PLUM	BING ABBREVIATIONS
ABBREVIATION	DESCRIPTION
ADA	AMERICAN DISABILITIES ACT
A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
B.F.F.	BELOW FINISHED FLOOR
BFP	BACKFLOW PREVENTER
BIV	BUTTERFLY INDICATING VALVE
BLDG	BUILDING
BT∪	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNITS PER HOUR
C.E.	CIVIL ENGINEER
CONT	CONTINUED
COP	CLEANOUT PLUG
CPVC	CHLORINATED POLYVINYL CHLORIDE
CV	CHECK VALVE
C₩	COLD WATER
D.F.U.	DRAINAGE FIXTURE UNITS
DIA.	DIAMETER
DN	DOWN
D₩G	DRAWING
EA	EACH
E.C.	ELECTRICAL CONTRACTOR
E₩H	ELECTRIC WATER HEATER
EX.	EXISTING
FC0	FLOOR CLEANOUT
FD	FLOOR DRAIN
FDF	FLOOR DRAIN WITH FUNNEL
FDF-R	FLOOR DRAIN WITH ROUND FUNNEL
F.F.	FINISHED FLOOR
F.F.E.	FINISHED FLOOR ELEVATION
FLR.	FLOOR
F.P.C.	FIRE PROTECTION CONTRACTOR
FS	FLOOR SINK
FSB	FLOOR SINK WITH SEDIMENT BUCKET
FSH	FLOOR SINK WITH HALF GRATE
FSQ	FLOOR SINK WITH THREE-QUARTER GRATE
FT	FEET
F.U.	FIXTURE UNITS
GAL	GALLONS
G.C.	GENERAL CONTRACTOR
GPF	GALLONS PER FLUSH
GPH	GALLONS PER HOUR
GP M	GALLONS PER MINUTE
G₩H	GAS WATER HEATER
HD	HUB DRAIN
HP	HORSEPOWER
HR	HOUR
H₩	HOT WATER
H₩R	HOT WATER RECIRCULATION
Κ₩	KILOWATTS
MAX.	MAXIMUM
MBTUH	THOUSANDS OF BTU PER HOUR
M.C.	MECHANICAL CONTRACTOR
MIN.	MINIMUM
MISC.	MISCELANNEOUS NORMALLY CLOSED
NC N.C	HOMBALLI GLOSED
N.I.C.	NOT IN CONTRACT NORMALLY OPEN
NO NTS	NOT TO SCALE
P.C.	PLUMBING CONTRACTOR
P.R.A.	PROJECTED ROOF AREA
PSI PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
RAD.	RADIUS
RPBFP	REDUCED PRESSURE BACKFLOW PREVENTER
RL	RAINWATER LEADER
S.C.	SITE CONTRACTOR
SF	SQUARE FEET
SS	SANITARY SEWER STACK
TB	THRUST BLOCK
TD	TRENCH DRAIN
TP	TRAP PRIMER
TYP.	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
٧	VENT
VB	VACUUM BREAKER
V.I.F.	VERIFY IN FIELD
VS	VENT STACK
VTR	VENT THROUGH ROOF
₩co	WALL CLEANOUT
₩Н	WALL HYDRANT
₩s	WASTE STACK
YCO	YARD CLEANOUT
ø	DIAMETER

SYMBOL	DESCRIPTION
\odot	AIR ADMITTING VALVE IN BOX
•	AIR ADMITTING VALVE
P	BALANCING VALVE
-	BALL VALVE
\square	VALVE IN UNDERGROUND BOX
0	BACKWATER VALVE
0	BACKWATER VALVE BELOW GRADE WITH EXTENSION
- E	BACKWATER VALVE IN UNDERGROUND BOX
- N	BUTTERFLY VALVE
Z	CHECK VALVE
•	COMPRESSED AIR CONNECTION
Ŧ	GAS VALVE
×	GLOBE VALVE
×	MODULATING VALVE
₽	PRESSURE RELIEF VALVE
<u></u> ∕⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄⁄	RELIEF VALVE
₽	SOLENOID VALVE
⅓	THERMOSTATIC MIXING VALVE
×	GATE VALVE
+->	SUPPLY VALVE
-Ø-	WATER METER
Ø	GAS METER
MVM	REDUCED PRESSURE BACKFLOW PREVENTER
ந்றை	CLOTHES WASHER CONNECTION
•	FLOOR CLEANOUT
10	WALL CLEANOUT
<u> </u>	YARD CLEANOUT
	FLOOR DRAIN
	FLOOR DRAIN WITH FUNNEL
<u> </u>	FLOOR DRAIN WITH ROUND FUNNEL
0	FLOOR SINK WITH FULL GRATE
<u> </u>	FLOOR SINK WITH HALF GRATE
Pr	FLOOR SINK WITH THREE-QUARTER GRATE
> 0	HUB DRAIN
®	ROOF DRAIN
0	ROOF OVERFLOW DRAIN
	TRENCH DRAIN
HB √+	HOSE BIBB
*	POINT OF NEW CONNECTION
(0)	VENT THROUGH ROOF
Ď	RECIRCULATION PUMP
™	WATER HAMMER ARRESTOR
	SPLASH BLOCK
TP =	TRAP PRIMER
	"P" TRAP
₩H ■	WALL HYDRANT
P	ATMOSPHERIC VACUUM BREAKER
 ⇒	PIPE DOWN
	PIPE UP
	CAPPED PIPE
<u></u> -	CLEANOUT PLUG
	UNION
	STRAINER
-	DIRECTION OF FLOW
XXX	PLUMBING FIXTURE
XXX-A	ADA COMPLIANT PLUM FIXTURE

NOTE:

OME SYMBOLS AND OT PERTAIN TO THIS PROJEC

LINETYPE	DESCRIPTION				
	EXISTING SANITARY SEWER PIPING				
	EXISTING SANITARY VENT PIPING				
	EXISTING DOMESTIC COLD WATER PIPING				
	EXISTING DOMESTIC HOT WATER PIPING				
	EXISTING HOT WATER RECIRCULATION PIPING				
st	EXISTING STORM PIPING				
RO	EXISTING ROOF OVERFLOW PIPING				
—— EG ——	EXISTING NATURAL GAS PIPING				
——ELP——	EXISTING LP GAS PIPING				
— — EA — —	EXISTING MEDICAL AIR PIPING				
— —EAW— —	EXISTING ACID WASTE PIPING				
EAV	EXISTING ACID VENT PIPING				
——EC02——	EXISTING MEDICAL CO2 PIPING				
— —EVAC— —	EXISTING MEDICAL EVAC VACUUM PIPING				
EV	EXISTING MEDICAL VACUUM PIPING				
EN	EXISTING NITROGEN PIPING				
- — -ENO- — -	EXISTING NITROUS OXIDE PIPING				
E0	EXISTING OXYGEN PIPING				
——EDI——	EXISTING DEIONIZED WATER PIPING				
ERO	EXISTING REVERSE OSMOSIS PIPING				
— —EGR— —	EXISTING GREASE WASTE PIPING				
FOR	FUEL OIL RETURN PIPING				
——F0S——	FUEL OIL SUPPLY PIPING				
	SANITARY SEWER PIPING (ABOVE GROUND)				
	SANITARY SEWER PIPING (BELOW GROUND)				
	SANITARY VENT PIPING				
	DOMESTIC COLD WATER PIPING				
	DOMESTIC HOT WATER PIPING				
	HOT WATER RECIRCULATION PIPING				
ST	STORM PIPING				
RO	ROOF OVERFLOW PIPING				
—— G ——	NATURAL GAS PIPING				
— ьр ——	LP GAS PIPING				
— а —	MEDICAL AIR PIPING				
AW	ACID WASTE PIPING				
AV	ACID VENT PIPING				
co2	MEDICAL CO2 PIPING				
VAC	MEDICAL EVAC VACUUM PIPING				
	Manager of a supply and a				
v	MEDICAL VACUUM PIPING				
v	MEDICAL VACUUM PIPING NITROGEN PIPING				
— N —	NITROGEN PIPING				
N	NITROGEN PIPING NITROUS OXIDE PIPING				
N NO	NITROGEN PIPING NITROUS OXIDE PIPING OXYGEN PIPING				
N	NITROGEN PIPING NITROUS OXIDE PIPING OXYGEN PIPING DEIONIZED WATER PIPING				
N	Nitrogen Piping Nitrous Oxide Piping Oxygen Piping Deionized Water Piping Reverse Osmosis Piping				
N NO	NITROGEN PIPING NITROUS OXIDE PIPING OXYGEN PIPING DEIONIZED WATER PIPING REVERSE OSMOSIS PIPING GREASE WASTE PIPING				
N	NITROGEN PIPING NITROUS OXIDE PIPING OXYGEN PIPING DEIONIZED WATER PIPING REVERSE OSMOSIS PIPING GREASE WASTE PIPING CONDENSATE PIPING				
	NITROGEN PIPING NITROUS OXIDE PIPING OXYGEN PIPING DEIONIZED WATER PIPING REVERSE OSMOSIS PIPING GREASE WASTE PIPING CONDENSATE PIPING FORCED MAIN PIPING				

PIPE HANGER & SMALLER 10 * & LARGER 10 10 12 10 4 * 15 15 10 ** 10 ALL 10 **

- MAXIMUM HORIZONTAL SPACING OF CAST IRON PIPE HANGERS SHALL BE INCREASED TO TEN FEET WHERE 10' LENGTHS OF PIPE ARE USED.
- MIDSTORY GUIDE FOR SIZES 2" AND SMALLER
- *** NOT ALL PIPE MATERIALS ON THIS TABLE WILL PERTAIN TO THIS PROJECT

PLUMBING GENERAL NOTES:

- THE PLUMBING CONTRACTOR SHALL VERIFY THESE DRAWINGS WITH EXISTING FIELD CONDITIONS AND SHALL COORDINATE WITH O'VIL ENGINEER LOCATIONS AND ELEVATIONS OF PLUMBING SERVICE LINES BEFORE PROCEEDING WITH CONSTRUCTION. THE WATER, SANTIARY SEWER, STORM & GAS SERVICE LINES SHOWN ON THE DRAWINGS ARE FOR REFERENCE & BUILDING PERMIT ONLY, REFER TO CIVIL ENGINEERS DRAWINGS FOR DRAWAGE & WATER SERVICE LINES
- NATIONAL PROJECTS OF THE ANTICE OF THE ANTICE SERVICE. LINES LAND THE SERVICE LINES LAND THE SERVICE LINES OF THE ANTICE OF THE ANTICE OF THE SANITARY AND DOMESTIC, WATER TIPING STSTEMS; INCLUDING ALL ASSOCIATED DEVICES, EQUIPMENT, CONTROLS, CONNECTIONS TO BUILDING SERVICE LINES, SUPPORTS, AND HARDWARE REQUIRED FOR THE SAITS-ACTORY OPERATION OF THE

- EQUIPMENT, CONTROLS, CONNECTIONS TO BUILDING SERVICE LINES, SUPPORTS, AND HARDWARE REQUIRED FOR THE SATISFACTORY OPERATION OF THE SYSTEMS.

 APLIMBING CONTRACTOR SHALL PROVIDE ROUTING AND OFFSETS NECESSARY TO AVOID CONFLICT WITH STRUCTURE, FINISHES AND WORK OF OTHER TRADES AS REQUIRED.

 4. PIPING SYSTEMS SHOWN ARE DIAGRAMATIC AND ARE NOT INTENDED TO INDICATE EXACT INSTALLED LOCATIONS OR CONFIGURATIONS.

 5. COORDINATE EXACT LOCATION, SIZE AND ELEVATIONS OF ANY REQUIRED PIPE SLEVES IN NEW STRUCTURE WITH STRUCTURAL ENDINEER.

 6. BAND IRON, THE WIRE, METAL STRAPPING OR WIRE STRAPPING SHALL NOT BE PERMITTED TO SUPPORT PIPING OR GUIPMENT.

 7. INSTALL ALL PIPING TO ALLOW FOR FUTURE EXPANSION.

 8. ALL OPENINGS THROUGH FIRE RATED WALLS OR FLOORS SHALL BE SEALED AS PER U.L. LISTED PENETRATION AND SHALL MAINTAIN THE FIRE RATED INTEGRITY OF THE WALL OR FLOOR. THE CONTRACTOR SHALL VERIETY REPRINGS WITH ARCHITECTURAL DRAWINGS PRIOR TO INSTALLATION.

 9. PROVIDE ACCESS PANELS AT ALL PLACES WHERE EQUIPMENT AND DEVICES REQUIRING SERVICE ARE CONCIALED BEHIND INACCESSIBLE CEILINGS AND WALLS. SUCH DEVICES INCLUDE, BUT ARE NOT LIMITED TO, CLEANOUTS, WATER HAMMER ARRESTORS AND VALVES. COORDINATE EXACT LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN.

 10. CONSTRUCTION AND THICKNESS OF WALLS AND PARTITIONS FOR PLUMBING PIPING OR EQUIPMENT SHALL BE AS REQUIRED BY PLUMBING PEDIPMENT AND HICKNESS OF WALLS AND PARTITIONS FOR PLUMBING PIPING OR EQUIPMENT SHALL CAMPLY WITH INTERNATIONAL BUILDING CODES —BUILDING, PUMBING PIPING AND FINISH UNLESS OTHERWISE NOTED.

 1. ALL PIPING AND FITTINGS EXPOSED TO VIEW SHALL HAVE A POLISHED CHROWE FINISH UNLESS OTHERWISE NOTED.

 2. ALL PLUMBING, OR MECHANICAL, AND FIVE GAS CODE; LATEST EDUILDING, PUMBING PORTS AND CHANGING PIPING AND FITTIONS FOR PLUMBING FINISH UNLESS OTHERWISE NOTED.

- RECENTLY ADAPTED BY STATE FIRE MARSHALL'S RULE.

DOMESTIC WATER PIPING NOTES:

- BELOW GROUND WATER PIPING SHALL BE TYPE "X" COPPER WITH VINYL SLEEVE FOR CORROSION PROTECTION WITH WROUGHT COPPER FITTINGS AND LEAD FREE 95-5 SOLDERED JOINTS. AND ABOVE GROUND WATER PIPING SHALL BE TYPE "X" COPPER, COUPLY WITH BUILDING CODE.
 PROVIDE EACH FIXTURE WITH STOPS AND SUPPLIES EXPANDING TOPS AND SUPPLIES SHALL BE CHROME PLATED WITH A CHROME PLATED WITH A CHROME PLATED VICTORION PLATE.

- R WORKS SPECIFICATIONS. PIPE HANGERS BY GRINNELL OR APPROVED
- PANELS FOR ANY VALVES CONCEALED IN WALLS OR CEILING

ANITARY WASTE & VENT PIPING NOTES:

- ABOYE AND BELOW GROUND SANITARY WASTE AND YENT PIPING SHALL BE
- PVC-DWV SCHEDULE 40 PIPE.

 ALL SANITARY WASTE PIPING UP TO 2½" IN SIZE SHALL BE SLOPED AT ½" PE PER FOOT SLOPE. ALL LARGER SANITARY WASTE PIPING SHALL BE SLOPED AT 1/8" PER FOOT SLOPE.

 ALL VENTS THROUGH THE ROOF SHALL BE A MINIMUM OF 10'-0", OR AS
- ALL VENTS THROUGH THE ROOF SHALL BE A MINIMUM OF 10"-O, OR AS REQUIRED BY CODE, AWAY FROM ANY OPENINGS INTO THE BUILDING AND FRESH AIR INTAKES. ALL VENTS THROUGH THE ROOF SHALL BE PROVIDED WITH FOUR LB SHEET LEAD FLASHING EXTENDING UPWARD AROUND THE PIPE AND TURNED DOWN INSIDE THE PIPE.
- INSIDE THE PIPE.
 ALL EXPOSED WASTE DRAINS OR PIPING SHALL BE CHROME PLATED WITH
 MATCHING ESCUTCHEONS.
- MATCHING ESCICHEDINS.

 CLEANOUTS SHALL BE PROVIDED AT THE BASE OF EACH SANITARY WASTE OR SOIL STACK AT A MINIMUM OF 18" A.F.F. PER THE LATEST EDITION OF THE
- TEST SANITARY WASTE AND VENT PIIPING BY MEANS OF A 10" WATER COLUMN FOR 24 HOURS OR AS REQUIRED BY THE LOCAL AUTHORITY.

GAS PIPING NOTES:

- CAS PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE OR NFPA-54 WHERE REQUIREMENTS ARE MORE STRINGENT. ALL GAS EQUIPMENT SHALL BE AGA APPROVED.

 THE INSTALLATION SHALL BE FOR NATURAL GAS.

 THE INSTALLATION SHALL BE FOR NATURAL GAS.

 THE INSTALLATION SUBCONTRACTOR SHALL BE LICENSED FOR THE INSTALLATION OF NATURAL GAS.

 GAS PIPING SHALL BE SCHEDULE 40, WELDED AND SEAMLESS, WROUGHT STEEL PIPE (ASME BS6, 10). ANY GAS PIPING WHICH IS EXPOSED SHALL BE PAINTED WITH "RUSTOLEUM" PAINT. VERRY COLOR WITH ARCHITECT.

 GAS PIPING SHALL BE HUNG TIGHT TO THE ROOF STRUCTURE, SUPPORTED WITH HANGERS BY GRINNELL OR EQUAL.

 BERANCH LAFS MUST BE MADE OFF OF THE TOP OF THE PIPING.

 CONNECTION TO EACH PIECE OF EQUIPMENT SHALL INCLUDE AN INVERTED TAPP. A GAS VALVE. A UNION AND A DIFT LEG.

 ALL GAS FLUES SHALL BE A MINIMUM OF 10"-0", OR AS REQUIRED BY CODE, ANNAY FROM OPENINGS INTO BUILDING AND FRESH AIR INTAKES.

SHEET	DESCRIPTION
P-1	PLUMBING COVER SHEET
P-2	PLUMBING SUPPLY PLAN
P-3	PLUMBING SANITARY PLAN
P-4	PLUMBING ISOMETRIC RISERS
P-5	PLUMBING DETAILS
P-6	PLUMBING DETAILS & SCHEDULES
P-7	PLUMBING SPECIFICATIONS
	_

PLUMBING DRAWING INDEX

SERVICE SIZE CALCULATIONS							
FIXTURE	QUANTITY	TYPE	F.U.	TOTAL F.U.	D.F.U.	TOTAL D.E.U.	
DRINKING FOUNTAIN	2		0.25	0.5000	0.50	A. 600 W)
LAVATORY	3	PUBLIC	2.00	6.0000	1.00	7	
SERVICE SINK	1		3.00	3.0000	J.8844	2.0000	
₩ATER CLOSET (TANK)	2	PUBLIC	5.00	10.0000	4.00	8.00	1
HOSE BIBB/WALL HYDRANT	4		5.00	20/0000	1	0.0000	
INTERNATIONAL PLUMBING CODE			TOTAL	3 5000	NTO MILLION	14.0000	
				1 100.4"	- 2	4"	1

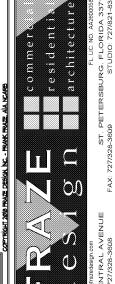
REVIEW Ø1/Ø1/Ø1 XX PERMIT Ø1/Ø1/Ø1 XX REV. REV. REY. REY. REY. **PF**V

ISSUE DATE BY:



GOLDENROD

TIRE CHOICE - G 7412 HOFFNER AVE ORLANDO, FLORIDA



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G GRINER

3125 Fifth Ave N., Suite 300 St. Petersburg, Florida 33713 Designed JL Fax: (727)-821-3361 Certificate of Authorization #3173 Job no.

ALL DIMENSIONS AND JOB CONDITIONS SHALL BE VERFIED BY THE CONTRACTOR, ANY AND ALL DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT PRIOR TO COMMENCEMENT OF CONSTRUCTION. 19113

SHEET NUMBER

SHEET TITLE

PLUMBING

COVER SHEET