## **INDEX**

	Page		Page
$\mathbf{A}$		Asphalt Cements	620
A		Authority and Duties of	
A11 '	1	Project Engineer	57
Abbreviations	1	Authority of the Engineer	25
Acceptance	60	Award, definition	2
Final	60	Award of Contract	16
Partial	60	AWARD AND EXECUTION of	
Acceptance and Final Payment	129	CONTRACT	16
"Act of God" Clause	97		
Adjust Structures	172	ъ	
Advertisement, definition	2	В	
Affected Area, definition	2		
AGGREGATE BASE COURSE	221	Barricades	473,501
Aggregate	221	Barricades and Signs	92,604
Commercial Mineral Fillers	221	Base Course, Definition	6
Mixing	221	Bases, Types	
Placing	221	Aggregate Base Course	221
Shaping and Compaction	221	Lime Treated Subgrade	224
AGGREGATES	628	Basis of Payment, definition	2
Aggregate for Bases	630	BEARING DEVICE	351
Classification Table for		Certification	356
Aggregate Base Course	630	Packaging	357
Aggregate for Cover Coat		Testing and Acceptance	354
Material	632	Type I	351
Gradation Table	633	Type II	352
Aggregate for Hot Mix Asphalt	631	Type III	352
Master Range Table	631	Bearing Materials	637
Aggregate for Median Cover	634	Bed Course Material	151
Bed Course Material	633	Bids, Invitation for, definition	6
Course Aggregate for Concrete	630	Bidder	
Concrete Aggregate Table	629	Definition	3
Filter Material	634	Prequalification of	12
Gradation Table	634	BIDDING REQUIREMENTS AN	
Fine Aggregate for Concrete	630	CONDITIONS	12
Mineral Filler	633	Bituminous Coated Corrugated	12
Structure Backfill Material	634	Steel Pipe	576
Air Quality Control	99		263,620
Air-entraining Admixtures	657	Asphalt Cements	620
Altered Quantities,		Emulsified Asphalts	621
Compensation for	121	Hot Poured Joint and Crack Seal	
Anti-Collusion Affidavit	15		,624,627
Archaeological and Paleontological		Rejuvenating Agent	625
Discoveries	98	Liquid Asphaltic Materials	621
Aramid Fiber Bonded Corrugated		Prime Coat	256
Steel Pipe	576	Seal Coat	260
Γ '		Scar Coat	200

	Page		Page
Tack Coat	256	COLD BITUMINOUS PAVEMENT	
Bituminous Pavers	235	(RECYCLE)	251
Blading	146	Compacting and Finishing	252
Blotter Material	256	Compactors	254
Bolts, Nuts and Washers for		Milling	251
	318,341	Mixing	252
Bonds, Contract	16	Paver	254
Requirements of	16,193	Recycle Train	253
•	139,141	Spreading	252
Brick		Weather Limitations	251
Clay or Shale	636	Combination or Conditional Proposal	ls 15
Concrete	636	Compaction, % Relative	145
Concrete Masonry Blocks	636	Compaction of Embankments and	
Bridge Decks		Treatment of Cut Areas with	
Curing	418	Moisture and Density Control	144
Placing, Consolidating, Finishin	g 413	Compaction of Embankments witho	ut
Bridge, definition	3	Moisture and Density Control	145
Brush Barrier	158	Compensation for Altered Quantities	121
Brush Layer Cuttings	188	Compensation for Compensable	
Buy America Requirements	88	Delays	130
		Concrete Barrier	444
$\mathbf{C}$		CONCRETE, STRUCUTRAL	381
		Acceptance and Pay Factors	421
Caissons, Drilled	298	Admixtures	657
Calcium Chloride	658	Aggregate Gradation Table	629
Calendar Day, definition	3	Air Content Adjustment	391
Cast Iron Pipe	542	Batching	387
CATTLE GUARDS	459	•	5,418
CEMENT (See HYDRAULIC CE	MENT)	Classification	381
Certificate of Compliance	89	Curing (Bridge Decks)	418
Definition	3	Curing (Other than Bridge Decks)	407
Certified Invoice, definition	3	Epoxy Bonding Agent	668
Certified Test Report	90	Falsework	398
Definition	3	Finishing (Bridge Decks)	413
Chain Link Fabric	654	Finishing (Other than Bridge Deck	s410
Changes, Force Account Work,		Forms	391
Compensation for	121	Forms, Permanent Steel Bridge De	
Character of Workers; Methods			396
And Equipment	109	Forms, Precast Panel Deck	395
Check Dam	158	Mixing	389
Chemical Admixtures (Concrete)	657	Placing (Bridge Decks)	413
Claims for Contract Adjustments		Placing (Other than Bridge Decks)	
Cleaning Surfaces to be Painted	337,344	Prestressed	509
Cleaning Up, Final	20	Proportioning	385
CLEARING AND GRUBBING	131	Structural Concrete Coating	411
		Table of Classes (601-1)	381

	Page		Page
Weather Limitations	403	Pay Quantities Measurements	582
Concrete Pavement (See PORTLAN	ND	Reset Monuments and Stakes	582
CEMENT CONCRETE PAVEMEN		Responsibility and Inspection	581
CONCRETE AND CLAY PIPE	644	Survey Records	582
Coated Concrete Pipe	645	CONSTRUCTION ZONE TRAFFIC	$\mathbb{C}$
Drain Tile	645	CONTROL	604
Nonreinforced Concrete Pipe	644	Advance Warning Signs (electronic	605
Perforated Concrete Pipe	644	Channelizing Device (Fixed)	607
Porous Concrete Pipe	645	Concrete Barrier (Temporary)	607
Reinforced Concrete Pipe	644	Flagging and Pilot Car Operation	611
Vitrified Clay Pipe	645	Flashing Beacon (Portable)	607
CONCRETE CURING MATERIALS	S	Signs and Barricades	604
AND ADMIXTURES	657	Temporary Masking Signs	610
Air-entraining Admixtures	657	Temporary Traffic Signals	606
Chemical Admixtures	657	Traffic Cones	606
Curing Materials	657	Traffic Control Management	609
Conduit, Electrical	467	Traffic Control Plan	849
Conformity, definition	4	Contents of Proposal Forms	12
Conformity to the Contract	30	CONTRACT	
Conformity to the Contract of		Award of	16
Hot Mix Asphalt	35	Bonds, Requirements of	16,193
Conformity to the Contract of Port	land	Contract, definition	4
Cement Concrete Pavement	40	Default of	114
Conformity to the Contract of Supe	rpave	Execution and Approval of	16
Performance Graded Binders	33	Intent of	17
Conformity to Roadway		Item (Pay Item), definition	4
Smoothness Criteria	44	Payment Bond, definition	4
Consideration of Proposals	16	Performance Bond, definition	4
Construction Drawing	28	Modification Order, definition	4
Definition	4	Subletting of	104
Construction of Embankment and		Termination of	115
Treatment of Cut Areas with		Time, definition	4
Moisture and Density Control	144	Time, Determination and	
Construction of Embankments with		Extension of	110
Moisture and Density Control	145	Contract Modification Order	4,17
Construction Over and Adjacent to		Contractor,	
Navigable Waters	92	Definition	4
Construction Requirements, definition		Cooperation by	54
Construction Stakes, Lines and Grade		Contractor Submittals, Table	29
Contractor Surveying	56	Contractors	
Department Surveying	56	Cooperation Between	56
CONSTRUCTION SURVEYING	579	Cooperation with Utilities	55
Accuracy and Tolerances	581	Responsibility for Work	97
Changes	582	Contractor's Engineer, definition	5
Contractor Surveying	580	CONTROL OF MATERIAL	70
		CONTROL OF WORK	25

	Page		Page
Cooperation by Contractor	54	Asphalt	621
Cooperation Between Contractors	56	Day, definition	5
Cooperation with Utilities	55	Default of Contract	114
Coordination of Plans,		DEFINITIONS AND TERMS	1
Specifications, Supplemental		DELINEATORS AND REFLECTORS	3 460
Specifications and Special Provision	ons	Steel Posts	460
operation and operation	54	Flexible Posts	460
Copper Pipe	542	Reflectors 460,462	
CORROSION RESISTANT		Department, definition	5
CULVERTS	576	Department Furnished Materials	88
Corrugated Aluminum Pipe	431	Determination and Extension	
Corrugated Steel Pipe	431	Of Contract Time	110
County, definition	5	Detours, Approved	19
Cover Coat Material	260	Detours, Maintenance of	19
CRIBBING	302	Differing Site Conditions,	
Concrete	302	Suspensions of Work and	
Steel	302	Significant Changes in the	
Timber	302	Character of Work	17
Culvert, definition	5	Direct Burial Cable 46	7,685
CULVERT PIPE		Ditches (Roadway Excavation)	150
(Type of Material Not Specified)	508	Dowel Bars 26:	5,653
Culverts, Corrosion Resistant	576	Dozing	147
CULVERTS AND SEWERS		Drain Gates	505
(Type of Materials Specified)	431	Drain Tile	439
Backfilling	433	Drain Valves and Valve Boxes	506
Bedding for Concrete or		DRILLED CAISSONS	298
Clay Conduit	432	Cleaning and Inspection	298
Excavation	431	Concrete	300
Elongation	433	Drilled Holes	298
Jacking	432	Price Adjustments	301
Joining Conduit	432	Reinforcing Steel	299
Placing Conduit	432	Steel Casing	299
Repair	434	Driving Piles	293
CURB AND GUTTER	453	Dust Palliative	169
Bed Course Material	453	Duties of the Inspector	57
Bituminous	455		
Cast-in-Place Concrete	453	${f E}$	
Fog Coat	455		
Ramps	450	EARTHWORK	31
Tack Coat	455	Elastometric Bearing Pads	351
_		Electrical Conduit 46'	7,695
D		Electronic Advance Warning Signs	605
		Eliminated Items	125
Damage Claims, Responsibility for	94		
DAMPPROOFING	367		

	Page		Page
EMBANKMENT		EXCAVATION AND EMBANKME	NT 139
With Moisture and Density		Blading	146
Control	144	Borrow 1	39,141
Without Moisture and Density		Construction of Embankment an	d
Control	145	Treatment of Cut Areas with	
Embankment	142	Moisture and Density Control	144
Embankment Material	139	Construction of Embankments	
Embankment Protector	505	without Moisture and Density	Control
Emulsified Asphalt	621	, and the second	145
Engineer		Dozing	147
Authority of	25	Embankment	142
Definition	5	Embankment Material	139
ENVIRONMENTAL, HEALTH AND		Excavation 1	39,140
SAFETY MANAGEMENT	205	Muck 1	39,141
Asbestos – Containing Material			39,142
Management	218	Presplitting	146
Health and Safety Officer (HSO)	206		40,145
Health and Safety Plan (HASP)	208		39,140
Heavy Metal Based Paint		Rock Fill	140
Management	213	Soil Embankment	140
Material Handling	215	Stripping 1	39,141
Monitoring Technician(MT)	207		39,141
Sample Delivery	217	EXCAVATION AND BACKFILL	
Epoxy (For Bonding Concrete)	668	FOR STRUCTURES	150
Equipment, definition	5	Bed Course Material	151
Erosion Bales	157	Filter Material	151
EROSION CONTROL	157	Structure Backfill 1	50,151
Brush Barrier	158	Structure Backfill (flow-fill) 1	50,152
Check Dam	158	Structure Excavation	151
Concrete Washout Structure	159	Execution and Approval of Contra	act 16
Construction of Erosion Control		Explosive, Use of	93
Measures	163	Extra Work	18
Erosion Bales	157	Extra Work, definition	5
Erosion Control	161		
Erosion Logs	158	F	
Project Review, Schedule, and		-	
Erosion Control Supervisor	159	Failure to Complete Work on Tim	ne 113
Outlet Protection	158	Failure to Maintain Roadway	IC 113
Sediment Trap and Basin	158	or Structure	60
Silt Fence	158	Falsework	398
Stabilized Construction Entrance	159	Federal Aid Provisions	92
Temporary Berms	158	FENCES	447
Temporary Slope Drains	158	Reset Fences	171
Examination of Plans,		FENCE AND GUARDRAIL	1/1
Specifications, Special Provisions		(Materials)	654
and Site of Work	13	(Iviauciiais)	054

	Page		Page
Barbed Wire	654	G	
Chain Link Fabric	654	ď	
Fence Posts	655	Gabions	307
Guardrail Hardware	656	Gabions and Slope Mattresses	307
Guardrail Posts	656	(Materials)	665
"W" Beam Rail	654	Galvanizing (See SPECIFIC MATER	
Snow Fence	654	Gaskets, Pipe	688
Timber for Wood Sound Barrier	655	Gaskets, Tipe Gates (Fence)	447
Woven Wire	654	GEOSYNTHETICS	284
Fertilizer	175	Erosion Control and Drainage	285
Field Cleaning and Painting of Stee	1 344	Geotextile Separator	285
FIELD FACILITIES	545	Impervious Lining	285
Commercial Plant Laboratory	546	Landscaping Weed Barrier	286
Field Laboratories	545	Paving	284
Field Offices	545	Glass Beads	670
Maintenance, Service and Utilities		Grubbing, Clearing and	131
Sanitary Facilities	547	GUARDRAIL	442
Filter Material	151	Concrete Barrier, Type 7	444
Final		Concrete Barrier, Type 7,	
•	0,129	Temporary	607
Cleaning Up	20	End Anchorages	444
Estimate	129	Post and Rail Elements	443
Payment	129	Reset	172
Flagging and Pilot Car Operation	611	Thrie Beam, Type 6	442
Flume (See PARSHALL MEASUF		"W" Beam, Type 3	442
FLUME)	505	Gutter (See CURB AND GUTTER)	
Fly Ash	618	,	
Portland Cement Concrete Pavem		Н	
G 1.G	265	11	
Structural Concrete	384	Hammara Dila Drivina	291
Force Account Work, definition	5	Hammers, Pile Driving Handling Materials	88
Force Account Work, Changes,	101	Headgates	505
Compensation for	121	HEATING AND SCARIFYING	303
Forest Protection	87	TREATMENT	249
Forms	206	HERBICIDE TREATMENT	203
Permanent Steel Bridge Decks	396	Highway, definition	5
Foundation Pads and Light Standard		Holidays, definition	5
Frames, Grates, Covers and Steps	436	HOT MIX ASPHALT	247
French Drain	440	Hydrated Lime	658
Furnishing Right of Way	98	HYDRAULIC CEMENT	617
		Fly Ash	618
		Fly Ash Masonry Cement	618 618
		Masonry Cement	618
		•	

INLETS	436	Job Mix Formula	
Inspection and Testing of Work	58	Plant Mix Pavements	231
Inspector, Duties of the	57	JOINT AND CRACK SEALANT	334
Inspector, definition	6	JOINT, WATERPROOFING AND	33.
Insurance	95	BEARING MATERIALS	637
Intent of Contract	17	Bearing Materials	637
Interpretation of Plans	1,	Compression Ring	637
and Specifications	13	Gaskets	637
Interpretation of Quantities	13	Joint Fillers	637
In Proposal Form	12	Pipe Joint Sealing Compound	637
Invitation for Bids, definition	6	Protective Covering for Bridge	037
Irregular Proposals	14	Deck, etc.	642
IRRIGATION SYSTEM	564	Prefabricated Reinforced	042
Automatic Controllers	564	Membrane, etc.	643
Backflow Preventer	564	Single Component, etc.	643
Cleanup	573	Waterstop	643
Control Wiring	565	Joints	043
Drip Emitters	566	Bituminous	245
Drip Systems	570	Construction (Concrete Pavement	
Excavation and Backfill	569	Expansion (Concrete Pavement)	273
Final Landscape Acceptance	572	Sawed (Concrete Pavement)	270
Flow Sensor	562	Weakened Plane	270
Inspections	571	(Concrete Pavement)	272
Inspections  Keys and Renair Components	571	(Concrete Pavement)	272
Keys and Repair Components	573		272
Keys and Repair Components Kick Blocks	573 569	(Concrete Pavement)	272
Keys and Repair Components Kick Blocks Maintenance Manuals and Training	<ul><li>573</li><li>569</li><li>571</li></ul>	L	
Keys and Repair Components Kick Blocks Maintenance Manuals and Training Pipe Installation	573 569 571 569	L  Laboratory, definition	6
Keys and Repair Components Kick Blocks Maintenance Manuals and Training Pipe Installation Plastic Pipe and Fittings	<ul><li>573</li><li>569</li><li>571</li></ul>	L Laboratory, definition Laboratory, Field	6 545
Keys and Repair Components Kick Blocks Maintenance Manuals and Training Pipe Installation Plastic Pipe and Fittings Pressure and Coverage test,	573 569 571 569 566	L Laboratory, definition Laboratory, Field Lamps	6 545 467
Keys and Repair Components Kick Blocks Maintenance Manuals and Training Pipe Installation Plastic Pipe and Fittings Pressure and Coverage test, and Adjustments	573 569 571 569 566	L Laboratory, definition Laboratory, Field Lamps Landscape Border	6 545 467 185
Keys and Repair Components Kick Blocks Maintenance Manuals and Training Pipe Installation Plastic Pipe and Fittings Pressure and Coverage test, and Adjustments Remote Control	573 569 571 569 566 570 565	L Laboratory, definition Laboratory, Field Lamps Landscape Border Laws to be Observed	6 545 467
Keys and Repair Components Kick Blocks Maintenance Manuals and Training Pipe Installation Plastic Pipe and Fittings Pressure and Coverage test, and Adjustments Remote Control Site Review	573 569 571 569 566 570 565 568	L Laboratory, definition Laboratory, Field Lamps Landscape Border Laws to be Observed LEGAL RELATIONS AND	6 545 467 185 91
Keys and Repair Components Kick Blocks Maintenance Manuals and Training Pipe Installation Plastic Pipe and Fittings Pressure and Coverage test, and Adjustments Remote Control Site Review Sprinkler Heads	573 569 571 569 566 570 565 568 565	L Laboratory, definition Laboratory, Field Lamps Landscape Border Laws to be Observed LEGAL RELATIONS AND RESPONSIBILTY TO PUBLIC	6 545 467 185 91
Keys and Repair Components Kick Blocks Maintenance Manuals and Training Pipe Installation Plastic Pipe and Fittings Pressure and Coverage test, and Adjustments Remote Control Site Review Sprinkler Heads Strainer	573 569 571 569 566 570 565 568 565 568	L Laboratory, definition Laboratory, Field Lamps Landscape Border Laws to be Observed LEGAL RELATIONS AND RESPONSIBILTY TO PUBLIC Licenses and Taxes (Permits)	6 545 467 185 91 91
Keys and Repair Components Kick Blocks Maintenance Manuals and Training Pipe Installation Plastic Pipe and Fittings Pressure and Coverage test, and Adjustments Remote Control Site Review Sprinkler Heads Strainer System Flushing	573 569 571 569 566 570 565 568 565 568 570	L Laboratory, definition Laboratory, Field Lamps Landscape Border Laws to be Observed LEGAL RELATIONS AND RESPONSIBILTY TO PUBLIC Licenses and Taxes (Permits) LIGHTING	6 545 467 185 91 91 91 464
Keys and Repair Components Kick Blocks Maintenance Manuals and Training Pipe Installation Plastic Pipe and Fittings Pressure and Coverage test, and Adjustments Remote Control Site Review Sprinkler Heads Strainer System Flushing Valve Box 568	573 569 571 569 566 570 565 568 565 568 570 8,570	L Laboratory, definition Laboratory, Field Lamps Landscape Border Laws to be Observed LEGAL RELATIONS AND RESPONSIBILTY TO PUBLIC Licenses and Taxes (Permits) LIGHTING Conduit 46'	6 545 467 185 91 91 464 7,684
Keys and Repair Components Kick Blocks Maintenance Manuals and Training Pipe Installation Plastic Pipe and Fittings Pressure and Coverage test, and Adjustments Remote Control Site Review Sprinkler Heads Strainer System Flushing Valve Box 568 Valves	573 569 571 569 566 570 565 568 565 568 570 8,570 567	L Laboratory, definition Laboratory, Field Lamps Landscape Border Laws to be Observed LEGAL RELATIONS AND RESPONSIBILTY TO PUBLIC Licenses and Taxes (Permits) LIGHTING Conduit 46' Direct Burial Cable 46'	6 545 467 185 91 91 464 7,684
Keys and Repair Components Kick Blocks Maintenance Manuals and Training Pipe Installation Plastic Pipe and Fittings Pressure and Coverage test, and Adjustments Remote Control Site Review Sprinkler Heads Strainer System Flushing Valve Box Valves Warranty	573 569 571 569 566 570 565 568 565 568 570 567 572	L  Laboratory, definition Laboratory, Field Lamps Landscape Border Laws to be Observed LEGAL RELATIONS AND RESPONSIBILTY TO PUBLIC Licenses and Taxes (Permits) LIGHTING Conduit Direct Burial Cable 466 Foundation Pads	6 545 467 185 91 91 464 7,684 7,685 4,681
Keys and Repair Components Kick Blocks Maintenance Manuals and Training Pipe Installation Plastic Pipe and Fittings Pressure and Coverage test, and Adjustments Remote Control Site Review Sprinkler Heads Strainer System Flushing Valve Box Valves Warranty Wiring	573 569 571 569 566 570 565 568 565 568 570 567 572 569	L Laboratory, definition Laboratory, Field Lamps Landscape Border Laws to be Observed LEGAL RELATIONS AND RESPONSIBILTY TO PUBLIC Licenses and Taxes (Permits) LIGHTING Conduit 46' Direct Burial Cable 46' Foundation Pads 46' Light Standards 466'	6 545 467 185 91 91 464 7,684 4,681 5,681
Keys and Repair Components Kick Blocks Maintenance Manuals and Training Pipe Installation Plastic Pipe and Fittings Pressure and Coverage test, and Adjustments Remote Control Site Review Sprinkler Heads Strainer System Flushing Valve Box Valves Warranty Wiring Irrigation Water, Interruption of Flor	573 569 571 569 566 570 565 568 565 568 570 567 572 569 w 94	L Laboratory, definition Laboratory, Field Lamps Landscape Border Laws to be Observed LEGAL RELATIONS AND RESPONSIBILTY TO PUBLIC Licenses and Taxes (Permits) LIGHTING Conduit 46' Direct Burial Cable 46' Foundation Pads 46' Light Standards 46' Luminaires and Lamps 46'	6 545 467 185 91 91 464 7,684 7,685 4,681 6,681 7,682
Keys and Repair Components Kick Blocks Maintenance Manuals and Training Pipe Installation Plastic Pipe and Fittings Pressure and Coverage test, and Adjustments Remote Control Site Review Sprinkler Heads Strainer System Flushing Valve Box Valves Warranty Wiring	573 569 571 569 566 570 565 568 565 568 570 567 572 569	L Laboratory, definition Laboratory, Field Lamps Landscape Border Laws to be Observed LEGAL RELATIONS AND RESPONSIBILTY TO PUBLIC Licenses and Taxes (Permits) LIGHTING Conduit 46' Direct Burial Cable 46' Foundation Pads 46' Light Standards 46' Luminaires and Lamps 46' Testing	6 545 467 185 91 91 464 7,684 7,685 4,681 6,681 7,682 470
Keys and Repair Components Kick Blocks Maintenance Manuals and Training Pipe Installation Plastic Pipe and Fittings Pressure and Coverage test, and Adjustments Remote Control Site Review Sprinkler Heads Strainer System Flushing Valve Box Valves Warranty Wiring Irrigation Water, Interruption of Flor	573 569 571 569 566 570 565 568 565 568 570 567 572 569 w 94	L Laboratory, definition Laboratory, Field Lamps Landscape Border Laws to be Observed LEGAL RELATIONS AND RESPONSIBILTY TO PUBLIC Licenses and Taxes (Permits) LIGHTING Conduit 46' Direct Burial Cable 46' Foundation Pads 46' Light Standards 46' Luminaires and Lamps 46' Testing	6 545 467 185 91 91 464 7,684 7,685 4,681 6,681 7,682

	Page		Page
Ballasts	684	Material Sources	70
Concrete Foundation Pads	681	Available	70
Conduit	684	Contractor	71
Direct Burial Cable	685	Material Found on Work, Rights	
Lighting Circuitry and Wiring	686	In and Use of	20
Light Standards	681	Material Guaranty	15
Luminaires and Lamps	682	Material Inspection at Plant	87
LIME TREATED SUBGRADE	224	Material on Hand, Payment for	128
Compaction	226	MATERIAL, CONTROL OF	0
Construction Joints	228	Alternative	70
Finishing and Curing	227	Definition	6
Processing Materials	225	Department Furnished	88
Thickness Acceptance	228	Guaranty	15
Limitation of Operations	109	Handling	88
Liquidated Damages, Schedule of	113	Samples, Tests and Cited	
Liquid Asphaltic Materials	621	Specifications	71
(Also see ASPHALT or BITUMIN	OUS)	Source of Supply and Quality of	70
Liquid Membrane-Forming		Storage of	88
Compounds	657	MEASUREMENT AND PAYMENT	118
Load Restrictions	59	Measurement of Quantities	118
Longitudinal Joints		Median Barrier Reflector	463
Concrete Pavement	277	MEDIAN COVER MATERIAL	457
Plant Mix Pavement	239	Messages, Sign	670
Lumber (See TIMBER)		METAL PIPE (Materials)	646
Luminaires	467	Bituminous Coated Corrugated	
		Steel Pipe and Pipe Arches	646
M		Bituminous Coated Corrugated	
141		Steel Pipe for Underdrains	647
Maintaining Traffic (Also see		Corrugated Aluminum Pipe	648
Maintaining Traffic (Also see	1) 10	Corrugated Aluminum Pipe	
Construction Zone Traffic Contro	*	for Underdrains	648
Approved Detours	19	Corrugated Steel Pipe	
During Suspension of Work	19	and Pipe Arches	646
During Free Time	19	Corrugated Steel Pipe	
Directed by the Engineer	20	for Underdrains	647
Maintenance During Construction	59	Coupling Bands 646,647	,648
MANHOLES, INLETS AND	422	Ductile Iron Pipe	646
METER VAULTS	432	Extensions	648
Backfilling	433	Polymer Precoated Corrugated	
Excavation	432	Steel Pipe	648
MASONRY UNITS (Materials)	636	Repair of Damaged Coating	648
Clay or Shale Brick	636	Semicircular	646
Concrete Brick	636	Method of Measurement, definition	
Concrete Masonry Blocks	636	Mineral Filler	633
Masonry Mortar	636	MISCELLANEOUS (Materials)	658

	Page		Page
Calcium Chloride	658	P	
Epoxy (For Bonding Concrete)	668	ı	
Frames, Grates, Covers and Steps	658	D. D. TD.	
Gabions and Slope Mattresses	665	PAINTS	649
Geocomposite Drains	668	Aluminum Paint	649
Geosynthetics	659	Inspection and Testing	652
Geomembrane	659	Pavement Marking Paint	650
Geotextiles for Erosion Control,	00)	Pavement Primers	651
Drainage and Silt Fence	660	List of Paints	649
Paving	664	Materials – Specifications	651
Separator	665	Structural Concrete Coating	652
Weed Barrier	664	Structural Steel Bridge Paint	649
Hydrated Lime	658	Parking of Vehicles & Equipment	19
Plastic Pipe	668	Parshall Measuring Flume	505
Plastic Pipe for Underdrain	668	Partial Payments	125
Precast Concrete Units	658	Standard Amount Retained	125
Water	658	Patching (HMA)	247
Mixing Temperature		Patented Devices, Material, and	0.1
Plant Mix Pavement	232	Processes	91
MOBILIZATION	584	PAVEMENT MARKING	586
Moisture and Density Control		Epoxy Pavement Marking	588
	1,145	Methyl-Methacrylate	591
Mortar	, -	Pavement Marking with Paint	588
Masonry	636	Pavement Marking Tape	593
Riprap	309	Preformed Plastic Pavement	502
	9,141	Marking	592
MULCHING	182	Preformed Thermoplastic	502
		Paised Payers and Markers	592 593
${f N}$		Raised Pavement Markers Removal	135
11			589
Nastable Steel Pine	431	Thermoplastic Pavement Marking Pavement Structure, definition	6
Nestable Steel Pipe Nonreinforced Concrete Pipe	431	Payment Structure, definition	O
Notice to Proceed	104	Acceptance and Final	129
Definition	6	Acceptance and Final Altered Quantities	129
No Waiver of Legal Rights	98	For Material on Hand	121
No waiver of Legal Rights	90	(Stockpiled Material)	128
0		Partial	126
O		Pay Item, definition	4
		Scope of	121
Offices, Field	545	PEDESTRIAN AND BIKEWAY	121
Opening Sections of Project		RAILING	360
to Traffic	96	Combination	360
Operations, Limitation of	109	Pipe	360
Order of Precedence	54	Steel Tube	360
Original Contract Amount, definition		Timber	360
Outlet Protection	158	Timoci	300

	Page		Page
Permits, Licenses, and Taxes	91	Dry Lime	238
Personal Liability of Public Employ	vees	Lime Slurry	237
, , ,	98	Preparation of Asphalt Cement	237
PILING	291		,240
Approval of Pile Driving Equipment	292	Spreading and Finishing	239
Capping Piles	294	Surface Conditioning	237
Cut Offs, Payment for	290	Surface Smoothness	245
Defective Piling	295	Tack Coat	237
Drilling Holes to Facilitate Pile Dr	riving	Weather Limitations	304
-	294	PLANTING	187
Driving Piles	293	Brush layer Cuttings	188
Extensions and Splices	295	Landscape Establishment	237
Painting Steel Piles	296	Wetland Perennial Plants	188
Pile Driving Equipment	291	Plastic Pipe for Underdrain	668
Pile Tips	296	Plug Structures	133
Steel Piling	291	Portland Cement	617
Water Jetting	293	PORTLAND CEMENT CONCRETE	
Welding	295	PAVEMENT	265
Pilot Car Operation, Flagging	611	Batching	265
Pins and Rollers (Steel Structures)	318	Classification	265
Pipe (See TYPE)		Construction by Form Method	278
Planned Force Account, definition	7	Construction by Slip Form Method	279
Plans		Curing	273
Shop Drawings, Working Drawings	3	Curing in Cold Weather	274
and Construction Drawings	25	<b>Determining Pavement Thickness</b>	280
Definition	8	Equipment	266
Examination of	13	Finishing	269
PLANT MIX PAVEMENTS –		Joints	270
GENERAL	231	Limitations of Placing Concrete	268
Aggregates	234	Mixing	266
Asphalt Cements	234	Opening to Traffic	281
Bituminous Mixing Plant	306	Placing Concrete	268
Bituminous Pavers	235	Preparation of Subgrade	268
Compaction	242	Price Adjustment	283
Composition of Mixtures		Proportioning	265
(Job-Mix Formula)	231	Repair of Defective Concrete	
Hauling Equipment	235	Pavement	275
Hydrated Lime	234	Sealing Joints	277
	,245	Surface Smoothness Test	276
Mineral Filler	234	Test Specimens	269
Mixing	238	Tining	270
Mixing Temperature	232	Posts	
Moisture Susceptibility	233	Fence	655
Pavement Samples	245	Guardrail	656
Preparation of Aggregates	237	Sign	472

	Page		Page
Precast Concrete Units	658	Property and Landscape,	
Preconstruction Conference, definition		Protection and Restoration of	93
Preparation of Proposal	13	Proposal	
Prequalification of Bidders	12	Combination or Conditional	15
Preservative Treatment, Timber	313	Definition	7
Presplitting	146	Form, definition	7
PRESTRESSED CONCRETE		Form, Contents of Proposal	12
STRUCTURES	509	Guaranty, definition	8
Bonding and Grouting	524	Irregular	14
Curing	745	Preparation of	13
Prestressed Members	511	PROSECUTION AND PROGRESS	104
Pretensioned and Combination		Public Convenience and Safety	92
Tensioned Members	510	Ž	
Concrete	510	0	
Inspection	513	Q	
Notification of Fabrication	513		
Other Fabrication Requirements	536	Qualification of Testing Personnel	
Notification of Fabrication	510	and Laboratories	72
Product Shipping Strength	539	Quantities	
Repairs	534	Changes in	18
Shop Drawings	511	Compensation for altered	121
PRESTRESSED UNIT MATERIALS	680	Measurement of	118
Anchorage Assemblies	680		
Post-Tensioning Products	680	R	
Prestressing Steel	680		
Prewetting	169	Railroad-Highway Provisions	92
Price Reduction Factors, Table of	32	RECONDITIONING	223
PRIME COAT, TACK COAT		Record Set, definition	8
and REJUVENATING AGENT	256	Recycling Agents	627
Application of Bituminous Material	257	Reflector, Median Barrier	463
Application of Blotter Material	257	Reflectors	670
Bituminous Material	256	Region Transportation Director,	
Blotter Material	256	definition	8
Equipment	256	Reinforced Concrete Pipe	431
Preparation of Surface	257	REINFORCING STEEL	427
Weather Limitations	256	Bar List	427
Profile Grade, definition	7	Bending	427
Project, definition	7	Epoxy Coated 427	,430
Project Engineer,		Placing and Fastening	428
Authority and Duties of	7	Protection of Materials	427
Definition	7	REINFORCING STEEL	
Project Special Provisions, definition		and WIRE ROPE	653
Project Termini, definition	7	REJUVENATING AGENT 256	,625
Prompt Payment	126	Relay Pipe	171
Proof Rolling	146		

	Page		Page
REMOVAL OF STRUCTURES AND	)	Trash Receptacles	555
OBSTRUCTIONS	133	RESTAREAAND	
Asphalt Mat (Planing)	136	BUILDING MATERIALS	690
Clean Culvert	137	Carpentry	692
Detours	135	Ceramic Tile	691
General	133	Doors, Frames, and Windows	691
Pavement Markings	135	Electrical	695
Pavements, Sidewalk, Curbs	135	Glass and Glazing	693
Portions of Structures	135	Heating and Ventilating	694
Salvable Material	134	Interior Insulation	692
Signs and Traffic Signals	134	Leaching Field	696
Removal of Unacceptable Work		Masonry	690
and Unauthorized Work	58	Masonry Wall Reinforcement	690
Requirement of Contract Bonds	16	Metal Specialties	690
RESET STRUCTURES	171	Mortar for Masonry	690
Responsibility for Damage Claims	94	Mortar for Structural Glazed Tile	690
REST AREAS AND BUILDINGS	549	Paint, etc.	693
Barricades	550	Plumbing	693
Carpentry	554	Roofing, etc.	692
Ceramic Tile	552	Sanitary Napkin Disposal	691
Comfort and Sanitary Station Signs	552	Sanitary Station	696
Construction Material	549	Septic Tank	696
Descriptive Brochures	549	Sewer	696
Doors, Frames, and Windows	552	Sewer Lift Station	696
Electrical Work	560	Trash Receptacles	693
Factory Representative	550	Restoration of Surfaces Opened by	
Flagpole	562	Permit	91
Glass and Glazing	555	Right of Way, definition	8
Heating and Ventilation	559	Right of Way, Furnishing	98
Interior Insulation	554	Rights in and Use of Materials	
Leaching Field	561	Found on the Work	20
Maintenance Manuals	571	RIPRAP	304
Masonry Work	550	RIPRAP (GABIONS) AND	
Metal Specialties	552	SLOPE MATTRESS	306
Painting, etc	555	Road, definition	8
Plumbing and Drainage	556	Roadbed, definition	8
Roofing, etc.	553	Roadside, definition	8
Sanitary Napkin Disposal	552	Roadside Development, definition	8
Sanitary Sewer, etc.	561	Roadway, definition	8
Septic Tank	561	Roadway Prism, definition	8
Sewage Facilities	561		,140
Shop Drawings	5.40		,144
and Descriptive Brochures	549	Rumble Strips	501
Temporary Heat	550		
Temporary Utilities	550		

	Page		Page
$\mathbf{S}$		Curb Ramps	450
S		Joints	451
C 1 11 M / 1 1 C '/'	0	Signing (see TRAFFIC CONTROL	-
Salvable Material, definition	8	DEVICES or MATERIALS)	
Samples, Tests, Cited Specification		Sign Posts	472
Sanitary Facilities	547	Silica Fume	619
Sanitary Health		Silt Fence	158
and Safety Provisions	92	SIPHONS	506
Sawing Concrete (for Removal)	133	Concrete Pipe	506
Scales, Vehicle	118	Drain Pipe	506
Schedule	104	Drain Valves and Valve Boxes	506
Bar Chart	106	Trash Guards	506
Critical Path Method	106	Site of Work, Examination of	13
Methods Statement	105	Slide Headgate	505
Scope of Payment	121	SLOPE AND DITCH PAVING	309
SCOPE OF WORK	17	Bituminous	310
SEALCOAT	260	Concrete	309
Application of Cover Coat Material		Dry Rubble	309
Applying Bituminous Material	261	Grouted Riprap	309
Bituminous Material	260	Grouted Riprap Grouted Rubble	309
Cover Coat Material	260	Mortar	309
Equipment	260	SLOPE MATTRESS	
Preparation of Surface	261		306
Weather Limitations	260	Sodding	179
Sediment Trap and Basin	158	Soil Conditioners (Peat)	175
SEEDING, FERTILIZER, SOIL		and Fertilizer (Planting)	175
CONDITIONER, AND SODDING	175	SOIL RETENTION COVERING	199
Lawn Grass Seeding	178	Excelsion	199
Native Seeding	179	Soil Retention Blanket (Coconut)	199
Seed, Soil Conditioner, Fertilizer,		Soil Retention Blanket (Straw)	200
and Sod	175	Soil Retention Blanket (Coconut/S	-
Seeding Seasons	177		200
Sodding	179	Source of Supply	
Sewage Lift Station	561	and Quality Requirements	70
Sheet Lead	640	Special Provisions, definition	9
SHEET PILING, STEEL	289	Specifications	
Shop Drawings	25	Coordination of Plans, Specification	ons,
Definition	8	Supplemental Specifications	
Shop Painting, Steel	336	and Special Provisions	54
Shoulder, definition	9	Definition of	9
Sidewalk, definition	9	Examination of	13
SIDEWALKS AND BIKEWAYS	450	Standard, definition	9
Bed Course Material	450	Supplemental, definition	9
Bituminous Sidewalks		Specified Completion Date	
and Bikeways	451	definition of	9
Concrete Sidewalks and Bikeways		Splicing Piles	
		Steel Sheet	289

	Page		Page
Steel	295	Structure Number	345
Stakes, Lines, and Grade for	_, -	Storage of Materials	88
Construction	6	Street, definition	10
Standard Special Provisions, definition		Stripping	139,141
State, definition	10	STRUCTURAL CONCRETE (S	
Steel Piling	291	CONCRETE, STRUCTURAL)	
STEEL SHEET PILING	289	Structural Concrete Coating	411,652
STEEL STRUCTURES	317	STRUCUTRALPLATE	,
Materials	317	STRUCTURES	348
Anchor Bolts	318	Backfilling	350
Bolts	318	Elongation	349
Galvanized and Metallized Steel	318	Excavation	349
High Strength Bolts	318	Erection	349
High-Strength Low-Alloy		Fabrication	349
Structural Steel	317	Structure Backfill	150
Mill Test Reports	319	Structure Backfill Material	634
Pins and Rollers	318	Structure Excavation	151
Self Weathering Tubing	318	Structure Number, Steel	345
Structural Carbon Steel	317	Structure Number, Timber	315
Structural Tubing	318	Structures, definition	10
Welded Stud Shear Connectors	319	Stud Shear Connectors	319
Shop Fabrication		Subbase, definition	6
and Inspection Requirements	319	Subcontractor, definition	10
Galvanizing	336	Subgrade, definition	10
General Fabrication Requirements	327	Subletting of Contract	104
Inspection	320	Substructure	10
Marking	337	Subsurface Investigations	13
Nondestructive Testing	322	SUBSURFACE DRAINS	439
Notice of Fabrication	319	French Drain	440
Plans and Shop Drawings	320	Geocomposite Drains	440
Shop Assembly	335	Pipe Underdrain and Pipe	
Shop Cleaning and Painting		Edge Drain	439
of Steel	336	Subsurface Drain Outlet	440
Shop Connections		Superintendent, definition	10
Using High Strength Bolts	336	Superpave Performance	
Shop Facilities for Fabrication	320	Graded Binders	620
Field Construction Requirements		Superstructure, definition	10
Connections Using High Strength		Supplemental Specifications,	
Bolts	341	definition	10
Erection of Steel Structures	338	Surety, definition	10
Field Cleaning and Painting		Surface Course, definition	6
of Steel	344	SURVEY MONUMENTATION	596
Field Welding and Inspection	338	Installing Monuments	600
Welding	332	Locating Monuments	598
Fracture Control Plan	345	Monument Box	602

	Page		Page
Preserving and Referencing		Methyl Methacrylate Pavement	
Monuments	598	Marking	679
		Pavement Marking Tape	679
T		Pavement Marking Tape	
T		(Removable)	675
		Preformed Plastic Material	675
TACK COAT	256	Preformed Thermoplastic Material	675
Taxes, Permits, Licenses and	91	Quality Requirements	
Termination of Contract	115	of Reflective Materials	671
Test Piles	294	Raised Pavement Marker	679
Third Party Beneficiary	98	Reflectors	670
Tie Bars 271	,653	Sampling and Inspection	671
Timber Posts, Guardrail	656	Sign Panel Backgrounds	669
Timber Sign Posts	472	Signs – General	669
TIMBER STRUCTURES	313	Table of Aluminum	
Hardware	314	and Steel Sign Materials	669
Holes and Bolts	315	Thermoplastic Marking Material	674
Inspection	313	Traffic Signals	672
Painting	315	Traffic Control Plan (TCP), definition	10
Structure Number	315	Traffic Maintenance During	
Treated Timber	313	Suspension of Work	19
Time Count	110	Traffic, Maintaining	19
TOPSOIL	155	Approved Detours	19
Topsoil, Stockpile	156	Directed by the Engineer	20
Topsoil, Wetland	155	During Free Time	19
TRAFFIC CONTROL DEVICES	472	Traffic Signal Materials	473
Barricades 473	,501	Backplates	482
Flagging and Pilot Car Operation	611	Controller Cabinets	477
Highway Signs and Traffic Signals	493	Controllers (General)	475
Overpass Mounted Sign Bracket	472	Electrical Conductors and Control	
Rumble Strips	501	Cable	483
Sign Illumination and		Magnetic Detectors	479
Illuminated Signs	473	Micro Loop Detectors	480
Sign Panels	473	Pedestrian Push Buttons	481
Sign Posts and Sign Structures	472	Programmed Visibility Vehicle	
Traffic Control Management	609	Signal Faces	482
Traffic Control Plan	607	Traffic Signal Faces	482
Traffic Signal Materials	473	Traffic Signal Poles	481
Traffic Signal Systems Construction		Vehicle Detector Amplifier	484
TRAFFIC CONTROL MATERIALS	669	Traffic Signal Systems	
<b>Epoxy Pavement Marking Material</b>		Construction	495
Glass Beads for Traffic Markings	670	Bonding and Grounding	496
Hardware	670	Electrical Conductors and Control	
Messages	670	Cable	495
		Excavation and Backfilling	497
		Field Tests and Turn On	500

	Page		Page
Foundations	497	Jacked Pipe	542
Loop Detector Installation	498	WATERING AND DUST	
Magnetic Detector Installation	499	PALLIATIVES	169
Maintaining Existing		Dust Palliative	169
and Temporary Electrical System	500	Landscaping	170
Painting	499	Meters	170
TRANSPLANTING	195	Prewetting	169
Ball Sizes for Collected Plants	195	Sprinkling Equipment	169
Trash Guards	506	Water Measuring Devices	10)
Traveled Way, definition	10	Meters	119
Traveled way, definition	10	Parshall Measuring Flume	505
U		Water Quality Control	99
_		Construction Requirements	99
Unauthorized Work	58	Definitions	99
	,141	Measurement and Payment	103
Underdrains,		WATERPROOFING	368
(See SUBSURFACE DRAINS)			308
Use of Explosives	93	Waterproofing Materials (See	
Utilities, Cooperation with	55	JOINT, WATERPROOFING, AND	
		BEARING MATERIALS)	262
${f V}$		WATERPROOFING MEMBRANE	363
•		Concrete Sealer	365
Volum Euroima changa Brancasl	20	WATERSTOPS AND	
Value Engineering Change Proposal Definition			370
	10 506	Asphaltic Expansion Devices	370
Valves		1	687
Valve Boxes	506	Welding (See STEEL STRUCTURES	
Vibrating, Concrete	404	Wheel Path, definition	11
		1	653
${f W}$		$\mathcal{E}$	469
		Work	
Water	658	Contractor's Responsibility for	97
Water, Landscaping	170	Definition	11
WATER CONTROL DEVICES	505	Extra	18
Drainage, Automatic	505	Extra and Force Account	121
Embankment Protector	505	Failure to Complete Work on Time	113
Parshall Measuring Flume	505	Inspection and Testing of	58
Slide Headgate	505	Removal of Unacceptable	
WATER LINE MATERIALS	687	and Unauthorized	58
Cast Iron Pipe	687	Working Day, definition	11
Copper Pipe	688	Working Drawing	25
Galvanized Pipe	688	Definition	11
Plastic Pipe	688	Workers Methods and Equipment,	
Valves and Valve Boxes	688	Character of	109
	000	Workplace Violence	110
Welded Steel Pipe Paint Schedule	607	Definition	11
(larger than 10 inches)	687	Deminion	11
WATER LINES	542		