detector switch mechanisms shall incorporate an instantly recycling pneumatic retard element with an adjustable range of 0 to 60 seconds. Switches shall have a minimum rated capacity of 7 amp, 125 volts, AC 0.25 amp, 24 volts DC and shall be actuated by a polyethylene vane extending into the waterway of the piping. Detectors shall be weatherproof, dust tight construction, and shall be provided with a 3/4” conduit entrance. Detectors shall be finished with a tamperproof bolt that requires the use of a special wrench for removal. Detectors shall be Underwriters Laboratories listed and Factory Mutual approved. Flow detectors will be wired into the building fire alarm system by the security alarm contractor.

G. Provide supervisory switches for all sprinkler system OS&Y gate valves. Supervisory switches shall be Potter Model OSYSU-2, or approved equal. Switches shall be mounted such that they do not interfere with the normal operation of the valve and shall be adjusted to operate within two revolutions of the valve control or when the stem has moved no more than one-fifth of the distance from its normal position. The switch mechanism shall be contained in a weatherproof die cast aluminum housing that shall provide a 3/4” tapped conduit entrance and incorporate the necessary facilities for attachment to the valve. Switch housings shall be finished in red baked enamel. The switch mechanism shall have a minimum rated capacity of 7 amp, 125 volt AC – 02.25 amp, 25 DC. The entire installed assembly shall be tamperproof and arranged to cause a switch operation if the housing cover is removed or if the unit is removed from its mounting. Gate valve switches shall be Underwriters’ Laboratories listed and Factory Mutual approved. Valve supervisory switches will be wired into the Building Fire Alarm System by the security alarm contractor.

H. Test the sprinkler system as required by and in the presence of representatives of agencies having jurisdiction. Conduct, duration and other details of tests not covered by agencies' requirements shall be in accordance with NFPA 13. Provide instruments, equipment, pay expenses incurred in making tests; obtain approvals and certificates. Where evidence of stoppage appears in piping or equipment, disconnect, clean, repair, reconnect obstructed parts; bear cost of cutting and patching adjoining work necessitated by such cleaning, repairing.

I. An indicating control valve must be located within 2 feet of the water entry into the building. A means for draining all trapped piping must be provided as required by NFPA 13.

J. Double Check Valve Backflow Preventer shall be furnished and installed in the location where required by administrative authority. The backflow preventer shall be such as Ames 3000SS, complete with OS&Y gate valves each side of backflow preventer. The upstream OS&Y gate valve shall be tapped for 3/4" corporation stop furnished with backflow preventer.

K. Reduced Pressure Principle Backflow Preventer shall be furnished and installed in the location as required by the administrative authority. The reduced pressure back flow preventer shall be such as Watts Model 909, complete with OS&Y gate valves and supports.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this section will be provided, shall correct conditions detrimental to the timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

3.02 INSTALLATION:

A. Sprinkler system shall conform to all requirements of the local ordinances and governing bodies or agencies. System shall be installed in accordance with approved drawings.

B. Excavating, trench work and backfilling required for the installation of the work shall be performed in accordance with the requirements of governing authorities.

C. Piping shall be run concealed in all finished areas and shall be sleeved and sealed at all wall, ceiling and floor penetrations. Care shall be taken to support mains from adequate structural members.

D. Piping run in exposed construction areas shall be run at the bottom chord of the roof joists for laterals and against walls for drops and rises.

E. Sprinkler Heads: Sprinkler heads shall be located to clear all lights and air conditioning devices and equipment and shall be spaced so as to provide a symmetrical ceiling pattern in finished ceiling areas. The drawings indicate sprinkler head locations. This pattern is a straight-line arrangement in both direction of the room and shall be followed unless local jurisdiction, code or rule supersedes.

F. Do all cutting, chipping, digging and drilling under the supervision of the Contractor as may be necessary for the proper installation of the work specified or shown. Make certain all chases, shafts and openings are properly located.

G. Any and all electrical work, conduits, wires, devices, equipment and connections of alarms, etc. required in conjunction with the above systems shall be furnished under other parts of these specifications.

3.03 VALVE SEALS, SIGNS, TAGS & CHARTS: Provide copper wire and approved seals for manually operated shut-off valves required to be sealed in “OPEN” position. Provide identification signs of standard design and fasten securely at designated locations as per NFPA13. Tags shall be fastened to all control valves.

3.04 EQUIPMENT AND EXTRA HEADS: This work includes furnishing and installing a plastic cabinet (with cover) on the wall near the A.S.R. and 48” above the floor containing six extra sprinkler heads of each type used along with a proper wrench.

3.05 FINAL CLEANING:

A. Piping shall be cleaned free of visible rust, labels or surface dirt.

B. After the sprinkler installation has been completed, tested, and approved, the Contractor shall remove all oil and grease from piping, heads, and other visible parts of the fire suppression system and shall leave the system in a neat, clean, and workmanlike manner.

C. Exposed Fire Suppression System piping shall be painted per Section 09900- Painting.

D. After inspection of this work, the Contractor shall remove from the premises and legally dispose of all Fire Suppression System waste material and construction debris.

END OF SECTION

SECTION 15400

PLUMBING SYSTEMS

PART 1 GENERAL

1.01 DIVISION OF RESPONSIBILITIES TERMINOLOGY: Refer to Section 01010-Summary of Work for additional “Division of Responsibilities Terminology” information.

1.02 SUMMARY:

A. The Contractor shall provide Plumbing Systems as shown on the drawings and as specified in this Section including, but not necessarily limited to:

1. Applications and fees required for plumbing permits, utility services, and interim and final inspections.
2. Coordination with utility companies for utility services.
3. Temporary water provisions as required for construction purposes.
4. Excavation and backfill, concrete pads and pits for plumbing systems work.
5. Domestic hot and cold water piping systems, including backflow preventers. By definition, the word “piping” in this Section means completely assembled pipe, fittings, nipples and valves.
6. Drain, waste and vent systems.
7. Gas piping system and final gas connections to HVAC equipment.
8. Plumbing fixtures, fittings, valves, access panels and accessory items.
9. Sterilization of the potable water system.
10. Cathodic and dielectric protection.
11. Seismic Restraints (as may be required by the local jurisdiction).
12. Cutting and patching, testing, adjusting and balancing.

1.03 RELATED WORK:

A. Section 07720-Roof Accessories; rooftop gas piping mounting pedestals.

B. Section 15255-Seismic Restraints.

C. Work by Others: Parts of the building Plumbing Systems in the Aquarium Area will be provided by PETCO Vendor(s) in contract agreements directly with PETCO, with supplementary work by the Contractor. Refer to Section 10300- PETCO-Furnished & Contractor-Provided Items.

1.04 SUBMITTALS: Prepare submittals and any Request for Product Substitutions per Section 01340-Submittals. The Contractor shall provide the following:

A. Floor Drains and Hair Interceptor Product Data.

B. Plumbing Fixtures and Fittings Product Data.

C. Piping Materials Product Data.

1.05 QUALITY ASSURANCE:

A. All materials, apparatus, equipment and installation shall comply with the most stringent standards between applicable building and plumbing codes and ordinances, State Industrial Accident Commission, Underwriters’ Laboratory and National Board of Fire Underwriters.

B. Drawings and Coordination:

1. The Contractor shall verify the dimensions governing the plumbing work in the building. Because of the scale of the plumbing drawings, it is not possible to indicate all offsets, fittings, and accessories that may be required to meet all conditions. The Contractor shall examine adjoining work, on which plumbing work is dependent for proper operation, and must report any work that must be corrected.
2. If the proposed equipment requires structural, mechanical or electrical space conditions than those shown on the drawings, the Contractor shall allow for the cost of such modifications in the contract sum. No waiver of responsibility for defective work shall be accepted due to failure to record and accommodate unfavorable conditions.

C. Roof Penetration: The Contractor shall coordinate the installation of all roof penetrations so that the roof warranty is NOT altered, modified, or voided.

1.06 WARRANTY/CLOSEOUT DOCUMENTS:

A. Manufacturer's Warranty: The Contractor shall include a copy of the manufacturer's product warranties in the Building Maintenance Manuals submitted to PETCO per Section 01700-Contract Closeout.

B. Subcontractor Warranty: The Contractor shall include a copy of the Plumbing Subcontractor's warranty for all work provided, for a term of 1 year after the Date of Substantial Completion, in the Building Maintenance Manual submitted to PETCO per Section 01700-Contract Closeout.

C. Building Maintenance Manuals: The Contractor shall include Plumbing Systems instructional and maintenance information per Section 01700- Contract Closeout.

PART 2 PRODUCTS

2.01 DOMESTIC AND FILTERED WATER SYSTEM:

A. Copper Water Lines: Provide Type "L" hard drawn, meeting ASTM B88-7, for all water pipe above concrete or ground. Provide Type "K" hard drawn, meeting ASTM B88-7, for water pipe set in or under concrete or in the ground. Wrap lines below concrete floors with 5 mils polyethylene tape, and insulate with Armaflex insulation. No fittings shall be under the slab.

B. Fittings: Provide wrought copper meeting ANSI B16.18 and ANSI B16.22.

C. Identification: Type "K" Copper (Color Green), and Type "L" Copper (Color Blue).

2.02 GAS PIPING SYSTEM (WHERE APPLICABLE):

A. Provide Schedule 40 black steel pipe meeting ASTM A120 and ASTM A53 with extra-heavy malleable iron banded thread fittings. Unions shall be ground iron to bronze seat. Plug valves to be Rockwell-Nordstrom No. 142. Provide extra-heavy black malleable iron banded fittings, with screwed or weld pattern for pipes 3" and smaller, welded for 4" and larger. Factory spiral wrapped in two directions, using Scotch Wrap 10 mil tape with one inch overlap for all underground piping. Provide drip legs on all mains and risers and at equipment connections, and gas cocks at all equipment connections.

B. Rooftop Piping Supports: Refer to Section 07720-Roof Accessories. Wood blocking with pipe clamps is NOT an acceptable means of supporting horizontal gas piping located on the roof.

2.03 SANITARY DRAINAGE SYSTEM:

A. Waste & Vent Lines:

1. Cast Iron-Aboveground: Provide cast iron, standard weight, no-hub soil and vent pipe, coated inside and out, meeting CISPI 301-69T, for all soil and waste lines above ground and for all vent lines with inside diameter 2 inches and larger.
2. Cast Iron-Under Building: Service weight cast iron pipe with bell and spigot joints and fittings. Underground pipe may be installed with “Tyseal” gaskets.

a. Where allowable by the applicable plumbing code, plastic DWV piping may be used under slab and where concealed by walls. No PVC piping shall be installed in exposed areas or in areas that may be considered a plenum. PVC-DWV plastic pipe for sanitary drainage and vent and storm drainage systems shall meet ASTM D1784, ASTM D2665, and Fed. Spec. L-P-320a Pipe and Fittings, Plastic (Polyvinyl Chloride, PVC Drain, Waste and Vent). Pipe, fittings, and solvent cement shall be equal to products by Celanese Piping Systems. No cellular core pipe allowed, use solid wall piping.

2.04 STORM DRAINAGE SYSTEM (WHERE APPLICABLE):

A. Storm drainage system piping above ground, including offsets in walls and furred spaces, shall be standard weight cast iron hub and spigot, or no-hub with stainless steel coupling and neoprene rubber seals. Above ground storm drainage piping shall be fully insulated.

B. Where allowable by local and national codes, plastic DWV piping may be used under slab by walls. No PVC piping shall be installed in exposed areas or in areas that may be considered a plenum. PVC-DWV plastic pipe for sanitary drainage and vent and storm drainage systems shall meet the requirements of ASTM D1784, ASTM D2665, and Federal Specification L-P-320a. Pipe and Fittings, Plastic (Polyvinyl Chloride, PVC Drain, Waste and Vent). Pipe, fittings, and solvent cement shall be equal to products by Celanese Piping Systems.

C. Provide dome strainer for all roof drains, including those existing to remain.

2.05 PIPE HANGERS & SUPPORTS:

A. Rooftop Piping Supports: Refer to Section 07720-Roof Accessories. Wood blocking with pipe clamps is NOT an acceptable means of supporting horizontal gas piping located on the roof.

B. Pipe Hanger Maximum Spacing:

1. Steel Pipe: 1-1/4” and smaller, 8’-0” OC; 1-1/2” and larger, 10’-0” OC.
2. Copper Tubing: 1-1/4” and smaller, 6’-0” OC; 1-1/2” and larger, 10’-0” OC.
3. Plastic Pipe (Where Allowed): 1-1/2” and smaller; 3’-0” OC; 2” and larger, 4’-0” OC.

C. Isolaters: Install Trisolator #500 isolators around all uninsulated copper lines at hangers. IInstall dielectric fitting between all ferrous and non-ferrous piping with a 12” section of red brass pipe.

D. Hanger Size: Size hangers on insulated lines to fit around outside diameter of insulation with allowance for sheet metal shield. Pipe shield shall be sized as 1/3 the circumference of the insulation with length of not less than 3 times the diameter of the insulation (maximum 24”). Acceptable manufacturers: Grinnell, Grabler, Fee & Mason, Elcen.

E. Overhead Supported: Each horizontal pipe shall be supported on adjustable wrought iron clevis hangers equal to Grinnell, Figure 260, except that groups of pipes shall be supported

on trapeze hangers made up of steel rods and steel channels or angles. Pipe shall be “U” bolted to trapeze and trapeze spaced for the smallest pipe in the group.

F. Wall Supported: Horizontal piping on walls shall be supported by cast iron bracket equal to Grinnell Figure 213, with Figure 260 Clevis type hanger attached.

G. Vertical Piping: Support at floor level with supports equal to Grinnell Figure 261.

H. Inserts: Inserts in concrete shall be equal to Grinnell Figure 281.

2.06 VALVES & ACCESSORIES:

A. Provide Valves to control hot and cold water branches to each group of fixtures, and to individual fixtures and equipment. Where used with chrome plated pipe, valves shall be chrome plated.

1. Acceptable Manufacturers: Milwaukee, Crane Jenkens, Walworth, Kennedy, Stockham, Nibco-Scott.
2. Gate Valves: Milwaukee #1145, 125# bronze body, solder type gate valve with non-rising stem for all lines up to 4 inches in diameter.
3. Check Valves: Milwaukee #1508, 125# bronze body, solder type check valve with horizontal bronze disc for all valves up to 2 inches in diameter. Milwaukee #2974, 125# iron body, bronze trimmed, flanged horizontal check valve for all valves larger than 2”.
4. Balancing Valve: Milwaukee #1350, 125# bronze body, solder joint balancing valve.
5. Plug Valves: Rockwell-Nordstrom #142 (2” lines and smaller) and #143 (2-1/2” and larger); with lubricated plug valve for natural gas service.
6. Globe Valves: Milwaukee #1502, 125# bronze body, solder joints, with bronze disc when up to 2” in diameter.
7. Ball Valves: Nibco-Scott #T595, or #S595, 150# bronze body, chrome plated ball, telfon seats.
8. Gas Valves: Rockwell-Nordstrom #143 with #555 lubricant for natural gas service.

B. Valve Boxes: Mueller #H-10360, Size 564 S, screw type, 5-1/4” shaft with “WATER” cast in lid.

C. Trap Primers: Provide automatic trap primer on cold water supply at nearest fixture and run drain to trap seal being protected. Provide Access Panel where concealed in walls.

D. Backflow Preventer: Provide reduced pressure principle Backflow Preventer on domestic water lateral to the building if required by the local jurisdiction. Backflow Preventer shall be equal to Watts #909.

E. Air Cushions and Shock Absorbers: Provide full size vertical air cushion not less than 12 inches long and 1 inch pipe size, shock absorbers at each hot and cold water connection to a fixture or faucet, equal to Zurn #A-1700 size 400, Josam #14800 or Wade #W-20.

F. Vacuum Breakers: Provide on faucets, hydrants, and other water discharge points with threaded hose connector, where shown on drawings or required by applicable Code, equal to Watts #8-A. Vaccum Breakers for general piping application shall be equal to Watts #288A.

2.07 TRAPS:

A. All fixtures and floor drains are to be separately trapped as near to the fixture or floor drain as possible. Traps shall be self-cleaning, water-sealed, and shall have a scouring action. Traps shall be set true with respect to water seal and shall be protected from freezing. All underground traps, except “P” traps into which floor drains with removable strainers

discharge, shall be provided with accessible cleanouts. Traps which are not part of plumbing fixtures shall be of the same material and size as pipes or branches into which they discharge. All traps shall be installed with provision for cleaning.

B. Traps exposed above the floor shall be chrome plated adjustable brass, with chrome plated approved cleanout plugs, cast set screw wall escutcheon and casing.

2.08 CLEANOUTS:

A. Where indicated on the drawings and as required by the local jurisdiction. Make all cleanouts accessible by one of the following means:

1. Within 6 inches from ceiling access panel.
2. Extending to floor or grade above.
3. Locate in wall with removable plate.

B. Cleanouts CANNOT be located in areas where Epoxy Flooring is scheduled.

C. Size: Same as pipe on which installed.

D. Installation: Covers set flush with finished wall, floor or grade, to be securely anchored by means of integral lugs or bolts. Where surfacing materials such as resilient flooring is used, install the clean out with top so that finished surface is smooth and flush.

E. Acceptable Manufacturers: Zurn, Josam, Wade, Jay R. Smith.

F. Floor Cleanouts and Access Covers: Figure 4020 with Duco coated cast iron body and frame with “Leckeromated” plug and heavy duty adjustable scoriated secured nickel bronze top.

G. Cleanout to Grade with Countersunk Plug: Figure 4283 with Duco-coated cast iron body with bronze taper thread countersunk plug. Installed in 24” x 24” concrete pad, tapered for drainage.

H. Wall Cleanouts: Figure 4710 stainless steel chrome plated bronze deep cover with center screw.

2.09 FLOOR DRAINS: Floor drains shall be by Jay R. Smith, Zurn, Josam or Wade, as scheduled.

2.10 VENTS THROUGH ROOF: Offset vents through roof as required to maintain a minimum distance of 10 feet away from outside air intakes.

2.11 PIPING INSULATION:

A. Provide piping insulation for domestic hot, tempered, filtered and cold water lines, condensate and rainwater conductor piping, continuous through wall and ceiling openings and sleeves. No insulation shall be installed on any piping before the building is adequately closed in.

B. Materials and Installation: No pipe insulation shall be applied until piping has been pressure tested and approved. All insulation shall be applied strictly in accordance with the manufacturer’s recommendations. Insulation Products by Johns Manville, Phillip Carey or Armstrong will be acceptable if equal to those specified. All insulation on indoor work shall have composite fire and smoke hazard ratings as tested by procedure NFPA 255 not exceeding Flame Spread 25, Fuel Contributed 50, Smoke Developed 50. Accessories, such as adhesives, mastics, cements, tapes, and cloth for fitting, shall have the same component ratings as listed above. Insulation shall have an average thermal conductivity not to exceed

0.25 BTU/inch of thickness per square foot per 1 degree F. at a mean temperature of 75 degrees F.

C. Hot, Cold, Filtered, Tempered Water Piping: Insulate with 1" thick fiberglass pipe insulated with foil-kraft laminate vapor barrier fastened with pressure sensitive tape and stapled. All fittings, valves and flanges shall be covered with PVC fitting cover, taped and tacked fastened.

D. Rainwater Conductor Insulation: Provide insulation where rainwater conductors run inside the building.

E. Condensate Line Insulation: Provide insulation where condensate lines run inside the building.

F. Scald Guard at Handicap Accessible Lavatories: Provide "Handi Lav-Guard" Kit No. 101, Color White, by Truebro Inc., Ellington CT (203/ 875-2868) at each handicap accessible lavatory.

2.12 PLUMBING FIXTURES:

A. Provide Plumbing Fixtures per Plumbing Fixture Schedule, complete with trim and caulk.

1. Vitreous fixtures shall be Class "A" vitreous. All surfaces that contact walls, floors, or surfaces of other fixtures shall be ground free of defects affecting the final fittings of the fixture. Warped, imperfect fixtures are NOT acceptable.
2. All Plumbing Fixtures supported from walls shall be provided with manufactured fixture carriers, or with 6" high x 3/8" thick x (length required) steel plates, welded to structural framing and tapped for plumbing fixture bolts.
3. Acceptable Manufacturers: Refer to Plumbing Fixture Schedule.

2.13 ACCESS PANELS:

A. The Plumbing Subcontractor shall furnish Access Panel for the Contractor's installation in finished work, for concealed valves, cleanouts, and other parts of the Plumbing Systems that require access for maintenance and repair.

B. Access Panels shall be properly sized for servicing terms requiring access, minimum size 12" x 12", 13 GA primed flush steel door and trim, concealed hinges and screwdriver operated via stainless steel cam lock. Access Panels are not required at suspended acoustical ceilings.

C. Access Panel locations shall be verified with the PETCO Project Manager prior to installation.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this Section will be provided, shall correct conditions detrimental to the timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

3.02 PLUMBING SYSTEM LAYOUT: Layout the plumbing system per the drawings, determining proper elevations for all components of the system and using only the minimum number of bends to produce a properly operating system. Follow the general layout shown on the drawings in all cases except where other work may interfere. Layout pipe runs to fall within the partition, wall or roof cavities, with no additional furring other than as specifically shown on the drawings. Coordinate floor and wall cleanout locations with the drawings and the PETCO Project Manager. Cleanouts CANNOT be located in areas where Epoxy Flooring is scheduled.

3.03 DEMOLITION & PATCHING: No structural member shall be cut without the written consent of the Structural Engineer of Record. All finish surfaces requiring demolition and patching for Plumbing Systems work shall be restored to match the adjacent finish.

3.04 TRENCHING & BACKFILLING:

A. Provide trenching and backfilling per Section 02220-Trenching.

B. Cut bottom of trenches to grade. Make trenches 12” wider than the greatest pipe dimension.

C. Bedding and Backfilling: When under the floor slab, install pipes on a 6” bed of damp sand. Backfill to the bottom of the slab with damp sand. When beyond the building, install underground piping on a 6” bed of damp sand. Backfill to within 12” of finish grade with damp sand. Backfill remainder with native soil.

3.05 PIPING & EQUIPMENT INSTALLATION:

A. General:

1. Thoroughly clean items before installation. Cap pipe openings to exclude dirt until fixtures are installed and final connections have been made. Protect finish surfaces to prevent damage during construction.
2. Cut pipe accurately and work into place without springing or forcing, properly clearing windows, doors and other openings.
3. Run horizontal sanitary and storm drainage piping at a uniform grade of 1/4” per foot, unless otherwise noted. Run horizontal water piping with an adequate pitch upwards in direction of flow to allow complete drainage.
4. Support piping independently at pumps, coils, tanks, and similar locations, so that the weight of the piping is not supported by the equipment. Do not use wire for hanging pipes.
5. Provide union and shut-off valves to facilitate removal of equipment and apparatus.
6. Provide all work to permit expansion and contraction of piping systems.
7. Provide all plumbing and piping connections to equipment furnished by PETCO, including rough-in work, P-traps, waste tubing, stops and flexible tube riser, and final connections. Make final connections to HVAC Systems equipment. Provide valves or fixtures stops, ahead of all equipment and on all stub outs.
8. Equipment Access: Install piping, equipment, and accessories to permit access for maintenance where required. Provide Access Panels as required and verify acceptable locations with the PETCO Project Manager.

3.06 SLEEVES & OPENINGS:

A. Provide sleeves for each pipe passing through walls, partitions, floors, roofs, and ceilings.

1. Uninsulated pipe: Provide sleeves two pipe sizes larger than the pipe passing through, or provide a minimum of 1/2” clearance between inside and outside of the pipe.
2. Insulated pipe: Provide sleeves of adequate size to accommodate the full thickness of pipe covering, with clearance for packing and caulking.

B. Caulk the space between sleeve and pipe or pipe covering, with sealant as specified in the Sealants and Caulking Section, or pack with non-combustible packing material to within 1/2” of both wall faces and caulk.

C. Finish and Escutcheons: Provide chrome or nickel plated escutcheons on all pipes exposed to view where passing through walls, floors, partitions, ceilings, and similar locations.

3.07 VALVES: Provide valves where shown on the drawings; in branches and/or heaters of water piping serving a group of fixtures; on both sides of apparatus and equipment; for shutoff of risers and branch mains; for flushing and sterilizing the system.

3.08 WATER HAMMER ARRESTORS: Provide water hammer arrestors on water lines, installed in upright position at all quick closing valves, solenoids, isolated plumbing fixtures, and supply headers at plumbing fixtures. When fixtures are not protected by water hammer arrestors, provide 24" high air chambers on each water supply, properly sized and designed for maintenance and drainage.

3.09 BACKFLOW PREVENTION: Protect plumbing fixtures, faucets with hose connections, and other equipment having plumbing connection, against possible back siphonage.

3.10 PLUMBING FIXTURE INSTALLATION: Caulk wall and floor mounted plumbing fixtures watertight where the plumbing fixtures are in contact with walls and floors. Caulk deck-mounted trim at the time of assembly, including fixture and casework mounted. Caulk self-rimming sinks installed in casework.

3.11 SYSTEMS FLUSHING: The Contractor shall fill all piping systems with water and drain these systems before they are placed in operation, in order to remove foreign materials that may have been left on or deposited in the piping systems during installation.

3.12 TESTING:

A. The Contractor shall provide personnel and equipment, arrange for and pay the cost of all required tests and inspections required by, and in the presence of the local jurisdiction. Piping shall NOT be concealed until it has been inspected and approved.

1. Domestic Water: 150 psi hydrostatic pressure for four (4) hours.
2. Fuel Gas: 60 psi air for 60 minutes.
3. Soil and Vent System, and Storm Drain System: The drainage systems shall be tested and proved tight under a water pressure test with nipples, ferrules, connections and water closet bends being in place.

b. Water tests shall be applied to the drainage systems either in total or in sections. If the system is tested in sections, all openings shall be tightly plugged except at the highest point of the section being tested. The water shall be kept in the system or in the portion under test for at least 15 minutes before inspection. Each section shall be filled with water, but no section shall be tested at less than a 10-foot water head. In testing successive sections, at least the upper 10 feet of the previously tested adjacent section shall be tested, so that no joint or pipe in the building shall have been tested by less than a 10 foot water head.

c. After all plumbing fixtures have been set and their traps filled with water, their connections shall be tested and proved gas and watertight.

4. Pipes or joints which leak shall be taken apart and work re-done; no surface-applied caulking is permitted as corrective work.

3.13 WATER PIPING STERILIZATION:

A. The Contractor shall notify the PETCO Project Manager prior to commencing Water Piping Sterilization; Water Piping Sterilization must be completed and required documents from Part C submitted to the PETCO Project Manager one week prior to the first day of fixturing. Contractor shall verify the fixturing date with the PETCO Project Manager.

B. Water Piping Sterilization Process: After the domestic water piping has been pressure tested, the entire system shall be thoroughly sterilized per the requirements of the health department having jurisdiction; or if there are no requirements, the entire system shall be sterilized with a sterilization solution containing not less than 100 parts per million of available chlorine. The sterilization solution shall be either liquid chlorine; or U.S. Army Spec. 4-1; or calcium hypochlorite; or chlorinated lime conforming to Fed. Spec. O-C-114, and shall be introduced into the system in accordance with Federal Regulations. The sterilization solution shall be allowed to remain in the system for 24 hours, during which time all valve and faucets shall be opened and closed several times. After the sterilization solution has been applied for 24 hours, the Contractor shall test for residual chlorine at the ends of the lines. If less than 5 parts per million is indicated, then the Contractor shall repeat the sterilization process. After sterilization is complete, the sterilization solution shall be flushed from the system with clean water, until the residual chlorine content is less than 0.2 parts per million.

C. After completion, the Contractor shall provide a Certificate Of Performance in the Building Maintenance Manuals (refer to Section 01700-Contract Closeout) stating the system capacity; the disinfectant used; the time and rate of disinfectant applied; and residuals, in parts per million at completion of the Water Piping Sterilization Process.

D. PETCO may test the water at any time prior to the Date of Turnover of Tenant Space to PETCO, and if found bacteriologically unsafe, the Contractor shall re-chlorinate the system until the water is proven acceptable.

3.14 PAINTING: All exposed overhead plumbing piping and supports, suspended from the exposed structure, shall be dry-fall painted to match the adjacent, painted, exposed structure per Section 09900-Painting.

END OF SECTION

SECTION 15500

HVAC SYSTEMS

PART 1 GENERAL

1.01 DIVISION OF RESPONSIBILITIES TERMINOLOGY: Refer to Section 01010-Summary of Work for additional “Division of Responsibilities Terminology” information.

1.02 SUMMARY:

A. The Contractor shall provide HVAC Systems as shown on the drawings and as specified in this Section including, but not necessarily limited to:

1. Applications and fees for all HVAC Systems permits, services, and inspections.
2. Rooftop mounted packaged HVAC units (RTUs).
3. RTU roofcurbs with concentric transitions, sheet metal supply/return air ducts and duct extensions, concentric flush mount diffusers and condensate piping.
4. RTU control interface module (Carrier RTU-MP).
5. RTU smoke detectors.
6. Exhaust fans, unit heaters, and associated flues and intakes.
7. Electric unit heaters, including wall and door heaters where scheduled.
8. Controls and wiring not otherwise furnished by PETCO’s Inventory Agreement Vendor.
9. Seismic Restraints (as may be required by the local jurisdiction).

1.03 RELATED WORK:

A. Section 05500- Metal Fabrications.

B. Section 07720- Roof Accessories.

C. Section 15255-Seismic Restraints.

D. Section 15300-Fire Suppression System, Section 15400-Plumbing Systems and Section 16000-Electrical Systems; related work including gas, and electrical wiring and connections to HVAC units, heaters, and exhaust fans.

E. Work by Others: The HVAC Control Panel and Control Accessories, including sensors and wiring will be provided by PETCO’s Inventory Agreement Vendor. Refer to Section 16600-Energy Management System.

1.04 NOT USED

1.05 SUBMITTALS: Prepare submittals and Request for Substitution (if any) per Section 01340-Submittals. Submit Rooftop Unit Product Data; Ductwork Shop Drawings; Flue Vent Product Data; Grilles, Registers and Diffusers Product Data; Rooftop Unit Thermostat Product Data; Exhaust Fan Product Data; and Unit Heaters Product Data, all in sufficient detail to demonstrate compliance with the work of this Section.

1.06 QUALITY ASSURANCE:

A. All materials, apparatus, equipment and installation must comply with the most stringent standards between applicable building and mechanical codes and ordinances, State Industrial Accident Commission, Underwriters’ Laboratory and National Board of Fire Underwriters.

B. Drawings and Coordination:

1. The Contractor shall verify the dimensions governing the mechanical work in the building. Because of the scale of the mechanical drawings, it is not possible to indicate all offsets, fittings, and accessories that may be required to meet all conditions. The Contractor shall examine the adjoining work, on which mechanical work is dependent for proper operation, and must report any work that must be corrected.
2. If the equipment proposed for installation requires structural, mechanical or electrical space conditions than those shown on the drawings, the Contractor shall allow for the cost of such modifications in the contract sum. No waiver of responsibility for defective work shall be accepted due to failure to record and accommodate unfavorable conditions.

C. Roof Penetrations: The Contractor shall coordinate the installation of all roof penetrations so that the roof warranty is NOT altered, modified or voided.

1.07 WARRANTY/ CLOSEOUT DOCUMENTS:

A. Manufacturer's Warranty: The Contractor shall include a copy of the manufacturer's standard product warranties in the Building Maintenance Manuals submitted per Section 01700-Contract Closeout.

B. Subcontractor Warranty: The Contractor shall include a copy of the HVAC subcontractor's warranty for all work provided, for a term of 1 year after the Date of Substantial Completion, in the Building Maintenance Manual submitted per Section 01700-Contract Closeout.

C. Building Maintenance Manuals: The Contractor shall include HVAC Systems Information per Section 01700-Contract Closeout.

D. Project Record Drawings: The Contractor shall record all changes as the work progresses on a set of project record drawings kept at the jobsite, and shall provide Record Drawings to PETCO after the Date of Turnover of Tenant Space to PETCO per Section 01700-Contract Closeout.

1.08 CLOSEOUT MAINTENANCE BY CONTRACTOR: The Contractor shall provide new, replacement, 2" MERV pleated filters to replace the temporary filters used during construction, by the Date of Turnover of Tenant Space to PETCO.

PART 2 PRODUCTS

2.01 HVAC UNITS:

A. The rooftop mounted packaged HVAC Units (RTUs) shall be purchased by the Contractor through a PETCO Inventory Account agreement:

CARRIER NATIONAL ACCOUNTS
Contact: Theresa Dawson
Theresa.Dawson@carrier.utc.com
(P) 949-309-9815 (F) 860-660-6441

No product/ manufacturer substitution is permitted.

B. Lead Time: 8 to 10 weeks after credit/ account approval and execution of purchase order.

C. The RTUs shall be furnished by the PETCO Inventory Account vendor complete with casing, refrigeration system, gas-fired heating section, fan, motor and drive, filters (two sets for each RTU), hail guard, economizers and barometric relief, and automatic controls.

D. The RTUs shall be furnished by the PETCO Inventory Account vendor with Roofcurbs unless retrofit roofcurbs are provided. Pressure treated wood blocking and shim material to level the roofcurbs shall be provided by the Contractor; Fire Retardant Wood shall be provided by the Contractor if so required by the local jurisdiction.

E. The RTUs shall each be furnished with a relay to provide three (3) minute time delay between starting the first and second compressor for each unit, and a lockout timer to provide a minimum off-time of five (5) minutes between compressor cycling, and Temperature sensing control system.

F. Temperature Control shall be as follows:

1. Each new RTU shall be provided with factory installed Carrier temperature control system suitable for interfacing with the Energy Management System provided by PETCO's Vendor. The control system shall provide two stages of cooling and two stages of heating, adjustable anti-cycle timer, economizer control (where applicable), etc, as indicated on the drawings.
2. Smoke Detection: Carrier units will be furnished with duct smoke detectors. Upon smoke detection by the rooftop units' duct mounted smoke detectors, the rooftop units must shut down with signal sent to the fire alarm control panel.
3. If Carrier units are NOT provided for this project, the HVAC Contractor shall furnish and install System Sensor ionization detectors with sampling tube and auxiliary contacts. The Electrical Contractor shall provide field power wiring. No product/manufacturer substitution is permitted.

G. The Rooftop HVAC Units shall be furnished with disposable filters for testing and until the construction completion.

H. The HVAC installer must be certified to handle R-410A refrigerant due to new service procedures and precautions.

I. Equipment Operation Check (EOC):

1. An Equipment Operation Check (EOC) is to be provided to PETCO after the HVAC installation and start up is completed per the manufacturer's instruction. A Carrier representative will inspect the equipment installation and the system operation.
2. The HVAC Subcontractor shall schedule the EOC at least three (3) weeks prior to desired inspection date, with:

   CARRIER NATIONAL ACCOUNTS
   Contact: Debbie Jobin
   Debbie.Jobin@carrier.utc.com
   (P) 800-301-0605

   The Contractor shall notify the PETCO Project Manager of the Equipment Operation Check's scheduled date and time.

3. Complete start up, testing & run of all units at least 24 hours prior to Equipment Operation Check. Contractor will be required to complete a Pre-EOC checklist form, which is to be provided to Carrier Corporation.

4. The HVAC Subcontractor shall provide at its cost a qualified service technician to be present during the Equipment Operation Check.
5. Carrier Corporation shall provide a written copy of the EOC report to the HVAC Subcontractor, Petco Project Manager and to PETCO HVAC contact:

   PETCO
   Danny Henson
   HVAC Manager
   danny.henson@petco.com
   (P) 858-453-7845 x9297 (F) 858-882-8669 (M) 858-539-9779

6. All defects, if any, in the Carrier rooftop HVAC units, the installation and the system operation shall be corrected by the HVAC Subcontractor within 14 days after the distribution of the EOC report. The failure to identify a defect during the EOC does not relieve the HVAC Subcontractor of the responsibility to correct subsequently identified defects.

2.02 EXHAUST FANS:

A. Exhaust fans shall be provided with roof curbs, bases, back draft dampers, insect screens, speed switches, and duct connections.

B. Provide motors with flush-type mounted motor starters unless motors are provided with built-in protection.

2.03 GAS UNIT HEATERS (WHERE APPLICABLE): Gas Unit Heaters shall be provided complete with electric and gas controls, gas piping and safety devices.

2.04 ELECTRIC UNIT HEATERS, WALL HEATERS AND DOOR HEATERS: Units shall be provided with all electric line voltage and control connections, safety devices and mounting hardware and thermostat and control wiring.

2.05 DUCT WORK:

A. Provide galvanized sheet metal ductwork fabricated and installed per the more stringent of ASHRAE standards, SMACNA standards, or local jurisdiction requirements. Duct sizes shown on drawings are the inside net clear dimensions from the inside face of insulation (exposed ductwork) or inside face of duct sheet metal (concealed ductwork). Fabricate ductwork of prime grade, lock forming quality galvanized steel sheets per SMACNA standards:

   1. 12” and smaller (longest side) 26 gauge.
   2. 13” through 28” (longest side) 24 gauge.
   3. 29” through 30” (longest side) 24 gauge; 1” x 1” x 1/8” angles at 5 feet O.C.
   4. 31” through 42” (longest side) 22 gauge, 1” x 1” x 1/8” angles at 5 feet O.C.
   5. 42” through 54” (longest side) 22 gauge; 1-1/2” x 1-1/2” x 1/8” angles at 4 feet O.C.

B. Provide manually operated dampers at branch ducts, two gauges heavier than the duct in which installed, and equipped with locking quadrants. Access panels in ductwork shall be galvanized sheet steel, two gauges heavier than the duct with rolled edges, felt strips, or neoprene gasketing and attached to duct with sheet metal screws at a maximum of 6” on center.

C. Flash all ducts passing through roof or exterior walls, and silicone caulk all joints. Seal all duct seams with tape or mastic. Support ductwork from overhead with strap iron or angles.

D. Construct fittings, elbows and transitions to provide minimum noise and resistance. Where space permits, elbows shall have a minimum radius of 1-1/2 times the width (or depth). Transitions must be gradual with changes not to exceed 1” x 4”. When structural conditions necessitate, fittings and elbows shall be made sharply but with full radius turning vanes.

E. Provide flexible connections with 30 ounce, neoprene coated, fire retardant, waterproof and airtight glass fabric.

F. Unions, valves, dampers and controls shall not be placed in any location that will be inaccessible after the system is complete. All damper control handles, electric controls, air controls, and other apparatus which must be located in an inaccessible location must be provided with suitable access doors or covers (fitted over a framed hole) which will permit proper operation and servicing of HVAC Systems.

2.06 DUCTWORK INSULATION:

A. General: Provide materials complying with NFPA Bulletin 90-A, as determined by UL Method NFPA 225, ASTM E84 and local jurisdiction, flame spread rating under 25 and smoke-developed rating under 50. Acceptable Manufacturers: Owens/Corning Fiberglass, Johns-Manville, Certainteed.

B. Exposed Ductwork: Line interior of exposed supply and return ductwork with 1” thick, 3.0 lb/cu.ft. density, black, neoprene coated fiberglass duct liner, minimum installed R-value of 4.0.

C. Wrap exterior of rectangular concealed supply ductwork with fiberglass batt duct insulation with vapor barrier. Use bonding adhesive to prevent sagging of insulation, seal all joints, breaks and punctures with vapor barrier compound.

1. Ceiling space in areas >9000 and up to 19800 HDD65: 2” thick, 1.0 lb/cu.ft. density, minimum installed R-value of 6.0.
2. Ceiling space all other geographic areas except >19800 HDD65: 2” thick, 0.75 lb/cu.ft. density, minimum installed R-value of 5.0.

D. Rectangular exposed, exterior ductwork shall be insulated with 1.5" thick insulation board, 6 lb./cu.ft, with ASJ or FSK Facing. Facings shall have a maximum vapor transmission rate of .02 perms. After insulation has been installed, install aluminum corner bead at the four corners of each duct. The entire assembly shall be coated with a 1/8" thick layer of fire retardant vinyl acrylic mastic. Into this layer of mastic embed 10 x 10 mesh glass fabric. Over the fabric, apply another 1/8" thick layer of insulation mastic, troweled to a smooth finish. Minimum installed R-value of 8.0.

E. Ductwork insulation and adhesive must meet fire hazard classification NFPA 90A standards and be so labeled and have an NCR (No. 6 mounting) of at least .07.

2.07 GRILLES, REGISTERS, AND DIFFUSERS: Provide diffusers and supply, exhaust, and return air registers factory painted Color White.

2.08 EQUIPMENT BASES AND VIBRATION ISOLATION: In seismic zones requiring seismic curbs, the Contractor shall provide equipment bases and vibration isolation supports under all HVAC systems equipment. Where suitable foundations are not detailed or specified, they shall be furnished in accordance with the manufacturer’s recommendations. Vibration isolation shall be provided under all equipment with moving parts such as blowers, air handling units and fans, shall be properly loaded and installed in accordance with the manufacturer’s written recommendations.

2.09 GAS FLUES (WHERE APPLICABLE): Provide Gas Flues per drawings, applicable gas codes, AGA, and manufacturer's recommendations.

2.10 CONDENSATE PIPING: Provide condensate piping with P-trap to outflow onto roof surface or piping with indirect connection to storm gutters (as indicated on drawings).

2.11 GAS PIPING (WHERE APPLICABLE): Refer to Section 15400-Plumbing Systems.

2.12 ELECTRICAL WIRING:

A. Mechanical equipment having electric motors shall be furnished with all necessary control services for the protection of each motor and for automatic and/or manual control.

B. All field line voltage wiring shall be provided by the Electrical Contractor. Sensors, thermostat and control switches shall be located as shown or directed, and all controls, relays, starters and wiring shall conform to the National Electrical Code and all local applicable requirements. All controls shall be furnished and proper identified with instruction for proper electrical connections. The responsibility for proper connections and operations of HVAC equipment, although field wired by the Electrical Contractor or the owner's vendor, is included under this Section. Verify all electrical connections before ordering any equipment.

2.13 FIRE AND FIRE/SMOKE DAMPERS: Provide fire and combination fire/smoke dampers where indicated or required by NFPA and all locally adopted codes. Dampers shall be designed for horizontal or vertical air flow as required by installation. Fire dampers shall be UL labeled to meet UL#555S and all adopted code requirements. Dampers shall have blades or curtain out of air stream. Provide all necessary access doors, framing, and sleeves for damper mounting per UL, NFPA and adopted code requirements.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this Section will be provided, shall correct conditions detrimental to the timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

3.02 PREPARATION: Provide sleeves, accurately dimensioned and shaped to permit passage of items of this Section. Deliver all such sleeves, with accurate setting drawings and setting information, to the trades providing the surfaces through which such items must penetrate and in a timely manner to ensure inclusion in this work.

3.03 PAINTING: Refer to Section 09900-Painting for painting of exposed overhead HVAC Systems. All exposed overhead HVAC Systems, including but not limited to access doors, pipes, conduit, junction boxes, ducts, grilles, registers, vents and similar HVAC Systems items which are not otherwise factory pre-finished or pre-painted, including those with mill or galvanized finishes, and supports typically located suspended from the exposed structure, shall be dry-fall painted to match the adjacent painted, exposed structure surfaces.

3.04 TESTING AND ADJUSTING:

A. Test and adjust each piece of equipment and each system as required to ensure proper operation.

B. Balancing Report: For each system, the Contractor shall include a copy of the certified Air Balancing Report in the Building Maintenance Manuals submitted to PETCO after the Date of Turnover of Tenant Space to PETCO per Section 01700-Project Closeout. The Balancing Report shall include the following:

1. Air volumes at all supply, return, and exhaust outlets.
2. Total CFM supplied; Total CFM returned; Total Static Pressure at each fan and at each system; Actual CFMs; Design CFMs.
3. Motor speed, fan speed, and input ampere rating for each fan.

3.05 SYSTEM TESTING AND START-UP:

A. The Contractor shall provide System Startup for the first heating and first cooling season.

B. System Startup of the HVAC Systems shall be for ten (10) consecutive calendar days. During this period of operation, the Contractor shall test each component for proper operation. The airflow shall be balanced, temperature controls adjusted, bearings tested and lubricated, motor loads taken, flow rate balanced and pressures checked.

C. During the ten (10) day System Startup and Test period, the Contractor shall inform designated PETCO personnel about the operation and maintenance of HVAC Systems equipment.

D. System Startup Statement: The Mechanical Contractor shall provide a signed System Startup Statement--certifying acceptance of the operation and acknowledgement of the receipt of instructions, by an authorized PETCO representative (as designated by the PETCO Project manager or the PETCO District Manager)--to the PETCO Project Manager, stating the following:

> *(Contractor Name), the Carrier factory representative, and (HVAC subcontractor Name), have started each and all systems; and we have demonstrated their normal operations to PETCO representative (Name); and we have instructed the PETCO representative in the operation and maintenance thereof.*
>
> *Contractor Representative's Name and Signature)* _____
>
> *HVAC Subcontractor Representative's Name and Signature* _____
>
> *Carrier Representative's Name and Signature* _____
>
> *PETCO Representative's Name and Signature* _____

E. A second and third instruction meeting between the Contractor and the designated PETCO operating personnel shall be scheduled at three (3) months and eleven (11) months after the Date of Substantial Completion Date of Turnover of Tenant Space to Petco.

F. Prior to acceptance and final payment, the Contractor shall demonstrate that all HVAC equipment is functioning properly and efficiently. Sheave changes and air qualities shall be balanced by a certified Balancing Contractor (PE) for consistent temperatures throughout, controls shall be adjusted, and the system shall be placed in proper operation.

3.06 OPERATION INSTRUCTIONS TO PETCO: Upon completion of the entire mechanical system, and prior to acceptance by PETCO, the Contractor shall provide a qualified systems engineer and fully instruct the PETCO maintenance personnel in proper HVAC Systems operation and maintenance. The Contractor shall coordinate the scheduling of HVAC Systems instructions and notification of affected PETCO personnel.

END OF SECTION

SECTION 16000

ELECTRICAL SYSTEMS

PART 1 GENERAL

1.01 DIVISION OF RESPONSIBILITIES TERMINOLOGY: Refer to Section 01010-Summary of Work for additional “Division of Responsibilities Terminology” information.

1.02 SUMMARY:

A. The Contractor shall provide Electrical Systems as shown on the drawings and as specified in this Section and as needed for a completed installation including, but not necessarily limited to:

1. Applications and fees required for electrical permits, electrical service, and interim and final inspections.
2. Coordination with Electric Utility and Telephone Company for the respective services.
3. Temporary electrical provisions as required for construction purposes.
4. Excavation and backfill, concrete pads and pits for electrical systems work.
5. Electric service entrance and metering equipment.
6. Power Distribution Equipment: Hill-PHOENIX PowerPlus integrated power and control assembly; Main Distribution Panel and remote panelboards (unless otherwise noted on the drawings), transformers (if indicated on drawings) and timer override panel for the Grooming Room; including associated conduits and feeders.
7. Not used.
8. Energy Management System (EMS), some of which is part of the Hill-PHOENIX PowerPlus integrated power and control assembly.
9. Grounding system.
10. Conduit and branch circuit wiring for lighting, motors, receptacles, plugmold and junction boxes, and Power Poles.
11. Wiring and final connections for motors, fans, and blowers.
12. Wiring and final connections for store fixtures and equipment which are furnished by PETCO and installed by the Contractor, or provided by PETCO.
13. Conduit and power supply for exterior building signage.
14. Circuit breakers, relays, contactors and disconnect switches, magnetic starters for motors (except in package units), wiring and final connections for the HVAC equipment as shown on drawings, including conduit and wire for all line voltage control equipment.
15. Conduit, junction boxes, and #12 GI pull wire for the Fire Alarm System and Security Alarm System, and for the Fire Suppression System alarm system.
16. Not used.
17. Conduits, outlets, and cover plates with #12 GI pull wire in all empty conduit for the Telephone System, Energy Management System (EMS), and Auto-Attendant customer service call boxes.
18. Point of Sale (POS) System provisions.
19. Exterior and interior light fixtures and lamps.
20. Hangers, anchors, sleeves, chases and supports for all electrical materials and equipment shown on the drawings or specified in this Section.

1.03 RELATED WORK:

A. Section 15500-HVAC Systems for electrical installation specified in this Section to be furnished as part of the mechanical work, such as temperature and pressure control devices, and installed by the electrical subcontractor.

B. Section 16600-Energy Management System.

1.04 SUBMITTALS: Prepare submittals and Request for Product Substitution in accordance with Section 01340-Submittals. Submit Lighting Fixture Product Data; and Electrical Panel Shop Drawings, in sufficient detail to demonstrate compliance with the work of this Section.

1.05 QUALITY ASSURANCE:

A. All materials, apparatus, equipment and installation shall comply with the most stringent standards between applicable building and electrical codes and ordinances, State Industrial Accident Commission, Underwriter's Laboratory and National Board of Fire Underwriters. All items, materials and equipment shall bear the Underwriters' Laboratory label of approval and the AFL-IBEW Union Label, if applicable.

B. Drawings and Coordination:

1. The Contractor shall verify the dimensions governing the electrical work in the building. Because of the scale of the electrical drawings, it is not possible to indicate all offsets, fittings, and accessories that may be required to meet all conditions. The Contractor shall examine adjoining work, on which electrical work is dependent for proper operation, and must report any work that must be corrected.
2. If equipment requires structural, mechanical or electrical space conditions than those shown on the drawings, the Contractor shall allow for the cost of such modifications in the Base Fee. No waiver of responsibility for defective work shall be accepted due to a failure to record and accommodate unfavorable conditions.

C. Location of Electrical Provisions:

1. The Contractor shall install all work, conduits, and material as specified.
2. Critical locations are dimensioned; major deviations are NOT permitted. Exact locations of electrical provisions may be impacted by specific building conditions; if a location conflict arises, the Contractor shall notify the PETCO Project Manager and the Architect/ Engineer immediately for clarification, using the "Contractor's Construction Phase- Request for Information" form that follows Section 01200-Construction Administration.
3. The PETCO Project Manager may direct an adjustment of the final location of any power outlet, prior to its installation, to any adjacent location within six (6) feet from the location shown or dimensioned on the drawings, without additional cost to PETCO.

D. Roof Penetrations: The Contractor shall coordinate the installation of all roof penetrations so that the roof warranty is NOT altered, modified or voided.

1.06 WARRANTY / CLOSEOUT DOCUMENTS:

A. Manufacturer's Warranty: The Contractor shall include a copy of the manufacturers' product warranties in the Building Maintenance Manuals submitted per Section 01700-Contract Closeout.

B. Subcontractor Warranty: The Contractor shall include a copy of the Electrical Subcontractor's warranty for all work provided, for a term of one year after the Date of Substantial Completion, in the Building Maintenance Manual submitted per Section 01700-Contract Closeout.

C. Building Maintenance Manuals: In addition to warranties, the Contractor shall include Electrical Systems instructional and maintenance information per Section 01700-Contract Closeout.

D. Project Record Drawings: The Contractor shall record all changes as the work progresses on a set of project record drawings kept at the jobsite, and shall provide Record Drawings to PETCO after the Date of Substantial Completion per Section 01700-Contract Closeout.

PART 2 PRODUCTS

2.01 CONTRACTOR'S COORDINATION WITH ELECTRIC UTILITY PRIOR TO SUBMITTING BID PROPOSAL:

A. Service utility requirements of the Electric Utility and availability of service are determined by PETCO and the Architect/Engineer, as accurately as possible. The Contractor MUST verify the availability of Electrical service and determine details pertaining to exact locations, requirements and fees payable to the Electric Utility, all within the scope of the work included in the Base Fee.

B. Prior to the Date of Commencement, and as soon as possible so as to NOT cause any delay in providing Electrical Service in a timely manner, the Contractor MUST inform the Electrical Utility of the following AND pay the required fees to initiate service work needed from the Electric Utility:

1. Total lighting and power loads for the project.
2. Date when electrical service is needed.
3. Date of Final Completion.
4. Estimated Store Opening date.

C. The Contractor shall pay all costs, including cable and other charges as levied by the Electric Utility as required to provide temporary and permanent electrical service to the PETCO Tenant Space.

2.02 CONTRACTOR'S COORDINATION WITH TELEPHONE COMPANY:

A. Service utility requirements of the Telephone Company and availability of service are determined by PETCO and the Architect/ Engineer, as accurately as possible. The Contractor MUST verify the availability of Telephone service and determine all details pertaining to exact locations, requirements and fees payable to the Telephone Company, all within the scope of the work included in the Base Fee.

B. The Contractor shall pay all costs, including cable and other charges as levied by the Telephone Company as required to provide temporary and permanent telephone service to the PETCO Tenant Space.

C. The Contractor shall contact the telephone company and verify all existing conditions before work is started, and pay any fees that the Telephone Company may require.

2.03 SERVICE ENTRANCE/ SERVICE GROUND:

A. Service Entrance: Unless indicated by Landlord on the drawings, the Contractor shall provide Service Entrance as shown on the drawings and per Electrical Utility requirements, including transformer pad (if required) conduit, cable, disconnection means and devices as shown on drawings, to the point of connection with the Electric Utility.

1. Service Entrance Conductors shall be copper and sized per Electric Utility requirements. However, Service Entrance Conductors MAY be aluminum alloy conductors if permitted by the Electric Utility and by the local jurisdiction. If provided, aluminum alloy conductors shall be compact stranded conductors AA-8000 Series in sizes with current-carrying capacity equivalent to the copper sizes indicated on the

drawings, equal to products by Alcan Cable Stabiloy. Use mechanical screw type or compression type dual rated connectors per the manufacturer's recommendations. Coordinate with the manufacturer of the service entrance equipment for proper lugs.

2. Other than aluminum alloy conductors for service (if permitted), no other aluminum wire is permitted on this project.

B. Service Ground: The Contractor shall provide a code-approved service ground from the Service Entrance Panel to the nearest accessible cold water pipe, structural steel member, and four 5/8" diameter x 10 ft. ground rods. Connect conduit to the rods and pipe with ground clamps equal to T&B, Burndy Company or approved equal.

1. The Contractor shall provide a 30 ft. UFER ground in the footing structure with grounding components connected to the Service Ground terminal with a continuous conductor.
2. The Contractor shall secure all metal siding to Service Ground.

2.04 HILL-PHOENIX POWERPLUS INTEGRATED POWER & CONTROL ASSEMBLY:

A. The Contractor shall purchase the Hill-PHOENIX PowerPlus Integrated Power & Control Assembly from Hill-PHOENIX in a PETCO Inventory Agreement, and shall install the Electrical Distribution Cabinet. The Contractor shall coordinate delivery of the PowerPlus to the jobsite with the PETCO Project Manager and the following:

Hill-PHOENIX
8166 Industrial Blvd.
Convington, GA30014
Contact: Scott Higginbotham, Application Engineer
(scott.higginbotham@hillphoenix.com)
Tel: 800-518-6630, 770-285-3216 (direct); FAX 770-285-3252

No product substitutions are permitted. The Contractor shall confirm to the PETCO Project Manager that the Contractor's purchase order for the Integrated Power & Control Assembly has been executed at least eight (8) weeks prior to the scheduled ship date.

B. The Integrated Power & Control Assembly is provided pre-wired (with the exception of areas indicated on the drawings) with all interconnections between panel circuit breakers, contactors and terminal strips, and pre-installed Energy Management System components.

C. Peripheral devices and control wiring shall be furnished by PETCO's EMS Vendor as indicated on the drawings and per Section 16600-Energy Management System, and shall be installed by the Contractor.

D. The Integrated Power & Control Assembly shall be secured to the floor and wall as recommended by the manufacturer. The Contractor shall provide all field wiring as indicated.

E. Refer to the drawings for the materials and scope of the Main Distribution Panel and remote panels.

2.05 NOT USED

2.06 LIGHT FIXTURES AND LAMPS:

A. Light Fixtures and lamps shall be provided as scheduled on the Light Fixture Schedule, and purchased by the Contractor from a PETCO Inventory Agreement Vendor as part of the Contractor's Base Fee. For lead time scheduling, pricing and delivery, contact the following:

VILLA LIGHTING SUPPLY
2929 Chouteau Avenue, St. Louis MO 63103
Contact: Jay Becker, Account Manager (jay.becker@villalighting.com)
Toll Free: 1-800-325-0963 x 458; Dir: 1-314-633-0458; Fax: 1-314-633-0459

No product/ manufacturer substitutions are permitted.

B. All lamps, including replacements if required, shall be new, with wattage as scheduled, energy efficient types.

1. Fluorescent Lamps: All lamps shall be cool white, energy saving type, unless otherwise noted on the drawings.
2. High Intensity Discharge Fixture Lamps (HID): All lamps shall be metal halide, unless otherwise noted on the drawings.

2.07 FIRE ALARM SYSTEM AND SECURITY ALARM SYSTEM:

A. The Fire Alarm System and the Security Alarm System shall be provided by a PETCO Vendor through a PETCO National Account agreement. For clarification of the installation of the Fire Alarm System and the Security Alarm System, contact the following:

VECTOR SECURITY
Contact: Thomas Cook (tecook@vectorsecurity.com)
Tel. 703-468-6100 ext. 51209; Cell 703-881-6605; E-fax 253-780-9767

B. The Contractor shall coordinate all work related to the Fire Alarm System and the Security Alarm System with the PETCO Project Manager. The Contractor shall provide all conduit, junction boxes and pull wire where indicated on the drawings.

C. Where not a part of a building-wide Fire Alarm System designed by others, the Fire Suppression System Flow Detectors will be wired into the building fire alarm system by the PETCO Vendor/ Security Alarm Contractor.

D. The Contractor shall provide interface between the Security Alarm System and the Landlord's fire alarm panel where required by the local jurisdiction.

E. The Contractor shall coordinate and make provisions for this work, but the cost of the PETCO Vendor/ Security Alarm Contractor's work is borne by PETCO.

2.08 POWER POLES: The Contractor shall provide Power Poles at PETCO store fixtures as scheduled on the drawings, and shall verify the final location of Power Poles before commencement of Power Poles installation work. The final location for Power Poles shall be as indicated on the PETCO-issued Store Fixture Plan, furnished to the jobsite by a PETCO Representative. Refer to the drawings for the PETCO Vendor / Contractor Responsibilities.

2.09 DUPLEX RECEPTACLES, SWITCHES, AND TELEPHONE OUTLETS:

A. Duplex Receptacles: Provide 3-pole grounding type with the third pole (U-shaped) grounded to the conduit system, equal to Hubbell #5252 and/or GF5362-1 and/or CR5352IG, with acceptable alternative products by Cooper/Crouse-Hinds, Leviton, Pass & Seymour or Slater. Isolated Ground (IG) receptacles shall be orange (not white with orange triangle). A single duplex receptacles dedicated to a 20A-1P circuit shall be Hubbell #5352 or equal.

B. Switches: 20 amp, 120/277 volt AC throughout, quiet type, silver button contact type, equal to Arrow Hart No. 1991-1, 1991-2, 1991-3, with acceptable alternative products by Hubbell, Leviton, Pass & Seymour or Slater.

C. Devices (Receptacles, Switches, Telephone Outlets) and Coverplate Colors:

1. Interior Painted Color White Walls: Provide Color White Devices and Coverplates.
2. Interior Painted Color Other Than White Walls: Provide Color Ivory Devices and Coverplates
3. Selected Receptacles: Some receptacles are indicated to be Grey in color to distinguish these devices which are on controlled circuits from those which are not.

D. Plugmold: Provide by Wiremold Corporation in color as indicated on plans. No product substitution is permitted.

2.10 OTHER DEVICES:

A. Rigid conduit: Provide 3/4” minimum size galvanized or sherardized steel, UL approved, with equipment ground conductor where required by code.

B. Electrical metallic tubing (EMT): Provide 3/4:” minimum size. NEC standard, UL approved, with equipment grounding conductor where required by code.

C. Metal Clad (MC) Cable: NEC Standard, UL approved may be used for wiring of lighting above suspended ceilings and in cavity partitions where specifically defined on the drawings. Minimum wire size conductor #12 AWG copper, including green insulated equipment ground, galvanized steel or aluminum interlocking cladding, sized in accordance with the NEC.

D. Flexible Conduit: Provide NEC Standard, UL approved, for short connections to motors only, with ground conductors.

E. Wire and Cable: Provide NEC Standard, UL approved, 600 volt insulated, color coded and wire sizing as required by code. Provide insulated bushings or insulated fittings at all raceway ends.

1. Wire and cable larger than #1: Provide Type THHN.
2. Wire and cable #1 and smaller: Provide Type THHN unless otherwise noted.
3. Branch circuit wiring/installed wiring channels of continuous rows fixtures: Provide Type THHN 90” C rated.
4. Conductors larger than #8 and Control Wiring: Provide stranded, with label at each end for Control Wiring.
5. Underfloor Duct: Provide Type THNN.
6. Conductor insulation shall be color coded as follows (unless local codes differ, in which case the local codes shall prevail):

AC 480 Volt and Above
Phase A – Brown
Phase B – Orange
Phase C – Yellow
Neutral – White

208Y/120V System
Phase A - Black
Phase B - Red
Phase C - Blue
Neutral – White

F. Safety switches: Provide horsepower rated, Type HD externally operated quick-make and quick-break, and shall be fusible or non-fusible, as indicated and with ratings as shown on the drawings.

G. Switches having dual ratings (higher rates when used with dual-elements fuses) shall have ratings indicated on metal plates riveted or otherwise permanently fastened to the enclosure.

H. Motor Starters: Provide magnetic starter as noted on the drawings, with line voltage protection in three phases with a holding contact, two N.O. and two N.C. auxiliary contact (unless otherwise noted), HOA, pilot light and reset button in the face. Coil operating voltage shall be 120 volt.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS: The Contractor shall examine the areas and conditions under which work of this Section will be provided, shall correct conditions detrimental to the timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

3.02 DEMOLITION & PATCHING: No structural member shall be cut without the written consent of the Structural Engineer or Record. All finish surfaces requiring demolition and patching for Electrical Systems work shall be restored to match the adjacent finish.

3.03 EXCAVATION AND BACKFILL: Depth of exterior trenches shall meet the requirements of local codes and shall be at least below the frost line. After conduits have been assembled, tested, inspected and approved, backfill trenches per Section 02220-Trenching.

3.04 HILL-PHOENIX INTEGRATED POWER & CONTROL ASSEMBLY: Install the Hill-PHOENIX PowerPlus Integrated Power & Control Assembly in the location shown on the drawings. The Hill-PHOENIX PowerPlus Integrated Power & Control Assembly EMS system shall be pre-installed in the Integrated Power & Control Assembly. The Contractor shall provide all field wiring as indicated.

3.05 CONDUIT:

A. All conduit shall be concealed in floors, walls, or above ceilings in new construction, unless specifically noted otherwise on the drawings. However, approval from the PETCO Project Manager may be obtained in order to run exposed conduits in receiving areas or in areas where existing wall construction may restrict concealed conduit installation. The PETCO Project Manager's approval must be secured by the Contractor prior to the start of construction.

B. Conduit Installation:

1. Interior: Provide rigid galvanized conduit or electrical metallic tubing with screw or compression type fittings. Unless existing conditions dictate, all interior wiring and conduits shall be run tight to the underside of the roof deck, and parallel to or perpendicular to the building/tenant space column lines. Bends shall be made with standard conduit elbows or conduit bent to not less than standard conduit elbows, free from dents or flattening.
2. Concrete Slab Encasement: Provide rigid PVC conduit with ground wire.
3. Underground:

a. Provide rigid metallic, PVC coated conduit where in direct contact equal to Occidental Occal 40. Conduit ends shall be fitted with insulating type device or bushing. If electrical work penetrates a waterproofing membrane, then the electrical work shall be installed using waterproof materials.

b. Acceptable Alternative: Provide PVC conduit with a ground wire if approved by local jurisdiction. Turn up with steel elbows.
c. Buried conduit shall be a minimum of 36” below finish grade.

4. Roof: Flash roof penetrations per Section 07720-Roof Accessories and/or as detailed on the drawings.

C. Horizontal runs of conduit shall be supported from the building structure by clevis-type hangers, constructed of bent steel bars with round steel hanger rods. Perforated-type hangers and use of wood are NOT permitted.

1. Multiple horizontal runs of parallel conduit may be supported by Unistrut or similar products.
2. Hanger rods shall be supported using malleable iron inserts, or bolted to construction.
3. All materials and equipment installed shall be firmly supported and secured to the construction. Anchors where necessary, shall be non-hygroscopic and shall be inserted in holes drilled in the construction per the manufacturer’s instructions.

3.06 BRANCH CIRCUITS:

A. Joints, splices, taps, and connections for 600 volt conductors shall be solderless. Provide Scotchlock, Buchanan, or Marr connectors for wire #10 AWG and smaller; provide S&B “Lock Tite” connectors for wire #8 and larger.

B. Tape all connections with rubber type tape 1-1/2 times the thickness of the conductor insulation, then covered with friction tape or plastic equal to Scotch Wrap No. 33.

3.07 BRANCH CIRCUIT WIRING FOR LIGHTING AND MISCELLANEOUS SINGLE PHASE LOADS:

A. Branch Circuit Wiring: Provide No. 12 Type THHN, protected by 20 ampere circuit breakers. Provide larger wires, as indicated on the drawings or as required to reduce voltage drop.

B. All branch circuit wiring shall be done with identification (white) neutrals and color-coded phase wire. Splices and connections shall be made with pressure type connectors.

C. Where multiple conductors are installed in a single conduit, provide de-rating of conductors and increased conductor sizes in accordance with NEC or applicable codes. Where switch leg conduit is indicated without conduit size or number of wires, provide 2 #12 conductors in a 3/4” conduit.

3.08 LIGHT FIXTURES AND LAMPS:

A. Light Fixtures shall be wired with 90 degree C rated insulated conductors same size as circuit.

B. Light Fixtures in Areas of Exposed Construction: Chain hung light fixtures shall be anchored to bottom joist chords with “C” clamps, round unperforated conduit, or by using Unistrut as detailed on the drawings. Do NOT suspend directly from the roof deck, ductwork or pipes. Direct mounted light fixtures shall be secured per the manufacturer’s specifications.

C. Light Fixtures in Areas of Finished Ceilings: Light fixtures shall be suspended from the building structure with #8 wires, independent of the suspended ceiling.

3.09 TELEPHONE SERVICE:

A. Unless indicated otherwise on the drawings, the Contractor shall provide a minimum 4" PVC conduit (at 36" minimum below grade if underground) for the telephone service from the property line or other service point to the main telephone board, to accommodate 25 pair cable in that conduit. When a common telephone distribution room exists beyond Petco's space, a 2" conduit to Petco's telephone board is acceptable in lieu of a 4" conduit.

B. The Contractor shall provide a fire retardant plywood service board where shown on the drawings. Provide a No. 6 ground wire and 120 volt dedicated circuits as indicated on drawings.

C. Provide minimum 3/4" conduit with 50 pound test monofilament pull string from the Telephone Outlets shown on the drawings. Coordinate mounting heights of Telephone Outlets and floor outlet locations with PETCO.

D. All communications wire and telephone shall be furnished and installed by PETCO.

3.10 FIRE ALARM SYSTEM: The Contractor shall provide all conduit, pull string, and outlets as indicated on the drawings. A PETCO Vendor will furnish and install the Fire Alarm System.

3.11 SECURITY SYSTEM: The Contractor shall provide all conduit, pull string, and outlets as indicated on the drawings. A PETCO Vendor will furnish and install the Security System.

3.12 POINT OF SALES (POS) SYSTEM: The Contractor shall provide all conduit, pull string, and outlets as indicated on the drawings. A PETCO Vendor will furnish and install the POS System.

3.13 HVAC SYSTEMS:

A. Unless otherwise determined by the Contractor and designated among subcontractors, or unless indicated otherwise on drawings, the following HVAC Systems work shall be provided by the mechanical contractor:

1. Furnish and install controls and low voltage equipment, including HVAC systems transformers, less final electrical connections.
2. Furnish and install motors, less final electrical connections.
3. Furnish and install equipment such as solenoid valves, which are to be installed in piping lines, and control equipment which forms an integral part of the HVAC systems, less final electrical connections.

B. Unless otherwise determined by the Contractor and designated among subcontractors, or unless indicated otherwise on drawings, the following HVAC systems work shall be provided by the electrical subcontractor.

1. Provide conduit, outlets, wiring, disconnect switches, and other control line voltage equipment, including conduit and control wiring, as required for full equipment operation.
2. Provide final electrical connections for all control equipment, such as solenoid valves that are to be installed in piping lines, or control equipment that forms an integral part of the HVAC Systems.
3. Provide final electrical connections for all motors, magnetic starters, line voltage controls and line voltage side of all equipment furnished by others.
4. Provide a weatherproof GFI convenience outlet at each HVAC rooftop units. Run conduit and wire inside roof curb where allowed by applicable code.
5. Provide conduit and outlet boxes for control devices that are provided by others.
6. Provide final electrical connections for smoke and ionization detectors furnished and installed by HVAC Contractor.

7. Provide final electrical connections for HVAC system ionization detectors that will be furnished and installed by others.

3.14 EXTERIOR BUILDING AND PYLON SIGNAGE: Provide sub-feeder, branch circuit conduit and wire, disconnect switch, and final electrical connections. Refer to Section 10400-Exterior Building & Pylon Signage.

3.15 LABEL IDENTIFICATION:

A. The Contractor shall provide Label Identification using a Micarta Nameplate, 1/16" thick, Color Black with engraved 1/4" white letters. Hand operated, embossed tape (for example, "Dymo Labelmaker") is NOT acceptable.

B. Locations requiring Label Identification:

1. Panelboards, cabinets, starters, safety switches, and other apparatus used for operation and control of circuits, appliances and equipment: Provide bolted Micarta Nameplates on the interior and exterior of branch panels, main panel circuits, and on the exterior of disconnect switches, motor controls, major J-boxes (power and auxiliary), push buttons, thermal switches, time switches, and similar equipment.
2. All Power Receptacles Other Than 120V: Indicate voltage and phase.
3. Wiring by Contractor that is to be terminated by others: Provide Micarta Nameplate indicating circuit number, source or destination.

3.16 PAINTING:

A. All exposed overhead Electrical System conduit and supports in the roof structure shall be cleaned prior to painting, and dry-fall painted to match the adjacent, painted, exposed structure per Section 09900-Painting.

B. The Contractor shall paint exposed conduit, junction boxes and similar items which are not factory pre-finished/ pre-painted, so as to match the paint color of the adjacent wall or ceiling, unless otherwise shown on the drawings or as otherwise directed by the PETCO Project Manager.

3.17 TESTING: The Contractor shall test all wiring and connections for continuity, short circuits and improper ground. Each lighting panel shall be tested with mains open, branches connected, wall switches closed, fixtures permanently connected. Each individual power circuit shall be tested as the panel or switchboard with the power equipment connected for proper operation. Provide testing equipment and pay testing costs, including the costs of replacement or repairs due to improper initial installation or damage resulting from testing.

3.18 AMPACITY TEST REPORT:

A. Three (3) days prior to the Date of Tenant Space Turnover to PETCO, the electrical subcontractor shall take load readings on all panels, and shall provide all information to the Contractor immediately--so that the Contractor can FAX a copy of the Ampacity Test Report to the PETCO Tenant Improvement Engineer of Record; and to the PETCO Project Manager:

Polaris Consulting Engineers, PC
Michael L. Wilson, PE
FAX: 856-778-1788

PETCO ANIMAL SUPPLIES, INC.
Contact: PETCO Project Manager: Wade Rose
EMAIL: wade.rose@petco.com

B. The Contractor shall include the Ampacity Test Report in the Building Maintenance Manuals, submitted to PETCO per Section 01700-Contract Closeout requirements.

END OF SECTION

SECTION 16600

ENERGY MANAGEMENT SYSTEM

PART 1 GENERAL

1.01 DIVISION OF RESPONSIBILITIES TERMINOLOGY: Refer to Section 01010-Summary of Work for additional “Division of Responsibilities Terminology” information.

1.02 SUMMARY:

A. PETCO will furnish the Energy Management System (EMS) under a National Account agreement with COMFORT SYSTEMS USA. The Contractor shall install all accessories for the Energy Management System as shown on the drawings, as specified in this Section, and as needed for a complete and proper installation including, but not limited to:

1. Hill-PHOENIX PowerPlus Integrated Power & Control Assembly.
2. Sensing devices, including temperature, light and override switches.
3. Power and control conductors and connections to the controlled equipment.

1.03 RELATED WORK: Section 15500-HVAC Systems; Section 16000-Electrical Systems.

1.04 QUALITY ASSURANCE: All materials, apparatus, equipment and installation shall comply with the most stringent standards between applicable building and electrical codes and ordinances. State Industrial Accident Commission, Underwriters’ Laboratory and National Board of Fire Underwriters. All items, material and equipment shall bear the Underwriters’ Laboratory Label of approval and the AFL-IBEW Union Label, if applicable.

1.05 FIELD INSTALLATION/CHECKOUT OF ENERGY MANAGEMENT SYSTEM: COMFORT SYSTEMS USA will provide one field installation/checkout visit, so as to verify the Energy Management System installation and operation. This visit is to be scheduled for two (2) days after the scheduled SOS date for the site. The contractor shall coordinate the electrical sub-contractor such that the installation of the Energy Management System is complete and the Petco EMS Check-off sheet is completed and faxed to both Comfort Systems and the Petco Project Manager prior to the scheduled SOS date. The contractor shall also coordinate the mechanical sub-contractor such that the HVAC systems have been installed and start up completed prior to the SOS date.

PART 2 PRODUCTS

2.01 ENERGY MANAGEMENT SYSTEM (EMS) EQUIPMENT AND DEVICES:

A. The Energy Management System, including DDC Controller, Relay/ Contactor Panels and HVAC Controls will be furnished by COMFORT SYSTEMS USA, in a National Account agreement (i.e. direct purchase by PETCO):

COMFORT SYSTEMS USA NATIONAL ACCOUNTS
2655 Fortune Circle West, Suites E & F
Indianapolis, Indiana 46241

First Point of Contact: Cedric Wilson, Project Manager
(cedric.wilson@comfortsystemsusa.com)
Tel. 317-638-5363; Tel. Direct 317-246-4278; Cell. 317-658-0035

Second Point of Contact: Ron Hamersley, EMS Engineer
(Ronald.hamersley@comfortsystemsusa.com)

Tel. 317-638-5363; Tel. Direct 317-638-5363 ext.4315

No product substitution is permitted.

B. The Energy Management System is manufactured by COMFORT SYSTEMS USA. Some of the system components are factory installed in the Hill-PHOENIX PowerPlus Integrated Power & Control Assembly, and in most Carrier HVAC units, while others are installed by the Electrical Contractor:

1. The DDC Controller and HVAC Controls will be furnished by COMFORT SYSTEMS USA and installed by the electrical contractor.
2. The COMFORT SYSTEMS USA CPU will be furnished loose for COMFORT SYSTEMS USA checkout personnel.
3. All temperature sensors, low voltage control wiring, sensor wiring and sensing devices shall be installed by the Electrical Contractor in a conduit/ junction box system provided by the Contractor. The low voltage cable may be run exposed above the ceiling and at the roof joist if the electrical code permits.

PART 3 EXECUTION

3.01 DELIVERY: The Energy Management System will be furnished to the jobsite approximately three (3) weeks prior to the Date of Tenant Space Turnover to PETCO.

3.02 INSTALLATION OF ENERGY MANAGEMENT SYSTEM EQUIPMENT AND DEVICES:

A. The electrical subcontractor shall install all provisions for the Energy Management System as indicated on the drawings.

B. The electrical subcontractor shall coordinate with COMFORT SYSTEMS USA checkout personnel when COMFORT SYSTEMS USA provides checkout of the Energy Management System and verifies the system's field operation.

3.03 FIELD INSTALLATION/CHECKOUT OF ENERGY MANAGEMENT SYSTEM:

A. The Contractor and electrical subcontractor shall be scheduled to be on site during the installation/ checkout with COMFORT SYSTEMS USA.

B. COMFORT SYSTEMS USA System Startup Deficiency Report: Upon completion of the field checkout, the COMFORT SYSTEMS USA inspecting representative will prepare and issue a "COMFORT SYSTEMS USA System Startup Deficiency Report" to the Contractor, and will forward a copy of the report to the PETCO Project Manager for inclusion in the PETCO Inspection Punchlist.

C. The costs associated with any subsequent field trip inspection that may be determined as being required by COMFORT SYSTEMS USA as a result of inadequate preparation for the Energy Management System, installation by the electrical subcontractor prior to the date of the field installation/ checkout inspection by COMFORT SYSTEMS USA, shall be the responsibility of the Contractor/ electrical subcontractor.

END OF SECTION